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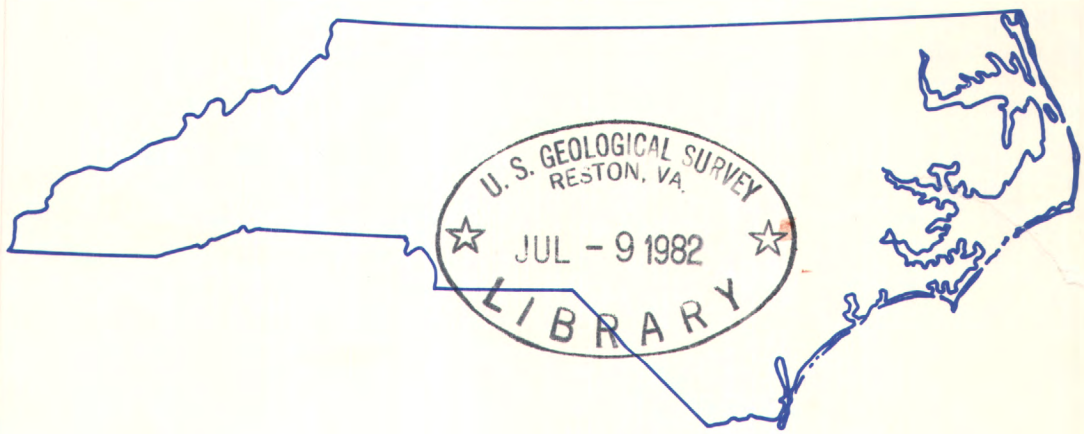
Water Resources Data North Carolina Water Year 1981



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CALENDAR FOR WATER YEAR 1981

1980

OCTOBER

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1981

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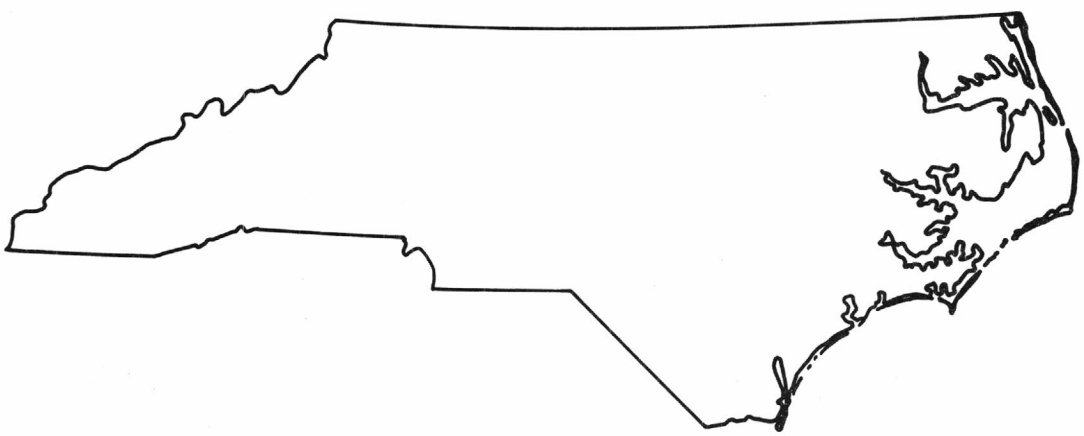
Water Resources Data
North Carolina
Water Year 1981



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-81-1
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

JAMES G. WATT, 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 Station Post Office Building
300 Fayetteville Street
Raleigh, North Carolina 27602

1981

PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of North Carolina and with other agencies by personnel of the North Carolina district of the Water Resources Division under the supervision of R. C. Heath, District Chief, succeeded by Hugh B. Wilder, Acting District Chief, and James L. Cook, Regional Hydrologist, Southeastern Region.

This report is one of a series issued State by State under the general direction of Philip Cohen, Chief Hydrologist, and Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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Water resources data for the 1981 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 151 gaging stations; stage and contents for 24 lakes and reservoirs, and stage only for one lake; water quality for 52 gaging stations and 6 miscellaneous sites; and water levels for 61 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, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

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c. COSATI Field/Group

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CONTENTS

	Page
Preface	III
List of gaging stations, in downstream order, for which records are published	VI
Introduction	1
Cooperation	1
Acknowledgment	2
Summary of hydrologic conditions	2
Definition of terms	6
Downstream order and station numbers	10
Numbering system for wells and miscellaneous sites	11
Special networks and programs	11
Explanation of stage and water-discharge records	12
Collection and computation of data	12
Accuracy of field data and computed results	13
Other data available	14
Records of discharge collected by agencies other than the Geological Survey	14
Explanation of water-quality records	14
Collection and examination of data	14
Water analysis	14
Water temperatures	15
Sediment	15
Explanation of ground-water level records	15
Collection of the data	15
Publication on techniques of water-resources investigations	15
Gaging station records	21
Discharge at partial-record stations and miscellaneous sites	414
Crest-stage partial-record stations	414
Miscellaneous sites	415
Ground-water records	430
Ground-water level records	430
Appendix	451
Index	459

ILLUSTRATIONS

Figure 1.	Comparison of discharge at four long-term index stations during the 1981 water year with median discharge for the period 1941-70	3
2.	Comparison of water levels at three long-term wells during the 1981 water year with monthend high, low, and average levels in previous years	4
3.	Annual mean values of discharge and specific conductance for three representative streams showing effects of the 1981 drought as compared to previous near-normal years	5
4.	System for numbering wells and miscellaneous sites	11
5.	Map showing location of gaging stations	17
6.	Map showing location of water-quality stations and observation well sites	19

TABLES

Table 1.	Comparison of the average discharge for the 1981 water year at selected stations across the State to the average discharge and previous minimum annual average discharge for the period of record	2
2.	Suspended-sediment discharges for recent below-normal flow years at Yadkin River at Yadkin College, NC	5
Factors for Converting Inch-pound Units to International System Units (SI)... inside back cover		

(Letter after station name designates type of data: (d) discharge, (c) chemical (b) biological, (m) microbiological, (t) water temperature, (s) sediment)

SOUTH ATLANTIC SLOPE BASINS — Page

CHOWAN RIVER BASIN
Chowan River:
Meherrin River:
Potecasi Creek near Union (d) 21
Wiccacon River:
Ahoskie Creek at Ahoskie (d) 22

ROANOKE RIVER BASIN
Roanoke River:
Dan River near Francisco (d) 23
Dan River near Wentworth (d) 24
Smith River at Eden (d) 25
Dan River near Mayfield (dcbmts) 26
Hyco Creek (head of Hyco River) near Leasburg (dt) 34
South Hyco Creek:
Double Creek near Roseville (d) 37
Hyco River below Afterbay Dam near McGehees Mill (dt) 38
Mayo Creek near Bethel Hill (d) 41
Roanoke River at Roanoke Rapids (dcbmts) 42

PAMLICO RIVER BASIN
Tar River (head of Pamlico River) near Tar River (dcb) 53
Tar River at U.S. 401 at Louisburg (d) 55
Tar River below Tar River Reservoir near Rocky Mount (d) 56
Tar River at N.C. 97 at Rocky Mount (d) 57
Swift Creek at Hilliardston (d) 58
Fishing Creek:
Little Fishing Creek near White Oak (d) 59
Fishing Creek near Enfield (d) 60
Tar River at Tarboro (dcbmts) 61
Conetoe Creek near Bethel (d) 75
Chicod Creek at Secondary Road 1565 near Grimesland (cbs) 76
Cow Swamp near Grimesland (cbs) 80
Chicod Creek at Secondary Road 1760 near Simpson (dcbts) 83
Juniper Branch near Simpson (dcbs) 93
Pamlico River:
Durham Creek at Edward (d) 97
Pungo River:
Pantego Creek:
Cucholds Creek:
Intercepting Canal:
Albemarle Canal:
Van Swamp near Hoke (d) 98

NEUSE RIVER BASIN
Eno River (head of Neuse River) near Durham (d) 99
Little River near Orange Factory (d) 100
Flat River at Bahama (d) 101
Neuse River near Falls (dcbmts) 102
Neuse River near Clayton (dcb) 110
Neuse River at Smithfield (d) 112
Swift Creek:
Middle Creek near Clayton (d) 113
Buck Swamp:
Beaverdam Creek near Grantham (d) 114
Little River near Kenly (d) 115
Little River near Princeton (d) 116
Neuse River near Goldsboro (d) 117
Daileys Creek near Liddell (d) 118
Bear Creek near Parkston (d) 119
Neuse River at Kinston (dcbmts) 120
Contentnea Creek near Lucama (d) 132
Hominy Swamp at Phillips Street at Wilson(d) 133
Turner Swamp near Eureka (dcb) 134
Nahunta Swamp near Shine (d) 136
Contentnea Creek at Hookerton (dcbmts) 137
Little Contentnea Creek near Farmville (d) 146
Neuse River at Streets Ferry near Vanceboro (c) 147
Swift Creek:
Clayroot Swamp:
Creeping Swamp near Vanceboro (dcbs) 148
Swift Creek near Vanceboro (d) 151
Trent River near Trenton (dcbmts) 152

HEWLETTS CREEK BASIN
Hewletts Creek at Secondary Road 1102 near Wilmington (d) 163

CAPE FEAR RIVER BASIN
Haw River (head of Cape Fear River):
Reedy Fork near Oak Ridge (d) 164
Reedy Fork near Gibsonville (dcb) 165
Buffalo Creek:
North Buffalo Creek near Greensboro (dcb) 167

SOUTH ATLANTIC SLOPE BASINS--Continued Page
CAPE FEAR RIVER BASIN--Continued
Haw River at Haw River (d) 169
Haw River (head of Cape Fear River):
Cane Creek 0.1 mile upstream from Secondary Road 1126 near Buckhorn (dcbmts) 170
Haw River near Bynum (dcb) 178
Haw River below B. Everett Jordan Dam near Moncure (dcbmts) 180
West Fork Deep River:
East Fork Deep River near High Point (d) 187
Deep River near Randleman (dcb) 188
Deep River at Ramseur (dcbmts) 190
Rocky River:
Tick Creek near Mount Vernon Springs (d) 199
Deep River at Moncure (dcb) 200
Cape Fear River:
Buckhorn Creek near Corinth (d) 202
Cape Fear River at Lillington (dcb) 203
Little River:
Flat River near Inverness (d) 205
Cape Fear River at William O. Huske Lock near Tarheel (dcb) 206
Ellis Creek:
Ellis Creek tributary at Secondary Road 1325 near White Oak (dcbmts) 208
Cape Fear River at Lock 1 near Kelly (dcbmts) 218
Great Coharie Creek (head of Black River):
Little Coharie Creek near Roseboro (d) 230
Black River near Tomahawk (d) 231
South River:
Black River at Secondary Road 1722 near Dunn (cbs) 232
Black River near Erwin (cbs) 234
Black River near Dunn (s) 236
South River near Parkersburg (d) 237
Northeast Cape Fear River near Chinquapin (dcb) 238
Rockfish Creek near Wallace (dcb) 240
Little Rockfish Creek at Wallace (d) 242
WACCAMAW RIVER BASIN
Waccamaw River at Freeland (dcb) 243
PEE DEE RIVER BASIN
Yadkin River (head of Pee Dee River) at Patterson (d) 245
Elk Creek at Elkville (d) 246
Reddies River at North Wilkesboro (d) 247
Yadkin River at Wilkesboro (d) 248
Roaring River near Roaring River (d) 249
Yadkin River at Elkin (dcb) 250
Mitchell River near State Road (d) 252
Fisher River near Copeland (d) 253
Yadkin River at Siloam (d) 254
Ararat River at Ararat (d) 255
Little Yadkin River at Dalton (d) 256
Yadkin River at Enon (dcb) 257
Muddy Creek:
Salem Creek near Atwood (d) 259
Yadkin River at Yadkin College (dcbmts) 260
Dutchmans Creek:
Humpy Creek near Fork (d) 269
South Yadkin River near Mocksville (d) 270
Hunting Creek near Harmony (d) 271
Second Creek near Barber (d) 272
North Potts Creek at Linwood (d) 273
Abbotts Creek:
Leonard Creek near Bethesda (d) 274
Pee Dee River:
Rocky River:
Long Creek:
Big Bear Creek near Richfield (d) 276
Richardson Creek:
Gourdvine Creek at Secondary Road 1715 near Olive Branch (d) 277
Lane Creek at Secondary Road 1940 near Trinity (d) 278
Wicker Branch at Secondary Road 1940 near Trinity (d) 279
Rocky River near Norwood (dcb) 280
Little River near Star (d) 282
Pee Dee River near Rockingham (dcbmts) 283
Little Pee Dee River:
Drowning Creek (head of Lumber River) near Hoffman (d) 294
Lumber River at Boardman (dcb) 295
SANTEE RIVER BASIN
Catawba River (head of Santee River) near Pleasant Gardens (d) 297
Catawba River near Marion (d) 298
Linville River near Nebo (dcb) 299
Lower Little River near All Healing Springs (d) 301
Long Creek near Paw Creek (d) 302
Henry Fork (head of South Fork Catawba River) near Henry River (d) 303
Jacob Fork at Ramsey (dcb) 304

SOUTH ATLANTIC SLOPE BASINS--Continued — Page
SANTEE RIVER BASIN--Continued
Catawba River near Marion--Continued
South Fork Catawba River:
Indian Creek near Laboratory (d) ... 306
Long Creek near Bessemer City (d) ... 307
Irwin Creek (head of Sugar Creek) near Charlotte (d) ... 308
Sugar Creek:
Little Sugar Creek at Archdale Drive at Charlotte (d) ... 309
McAlpine Creek at Sardis Road near Charlotte (d) ... 310
Sugar Creek:
McAlpine Creek:
McMullen Creek at Sharon View Road near Charlotte (d) ... 311
McAlpine Creek below McMullen Creek near Pineville (d) ... 312
Twelve Mile Creek near Waxhaw (d) ... 313
Wateree River:
Broad River (head of Congaree River):
Cove Creek near Lake Lure (d) ... 314
Second Broad River at Cliffside (dcb) ... 315
Broad River near Boiling Springs (dcbmts) ... 317
First Broad River near Casar (d) ... 326
Beaverdam Creek:
Sugar Branch near Boiling Springs (d) ... 327
Lakes and reservoirs in South Atlantic slope basins ... 328
OHIO RIVER BASIN
KANAWHA RIVER BASIN
South Fork New River (head of Kanawha River) near Jefferson (d) ... 339
TENNESSEE RIVER BASIN
French Broad River (head of Tennessee River) at Rosman (dcb) ... 340
Davidson River near Brevard (dcb) ... 342
Little River above High Falls near Cedar Mountain (d) ... 344
French Broad River at Blantyre (dcb) ... 345
Mills River near Mills River (d) ... 347
French Broad River at Bent Creek (d) ... 348
Swannanoa River:
Beetree Creek near Swannanoa (dcbmts) ... 349
Swannanoa River at Biltmore (d) ... 356
French Broad River at Asheville (d) ... 357
French Broad River at Marshall (dcbmts) ... 358
West Fork Pigeon River above Lake Logan, near Hazelwood (d) ... 367
West Fork Pigeon River below Lake Logan, near Waynesville (d) ... 368
West Fork Pigeon River at Bethel (d) ... 369
East Fork Pigeon River near Canton (d) ... 370
Pigeon River at Canton (dcb) ... 371
Pigeon River near Hepco (dcbmts) ... 373
Cataloochee Creek near Cataloochee (dcb) ... 381
North Toe River (head of Nolichucky River):
South Toe River near Celo (d) ... 391
South Fork Holston River:
Watauga River near Sugar Grove (dcb) ... 392
Little Tennessee River near Prentiss (d) ... 394
Cartoogechaye Creek near Franklin (d) ... 395
Little Tennessee River at Needmore (d) ... 396
Nantahala River near Rainbow Springs (d) ... 398
Nantahala River at Nantahala (dcb) ... 399
Tuckasegee River at Dillsboro (d) ... 402
Oconaluftee River at Birdtown (d) ... 404
Tuckasegee River at Bryson City (dcb) ... 405
Hiwassee River above Murphy (d) ... 408
Valley River at Tomotla (dcb) ... 409
Lakes and reservoirs in Ohio River basin ... 411

Discharge at partial-record stations and miscellaneous sites ... 414

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED

BEAUFORT
North Carolina Phosphate Company No. 1 (NC-13) ... 430
City of Washington (NC-14) ... 430
City of Belhaven (NC-15) ... 431
Younce Farm (NC-75) ... 431
N.C. Department of Transportation (NC-137) ... 431
N.C. Department of Transportation (NC-138) ... 432
BERTIE
Town of Windsor (NC-32) ... 432
BRUNSWICK
Town of Southport (NC-22) ... 432
CARTERET
N.C. Department of Natural and Economic Resources (NC-139) ... 433

Page

CHOWAN
U.S. Geological Survey (NC-31) 433
Chowan County High School (NC-58) 433
R. H. Hollowell (NC-78) 434
CRAVEN
U.S. Geological Survey (NC-16) 434
City of New Bern (NC-44) 434
International Paper Company (NC-48) 435
CUMBERLAND
Robert Deaver (NC-84) 435
DAVIE
H. S. Larew (NC-110) 435
DUPLIN
Old City Well (NC-69) 436
EDGECOMBE
Melvin Howell (NC-72) 436
GATES
Mrs. T. W. Blanchard (NC-30) 437
Town of Ruduco (NC-54) 437
HARNETT
U.S. Geological Survey (HR-52) 437
U.S. Geological Survey (HR-53) 437
U.S. Geological Survey (HR-54) 438
U.S. Geological Survey (HR-55) 438
U.S. Geological Survey (HR-56) 439
U.S. Geological Survey (HR-57) 439
HAYWOOD
Champion Paper and Fiber Company No. 1 (NC-40) 439
HERTFORD
Charles DeLoatch (NC-55) 440
Town of Murfreesboro (NC-81) 440
Town of Winton (NC-82) 440
HOKE
North Carolina Tuberculosis Sanitarium (NC-35) 440
JONES
Oak Grove Marine Air Station (NC-73) 441
LENOIR
Pink Hill School (NC-51) 441
City of Kinston (NC-128) 441
MARTIN
Martin County Board of Education (NC-43) 442
MOORE
H. A. Keith (NC-122) 442
NEW HANOVER
Walter J. Hodder (NC-20) 442
Martin Marietta (NC-61) 443
NORTHAMPTON
Boomer Ice Company (NC-27) 443
ONSLOW
Camp Geiger, U.S. Marine Corps (NC-52) 443
Carolina Power and Light Company (NC-85) 444
ORANGE
McCauley Chi Psi Fraternity (NC-126) 444
PASQUOTANK
C. T. Winslow (NC-86) 444
U.S. Coast Guard (NC-141) 445
PENDER
Arvida Farms (NC-26) 445
PITT
U.S. Geological Survey (PI-527) 445
U.S. Geological Survey (PI-528) 446
U.S. Geological Survey (PI-529) 446
U.S. Geological Survey (PI-530) 446
U.S. Geological Survey (PI-531) 447
U.S. Geological Survey (PI-532) 447
U.S. Geological Survey (PI-533) 447
U.S. Geological Survey (PI-534) 448
SAMPSON
City of Clinton (NC-24) 448
TRANSYLVANIA
Neal Hawkins (NC-127) 448
WASHINGTON
M. V. Cahoon Farm (NC-65) 449
U.S. Geological Survey (WS-89) 449
U.S. Geological Survey (WS-90) 442
WAYNE
U.S. Air Force (NC-25) 450
U.S. Geological Survey (WA-154) 450

INTRODUCTION

Water resources data for the 1981 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 151 gaging stations; stage and contents for 24 lakes and reservoirs, and stage only for one lake; water quality for 52 gaging stations and 6 miscellaneous sites; and water levels for 61 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 Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 22304.

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 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-81-1." 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) 755-4510.

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 Natural Resources and Community Development,
Howard N. Lee, succeeded by Joseph W. Grimsley, Secretary
through the following:
Division of Environmental Management,
Neil S. Grigg, director.
State Board of Transportation, Division of Highways,
Billy Rose, highway administrator.
City of Burlington, James D. Mackintosh, Jr., city manager.
City of Charlotte, Eddie Knox, mayor.
City of Durham, Barry L. Del-Castilho, city manager.
City of Greensboro, Tom Z. Osborne, city manager.
City of Rocky Mount, William H. Batchelor, mayor.
City of Winston-Salem, Wayne A. Corpening, mayor.

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

The following organizations aided in collecting records:

Cities of Danville, Virginia, and Raleigh, North Carolina; E. I. du Pont de Nemours and Co.; Carolina Power and Light Co.; Champion International Corp.; Duke Power Co.; Fiber Industries, Inc.; J. P. Stevens Co., Inc.; Olin Corp.; P. P. G. Industries; Virginia Electric and Power Co.; and Yadkin, Inc.

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SUMMARY OF HYDROLOGIC CONDITIONS

The 1981 water year began with a continuation of below-normal flows which characterized the last quarter of the 1980 water year. With only short interruptions, minimal flow conditions persisted throughout most of the year. Rainfall was also well below normal with deficiencies for the year generally ranging from several inches near the coast to over 10 inches in parts of the Piedmont and Mountain regions. Streamflow, water-quality, and ground-water conditions across the State were seriously affected by the extended drought.

During October and November, streamflow was below normal except in the western Piedmont where it was slightly above normal. Flows decreased into the deficient range (lower 25 percent of long-term record) in December and, except for minor fluctuations, remained deficient through May. By early summer many streams were at or near the 7-day, 2-year minimum flow level, and as summer progressed, most flows had receded to the 7-day, 10-year level. Scattered light rains during the summer were sufficient to prevent record-breaking minimum daily flows; however, as shown in table 1, annual average flows of most streams were at record low levels except in the western Piedmont.

Table 1.--Comparison of the average discharge for the 1981 water year at selected stations across the State to the average discharge and previous minimum annual average discharge for the period of record.

Station	Record begins	Average discharge (ft^3/s)	Lowest annual average discharge prior to 1981 water year		1981 water year average discharge	
			Year	ft^3/s	ft^3/s	percent of long-term average
Tar River near Tar River	1939	153	1977	69.2	51.0	33
Tar River at Tarboro	1931	2218	1942	1034	594	27
Flat River at Bahama	1925	142	1977	57.4	53.5	38
Neuse River at Kinston	1930	2865	1951	1217	1313	46
Cape Fear River at Lillington	1924	3354	1967	1655	1453	43
Yadkin River at Yadkin College	1928	2982	1956	1516	1591	53
South Yadkin River near Mocksville (P)	1938	343	1955	193	223	65
Linville River near Nebo (M)	1922	149	1956	77.6	82.2	55
French Broad River at Asheville (M)	1896	2097	1956	1166	1114	53

During the summer and early fall months, the contents of many farm ponds, lakes, and reservoirs were at critically low levels because of the drought. The most severe conditions occurred in several northwestern counties including Ashe, Watauga, Buncombe, Haywood, Surry, Rockingham, and Stokes. Restrictions on water usage, which were still in effect at the close of the water year, were imposed by the towns of Canton, Boone, Black Mountain, Clyde, and Marion. Water-use restrictions in the city of Asheville were voluntary.

The severity of drought conditions on selected streams during the 1981 water year is illustrated in figure 1. Data shown for four index stations were observed at long-term continuous-record sites on major unregulated streams and are representative of natural flow conditions across the State. As shown, the average flows during the year were the lowest on record for the French Broad River at Asheville and the Deep River at Moncure.

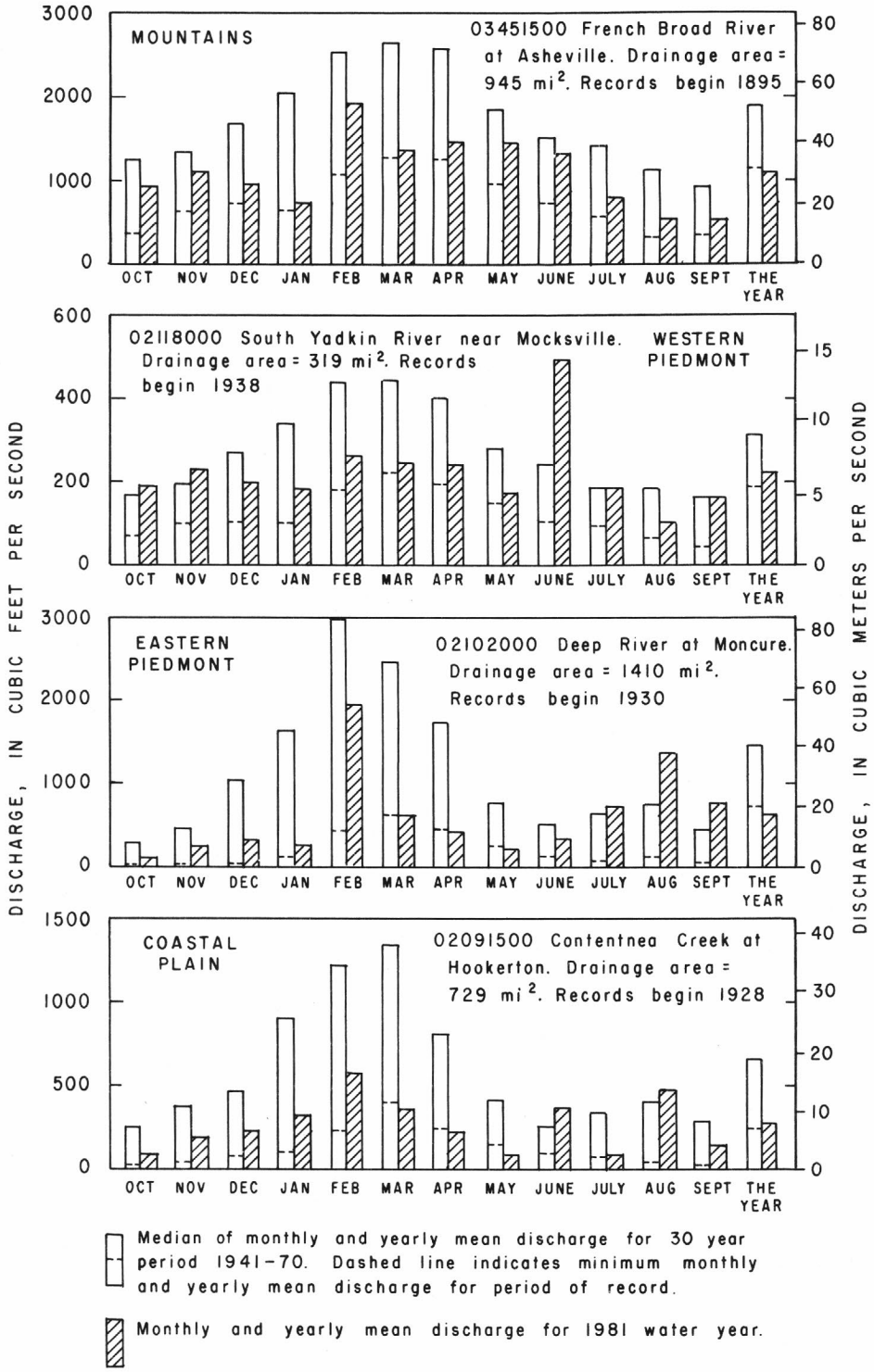

Figure 1.--Comparison of discharge at four long-term index stations during the 1981 water year with median discharge for the period 1941-70.

Water levels in the shallow water table were also affected by the unusually dry weather. Levels of selected wells in the Mountain and Piedmont regions declined throughout most of the year and from February through September were generally 1 to 3 feet below normal (figure 2). In the Coastal Plain region, water levels were 2 to 5 feet below normal from October through May but increased to near normal conditions during July through September.

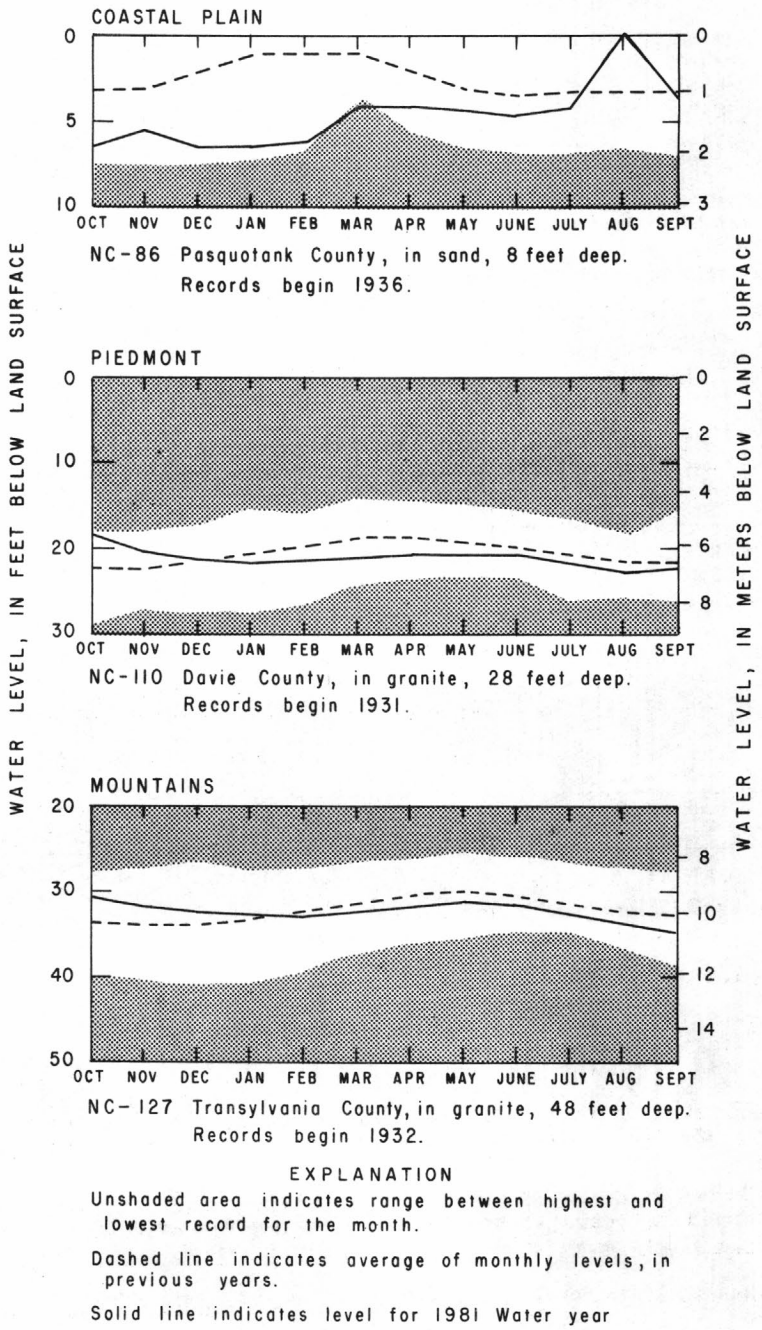

Figure 2.--Comparison of water levels at three long-term wells during the 1981 water year with monthend high, low, and average levels in previous years.

The chemical quality of selected streams showed a significant change from recent years. Concentrations of most major dissolved constituents vary inversely with stream discharge. Maximum concentrations occur during low flows whereas minimum concentrations occur at high flows for many constituents. Because of this year's extended drought, monthly-mean concentrations of most major constituents, such as calcium, sodium, bicarbonate, and sulfate, were at or near record-high levels. Specific conductance, which is indicative of the concentration of these chemical constituents in water, is measured daily at approximately 20 stream-quality sites located throughout the State and was the highest recorded in recent years. Annual mean values of stream discharge and specific conductance for three representative sites are shown in figure 3.

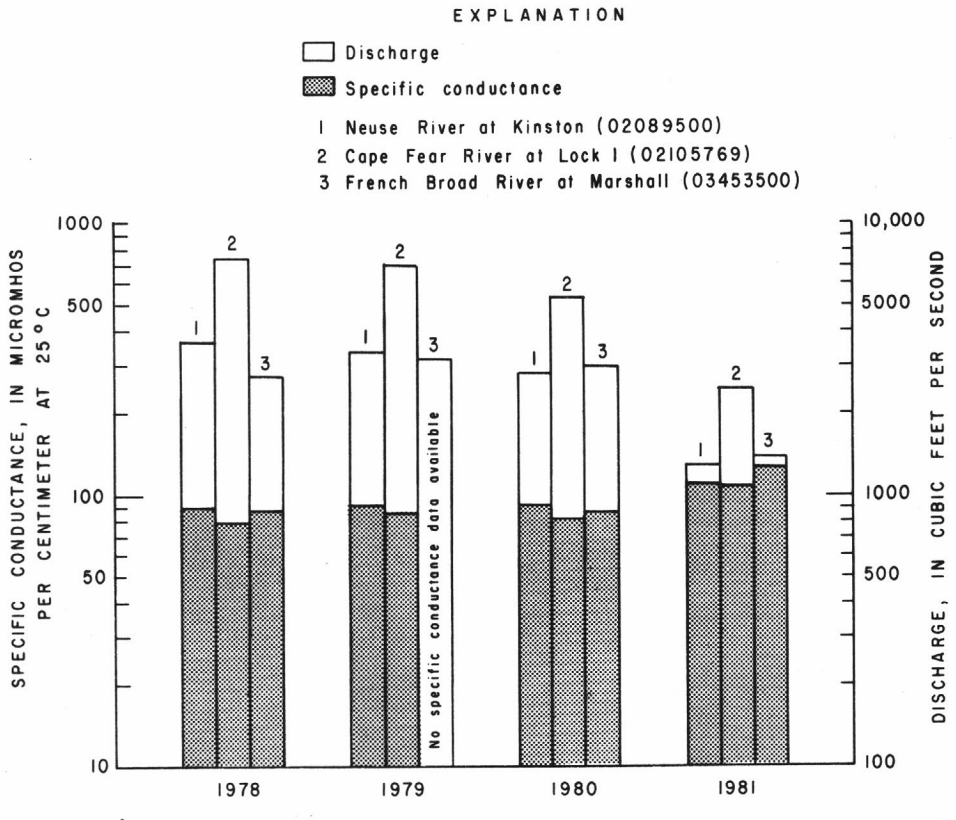

Figure 3.--Annual mean values of discharge and specific conductance for three representative streams showing effects of the 1981 drought as compared to previous near-normal years.

Concentrations of minor elements, such as arsenic, lead, and mercury, were typically low and with only a few isolated exceptions, did not exceed recommended criteria for domestic water supplies. As compared to concentrations of minor elements during previous years, no significant differences were observed. Pesticide levels were below detection limits at the four stations sampled periodically as part of a national pesticide network.

The 1981 drought also had a profound effect on fluvial sediment. Concentrations of suspended sediment are largely related to streamflow and reach maximum levels during floods. The absence of significant flooding combined with the long period of low flow during 1981 caused sediment transport in most streams to be considerably below normal. The annual suspended-sediment discharge, 207,000 tons, for the daily station Yadkin River at Yadkin College (02116500) was the lowest since station records began in 1951 (table 2) and was only 22 percent of the long-term average for the station.

Table 2.--Suspended-sediment discharges for recent below-normal flow years at Yadkin River at Yadkin College, NC.

Recent below-normal years	Annual mean water discharge (ft^3/s)	Annual suspended-sediment discharge (tons)
1954	1970	707,000
1956	1516	466,000
1967	1930	212,000
1976	2711	714,000
1981	1591	207,000

NOTICE

During water year 1978, revisions were made in the terminology used to define 143 of the water-quality parameter codes that have been used by the Geological Survey in its publication of water-quality data and in its WATSTORE data system. These revisions were made to achieve consistency in terminology and to conform to a joint USGS-EPA agreement on terminology. They do not represent a change in the way the codes have been used in the past or in the association of specific code numbers with identified analytical procedures.

Use of the new terminology began with data for the 1978 water year. Definitions on which the terminology is based are included in the "Definitions" section of this report, and a table showing both old and new terminology is attached as an appendix to the report.

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.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

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 ± 1.0°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 ± 1.0°C on M-enterrococcus 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).

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.

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 artifical 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 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.

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.

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

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as 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 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 an 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.

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

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.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, 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 micromhos 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 micromhos). 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 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

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 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, 1978, is called the "1978 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.

DOWNSTREAM ORDER AND STATION NUMBER

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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream 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 on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the 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.

As an added means of identification, each gaging station, partial-record station, and water-quality station has been assigned a station number. These are in the same downstream order used in this report. In assigning station number, no distinction is made between partial-record stations and gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 03460000 which appears just to the left of the station name includes the 2-digit part number "03" plus the 6-digit downstream order number "460000". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 2 (South Atlantic Slope basins) and Part 3 (Ohio River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

NUMBERING SYSTEM FOR WELLS

Downstream order station numbers are not assigned to wells. The well numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits is a sequential number for wells within a 1-second grid. In the event that several wells are within the same 1-second grid, a different sequential number, such as "01", "02", etc., is assigned to each well to ensure a unique station number. See figure 4 below.

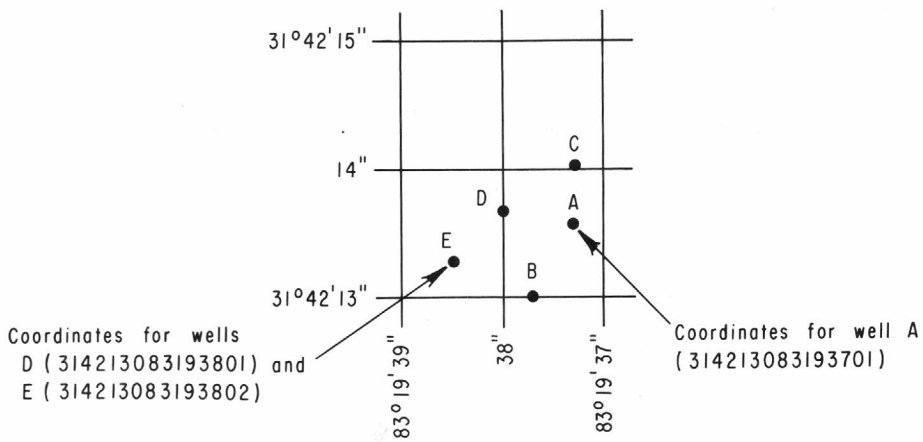

Figure 4.--System for numbering wells (latitude and longitude).

SPECIAL NETWORKS AND PROGRAMS

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

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information needs of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

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 STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams, and stage, surface area, and contents of lake or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are decribed in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating table, then the monthly and yearly mean discharge are computed from the daily figures. 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 computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

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.

At some stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

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 on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents is given. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD". The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 8. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than five complete years of record or for the stations where changes in water development during the period of record cause the figure to have little significance. Average runoff in inches is also shown.

The maximum discharge (or contents) and the maximum gage height, the minimum instantaneous discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES". The minimum daily discharge is given if there is extensive regulation (also the minimum instantaneous discharge and gage height if they are abnormally low). In the first paragraph headed "Current year": the data given are for the complete water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record": the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES". Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately.

Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of water-quality records, is given under "REMARKS"; for reservoir stations most of this information and information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir are contained in one or two paragraphs.

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records. To make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only the year is given. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations 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 revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are also listed. All independent peaks above the selected base are given. The base discharge which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary the line headed "TOTAL" gives the sum of the daily figures. 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 may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). 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.

In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the table of daily discharges are introduced by the word "Note". Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated.

Data collected at partial-record and miscellaneous stations follow the information for continuous record sites. These data consist of site location information and listings of discharge measurements.

Accuracy of field data and computed results

The accuracy of streamflow data 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 observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

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 artifical 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 data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height record, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availablity of unpublished data or statistical analyses 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, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year, and general remarks.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

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.

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 district office.

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. 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.

At stations where recording instruments are used, either mean temperature or maximum and minimum temperatures for each day are published.

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 an 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 loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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 times of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

The ground-water level data from a basic network of observation wells and special project wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important 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. See figure 4.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

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 altitude of the land-surface datum above mean sea level 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 reported for every fifth day and the end of each month (EOM).

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into section and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on 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. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett Street, Alexandria, Virginia 22304.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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.
3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
5-A3. *Methods for analysis of organic substances in water,* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
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.
8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
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.

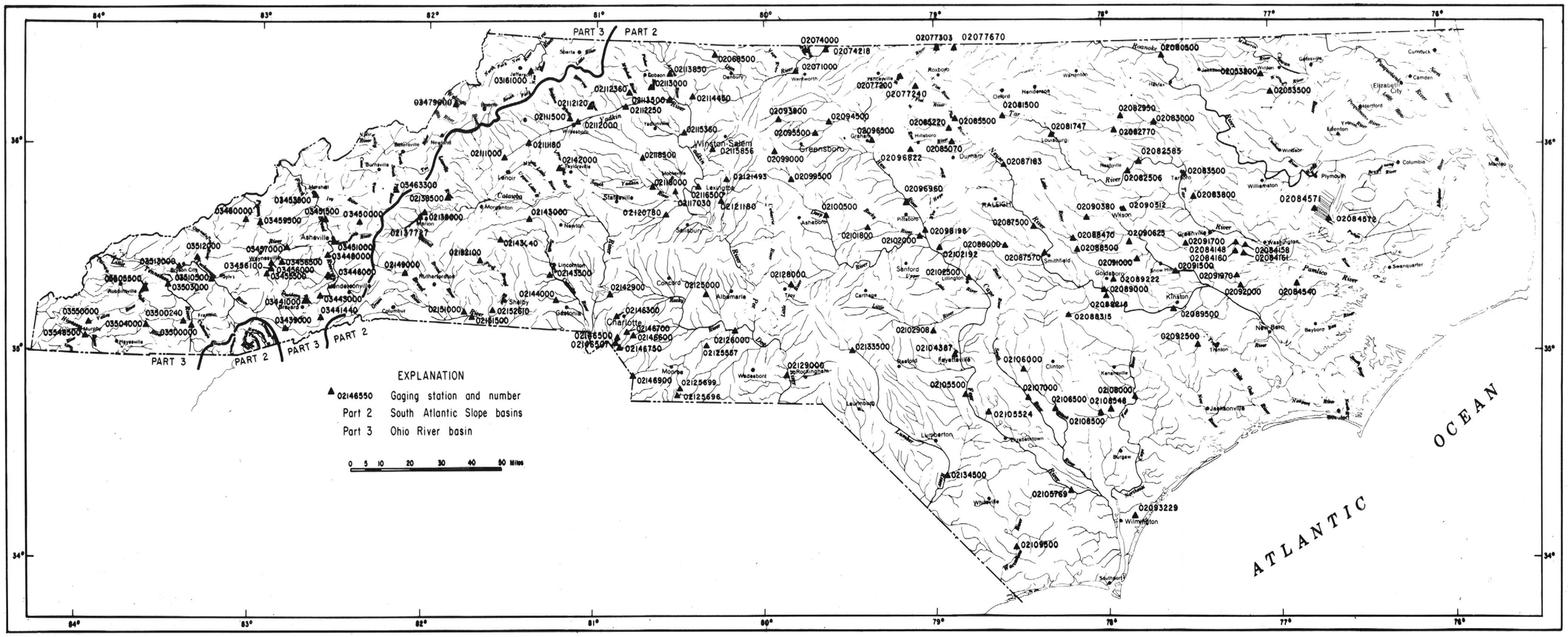

Figure 5.--Map of North Carolina showing location of gaging stations.

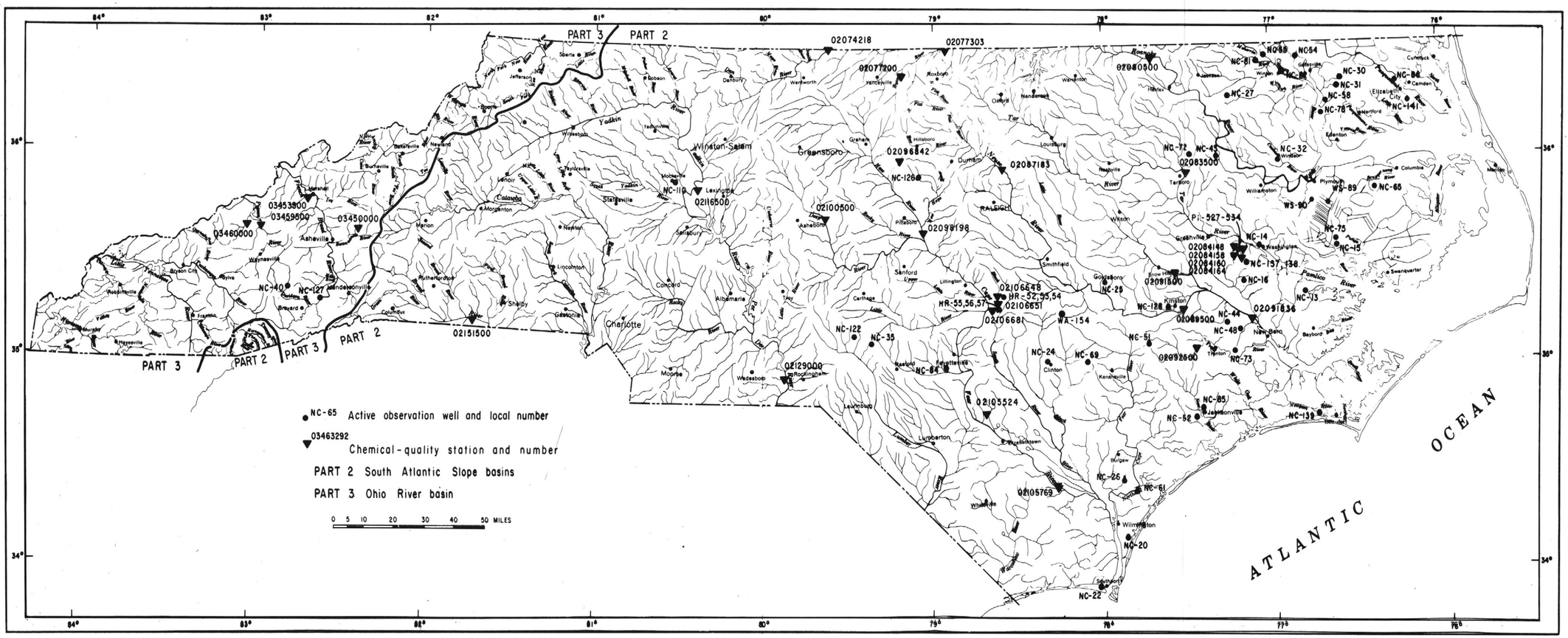

Figure 6.--Map of North Carolina showing location of chemical-quality stations and observation well sites.

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 (4.5 km) north of Union, 3 mi (4.8 km) downstream from Cutawhiskie Swamp, and 3.5 mi (5.6 km) upstream from Bells Branch.

DRAINAGE AREA.--225 mi² (583 km²), revised.

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

GAGE.--Water-stage recorder. Datum of gage is 3.53 ft (1.076 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--23 years, 236 ft³/s (6.684 m³/s), 14.24 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,280 ft³/s (121 m³/s) Sept. 8, 1979, gage height, 19.77 ft (6.026 m); minimum, 0.2 ft³/s (0.006 m³/s) July 1, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1929 reached a stage of 19.1 ft (5.82 m), discharge, 4,050 ft³/s (115 m³/s), and flood of August 1940 reached a stage of 24.1 ft (7.35 m), discharge, 7,000 ft³/s (198 m³/s) from rating curve extended above 4,000 ft³/s (113 m³/s), from information furnished by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 887 ft³/s (25.1 m³/s) Aug. 23, gage height, 9.74 ft (2.969 m); minimum, 1.4 ft³/s (0.040 m³/s) Aug. 3, gage height, 1.49 ft (0.454 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	15	33	71	45	124	115	33	61	2.5	1.9	32
2	5.2	13	31	70	49	107	100	29	96	3.1	1.6	26
3	4.6	11	29	67	69	92	86	26	82	4.8	1.4	21
4	4.7	11	28	63	79	78	77	23	76	78	1.7	17
5	3.6	13	27	56	67	83	72	20	457	123	1.8	13
6	2.9	16	28	50	62	104	109	19	826	38	2.3	11
7	2.4	17	27	47	65	106	172	18	821	39	4.5	11
8	2.3	15	27	45	71	101	131	18	754	37	7.7	24
9	2.1	13	27	43	87	105	107	16	753	26	24	18
10	1.9	11	35	40	91	104	101	17	813	16	17	13
11	1.9	10	65	39	126	97	93	20	803	11	22	9.5
12	3.2	9.8	77	38	348	89	82	20	619	6.8	314	7.9
13	3.5	9.0	60	36	352	80	72	17	395	4.6	272	7.4
14	3.7	9.1	55	34	287	71	63	16	219	3.6	50	6.2
15	3.8	8.9	63	35	293	63	56	14	125	2.7	19	5.3
16	3.1	8.8	65	36	287	58	50	13	78	2.4	12	4.8
17	3.1	9.5	65	36	258	59	48	11	51	2.7	10	4.8
18	3.2	13	63	35	218	57	44	10	110	2.8	14	5.3
19	7.5	16	59	36	183	55	38	9.7	41	2.5	18	5.8
20	10	19	54	37	169	53	37	14	36	2.2	49	4.6
21	9.5	23	49	41	203	51	41	17	22	2.5	105	3.9
22	8.7	27	44	63	205	49	41	16	15	4.3	154	3.3
23	8.3	28	48	82	186	78	37	14	8.9	3.6	734	2.9
24	6.9	30	56	70	197	189	39	12	6.9	2.7	771	2.4
25	19	61	58	66	195	178	48	10	6.3	2.3	517	2.1
26	59	78	50	65	181	154	47	8.6	5.6	2.1	368	2.1
27	37	47	49	64	162	165	42	7.2	5.0	2.0	259	2.1
28	22	39	53	62	142	165	41	11	4.2	2.1	158	1.9
29	14	37	59	59	---	150	40	35	3.5	2.2	89	1.9
30	14	36	70	54	---	133	37	61	3.0	2.0	57	2.3
31	15	---	75	49	---	125	---	46	---	2.0	42	---
TOTAL	291.5	654.1	1529	1589	4677	3123	2066	601.5	7296.4	436.5	4097.9	272.5
MEAN	9.40	21.8	49.3	51.3	167	101	68.9	19.4	243	14.1	132	9.08
MAX	59	78	77	82	352	189	172	61	826	123	771	32
MIN	1.9	8.8	27	34	45	49	37	7.2	3.0	2.0	1.4	1.9
CFSM	.04	.10	.22	.23	.74	.45	.31	.09	1.08	.06	.59	.04
IN.	.05	.11	.25	.26	.77	.52	.34	.10	1.21	.07	.68	.05

CAL YR 1980 TOTAL 58370.16 MEAN 159 MAX 1250 MIN .90 CFSM .71 IN 9.65
WTR YR 1981 TOTAL 26634.40 MEAN 73.0 MAX 826 MIN 1.4 CFSM .32 IN 4.40

02053500 AHOSKIE CREEK AT AHOSKIE, NC

LOCATION.--Lat 36°16'48" (revised), long 77°00'00", Hertford County, Hydrologic Unit 03010203, on right bank 10 ft (3 m) downstream from bridge on State Highway 350, 0.5 mi (0.8 km) upstream from Seaboard Coast Line Railroad bridge, and 0.8 mi (1.3 km) southwest of Ahoskie.

DRAINAGE AREA.--63.3 mi² (164 km²), revised.

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

GAGE.--Water-stage recorder. Datum of gage is 17.46 ft (5.322 m) National Geodetic Vertical Datum of 1929 (Soil Conservation Service bench mark). Prior to Jan. 4, 1963, present site at datum 4.00 ft (1.219 m) higher. Jan. 20, 1950, to May 24, 1951, nonrecording gage.

REMARKS.--Records good. Entire basin above station canalized since July 1964. Excavation began downstream in July 1962 and reached the station in December 1962.

AVERAGE DISCHARGE.--31 years, 63.8 ft³/s (1.807 m³/s), 13.69 in/yr (348 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft³/s (73.1 m³/s) Oct. 5, 1964, gage height, 10.72 ft (3.267 m); no flow at times during most years prior to canalization; minimum daily since canalization, 1.1 ft³/s (0.031 m³/s) Sept. 24, 25, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of 15.1 ft (4.60 m), present datum, from floodmark witnessed by local resident (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 604 ft³/s (17.1 m³/s) Aug. 11, gage height, 7.88 ft (2.402 m), no peak above base of 720 ft³/s (20.4 m³/s); minimum, 1.3 ft³/s (0.037 m³/s) Aug. 6, gage height, 0.82 ft (0.250 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	5.6	5.5	8.7	6.3	13	17	6.6	8.7	3.1	2.4	8.5
2	5.4	4.3	5.1	7.5	10	13	16	6.4	9.8	4.0	2.2	8.0
3	4.7	3.8	5.4	6.9	17	12	14	6.1	9.6	14	2.0	7.6
4	4.3	3.8	5.1	6.7	11	11	13	5.9	31	147	2.5	7.0
5	3.2	3.8	5.3	6.3	9.4	15	13	5.8	123	53	1.7	6.9
6	2.9	3.8	5.3	6.3	8.2	19	36	5.7	46	20	8.4	6.8
7	2.7	3.4	5.1	6.9	7.8	17	38	5.7	84	12	10	11
8	2.7	2.8	4.9	6.8	9.6	15	27	5.6	41	9.2	5.6	29
9	2.5	2.8	4.7	6.4	12	13	22	5.1	24	7.4	15	18
10	2.4	2.7	10	6.2	10	13	19	7.4	16	6.5	8.6	11
11	2.3	2.4	31	6.1	47	12	17	8.8	13	6.1	158	8.4
12	2.0	2.4	14	5.7	100	12	15	12	9.8	5.7	236	7.2
13	2.0	3.3	9.3	5.6	40	12	13	7.7	8.9	5.6	52	6.6
14	2.0	3.1	7.5	6.1	26	11	12	5.8	7.7	5.2	24	6.1
15	2.0	2.9	6.7	6.6	21	11	11	5.2	6.9	5.4	15	5.8
16	1.9	2.9	6.4	6.2	18	12	10	4.9	6.4	4.5	11	5.6
17	1.9	3.1	6.9	6.1	16	12	9.8	4.2	7.1	4.5	9.6	5.3
18	1.8	5.6	6.4	6.1	15	11	9.5	3.8	11	4.4	8.9	5.3
19	4.8	4.1	5.7	6.0	14	12	9.0	4.1	6.4	4.2	10	5.3
20	3.5	4.6	5.9	6.1	25	11	12	6.9	6.8	3.9	23	4.9
21	4.2	6.8	5.5	7.9	60	11	15	8.4	7.5	3.9	29	4.5
22	2.8	9.9	5.5	20	38	11	12	7.0	6.0	4.0	173	4.4
23	2.0	7.8	7.8	15	28	40	10	5.7	4.7	4.8	427	4.4
24	2.0	7.8	9.0	11	24	59	10	4.9	4.1	3.9	126	4.1
25	82	40	5.5	9.8	21	39	11	4.4	4.0	3.5	50	4.0
26	61	17	6.4	8.5	17	29	8.8	4.3	3.7	3.3	29	3.9
27	16	9.6	6.4	7.9	15	24	8.0	4.2	3.7	2.9	20	3.6
28	9.0	7.4	6.9	7.6	14	20	7.2	32	3.1	2.6	15	3.6
29	5.8	7.0	8.4	7.3	---	18	6.9	16	2.9	3.0	12	3.4
30	6.1	6.1	11	6.7	---	17	6.3	11	2.9	3.0	10	3.2
31	6.4	---	9.9	6.4	---	18	---	8.3	---	2.6	9.0	---
TOTAL	256.6	190.6	238.5	237.4	640.3	543	428.5	229.9	519.7	363.2	1505.9	213.4
MEAN	8.28	6.35	7.69	7.66	22.9	17.5	14.3	7.42	17.3	11.7	48.6	7.11
MAX	82	40	31	20	100	59	38	32	123	147	427	29
MIN	1.8	2.4	4.7	5.6	6.3	11	6.3	3.8	2.9	2.6	1.7	3.2
CFSM	.13	.10	.12	.12	.36	.28	.23	.12	.27	.19	.77	.11
IN.	.15	.11	.14	.14	.38	.32	.25	.14	.31	.21	.88	.13

CAL YR 1980 TOTAL 17662.1 MEAN 48.3 MAX 665 MIN 1.1 CFSM .76 IN 10.38
WTR YR 1981 TOTAL 5367.0 MEAN 14.7 MAX 427 MIN 1.7 CFSM .23 IN 3.15

02068500 DAN RIVER NEAR FRANCISCO, NC

LOCATION.--Lat 36°30'53", long 80°18'11", Stokes County, Hydrologic Unit 03010103, on left bank 200 ft (61 m) upstream from bridge on State Highway 704, 700 ft (213 m) downstream from remains of Georges Mill, 0.2 mi (0.3 km) downstream from Elk Creek, 3 mi (5 km) east of Francisco, and 7.9 mi (12.7 km) downstream from Little Dan River.

DRAINAGE AREA.--129 mi² (334 km²).

PERIOD OF RECORD.--August 1924 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 1303: 1938-50 (monthly runoff). WSP 1433: 1925-26, 1928-29, 1931, 1942, 1948. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 831.99 ft (253.591 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 15, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good. Since 1938, considerable diurnal fluctuation and regulation by Talbott and Townes reservoirs and Pinnacles Hydroelectric Plant in Virginia, 28 mi (45 km) above station (see p.328).

AVERAGE DISCHARGE.--57 years, 191 ft³/s (5.409 m³/s), 20.11 in/yr (511 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft³/s (535 m³/s) Sept. 22, 1979, gage height, 18.11 ft (5.520 m), from rating curve extended above 8,400 ft³/s (238 m³/s) on basis of slope-area measurement of peak flow; minimum, 7.1 ft³/s (0.20 m³/s) Sept. 8, 1932, gage height, 0.43 ft (0.131 m); minimum daily, 27 ft³/s (0.76 m³/s) Aug. 24, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1916 reached a stage of about 15 ft (4.6 m), from information by local residents, discharge, 16,000 ft³/s (453 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) Sept. 4, gage height, 4.33 ft (1.320 m), no peak above base of 2,000 ft³/s (57 m³/s); minimum, 20 ft³/s (0.57 m³/s) Aug. 24, gage height, 0.83 ft (0.253 m); minimum daily, 27 ft³/s (0.76 m³/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	80	85	80	86	78	141	116	133	87	55	40
2	95	77	82	74	176	76	116	95	107	83	55	70
3	96	75	85	76	112	75	121	100	117	109	62	44
4	89	105	120	71	145	79	133	88	144	159	58	550
5	90	89	99	121	128	127	172	125	169	242	96	148
6	107	110	94	106	120	87	148	112	171	140	121	82
7	86	95	82	88	98	81	143	109	166	165	68	100
8	82	80	82	81	78	78	134	87	112	153	96	98
9	81	78	83	111	70	77	133	88	137	139	72	69
10	81	78	90	91	71	82	138	90	150	151	62	56
11	143	71	112	131	359	79	120	95	133	149	62	51
12	119	95	118	194	175	85	134	88	90	79	60	48
13	72	111	96	294	142	86	133	76	89	76	55	46
14	72	92	82	153	106	84	142	81	88	91	53	45
15	72	82	95	91	88	86	129	104	84	77	52	78
16	71	82	107	95	80	84	118	91	144	70	53	519
17	71	89	105	112	77	105	118	104	120	71	53	131
18	73	163	115	108	83	92	119	83	81	69	52	84
19	92	111	92	91	80	83	110	107	82	67	51	70
20	79	122	86	85	90	90	119	164	104	67	53	62
21	73	111	138	77	78	87	143	160	84	69	45	58
22	73	92	140	80	76	80	129	100	79	71	31	55
23	73	82	120	68	78	107	128	97	117	62	33	53
24	78	111	84	68	104	102	155	90	75	66	27	50
25	117	118	88	65	100	105	129	92	97	65	29	48
26	97	122	131	63	78	97	119	151	188	64	29	49
27	81	130	131	63	78	86	124	139	80	62	29	49
28	100	114	137	63	78	90	147	190	75	101	28	48
29	90	99	79	61	---	91	181	176	72	102	28	46
30	114	86	80	63	---	179	117	116	78	59	29	46
31	107	---	81	57	---	183	---	140	---	55	31	---
TOTAL	2780	2950	3119	2981	3034	2921	3993	3454	3366	3020	1628	2893
MEAN	89.7	98.3	101	96.2	108	94.2	133	111	112	97.4	52.5	96.4
MAX	143	163	140	294	359	183	181	190	188	242	121	550
MIN	71	71	79	57	70	75	110	76	72	55	27	40
(†)	+1	-4	-14	+2	+37	+7	-9	-3	-13	-18	-12	+15

CAL YR 1980 TOTAL 83974 MEAN 229 MAX 4510 MIN 71 MEAN‡ 225 CFSM‡ 1.74 IN‡ 23.68
WTR YR 1981 TOTAL 36139 MEAN 99.0 MAX 550 MIN 27 MEAN‡ 98.0 CFSM‡ .76 IN‡ 10.18

† Change in contents, equivalent in cubic feet per second, in Philpott Lake; furnished by Corps of Engineers.
‡ Adjusted for change in contents.

02071000 DAN RIVER NEAR WENTWORTH, NC

LOCATION.--Lat 36°24'45" (revised), long 79°49'35", Rockingham County, Hydrologic Unit 03010103, on right bank 600 ft (183 m) downstream from Settles Bridge on Secondary Road 2150, 3.5 mi (5.6 km) northwest of Wentworth, 7.5 mi (12.1 km) downstream from Mayo River, and 103.7 mi (166.9 km) upstream from mouth.

DRAINAGE AREA.--1,053 mi² (2,727 km²), revised.

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).

GAGE.--Water-stage recorder. Datum of gage is 512.98 ft (156.356 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 3, 1949, water-stage recorder at site 150 ft (46 m) upstream at same datum.

REMARKS.--Records good except those for January, which are fair. Diurnal fluctuation and regulation at low flow caused by Talbott and Townes reservoirs. (See p. 328).

AVERAGE DISCHARGE.--42 years, 1,216 ft³/s (34.44 m³/s), 15.68 in/yr (398 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,200 ft³/s (1,530 m³/s) June 22, 1972, gage height, 31.60 ft (9.632 m), from high-water mark in well; minimum, 65 ft³/s (1.84 m³/s) Oct. 8, 1954, gage height, 0.93 ft (0.283 m); minimum daily, 107 ft³/s (3.03 m³/s) Oct. 2, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage of 34.9 ft (10.64 m), from information by North Carolina State Highway Commission, and flood in 1937 reached a stage of 29.8 ft (9.08 m), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,790 ft³/s (249 m³/s) Sept. 7, gage height, 13.17 ft (4.014 m), no peak above base of 12,000 ft³/s (340 m³/s); minimum, 106 ft³/s (3.00 m³/s) Aug. 29, gage height, 0.62 ft (0.189 m); minimum daily, 109 ft³/s (3.09 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	722	638	629	561	378	558	1390	522	506	269	234	268
2	639	559	614	545	640	553	1020	507	530	346	226	297
3	522	531	604	525	1060	536	828	471	558	390	299	431
4	528	602	589	521	668	532	741	466	503	576	345	473
5	504	850	604	415	586	726	729	455	506	1390	353	1630
6	534	650	605	456	651	812	938	477	711	823	315	850
7	606	594	594	621	633	641	837	478	2040	743	360	4200
8	510	572	578	546	651	586	720	485	999	615	315	2830
9	483	554	576	557	549	562	714	447	589	469	351	1790
10	473	538	590	573	537	548	777	443	509	414	323	1030
11	467	524	610	480	1290	536	757	472	471	400	255	740
12	494	512	599	427	2180	530	692	510	433	406	234	564
13	492	520	597	498	1040	522	681	462	417	332	233	483
14	436	543	592	601	809	519	672	423	474	339	222	446
15	440	544	570	597	741	503	688	420	383	324	208	401
16	444	559	566	576	636	504	662	460	347	307	199	1910
17	442	568	607	529	594	501	619	428	368	293	190	2230
18	449	745	584	513	582	504	635	428	349	287	182	928
19	891	841	582	545	828	502	625	436	318	271	182	567
20	678	647	575	541	2200	486	656	747	327	263	186	456
21	521	620	529	560	1220	483	832	973	400	264	181	403
22	478	596	464	591	841	488	697	692	347	271	176	375
23	472	580	627	584	733	648	624	511	303	239	164	355
24	466	615	641	519	718	1120	774	461	307	245	144	326
25	578	997	564	513	669	1170	772	430	282	576	136	307
26	923	807	424	514	631	925	624	408	376	408	127	297
27	647	706	565	503	581	744	583	454	494	326	124	290
28	549	819	657	498	564	649	563	630	326	411	116	283
29	550	770	697	482	---	604	562	773	285	372	109	270
30	640	670	596	481	---	1030	569	614	271	334	137	262
31	776	---	571	440	---	2840	---	494	---	268	135	---
TOTAL	17354	19271	18200	16312	23210	21862	21981	15977	14729	12971	6761	25692
MEAN	560	642	587	526	829	705	733	515	491	418	218	856
MAX	923	997	697	621	2200	2840	1390	973	2040	1390	360	4200
MIN	436	512	424	415	378	483	562	408	271	239	109	262
CFSM	.53	.61	.56	.50	.79	.67	.70	.49	.47	.40	.21	.81
IN.	.61	.68	.64	.58	.82	.77	.78	.56	.52	.46	.24	.91

CAL YR 1980 TOTAL 443661 MEAN 1212 MAX 13500 MIN 380 CFSM 1.15 IN 15.67
WTR YR 1981 TOTAL 214320 MEAN 587 MAX 4200 MIN 109 CFSM .56 IN 7.57

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 (0.5 km) downstream from bridge on State Highway 14, 0.8 mi (1.3 km) upstream from bridge on Secondary Road 1714, 1.2 mi (1.9 km) south of Virginia-North Carolina State line, 1.3 mi (2.1 km) downstream from Stuart Creek, and 3.9 mi (6.3 km) upstream from mouth.

DRAINAGE AREA.--538 mi² (1,393 km²).

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 (164.458 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated since August 1950 by Philpott Lake 40 mi (64 km) upstream (usable capacity, 6,325,000,000 ft³ or 179.1 hm³). Additional regulation by hydroelectric plant at Martinsville, Virginia 18 mi (29 km) upstream.

AVERAGE DISCHARGE.--42 years, 621 ft³/s (17.59 m³/s), 15.68 in/yr (398 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,600 ft³/s (1,290 m³/s) Aug. 15, 1940, gage height, 19.28 ft (5.877 m), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of computation of peak flow over dam 1.5 mi (2.4 km) downstream; minimum, 38 ft³/s (1.08 m³/s) Aug. 7, 1967; minimum daily, 46 ft³/s (1.30 m³/s) Aug. 14, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,050 ft³/s (58.1 m³/s) Sept. 16, gage height, 4.22 ft (1.286 m); minimum, 56 ft³/s (1.59 m³/s) Aug. 23, 24, gage height, 1.30 ft (0.396 m); minimum daily, 57 ft³/s (1.61 m³/s) Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	481	338	277	276	226	219	537	295	184	213	186	406
2	381	204	317	408	399	291	502	297	288	229	116	434
3	369	241	292	264	405	289	426	180	408	215	83	426
4	345	392	320	183	356	294	386	162	327	327	227	641
5	201	452	307	223	355	384	264	266	303	212	194	725
6	288	381	238	362	349	349	332	280	322	357	193	232
7	229	373	204	343	265	277	394	291	289	333	201	128
8	180	296	240	334	209	219	380	265	202	275	277	698
9	185	204	319	335	279	274	423	282	277	247	115	612
10	183	241	316	250	342	303	476	174	260	219	142	598
11	182	289	306	199	863	297	406	181	268	232	344	587
12	171	354	298	271	813	299	245	359	252	123	350	577
13	202	374	232	381	482	298	241	323	279	93	356	113
14	485	386	199	380	340	288	379	313	158	210	347	99
15	473	275	258	377	252	139	382	331	131	220	380	323
16	488	206	235	338	322	243	477	353	228	221	110	936
17	465	277	308	253	373	272	296	150	231	227	100	799
18	419	438	335	169	396	283	380	143	218	247	321	467
19	288	362	300	241	527	284	216	443	235	110	267	424
20	265	308	233	339	929	283	322	580	258	89	335	145
21	189	304	181	362	458	265	490	531	110	216	354	118
22	181	229	229	345	299	181	412	421	144	202	367	339
23	376	205	299	350	381	301	395	375	227	204	85	337
24	473	341	225	277	449	581	489	180	214	218	57	327
25	496	495	289	181	400	522	418	163	210	337	314	326
26	307	359	306	263	391	459	231	317	259	120	322	354
27	215	282	230	331	376	414	216	321	203	131	321	108
28	402	475	196	341	306	301	282	433	120	205	327	103
29	349	289	245	331	---	220	350	454	142	210	356	295
30	380	230	378	336	---	628	303	374	200	205	83	307
31	436	---	366	245	---	890	---	190	---	192	72	---
TOTAL	10084	9600	8478	9288	11542	10347	11050	9427	6947	6639	7302	11984
MEAN	325	320	273	300	412	334	368	304	232	214	236	399
MAX	496	495	378	408	929	890	537	580	408	357	380	936
MIN	171	204	181	169	209	139	216	143	110	89	57	99
(†)	-20	+14	-2	-60	+31	+16	+2	+16	-19	-47	-169	-141

CAL YR 1980 TOTAL 251349 MEAN 687 MAX 9260 MIN 137 MEAN‡ 683 CFSM‡ 1.27 IN‡ 17.29
WTR YR 1981 TOTAL 112688 MEAN 309 MAX 936 MIN 57 MEAN‡ 277 CFSM‡ .51 IN‡ 6.92

† Change in contents, equivalent in cubic feet per second, in Philpott Lake; furnished by Corps of Engineers.
‡ Adjusted for change in contents.

02074218 DAN RIVER NEAR MAYFIELD, NC

LOCATION.--Lat 36°32'29", long 79°36'21", Rockingham County, Hydrologic Unit 03010103, near right bank on downstream end of bridge pier on Secondary Road 1761, at North Carolina-Virginia State line, 2.2 mi (3.5 km) upstream from Whiteoak Creek, 3.0 mi (4.8 km) northwest of Mayfield, and at mile 81.0 (130.3 km).

DRAINAGE AREA.--1,778 mi² (4,605 km²), revised.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 458.4 ft (139.7 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good except those for period of partial gage-height record, Sept. 7, 8, and those below 500 ft³/s (14 m³/s), which are fair. Diurnal fluctuation and regulation at low flow caused by mills and Talbott and Townes reservoirs on the Dan River (see p. 328) and Philpott Lake on Smith River (see sta 02074000). Duke Power Company gage-height and temperature telemeter at station.

AVERAGE DISCHARGE.--5 years, 2,159 ft³/s (61.14 m³/s), 16.49 in/yr (419 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,300 ft³/s (1,060 m³/s) Sept. 23, 1979, gage height, 27.31 ft (8.324 m); minimum, 197 ft³/s (5.58 m³/s) Aug. 25, 1981, gage height 1.39 ft (0.424 m); minimum daily, 271 ft³/s (7.67 m³/s) Aug. 24, 31, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972 reached a stage of 28.1 ft (8.56 m), from floodmarks, discharge, 40,000 ft³/s (1,130 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,190 ft³/s (232 m³/s) Sept. 8, gage height, 12.2 ft (3.72 m), from graph based on partial gage-height record, no peak above base of 13,000 ft³/s (370 m³/s); minimum, 197 ft³/s (5.58 m³/s) Aug. 25, gage height, 1.39 ft (0.424 m); minimum daily, 271 ft³/s (7.67 m³/s) Aug. 24, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	1130	925	934	665	918	2750	922	794	471	456	429
2	1170	882	932	895	833	935	1930	904	872	553	365	831
3	954	798	953	900	1630	990	1580	767	1030	685	385	860
4	903	965	919	747	1280	949	1370	743	1010	955	512	1050
5	782	1370	903	641	982	1180	1170	801	896	1310	645	2370
6	770	1180	899	619	984	1440	1390	816	1060	1700	549	1490
7	875	1030	831	971	1020	1170	1520	859	2210	1190	587	2300
8	798	963	830	961	910	1010	1310	853	2000	1150	587	5510
9	714	854	860	847	915	944	1320	784	1120	863	515	2750
10	677	813	902	873	960	1010	1490	708	914	739	558	2010
11	627	832	923	674	2630	965	1430	741	844	695	591	1570
12	661	877	900	505	3580	952	1160	924	797	611	646	1310
13	711	881	864	691	2140	937	1100	918	764	561	631	773
14	873	911	824	894	1470	870	1150	816	800	503	611	677
15	883	905	809	1000	1210	850	1240	794	694	582	605	755
16	915	831	832	933	1100	799	1250	807	622	570	443	1700
17	898	829	874	836	1160	894	1200	706	640	563	359	3990
18	894	1150	885	621	1130	881	1100	666	650	542	441	2060
19	1450	1350	846	712	1500	879	1050	794	626	449	486	1230
20	1170	1090	868	939	4370	874	1150	1330	614	457	570	768
21	864	970	767	936	2590	823	1550	1800	583	469	580	654
22	713	902	662	1020	1560	795	1410	1420	591	532	563	715
23	742	854	773	991	1310	945	1240	1010	557	481	421	739
24	934	879	976	990	1420	1800	1630	768	559	520	271	711
25	1030	1400	855	725	1310	2100	1510	706	562	767	340	688
26	1250	1390	720	779	1230	1800	1120	811	562	832	495	690
27	1090	1110	660	915	1150	1440	1010	798	785	554	491	490
28	916	1260	830	880	1070	1230	1060	999	583	661	491	447
29	938	1240	980	877	---	1030	968	1380	407	761	482	518
30	1050	996	1000	872	---	1210	1030	1200	448	613	384	625
31	1280	---	959	826	---	4130	---	844	---	542	271	---
TOTAL	28692	30642	26761	26004	42109	36750	40188	28389	24594	21881	15331	40710
MEAN	926	1021	863	839	1504	1185	1340	916	820	706	495	1357
MAX	1450	1400	1000	1020	4370	4130	2750	1800	2210	1700	646	5510
MIN	627	798	660	505	665	795	968	666	407	449	271	429
(†)	-20	+14	-2	-60	+31	+16	+2	+16	-19	-47	-169	-141

CAL YR 1980 TOTAL 752795 MEAN 2057 MAX 23400 MIN 524 MEAN‡ 2053 CFSM‡ 1.15 IN‡ 15.65
WTR YR 1981 TOTAL 362051 MEAN 992 MAX 5510 MIN 271 MEAN‡ 960 CFSM‡ .54 IN‡ 7.33

† Change in contents, equivalent in cubic feet per second, in Philpott Lake; furnished by Corps of Engineers.
‡ Adjusted for change in contents.

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-70, 1972-73, 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURES: October 1976 to current year.

INSTRUMENTATION.--Temperature recorder since October 1977. Water-quality monitor since January 1981.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams. Water temperatures near left bank sometimes affected by heated releases from power plant located 8.4 mi (13.5 km) upstream. Releases from town of Eden's sewage treatment plant enter river on left bank approximately 10.2 mi (16.4 km) upstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 258 micromhos Aug. 9, 1981; minimum daily, 37 micromhos Oct. 10, 1976.
WATER TEMPERATURES: Maximum, 33.5°C June 16, 1981; minimum, 0.0°C Feb. 11, 12, 18, 19, 1979, Feb. 3, Mar. 3, 1980, Jan. 12, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 258 micromhos Aug. 9; minimum daily, 49 micromhos Sept. 8.
WATER TEMPERATURES: Maximum, 33.5°C June 16; minimum, 0.0°C Jan. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT											
15...	1130	724	152	6.7	14.0	5	10.1	22	0	5.6	2.0
JAN											
07...	1100	934	120	6.4	3.5	5	13.8	21	0	5.5	1.8
FEB											
09...	1045	895	98	7.1	3.0	--	--	--	--	--	--
APR											
02...	1100	2110	92	7.1	13.5	80	9.8	20	0	4.9	1.9
28...	1050	1200	130	6.4	20.0	10	8.7	23	0	5.8	2.1
JUN											
22...	1400	550	140	6.9	31.0	5	7.1	20	0	4.4	2.2
AUG											
26...	1030	436	365	6.5	24.0	15	7.5	23	0	5.6	2.2
SEP											
29...	1030	517	140	7.2	17.0	6	7.9	22	0	5.5	2.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT											
15...	21	65	1.9	1.9	42	0	34	11	8.6	18	.1
JAN											
07...	12	53	1.1	1.4	35	0	29	52	6.9	13	.1
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	13	56	1.3	2.0	28	0	23	3.6	8.1	14	<.1
28...	20	63	1.8	1.8	40	0	33	21	7.1	18	.1
JUN											
22...	23	58	2.2	2.4	37	0	30	7.5	7.4	28	.1
AUG											
26...	54	82	4.9	1.9	47	0	39	22	17	60	.1
SEP											
29...	17	60	1.6	2.1	50	0	41	5.0	8.7	10	.1

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
15...	17	93	93	.13	182	.31	.010	.32	.34	2.3	.030
JAN											
07...	16	81	74	.11	204	.38	.010	.39	.43	--	.140
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	15	160	75	.22	912	.33	.020	.35	.35	--	.070
28...	15	85	86	.12	275	.30	.020	.32	.32	--	.010
JUN											
22...	15	106	104	.14	157	.44	.010	.45	.46	--	.060
AUG											
26...	10	195	172	.27	230	.53	.040	.57	.55	--	.140
SEP											
29...	13	84	85	.11	117	--	<.010	.25	.23	--	.090

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT										
15...	.100	.04	.13	.30	.40	.33	.00	.50	630	.65
JAN										
07...	.170	.17	.22	.26	.11	.40	.12	.28	--	.79
FEB										
09...	--	--	--	--	--	--	--	--	--	--
APR										
02...	.090	--	.12	.48	.45	.55	.01	.54	--	.90
28...	--	--	--	.39	--	.40	.30	.10	--	.72
JUN										
22...	.060	--	.08	.46	.81	.52	.00	.87	--	.97
AUG										
26...	.120	--	.15	.34	.39	.48	.00	.51	--	1.1
SEP										
29...	.100	--	.13	.47	.31	.56	.15	.41	--	.81

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT										
15...	2.9	632	.84	.200	.52	.61	.160	.170	.140	.43
JAN										
07...	3.5	--	.71	.160	.34	.49	.130	.110	.120	.37
FEB										
09...	--	--	--	--	--	--	--	--	--	--
APR										
02...	4.0	--	.89	.130	--	.40	.090	.060	.100	.31
28...	3.2	--	.42	.160	--	.49	.110	.110	.100	.31
JUN										
22...	4.3	--	1.3	.210	--	.64	.200	.180	.180	.55
AUG										
26...	4.6	--	1.1	.420	--	1.3	.400	.410	.390	1.2
SEP										
29...	3.6	--	.64	.140	--	.43	.130	.100	.110	.34

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
OCT 15...	74	0	<10	10	9	1	<10	<10	11	2
JAN 07...	--	--	--	20	15	5	--	--	10	5
FEB 09...	--	--	--	--	--	--	--	--	--	--
APR 02...	--	--	--	30	30	0	--	--	14	10
28...	--	--	--	10	10	0	--	--	9	2
JUN 22...	--	--	--	20	20	0	--	--	11	5
AUG 26...	--	--	--	10	--	<1	--	--	17	4
SEP 29...	--	--	--	10	5	5	--	--	6	1

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, SUS-PENDED 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, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
OCT 15...	9	<10	1100	970	130	3600	1	0	2	<10
JAN 07...	5	--	660	550	110	--	9	5	4	--
FEB 09...	--	--	--	--	--	--	--	--	--	--
APR 02...	4	--	2500	2500	0	--	11	11	0	--
28...	6	--	1200	1000	180	--	52	50	2	--
JUN 22...	6	--	840	600	240	--	4	4	0	--
AUG 26...	13	--	580	440	140	--	10	8	2	--
SEP 29...	5	--	1000	830	170	--	1	0	1	--

DATE	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED 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 DIS-SOLVED (MG/L AS C)
OCT 15...	300	.00	0	20	10	6	31	7.5
JAN 07...	--	--	--	20	20	0	--	2.3
FEB 09...	--	--	--	--	--	--	--	--
APR 02...	--	--	--	30	30	0	--	3.0
28...	--	--	--	30	--	<4	--	3.8
JUN 22...	--	--	--	10	--	<4	--	2.9
AUG 26...	--	--	--	20	10	10	--	4.0
SEP 29...	--	--	--	20	10	10	--	--

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPO-SURE (DAYS)
OCT								
15...	.7	4.6	.0	4.6	.00	--	--	--
JAN								
07...	.8	--	--	--	.00	--	--	--
FEB								
09...	--	--	--	--	--	2.52	1.89	20
APR								
02...	.7	--	--	--	--	--	--	--
28...	.8	--	--	--	.00	--	--	--
JUN								
22...	.4	--	--	--	.00	--	--	--
AUG								
26...	.5	--	--	--	.10	--	--	--
SEP								
29...	.6	--	--	--	.10	--	--	--

PHYTOPLANKTON ANALYSES, SEPTEMBER 1980

DATE	SEP 30,80
TIME	1130
TOTAL CELLS/ML	35000
DIVERSITY: DIVISION	0.7
.CLASS	0.7
..ORDER	1.3
...FAMILY	1.4
....GENUS	1.6

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...COELASTRACEAE		
....COELASTRUM	740	2
...OOCYSTACEAE		
....ANKISTRODESMUS	*	0
....DICTYOSPHAERIUM	3300	9
....SELENASTRUM	*	0
....TETRAEDRON	*	0
...SCENEDESMACEAE		
....CRUCIGENIA	270	1
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	800	2
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	270	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	1100	3
....ANACYSTIS	3200	9
..HORMOGONALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	25000#	72

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	OCT 15,80		JAN 7,81		APR 2,81		JUN 22,81		AUG 26,81	
TIME	1130		1100		1100		1400		1030	
TOTAL CELLS/ML	30000		300000		41000		310		14	
DIVERSITY: DIVISION	0.1		0.0		0.3		1.6		0.0	
.CLASS	0.1		0.0		0.3		1.6		0.0	
..ORDER	0.1		0.0		0.3		2.1		0.0	
...FAMILY	0.1		0.0		0.3		2.2		0.0	
....GENUS	0.1		0.0		0.3		2.2		0.0	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....DICTYOSPHAERIUM	*	0	--	-	*	0	--	-	--	-
....OOCYSTIS	*	0	--	-	--	-	--	-	--	-
....SELENASTRUM	*	0	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	*	0	--	-	--	-	77#	25	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	*	0	--	-	*	0	26	8	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	*	0	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	*	0	*	0	--	-	26	8	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	*	0	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	13	4	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	370	1	--	-	--	-
...NAVICULACEAE										
....GYROSIGMA	*	0	--	-	--	-	--	-	--	-
....NAVICULA	*	0	*	0	370	1	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	*	0	--	-	230	1	39	13	14#	100
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	*	0	*	0	--	-	130#	42	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	*	0	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	29000#	99	300000#	100	40000*	96	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	*	0	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
15...	1130	724	16	31	78
JAN					
07...	1100	934	16	40	47
APR					
02...	1100	2110	72	410	71
28...	1050	1200	35	113	60
JUN					
22...	1400	550	21	31	89
AUG					
26...	1030	436	8	9.4	76
SEP					
29...	1030	517	12	17	84

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	111	74	107	124	110	91	142	175	131	231	186
2	105	128	80	84	122	128	116	152	189	104	192	146
3	178	97	96	87	98	124	105	160	161	106	180	158
4	168	100	108	78	85	111	113	157	158	98	211	119
5	159	107	114	70	115	126	99	172	148	90	186	82
6	109	95	102	78	121	123	91	158	162	67	206	63
7	131	140	102	119	120	124	97	162	87	73	216	70
8	110	98	128	188	83	122	130	158	113	98	227	49
9	128	97	110	153	128	113	140	171	108	130	258	68
10	172	100	100	153	133	120	138	186	137	143	184	76
11	154	109	108	121	95	111	134	168	169	179	227	94
12	193	98	114	136	83	143	104	209	177	170	180	126
13	206	104	100	144	91	137	90	133	167	170	232	102
14	133	135	96	137	110	135	100	133	176	118	187	106
15	102	135	127	126	96	136	115	143	171	172	195	114
16	108	98	112	118	108	134	139	142	111	201	204	207
17	101	94	94	143	126	119	131	172	196	206	148	89
18	107	103	128	134	118	132	111	104	200	202	134	81
19	72	105	133	112	114	133	150	107	184	191	200	101
20	93	102	99	157	86	139	86	138	188	139	217	112
21	90	110	97	118	95	128	82	161	209	144	215	100
22	92	111	114	140	84	156	91	112	130	212	213	131
23	128	102	120	114	98	170	108	121	133	187	231	123
24	214	119	83	141	112	138	111	129	186	228	164	141
25	101	100	79	123	103	119	120	158	183	231	167	152
26	88	88	79	111	110	101	97	184	200	145	231	145
27	83	93	73	154	138	105	110	148	146	160	233	224
28	73	82	73	125	127	106	108	149	153	120	214	128
29	105	69	67	135	---	116	137	131	146	147	230	133
30	117	72	81	141	---	106	151	112	139	186	229	193
31	89	---	93	116	---	85	---	133	---	207	183	---
MEAN	124	103	99	125	108	124	113	149	160	153	204	121

WTR YR 1981 MEAN 132 MAX 258 MIN 49

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	19.0	13.0	12.5	7.0	7.0	7.5	6.0	5.5	3.0	12.5	10.5
2	20.0	19.0	13.0	12.5	10.0	7.0	7.5	6.0	6.5	4.0	14.0	11.0
3	20.0	19.5	12.5	12.0	9.0	7.5	6.5	5.0	4.5	2.0	13.5	11.0
4	19.5	18.5	12.5	12.5	9.0	6.5	5.5	2.5	2.5	1.0	11.5	8.5
5	18.5	17.0	12.5	12.5	8.5	6.5	4.0	2.5	3.0	2.0	8.5	7.5
6	17.0	16.5	12.5	10.0	8.0	6.5	7.5	3.5	3.5	1.5	9.5	7.0
7	17.5	16.5	11.5	9.0	8.5	7.0	5.0	1.5	4.5	2.0	9.5	7.5
8	17.5	16.0	12.0	9.5	11.0	8.0	3.5	1.0	4.5	3.5	9.0	6.5
9	19.0	16.5	13.0	11.0	11.5	9.5	4.0	2.5	5.5	2.5	11.0	7.0
10	19.5	18.5	14.0	12.0	12.0	11.0	3.0	1.5	4.5	3.0	11.0	8.0
11	19.5	19.0	13.0	11.0	11.0	9.5	3.0	2.0	6.0	4.0	11.0	8.5
12	19.0	17.0	11.0	9.0	10.0	7.5	5.5	.0	5.5	4.0	12.0	8.5
13	17.0	16.0	10.5	10.5	7.5	5.5	5.5	3.0	---	---	12.5	9.0
14	17.0	16.0	10.5	9.0	6.0	5.0	4.0	2.0	---	---	12.0	9.5
15	16.5	15.0	9.0	9.0	8.0	4.5	3.5	1.5	---	---	11.5	8.5
16	16.5	16.0	9.0	9.0	8.5	6.5	3.5	1.5	---	---	11.0	8.5
17	16.5	16.0	10.5	9.0	8.5	7.0	3.5	2.0	---	---	11.0	8.0
18	17.0	16.5	10.5	9.0	7.0	5.5	5.0	2.5	---	---	11.5	10.0
19	18.0	17.0	9.0	8.0	7.5	5.5	5.5	2.5	---	---	11.0	9.5
20	18.0	17.0	8.5	7.0	7.0	4.5	4.5	2.0	---	---	10.0	8.0
21	17.5	16.5	7.5	6.0	4.5	3.5	5.0	3.0	---	---	9.5	6.5
22	17.0	16.5	7.5	5.5	5.5	3.0	5.0	3.0	---	---	8.0	6.5
23	17.0	15.5	7.0	6.0	5.0	3.0	5.5	3.5	---	---	6.5	5.5
24	15.5	14.5	8.5	6.0	3.0	2.0	5.0	3.0	11.5	11.0	8.0	5.5
25	14.5	14.0	9.0	7.5	3.0	1.0	5.5	4.0	11.5	9.0	9.5	7.5
26	14.0	12.5	8.5	7.0	4.5	.5	7.5	4.0	11.5	9.5	11.0	8.5
27	13.0	12.0	8.5	6.5	4.0	2.0	7.0	5.5	12.0	8.5	11.5	10.0
28	13.5	12.5	7.0	7.0	4.0	2.5	7.0	5.5	11.5	9.5	12.0	9.5
29	13.5	13.5	7.0	7.0	5.5	2.5	6.5	4.5	---	---	13.0	10.5
30	13.5	13.0	7.0	7.0	6.5	4.0	6.0	4.5	---	---	14.5	12.0
31	13.0	12.5	---	---	7.0	6.0	6.0	4.0	---	---	14.0	13.0
MONTH	20.0	12.0	14.0	5.5	12.0	.5	7.5	.0	12.0	1.0	14.5	5.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	13.5	20.5	19.0	25.0	24.0	26.5	25.0	28.0	25.0	27.5	22.0
2	16.0	13.5	19.5	17.5	25.0	22.5	25.0	24.5	27.5	24.5	27.0	25.0
3	16.0	14.0	19.5	16.0	24.5	23.0	24.5	23.0	30.0	25.5	26.0	25.0
4	17.0	15.0	20.0	16.0	26.0	23.0	23.5	22.0	31.0	28.0	25.5	22.5
5	16.5	16.0	20.5	17.0	27.5	25.0	24.5	22.5	31.0	29.5	22.5	21.0
6	16.5	14.5	21.0	19.0	27.0	25.0	26.5	23.5	31.0	30.5	22.5	21.5
7	16.0	13.0	21.0	19.5	25.0	23.5	28.0	25.0	31.0	29.0	23.5	21.0
8	16.5	13.5	20.5	17.5	26.0	22.5	28.5	26.5	30.0	29.0	22.5	21.0
9	16.0	15.0	19.0	17.0	29.0	25.5	31.5	27.0	31.0	28.5	22.0	21.0
10	18.0	14.5	17.5	16.5	30.5	28.0	32.5	29.5	31.0	28.5	21.5	20.0
11	19.0	16.5	22.0	17.0	31.0	28.5	32.0	30.5	31.0	29.5	21.0	20.0
12	20.5	18.0	22.5	20.0	30.5	28.0	31.5	29.5	30.0	28.5	21.0	20.0
13	19.5	18.5	21.5	18.5	29.0	27.0	32.5	30.0	29.0	26.5	24.0	20.0
14	19.0	16.5	21.5	18.0	30.5	27.5	32.0	30.0	28.0	26.0	26.5	22.5
15	19.5	16.5	22.0	19.5	33.0	28.0	31.5	29.0	28.0	25.0	26.5	24.0
16	19.5	16.5	21.5	19.0	33.5	30.5	30.0	29.0	29.0	27.5	24.5	23.0
17	18.5	17.0	21.5	19.0	32.5	30.5	30.5	28.5	28.0	26.0	23.0	21.0
18	20.5	17.5	22.0	19.5	30.5	28.0	30.0	28.5	26.5	22.0	21.5	20.0
19	19.5	16.5	21.0	17.5	29.5	28.0	29.5	27.5	23.5	22.0	20.5	18.5
20	19.0	17.5	18.0	15.5	29.0	27.0	30.0	27.5	23.0	21.0	20.0	17.0
21	18.5	18.0	17.0	14.0	30.5	27.0	33.0	29.0	22.5	19.5	20.0	17.0
22	18.0	15.5	19.0	16.0	32.0	28.5	31.5	29.5	22.5	20.0	20.0	17.5
23	20.0	17.5	21.5	18.0	32.0	29.5	31.0	29.0	24.0	19.5	20.0	18.0
24	19.5	18.0	23.0	19.0	31.5	29.5	30.5	28.5	27.0	20.5	19.0	16.5
25	18.0	15.5	25.5	21.0	31.5	29.0	28.5	26.5	28.0	18.0	18.0	15.5
26	18.0	15.0	26.5	24.0	30.0	28.5	29.0	26.0	26.5	23.5	18.5	15.5
27	20.5	16.0	26.0	23.5	29.0	26.0	32.0	27.0	26.0	23.5	20.0	16.0
28	23.5	19.0	23.5	22.5	27.5	24.0	31.5	30.0	26.5	23.0	20.5	17.0
29	23.5	22.0	22.5	21.0	29.5	24.0	31.5	29.0	24.0	21.0	20.5	17.5
30	22.5	20.0	23.5	21.0	28.0	26.5	31.0	28.0	23.5	21.5	19.5	17.0
31	---	---	25.5	22.0	---	---	28.5	26.0	26.5	22.0	---	---
MONTH	23.5	13.0	26.5	14.0	33.5	22.5	33.0	22.0	31.0	18.0	27.5	15.5
YEAR	33.5	.0										

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 (3 m) upstream from bridge on U.S. Highway 158, 1.5 mi (2.4 km) upstream from Kilgore Creek, and 2.5 mi (4.0 km) west of Leasburg.

DRAINAGE AREA.--45.9 mi² (118.9 km²).

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 (121.944 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge record good.

AVERAGE DISCHARGE.--17 years, 44.2 ft³/s (1.252 m³/s), 13.08 in/yr (332 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s (190 m³/s) July 14, 1975, gage height, 39.84 ft (12.143 m), from rating curve extended above 1,200 ft³/s (340 m³/s); no flow at times, most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	2230	909	25.7	33.41	10.183	July 4	1730	*1270	36.0	*34.17	10.415

No flow for part of day Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	9.6	10	8.7	6.2	21	34	7.8	2.6	1.5	.85	.45
2	5.7	5.0	9.2	7.5	15	20	29	7.1	7.5	3.2	.78	.64
3	3.6	3.3	8.2	7.1	32	18	24	5.9	12	9.6	.76	.72
4	1.8	3.7	7.5	6.4	18	18	22	5.3	16	684	.90	.68
5	1.6	26	6.7	4.6	18	38	20	5.1	10	224	1.0	.96
6	1.5	15	7.0	4.4	14	44	22	4.9	9.8	44	1.1	.92
7	1.3	7.9	5.9	5.7	13	33	22	4.4	7.8	63	1.3	.62
8	1.1	5.8	6.0	7.0	12	27	19	4.8	3.9	25	1.4	45
9	1.0	4.5	6.0	6.2	11	23	18	4.6	3.8	18	1.4	5.8
10	.92	3.9	7.0	6.0	10	20	20	4.4	3.1	12	3.3	2.2
11	.91	3.5	11	4.3	383	18	20	7.5	2.5	8.3	7.3	.92
12	1.2	3.2	10	4.0	345	17	19	7.4	1.8	6.3	17	.48
13	1.4	2.9	8.2	3.7	79	16	18	5.3	1.5	4.7	12	.36
14	1.6	2.8	7.5	3.5	54	15	16	4.1	1.4	3.8	4.3	.36
15	1.6	2.8	7.4	3.3	41	14	14	3.8	1.5	3.1	1.9	.32
16	1.5	3.2	6.7	3.2	33	18	13	3.0	1.3	2.5	1.4	8.8
17	1.5	3.9	6.7	3.1	29	16	12	2.5	1.1	2.5	1.1	33
18	1.6	6.5	6.6	3.0	25	14	13	2.3	29	2.5	.92	12
19	3.9	8.2	6.0	2.9	44	13	12	2.2	24	2.0	.84	2.9
20	14	6.3	5.7	5.0	109	12	17	8.2	11	1.8	1.0	1.4
21	5.8	4.5	5.3	7.5	84	11	28	24	5.4	2.9	1.2	.84
22	2.6	4.0	4.4	11	53	10	20	13	2.8	2.8	1.2	.60
23	1.6	3.6	4.5	10	42	30	18	7.4	2.0	1.5	1.0	.56
24	1.2	7.9	5.7	9.0	34	88	18	5.1	1.5	1.6	.92	.52
25	2.0	60	6.2	8.5	29	125	15	3.9	1.2	3.4	.84	.48
26	3.7	29	4.7	8.0	26	68	13	3.2	1.0	1.4	.64	.44
27	6.8	19	4.2	8.0	24	44	12	2.9	.89	1.2	.60	.43
28	4.1	19	4.9	8.0	22	32	9.9	3.0	.71	1.1	.52	.40
29	3.0	17	9.4	7.6	---	27	8.8	3.1	.61	.98	.52	.38
30	3.6	12	12	7.2	---	28	8.1	2.8	.58	.96	.52	.38
31	16	---	10	6.2	---	48	---	2.3	---	.89	.48	---
TOTAL	98.19	304.0	220.6	190.6	1605.2	926	534.8	171.3	168.29	1140.53	68.99	123.56
MEAN	3.17	10.1	7.12	6.15	57.3	29.9	17.8	5.53	5.61	36.8	2.23	4.12
MAX	16	60	12	11	383	125	34	24	29	684	17	45
MIN	.06	2.8	4.2	2.9	6.2	10	8.1	2.2	.58	.89	.48	.32
CFSM	.07	.22	.16	.13	1.25	.65	.39	.12	.12	.80	.05	.09
IN.	.08	.25	.18	.15	1.30	.75	.43	.14	.14	.92	.06	.10

CAL YR 1980 TOTAL 11081.25 MEAN 30.3 MAX 524 MIN .00 CFSM .66 IN 8.98
WTR YR 1981 TOTAL 5552.06 MEAN 15.2 MAX 684 MIN .06 CFSM .33 IN 4.50

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: 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 02077202 North Hyco Creek near Leasburg. Prior to October 1967 daily water temperature data published as North Hyco Creek near Leasburg.

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

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.0°C June 15, 16, 25; minimum, 0.0°C Feb. 4-8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	17.0	11.0	9.5	5.5	5.0	4.0	3.0	1.5	1.5	11.0	8.5
2	19.5	18.0	10.5	9.5	6.5	5.5	4.0	4.0	2.0	1.5	11.0	10.0
3	19.5	18.5	10.5	9.0	6.5	6.0	4.0	3.5	2.0	1.0	10.5	9.0
4	18.0	16.0	10.5	10.0	6.0	5.0	3.5	2.0	.5	.0	9.0	6.5
5	16.5	15.5	10.5	9.5	5.0	5.0	2.0	2.0	.0	.0	6.5	6.5
6	15.5	14.5	10.5	9.5	5.5	5.0	2.0	2.0	.0	.0	7.0	6.0
7	15.0	13.5	10.0	8.5	7.0	5.5	2.0	2.0	.0	.0	6.5	6.0
8	15.0	13.5	11.5	10.0	8.0	7.0	1.5	1.5	1.0	.0	6.5	5.5
9	16.0	14.0	12.0	11.0	9.0	8.0	1.5	1.5	1.5	1.0	6.5	5.5
10	16.0	15.5	12.0	11.5	9.5	9.0	1.5	1.5	1.5	1.0	6.0	5.5
11	16.5	15.5	12.0	10.0	9.5	8.0	1.5	1.5	6.0	1.5	---	---
12	16.5	14.0	10.0	8.5	8.0	6.0	1.5	1.5	6.0	3.0	---	---
13	14.0	13.0	9.0	8.0	6.0	5.5	1.5	1.5	3.0	1.0	---	---
14	13.0	11.0	8.5	8.0	6.0	5.5	1.5	1.5	1.5	1.0	---	---
15	11.5	11.0	9.0	8.5	5.5	5.0	1.0	1.0	3.5	1.5	---	---
16	13.0	11.0	9.5	9.5	5.0	5.0	1.0	1.0	3.5	3.0	---	---
17	13.5	12.0	9.5	9.0	5.0	4.5	1.0	1.0	5.5	3.5	---	---
18	16.0	13.5	9.0	8.5	5.0	4.5	1.0	1.0	8.0	5.5	---	---
19	16.5	16.0	8.5	6.5	4.5	4.5	1.0	1.0	8.5	8.0	7.0	6.0
20	16.5	14.5	6.5	5.5	4.5	4.5	1.0	1.0	8.5	8.5	6.5	5.0
21	15.5	13.5	6.0	5.5	4.5	3.0	1.0	1.0	8.5	8.5	7.0	4.5
22	14.5	13.0	5.5	4.5	3.0	2.0	1.0	1.0	9.5	8.5	6.0	5.0
23	14.5	14.0	5.0	5.0	2.0	2.0	1.0	1.0	10.0	9.5	5.0	2.0
24	14.0	13.0	6.0	5.0	2.0	2.0	1.0	1.0	9.5	8.0	6.0	3.5
25	13.0	13.0	7.0	6.0	2.0	1.5	1.0	1.0	8.0	6.0	7.0	6.0
26	13.0	10.5	7.0	6.0	1.5	1.5	1.0	1.0	8.0	6.5	8.0	6.5
27	11.5	10.0	6.5	6.5	1.5	1.5	2.0	1.5	8.0	6.0	9.5	8.0
28	11.5	10.5	6.5	6.0	1.5	1.5	3.5	2.0	8.5	6.0	10.0	8.0
29	11.5	11.5	6.0	5.5	1.5	1.5	3.5	3.0	---	---	10.5	8.5
30	11.5	11.0	5.5	5.0	2.0	1.5	3.5	2.0	---	---	11.5	10.5
31	11.0	10.0	---	---	3.0	2.0	2.0	1.5	---	---	13.0	10.5
MONTH	19.5	10.0	12.0	4.5	9.5	1.5	4.0	1.0	10.0	.0	13.0	2.0

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	13.0	19.5	18.0	25.0	23.5	21.5	20.0	24.0	20.5	23.5	21.5
2	14.5	11.5	19.0	15.5	23.5	21.5	20.0	19.5	23.5	21.0	23.0	22.0
3	14.5	12.0	17.0	13.5	23.0	21.5	20.0	19.5	24.5	21.5	23.5	22.0
4	16.0	14.5	18.5	14.0	24.0	23.0	19.5	18.5	25.5	23.0	23.5	23.0
5	16.0	15.5	19.0	15.0	25.5	24.5	20.5	19.0	26.0	23.5	23.0	22.0
6	15.5	13.5	19.0	17.0	25.5	23.5	22.0	20.5	26.0	24.5	22.0	21.5
7	14.0	11.0	19.0	16.5	24.5	23.0	22.0	21.0	26.0	24.0	23.0	21.5
8	14.0	11.5	16.5	13.5	25.5	23.5	24.5	21.5	25.5	24.5	22.0	21.5
9	14.5	11.5	16.5	14.5	25.5	24.0	25.0	22.0	26.0	24.0	21.5	20.0
10	15.5	13.5	15.5	15.0	28.0	25.0	26.5	24.0	26.0	24.5	20.5	18.5
11	18.5	16.0	19.0	15.5	28.0	25.5	26.5	24.5	24.5	23.5	20.5	18.5
12	20.0	18.0	20.0	17.0	27.0	24.5	26.0	24.5	23.0	21.5	21.0	19.5
13	20.0	16.5	19.0	15.5	26.0	24.0	26.5	24.5	23.5	21.5	21.5	19.5
14	16.0	15.0	20.0	16.0	28.5	25.0	26.0	24.5	23.5	21.5	22.0	20.0
15	19.0	16.0	20.5	18.5	29.0	25.5	25.5	23.5	24.0	22.0	23.0	21.0
16	17.0	14.0	20.0	16.5	29.0	25.0	26.0	23.0	24.5	24.0	23.0	21.0
17	16.5	15.5	19.0	16.5	28.5	25.5	24.5	22.0	25.0	23.5	21.0	20.5
18	19.0	15.0	19.5	18.0	27.0	23.0	24.5	22.0	23.5	20.5	20.5	19.0
19	19.5	15.5	19.0	15.5	24.0	22.0	24.5	23.0	21.5	20.0	19.0	16.5
20	19.0	17.0	15.0	13.5	25.0	23.0	25.5	24.0	20.0	19.5	18.0	15.5
21	17.0	14.5	16.0	13.0	27.0	24.0	25.5	23.5	20.0	18.5	18.0	15.5
22	15.5	13.5	18.5	14.5	28.5	25.0	25.5	23.0	20.5	20.0	18.5	16.0
23	18.0	15.5	20.0	16.0	28.5	25.5	24.5	23.0	20.5	19.0	18.5	17.0
24	18.5	17.0	21.5	17.0	28.0	25.0	24.0	22.0	23.0	20.0	18.0	15.0
25	18.0	15.0	22.0	19.0	29.0	25.5	23.0	21.5	22.0	20.5	16.5	14.5
26	18.0	14.5	22.0	20.0	26.5	25.5	25.0	23.0	21.5	19.5	16.0	14.5
27	20.0	16.0	22.0	21.0	25.5	22.0	26.0	24.0	21.0	19.0	16.5	15.0
28	20.0	18.5	21.5	20.5	24.0	20.5	26.5	24.5	21.5	19.5	16.5	16.0
29	21.0	19.0	22.0	20.0	23.5	19.5	26.5	24.5	21.5	20.0	16.5	15.0
30	20.0	18.5	24.5	20.0	22.0	20.0	26.0	23.0	21.0	20.5	15.0	15.0
31	---	---	25.0	21.5	---	---	24.0	24.5	23.5	20.5	---	---
MONTH	21.0	11.0	25.0	13.0	29.0	19.5	26.5	18.5	26.0	18.5	23.5	14.5
YEAR	29.0	.0										

02077240 DOUBLE CREEK NEAR ROSEVILLE, NC

LOCATION.--Lat 36°21'44", long 79°05'48", Person County, Hydrologic Unit 03010104, on left bank 21 ft (6 m) downstream from culvert on Secondary Road 1166, 1.0 mi (1.6 km) upstream from Mill Creek, and 3.0 mi (4.8 km) northwest of Roseville.

DRAINAGE AREA.--7.47 mi² (19.35 km²).

PERIOD OF RECORD.--May 1964 to September 1975. April 1977 to current year.

REVISED RECORDS.--WDR NC-72-1: 1964-66, 1967(M), 1968-71(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 450.39 ft (137.279 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Recording rain gage at station.

AVERAGE DISCHARGE.--15 years (water years 1965-75, 1978-81), 7.48 ft³/s (0.212 m³/s), 13.60 in/yr (345 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft³/s (96.0 m³/s), July 13, 1975, gage height, 7.41 ft (2.259 m), from rating curve extended above 620 ft³/s (17.6 m³/s) on basis of computation of peak flow through culvert at gage height 5.79 ft (1.765 m); minimum, 0.03 ft³/s (<0.001 m³/s) Oct. 3, 4, 5, 7, 1968, Oct. 6, 7, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s (4.81 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0530	272	7.70	4.21	1.283	July 24	2030	*290	8.21	*4.30	1.311
July 4	0445	183	5.18	3.73	1.137						

Minimum discharge, 0.04 ft³/s (0.001 m³/s) June 30-July 1, gage height, 1.45 ft (0.442 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	1.1	1.6	1.5	2.5	2.2	3.5	1.7	1.0	.51	.62	.43
2	1.3	.96	1.6	1.5	3.7	2.0	3.1	1.4	2.3	1.1	.56	.39
3	1.0	.96	1.5	1.3	3.5	1.9	2.7	1.3	2.2	1.5	.61	.41
4	1.1	3.9	1.5	1.1	2.7	2.3	2.6	1.2	2.9	46	.61	.36
5	.70	3.0	1.5	.88	2.3	5.3	3.0	1.3	1.4	5.1	.49	1.7
6	.70	1.4	1.5	.88	2.0	3.9	4.1	1.2	1.2	9.1	.82	1.1
7	.64	1.1	1.3	1.5	1.8	3.0	3.2	1.4	1.4	12	.84	3.6
8	.61	.96	1.3	1.4	2.2	2.6	2.9	1.3	.91	4.1	.59	1.8
9	.59	.89	1.4	1.2	3.0	2.4	3.5	1.2	.82	2.1	.57	1.1
10	.50	.94	2.1	1.1	5.0	2.4	3.9	1.6	.64	1.5	.48	.74
11	.57	1.0	2.0	1.0	64	2.2	3.3	2.0	.51	1.8	5.2	.65
12	.40	.90	1.5	.94	11	2.1	3.0	1.4	.47	.91	5.4	.55
13	.38	.88	1.5	.90	6.6	2.0	2.7	1.0	.66	.78	2.2	.48
14	.45	.96	1.4	.85	5.2	1.9	2.6	.98	.70	.71	1.2	.42
15	.50	1.1	1.3	.80	4.1	1.8	2.4	.94	.43	.65	.86	.30
16	.50	1.1	1.5	.77	3.5	2.1	2.2	.87	.32	.67	.76	2.1
17	.48	1.3	1.4	.74	3.2	1.9	2.3	.81	.26	.80	.84	1.6
18	.53	2.0	1.3	.72	2.9	1.8	2.4	.84	.85	.53	.58	.98
19	5.1	1.3	1.3	.70	3.3	1.7	2.1	1.3	.79	.46	2.1	.77
20	1.3	1.1	1.1	.68	4.5	1.7	4.1	3.8	.47	.45	2.6	.60
21	.80	.96	.95	1.4	3.7	1.6	3.6	3.6	.30	.48	1.1	.51
22	.69	.96	.88	2.5	3.1	1.7	2.8	1.8	.20	.32	.82	.47
23	.79	.96	1.2	1.8	2.9	6.1	2.6	1.4	.14	.28	.76	.39
24	.96	6.4	1.4	1.6	2.7	9.1	2.8	1.2	.10	30	.69	.33
25	2.0	4.9	1.1	1.3	2.4	6.5	2.2	1.0	.08	10	.57	.37
26	2.0	2.6	.96	1.1	2.3	4.6	2.0	.93	.16	3.5	.49	.37
27	1.1	2.4	.96	1.0	2.2	3.8	1.9	.93	.13	2.4	.45	.34
28	1.1	2.6	1.2	.90	2.2	3.2	1.7	1.4	.06	3.8	.42	.30
29	1.1	2.2	2.2	.85	---	2.9	1.6	1.1	.05	2.0	.39	.25
30	3.0	1.8	1.8	1.2	---	4.1	1.6	.91	.05	.98	.57	.27
31	2.0	---	1.6	1.8	---	4.4	---	.78	---	.70	.56	---
TOTAL	35.49	52.63	43.85	35.91	158.5	95.2	82.4	42.59	21.50	145.23	34.75	23.68
MEAN	1.14	1.75	1.41	1.16	5.66	3.07	2.75	1.37	.72	4.68	1.12	.79
MAX	5.1	6.4	2.2	2.5	64	9.1	4.1	3.8	2.9	46	5.4	3.6
MIN	.38	.88	.88	.68	1.8	1.6	1.6	.78	.05	.28	.39	.25
CFSM	.15	.23	.19	.16	.76	.41	.37	.18	.10	.63	.15	.11
IN.	.18	.26	.22	.18	.79	.47	.41	.21	.11	.72	.17	.12

CAL YR 1980 TOTAL 1673.81 MEAN 4.57 MAX 55 MIN .09 CFSM .61 IN 8.33
WTR YR 1981 TOTAL 771.73 MEAN 2.11 MAX 64 MIN .05 CFSM .28 IN 3.84

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC

LOCATION.--Lat 36°31'24" (revised), long 78°59'48", Person County, Hydrologic Unit 03010104, on right bank 600 ft (183 m) downstream from afterbay dam of Carolina Power and Light Company, 1.2 mi (1.9 km) upstream from Ghent Creek, and 1.8 mi (2.9 km) east-northeast of McGehees Mill.

DRAINAGE AREA.--202 mi² (523 km²), revised.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 342.98 ft (104.540 m) National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Company). August, 1964 to September, 1973, at site, 2.8 mi (4.5 km) upstream at datum 349.78 ft (106.613 m) National Geodetic Vertical Datum of 1929. Published as Hyco River at McGehees Mill, NC.

REMARKS.--Water-discharge record good above 10 ft³/s (0.28 m³/s), and poor below. Flow regulated by Roxboro Steam-Electric Generating Plant afterbay Reservoir (see p. 330).

AVERAGE DISCHARGE.--8 years, 191 ft³/s (5.409 m³/s), 12.84 in/yr (326 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/s (320 m³/s) July 14, 1975, gage height, 24.40 ft (7.437 m); no flow part of day June 26, 1980; minimum daily, 0.31 ft³/s (0.009 m³/s) Sept. 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft³/s (7.02 m³/s) July 4, gage height, 4.72 ft (1.439 m); minimum, 2.0 ft³/s (0.057 m³/s) Apr. 16; minimum daily, 3.1 ft³/s (0.088 m³/s) Apr. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	32	25	26	7.0	9.1	26	11	6.6	11	15	13
2	42	32	25	26	7.3	9.1	14	10	6.6	12	15	13
3	42	32	25	26	7.4	9.1	25	9.8	13	12	15	13
4	41	32	24	26	8.8	9.1	22	9.7	24	121	15	13
5	41	27	24	26	8.5	9.7	23	9.7	24	20	15	16
6	40	16	24	26	8.3	9.7	21	9.7	23	18	15	14
7	40	15	24	26	8.0	10	17	9.7	23	18	22	16
8	40	15	24	26	7.8	11	16	10	22	19	15	14
9	39	15	23	26	7.5	11	17	9.7	20	19	15	13
10	38	16	24	26	7.4	11	15	10	18	19	15	13
11	38	16	24	26	77	12	8.1	9.5	17	19	14	13
12	39	16	22	25	17	12	6.5	8.2	17	19	14	13
13	36	16	22	26	6.8	13	7.3	7.3	14	19	13	13
14	31	19	22	25	5.2	14	5.7	7.1	14	19	13	13
15	31	23	22	25	5.0	14	3.1	7.0	13	19	13	13
16	31	23	22	25	4.6	14	3.8	6.8	13	20	13	15
17	31	23	22	25	3.6	13	4.7	6.8	13	19	14	14
18	31	23	22	25	4.6	15	4.7	6.8	12	15	13	13
19	32	22	22	25	6.3	15	4.8	6.9	12	15	13	13
20	32	24	22	21	9.1	16	4.8	7.5	12	15	13	13
21	32	27	22	7.1	14	20	3.8	6.9	12	15	13	13
22	32	27	22	6.9	13	22	12	6.5	11	15	13	13
23	33	26	22	6.8	12	23	29	6.8	11	15	13	13
24	32	27	22	7.4	12	25	27	6.4	12	15	13	13
25	33	26	22	7.4	10	27	24	6.3	12	15	13	13
26	33	26	22	7.0	9.7	32	23	6.3	12	15	13	12
27	33	26	22	6.8	9.7	33	21	6.3	11	15	13	12
28	33	26	22	7.1	9.1	35	17	6.4	11	15	13	13
29	32	26	22	6.8	---	37	15	6.8	11	15	13	13
30	33	25	24	6.9	---	38	13	6.5	11	15	13	13
31	32	---	26	7.3	---	37	---	6.6	---	15	13	---
TOTAL	1095	699	712	585.5	306.7	565.8	434.3	245.0	431.2	613	433	399
MEAN	35.3	23.3	23.0	18.9	11.0	18.3	14.5	7.90	14.4	19.8	14.0	13.3
MAX	42	32	26	26	77	38	29	11	24	121	22	16
MIN	31	15	22	6.8	3.6	9.1	3.1	6.3	6.6	11	13	12

CAL YR 1980 TOTAL 47911.0 MEAN 131 MAX 1480 MIN 11
WTR YR 1981 TOTAL 6519.5 MEAN 17.9 MAX 121 MIN 3.1

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

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1974 to current year.

INSTRUMENTATION.--Temperature recorder since June 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: 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 TEMPERATURES: Maximum, 30.5°C June 23; minimum, 5.5°C Jan. 6-31, Feb. 1-5.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	15.0	21.0	20.0	24.5	23.0	26.0	25.5	27.0	25.0	25.5	24.0
2	17.0	15.5	21.0	19.5	24.5	22.0	25.5	25.5	27.0	25.0	24.5	24.0
3	17.0	16.0	21.0	18.5	24.5	23.0	25.5	24.5	28.0	26.0	25.5	24.5
4	18.0	16.5	21.0	18.5	25.5	24.5	25.0	24.0	28.0	26.0	24.5	24.0
5	17.0	17.0	21.0	19.0	26.5	25.5	26.0	25.0	28.0	26.0	24.5	24.0
6	17.0	16.0	20.5	19.5	26.0	25.5	26.0	25.5	28.0	26.5	25.0	24.0
7	16.5	15.5	20.5	18.5	26.5	25.5	26.5	25.5	28.0	26.0	25.0	24.0
8	17.0	15.5	20.0	17.0	26.0	25.0	26.5	25.0	28.0	26.0	24.5	24.0
9	16.5	16.0	19.0	18.0	28.0	26.0	27.0	25.5	29.0	26.5	25.0	23.5
10	18.0	16.0	18.5	18.5	28.0	27.0	28.0	26.0	28.0	26.0	25.0	23.0
11	18.0	16.0	18.5	20.5	28.0	26.5	27.0	26.0	27.0	26.5	25.0	23.5
12	19.5	18.0	21.5	19.5	26.5	26.0	27.0	26.0	27.0	26.0	25.0	23.5
13	18.5	17.0	21.5	19.5	28.0	26.0	28.5	26.5	27.0	25.5	25.5	24.0
14	19.0	17.0	22.0	20.0	29.0	26.5	28.5	27.0	27.0	25.0	25.0	23.5
15	22.0	17.0	22.0	20.5	29.5	28.0	28.0	26.0	27.0	25.5	26.0	25.0
16	18.5	16.0	23.0	20.5	29.5	28.0	26.0	25.5	28.5	26.5	26.0	25.0
17	18.0	18.0	23.0	20.5	29.5	28.5	28.0	26.0	26.5	25.0	25.0	24.5
18	19.5	18.0	21.5	20.0	28.5	27.0	28.0	25.5	26.5	24.5	24.5	23.5
19	20.5	18.0	20.0	19.0	28.5	27.0	27.0	25.5	25.0	24.5	24.5	23.0
20	19.5	18.5	19.0	18.0	29.0	27.0	28.0	26.5	25.5	24.0	23.5	22.0
21	20.5	17.0	20.5	18.0	29.5	28.0	28.5	26.5	25.5	23.5	23.5	21.5
22	19.0	16.5	21.0	18.0	30.0	28.5	28.0	26.0	24.0	23.5	23.5	21.5
23	19.5	18.5	22.0	19.0	30.5	29.0	28.0	25.5	24.5	23.0	23.0	21.5
24	19.5	18.5	23.0	19.5	29.5	28.0	27.0	26.0	25.0	23.5	22.0	20.5
25	18.5	18.0	23.5	20.0	30.0	28.5	27.0	25.5	25.0	23.5	21.5	21.0
26	19.0	17.0	23.5	21.5	30.0	29.0	28.0	26.0	24.5	23.0	21.5	20.5
27	20.0	18.5	23.0	21.5	29.5	28.0	28.5	26.5	25.0	23.0	21.5	20.5
28	21.0	19.0	22.0	20.5	29.0	26.0	28.5	26.0	25.5	23.5	23.0	21.5
29	21.0	20.5	23.5	21.5	28.5	25.5	28.5	26.5	24.0	23.5	21.5	20.5
30	21.5	20.5	24.0	21.5	28.0	26.0	27.0	25.5	24.5	24.0	21.5	20.5
31	---	---	25.5	23.0	---	---	28.0	25.0	25.5	24.0	---	---
MONTH	22.0	15.0	25.5	17.0	30.5	22.0	28.5	24.0	29.0	23.0	26.0	20.5
YEAR	30.5	5.5										

02077670 MAYO CREEK NEAR BETHEL HILL, NC

LOCATION (REVISED).--Lat 36°32'31", long 78°52'19", Person County, Hydrologic Unit 03010104, on right bank 0.1 mi (0.2 km) upstream from Virginia State line, 0.3 mi (0.5 km) downstream from Mayo Steam Electric Generating Plant Dam 2.9 mi (4.7 km) northeast of Bethel Hill, and 4.8 mi (7.7 km) downstream from Spoonwater Creek.

DRAINAGE AREA.--53.5 mi² (138.6 km²), revised.

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

GAGE.--Water-stage recorder. Datum of gage is 338.84 ft (103.278 m) National Geodetic Vertical Datum of 1929 (levels by Carolina Power & Light Company).

REMARKS.--Records excellent. Construction of Mayo Steam Electric Generating Plant Dam completed and gates closed Aug. 1, 1980 (see p. 330).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s (112 m³/s) Apr. 26, 1978; no flow Aug. 1-13, 1977; no flow Aug. 28 to Sept. 30, 1980 and many days during 1981 water year due to regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 4, 1974 reached a stage of 11.11 ft (3.39 m) from floodmarks, discharge, 4,300 ft³/s (122 m³/s); no flow July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft³/s (1.25 m³/s) Sept. 16, gage height, 2.64 ft (0.805 m); no flow many days during year due to regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.03	.00	.00	.00	.00	.11	.02	.03	.01	.00	.00
2	.00	.00	.00	.00	.20	.00	.12	.00	.04	.00	.00	.00
3	.00	.00	.00	.00	.17	.00	.40	.00	.03	.05	.00	.00
4	.00	.27	.00	.00	.04	.04	.23	.00	.00	4.2	.00	.00
5	.00	.03	.00	.02	.00	.19	.40	.00	.31	.13	.00	2.1
6	.00	.00	.00	.04	.00	.12	1.0	.00	.06	.44	.00	.23
7	.00	.00	.00	.00	.01	.06	.30	.00	.11	1.1	.03	1.8
8	.00	.00	.02	.00	.07	.04	.29	.00	.07	.48	.00	.14
9	.00	.00	.18	.00	.05	.03	.59	.00	.06	.16	.00	.04
10	.00	.00	.25	.00	.05	.02	.45	.00	.04	.22	.17	.01
11	.00	.00	.01	.00	5.8	.01	.09	.00	.03	.27	.11	.00
12	.00	.00	.00	.00	.25	.00	.06	.02	.04	.09	.01	.00
13	.00	.00	.00	.00	.07	.00	.23	.05	.05	.04	.00	.00
14	.00	.00	.00	.00	.05	.00	.43	.09	.06	.01	.00	.00
15	.00	.00	.00	.00	.04	.00	.40	.08	.08	.00	.00	.00
16	.00	.00	.03	.00	.03	.02	.03	.06	.08	.02	.00	3.0
17	.00	.00	.00	.00	.04	.02	.04	.05	.08	.03	.33	.18
18	.00	.00	.00	.00	.03	.02	.09	.13	.13	.01	.22	.06
19	.00	.00	.00	.01	.11	.02	.04	.14	.07	.00	.23	.02
20	.00	.00	.00	.00	.37	.02	.12	1.4	.04	.03	.07	.00
21	.00	.00	.00	.00	.16	.03	.08	.57	.02	.03	.01	.00
22	.00	.00	.00	.00	.07	.04	.10	.28	.04	.00	.00	.00
23	.00	.00	.00	.00	.05	.97	.07	.19	.03	.00	.00	.00
24	.00	.00	.00	.00	.03	.73	.09	.14	.02	.01	.00	.00
25	.00	.00	.00	.00	.02	.39	.05	.12	.33	.02	.00	.00
26	.00	.00	.00	.02	.00	.22	.03	.11	.24	.00	.00	.00
27	.09	.00	.00	.00	.00	.18	.05	.09	.05	.00	.00	.00
28	.09	.00	.00	.00	.00	.14	.03	.05	.01	.00	.00	.00
29	.00	.00	.00	.00	---	.13	.02	.05	.05	.00	.00	.00
30	.08	.00	.00	.00	---	.38	.01	.04	.04	.00	.00	.00
31	.09	---	.00	.00	---	.62	---	.03	---	.00	.00	---
TOTAL	.35	.33	.49	.09	7.71	4.44	5.95	3.71	2.24	7.35	1.18	7.58
MEAN	.011	.011	.016	.003	.28	.14	.20	.12	.075	.24	.038	.25
MAX	.09	.27	.25	.04	5.8	.97	1.0	1.4	.33	4.2	.33	3.0
MIN	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00

CAL YR 1980 TOTAL 10139.69 MEAN 27.7 MAX 334 MIN .00
WTR YR 1981 TOTAL 41.42 MEAN .11 MAX 5.8 MIN .00

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC

LOCATION.--Lat 36°27'37", long 77°38'04", Halifax County, Hydrologic Unit 03010107, on right bank 1.2 mi (1.9 km) downstream from bridge on State Highway 48 at Roanoke Rapids, 2.5 mi (4.0 km) upstream from Chockoyotte Creek, 2.8 mi (4.5 km) downstream from Roanoke Rapids dam, and 133.6 mi (215.0 km) upstream from mouth in Albemarle Sound.

DRAINAGE AREA.--8,386 mi² (21,720 km²), revised.

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.

GAGE.--Water-stage recorder. Datum of gage is 43.84 ft (13.362 m) 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 (14 km) upstream at different datum. Aug. 6, 1941 to Mar. 1, 1973, auxiliary water-stage recorder, 3.6 mi (5.8 km) downstream from base gage. Gage height telemeter at station.

REMARKS.--Water-discharge record excellent. Flow regulated since August 1950 by Philpott Lake on Smith River, usable capacity, 6,325,000,000 ft³ (179,124,000 m³); since September 1950 by John H. Kerr Reservoir, usable capacity, 101,247,000,000 ft³ (2,867,315,000 m³); since June 1955 by Roanoke Rapids Lake (see p. 328); since September 1962 by Leesville Lake, since October 1962 by Lake Gaston (see p. 328); and since September 1963 by Smith Mountain Lake.

AVERAGE DISCHARGE.--69 years (1912-81) 3,059 ft³/s (228.8 m³/s) adjusted for storage, 13.08 in/yr (332 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 261,000 ft³/s (7,390 m³/s) Aug. 18, 1940, gage height, 39.0 ft (11.89 m) from floodmarks; minimum, about 250 ft³/s (7.08 m³/s) Dec. 16, 1955; minimum daily, 472 ft³/s (13.4 m³/s) Sept. 21, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877, discharge, 212,000 ft³/s (6,000 m³/s), reached a stage of about 2 ft (0.61 m) lower at Old Gaston than flood in August 1940 which was 21.5 ft (6.55 m). Flood in August 1940 is the maximum known since at least 1771.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,600 ft³/s (527 m³/s) Jan. 30, gage height, 8.33 ft (2.539 m); minimum, 960 ft³/s (27.2 m³/s) Feb. 18, gage height, 1.90 ft (0.579 m); minimum daily, 1,130 ft³/s (32.0 m³/s) Mar. 1, 15, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2100	1300	4140	1180	1600	1130	2530	6110	3220	2600	2420	2890
2	2030	1220	4910	1140	4180	4230	2640	5160	4170	2650	2290	2310
3	2400	2590	7470	1150	6160	2750	2580	6160	3040	2690	2280	2280
4	2080	1580	8280	8510	5040	1550	2280	6130	3860	2520	2310	2330
5	1970	3600	2600	15600	3350	2770	2260	6170	4070	2440	2410	2380
6	1980	3160	1310	12900	2400	2970	2240	6110	2440	3520	2340	2370
7	2060	2510	1230	9850	1190	2180	2320	6080	2680	3680	2320	2360
8	2120	1820	2300	12000	1190	1150	2250	2350	4380	5860	2330	2390
9	2580	1190	1500	4150	1180	2270	2290	2280	9570	9360	2300	2390
10	1850	1330	2120	1620	1750	2250	2260	2310	2530	2940	2370	2380
11	1800	3440	4320	1230	1220	1780	2280	3100	2630	2400	2410	5750
12	1760	2800	4350	8510	5030	1980	2260	8980	2340	6800	2740	2420
13	1830	1260	2980	5150	1970	1200	9880	2290	10300	4940	2300	2910
14	3600	1230	1240	1600	1650	1160	3070	2280	10600	2400	2360	5040
15	5750	1550	4820	1230	1180	1130	2280	2870	6920	2380	2440	3100
16	3010	2190	1630	1510	1970	3950	2660	2270	2400	2450	2310	2270
17	1860	1750	4460	7130	1170	4960	2280	2270	2400	3060	2380	2370
18	1860	6110	2850	1390	1600	4520	2290	2570	2700	2350	2390	2460
19	2030	6250	1180	1440	1220	2920	2260	7480	4100	2360	2430	2530
20	1760	4410	4680	2250	6340	2760	2460	3900	2600	6430	2380	2590
21	1790	2690	1280	2120	4590	4440	2250	3690	2200	3500	2400	4040
22	1800	1520	6620	2720	1180	1280	2250	2250	3700	3230	2360	2420
23	1900	1240	1640	2420	2170	3670	2240	2240	3000	2640	2540	2620
24	2800	2220	1200	1390	4130	1520	2250	2250	3460	2470	2350	2270
25	1800	1240	6120	1640	3260	1230	2260	2260	5360	2390	2300	2270
26	2460	2560	6800	1320	2760	1170	2260	4650	2630	2390	3340	2270
27	5680	4510	2640	1280	1660	1160	2250	2530	2730	5610	7210	2300
28	1750	8980	1390	2750	2030	1130	4560	3940	2690	4720	2690	2300
29	2150	2020	1180	3210	---	1140	6130	4020	2500	2440	2560	2280
30	1800	1530	2120	11100	---	1560	6120	4380	2430	2350	2330	2270
31	2480	---	6560	9090	---	2120	---	3100	---	2440	2300	---
TOTAL	72840	79800	105920	138580	73170	70030	87940	123180	117650	108010	79890	80560
MEAN	2350	2660	3417	4470	2613	2259	2931	3974	3922	3484	2577	2685
MAX	5750	8980	8280	15600	6340	4960	9880	8980	10600	9360	7210	5750
MIN	1750	1190	1180	1140	1170	1130	2240	2240	2200	2350	2280	2270
(†)	-2	+475	-1066	-2163	+3845	+1537	+1525	-798	-1317	-507	-1490	-321

CAL YR 1980 TOTAL 2674530 MEAN 7307 MAX 19700 MIN 1090 MEAN‡ 7120 CFSM‡ 0.85 IN‡ 11.54
WTR YR 1981 TOTAL 1137570 MEAN 3117 MAX 15600 MIN 1130 MEAN‡ 3059 CFSM‡ 0.36 IN‡ 4.89

† 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 Corps of Engineers; and Lake Gaston and Roanoke Rapids Lake, furnished by Virginia Electric and Power Co.

‡ Adjusted for change in contents.

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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURES: October 1948 to September 1949, October 1976 to current year.

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 (1.9 km) upstream from gaging station. Miscellaneous chemical data collected at bridge on State Highway 48 and/or at gaging station 1.2 mi (1.9 km) downstream are published for water years 1946-47, 1955-67.

COOPERATION.--Pesticide samples were collected by the U.S. Geological Survey and were analyzed by the Environmental Protection Agency.

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

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 153 micromhos Sept. 15; minimum daily, 84 micromhos Dec. 2, 6, 20.
WATER TEMPERATURES: Maximum daily, 29.0°C June 21, 22, 23, 25, 26; minimum daily, 3.5°C Feb. 7-12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT											
07...	1445	2050	95	6.1	21.0	1.7	9.5	K2	K1	29	0
NOV											
04...	1230	1530	95	7.1	14.5	.50	10.1	K8	K4	27	0
DEC											
08...	1400	1510	92	7.4	8.5	1.3	12.7	K1	K9	28	0
JAN											
14...	1330	1330	110	5.9	3.5	1.0	12.6	K10	K4	30	0
FEB											
24...	1200	1860	110	6.7	7.5	.40	12.6	<1	<1	26	0
MAR											
25...	1045	1230	115	7.0	7.0	.40	13.0	K1	K1	29	0
APR											
27...	1015	2240	116	7.3	17.0	3.2	9.8	<1	K5	32	0
MAY											
26...	1000	2780	119	7.5	19.5	1.6	9.1	K1	K3	35	0
JUN											
17...	1300	2350	110	7.0	26.5	2.3	7.7	K6	K17	31	0
JUL											
13...	1630	1380	110	6.8	29.5	1.3	8.3	K6	K5	30	0
AUG											
31...	1200	2380	108	6.8	24.5	1.0	8.1	7	K320	29	0
SEP											
16...	1230	2310	115	7.2	25.5	1.2	7.2	K12	K320	26	0

K Results based on colony count outside the acceptable range (non-ideal colony count).

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
07...	6.9	2.9	6.2	30	.5	1.8	40	0	33	37	6.6
NOV											
04...	6.1	2.8	6.7	33	.6	1.9	39	0	32	3.9	5.4
DEC											
08...	6.5	2.9	7.8	36	.6	1.8	40	0	33	2.1	5.9
JAN											
14...	7.0	3.0	8.7	36	.7	2.8	41	0	34	59	7.6
FEB											
24...	7.3	2.0	9.3	41	.8	1.9	40	0	33	8.6	8.0
MAR											
25...	7.4	2.5	9.1	39	.7	2.1	46	0	38	5.1	7.4
APR											
27...	7.6	3.2	10	38	.8	2.1	43	0	35	2.7	8.3
MAY											
26...	8.2	3.5	13	43	1.0	2.1	44	0	36	2.6	8.4
JUN											
17...	7.3	3.0	10	40	.8	2.0	40	0	33	5.1	7.8
JUL											
13...	7.0	3.0	11	42	.9	2.1	42	0	34	9.0	7.6
AUG											
31...	7.2	2.7	10	41	.8	1.9	40	0	33	10	7.6
SEP											
16...	6.9	2.2	10	43	.8	2.0	47	0	39	3.7	7.1

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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (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)
OCT											
07...	6.0	.2	9.1	66	55	.09	365	.09	.10	.070	.100
NOV											
04...	6.4	.1	7.1	60	52	.08	248	.16	.17	.050	.050
DEC											
08...	6.3	.1	6.7	60	55	.08	245	.22	.22	.000	.030
JAN											
14...	8.5	.1	9.2	79	63	.11	284	.23	.25	.070	.070
FEB											
24...	9.2	.1	8.5	81	61	.11	407	.27	.27	.040	.020
MAR											
25...	9.3	.1	8.5	71	63	.10	236	.20	.21	.010	.030
APR											
27...	9.2	.1	5.6	68	63	.09	411	.10	.10	<.010	<.010
MAY											
26...	9.6	.1	2.7	74	73	.10	555	.05	.04	.060	.040
JUN											
17...	9.3	.1	4.1	55	60	.07	349	.05	.06	<.010	.020
JUL											
13...	9.5	.1	4.5	62	62	.08	231	.04	.05	.020	.020
AUG											
31...	9.3	.1	6.1	71	65	.10	456	.02	.03	.020	.050
SEP											
16...	9.1	.1	5.4	69	61	.09	430	.03	<.01	.040	.020

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)
OCT										
07...	.08	.13	.39	.31	.46	.05	.41	.55	2.4	.51
NOV										
04...	.06	.06	.53	--	.58	--	--	.74	3.3	--
DEC										
08...	.00	.04	.19	.06	.19	.10	.09	.41	1.8	.31
JAN										
14...	.08	.09	.13	.12	.20	.01	.19	.43	1.9	.44
FEB										
24...	--	.03	.21	.13	.25	.10	.15	.52	2.3	.42
MAR										
25...	--	.04	.37	.22	.38	.13	.25	.58	2.6	.46
APR										
27...	--	.01	--	--	.29	.00	.33	.39	1.7	.43
MAY										
26...	--	.05	.45	.32	.51	.15	.36	.56	2.5	.40
JUN										
17...	--	.03	--	.21	.28	.05	.23	.33	1.5	.29
JUL										
13...	--	.03	.38	.52	.40	.00	.54	.44	1.9	.59
AUG										
31...	--	.06	.28	.34	.30	.00	.39	.32	1.4	.42
SEP										
16...	--	.03	--	--	<.10	--	<.10	--	--	--

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT										
07...	.030	.09	.030	--	--	--	--	--	--	--
NOV										
04...	.010	.03	.010	0	0	0	<50	--	30	0
DEC										
08...	.020	.06	.000	--	--	--	--	--	--	--
JAN										
14...	.010	.03	.000	2	0	2	100	70	30	0
FEB										
24...	.020	.06	.010	--	--	--	--	--	--	--
MAR										
25...	.010	.03	.010	--	--	--	--	--	--	--
APR										
27...	.020	.06	<.010	--	--	--	--	--	--	--
MAY										
26...	.020	.06	<.010	0	0	0	<50	--	20	1
JUN										
17...	<.010	.03	<.010	--	--	--	--	--	--	--
JUL										
13...	<.010	.03	<.010	--	--	--	--	--	--	--
AUG										
31...	.010	.03	<.010	--	--	--	--	--	--	--
SEP										
16...	.020	.06	<.010	1	0	1	100	0	100	1

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV, (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
OCT										
07...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	0	1	<10	--	10	0	0	0	1	1
DEC										
08...	--	--	--	--	--	--	--	--	--	--
JAN										
14...	0	3	30	10	20	0	0	1	1	1
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
25...	--	--	--	--	--	--	--	--	--	--
APR										
27...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	--	<1	<10	--	<10	1	1	0	4	3
JUN										
17...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
31...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	0	1	20	10	10	1	--	<1	3	2

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV, (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
07...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	0	180	180	0	1	1	0	100	100	0
DEC										
08...	--	--	--	--	--	--	--	--	--	--
JAN										
14...	0	180	160	20	2	0	2	60	30	30
FEB										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
25...	--	--	--	--	--	--	--	--	--	--
APR										
27...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	1	170	--	<10	1	1	0	40	--	<1
JUN										
17...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
31...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	1	600	590	10	3	1	2	70	60	10

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT									
07...	--	--	--	--	--	--	--	--	--
NOV									
04...	.2	.1	.1	5	5	0	0	0	0
DEC									
08...	--	--	--	--	--	--	--	--	--
JAN									
14...	.2	.0	.2	2	0	3	0	0	0
FEB									
24...	--	--	--	--	--	--	--	--	--
MAR									
25...	--	--	--	--	--	--	--	--	--
APR									
27...	--	--	--	--	--	--	--	--	--
MAY									
26...	<.1	--	<.1	6	6	0	0	0	0
JUN									
17...	--	--	--	--	--	--	--	--	--
JUL									
13...	--	--	--	--	--	--	--	--	--
AUG									
31...	--	--	--	--	--	--	--	--	--
SEP									
16...	<.1	--	--	1	--	<1	<1	--	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT									
07...	--	--	--	--	--	--	3.4	--	--
NOV									
04...	0	0	0	10	10	0	--	11	.5
DEC									
08...	--	--	--	--	--	--	2.7	--	--
JAN									
14...	1	1	0	10	--	<4	--	6.5	.6
FEB									
24...	--	--	--	--	--	--	4.4	--	--
MAR									
25...	--	--	--	--	--	--	2.6	--	--
APR									
27...	--	--	--	--	--	--	2.6	--	--
MAY									
26...	0	0	0	30	--	<4	--	2.5	.3
JUN									
17...	--	--	--	--	--	--	2.7	--	--
JUL									
13...	--	--	--	--	--	--	3.1	--	--
AUG									
31...	--	--	--	--	--	--	3.5	--	--
SEP									
16...	<1	--	<1	40	--	<10	--	2.6	.3

WATER QUALITY DATA, PERIOD JUNE TO SEPTEMBER 1980

DATE	TIME	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
AUG											
05...	1300	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
AUG										
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND Not detected.

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

PHYTOPLANKTON ANALYSES, SEPTEMBER 1980

DATE	SEP 3,80
TIME	1200
TOTAL CELLS/ML	10000
DIVERSITY: DIVISION	1.2
.CLASS	1.2
..ORDER	1.6
...FAMILY	2.4
....GENUS	3.2

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	*	0
....CHODATELLA	*	0
....DICTYOSPHAERIUM	560	5
....TETRAEDRON	160	2
...SCENEDESMACEAE		
....CRUCIGENIA	400	4
....SCENEDESMUS	380	4
..TETRASPORALES		
...COCCOMYXACEAE		
....PLAKATOTHRIX	*	0
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	110	1
..ZYGNEMATALES		
...DESMIDIACEAE		
....EUASTRUM	*	0
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	*	0
....MELOSIRA	110	1
..PENNALES		
...FRAGILARIACEAE		
....FRAGILARIA	920	9
....SYNEDRA	67	1
...NITZSCHIACEAE		
....NITZSCHIA	89	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	540	5
..HORMOGONALES		
...NOSTOCACEAE		
....ANABAENOPSIS	1100	11
....APHANIZOMENON	560	5
...OSCILLATORIACEAE		
....LYNGBYA	3500#	34
....OSCILLATORIA	1500	15
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	*	0
....TRACHELOMONAS	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 4,80		MAR 25,81		MAY 26,81		JUN 17,81		JUL 13,81		AUG 31,81	
TIME	1230		1045		1000		1300		1630		1200	
TOTAL CELLS/ML	2000		1100		3300		660		2000		2400	
DIVERSITY: DIVISION	1.0		1.3		1.6		1.4		1.3		1.7	
.CLASS	1.0		1.3		1.6		1.4		1.3		1.7	
..ORDER	1.7		2.1		2.5		1.9		1.5		2.3	
...FAMILY	1.8		2.3		2.7		2.3		1.7		2.8	
....GENUS	1.9		2.5		3.0		2.4		1.9		3.4	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...COELASTRACEAE												
....COELASTRUM	--	-	52	5	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	100#	16	--	-	120	5
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-	14	1
....MICRACTINIUM	--	-	78	7	--	-	--	-	39	2	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	39	2	26	2	220	7	--	-	13	1	220	9
....DICTYOSPHAERIUM	--	-	--	-	*	0	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	--	-	--	-	--	-	29	1
....OOCYSTIS	--	-	--	-	140	4	26	4	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	26	1	270	12
....TETRAEDRON	--	-	--	-	--	-	--	-	120	6	58	2
....TREUBARIA	--	-	--	-	*	0	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	52	3	--	-	140	4	51	8	77	4	86	4
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-	29	1
...PALMELLACEAE												
....GLOEOCYSTIS	--	-	--	-	1000#	31	--	-	--	-	--	-
....SPHAEROCYSTIS	--	-	--	-	--	-	100#	16	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	52	5	*	0	13	2	26	1	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....EUASTRUM	--	-	--	-	--	-	--	-	--	-	43	2
....STAURASTRUM	--	-	--	-	--	-	--	-	13	1	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	52	3	--	-	70	2	13	2	39	2	29	1
....MELOSIRA	280	14	480#	44	130	4	300#	45	190	10	820#	35
....STEPHANODISCUS	--	-	39	4	*	0	--	-	--	-	--	-
..PENNALES												
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	840#	26	--	-	--	-	120	5
....SYNEDRA	52	3	250#	23	--	-	--	-	--	-	72	3
...NAVICULACEAE												
....NAVICULA	--	-	--	-	*	0	--	-	13	1	--	-
...NITZSCHIACEAE												
....NITZSCHIA	26	1	--	-	*	0	--	-	13	1	29	1

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 4,80		MAR 25,81		MAY 26,81		JUN 17,81		JUL 13,81		AUG 31,81	
TIME	1230		1045		1000		1300		1630		1200	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	26	2	--	-	--	-	--	-	29	1
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	110	3	--	-	--	-	--	-
....ANACYSTIS	390#	19	65	6	200	6	39	6	1400#	69	120	5
..HORMOGONALES												
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	280	9	--	-	--	-	170	7
....OSCILLATORIA	1100#	56	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	14	1
....PHACUS	--	-	--	-	*	0	--	-	13	1	--	-
....TRACHELOMONAS	--	-	--	-	*	0	--	-	--	-	100	4
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	26	2	--	-	13	2	39	2	--	-
...PERIDINIACEAE												
....PERIDINIUM	--	-	--	-	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	101	96	108	117	118	127	116	128	117	111	133
2	86	90	84	113	116	110	127	113	128	137	111	151
3	87	100	93	114	115	116	127	116	121	134	117	117
4	88	102	88	109	115	117	127	116	121	136	115	136
5	86	102	90	116	119	116	113	118	121	119	117	133
6	88	98	84	115	118	117	127	118	121	110	119	122
7	86	95	85	114	116	118	113	118	117	139	111	138
8	88	94	93	114	117	124	113	118	122	110	117	112
9	88	102	94	117	117	129	127	118	122	140	115	131
10	88	100	92	114	113	108	127	118	112	117	117	122
11	87	96	91	117	113	114	118	122	128	112	113	133
12	87	96	92	118	113	118	127	118	122	137	115	141
13	88	94	93	111	117	114	127	118	128	125	113	131
14	86	90	86	115	116	116	118	116	122	108	115	138
15	86	96	96	114	112	114	127	118	117	144	117	153
16	85	98	95	117	113	110	132	113	107	114	117	122
17	87	91	92	119	118	107	118	118	128	123	119	143
18	87	90	85	119	112	118	122	118	117	114	119	122
19	86	92	96	119	118	111	122	118	107	143	120	112
20	86	88	84	117	118	116	127	113	122	112	120	122
21	88	90	92	118	114	121	127	118	107	124	112	138
22	88	88	92	117	113	114	127	118	107	121	124	117
23	88	98	89	112	116	119	127	118	121	131	118	128
24	86	97	92	111	114	109	132	113	121	148	116	138
25	87	94	92	111	119	115	118	113	112	138	120	128
26	86	94	94	118	119	113	132	127	122	127	124	143
27	87	95	96	119	129	115	127	132	122	128	114	107
28	86	90	94	120	120	116	118	122	128	152	115	117
29	86	94	88	120	---	119	132	122	121	147	124	138
30	86	91	97	119	---	110	127	122	128	136	116	112
31	86	---	92	121	---	120	---	127	---	151	108	---
MEAN	87	95	91	116	116	116	124	118	120	129	116	129

WTR YR 1981 MEAN 113 MAX 153 MIN 84

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	16.0	10.5	5.0	5.0	8.5	11.0	18.5	26.0	25.0	26.0	24.0
2	22.5	15.5	10.0	5.0	5.0	9.0	13.0	18.5	26.0	25.0	25.5	25.0
3	22.5	15.5	10.0	5.0	5.0	9.0	14.5	18.0	26.0	24.5	26.5	25.0
4	21.5	15.5	10.0	5.0	4.0	9.0	14.5	18.0	25.0	24.0	27.0	25.0
5	21.0	15.0	10.5	5.0	4.0	9.0	14.5	18.0	25.0	24.0	27.0	25.0
6	21.5	14.5	11.0	5.0	4.0	9.0	14.5	19.0	25.0	24.0	27.5	25.0
7	21.5	13.5	10.5	5.0	3.5	9.0	14.5	18.5	25.0	24.0	27.0	25.5
8	21.0	13.5	10.5	5.0	3.5	9.0	14.5	18.0	25.0	24.5	27.0	25.5
9	20.5	14.5	10.5	4.5	3.5	8.5	14.0	17.0	25.0	25.0	27.0	25.0
10	20.5	14.5	10.5	5.0	3.5	8.5	14.0	17.0	25.0	24.5	27.0	25.0
11	20.5	13.5	10.0	4.0	3.5	9.0	14.0	18.5	25.0	25.0	27.0	25.0
12	20.0	14.0	10.0	4.0	3.5	9.5	15.0	18.0	25.0	25.0	27.5	25.5
13	21.0	14.0	10.0	4.5	4.5	9.5	15.5	18.5	25.0	25.0	27.5	25.5
14	20.0	14.0	10.5	4.0	5.0	9.5	15.0	18.5	25.0	25.5	27.0	25.5
15	19.5	13.5	10.0	4.0	6.0	10.0	15.5	18.0	26.0	26.0	27.0	25.0
16	20.0	14.0	10.0	4.0	6.5	10.5	16.0	18.0	26.0	25.0	27.0	25.0
17	20.0	14.0	10.5	5.0	6.0	10.5	16.5	18.0	26.0	24.5	27.0	25.0
18	20.0	13.5	10.5	5.0	6.0	9.5	16.0	17.5	26.0	25.0	27.0	25.5
19	20.5	13.0	11.0	5.0	6.0	9.5	16.0	18.0	26.0	25.0	26.5	25.5
20	20.5	13.0	10.0	5.5	6.5	9.5	15.5	18.0	27.0	25.0	26.0	25.5
21	20.0	13.0	9.5	5.5	8.0	9.5	15.5	18.5	29.0	24.5	26.0	24.5
22	19.5	12.0	8.0	5.5	8.0	9.0	15.5	20.0	29.0	25.0	23.5	23.0
23	19.0	12.0	7.5	5.5	7.5	9.0	16.0	20.0	29.0	25.0	22.5	23.0
24	19.0	11.5	7.5	6.0	7.5	8.5	16.0	20.5	27.0	25.0	23.0	23.0
25	18.5	11.5	7.0	6.0	8.0	9.0	16.0	21.0	29.0	24.5	23.0	22.5
26	18.5	12.0	6.5	6.0	8.0	10.5	16.0	20.0	29.0	25.0	23.0	19.5
27	18.0	11.5	6.0	5.5	8.5	10.5	17.5	20.5	28.0	25.0	23.5	19.5
28	17.5	11.0	6.0	5.0	8.5	10.5	16.5	21.0	28.0	26.0	23.0	19.5
29	17.5	11.0	5.5	5.0	---	12.0	18.5	21.0	27.0	26.0	23.5	19.5
30	16.5	11.0	5.5	5.0	---	12.0	18.5	22.0	26.0	26.0	23.5	19.0
31	16.0	---	5.0	5.0	---	12.5	---	22.5	---	25.5	24.5	---
MEAN	20.0	13.5	9.0	5.0	5.5	9.5	15.5	19.0	26.5	25.0	25.5	24.0

WTR YR 1981 MEAN 16.5 MAX 29.0 MIN 3.5

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
07...	1445	2050	6	33	67
NOV					
04...	1230	1530	4	17	92
DEC					
08...	1400	1510	4	16	92
JAN					
14...	1330	1330	7	25	65
FEB					
24...	1200	1860	4	20	88
MAR					
25...	1045	1230	4	13	82
APR					
27...	1015	2240	6	36	82
MAY					
26...	1000	2780	5	38	62
JUN					
17...	1300	2350	3	19	78
JUL					
13...	1630	1380	3	11	75
AUG					
31...	1200	2380	4	26	62
SEP					
16...	1230	2310	2	12	50

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 (27 m) upstream from bridge on State Highway 96, 1.2 mi (1.9 km) upstream from Fishing Creek, 2.5 mi (4.0 km) east of town of Tar River, and 8 mi (13 km) south of Oxford.

DRAINAGE AREA.--167 mi² (433 km²).

WATER-DISCHARGE RECORDS

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 (87.554 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for period of no gage-height record, Feb. 20 to Mar. 30, which are poor. Town of Oxford had no diversion for municipal water supply during the water year. Occasional intermittent diversion for irrigation.

AVERAGE DISCHARGE.--42 years, 153 ft³/s (4.333 m³/s), 12.44 in/yr (316 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s (402 m³/s) Apr. 27, 1978, gage height, 18.87 ft (5.752 m); no flow for part of Aug. 14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,690 ft³/s (47.9 m³/s) Aug. 20, gage height, 6.67 ft (2.033 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum 1.1 ft³/s (0.031 m³/s) Oct. 18, 19, gage height, 1.25 ft (0.381 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	26	20	31	14	35	129	17	13	7.1	7.0	13
2	3.8	21	17	26	17	33	83	16	141	7.2	6.7	11
3	3.1	14	15	21	51	32	65	15	94	7.0	6.3	9.6
4	2.9	9.8	12	18	65	32	51	13	47	692	5.9	8.9
5	3.1	8.5	10	16	42	50	45	12	29	689	4.8	104
6	5.7	38	9.8	14	32	110	71	11	21	122	4.5	525
7	8.9	30	9.7	14	28	70	111	11	20	174	7.9	384
8	7.4	18	9.8	15	28	50	70	11	18	91	39	568
9	6.0	12	9.0	15	35	45	57	10	15	43	201	177
10	5.4	8.5	12	14	43	40	75	10	12	28	64	88
11	4.3	6.7	42	13	234	37	86	126	9.6	20	29	51
12	3.3	5.2	52	11	570	35	67	339	8.1	15	95	35
13	2.8	4.6	36	9.6	173	33	54	92	7.6	12	114	27
14	2.3	4.5	26	8.4	100	32	45	51	15	11	42	21
15	1.8	4.3	20	7.4	79	30	39	36	54	10	23	17
16	1.6	4.1	17	7.2	65	30	34	28	27	9.5	15	17
17	1.4	4.3	17	6.8	53	30	31	23	16	10	168	20
18	1.2	6.6	16	7.4	47	30	30	19	270	8.9	165	26
19	1.5	9.4	15	8.2	53	29	28	17	311	8.0	365	20
20	16	8.9	14	10	593	28	31	22	132	7.3	1280	14
21	36	8.3	12	12	350	27	54	35	96	6.8	281	11
22	17	8.3	11	17	150	28	66	58	45	6.7	105	9.1
23	9.0	8.2	11	21	80	30	47	42	28	6.2	74	8.3
24	6.0	10	12	22	52	350	43	30	18	6.3	46	7.5
25	5.0	61	12	21	47	150	38	22	13	6.6	33	7.0
26	4.5	80	11	19	43	90	35	17	11	30	25	6.5
27	4.9	44	11	18	40	70	29	14	9.7	26	19	6.0
28	4.8	32	12	18	37	60	25	22	9.0	15	16	4.9
29	4.3	26	20	17	---	56	22	18	8.4	10	13	4.1
30	4.6	22	31	16	---	50	19	16	7.6	8.6	11	3.6
31	15	---	33	15	---	169	---	14	---	7.4	19	---
TOTAL	195.6	544.2	555.3	469.0	3121	1891	1580	1167	1506.0	2101.6	3285.1	2204.5
MEAN	6.31	18.1	17.9	15.1	111	61.0	52.7	37.6	50.2	67.8	106	73.5
MAX	36	80	52	31	593	350	129	339	311	692	1280	568
MIN	1.2	4.1	9.0	6.8	14	27	19	10	7.6	6.2	4.5	3.6
CFSM	.04	.11	.11	.09	.67	.37	.32	.23	.30	.41	.64	.44
IN.	.04	.12	.12	.10	.70	.42	.35	.26	.34	.47	.73	.49

CAL YR 1980 TOTAL 41251.9 MEAN 113 MAX 1980 MIN 1.1 CFSM .68 IN 9.19
WTR YR 1981 TOTAL 18620.3 MEAN 51.0 MAX 1280 MIN 1.2 CFSM .31 IN 4.15

02081500 TAR RIVER NEAR TAR RIVER, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/16	15 10	0000	1.30	2	65		16.5	7.0	8.2	84.5	13	1.0
80/11/17	15 48	0000	1.40	5	50		9.0	30.0	8.2	70.7	37	1.3
81/01/27	14 45	0000	1.72	20	62	7.01	6.0	7.0	13.0	104.0	10K	1.0
81/02/25	13 10	0000	2.50	72	86		7.0	30.0	10.8	88.5	18	1.1
81/03/24	14 30	0000	3.82	471	78	7.07	8.0	35.0	11.9	100.0	26	1.1
81/04/13	10 15	0000	2.42	303	87		18.0	15.0	9.2	96.0	21	0.5
81/05/19	17 45	0000	1.65	17		6.30	15.0		6.4	62.7		1.1
81/06/01	15 15	0000	1.58	12		7.01	21.0	9.0	4.1	45.6		0.6
81/08/20	12 45	0000	6.00	1350		7.11	23.0	160.0	7.4	85.1		3.1
81/09/24	15 20	0000	1.46	7			19.0	20.0	8.1	87.0		0.3

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/16	15 10	0000	30	30								
80/11/17	15 48	0000	20	33								
81/01/27	14 45	0000	10	22								
81/02/25	13 10	0000	50	15	0.15	0.050K	0.300	0.060	0.050K	10K	50K	50K
81/03/24	14 30	0000	820	11								
81/04/13	10 15	0000	40	16						10K		
81/05/19	17 45	0000	90									
81/06/01	15 15	0000	10	31	0.16	0.060	0.300	0.050	0.050K	10K	50K	50K
81/08/20	12 45	0000	2400	8								
81/09/24	15 20	0000	20	28	0.10	0.050K	0.600	0.050	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
81/02/25	13 10	0000	100K	40K	900	100K	90.0	0.5K	50K
81/06/01	15 15	0000	100K	40K	1500	100K	360.0	0.5K	50K
81/09/24	15 20	0000	100K	40K	1500	100K	110.0	0.5K	50K

K Less than noted value.

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

LOCATION.--**Lat 36**°05'34" (revised), long 78°17'48", Franklin County, Hydrologic Unit 03020101, on left bank 0.1 mi (**0.2 km**) downstream from bridge on U.S. Highway 401 (Bickett Boulevard), at Louisburg, and 0.2 mi (0.3 km) upstream from Fox Creek.

DRAINAGE AREA.--427 mi² (1,106 km²), revised.

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.

GAGE.--Water-stage recorder. Datum of gage is 176.71 ft (53.861 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1973, nonrecording gage at bridge 0.4 mi (0.6 km) upstream at datum 1.82 ft (0.555 m) higher; Nov. 22, 1973 to June 24, 1980 at site 0.1 mi (0.2 km) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--8 years, 411 ft³/s (11.64 m³/s), 13.07 in/yr (332 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft³/s (371 m³/s) Apr. 28, 1978, gage height, 24.36 ft (7.425 m) from floodmarks; minimum gage height observed, 1.30 ft (0.396 m) several days in September 1967, August, September and October 1968 at site and datum 0.4 mi (0.6 km) upstream. Minimum discharge, 7.3 ft³/s (0.21 m³/s) Aug. 14, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of December 1934, September 1945 and August 1955 reached stages of 26 ft (7.9 m), 24 ft (7.3 m) and 24 ft (7.3 m) respectively, at site and datum 0.4 mi (0.6 km) upstream, from information of Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,030 ft³/s (57.5 m³/s) Aug. 21, gage height, 11.98 ft (3.652 m), no peak above base of 4,000 ft³/s (113 m³/s); minimum, 12 ft³/s (0.34 m³/s) Aug. 5, 6, gage height, 3.75 ft (1.143 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	121	87	114	56	147	414	80	54	17	20	27
2	70	86	80	109	100	139	294	81	77	17	15	31
3	66	72	73	107	115	130	220	70	315	23	14	27
4	50	64	66	99	127	127	181	63	161	82	14	25
5	54	71	62	75	118	194	160	59	96	1520	13	34
6	74	76	60	76	100	364	190	57	71	573	24	580
7	64	79	60	102	98	344	220	59	78	192	29	461
8	58	86	59	87	122	246	190	62	83	226	52	1060
9	43	69	60	73	112	195	140	58	69	125	48	577
10	38	59	87	75	110	169	190	63	52	74	201	292
11	33	50	150	58	175	154	200	82	44	53	83	145
12	33	43	174	72	894	144	150	1280	39	41	69	91
13	27	40	141	60	600	136	120	555	37	34	118	67
14	24	41	113	49	298	130	100	209	36	30	127	53
15	24	43	94	44	218	122	90	136	44	26	61	45
16	23	49	85	48	181	119	80	102	66	25	41	41
17	24	58	85	52	158	119	76	81	49	37	31	43
18	25	149	81	56	145	117	72	69	38	39	163	57
19	32	174	76	64	142	117	70	65	452	30	183	69
20	92	110	70	69	576	113	68	91	302	25	1220	50
21	97	80	64	86	1390	107	100	130	191	21	1300	37
22	75	68	54	104	618	106	160	125	121	18	309	32
23	55	61	71	106	376	196	150	110	68	19	172	29
24	42	67	82	93	288	765	144	88	47	19	121	26
25	61	147	78	86	239	650	138	69	37	16	82	24
26	104	235	55	87	198	455	116	57	31	18	61	23
27	103	177	65	83	172	306	104	53	28	31	47	22
28	62	136	83	80	156	231	95	124	26	38	39	20
29	49	115	113	74	---	192	87	132	23	58	34	18
30	58	98	129	70	---	188	79	86	20	48	31	16
31	94	---	126	59	---	258	---	62	---	29	29	---
TOTAL	1698	2724	2683	2417	7882	6780	4398	4358	2755	3504	4751	4022
MEAN	54.8	90.8	86.5	78.0	282	219	147	141	91.8	113	153	134
MAX	104	235	174	114	1390	765	414	1280	452	1520	1300	1060
MIN	23	40	54	44	56	106	68	53	20	16	13	16
CFSM	.13	.21	.20	.18	.66	.51	.34	.33	.22	.27	.36	.31
IN.	.15	.24	.23	.21	.69	.59	.38	.38	.24	.31	.41	.35

CAL YR 1980 TOTAL 114168 MEAN 312 MAX 3370 MIN 11 CFSM .73 IN 9.95
WTR YR 1981 TOTAL 47972 MEAN 131 MAX 1520 MIN 13 CFSM .31 IN 4.18

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

LOCATION (REVISED).--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 (2.9 km) downstream from Tar River Reservoir, 2.8 mi (4.5 km) downstream from Sapony Creek, 2.9 mi (4.7 km) upstream from Grape Branch, and 5.0 mi (8.0 km) southwest of Rocky Mount.

DRAINAGE AREA.--777 mi² (2,012 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 85.9 ft (26.18 m) National Geodetic Vertical Datum of 1929 (levels by North Carolina State Highway Commission).

REMARKS.--Records good except those for period of no gage-height record, Feb. 25 to Apr. 6, which are fair. The city of Rocky Mount diverted an average of 12.0 ft³/s (0.34 m³/s) for municipal water supply, most of which was returned as sewage below station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--9 years, 809 ft³/s (22.91 m³/s), 14.14 in/yr (359 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s (326 m³/s) Apr. 30, 1978, gage height, 21.62 ft (6.590 m); minimum, 46 ft³/s (1.30 m³/s) Oct. 10, 1973, gage height, 3.32 ft (1.012 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) Feb. 22, gage height, 8.06 ft (2.457 m); minimum, 55 ft³/s (1.56 m³/s) Nov. 2; minimum gage height, 3.48 ft (1.061 m) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	57	80	225	137	285	390	149	211	107	102	111
2	65	56	78	225	180	270	505	139	165	109	103	111
3	64	57	77	200	221	255	445	135	154	109	103	112
4	64	58	78	190	229	255	315	120	274	110	100	112
5	64	57	79	170	217	330	315	88	281	108	100	112
6	67	57	80	165	252	450	325	88	214	332	97	110
7	66	57	79	145	262	555	317	86	184	636	93	114
8	67	58	79	165	290	580	338	87	336	357	84	269
9	68	59	78	174	280	460	361	87	649	288	82	646
10	66	60	80	160	275	365	343	91	435	232	85	597
11	65	66	82	152	382	315	343	101	257	169	87	437
12	64	67	83	139	535	290	345	109	175	137	92	274
13	65	67	110	129	1010	280	333	675	138	116	94	186
14	64	66	140	120	1050	255	316	698	118	104	96	149
15	64	67	175	110	642	235	270	337	104	105	96	129
16	64	66	180	105	466	235	249	205	97	109	95	110
17	64	66	185	120	379	235	232	156	94	107	96	98
18	63	65	170	140	327	230	215	134	98	107	97	93
19	63	67	150	203	336	215	198	120	368	107	100	93
20	63	67	130	187	621	210	209	120	592	111	104	92
21	64	72	125	297	1410	200	225	130	475	111	170	90
22	63	74	125	290	1660	175	245	158	304	112	1250	89
23	64	75	130	249	1100	235	264	174	214	113	885	90
24	65	75	135	225	712	395	258	161	159	110	522	91
25	67	74	135	205	520	725	233	146	129	110	337	92
26	65	74	145	472	420	660	224	130	107	110	226	91
27	66	76	140	355	365	565	204	110	105	107	165	90
28	67	75	150	109	315	660	185	522	106	107	134	89
29	64	76	180	110	---	475	180	601	106	105	121	91
30	62	75	195	111	---	345	152	549	106	105	114	91
31	61	---	220	122	---	345	---	362	---	104	111	---
TOTAL	2003	1986	3873	5769	14593	11085	8534	6768	6755	4754	5941	4859
MEAN	64.6	66.2	125	186	521	358	284	218	225	153	192	162
MAX	68	76	220	472	1660	725	505	698	649	636	1250	646
MIN	61	56	77	105	137	175	152	86	94	104	82	89
CFSM	.08	.09	.16	.24	.67	.46	.37	.28	.29	.20	.25	.21
IN.	.10	.10	.19	.28	.70	.53	.41	.32	.32	.23	.28	.23

CAL YR 1980 TOTAL 192333 MEAN 526 MAX 3640 MIN 56 CFSM .68 IN 9.21
WTR YR 1981 TOTAL 76920 MEAN 211 MAX 1660 MIN 56 CFSM .27 IN 3.68

02082585 TAR RIVER AT NC 97 AT ROCKY MOUNT, NC

LOCATION (REVISED).--Lat 35°57'15", long 77°47'15", Edgecombe County, Hydrologic Unit 03020101, on left bank 20 ft (6 m) downstream from bridge on NC Highway 97, 0.5 mi (0.8 km) above Cowlick Branch, and 1.0 mi (1.6 km) north-northeast of Rocky Mount.

DRAINAGE AREA.--925 mi² (2,396 km²), revised.

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

GAGE.--Water-stage recorder. Datum of gage is 53.882 ft (16.423 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, Nov. 19 to Jan. 7, which are poor. Some regulation at low flow by mill above station. The city of Rocky Mount diverted an average of 15.3 ft³/s (0.43 m³/s) for municipal water supply, most of which was returned as sewage below station.

AVERAGE DISCHARGE.--5 years, 843 ft³/s (23.87 m³/s), 12.38 in/yr (314 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s (348 m³/s) May 1, 1978, gage height, 23.66 ft (7.212 m); minimum, 10 ft³/s (0.28 m³/s) May 30, 1977, gage height, 3.03 ft (0.924 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,320 ft³/s (65.7 m³/s) Aug. 22, gage height, 8.82 ft (2.688 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 26; minimum gage height, 2.91 ft (0.887 m) Jan. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	31	85	250	157	415	485	187	316	136	34	81
2	80	66	86	240	236	407	591	120	167	51	104	178
3	90	77	87	220	201	309	576	173	185	112	145	132
4	50	73	87	200	284	352	482	225	293	122	91	56
5	51	32	88	190	307	535	433	36	316	110	71	130
6	117	61	89	180	335	628	422	94	250	239	105	129
7	51	63	90	170	235	728	400	105	209	723	101	129
8	51	66	90	230	376	714	409	119	411	382	38	265
9	50	69	91	300	401	583	446	90	814	297	102	735
10	51	111	91	212	378	485	426	133	543	281	102	696
11	67	22	100	204	626	429	429	165	355	145	117	558
12	69	63	110	230	787	386	422	110	172	138	128	332
13	116	76	140	134	1170	367	404	612	163	171	103	231
14	34	75	170	170	1290	344	384	834	137	46	133	206
15	97	85	200	228	821	327	335	418	111	82	23	160
16	29	78	210	116	611	318	305	242	138	142	123	122
17	30	122	220	175	511	326	294	190	39	68	106	94
18	35	52	190	177	454	309	292	179	118	106	137	92
19	76	100	170	193	485	301	202	118	410	104	188	118
20	119	80	150	273	1050	299	275	145	705	143	180	34
21	26	81	140	327	1340	297	319	160	560	109	227	141
22	33	82	135	335	1960	241	305	187	329	92	1590	41
23	110	82	140	415	1430	352	327	216	237	103	1250	143
24	26	83	150	430	935	509	325	197	189	128	820	83
25	143	83	160	370	734	938	304	210	153	79	511	100
26	65	84	170	321	531	1070	299	126	44	124	291	28
27	126	84	150	258	496	813	229	126	102	160	215	95
28	28	84	170	473	454	608	222	1020	102	109	216	149
29	103	85	190	573	---	498	229	1080	131	110	99	15
30	47	85	210	119	---	455	209	927	52	36	166	122
31	79	---	240	161	---	441	---	505	---	152	219	---
TOTAL	2182	2235	4399	7874	18595	14784	10780	9049	7751	4800	7734	5405
MEAN	70.4	74.5	142	254	664	477	359	292	258	155	249	180
MAX	143	122	240	573	1960	1070	591	1080	814	723	1590	735
MIN	26	22	85	116	157	241	202	36	39	36	23	15
CFSM	.08	.08	.15	.28	.72	.52	.39	.32	.28	.17	.27	.20
IN.	.09	.09	.18	.32	.75	.59	.43	.36	.31	.19	.31	.22

CAL YR 1980 TOTAL 230672 MEAN 630 MAX 4100 MIN 22 CFSM .68 IN 9.28
WTR YR 1981 TOTAL 95588 MEAN 262 MAX 1960 MIN 15 CFSM .28 IN 3.84

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 (1.1 km) northeast of Hilliardston, and 2.8 mi (4.5 km) downstream from Gideon Swamp.

DRAINAGE AREA.--166 mi^2 (430 km^2), revised.

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

GAGE.--Water-stage recorder. Datum of gage is 130.42 ft (39.752 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Withdrawals from Sandy Creek tributary for municipal water supply ended Feb. 21, 1978.

AVERAGE DISCHARGE.--18 years, 146 ft^3/s (4.135 m^3/s), 11.94 in/yr (303 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,030 ft^3/s (171 m^3/s) June 5, 1979, gage height, 14.27 ft (4.349 m); minimum, 0.60 ft^3/s (0.017 m^3/s) Sept. 25, 26, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1924 reached a stage of 14.5 ft (4.42 m) discharge not determined, from information by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 340 ft^3/s (9.63 m^3/s) Aug. 19, gage height, 4.11 ft (1.253 m), no peak above base of 1,000 ft^3/s (28.3 m^3/s); minimum, 1.0 ft^3/s (0.028 m^3/s) July 31-Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	57	53	64	58	73	104	50	49	5.5	1.0	20
2	22	65	49	59	61	72	99	51	44	4.3	8.3	16
3	30	54	48	55	81	71	89	50	45	5.7	6.0	15
4	25	44	47	53	78	69	80	46	50	11	3.4	14
5	20	42	46	50	74	90	78	41	45	18	2.9	13
6	16	46	45	48	72	118	80	40	39	36	2.2	15
7	13	48	45	50	67	113	86	38	43	50	4.2	25
8	20	45	45	54	72	97	83	37	44	36	29	58
9	40	42	45	55	78	84	78	37	42	34	86	149
10	32	39	51	53	76	78	79	45	37	23	19	95
11	27	37	74	53	111	76	85	52	30	16	11	66
12	25	37	83	50	177	73	82	54	26	13	15	47
13	25	35	76	46	149	72	75	56	23	10	13	35
14	24	35	63	52	123	70	71	66	21	8.8	12	26
15	21	36	57	50	98	69	68	48	20	6.6	12	23
16	18	37	54	53	87	68	66	41	19	5.5	10	20
17	17	38	52	56	82	69	64	38	16	8.5	22	21
18	17	60	52	58	78	70	63	35	17	7.7	34	21
19	20	91	52	57	78	70	62	34	19	7.3	80	22
20	23	89	49	59	144	69	64	41	16	9.7	200	20
21	45	75	47	65	178	68	69	58	25	12	76	18
22	58	58	46	94	167	65	74	64	30	8.0	164	15
23	41	52	45	93	131	90	68	55	24	7.8	148	13
24	33	49	52	84	105	187	70	45	17	7.9	62	12
25	40	52	58	74	93	167	71	39	13	7.7	45	9.7
26	42	68	55	65	85	125	64	35	11	4.9	34	8.8
27	61	78	50	61	79	100	59	32	7.9	4.5	26	8.3
28	65	67	55	60	75	89	54	161	7.1	4.3	21	7.0
29	52	61	63	59	---	83	52	92	7.1	3.0	18	6.7
30	44	57	72	58	---	81	49	89	6.1	2.2	18	6.4
31	46	---	70	55	---	95	---	66	---	1.4	28	---
TOTAL	977	1594	1699	1843	2757	2721	2186	1636	793.2	380.3	1211.0	825.9
MEAN	31.5	53.1	54.8	59.5	98.5	87.8	72.9	52.8	26.4	12.3	39.1	27.5
MAX	65	91	83	94	178	187	104	161	50	50	200	149
MIN	13	35	45	46	58	65	49	32	6.1	1.4	1.0	6.4
CFSM	.19	.32	.33	.36	.59	.53	.44	.32	.16	.07	.24	.17
IN.	.22	.36	.38	.41	.62	.61	.49	.37	.18	.09	.27	.19

CAL YR 1980 TOTAL 44592.1 MEAN 122 MAX 700 MIN 3.0 CFSM .74 IN 9.99
WTR YR 1981 TOTAL 18623.4 MEAN 51.0 MAX 200 MIN 1.0 CFSM .31 IN 4.17

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 (2 m) downstream from bridge on Secondary Road 1338, 1.1 mi (1.8 km) west of White Oak, 1.8 mi (2.9 km) upstream from Powells Creek, 4.3 mi (6.9 km) upstream from mouth, and 12 mi (19 km) west of Enfield.

DRAINAGE AREA.--177 mi^2 (458 km^2), revised.

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

REVISED RECORDS.--WSP 1723: 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 116.44 ft (35.491 m) National Geodetic Vertical Datum of 1929. Feb. 14, 1962, to Apr. 23, 1979, auxiliary nonrecording gage 3.6 mi (5.8 km) downstream.

REMARKS.--Records good.

AVERAGE DISCHARGE.--22 years, 163 ft^3/s (4.616 m^3/s), 12.51 in/yr (318 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s (510 m^3/s) Oct. 7, 1972, gage height, 24.80 ft (7.559 m) from floodmarks, from rating curve extended above 3,400 ft^3/s (96.3 m^3/s) on basis of slope-conveyance study of peak flow; minimum, 0.72 ft^3/s (0.020 m^3/s) Sept. 5, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1959 reached a stage of 19.3 ft (5.88 m), from floodmarks (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) June 6, gage height, 8.66 ft (2.640 m), no peak above base of 1,200 ft^3/s (34.0 m^3/s); minimum discharge, 1.7 ft^3/s (0.048 m^3/s) Sept. 29-30; minimum gage height, 1.18 ft (0.360 m) Aug. 5-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	36	34	45	30	59	107	38	59	9.0	3.0	10
2	4.5	31	32	42	41	59	88	40	74	9.0	2.6	9.7
3	15	24	30	38	61	56	78	38	470	9.9	2.4	8.8
4	12	20	29	36	59	54	71	34	206	14	2.4	8.1
5	8.4	21	28	32	44	83	68	32	83	18	2.2	7.9
6	7.5	29	27	29	42	156	75	31	305	22	3.1	7.6
7	7.0	27	27	35	47	115	84	31	231	21	4.6	7.3
8	7.8	24	28	37	57	83	76	32	170	18	26	11
9	7.8	20	28	39	75	72	70	31	70	15	22	17
10	6.8	18	35	39	64	67	75	37	50	12	12	18
11	5.9	17	89	33	130	64	78	95	40	9.2	7.5	18
12	6.3	17	82	33	325	62	71	84	30	7.7	13	12
13	6.8	17	56	29	185	60	66	56	25	6.7	15	9.1
14	5.3	16	46	26	107	58	61	41	22	5.9	9.2	7.2
15	4.6	17	40	30	87	56	59	33	21	5.4	7.9	6.2
16	4.3	18	38	35	77	55	56	28	20	5.0	32	5.9
17	4.2	21	37	35	71	58	52	24	17	5.3	78	6.8
18	4.3	57	37	32	68	59	53	21	17	5.7	34	8.5
19	7.2	99	35	32	68	58	53	20	45	7.6	140	9.3
20	36	62	33	35	148	58	54	27	332	7.7	444	7.0
21	36	44	31	40	245	56	67	53	78	8.0	110	5.8
22	22	37	28	59	146	53	65	53	45	8.0	226	4.8
23	13	33	31	59	102	107	56	37	30	8.8	215	3.8
24	9.7	31	41	50	86	250	60	28	22	8.1	61	3.2
25	20	37	46	43	75	174	66	22	17	9.8	35	2.9
26	52	51	38	39	68	113	57	18	15	17	23	2.5
27	46	47	36	39	63	93	49	16	13	5.7	17	2.2
28	33	41	34	38	60	83	45	255	12	4.8	14	1.9
29	23	40	47	37	---	76	42	175	11	5.2	12	1.7
30	21	37	56	36	---	75	38	85	9.9	4.2	11	1.7
31	30	---	51	33	---	101	---	48	---	3.4	11	---
TOTAL	471.9	989	1230	1165	2631	2573	1940	1563	2539.9	297.1	1595.9	225.9
MEAN	15.2	33.0	39.7	37.6	94.0	83.0	64.7	50.4	84.7	9.58	51.5	7.53
MAX	52	99	89	59	325	250	107	255	470	22	444	18
MIN	4.2	16	27	26	30	53	38	16	9.9	3.4	2.2	1.7
CFSM	.09	.19	.22	.21	.53	.47	.37	.29	.48	.05	.29	.04
IN.	.10	.21	.26	.24	.55	.54	.41	.33	.53	.06	.34	.05

CAL YR 1980 TOTAL 40150.55 MEAN 110 MAX 1100 MIN .78 CFSM .62 IN 8.44
WTR YR 1981 TOTAL 17221.70 MEAN 47.2 MAX 470 MIN 1.7 CFSM .27 IN 3.62

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 (5 m) downstream from bridge on U.S. Highway 301, 2,000 ft (610 m) downstream from Seaboard Coast Line Railroad bridge, 2 mi (3 km) southwest of Enfield, 4.8 mi (7.7 km) downstream from Rocky Creek, and 40 mi (64 km) upstream from mouth.

DRAINAGE AREA.--526 mi^2 (1,362 km^2), revised.

PERIOD OF RECORD.--October 1923 to current year. Figures of daily discharge below 250 ft^3/s (7.08 m^3/s) Oct 1, 1923, to July 3, 1924, below 350 ft^3/s (9.91 m^3/s) May 30, 1925, to May 31, 1926, below 150 ft^3/s (4.25 m^3/s) June 1 to Nov. 16, 1926, and below 100 ft^3/s (2.83 m^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 (610 m) 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 1172: Drainage area. WSP 1333: 1928(M), 1932-33, 1935. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 76.26 ft (23.244 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1932, nonrecording gage, at same site and datum.

REMARKS.--Records good except those for period of no gage-height record, May 28, which is fair. Slight diurnal fluctuation and some regulation at low flow caused by mills above station.

AVERAGE DISCHARGE.--58 years, 488 ft^3/s (13.82 m^3/s), 12.60 in/yr (320 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s (357 m^3/s) Dec. 2, 1934, Aug. 18, 1940; maximum gage height, 17.72 ft (5.401 m) Aug. 18, 1940; minimum daily discharge, 6.9 ft^3/s (0.20 m^3/s) Oct. 5, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Apr. 19, 1910 reached a stage of 20.1 ft (6.13 m), present datum (from floodmarks of Seaboard Coast Line Railroad Co.) at site 2,000 ft (610 m) upstream. Flood of July 24, 1919, reached a stage of 19.6 ft (5.97 m) discharge, 20,300 ft^3/s (575 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) May 28, gage height, 7.09 ft (2.161 m) from flood mark in shelter; minimum, 15 ft^3/s (0.42 m^3/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	94	133	176	115	182	306	122	191	46	23	58
2	29	125	124	159	114	185	275	120	190	41	20	55
3	27	112	116	144	160	181	253	122	360	39	19	52
4	43	93	109	134	209	173	225	115	560	40	18	49
5	51	84	105	125	193	200	209	105	460	42	16	45
6	51	81	103	102	134	328	211	100	250	53	17	42
7	50	92	100	104	124	403	228	97	643	63	17	39
8	49	94	101	125	176	317	236	95	626	73	18	40
9	52	87	103	119	216	250	217	94	454	78	29	48
10	53	80	114	115	236	218	211	98	297	75	53	61
11	50	75	145	112	240	202	226	117	166	68	54	74
12	46	70	259	110	545	193	229	201	122	63	50	82
13	42	68	246	105	668	185	208	175	106	56	45	75
14	41	68	187	107	453	179	190	151	98	50	45	68
15	40	68	155	92	326	173	177	129	90	43	44	59
16	38	70	139	95	268	169	169	109	83	39	44	53
17	36	74	133	104	239	170	161	99	78	34	41	48
18	34	92	129	106	220	175	155	93	72	32	60	43
19	33	188	129	106	220	180	154	86	69	30	92	41
20	32	273	123	109	441	175	157	84	227	29	692	41
21	40	208	117	122	664	171	167	86	396	29	540	41
22	71	155	110	162	645	165	192	127	202	31	389	41
23	80	131	104	211	452	188	186	143	128	30	773	39
24	78	121	110	202	343	467	175	115	99	30	414	38
25	78	119	135	170	286	639	185	98	89	31	203	34
26	70	134	136	156	248	482	188	92	80	32	126	32
27	93	185	125	141	226	345	169	86	73	32	92	30
28	145	171	123	137	205	278	148	664	66	34	79	28
29	115	150	136	135	---	244	135	744	59	32	74	26
30	94	143	162	133	---	228	126	460	52	28	66	24
31	85	---	184	128	---	242	---	256	---	24	60	---
TOTAL	1776	3505	4195	4046	8366	7687	5868	5183	6386	1327	4213	1406
MEAN	57.3	117	135	131	299	248	196	167	213	42.8	136	46.9
MAX	145	273	259	211	668	639	306	744	643	78	773	82
MIN	27	68	100	92	114	165	126	84	52	24	16	24
CFSM	.11	.22	.26	.25	.57	.47	.37	.32	.41	.08	.26	.09
IN.	.13	.25	.30	.29	.59	.54	.41	.37	.45	.09	.30	.10

CAL YR 1980 TOTAL 134530 MEAN 368 MAX 2400 MIN 10 CFSM .70 IN 9.51
WTR YR 1981 TOTAL 53958 MEAN 148 MAX 773 MIN 16 CFSM .28 IN 3.82

02083500 TAR RIVER AT TARBORO, NC

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 (10.5 km) downstream from Fishing Creek, and 49.2 mi (79.2 km) upstream from Pamlico River at Washington.

DRAINAGE AREA.--2,183 mi² (5,654 km²), revised.

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.

GAGE.--Water-stage recorder. Datum of gage is 10.37 ft (3.161 m) National Geodetic Vertical Datum of 1929. July 1896, to December 1900, nonrecording gage at Seaboard Coast Line Railroad bridge 600 ft (183 m) downstream at different datum, Oct. 1, to Dec. 8, 1931, nonrecording gage at site 100 ft (30 m) upstream at present datum.

REMARKS.--Water-discharge record good. Some diurnal fluctuation at low flow caused by mills above station. Town of Tarboro diverted 3.5 ft³/s (0.10 m³/s) for municipal water supply.

AVERAGE DISCHARGE.--54 years, 2,218 ft³/s (62.81 m³/s), 13.80 in/yr (351 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft³/s (1,050 m³/s) Aug. 20, 1940, gage height, 31.77 ft (9.683 m); minimum, 36 ft³/s (1.02 m³/s) Oct. 17, 22, 1933, Oct. 6, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 27, 1919, reached a stage of 34.0 ft (10.36 m), present datum, from floodmarks, discharge, 52,800 ft³/s (1,500 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,340 ft³/s (94.6 m³/s) Feb. 23, gage height, 8.94 ft (2.725 m); minimum, 102 ft³/s (2.89 m³/s) Aug. 3, gage height, 1.25 ft (0.381 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	251	365	630	528	1230	1140	463	1570	187	152	398
2	226	228	357	650	529	1120	1160	424	1370	219	146	263
3	196	203	348	630	627	1030	1230	357	1070	188	123	300
4	189	248	337	600	599	925	1190	368	915	254	181	243
5	161	270	328	440	650	1010	1080	407	1100	287	153	209
6	152	247	322	410	704	1230	1070	306	1200	239	149	211
7	194	215	318	470	723	1320	1050	268	1020	295	163	215
8	194	216	316	500	652	1460	987	282	1150	651	175	208
9	169	212	347	474	752	1440	974	292	1600	512	188	321
10	168	217	342	486	824	1300	994	290	2130	431	160	692
11	171	240	372	452	923	1180	970	337	1870	405	183	725
12	176	219	405	428	1320	1090	944	367	1300	325	282	673
13	179	181	400	420	1570	1010	925	324	880	253	340	516
14	201	201	473	410	2030	940	885	748	644	263	223	417
15	175	202	522	400	2160	887	827	974	500	196	209	384
16	166	205	544	390	1690	841	753	666	396	165	197	298
17	171	209	520	380	1400	835	692	487	346	210	230	258
18	141	242	491	391	1270	813	652	387	289	191	234	220
19	143	238	452	423	1180	798	616	371	285	168	230	199
20	156	217	456	426	1290	786	586	314	517	170	345	202
21	205	308	446	552	2030	775	587	333	746	189	480	160
22	163	463	430	685	2630	758	634	329	882	187	1050	190
23	128	372	400	780	3250	786	621	330	705	160	2530	152
24	170	350	430	817	2860	911	647	382	506	151	2190	191
25	310	387	470	855	2220	1140	631	395	400	166	1650	168
26	380	417	480	803	1860	1680	599	389	336	165	1120	166
27	247	360	500	734	1540	1860	594	295	261	173	776	153
28	243	351	530	679	1370	1600	565	372	238	191	596	140
29	214	378	500	754	---	1380	499	1470	231	187	493	188
30	261	377	490	874	---	1270	482	2060	244	173	389	140
31	275	---	530	562	---	1200	---	1980	---	144	349	---
TOTAL	6124	8224	13221	17505	39181	34605	24584	16767	24701	7495	15686	8600
MEAN	198	274	426	565	1399	1116	819	541	823	242	506	287
MAX	380	463	544	874	3250	1860	1230	2060	2130	651	2530	725
MIN	128	181	316	380	528	758	482	268	231	144	123	140
CFSM	.09	.13	.20	.26	.64	.51	.38	.25	.38	.11	.23	.13
IN.	.10	.14	.23	.30	.67	.59	.42	.29	.42	.13	.27	.15

CAL YR 1980 TOTAL 582742 MEAN 1592 MAX 8470 MIN 125 CFSM .73 IN 9.93
WTR YR 1981 TOTAL 216693 MEAN 594 MAX 3250 MIN 123 CFSM .27 IN 3.69

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

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 current year.
WATER TEMPERATURES: October 1944 to September 1945, October 1953 to September 1954, October 1961 to September 1967, July 1973 to current year.

REMARKS.--Station operated as part of NASQAN network from October 1974 to present. 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.

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 231 micromhos Sept. 29, 1980; minimum daily, 34 micromhos Aug. 22, 1967.
WATER TEMPERATURES: Maximum daily, 32.0°C July 8, 9, 10, 20, 21, Aug. 7, 8, 12, 1977, Aug. 4-9, 1980; minimum daily, 0.0°C on several days in 1963 and 1966, Jan. 18, 19, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 219 micromhos Oct. 1; minimum daily, 66 micromhos June 11.
WATER TEMPERATURES: Maximum daily, 29.5°C July 12; minimum daily, 1.0°C Jan. 14, 15, 17, 18, 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT											
08...	1030	196	161	7.5	14.0	.50	4.4	120	140	31	0
NOV											
03...	1100	198	132	6.2	11.0	.80	9.4	--	--	26	0
DEC											
08...	1100	317	117	6.8	8.0	2.5	9.8	K30	40	26	0
JAN											
07...	1500	548	84	7.6	3.0	1.9	13.3	K32	K36	22	0
FEB											
25...	1245	2190	95	6.8	11.5	9.4	8.1	210	100	23	3
MAR											
24...	1130	944	100	5.7	8.5	1.8	11.4	80	140	25	6
APR											
27...	1300	596	98	7.0	18.5	60	7.6	K20	2000	26	0
MAY											
26...	1315	414	108	7.1	23.5	5.6	8.1	96	1400	24	0
JUN											
10...	1200	2180	64	6.5	25.5	57	5.2	110	480	19	0
JUL											
29...	1200	159	114	7.1	29.0	5.6	6.6	80	190	26	0
AUG											
31...	0930	331	99	6.4	22.5	27	6.0	270	K1300	28	12
SEP											
16...	1030	253	99	7.0	25.0	6.0	6.4	100	400	24	0

K Results based on colony count outside the acceptable range (non-ideal colony count).

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
08...	7.6	2.9	23	59	1.8	3.3	41	0	34	1.4	27
NOV											
03...	6.5	2.4	15	52	1.3	3.0	29	0	24	30	17
DEC											
08...	6.4	2.4	15	53	1.3	2.6	32	0	26	6.2	17
JAN											
07...	5.9	1.8	8.0	41	.7	1.9	36	0	30	1.0	12
FEB											
25...	5.6	2.1	7.3	39	.7	1.9	24	0	20	2.5	14
MAR											
24...	6.5	2.2	8.2	39	.7	1.9	23	0	19	90	13
APR											
27...	6.5	2.4	9.0	40	.8	2.2	34	0	28	6.4	6.6
MAY											
26...	5.8	2.2	10	45	.9	2.4	36	0	30	3.9	6.4
JUN											
10...	4.8	1.7	4.8	32	.5	2.5	23	0	19	4.9	6.4
JUL											
29...	6.6	2.4	15	52	1.3	3.3	36	0	30	3.6	11
AUG											
31...	7.2	2.5	7.6	34	.6	2.7	20	0	16	16	18
SEP											
16...	6.1	2.2	7.9	38	.7	2.5	33	0	27	3.9	8.3

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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (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)
OCT											
08...	16	.2	9.9	122	107	.17	64.6	.89	.89	.040	.080
NOV											
03...	10	.1	16	80	87	.11	42.8	.50	.52	.110	.110
DEC											
08...	11	.1	17	95	86	.13	81.3	.55	.51	.090	.160
JAN											
07...	8.8	.1	17	81	69	.11	120	.28	.28	.130	.120
FEB											
25...	8.8	<.1	13	84	--	.11	497	.33	.34	.110	.090
MAR											
24...	9.7	.1	13	78	70	.11	199	.31	.32	.050	.080
APR											
27...	8.7	.2	14	92	71	.13	148	.44	.38	.060	.110
MAY											
26...	8.2	.2	14	86	67	.12	96.1	.55	.54	.020	.010
JUN											
10...	5.4	<.1	10	90	--	.12	530	.36	.26	.070	.070
JUL											
29...	11	.3	9.2	96	75	.13	41.2	.55	.57	<.010	.030
AUG											
31...	8.4	.2	12	93	73	.13	83.1	.49	.47	.060	.060
SEP											
16...	7.1	.1	12	75	61	.10	51.2	.49	.48	.030	.040

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)
OCT										
08...	.05	.10	.55	.51	.59	.00	.59	1.5	6.6	1.5
NOV										
03...	.13	.14	.21	.15	.32	.06	.26	.82	3.6	.78
DEC										
08...	.11	.21	.46	.34	.55	.05	.50	1.1	4.9	1.0
JAN										
07...	.16	.15	.40	.10	.53	.31	.22	.81	3.6	.50
FEB										
25...	--	.12	.48	.48	.59	.02	.57	.92	4.1	.91
MAR										
24...	--	.10	.40	.37	.45	.00	.45	.76	3.4	.77
APR										
27...	--	.14	.64	.59	.70	.00	.70	1.1	5.0	1.1
MAY										
26...	--	.01	.52	.41	.54	.12	.42	1.1	4.8	.96
JUN										
10...	--	.09	1.1	.50	1.20	.63	.57	1.6	6.9	.83
JUL										
29...	--	.04	--	.61	.68	.04	.64	1.2	5.4	1.2
AUG										
31...	--	.08	.61	.65	.67	.00	.71	1.2	5.1	1.2
SEP										
16...	--	.05	.36	.14	.39	.21	.18	.88	3.9	.66

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT										
08...	.160	.49	.080	--	--	--	--	--	--	--
NOV										
03...	.120	.37	.120	0	0	1	100	70	30	0
DEC										
08...	.220	.67	.170	--	--	--	--	--	--	--
JAN										
07...	.110	.34	.090	1	1	0	100	70	30	0
FEB										
25...	.130	.40	.050	--	--	--	--	--	--	--
MAR										
24...	.110	.34	.090	--	--	--	--	--	--	--
APR										
27...	.180	.55	.110	--	--	--	--	--	--	--
MAY										
26...	.190	.58	.140	0	0	1	100	70	30	1
JUN										
10...	.240	.74	.100	--	--	--	--	--	--	--
JUL										
29...	1.10	3.4	1.10	--	--	--	--	--	--	--
AUG										
31...	.160	.49	.080	--	--	--	--	--	--	--
SEP										
16...	.160	.49	.120	2	1	1	100	0	100	1

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
OCT										
08...	--	--	--	--	--	--	--	--	--	--
NOV										
03...	0	1	20	10	10	0	0	0	4	3
DEC										
08...	--	--	--	--	--	--	--	--	--	--
JAN										
07...	0	1	10	--	<10	0	0	0	2	1
FEB										
25...	--	--	--	--	--	--	--	--	--	--
MAR										
24...	--	--	--	--	--	--	--	--	--	--
APR										
27...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	--	<1	10	--	<10	1	1	0	5	2
JUN										
10...	--	--	--	--	--	--	--	--	--	--
JUL										
29...	--	--	--	--	--	--	--	--	--	--
AUG										
31...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	0	1	20	10	10	2	1	1	5	3

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
08...	--	--	--	--	--	--	--	--	--	--
NOV										
03...	1	510	250	260	0	0	0	130	20	110
DEC										
08...	--	--	--	--	--	--	--	--	--	--
JAN										
07...	1	660	290	370	3	0	3	60	20	40
FEB										
25...	--	--	--	--	--	--	--	--	--	--
MAR										
24...	--	--	--	--	--	--	--	--	--	--
APR										
27...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	3	1000	450	550	1	1	0	100	50	50
JUN										
10...	--	--	--	--	--	--	--	--	--	--
JUL										
29...	--	--	--	--	--	--	--	--	--	--
AUG										
31...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	2	1000	380	620	4	1	3	110	50	60

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT									
08...	--	--	--	--	--	--	--	--	--
NOV									
03...	.3	.0	.3	2	2	0	0	0	0
DEC									
08...	--	--	--	--	--	--	--	--	--
JAN									
07...	<.1	--	<.1	0	0	0	0	0	0
FEB									
25...	--	--	--	--	--	--	--	--	--
MAR									
24...	--	--	--	--	--	--	--	--	--
APR									
27...	--	--	--	--	--	--	--	--	--
MAY									
26...	<.1	--	.1	5	4	1	0	0	0
JUN									
10...	--	--	--	--	--	--	--	--	--
JUL									
29...	--	--	--	--	--	--	--	--	--
AUG									
31...	--	--	--	--	--	--	--	--	--
SEP									
16...	<.1	--	--	3	0	6	<1	--	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT									
08...	--	--	--	--	--	--	4.8	--	--
NOV									
03...	0	0	0	10	5	5	--	3.9	.5
DEC									
08...	--	--	--	--	--	--	10	--	--
JAN									
07...	1	1	0	20	20	2	--	5.6	.5
FEB									
25...	--	--	--	--	--	--	9.8	--	--
MAR									
24...	--	--	--	--	--	--	6.0	--	--
APR									
27...	--	--	--	--	--	--	6.5	--	--
MAY									
26...	0	0	0	20	--	<4	--	4.8	.3
JUN									
10...	--	--	--	--	--	--	21	--	--
JUL									
29...	--	--	--	--	--	--	9.4	--	--
AUG									
31...	--	--	--	--	--	--	8.5	--	--
SEP									
16...	<1	--	<1	40	--	<10	--	6.7	.7

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

PHYTOPLANKTON ANALYSES, AUGUST TO SEPTEMBER 1980

DATE	AUG 18,80	SEP 10,80
TIME	1345	1015
TOTAL CELLS/ML	45000	18000
DIVERSITY: DIVISION	1.2	1.3
.CLASS	1.2	1.3
..ORDER	1.3	1.8
...FAMILY	1.8	2.0
....GENUS	2.9	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS	2400	5	470	3
....DICTYOSPHAERIUM	5700	13	290	2
....KIRCHNERIELLA	750	2	350	2
....OOCYSTIS	*	0	530	3
....SELENASTRUM	4900	11	290	2
....TETRAEDRON	--	-	120	1
....TREUBARIA	*	0	--	-
...SCENEDESMACEAE				
....CRUCIGENIA	1200	3	240	1
....SCENEDESMUS	7000#	16	2200	13
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	*	0	470	3
CHRYSOPHYTA				
.BACILLARIOPHYCEAE				
..CENTRALES				
...COSCINODISCACEAE				
....CYCLOTELLA	1200	3	530	3
....MELOSIRA	600	1	880	5
..PENNALES				
...FRAGILARIACEAE				
....SYNEDRA	*	0	--	-
...NAVICULACEAE				
....NAVICULA	*	0	--	-
...NITZSCHIACEAE				
....NITZSCHIA	*	0	290	2
CYANOPHYTA (BLUE-GREEN ALGAE)				
.CYANOPHYCEAE				
..CHROOCOCCALES				
...CHROOCOCCACEAE				
....ANACYSTIS	16000#	36	9400#	53
....COCCOCHLORIS	1000	2	--	-
....GOMPHOSPHAERIA	2700	6	350	2
..HORMOGONALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	--	-	1300	7

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 3,80		MAR 24,81		MAY 26,81		JUN 10,81	
TIME	1100		1130		1315		1200	
TOTAL CELLS/ML	730		460		25000		6400	
DIVERSITY: DIVISION	0.9		1.5		1.1		1.5	
.CLASS	0.9		1.5		1.1		1.5	
..ORDER	1.6		2.0		1.4		2.1	
...FAMILY	1.6		2.1		2.4		2.7	
....GENUS	1.6		2.5		3.0		3.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	1100	5	190	3
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	120#	25	5300#	21	280	4
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	1800	7	370	6
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	560	2	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	280	4
....CRUCIGENIA	--	-	--	-	840	3	490	8
....SCENEDESMUS	--	-	--	-	7300#	29	1000#	16
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	26	6	840	3	160	2
..ZYGNEMATALES								
...DESMIDIACEAE								
....SPONDYLOSIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	65	14	1400	6	160	2
....MELOSIRA	230#	32	130#	28	560	2	540	8
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	140	1	35	1
...EUNOTIACEAE								
....EUNOTIA	--	-	--	-	--	-	*	0
...FRAGILARIACEAE								
....SYNEDRA	--	-	26	6	--	-	52	1
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	*	0
...NAVICULACEAE								
....DIPLONEIS	--	-	--	-	--	-	--	-
....NAVICULA	280#	39	--	-	140	1	35	1
....PINNULARIA	--	-	--	-	280	1	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	13	3	280	1	100	2
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...MALLOMONADACEAE								
....MALLOMONAS	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	--	-	--	-	--	-

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 3,80		MAR 24,81		MAY 26,81		JUN 10,81	
TIME	1100		1130		1315		1200	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	220#	30	90#	19	4200#	17	2000#	32
..HORMOGONALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	210	3
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	380	6
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 29,81		AUG 31,81		SEP 16,81	
TIME	1200		0930		1030	
TOTAL CELLS/ML	15000		1000		7900	
DIVERSITY: DIVISION	1.4		1.7		1.8	
.CLASS	1.5		1.7		1.9	
..ORDER	1.7		2.0		2.0	
...FAMILY	2.1		2.4		2.5	
....GENUS	2.7		2.7		3.5	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	58	6	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	720	5	43	4	610	8
....DICTYOSPHAERIUM	860	6	--	-	--	-
....KIRCHNERIELLA	*	0	--	-	--	-
....OOCYSTIS	240	2	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-
....TETRAEDRON	190	1	--	-	430	5
....TREUBARIA	--	-	--	-	110	1
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	--	-	290	4
....CRUCIGENIA	--	-	58	6	860	11
....SCENEDESMUS	5500#	36	230#	23	1500#	19
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....SPONDYLOSIUM	96	1	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	240	2	--	-	360	5
....MELOSIRA	1400	9	140	14	760	10
....STEPHANODISCUS	*	0	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	72	1
...EUNOTIACEAE						
....EUNOTIA	--	-	--	-	--	-
...FRAGILARIACEAE						
....SYNEDRA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....DIPLONEIS	--	-	--	-	110	1
....NAVICULA	240	2	43	4	72	1
....PINNULARIA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	140	1	43	4	110	1
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...MALLOMONADACEAE						
....MALLOMONAS	--	-	--	-	72	1
.XANTHOPHYCEAE						
..HETEROCOCCALES						
...CHLOROTHECIACEAE						
....OPHIOCYTIUM	290	2	--	-	--	-

02083500 TAR RIVER AT TARBORO, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	JUL 29,81 1200		AUG 31,81 0930		SEPT 16,81 1030	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	960	6	--	-	1200	15
....ANACYSTIS	4500#	29	--	-	720	9
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	--	-	--	-
...OSCILLATORIACEAE						
....LYNGBYA	--	-	360#	35	--	-
....OSCILLATORIA	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	43	4	580	7
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..PERIDINIALES						
...PERIDINIACEAE						
....PERIDINIUM	--	-	--	-	110	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02083500 TAR RIVER AT TARBORO, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	134	112	90	119	113	93	103	84	120	134	133
2	150	130	112	91	139	102	92	113	82	105	147	127
3	134	134	118	110	129	102	90	110	86	106	134	125
4	198	128	112	114	117	124	102	127	88	130	152	147
5	197	143	127	114	122	119	100	127	94	106	150	119
6	196	122	133	92	124	125	96	116	93	133	123	125
7	186	112	120	103	121	120	89	108	91	116	112	121
8	173	133	117	116	116	102	101	103	90	105	133	146
9	138	132	117	121	129	100	105	113	82	96	141	148
10	112	155	118	109	123	101	104	127	75	98	137	120
11	107	153	95	111	105	105	100	127	66	98	139	103
12	138	153	114	113	109	102	98	137	73	108	137	99
13	163	117	102	112	119	102	103	118	81	99	125	106
14	163	111	110	117	104	113	97	113	80	106	124	108
15	163	134	102	110	93	117	101	98	89	111	135	143
16	124	135	106	127	98	109	101	108	97	102	140	94
17	112	163	87	126	109	101	98	110	100	105	130	122
18	122	146	98	119	103	111	108	108	100	148	145	143
19	144	138	107	132	104	104	108	118	106	128	167	122
20	141	122	96	122	112	101	108	113	132	129	130	112
21	163	102	110	113	105	108	106	113	108	136	140	143
22	204	144	102	116	97	107	103	127	92	137	99	133
23	124	135	97	115	112	105	100	137	96	121	96	143
24	138	132	110	119	96	103	102	126	93	107	97	153
25	133	120	110	120	100	93	103	127	98	129	100	122
26	120	117	113	113	98	91	110	115	94	144	85	158
27	153	118	113	113	108	82	108	118	96	139	96	133
28	107	122	114	112	120	94	103	118	110	129	118	166
29	110	123	92	114	---	94	100	102	98	127	130	173
30	92	115	97	113	---	93	108	93	146	118	111	173
31	93	---	95	109	---	93	---	79	---	115	109	---
MEAN	146	131	108	113	112	104	101	115	94	118	126	132

WTR YR 1981 MEAN 117 MAX 219 MIN 66

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	11.0	8.0	6.0	2.5	10.5	15.0	20.0	23.0	24.0	26.0	23.0
2	22.0	---	9.0	6.0	5.5	11.0	15.0	19.0	23.0	24.0	25.5	23.5
3	22.0	---	8.0	---	4.0	10.5	15.5	17.0	23.0	23.5	25.5	23.5
4	21.0	---	7.0	---	3.0	9.5	15.0	17.5	24.0	23.5	25.5	24.0
5	19.0	13.0	7.0	---	2.0	10.0	17.0	17.5	24.5	24.5	27.0	23.5
6	19.0	12.0	8.0	2.0	2.0	10.0	17.0	19.0	25.0	25.5	28.0	22.5
7	23.0	12.0	9.0	4.0	2.0	9.5	15.5	18.5	25.5	25.5	26.5	23.5
8	19.0	13.0	10.0	3.0	4.0	9.5	15.0	15.5	24.5	26.5	27.0	23.0
9	20.0	14.0	11.0	3.0	4.0	9.5	16.0	16.5	24.5	27.5	25.5	22.5
10	20.0	15.0	10.0	---	4.0	9.0	16.0	18.0	25.0	28.0	26.5	23.0
11	21.0	12.0	10.0	---	7.0	9.0	16.5	18.5	25.5	29.0	27.0	22.5
12	19.0	11.0	9.0	---	6.0	8.5	18.5	19.5	25.0	29.5	26.0	23.0
13	18.0	10.0	9.0	---	5.0	9.5	18.0	19.5	25.0	28.5	25.0	23.0
14	16.0	11.0	9.0	1.0	4.5	10.0	17.0	20.0	25.5	28.0	25.5	23.0
15	17.0	10.0	8.0	1.0	5.5	9.5	17.0	21.0	27.0	27.0	25.0	24.0
16	18.0	11.0	8.0	1.5	5.5	10.5	16.0	20.5	27.5	25.5	25.5	24.5
17	18.0	11.0	8.0	1.0	6.5	8.5	17.0	20.0	28.0	25.0	25.0	23.0
18	20.0	11.0	7.0	1.0	8.0	9.0	17.5	19.5	27.5	26.0	24.0	22.0
19	19.0	10.0	8.0	1.0	9.5	9.0	20.0	19.0	26.5	26.5	23.0	21.0
20	19.0	9.0	7.0	2.0	10.5	8.0	18.0	16.5	26.5	27.5	21.5	19.0
21	18.0	9.0	5.0	3.0	11.0	8.0	16.0	16.0	27.0	28.0	21.0	19.5
22	17.0	8.0	4.0	2.5	11.0	8.0	16.0	17.5	28.0	27.5	21.0	19.5
23	16.0	9.0	5.0	3.5	11.0	7.5	17.0	19.5	28.0	27.5	20.0	19.5
24	16.0	9.0	---	3.5	11.0	8.0	18.5	20.5	26.5	26.5	22.0	17.0
25	15.0	10.0	---	3.5	11.0	9.0	17.0	22.0	27.5	26.0	22.0	17.0
26	14.0	10.0	---	3.5	10.0	9.5	16.0	22.5	27.0	26.5	22.0	16.5
27	13.0	9.0	---	4.5	9.5	10.5	17.5	22.5	25.0	28.0	22.0	18.0
28	14.0	9.0	---	6.0	9.5	11.0	19.0	22.0	23.5	29.0	22.0	19.0
29	14.0	9.0	6.0	5.0	---	11.5	20.5	22.0	23.5	28.5	25.0	18.0
30	12.0	---	6.0	5.0	---	13.0	21.0	22.0	23.5	26.5	22.5	17.5
31	13.0	---	6.0	2.0	---	13.5	---	22.5	---	25.0	22.5	---
MEAN	18.0	10.5	8.0	3.0	6.5	9.5	17.0	19.5	25.5	26.5	24.5	21.5

WTR YR 1981 MEAN 16.5 MAX 29.5 MIN 1.0

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
08...	1030	196	11	5.8	82
NOV					
03...	1100	198	7	3.7	83
DEC					
08...	1100	317	9	7.7	97
FEB					
25...	1245	2190	37	219	82
APR					
27...	1300	596	24	39	63
MAY					
26...	1315	414	16	18	91
JUN					
10...	1200	2180	87	512	76
JUL					
29...	1200	159	17	7.3	78
AUG					
31...	0930	331	27	24	92
SEP					
16...	1030	253	16	11	90

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/23	12 20	0000	1.44	131	60		16.5	6.0	10.4	107.2	26	1.1
80/11/20	12 15	0000	1.97	239	75		8.0	3.0	11.4	95.8	16	4.5
80/12/08	12 35	0000	2.09	270	122		14.0	5.0	10.8	103.8	18	1.6
81/01/12	11 00	0000	2.39	428	74		1.5	9.0	16.5	119.6	15	1.1
81/02/24	12 15	0000	8.09	2870	87		13.0	35.0	9.2	86.8	29	2.0
81/03/09	11 40	0000	5.19	1420	92	7.45	12.0	20.0	7.5	69.4	22	2.9
81/04/16	15 15	0000	3.43	799	100		19.0	7.0	8.8	93.6	24	1.6
81/05/19	10 00	0000	2.44	390		6.00	15.0		7.4	88.1		0.8
	10 00	0003			72	6.00	25.0	31.0	7.4	88.0		
81/06/23	15 55	0000	3.32	674		7.23	29.0	10.0	7.3	93.6		2.8
81/07/08	16 25	0000	3.30	666		6.81	32.0	15.0	6.8	91.9		1.8
81/08/03	14 45	0000	1.74	205		7.49	30.0	6.0	8.0	105.3		1.5
81/09/02	14 50	0000	1.85	234		7.06	28.0	10.0	7.5	94.9		1.2

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/23	12 20	0000	10	27	0.76	0.190	0.800	0.380	0.190			
80/11/20	12 15	0000	180	29	0.52	0.160	0.500	0.250	0.160			
80/12/08	12 35	0000	10K	24	0.47	0.160	0.500	0.220	0.130	10K	50K	50K
81/01/12	11 00	0000	20	22	0.37	0.340	0.700	0.250	0.090			
81/02/24	12 15	0000	70	11	0.33	0.090	0.900	0.140	0.050K	10K	50K	50K
81/03/09	11 40	0000	60	13	0.34	0.090	0.060	0.160	0.060			
81/04/16	15 15	0000	20	22	0.05K	0.050K	0.600	0.170	0.070			
81/05/19	10 00	0000	230		0.49	0.080			0.080			
81/06/23	15 55	0000	100	27	0.40	0.050K	0.500	0.180	0.070	10K	50K	50K
81/07/08	16 25	0000	40	20	0.43	0.050K	0.500	0.200	0.110			
81/08/03	14 45	0000	20	27	0.71	0.050K	0.600	0.290	0.190			
81/09/02	14 50	0000	20	14	0.58	0.050K	0.600	0.210	0.090	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/08	12 35	0000	100K	40K	600	100K	90.0	0.5	50K
81/02/24	12 15	0000	100K	40K	1400	100K	120.0	0.5K	50K
81/06/23	15 55	0000	100K	40K	1200	100K	100.0	0.5K	50K
81/09/02	14 50	0000	100K	40K	1000	100K	140.0	0.5K	50

K Less than noted value.

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 (2 m) downstream from bridge on Secondary Road 1409, 5.5 mi (8.8 km) downstream from Crisp Creek, and 5.5 mi (8.8 km) west of Bethel.

DRAINAGE AREA.--78.1 mi² (202 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (9 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--24 years, (1957-81) 83.3 ft³/s (2.359 m³/s), 14.48 in/yr (368 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft³/s (73.1 m³/s) Aug. 23, 1967, gage height, 15.74 ft (4.798 m); minimum, 0.40 ft³/s (0.011 m³/s) Aug. 28, 29, Sept. 3, 1980, gage height, 0.07 ft (0.021 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1955 reached a stage of 16.7 ft (5.09 m), from information by local resident (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 230 ft³/s (6.51 m³/s) Aug. 23, gage height, 4.66 ft (1.420 m), no peak above base of 470 ft³/s (13.3 m³/s); minimum, 1.9 ft³/s (0.054 m³/s) Oct. 7-19; minimum gage height, 0.07 ft (0.021 m) July 23, 24, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	3.6	7.3	9.9	10	20	25	7.0	11	5.3	3.4	13
2	13	3.5	7.2	9.7	13	19	18	7.5	11	6.4	3.3	12
3	6.0	3.4	7.0	9.4	19	18	16	6.9	11	6.8	3.4	11
4	4.2	4.0	6.7	9.4	15	18	15	6.7	12	78	3.4	10
5	3.8	6.5	6.7	8.6	14	29	15	6.3	15	35	3.3	9.6
6	3.2	5.4	6.7	8.3	13	35	18	6.0	15	15	3.9	9.5
7	1.9	4.7	6.9	9.0	13	30	18	6.2	19	12	4.6	9.1
8	1.9	4.4	7.0	9.2	14	23	17	6.3	14	9.5	3.4	8.8
9	1.9	4.4	6.9	8.7	13	18	16	6.1	11	8.1	3.8	10
10	1.9	4.2	8.2	8.6	12	15	16	7.2	9.7	7.5	3.9	9.2
11	1.9	4.0	12	8.1	22	14	15	11	8.4	6.2	17	7.5
12	1.9	4.0	9.6	8.0	47	13	15	10	7.7	5.0	25	6.4
13	1.9	4.3	8.5	8.0	29	12	14	8.7	7.2	5.6	14	6.8
14	1.9	4.2	8.1	7.9	25	11	13	7.6	6.4	4.9	7.6	6.1
15	1.9	4.4	7.7	7.9	23	10	12	7.1	6.4	4.1	6.7	6.4
16	1.9	4.5	7.8	7.8	21	10	11	6.5	5.7	3.4	5.9	6.2
17	1.9	4.4	8.0	7.8	20	11	11	6.1	4.7	13	16	6.0
18	2.0	5.5	7.8	7.5	19	12	11	5.8	6.1	8.6	8.1	4.9
19	2.1	5.4	7.7	7.5	20	13	10	5.8	128	5.0	7.6	5.7
20	2.4	5.2	7.4	7.6	33	12	11	8.7	47	4.3	63	5.4
21	2.3	6.1	7.1	9.8	47	11	14	11	25	3.7	33	5.1
22	2.1	6.6	6.9	20	36	10	12	10	17	3.9	82	4.9
23	2.2	6.6	7.7	17	31	14	11	8.9	13	3.7	157	4.7
24	2.3	6.6	8.3	14	29	18	11	7.8	10	3.5	67	4.0
25	11	8.6	8.0	12	26	24	10	7.2	9.4	3.5	42	3.5
26	8.6	9.6	7.4	12	24	21	9.2	6.6	8.3	3.5	30	3.5
27	4.2	8.6	7.4	11	22	18	8.5	6.3	7.3	3.4	24	4.0
28	3.5	8.3	9.1	12	20	16	7.8	43	7.3	3.1	19	3.8
29	3.2	7.9	9.9	11	---	13	7.9	34	6.6	5.0	16	3.3
30	3.4	7.6	10	11	---	20	7.3	17	5.4	4.2	15	3.1
31	3.6	---	10	10	---	34	---	12	---	4.1	16	---
TOTAL	110.3	166.5	247.0	308.7	630	542	395.7	307.3	465.6	285.3	708.3	203.5
MEAN	3.56	5.55	7.97	9.96	22.5	17.5	13.2	9.91	15.5	9.20	22.8	6.78
MAX	13	9.6	12	20	47	35	25	43	128	78	157	13
MIN	1.9	3.4	6.7	7.5	10	10	7.3	5.8	4.7	3.1	3.3	3.1
CFSM	.05	.07	.10	.13	.29	.22	.17	.13	.20	.12	.29	.09
IN.	.05	.08	.12	.15	.30	.26	.19	.15	.22	.14	.34	.10

CAL YR 1980 TOTAL 19978.1 MEAN 54.6 MAX 653 MIN 1.1 CFSM .70 IN 9.52
WTR YR 1981 TOTAL 4370.2 MEAN 12.0 MAX 157 MIN 1.9 CFSM .15 IN 2.08

02084148 CHICOD CREEK AT SECONDARY ROAD 1565 NEAR GRIMESLAND, NC

LOCATION.--Lat 35°31'57", long 77°11'13", Pitt County, Hydrologic Unit 03020103, at bridge on Secondary Road 1565, 2.0 mi (3.2 km) upstream from Cow Swamp and 2.2 mi (3.5 km) south of Grimesland.

DRAINAGE AREA.--19 mi² (49 km²), approximately.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Station operated to define the effects of channelization on stream quantity and quality in the Chicod Creek basin.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV												
18...	0845	1.0	103	6.4	10.5	60	4.0	2.8	K54	260	21	0
JAN												
13...	0850	4.3	100	6.8	.0	10	3.0	8.0	K40	100	25	13
MAY												
12...	1245	46	88	6.7	19.0	100	24	5.3	370	K2200	21	11
28...	1215	31	63	5.5	21.0	160	--	5.3	--	--	15	9
29...	1215	65	69	5.5	20.5	280	--	5.6	--	--	16	12
JUN												
07...	1045	350	52	5.8	22.5	200	--	--	3200	9700	13	8
07...	1340	304	57	5.6	23.5	380	--	--	1900	9000	13	10
08...	1600	80	58	5.8	23.5	110	15	6.1	120	400	16	9
SEP												
01...	1400	2.5	90	6.3	24.0	50	--	11.2	120	790	21	11

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
NOV												
18...	5.2	2.0	6.5	34	.6	5.0	28	0	23	13	7.6	12
JAN												
13...	6.4	2.3	6.5	33	.6	2.7	15	0	12	1.5	11	13
MAY												
12...	5.3	1.9	5.7	33	.5	3.4	12	0	10	1.2	13	9.1
28...	4.1	1.2	4.3	34	.5	2.6	7	0	6	43	7.3	7.5
29...	4.0	1.4	3.8	30	.4	2.9	5	0	4	31	8.3	7.4
JUN												
07...	3.3	1.2	2.5	24	.3	2.9	6	0	5	22	6.1	4.7
07...	3.4	1.2	2.6	25	.3	2.7	4	0	3	29	5.5	5.1
08...	4.1	1.5	3.7	30	.4	1.8	9	0	7	3.1	9.6	6.6
SEP												
01...	5.0	2.0	5.6	33	.5	3.0	12	0	10	5.9	9.7	12

K Results based on colony count outside the acceptable range (non-ideal colony count).

02084148 CHICOD CREEK AT SECONDARY ROAD 1565 NEAR GRIMESLAND, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (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)
NOV												
18...	.1	11	84	61	.11	.23	.06	.010	.07	.10	--	--
JAN												
13...	<.1	8.8	79	58	.11	.92	--	<.010	1.0	1.0	--	--
MAY												
12...	<.1	7.5	65	48	.09	3.0	1.1	.040	1.1	1.3	--	--
28...	<.1	6.4	49	38	.07	4.1	.44	.060	.50	.50	.210	.130
29...	<.1	5.0	83	36	.11	14.6	.92	.070	.99	.96	--	--
JUN												
07...	<.1	5.7	66	31	.09	62.4	.49	.050	.54	.54	.370	.320
07...	<.1	5.0	63	29	.09	51.7	.51	.040	.55	.62	.290	.310
08...	<.1	7.1	77	34	.10	16.6	.50	.020	.52	.63	.130	.140
SEP												
01...	<.1	7.5	97	49	.13	.65	3.3	.040	3.3	1.2	--	--

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG, SUSP, TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS, (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
NOV												
18...	--	--	--	1.20	--	--	1.3	5.6	--	.080	.25	.040
JAN												
13...	--	--	--	.68	.18	.50	1.7	7.4	1.5	.030	.09	.020
MAY												
12...	--	--	--	1.40	--	--	2.5	11	--	.200	.61	.100
28...	.17	.89	.69	1.10	.28	.82	1.6	7.1	1.3	.230	.71	.040
29...	--	--	--	1.50	.40	1.1	2.5	11	2.1	.300	.92	.060
JUN												
07...	.41	.93	.62	1.30	.36	.94	1.8	8.1	1.5	.220	.67	.060
07...	.40	.81	.65	1.10	.14	.96	1.7	7.3	1.6	.230	.71	.040
08...	.18	.86	.96	.99	.00	1.1	1.5	6.7	1.7	.100	.31	.020
SEP												
01...	--	--	--	1.40	.20	1.2	4.7	21	2.4	.130	.40	.140

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
NOV												
18...	1	0	1	9	8	1	1300	720	580	3	0	3
JAN												
13...	1	1	0	1	1	0	280	160	120	0	0	0
MAY												
12...	0	0	0	2	0	3	1000	640	360	1	1	0
28...	2	1	1	5	0	7	2600	2300	270	5	5	0
29...	2	1	1	2	0	9	2200	2000	190	5	5	0
JUN												
07...	2	1	1	3	0	3	1600	1000	560	2	1	1
07...	2	1	1	2	0	2	1600	1200	360	4	3	1
08...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
01...	2	0	2	22	19	3	1000	50	950	6	5	1

02084148 CHICOD CREEK AT SECONDARY ROAD 1565 NEAR GRIMESLAND, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PCB, TOTAL (UG/L)
NOV										
18...	.1	.0	.1	20	10	10	--	13	1.1	--
JAN										
13...	<.1	--	<.1	30	--	<4	--	5.6	--	--
MAY										
12...	<.1	--	<.1	30	10	20	--	13	2.2	--
28...	<.1	--	<.1	40	20	20	14	--	--	--
29...	<.1	--	<.1	20	--	<4	--	8.6	2.2	--
JUN										
07...	.1	.0	.3	20	10	7	25	--	--	--
07...	<.1	--	<.1	30	20	10	21	--	--	<.10
08...	--	--	--	--	--	--	21	--	--	--
SEP										
01...	.1	.0	.4	110	90	20	--	--	--	--

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
NOV										
18...	--	--	--	--	--	--	--	--	--	--
JAN										
13...	--	--	--	--	--	--	--	--	--	--
MAY										
12...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUN										
07...	--	--	--	--	--	--	--	--	--	--
07...	<.01	<.10	<.01	<.01	<.01	<.01	.01	<.01	<.01	<.01
08...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)
NOV									
18...	--	--	--	--	--	--	--	--	--
JAN									
13...	--	--	--	--	--	--	--	--	--
MAY									
12...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
JUN									
07...	--	--	--	--	--	--	--	--	--
07...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10
08...	--	--	--	--	--	--	--	--	--
SEP									
01...	--	--	--	--	--	--	--	--	--

DATE	TOTAL TRI-THION (UG/L)
JUN	
07...	<.01

02084148 CHICOD CREEK AT SECONDARY ROAD 1565 NEAR GRIMESLAND, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV				
18...	0845	1.0	10	.03
JAN				
13...	0850	4.3	3	.03
FEB				
10...	1506	3.8	4	.04
MAR				
17...	1800	2.3	23	.14
MAY				
12...	1245	46	65	8.1
28...	1215	31	145	12
28...	1245	30	143	12
28...	1530	29	105	8.2
29...	1215	65	115	20
JUN				
07...	1045	350	78	74
07...	1340	304	70	57
08...	1600	80	21	4.5
24...	1640	6.3	46	.78
SEP				
01...	1400	2.5	14	.09

02084158 COW SWAMP NEAR GRIMESLAND, NC

LOCATION.--Lat 35°32'00", long 77°13'30", Pitt County, Hydrologic Unit 03020103, at bridge on Secondary Road 1756, 1.0 mi (1.6 km) upstream from mouth, and 3.0 mi (4.8 km) southwest of Grimesland.

DRAINAGE AREA.--17 mi² (44 km²), approximately.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Station operated to define the effects of channelization on stream quantity and quality in the Chicod Creek basin.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
18...	1015	3.0	250	6.4	10.0	20	3.4	210	320	77	15	28
JAN												
13...	1040	6.8	240	6.8	.0	10	11.0	900	K1100	83	11	28
MAY												
12...	1000	5.0	198	6.7	20.5	70	4.5	K1200	K35000	64	14	21
28...	1145	621	60	5.6	20.5	280	6.7	--	--	17	10	4.8
28...	1515	384	68	5.7	20.5	180	--	--	--	17	9	5.1
29...	1145	25	120	6.2	20.0	120	5.2	--	--	37	12	11
JUN												
07...	1020	360	70	6.1	22.5	200	5.1	--	--	22	12	6.4
SEP												
01...	1630	2.9	175	6.4	25.0	12	7.0	K5200	K22000	68	20	23

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV												
18...	1.7	8.3	17	.4	7.8	75	0	62	47	31	15	.2
JAN												
13...	3.2	9.3	19	.4	4.8	88	0	72	17	30	15	.2
MAY												
12...	2.8	8.9	21	.5	7.2	61	0	50	19	27	11	.2
28...	1.1	2.7	21	.3	4.2	8	0	7	4.9	9.8	3.8	.3
28...	1.0	2.7	21	.3	4.5	10	0	8	47	9.6	4.3	.2
29...	2.2	5.5	21	.4	7.0	30	0	25	1.2	18	9.8	.2
JUN												
07...	1.4	2.8	19	.3	3.4	12	0	10	14	8.9	5.1	.2
SEP												
01...	2.6	6.9	17	.4	3.7	58	0	48	31	20	13	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, 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)
NOV												
18...	6.8	155	137	.21	1.2	2.5	.000	2.5	.30	--	--	--
JAN												
13...	12	145	136	.20	2.6	1.3	.010	1.3	.02	--	--	--
MAY												
12...	9.6	125	126	.17	1.6	1.6	.130	1.7	1.8	--	--	--
28...	2.8	50	30	.07	83.8	1.0	.090	1.1	1.2	.670	.690	.89
28...	2.7	62	38	.08	64.3	1.1	.110	1.2	1.2	1.00	.750	.97
29...	6.5	127	--	.17	8.5	1.9	.080	2.0	2.0	--	--	--
JUN												
07...	2.7	79	36	.11	76.8	.55	.060	.61	.59	.550	.460	.59
SEP												
01...	9.9	136	104	.18	1.0	1.7	.160	1.9	1.9	--	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

02084158 COW SWAMP NEAR GRIMESLAND, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
NOV												
18...	--	--	2.50	.50	2.0	5.0	22	2.3	.510	1.6	.440	1
JAN												
13...	--	--	2.50	.30	2.2	3.8	17	2.2	.590	1.8	.470	1
MAY												
12...	--	--	4.20	.00	4.2	5.9	26	6.0	.760	2.3	.390	1
28...	1.0	.91	1.70	.10	1.6	2.8	12	2.8	1.60	4.9	.170	7
28...	2.0	1.2	3.00	1.1	1.9	4.2	19	3.1	.920	2.8	.250	5
29...	--	--	4.00	.70	3.3	6.0	27	5.3	.770	2.4	.450	2
JUN												
07...	.95	.74	1.50	.30	1.2	2.1	9.3	1.8	.520	1.6	.230	--
SEP												
01...	--	--	1.20	.00	1.2	3.1	14	3.1	.620	1.9	.610	2

DATE	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV											
18...	0	1	7	6	1	530	390	140	0	0	3
JAN											
13...	0	1	0	0	0	560	490	70	5	1	4
MAY											
12...	0	1	4	1	3	1500	1200	350	5	5	0
28...	5	2	9	3	6	6000	5700	270	23	23	0
28...	3	2	9	5	4	4700	4500	200	14	14	0
29...	0	2	4	0	5	2400	2200	200	5	5	0
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP											
01...	0	2	7	4	3	580	150	430	6	5	1

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
NOV									
18...	<.1	--	<.1	10	10	0	--	8.3	1.0
JAN									
13...	<.1	--	.1	20	20	5	--	4.9	.5
MAY									
12...	.1	.0	.3	20	0	20	--	11	2.2
28...	<.1	--	<.1	60	40	20	38	--	--
28...	<.1	--	<.1	110	90	20	21	--	--
29...	<.1	--	<.1	30	20	6	--	11	2.9
JUN									
07...	--	--	--	--	--	--	28	--	--
SEP									
01...	.3	.0	.3	40	20	20	--	--	--

02084158 COW SWAMP NEAR GRIMESLAND, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
16...	0935	.90	6	.01
NOV				
18...	1015	3.0	5	.04
JAN				
13...	1040	6.8	9	.17
FEB				
10...	1455	7.5	7	.14
MAR				
17...	1750	5.0	6	.08
MAY				
12...	1000	5.0	75	1.0
28...	1145	621	716	1200
28...	1205	601	645	1050
28...	1515	384	402	417
29...	1145	25	92	6.2
JUN				
07...	1020	360	100	97
24...	1630	4.4	33	.39
SEP				
01...	1630	2.9	6	.05

PAMLICO RIVER BASIN

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC

LOCATION.--Lat 35°33'47", long 77°13'43", Pitt County, Hydrologic Unit 03020103, on left bank at downstream side of bridge on Secondary Road 1760, 0.6 mi (1 km) upstream from Juniper Branch, and 2.8 mi (4.5 km) east-southeast of Simpson.

DRAINAGE AREA.--45 mi² (117 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929 (Soil Conservation Service benchmark). Prior to July 25, 1977, at datum 4.92 ft (1.500 m) higher.

REMARKS.--Water-discharge record good.

AVERAGE DISCHARGE.--6 years, 50.7 ft³/s (1.436 m³/s), 15.30 in/yr (389 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,510 ft³/s (71.1 m³/s) Nov. 7, 1977, gage height, 12.50 ft (3.810 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 12	1430	312	8.84	8.13	2.478	June 19	0900	317	8.98	8.15	2.484
May 28	1630	586	16.6	8.94	2.725	Aug. 20	1600	594	16.8	8.96	2.731
June 7	0530	*1080	30.6	*10.07	3.069						

No flow part of each day July 30, Aug. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	18	13	66	13	24	11	.99	31	2.2	.10	6.2
2	33	16	11	53	44	22	11	1.0	43	2.8	.07	5.3
3	32	11	9.7	42	119	20	9.0	1.1	63	23	.07	4.5
4	38	9.4	8.1	35	98	17	7.3	1.3	83	119	.20	3.8
5	28	19	7.3	27	62	36	6.7	.76	99	70	.16	3.3
6	18	17	7.1	25	45	42	9.4	.26	153	30	.10	2.9
7	12	12	6.6	26	36	36	8.6	.86	854	13	.30	2.8
8	8.4	9.0	6.0	27	33	30	7.1	3.8	328	7.3	.30	11
9	6.0	6.8	5.5	22	29	25	6.4	5.7	151	4.6	.30	14
10	4.4	5.2	11	18	24	21	6.0	7.7	81	3.4	.50	10
11	3.3	4.2	31	16	60	18	5.2	28	47	2.8	.80	6.6
12	2.5	3.5	30	13	256	16	4.8	70	28	1.9	58	4.5
13	2.0	3.1	27	12	183	15	4.3	58	18	1.8	26	3.3
14	1.7	3.1	20	11	108	13	4.1	25	13	1.8	8.6	2.6
15	1.6	3.2	16	10	82	12	3.6	14	8.5	1.5	3.9	2.1
16	1.4	4.0	15	9.4	68	12	3.1	8.5	5.9	1.5	2.2	1.7
17	1.3	3.7	20	8.8	58	14	2.9	5.7	5.5	40	1.7	1.4
18	1.3	6.2	18	8.6	51	12	2.8	4.3	63	25	1.3	1.4
19	2.0	5.1	16	8.0	51	11	2.3	3.9	260	4.8	7.7	1.6
20	3.8	4.6	14	7.8	57	10	2.2	87	166	2.4	377	1.3
21	2.7	16	11	17	68	9.1	2.2	107	69	1.7	239	1.0
22	1.8	34	9.2	33	62	8.5	2.0	106	33	1.3	109	.90
23	1.5	32	15	33	53	22	2.0	58	20	1.0	183	.75
24	1.6	28	27	30	47	25	1.9	28	25	.75	112	.70
25	9.8	32	27	23	40	19	1.7	15	12	.60	62	.90
26	14	35	20	18	34	15	1.6	9.5	7.1	.55	39	.90
27	12	27	22	16	30	13	1.6	6.7	4.8	.40	26	.90
28	9.9	22	80	15	26	10	1.5	337	3.6	.35	17	.75
29	7.3	18	131	15	---	9.2	1.3	250	2.9	.15	12	.75
30	8.9	18	127	14	---	9.6	1.1	122	2.4	.15	9.4	1.4
31	17	---	87	13	---	13	---	55	---	.15	7.3	---
TOTAL	308.2	426.1	848.5	672.6	1837	559.4	134.7	1422.07	2680.7	365.90	1305.00	99.25
MEAN	9.94	14.2	27.4	21.7	65.6	18.0	4.49	45.9	89.4	11.8	42.1	3.31
MAX	38	35	131	66	256	42	11	337	854	119	377	14
MIN	1.3	3.1	5.5	7.8	13	8.5	1.1	.26	2.4	.15	.07	.70
CFSM	.22	.32	.61	.48	1.46	.40	.10	1.02	1.99	.26	.94	.07
IN.	.25	.35	.70	.56	1.52	.46	.11	1.18	2.22	.30	1.08	.08

CAL YR 1980 TOTAL 15478.70 MEAN 42.3 MAX 634 MIN .00 CFSM .94 IN 12.80
WTR YR 1981 TOTAL 10659.42 MEAN 29.2 MAX 854 MIN .07 CFSM .65 IN 8.81

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1975 to current year.
WATER TEMPERATURES: November 1975 to current year.
SUSPENDED-SEDIMENT DISCHARGE: November 1975 to current year.

INSTRUMENTATION.--Water-quality monitor and sediment pumping sampler since November 1975.

REMARKS.--Station operated to define the effects of channelization on stream quantity and quality in the Chicod Creek basin.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 453 micromhos May 9, 1981; minimum, 30 micromhos May 5, 1978.
WATER TEMPERATURES: Maximum, 32.0°C June 15, 16, 1981; minimum, 0.0°C Dec. 20, 1975, Jan. 10, 11, 18-25, 1976, Jan. 5, 6, 9, 11, 1981.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 662 mg/L May 5, 1978; minimum daily mean, 0 mg/L during periods of zero flow.
SEDIMENT LOADS: Maximum daily, 3650 tons (3310 tonnes) May 5, 1978; minimum daily, 0.0 tons (0.0 tonnes) during periods of zero flow.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 453 micromhos May 9; minimum, 57 micromhos June 7.
WATER TEMPERATURES: Maximum, 32.0°C June 15, 16; minimum recorded, 0.0°C Jan. 5, 6, 9, 11.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 282 mg/L May 28; minimum daily mean, 2 mg/L Sept. 28.
SEDIMENT LOADS: Maximum daily, 549 tons (498 tonnes) June 7; minimum daily, 0.0 tons (0.0 tonnes) May 6, July 27-31, Aug. 1-10, Sept. 23-29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
17...	1440	3.8	180	6.6	10.0	40	6.3	K72	K28	60	14	19
JAN												
12...	1330	20	148	5.2	.0	10	12.8	150	980	48	14	15
FEB												
09...	1530	29	135	6.7	4.5	30	11.2	--	--	34	0	9.7
MAR												
18...	1040	12	155	6.6	9.5	90	9.9	--	--	42	0	13
APR												
30...	0950	1.0	--	6.4	20.5	30	3.6	--	--	80	3	27
MAY												
12...	1345	76	115	6.9	19.5	100	5.3	700	K4100	30	9	9.1
27...	1400	6.6	145	--	--	45	--	--	--	42	--	13
28...	0300	57	85	--	--	90	--	--	--	26	--	7.9
28...	1310	452	110	5.9	20.5	200	5.9	--	--	22	2	6.5
28...	1555	582	77	6.8	21.5	240	--	--	--	18	7	5.3
28...	2200	438	79	--	--	340	--	--	--	19	--	5.9
29...	1300	239	110	5.6	21.0	280	5.0	--	--	27	17	8.0
JUN												
06...	1300	62	95	--	--	90	--	--	--	28	--	8.2
06...	2400	787	82	--	--	240	--	--	--	19	--	5.6
07...	0950	1010	55	6.0	--	280	--	4200	K17000	15	7	4.5
07...	1300	890	65	6.2	23.0	480	--	4900	9600	17	7	5.0
08...	0700	366	70	--	--	100	--	--	--	22	--	6.3
AUG												
05...	1130	.16	--	6.5	26.0	10	5.3	96	420	67	--	23
31...	1245	8.0	--	7.2	24.5	30	--	180	380	35	2	12

K Results based on colony count outside the acceptable range (non-ideal colony count).

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV												
17...	3.1	8.3	21	.5	7.1	57	0	47	17	22	14	.1
JAN												
12...	2.6	7.4	23	.5	4.6	42	0	34	308	20	14	.1
FEB												
09...	2.3	7.2	29	.5	3.4	46	0	38	7.4	18	13	<.1
MAR												
18...	2.3	7.8	27	.5	3.4	62	0	51	25	16	14	.4
APR												
30...	3.1	8.7	18	.4	5.3	94	0	77	60	12	12	.2
MAY												
12...	1.8	6.6	28	.5	4.7	25	0	21	1.7	20	13	.1
27...	2.3	8.4	28	.6	4.3	--	--	--	--	14	13	.1
28...	1.5	4.4	24	.4	3.3	--	--	--	--	8.5	7.7	.1
28...	1.4	4.2	23	.4	6.6	24	0	20	9.8	8.5	5.8	.2
28...	1.1	2.9	20	.3	5.4	13	0	11	.6	8.7	4.8	.2
28...	1.1	2.8	20	.3	4.5	--	--	--	--	8.8	5.0	.2
29...	1.6	4.3	22	.4	4.7	12	0	10	108	12	7.6	.2
JUN												
06...	1.8	5.2	25	.4	4.3	--	--	--	--	8.8	9.9	.1
06...	1.2	3.2	21	.3	6.0	--	--	--	--	5.9	6.0	.2
07...	.9	2.1	19	.2	3.6	10	0	8	20	6.5	4.2	.2
07...	1.0	2.3	19	.2	3.7	12	0	10	11	5.4	4.9	.1
08...	1.5	3.5	23	.3	3.4	--	--	--	--	9.5	6.5	<.1
AUG												
05...	2.2	6.7	17	.4	2.6	--	0	--	--	18	6.1	.2
31...	1.3	6.3	26	.5	3.6	40	0	33	2.1	15	12	.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (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)
NOV												
17...	11	130	108	.18	1.3	2.2	.000	2.2	.59	--	--	--
JAN												
12...	9.1	99	100	.13	5.3	1.3	.020	1.3	--	--	--	--
FEB												
09...	6.2	95	78	.13	7.4	--	--	1.4	1.5	--	--	--
MAR												
18...	6.9	103	83	.14	3.3	1.2	.030	1.2	1.2	--	--	--
APR												
30...	8.5	--	128	.17	.35	.95	.050	1.0	1.1	--	--	--
MAY												
12...	9.7	101	70	.14	20.7	1.0	.070	1.1	1.2	--	--	--
27...	8.5	116	79	.16	2.0	2.4	.140	2.5	2.5	.200	.200	.26
28...	5.0	81	44	.11	12.5	--	--	1.6	--	.240	--	--
28...	3.3	75	39	.10	91.5	1.1	.130	1.2	1.2	2.40	2.10	2.7
28...	2.8	64	33	.09	101	.99	.110	1.1	1.1	2.10	1.80	2.3
28...	3.0	74	36	.10	87.5	--	--	1.4	--	1.40	--	--
29...	5.5	100	57	.14	64.5	1.4	.110	1.5	1.4	--	--	--
JUN												
06...	7.4	94	58	.13	15.7	--	--	1.2	--	.140	--	--
06...	3.5	62	42	.08	132	--	--	.97	--	1.70	--	--
07...	3.8	70	32	.10	191	.48	.080	.56	.52	.490	.430	.55
07...	4.2	59	32	.08	142	.41	.090	.50	.57	.620	.560	.72
08...	6.5	86	41	.12	85.0	--	--	.99	--	.290	--	--
AUG												
05...	8.4	120	90	.16	.05	2.1	.040	2.1	2.0	--	--	--
31...	8.9	116	70	.16	2.5	--	--	--	--	--	--	--

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
NOV												
17...	--	--	1.50	.10	1.4	3.7	16	2.0	.480	1.5	.410	1
JAN												
12...	--	--	2.00	.20	1.8	3.3	15	--	.330	1.0	.230	1
FEB												
09...	--	--	1.10	.00	1.4	2.5	11	2.9	.230	.71	.170	--
MAR												
18...	--	--	1.20	.00	1.2	2.4	11	2.4	.300	.92	.200	--
APR												
30...	--	--	1.20	.20	1.0	2.2	9.7	2.1	.490	1.5	.370	1
MAY												
12...	--	--	2.10	.00	2.4	3.2	14	3.6	.430	1.3	.220	1
27...	.79	.75	.99	.04	.95	3.5	15	3.5	.400	1.2	.280	--
28...	.31	--	.55	--	--	2.2	9.5	--	.730	2.2	--	--
28...	2.9	2.0	5.30	1.2	4.1	6.5	29	5.3	.460	1.4	.510	5
28...	1.6	.70	3.70	1.2	2.5	4.8	21	3.6	1.10	3.4	.330	4
28...	.60	--	2.00	--	--	3.4	15	--	.900	2.8	--	--
29...	--	--	2.60	.50	2.1	4.1	18	3.5	.580	1.8	.270	3
JUN												
06...	1.2	--	1.30	--	--	2.5	11	--	.550	1.7	--	--
06...	1.7	--	3.40	--	--	4.4	19	--	.640	2.0	--	--
07...	1.2	.52	1.70	.75	.95	2.3	10	1.5	.570	1.7	.200	3
07...	.98	.64	1.60	.40	1.2	2.1	9.3	1.8	.520	1.6	.190	3
08...	.81	--	1.10	--	--	2.1	9.3	--	.340	1.0	--	--
AUG												
05...	--	--	.51	.00	.66	2.6	12	2.7	.220	.67	.200	7
31...	--	--	--	--	--	--	--	--	--	--	--	2

DATE	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV											
17...	0	1	15	13	2	770	400	370	7	2	5
JAN											
12...	0	1	0	0	1	190	70	120	3	0	6
FEB											
09...	--	--	--	--	--	--	--	--	--	--	--
MAR											
18...	--	--	--	--	--	--	--	--	--	--	--
APR											
30...	0	1	4	2	2	680	500	180	10	8	2
MAY											
12...	1	0	4	0	7	1700	1300	390	5	4	1
27...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	3	2	9	4	5	4300	4100	230	15	15	0
28...	2	2	13	10	3	8800	8600	190	19	19	0
28...	--	--	--	--	--	--	--	--	--	--	--
29...	1	2	7	2	5	5100	4900	240	7	7	0
JUN											
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
07...	1	2	6	4	2	2800	2500	330	8	7	1
07...	1	2	4	1	3	2400	2100	350	6	6	0
08...	--	--	--	--	--	--	--	--	--	--	--
AUG											
05...	5	2	5	3	2	380	250	130	10	9	1
31...	0	2	11	5	6	960	440	520	13	4	9

PAMLICO RIVER BASIN

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PCB, TOTAL (UG/L)
NOV										
17...	<.1	--	<.1	10	5	5	--	9.6	.6	--
JAN										
12...	<.1	--	<.1	20	20	4	--	5.0	.5	--
MAR										
18...	--	--	--	--	--	--	--	6.1	.8	--
APR										
30...	<.1	--	<.1	20	10	6	--	7.0	.1	--
MAY										
12...	<.1	--	.3	20	0	30	--	12	2.4	--
28...	<.1	--	<.1	70	40	30	22	--	--	--
28...	<.1	--	<.1	130	120	10	19	--	--	--
29...	<.1	--	<.1	20	10	8	--	11	2.1	--
JUN										
07...	<.1	--	<.1	40	40	4	22	--	--	--
07...	<.1	--	<.1	10	3	7	22	--	--	<.10
AUG										
05...	.4	.0	.4	30	10	20	--	.3	--	--
31...	.1	--	--	110	90	20	--	--	--	--

DATE	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
NOV										
17...	--	--	--	--	--	--	--	--	--	--
JAN										
12...	--	--	--	--	--	--	--	--	--	--
MAR										
18...	--	--	--	--	--	--	--	--	--	--
APR										
30...	--	--	--	--	--	--	--	--	--	--
MAY										
12...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUN										
07...	--	--	--	--	--	--	--	--	--	--
07...	<.01	<.10	<.01	<.01	.01	.01	.02	<.01	<.01	<.01
AUG										
05...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)
NOV									
17...	--	--	--	--	--	--	--	--	--
JAN									
12...	--	--	--	--	--	--	--	--	--
MAR									
18...	--	--	--	--	--	--	--	--	--
APR									
30...	--	--	--	--	--	--	--	--	--
MAY									
12...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
JUN									
07...	--	--	--	--	--	--	--	--	--
07...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10
AUG									
05...	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--

DATE	TOTAL TRITHION (UG/L)
JUN	
07...	<.01

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	267	161	198	154	135	146	149	144	146	167	155	159
2	221	171	184	308	131	204	151	143	147	160	151	155
3	169	138	150	260	176	208	154	148	151	155	145	151
4	170	140	155	175	158	166	154	147	150	155	144	152
5	148	116	129	213	157	181	158	152	155	154	145	149
6	117	112	115	188	165	175	160	155	157	164	153	159
7	114	111	113	165	159	162	163	156	159	174	164	168
8	115	111	113	164	152	157	169	161	164	174	161	167
9	117	113	115	152	150	152	174	168	171	163	156	159
10	124	117	120	153	150	152	183	167	173	164	156	160
11	130	124	127	154	152	153	205	186	199	169	153	161
12	133	130	132	159	153	156	199	147	171	169	156	163
13	142	133	137	164	158	161	147	142	144	---	---	165
14	150	147	149	165	161	163	147	141	144	---	---	167
15	159	151	155	179	164	173	143	139	140	---	---	160
16	167	158	162	175	168	171	148	140	144	---	---	155
17	171	166	168	187	175	181	162	148	156	---	---	152
18	175	171	172	200	186	194	165	155	160	---	---	164
19	176	171	174	202	195	198	157	147	153	---	---	160
20	206	171	180	196	189	193	147	141	144	---	---	160
21	207	183	193	196	179	186	143	140	142	---	---	167
22	185	181	183	234	197	218	154	142	146	---	---	170
23	185	184	185	196	141	163	178	157	165	---	---	143
24	189	184	186	145	141	143	188	168	178	---	---	136
25	232	171	183	161	141	152	168	149	159	---	---	137
26	260	169	211	160	146	153	149	142	145	---	---	146
27	165	128	143	145	143	144	153	142	144	---	---	147
28	127	119	123	146	144	145	172	152	163	---	---	145
29	124	121	122	146	143	144	160	148	154	---	---	143
30	142	121	127	162	147	155	161	156	158	---	---	147
31	175	145	162	---	---	---	168	153	160	---	---	144
MONTH	267	111	154	308	131	168	205	139	156	174	144	155

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	132	135	131	133	159	155	157	234	226	231
2	---	---	126	138	135	137	166	159	162	233	231	232
3	---	---	124	153	135	142	166	160	162	232	228	230
4	---	---	120	183	154	167	161	157	158	240	232	235
5	---	---	126	173	160	168	162	158	159	252	240	245
6	---	---	128	173	137	154	170	159	164	256	245	248
7	---	---	129	135	122	125	176	167	171	252	238	244
8	---	---	131	122	119	121	181	163	172	289	227	249
9	135	130	133	125	119	122	164	160	162	453	243	321
10	134	132	133	130	122	126	162	158	160	435	363	387
11	137	131	134	134	126	130	165	160	163	376	238	293
12	129	104	111	136	130	133	170	163	167	232	127	158
13	115	106	111	138	133	135	174	169	171	132	125	128
14	117	115	116	140	134	137	178	172	175	134	131	133
15	118	116	117	141	136	140	181	175	178	138	134	136
16	119	115	118	143	137	140	183	178	181	141	136	139
17	121	118	119	152	143	151	188	181	184	144	140	141
18	123	119	120	153	147	150	192	185	189	147	141	143
19	130	122	126	154	148	152	195	190	192	151	145	149
20	139	129	131	154	151	152	198	193	196	160	120	144
21	140	131	136	157	153	155	204	196	201	170	153	163
22	130	126	127	154	149	153	208	203	206	157	137	144
23	134	125	128	183	146	161	211	205	208	136	132	134
24	137	133	135	189	162	177	378	213	319	140	133	137
25	134	128	131	162	140	149	272	230	242	152	139	146
26	128	123	127	140	134	137	231	226	227	161	151	159
27	130	124	127	140	135	138	230	226	227	162	160	161
28	132	125	130	141	136	139	231	227	229	162	79	102
29	---	---	---	144	139	141	231	225	229	109	89	102
30	---	---	---	153	144	146	229	227	228	107	101	104
31	---	---	---	164	155	158	---	---	---	112	107	108
MONTH	140	104	126	189	119	144	378	155	191	453	79	182

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	124	113	118	140	135	138	160	157	158	143	137	139
2	135	117	127	143	122	133	164	159	161	147	142	145
3	128	117	122	126	92	115	166	162	164	153	147	150
4	129	100	112	100	92	96	171	165	168	158	152	155
5	136	100	117	92	86	89	176	168	172	163	157	160
6	126	79	105	91	88	90	180	174	176	169	164	166
7	79	57	66	97	90	94	186	176	180	173	167	170
8	81	72	78	103	97	100	193	187	190	175	119	147
9	94	82	86	111	103	107	196	191	193	122	111	114
10	100	94	96	119	111	114	197	193	195	125	115	122
11	97	95	97	123	119	121	198	125	190	128	122	125
12	104	97	100	129	125	127	222	135	168	132	124	128
13	108	104	106	136	130	133	169	151	159	140	132	136
14	114	108	112	145	135	142	174	158	164	148	140	145
15	118	113	116	141	136	139	160	157	158	153	148	151
16	125	118	122	144	135	139	157	155	156	162	153	159
17	130	121	127	169	88	133	157	156	157	166	158	162
18	139	92	122	140	117	126	163	157	160	172	165	169
19	91	69	75	172	140	156	166	152	159	180	171	175
20	76	69	73	139	129	133	154	69	97	183	178	180
21	78	76	77	130	125	127	93	76	85	188	182	184
22	86	79	82	128	126	126	115	93	101	190	186	188
23	99	86	90	131	127	130	114	93	98	199	190	194
24	123	100	108	135	129	132	96	93	94	201	197	200
25	105	103	104	139	133	136	100	96	98	209	202	205
26	106	103	105	143	138	140	104	100	102	210	204	207
27	112	105	109	146	142	144	110	104	106	216	209	211
28	119	111	115	152	147	149	117	110	113	216	210	214
29	126	118	122	155	151	154	122	117	120	218	212	216
30	135	125	129	157	153	155	130	122	127	221	217	219
31	---	---	---	159	155	157	135	128	131	---	---	---
MONTH	139	57	104	172	86	128	222	69	145	221	111	168
YEAR	453	57	152									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.0	20.5	13.5	11.5	12.5	9.0	7.0	8.0	7.0	5.5	6.5
2	21.5	20.5	21.0	13.0	11.5	12.5	10.5	7.5	9.0	7.0	5.5	6.0
3	21.5	20.0	20.5	12.0	10.0	11.0	10.5	8.5	9.5	5.5	3.5	4.5
4	20.0	18.0	18.5	14.0	11.5	12.5	8.0	6.0	7.0	5.5	2.5	4.0
5	18.0	16.5	17.0	14.5	13.5	14.0	7.0	5.0	6.0	2.0	.0	1.0
6	17.5	16.5	17.0	13.5	12.0	13.0	8.0	6.5	7.0	2.0	.0	.5
7	16.0	14.5	15.5	13.0	11.0	12.0	9.5	7.0	8.0	4.0	2.0	3.0
8	16.5	14.5	15.5	14.5	12.5	13.5	11.0	8.5	9.5	3.5	1.5	2.0
9	18.0	15.5	16.5	16.0	14.0	15.0	12.5	10.0	11.0	2.0	.0	1.0
10	19.5	16.5	18.0	16.0	14.5	15.5	13.0	11.5	12.5	2.0	.5	1.0
11	20.5	18.0	19.0	15.0	11.5	13.0	11.5	9.0	10.0	1.0	.0	.0
12	20.0	17.0	18.0	11.5	9.0	10.0	9.0	7.0	8.0	---	---	---
13	16.5	14.0	15.0	10.0	7.5	9.0	9.0	7.0	8.0	---	---	---
14	14.5	12.5	13.5	11.5	8.5	10.0	8.5	7.5	8.0	---	---	---
15	14.5	12.5	13.5	13.0	11.5	12.5	7.5	5.5	6.5	---	---	---
16	16.0	13.5	14.5	13.0	11.0	12.5	8.0	7.0	7.5	---	---	---
17	17.0	15.0	16.0	11.5	9.5	10.5	8.0	6.5	7.5	---	---	---
18	19.0	17.0	17.5	12.0	10.5	11.5	6.5	4.5	5.5	---	---	---
19	20.0	19.0	19.5	10.5	8.5	9.0	7.5	6.0	6.5	---	---	---
20	20.0	17.5	19.0	8.5	6.5	7.5	7.5	4.5	6.0	---	---	---
21	17.0	15.0	16.0	9.0	8.0	8.5	4.0	2.0	3.0	---	---	---
22	16.0	15.0	15.0	8.5	7.0	8.0	3.0	1.0	2.0	---	---	---
23	15.5	14.5	14.5	8.5	7.0	8.0	4.5	3.0	4.0	---	---	---
24	15.0	14.0	14.5	12.0	8.5	10.0	6.5	4.5	5.0	---	---	---
25	16.5	15.0	16.0	13.0	11.5	12.0	6.5	3.0	5.0	---	---	---
26	15.0	13.0	13.5	11.5	9.0	10.0	2.5	1.0	1.5	---	---	---
27	13.0	11.5	12.0	11.5	9.0	9.5	3.0	2.0	2.0	---	---	---
28	15.0	12.5	13.5	11.5	10.0	11.0	7.5	3.0	5.0	---	---	---
29	15.0	14.0	14.5	9.5	8.0	8.5	9.0	7.5	8.5	---	---	---
30	14.0	12.0	13.0	9.0	7.0	8.0	9.0	8.0	8.5	---	---	---
31	13.0	11.5	12.5	---	---	---	8.5	6.5	7.5	---	---	---
MONTH	21.5	11.5	16.0	16.0	6.5	11.0	13.0	1.0	7.0	7.0	.0	2.5

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.5	10.5	11.5	17.5	15.0	16.0	21.0	19.0	19.5
2	---	---	---	12.0	10.5	11.0	19.5	14.0	16.5	19.0	16.5	17.5
3	---	---	---	10.5	8.0	9.5	19.0	14.0	16.5	16.5	14.5	15.0
4	---	---	---	9.5	7.0	8.5	21.5	15.5	18.0	16.0	14.5	15.0
5	---	---	---	12.5	9.0	10.5	22.0	17.5	19.5	17.0	15.5	16.0
6	---	---	---	12.0	9.0	10.5	19.5	15.5	17.5	18.5	16.0	17.5
7	---	---	---	10.5	7.5	9.0	16.5	12.0	14.5	18.5	15.0	17.0
8	---	---	---	10.0	6.0	8.0	18.5	12.0	15.0	15.0	13.0	13.5
9	---	---	---	11.0	6.5	8.5	16.5	15.0	16.0	16.5	13.5	15.0
10	7.5	3.0	5.0	11.0	6.5	9.0	19.5	14.5	17.0	18.5	16.0	17.0
11	12.0	7.5	10.0	11.0	7.0	9.0	21.0	15.5	18.0	21.0	18.0	19.5
12	10.0	5.0	7.0	11.5	7.0	9.5	24.5	18.5	21.0	20.5	18.5	19.5
13	5.5	3.0	4.5	13.0	8.0	10.5	22.5	17.0	19.0	20.0	17.0	18.5
14	6.5	3.0	5.0	12.5	9.5	11.0	19.0	15.0	17.0	21.0	17.0	19.0
15	8.0	4.0	6.0	12.0	6.5	9.5	19.0	16.0	17.5	22.0	19.0	20.5
16	9.0	5.0	7.0	11.0	9.0	10.5	18.0	13.5	15.5	21.0	18.5	19.5
17	10.5	7.0	9.0	10.0	5.5	9.5	19.5	15.5	17.5	20.0	17.0	18.5
18	12.5	9.5	11.0	11.5	7.5	9.5	22.5	17.0	19.5	19.0	17.0	18.0
19	13.0	11.5	12.0	9.5	7.0	8.5	21.5	17.5	19.5	19.5	18.0	18.5
20	13.5	12.5	13.0	9.0	5.0	7.0	19.5	17.0	18.5	17.0	14.5	15.0
21	12.0	11.5	11.5	10.5	5.0	8.0	17.0	14.0	15.5	15.0	14.0	14.5
22	14.0	11.0	12.5	8.5	7.0	7.5	16.5	12.5	14.5	17.0	14.0	15.5
23	13.5	12.5	13.0	7.5	7.0	7.0	19.0	16.0	17.0	19.5	16.0	17.5
24	12.0	10.0	11.0	11.5	6.0	8.5	20.0	18.0	19.0	21.0	17.5	19.0
25	11.5	8.5	10.0	12.0	7.0	9.5	18.5	15.5	16.5	24.0	19.5	21.5
26	10.5	8.0	9.5	13.0	8.0	10.5	17.0	13.5	15.5	23.0	20.5	22.0
27	10.5	7.5	9.0	15.0	10.0	12.5	20.0	15.5	17.5	22.5	20.5	21.5
28	11.0	7.0	9.0	15.5	10.5	13.0	22.0	18.0	19.5	22.0	20.0	21.0
29	---	---	---	16.0	10.5	13.5	22.5	20.0	21.0	22.0	20.5	21.5
30	---	---	---	15.5	13.5	14.5	22.0	20.5	21.5	24.5	21.0	22.5
31	---	---	---	20.0	13.5	16.5	---	---	---	27.0	22.5	24.5
MONTH	14.0	3.0	9.0	20.0	5.0	10.0	24.5	12.0	17.5	27.0	13.0	18.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	24.0	24.5	23.5	21.5	22.5	22.5	22.0	22.5	27.0	23.5	25.0
2	24.0	22.5	23.0	23.0	21.5	22.0	23.5	22.0	22.5	27.0	23.5	25.5
3	24.5	22.5	23.5	22.5	21.5	22.0	24.0	23.0	23.5	27.0	23.5	25.0
4	27.0	24.0	25.0	24.5	22.0	23.0	25.5	24.0	24.5	25.5	23.0	24.5
5	28.0	24.5	26.0	27.5	23.5	25.5	27.0	25.5	26.0	25.0	23.0	23.5
6	27.0	25.0	26.5	29.0	26.0	27.0	27.5	26.5	27.0	25.0	22.5	23.5
7	26.0	25.0	25.5	30.5	26.5	28.0	27.0	26.0	26.5	24.0	22.5	23.0
8	26.5	24.5	25.0	31.0	26.5	29.0	28.0	27.0	27.5	24.0	22.0	23.0
9	28.0	25.0	26.5	31.0	27.5	29.0	28.0	27.0	27.0	24.0	22.0	23.0
10	30.5	27.0	28.5	31.5	29.0	30.5	27.0	26.5	27.0	23.0	20.5	21.5
11	30.0	28.0	29.0	31.5	30.5	31.0	27.5	26.0	27.0	23.0	20.0	21.5
12	27.5	25.0	26.5	31.5	29.5	30.5	26.0	24.0	24.5	24.5	21.0	22.5
13	30.0	25.0	27.5	31.0	28.5	30.0	26.5	23.5	25.0	26.0	22.5	24.0
14	31.5	28.0	29.5	31.0	29.5	30.5	26.5	23.0	25.0	27.0	23.5	25.5
15	32.0	28.5	30.5	31.0	27.5	29.0	27.5	23.5	25.5	28.0	25.0	26.5
16	32.0	30.0	31.0	28.5	24.5	26.0	28.5	25.0	26.5	27.5	26.0	27.0
17	31.5	30.5	31.0	27.0	24.5	26.0	28.0	24.0	25.5	26.0	23.0	24.5
18	30.5	26.5	27.5	29.5	25.5	27.0	23.5	20.5	22.0	25.0	21.5	23.0
19	26.5	24.5	25.5	30.0	25.5	27.5	23.0	20.5	21.5	21.5	19.0	20.0
20	29.0	25.5	27.0	31.0	27.0	29.0	21.5	20.5	21.0	19.0	17.0	18.0
21	30.5	27.5	29.0	31.0	29.0	30.0	21.0	20.0	20.5	18.5	17.5	18.0
22	31.5	29.0	30.5	30.5	27.0	29.0	20.5	20.0	20.0	19.5	18.5	19.0
23	31.0	27.5	30.0	30.5	27.5	29.0	20.5	19.5	20.0	19.5	18.0	19.5
24	29.0	24.5	26.5	29.0	26.0	27.0	22.0	20.5	21.0	18.0	16.0	16.5
25	31.0	26.5	29.0	26.5	24.5	25.5	23.0	21.0	22.0	16.0	15.0	15.5
26	30.5	27.0	29.0	27.5	26.5	27.0	22.5	20.5	21.5	15.5	15.0	15.0
27	26.5	22.5	25.0	29.5	28.0	28.5	22.5	20.0	21.0	16.0	15.5	15.5
28	24.5	20.0	22.5	29.5	28.5	29.0	23.5	20.5	21.5	17.0	16.0	16.5
29	23.5	19.5	21.5	29.5	29.0	29.5	25.5	21.5	23.5	17.0	16.5	16.5
30	24.0	20.0	21.5	29.0	25.0	27.0	27.0	23.5	25.0	16.5	16.0	16.0
31	---	---	---	25.0	22.5	23.0	26.0	23.5	24.5	---	---	---
MONTH	32.0	19.5	27.0	31.5	21.5	27.5	28.5	19.5	24.0	28.0	15.0	21.5
YEAR	32.0	.0	17.0									

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	36	2.2	16	.78	7	.25	12	2.1	7	.25	6	.39
2	22	2.0	17	.73	5	.15	10	1.4	45	7.8	10	.59
3	23	2.0	14	.42	7	.18	10	1.1	76	24	12	.65
4	31	3.2	12	.30	6	.13	9	.85	32	8.5	13	.60
5	19	1.4	20	1.0	5	.10	10	.73	16	2.7	15	1.5
6	16	.78	12	.55	7	.13	9	.61	9	1.1	15	1.7
7	11	.36	11	.36	7	.12	6	.42	9	.87	12	1.2
8	10	.23	8	.19	12	.19	7	.51	8	.71	9	.73
9	10	.16	7	.13	17	.25	7	.42	9	.70	8	.54
10	9	.11	12	.17	24	.93	8	.39	5	.32	10	.57
11	10	.09	13	.15	25	2.1	15	.65	62	17	8	.39
12	9	.06	9	.09	19	1.5	9	.32	123	82	7	.30
13	12	.06	7	.06	14	1.0	8	.26	39	19	6	.24
14	9	.04	7	.06	9	.49	6	.18	22	6.4	8	.28
15	6	.03	6	.05	7	.30	7	.19	10	2.2	7	.23
16	7	.03	5	.05	10	.41	9	.23	8	1.5	11	.36
17	10	.04	5	.05	9	.49	9	.21	9	1.4	8	.30
18	11	.04	9	.15	7	.34	7	.16	19	2.6	8	.26
19	12	.06	9	.12	12	.52	7	.15	24	3.3	10	.30
20	15	.15	9	.11	7	.26	9	.19	41	6.3	10	.27
21	14	.10	29	1.6	8	.24	17	.92	25	4.6	10	.25
22	10	.05	22	2.0	8	.20	17	1.5	14	2.3	7	.16
23	10	.04	13	1.1	10	.41	11	.98	15	2.1	17	1.1
24	7	.03	14	1.1	11	.80	11	.89	18	2.3	18	1.2
25	22	.58	12	1.0	10	.73	8	.50	19	2.1	8	.41
26	20	.76	16	1.5	9	.49	10	.49	16	1.5	9	.36
27	14	.45	10	.73	10	.59	7	.30	10	.81	7	.25
28	11	.29	9	.53	45	11	7	.28	8	.56	6	.16
29	10	.20	8	.39	37	13	7	.28	---	---	7	.17
30	11	.26	8	.39	20	6.9	7	.26	---	---	10	.26
31	15	.69	---	---	16	3.8	6	.21	---	---	13	.46
TOTAL	---	16.49	---	15.86	---	48.00	---	17.68	---	204.92	---	16.18
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8	.24	10	.03	18	1.5	11	.07	9	.00	7	.12
2	8	.24	8	.02	34	3.9	13	.10	12	.00	9	.13
3	9	.22	7	.02	51	8.7	81	12	12	.00	20	.24
4	9	.18	7	.02	65	15	128	41	12	.00	9	.09
5	12	.22	9	.02	47	13	40	7.6	9	.00	6	.05
6	13	.33	9	.00	134	107	26	2.1	8	.00	6	.05
7	10	.23	10	.02	216	549	16	.56	10	.00	5	.04
8	9	.17	14	.14	37	33	15	.30	10	.00	12	.36
9	10	.17	16	.25	26	11	15	.19	8	.00	12	.45
10	12	.19	17	.35	23	5.0	13	.12	6	.00	10	.27
11	12	.17	35	2.6	22	2.8	9	.07	5	.01	9	.16
12	14	.18	59	11	21	1.6	10	.05	101	16	7	.09
13	9	.10	53	8.3	17	.83	16	.08	40	2.8	7	.06
14	11	.12	21	1.4	15	.53	10	.05	26	.60	5	.04
15	9	.09	14	.53	15	.34	11	.04	13	.14	6	.03
16	13	.11	13	.30	15	.24	19	.08	10	.06	6	.03
17	16	.13	12	.18	17	.25	50	5.4	10	.05	6	.02
18	15	.11	12	.14	140	24	36	2.4	8	.03	6	.02
19	10	.06	17	.18	57	40	18	.23	25	.74	6	.03
20	8	.05	194	49	53	24	13	.08	55	56	8	.03
21	10	.06	79	23	38	7.1	17	.08	24	15	6	.02
22	7	.04	34	9.7	25	2.2	10	.04	23	6.8	5	.01
23	7	.04	18	2.8	18	.97	11	.03	19	9.4	4	.00
24	7	.04	16	1.2	21	1.4	9	.02	11	3.3	4	.00
25	7	.03	12	.49	16	.52	15	.02	11	1.8	4	.00
26	7	.03	13	.33	15	.29	12	.02	13	1.4	3	.00
27	9	.04	13	.24	14	.18	9	.00	10	.70	3	.00
28	8	.03	282	313	14	.14	9	.00	8	.37	2	.00
29	7	.02	95	67	11	.09	14	.00	8	.26	3	.00
30	8	.02	40	13	10	.06	9	.00	9	.23	4	.02
31	---	---	22	3.3	---	---	8	.00	7	.14	---	---
TOTAL	---	3.66	---	508.56	---	854.64	---	72.73	---	115.83	---	2.36

TOTAL LOAD FOR YEAR: 1876.91 TONS.

02084164 JUNIPER BRANCH NEAR SIMPSON, NC

LOCATION.--Lat 35°33'55", long 77°14'43", Pitt County, Hydrologic Unit 03020103, on right bank at downstream side of bridge on Secondary Road 1766, 0.8 mi (1.3 km) upstream from mouth, and 1.8 mi (2.9 km) southwest of Simpson.

DRAINAGE AREA.--7.5 mi² (19.4 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929 (Soil Conservation Service, bench mark). Prior to July 25, 1977, at datum 11.41 ft (3.478 m) higher.

REMARKS.--Water-discharge record good. Channel improvement, beginning Aug. 10, 1979, extends upstream from a point 0.5 mi (0.8 km) upstream from gage.

AVERAGE DISCHARGE.--6 years, 7.57 ft³/s (0.214 m³/s), 13.71 in/yr (348 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 996 ft³/s (28.2 m³/s) May 5, 1978, gage height, 16.83 ft (5.130 m), present datum; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s (0.85 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 20	0530	40	1.13	13.74	4.188	June 18	2215	148	4.19	14.91	4.545
May 28	0845	275	7.79	15.59	4.752	Aug. 12	0330	292	8.27	15.44	4.706
June 2	0700	83	2.35	14.37	4.380	Aug. 20	0800	318	9.01	15.56	4.743
June 6	2130	*614	17.4	*16.43	5.007	Aug. 22	1600	63	1.78	13.90	4.237

Minimum discharge, 0.05 ft³/s (0.001 m³/s) May 1, gage height, 12.45 ft (3.795 m) due to unknown regulation; minimum unregulated, 0.61 ft³/s (0.017 m³/s) Oct. 7, gage height, 12.76 ft (3.889 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	1.9	3.0	8.0	4.4	3.5	2.8	.66	5.2	1.7	.86	3.2
2	3.8	1.5	2.9	7.2	9.6	3.4	2.7	.98	30	1.7	.81	2.9
3	3.1	1.2	2.8	6.7	7.8	3.2	2.3	.96	12	3.5	.94	2.5
4	2.9	1.8	2.7	6.0	5.8	3.5	2.1	.94	9.4	6.3	1.0	2.4
5	1.9	2.7	2.9	5.6	4.9	7.1	2.2	.92	13	3.1	.83	2.4
6	1.7	1.7	2.9	5.6	4.4	5.0	3.0	.90	147	2.4	1.2	2.2
7	1.4	1.5	2.9	7.1	4.2	4.3	2.3	1.5	94	2.0	1.3	2.2
8	1.4	1.3	2.9	6.0	4.0	3.5	2.1	3.0	18	1.8	.98	2.4
9	1.3	1.3	3.1	5.0	3.8	3.3	2.0	5.0	13	1.6	1.1	2.7
10	1.2	1.2	5.4	4.8	3.6	3.2	1.9	7.0	9.7	1.6	1.1	2.0
11	1.2	1.2	5.2	4.4	13	3.2	1.9	10	7.3	1.7	6.6	1.8
12	1.1	1.3	3.9	4.2	11	3.0	1.8	7.0	5.9	1.6	96	1.7
13	.94	1.6	3.6	4.2	8.0	2.9	1.7	1.3	5.0	1.6	11	1.7
14	.91	1.6	3.3	4.1	6.9	2.8	1.7	1.2	4.1	1.6	5.4	1.7
15	.89	1.7	3.1	4.0	6.2	3.6	1.6	1.1	3.1	1.6	3.7	1.7
16	.85	2.2	3.6	3.8	5.7	4.2	1.5	1.1	2.6	2.1	3.1	1.6
17	.84	1.9	4.1	3.6	5.5	3.2	1.5	.99	2.3	2.7	3.0	1.6
18	.83	2.4	3.4	3.6	5.1	2.6	1.4	1.0	54	1.6	2.8	1.5
19	1.3	2.0	3.4	3.5	6.5	2.5	1.4	1.0	33	1.3	12	1.3
20	1.0	1.8	3.0	3.5	7.2	2.4	1.4	15	12	1.2	144	1.2
21	.90	6.2	2.8	7.1	6.6	2.2	1.3	14	7.9	1.3	29	1.2
22	.84	4.3	2.8	7.1	5.7	2.2	1.3	7.3	5.6	1.2	38	1.3
23	.79	3.3	4.3	5.6	6.0	4.9	1.3	4.5	5.3	1.1	32	1.3
24	.96	3.2	4.0	4.5	5.8	3.4	1.6	3.3	4.7	1.0	20	1.2
25	4.2	4.6	3.6	4.2	4.9	2.8	1.6	2.6	3.5	1.0	16	1.2
26	1.6	3.8	3.2	4.1	4.4	2.6	1.5	2.1	2.9	1.3	12	1.1
27	1.5	3.7	5.4	4.1	3.9	2.4	1.4	2.0	2.4	1.5	9.5	1.1
28	1.4	3.7	10	4.4	3.6	2.2	1.1	98	2.0	1.0	7.2	1.1
29	1.4	3.4	13	3.9	---	2.2	1.0	15	1.8	.98	5.6	1.1
30	2.8	3.1	10	3.9	---	2.7	1.1	8.7	1.8	.93	4.5	.92
31	2.4	---	8.8	4.0	---	2.7	---	5.9	---	.99	3.7	---
TOTAL	53.45	73.1	136.0	153.8	168.5	100.7	52.5	224.95	518.5	55.00	475.22	52.22
MEAN	1.72	2.44	4.39	4.96	6.02	3.25	1.75	7.26	17.3	1.77	15.3	1.74
MAX	6.1	6.2	13	8.0	13	7.1	3.0	98	147	6.3	144	3.2
MIN	.79	1.2	2.7	3.5	3.6	2.2	1.0	.66	1.8	.93	.81	.92
CFSM	.23	.33	.59	.66	.80	.43	.23	.97	2.31	.24	2.04	.23
IN.	.27	.36	.67	.76	.84	.50	.26	1.12	2.57	.27	2.36	.26

CAL YR 1980 TOTAL 2612.83 MEAN 7.14 MAX 116 MIN .44 CFSM .95 IN 12.96
WTR YR 1981 TOTAL 2063.94 MEAN 5.65 MAX 147 MIN .66 CFSM .75 IN 10.24

02084164 JUNIPER BRANCH NEAR SIMPSON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Station operated to define the effects of channelization on stream quantity and quality in the Chicod Creek basin.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV												
17...	1225	1.8	180	5.5	11.0	10	7.3	120	200	72	30	24
JAN												
13...	1300	4.2	210	6.8	.5	<5	11.8	1200	210	74	31	25
MAY												
12...	1430	1.6	210	6.9	20.5	20	4.5	170	88	74	16	24
28...	1045	245	82	5.5	20.0	200	7.0	--	--	24	17	7.0
28...	1435	87	121	5.5	21.5	100	6.5	--	--	37	29	11
29...	1100	15	140	6.2	20.0	50	6.7	--	--	58	45	18
JUN												
07...	1000	44	133	5.5	--	120	--	--	--	43	36	13
AUG												
31...	1700	3.8	155	7.2	25.0	12	8.2	160	220	55	29	18

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV												
17...	2.9	7.2	17	.4	3.3	51	0	42	197	30	11	.2
JAN												
13...	2.9	7.4	17	.4	4.0	53	0	43	13	35	13	.1
MAY												
12...	3.3	9.5	21	.5	4.2	71	0	58	13	26	14	.2
28...	1.6	3.7	22	.3	4.0	8	0	7	6.2	17	4.7	.2
28...	2.4	5.1	21	.4	4.4	10	0	8	37	29	7.1	.2
29...	3.2	6.7	19	.4	3.4	16	0	13	33	34	11	.2
JUN												
07...	2.6	5.4	20	.4	4.0	8	0	7	74	27	9.0	.2
AUG												
31...	2.5	6.2	19	.4	3.0	32	0	26	2.5	26	11	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, 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)
NOV												
17...	12	130	119	.18	.63	2.1	.020	2.1	2.1	--	--	--
JAN												
13...	12	131	123	.18	1.4	2.7	.010	2.7	1.4	--	--	--
MAY												
12...	11	--	124	--	--	1.7	.430	2.1	2.0	--	--	--
28...	3.0	71	42	.10	47.0	1.1	.090	1.2	1.1	.900	.500	.64
28...	4.5	98	67	.13	23.0	1.5	.060	1.6	1.6	.430	.400	.52
29...	8.0	135	101	.18	5.4	3.3	.060	3.4	3.3	--	--	--
JUN												
07...	6.4	122	75	.17	14.5	2.2	.050	2.2	2.1	.270	.310	.40
AUG												
31...	9.1	130	88	.18	1.3	2.9	.060	3.0	2.9	--	--	--

02084164 JUNIPER BRANCH NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)
NOV												
17...	--	--	.50	.09	.41	2.6	12	2.5	.090	.28	.060	2
JAN												
13...	--	--	1.80	.70	1.1	4.5	20	2.5	.080	.25	.040	1
MAY												
12...	--	--	2.80	.00	3.0	4.9	22	5.0	1.40	4.3	1.40	1
28...	3.4	.80	4.30	3.0	1.3	5.5	24	2.4	2.00	6.1	.170	5
28...	1.2	.90	1.60	.30	1.3	3.2	14	2.9	.180	.55	.150	4
29...	--	--	1.30	.30	1.0	4.7	21	4.3	.260	.80	.070	2
JUN												
07...	1.1	.68	1.40	.41	.99	3.6	16	3.1	.370	1.1	.080	--
AUG												
31...	--	--	.64	.05	.59	3.6	16	3.5	.120	.37	.120	1

DATE	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV											
17...	2	0	8	6	2	410	240	170	0	0	4
JAN											
13...	0	1	0	0	0	300	170	130	2	0	5
MAY											
12...	0	1	3	0	3	630	370	260	1	1	0
28...	3	2	9	4	5	5500	5300	160	16	16	0
28...	2	2	16	10	6	1900	1800	150	7	7	0
29...	1	1	5	2	3	1400	1300	100	3	3	0
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
AUG											
31...	0	1	14	9	5	520	270	250	9	7	2

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
NOV									
17...	<.1	--	.1	10	5	5	--	4.5	.4
JAN									
13...	<.1	--	.1	20	0	30	--	6.0	.6
MAY									
12...	<.1	--	<.1	20	0	20	--	5.0	.7
28...	<.1	--	<.1	180	160	20	25	--	--
28...	<.1	--	<.1	100	80	20	18	--	--
29...	<.1	--	.5	20	--	<4	--	6.0	1.5
JUN									
07...	--	--	--	--	--	--	19	--	--
AUG									
31...	.2	.0	.2	210	190	20	--	--	.3

02084164 JUNIPER BRANCH NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
16...	1200	.93	6	.02
NOV				
17...	1225	1.8	3	.01
JAN				
13...	1300	4.2	2	.02
FEB				
10...	1336	3.5	1	.01
MAR				
04...	1910	3.6	3	.03
17...	1548	3.1	46	.39
MAY				
12...	1430	1.6	5	.02
28...	1045	245	482	319
28...	1115	224	413	250
28...	1435	87	163	38
28...	1455	79	160	34
28...	1540	60	205	33
28...	1635	44	144	17
28...	1730	35	114	11
29...	1100	15	34	1.4
JUN				
07...	1000	44	96	11
AUG				
05...	1530	.89	10	.02
12...	0845	102	78	21
31...	1700	3.8	5	.05

02084540 DURHAM CREEK AT EDWARD, NC

LOCATION.--Lat 35°19'25", long 76°52'26", Beaufort County, Hydrolgic Unit 03020104, on left bank 5 ft (2 m) downstream from bridge on Secondary Road 1949, at Edward, and 6.8 mi (10.9 km) upstream from mouth.

DRAINAGE AREA.--About 26 mi² (67 km²).

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 (0.058 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Runoff affected by ditches and canals above station.

AVERAGE DISCHARGE.--16 years, 38.2 ft³/s (1.082 m³/s), 19.95 in/yr (507 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) Oct. 1, 1971, gage height, 13.24 ft (4.036 m); no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 693 ft³/s (19.6 m³/s) Aug. 20, gage height, 10.71 ft (3.264 m). No flow Oct. 3 to Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.00	3.5	53	18	13	8.4	.33	6.2	7.4	1.1	37
2	.02	.00	3.4	46	26	12	8.1	.26	48	7.6	.76	31
3	.00	.00	3.2	39	51	12	7.6	.18	251	8.6	.66	26
4	.00	.00	3.1	33	51	11	7.2	.14	250	12	.96	23
5	.00	.00	3.1	28	47	15	6.9	.12	185	13	1.5	20
6	.00	.00	2.9	25	41	17	6.8	.08	143	13	1.5	17
7	.00	.00	2.9	24	36	16	6.4	.06	206	17	1.6	17
8	.00	.00	2.8	23	33	14	6.1	.27	152	13	1.7	23
9	.00	.00	2.7	21	30	13	5.8	.83	107	10	2.3	29
10	.00	.00	3.7	19	27	12	5.5	1.8	74	8.1	3.5	23
11	.00	.00	5.1	17	27	12	5.2	2.7	52	6.9	6.3	18
12	.00	.00	5.3	16	29	11	4.9	2.5	39	6.1	8.2	15
13	.00	.00	5.3	14	29	10	4.7	1.9	31	6.0	9.7	13
14	.00	.00	4.9	13	27	9.8	4.5	1.4	26	7.0	9.5	12
15	.00	.00	4.6	12	25	9.1	4.2	.96	21	6.3	9.3	10
16	.00	.00	4.6	12	23	8.8	3.8	.61	17	5.3	8.9	9.4
17	.00	.00	5.5	11	22	8.8	3.3	.40	16	5.3	18	9.8
18	.00	.00	5.5	11	21	8.4	2.9	.28	36	4.9	51	9.5
19	.00	.00	5.4	11	21	9.0	2.5	.21	97	4.2	80	8.9
20	.00	.00	5.1	10	22	8.8	2.1	.96	74	3.4	515	7.7
21	.00	.50	4.8	14	22	8.6	1.9	9.0	40	2.9	516	6.7
22	.00	3.2	4.6	22	21	8.2	1.6	15	26	3.2	333	5.9
23	.00	3.8	6.4	23	20	10	1.4	11	23	2.7	360	5.2
24	.00	4.0	9.8	22	19	11	1.3	7.9	21	2.0	274	4.5
25	.00	4.1	10	21	17	11	1.1	6.4	19	1.7	198	4.0
26	.00	4.1	10	19	16	10	.90	5.1	17	1.7	148	3.6
27	.00	3.9	13	18	15	9.3	.73	4.1	15	1.5	115	3.1
28	.00	3.9	29	19	14	8.8	.56	7.1	13	1.5	90	2.6
29	.00	3.8	42	20	---	8.4	.41	11	11	1.3	71	2.2
30	.00	3.7	52	19	---	8.2	.30	8.4	8.7	1.6	56	1.9
31	.00	---	57	19	---	8.6	---	6.9	---	1.3	45	---
TOTAL	.15	35.00	321.2	654	750	332.8	117.10	107.89	2024.9	186.5	2937.48	399.0
MEAN	.005	1.17	10.4	21.1	26.8	10.7	3.90	3.48	67.5	6.02	94.8	13.3
MAX	.13	4.1	57	53	51	17	8.4	15	251	17	516	37
MIN	.00	.00	2.7	10	14	8.2	.30	.06	6.2	1.3	.66	1.9

CAL YR 1980 TOTAL 8140.59 MEAN 22.2 MAX 186 MIN .00
WTR YR 1981 TOTAL 7866.02 MEAN 21.6 MAX 516 MIN .00

02084557 (revised) 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 (7.7 km) east of Hoke.

DRAINAGE AREA.--23 mi² (60 km²), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6 m) from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 409 ft³/s (11.6 m³/s) Nov. 6, 1977, gage height, 4.45 ft (1.356 m), no flow part of day Oct. 1, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 20	1430	119	3.37	3.02	0.920	Aug. 22	1930	*291	8.24	*3.96	1.207

Minimum discharge, 0.01 ft³/s (<0.001 m³/s) Oct. 13-19, gage height, 0.12 ft (0.037 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.34	1.0	3.6	4.5	15	12	1.3	1.3	.50	.02	24
2	.42	.28	.78	3.4	6.1	14	12	1.2	3.3	.34	.02	19
3	.34	.22	.78	3.2	11	13	11	1.0	5.2	.33	.03	15
4	.34	.18	.66	3.1	11	13	10	.88	7.4	1.1	.03	12
5	.28	.27	.66	2.8	10	18	9.3	.78	6.9	1.5	.02	9.6
6	.22	.23	.66	2.6	9.7	22	9.5	.74	7.1	1.2	.08	8.2
7	.14	.22	.66	2.9	9.2	22	9.0	.66	13	.83	.11	7.7
8	.14	.22	.66	2.9	9.1	20	8.4	.66	12	.60	.27	16
9	.14	.15	.66	2.6	8.7	19	8.3	.66	9.7	.45	2.6	16
10	.04	.04	1.2	2.5	8.0	17	8.0	.95	7.6	.36	3.6	12
11	.04	.04	1.8	2.3	15	16	7.4	1.8	5.9	.53	9.2	9.7
12	.03	.03	1.8	2.3	33	15	6.9	1.8	4.7	.31	8.4	8.0
13	.01	.03	1.8	2.3	30	14	6.4	1.4	4.0	.20	6.2	6.4
14	.01	.03	1.8	2.3	27	13	6.1	1.1	3.2	.14	4.3	5.4
15	.01	.03	1.8	2.3	26	12	5.8	.88	2.4	.07	3.1	4.4
16	.01	.04	1.8	2.3	24	12	5.2	.74	2.0	.04	2.3	3.6
17	.01	.04	2.0	2.2	22	11	5.4	.59	1.4	.18	2.2	3.1
18	.01	.13	1.6	2.2	20	10	4.6	.51	2.9	.14	1.7	2.6
19	.07	.13	1.4	2.2	19	10	4.1	.48	11	.10	4.4	2.4
20	.05	.07	1.4	2.3	20	9.6	3.9	.62	8.8	.06	88	2.2
21	.07	.28	1.2	2.9	26	8.9	3.7	2.0	6.7	.10	80	1.8
22	.07	.50	1.2	4.5	27	8.4	3.4	2.8	4.8	.25	165	1.7
23	.06	.50	1.6	5.0	25	12	3.2	2.3	3.5	.19	216	1.4
24	.07	.58	2.0	5.0	23	16	2.9	1.8	2.7	.10	145	1.0
25	.15	1.0	2.0	5.0	21	16	2.5	1.4	2.2	.06	114	.90
26	.25	.90	1.8	4.8	20	15	2.2	.98	1.8	.04	89	.78
27	.22	1.0	2.0	4.8	18	15	2.0	.79	1.2	.04	66	.66
28	.22	1.3	2.4	5.0	16	14	1.8	1.5	.83	.04	50	.58
29	.22	1.2	2.8	4.7	---	13	1.7	2.5	.59	.03	37	.50
30	.23	.78	3.8	4.5	---	12	1.4	2.0	.76	.03	29	.42
31	.34	---	3.8	4.4	---	13	---	1.5	---	.03	30	---
TOTAL	4.49	10.76	49.52	102.9	499.3	439.9	178.1	38.32	144.88	9.89	1157.58	197.04
MEAN	.14	.36	1.60	3.32	17.8	14.2	5.94	1.24	4.83	.32	37.3	6.57
MAX	.42	1.3	3.8	5.0	33	22	12	2.8	13	1.5	216	24
MIN	.01	.03	.66	2.2	4.5	8.4	1.4	.48	.59	.03	.02	.42
CFSM	.006	.02	.07	.14	.77	.62	.26	.05	.21	.01	1.62	.29
IN.	.01	.02	.08	.17	.81	.71	.29	.06	.23	.02	1.87	.32

CAL YR 1980 TOTAL 9405.72 MEAN 25.7 MAX 212 MIN .01 CFSM 1.12 IN 15.21
WTR YR 1981 TOTAL 2832.68 MEAN 7.76 MAX 216 MIN .01 CFSM .34 IN 4.58

02085070 ENO RIVER NEAR DURHAM, NC

LOCATION (REVISED).--Lat 36°04'20", long 78°54'30", Durham County, Hydrologic Unit 03020201, on right bank 275 ft (84 m) downstream from bridge on U.S. Highway 501, 0.2 mi (0.3 km) downstream from Crooked Creek, and 5 mi (8 km) north of Durham.

DRAINAGE AREA.--141 mi² (365 km²).

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. Altitude of gage is 270 ft (82 m), from topographic map. Prior to Nov. 19, 1966, at site 275 ft (84 m) upstream at datum 2.35 ft (0.716 m) higher. Nov. 20, 1966 to Sept. 30, 1967 water-stage recorder and crest-stage gage at present site at datum 0.94 ft (0.287 m) higher.

REMARKS.--Records good. Some regulation during periods of low flow caused by mill 600 ft (183 m) upstream.

AVERAGE DISCHARGE.--18 years, 123 ft³/s (3.483 m³/s), 11.85 in/yr (301 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,620 ft³/s (272 m³/s) Apr. 26, 1978, gage height, 19.65 ft (5.989 m), minimum, 0.06 ft³/s (0.002 m³/s) Aug. 14, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft³/s (65.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 4	1300	*7290	206	*17.30	5.273	Sept. 7	1600	4200	119	12.78	3.895
July 25	0400	2910	82.4	10.00	3.048						

Minimum discharge, 1.9 ft³/s (0.054 m³/s) Oct. 18, June 29; minimum gage height, 1.03 ft (0.314 m) June 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	30	18	36	20	37	113	28	88	4.2	18	27
2	35	21	15	32	28	36	148	25	553	7.1	16	22
3	29	15	13	25	66	34	105	23	168	22	14	20
4	43	13	12	23	56	36	77	23	85	3870	13	19
5	30	13	11	20	41	117	69	22	61	494	13	33
6	28	24	11	19	34	135	120	20	47	171	16	157
7	16	21	10	20	30	83	114	21	45	98	19	2280
8	14	16	10	20	35	61	79	23	42	65	23	633
9	9.1	12	11	20	53	51	70	26	36	46	17	291
10	6.5	9.0	25	21	48	45	73	31	31	37	13	140
11	4.9	7.1	36	19	643	42	71	135	26	30	31	84
12	3.8	5.3	40	18	451	40	62	60	22	25	314	63
13	2.7	4.3	27	17	156	37	55	38	20	21	97	50
14	2.5	4.8	20	16	96	36	50	29	23	19	47	44
15	3.2	5.4	18	16	78	34	47	23	38	16	32	39
16	2.7	6.4	17	17	67	33	42	20	25	16	28	41
17	2.4	8.3	17	18	58	32	39	17	17	14	22	54
18	2.4	18	16	17	54	31	39	16	17	14	17	46
19	3.2	30	15	17	66	30	39	17	91	12	581	40
20	3.2	27	14	17	268	29	48	34	174	12	449	36
21	3.4	21	13	20	181	29	62	48	74	14	121	33
22	3.6	16	13	25	103	28	54	45	44	12	65	31
23	3.3	13	14	28	75	242	45	32	30	11	48	28
24	3.3	27	14	29	61	360	44	24	21	13	40	24
25	4.6	38	14	26	52	169	41	19	15	884	33	22
26	4.3	52	14	23	45	106	37	15	12	91	27	21
27	3.6	36	14	23	41	78	35	13	8.8	52	22	20
28	4.6	29	22	21	39	63	31	21	7.5	39	18	20
29	5.3	26	34	20	---	54	28	22	5.0	30	16	18
30	16	21	52	20	---	61	26	24	5.0	26	22	37
31	28	---	44	20	---	115	---	20	---	21	44	---
TOTAL	343.6	569.6	604	663	2945	2284	1863	914	1831.3	6186.3	2236	4373
MEAN	11.1	19.0	19.5	21.4	105	73.7	62.1	29.5	61.0	200	72.1	146
MAX	43	52	52	36	643	360	148	135	553	3870	581	2280
MIN	2.4	4.3	10	16	20	28	26	13	5.0	4.2	13	18
CFSM	.08	.14	.14	.15	.75	.52	.44	.21	.43	1.42	.51	1.04
IN.	.09	.15	.16	.17	.78	.60	.49	.24	.48	1.63	.59	1.15

CAL YR 1980 TOTAL 30612.8 MEAN 83.6 MAX 1310 MIN 1.8 CFSM .59 IN 8.08
WTR YR 1981 TOTAL 24812.8 MEAN 68.0 MAX 3870 MIN 2.4 CFSM .48 IN 6.55

02085220 LITTLE RIVER NEAR ORANGE FACTORY, NC

LOCATION.--Lat 36°08'20", long 78°54'24", Durham County, Hydrologic Unit 03020201, on right bank 125 ft (38 m) upstream from bridge on U.S. Highway 501, 1 mi (1.6 km) upstream from Mountain Creek, and 1.2 mi (1.9 km) northwest of Orange Factory.

DRAINAGE AREA.--80.4 mi² (208 km²), revised.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1930, 1954-59, 1961. September 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 333.98 ft (101.797 m) National Vertical Datum of 1929 (levels by North Carolina State Highway Commission).

REMARKS.--Records good.

AVERAGE DISCHARGE.--20 years, 70.7 ft³/s (2.002 m³/s), 11.94 in/yr (303 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,070 ft³/s (257 m³/s) Oct. 25, 1971, gage height, 12.56 ft (3.828 m) from high-water mark in well; minimum, 0.01 ft³/s (<0.001 m³/s) Sept. 3-7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--A field estimate of 0.03 ft³/s (<0.001 m³/s) was made on Sept. 18, 19, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft³/s (45.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 4	1200	*2670	75.6	*6.30	1.92

Minimum discharge, 1.6 ft³/s (0.045 m³/s) June 30; minimum gage height, 0.65 ft (0.198 m) Oct. 15, 16, 17, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	13	9.7	15	15	14	48	18	15	2.0	6.1	5.4
2	21	8.6	9.1	13	16	14	42	19	60	2.4	4.7	5.3
3	22	6.8	8.2	11	55	14	29	18	23	3.2	4.4	5.2
4	27	6.0	8.1	11	24	14	24	17	18	1360	4.1	5.0
5	11	20	7.8	19	23	73	25	18	15	164	4.0	5.5
6	11	16	7.4	13	18	73	78	17	13	71	6.8	24
7	7.1	10	7.5	9.5	17	43	55	19	13	33	7.5	635
8	5.3	7.9	7.5	13	20	25	36	20	13	22	6.1	162
9	4.6	6.8	9.4	16	34	22	31	18	13	17	8.1	106
10	3.7	5.4	10	13	21	20	51	20	12	14	13	42
11	3.2	4.4	38	10	501	21	43	42	10	11	11	20
12	2.9	4.2	21	9.0	219	19	34	29	8.9	10	65	15
13	2.3	3.5	15	8.5	77	20	26	20	8.4	9.6	51	12
14	2.1	3.8	13	7.9	44	20	26	17	15	9.4	20	11
15	2.1	4.0	12	8.4	27	20	23	15	13	8.3	12	10
16	2.0	5.2	11	8.9	21	20	21	14	8.9	7.8	8.7	13
17	2.0	5.9	11	12	18	20	20	14	6.6	7.5	8.4	22
18	2.0	12	11	13	17	19	21	14	6.2	7.3	8.6	18
19	3.1	18	10	8.4	32	18	21	14	15	6.7	121	14
20	15	11	9.6	8.4	199	18	29	20	58	6.4	123	11
21	10	7.8	9.0	10	108	18	56	35	22	6.2	44	10
22	5.6	6.9	9.3	17	60	17	34	25	11	6.0	20	9.4
23	4.1	6.7	8.9	21	37	149	27	19	7.5	6.4	13	9.2
24	3.2	9.0	9.4	20	24	194	25	16	6.2	15	11	8.7
25	3.5	68	11	16	20	82	24	15	4.5	67	9.1	8.4
26	3.2	25	18	12	18	49	22	14	3.5	17	8.2	8.2
27	3.2	15	9.4	11	16	30	22	13	3.0	9.7	7.4	8.0
28	5.8	14	10	11	14	23	21	15	2.2	30	6.7	7.4
29	5.6	14	17	10	---	20	19	15	1.9	15	6.2	6.8
30	8.3	12	26	10	---	31	19	15	1.7	9.6	5.8	6.7
31	32	---	19	13	---	77	---	12	---	7.1	5.6	---
TOTAL	256.9	350.9	383.3	379.0	1695	1197	952	577	408.5	1961.6	630.5	1224.2
MEAN	8.29	11.7	12.4	12.2	60.5	38.6	31.7	18.6	13.6	63.3	20.3	40.8
MAX	32	68	38	21	501	194	78	42	60	1360	123	635
MIN	2.0	3.5	7.4	7.9	14	14	19	12	1.7	2.0	4.0	5.0
CFSM	.10	.15	.15	.15	.75	.48	.39	.23	.17	.79	.25	.51
IN.	.12	.16	.18	.18	.78	.55	.44	.27	.19	.91	.29	.57

CAL YR 1980 TOTAL 19551.6 MEAN 53.4 MAX 868 MIN 1.1 CFSM .66 IN 9.05
WTR YR 1981 TOTAL 10015.9 MEAN 27.4 MAX 1360 MIN 1.7 CFSM .34 IN 4.63

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 (0.8 km) upstream from Lake Michie, 1.2 mi (1.9 km) upstream from bridge on Secondary Road 1616, 1.2 mi (1.9 km) north of Bahama, and 1.5 mi (2.4 km) upstream from Dial Creek.

DRAINAGE AREA.--149 mi² (386 km²), revised.

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

REVISED RECORDS.--WSP 1333: 1926, 1928(M), 1938, 1946.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 346.85 ft (105.720 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1925, nonrecording gage at same site at datum 0.58 ft (0.177 m) lower.

REMARKS.--Records good. Prior to December 1962, some diurnal fluctuation and infrequent regulation at low flow caused by small mill 5 mi (8 km) upstream.

AVERAGE DISCHARGE.--56 years, 142 ft³/s (4.021 m³/s), 12.94 in/yr (329 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 20,000 ft³/s (566 m³/s) July 26, 1938 (gage height, not determined), computed on basis of records for nearby stations; minimum, 0.23 ft³/s (0.007 m³/s) Sept. 26, 28, 29, Oct. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 ft³/s (127 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 4	1100	*4850	137	*7.06	2.152

Minimum discharge, 2.9 ft³/s (0.082 m³/s) Oct. 17-19, gage height, 0.93 ft (0.283 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	43	30	33	16	40	110	24	15	4.7	12	12
2	20	26	25	28	25	39	79	22	20	4.9	9.6	13
3	23	17	22	25	105	36	67	20	22	5.5	8.8	13
4	39	15	20	22	60	35	55	19	21	2030	8.4	12
5	17	100	19	18	40	111	52	18	19	298	8.1	39
6	13	59	18	18	32	139	140	18	19	105	8.4	88
7	11	36	17	18	28	83	103	19	15	896	376	282
8	9.5	24	17	19	39	62	71	18	13	158	113	199
9	7.8	19	17	21	67	52	65	17	14	77	164	108
10	6.3	15	22	20	50	45	107	18	12	52	47	52
11	5.3	12	62	17	1010	43	87	44	10	40	28	31
12	4.2	11	51	15	444	41	69	43	8.7	33	150	24
13	3.5	10	38	14	161	39	59	28	8.2	27	88	18
14	3.4	9.7	30	13	101	38	50	21	63	22	41	15
15	3.3	10	26	12	79	35	46	18	30	19	27	12
16	3.2	11	24	12	68	34	41	16	16	17	22	15
17	3.1	11	23	11	60	33	39	14	11	19	21	35
18	2.9	15	22	12	55	34	40	12	177	18	25	27
19	41	23	21	14	57	32	38	12	109	16	109	19
20	97	26	20	15	265	31	46	15	113	13	249	14
21	34	21	18	18	187	29	100	53	49	13	77	12
22	18	18	16	25	106	29	64	50	26	14	42	11
23	11	15	16	33	76	191	47	29	16	12	30	8.8
24	7.9	18	17	31	67	468	43	20	12	11	23	7.7
25	7.5	161	17	27	58	223	42	17	9.5	274	19	6.9
26	7.9	77	16	23	49	123	37	14	9.2	56	16	6.5
27	15	49	17	21	44	83	31	13	8.5	34	13	6.2
28	16	43	18	21	41	70	28	13	8.2	98	11	5.9
29	13	43	24	21	---	60	26	29	7.2	43	10	5.4
30	16	37	41	19	---	69	24	23	5.9	25	9.3	4.7
31	65	---	40	18	---	201	---	17	---	18	10	---
TOTAL	533.8	974.7	764	614	3390	2548	1806	694	867.4	4453.1	1775.6	1103.1
MEAN	17.2	32.5	24.6	19.8	121	82.2	60.2	22.4	28.9	144	57.3	36.8
MAX	97	161	62	33	1010	468	140	53	177	2030	376	282
MIN	2.9	9.7	16	11	16	29	24	12	5.9	4.7	8.1	4.7
CFSM	.12	.22	.17	.13	.81	.55	.40	.15	.19	.97	.39	.25
IN.	.13	.24	.19	.15	.85	.64	.45	.17	.22	1.11	.44	.28

CAL YR 1980 TOTAL 37152.9 MEAN 102 MAX 1240 MIN 2.8 CFSM .69 IN 9.28
WTR YR 1981 TOTAL 19523.7 MEAN 53.5 MAX 2030 MIN 2.9 CFSM .36 IN 4.87

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 (0.5 km) downstream from bridge on Secondary Road 2000, 0.4 mi (0.6 km) northeast of Falls, and 0.5 mi (0.8 km) downstream from Falls Dam (under construction).

DRAINAGE AREA.--772 mi² (1,999 km²), revised.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 182.62 ft (55.663 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge record good. Flow regulated by Lake Michie (see p. 330). An average of 27.8 ft³/s (0.78 m³/s) was diverted from Flat River, an upstream tributary, for Durham municipal water supply, and an average of 2.4 ft³/s (0.068 m³/s) from Knap of Reeds Creek, an upstream tributary for Butner's municipal water supply. Sewage effluent from Durham, about 10.9 ft³/s (0.31 m³/s) and Butner, 2.5 ft³/s (0.071 m³/s) was returned to Neuse River, and the remainder, about 12 ft³/s (0.34 m³/s) was diverted into the Cape Fear River basin. June 5, 1980, to May 6, 1981, flows affected by incidental storage in Falls Lake (see p. 328) under construction. May 6, 1981, gates closed and Falls Lake partially filled to provide storage for City of Raleigh water supply. The city of Raleigh diverted an average of 31.5 ft³/s (0.89 m³/s) 1.2 mi (1.9 km) upstream from station for municipal water supply, most of which was returned downstream as sewage effluent. Gage height telemeter at station.

AVERAGE DISCHARGE.--11 years, 794 ft³/s (22.49 m³/s), 13.97 in/yr (355 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s (385 m³/s) July 17, 1975, gage height, 25.21 ft (7.684 m); minimum, 4.6 ft³/s (0.13 m³/s) Sept. 24, 1980, gage height, 2.13 ft (0.649 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached a stage of 216.1 ft (65.9 m) above mean sea level, discharge, 23,300 ft³/s (660 m³/s) at bridge 0.4 mi (0.6 km) upstream from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,630 ft³/s (131 m³/s) July 7, gage height, 14.66 ft (4.468 m); minimum, 9.0 ft³/s (0.25 m³/s) Oct. 15, gage height, 2.25 ft (0.686 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	68	88	157	55	209	461	66	44	41	44	65
2	70	84	63	137	75	193	559	68	43	41	44	32
3	80	80	59	114	117	177	506	59	44	41	43	35
4	76	60	50	102	140	175	359	52	43	826	43	41
5	83	56	51	82	160	336	293	48	121	2690	43	42
6	130	47	46	71	156	589	291	47	119	4020	43	89
7	122	43	51	71	103	507	352	49	84	3780	157	425
8	96	41	38	79	101	350	410	44	84	1100	162	2350
9	49	42	43	71	123	267	327	46	56	357	182	3950
10	31	44	53	76	130	239	352	47	42	133	117	3090
11	26	33	110	70	262	211	346	53	42	130	116	685
12	23	28	152	53	973	183	320	250	42	82	415	236
13	19	23	141	50	1190	168	302	160	42	42	825	233
14	13	22	136	50	696	145	255	80	42	41	409	385
15	9.5	21	107	50	305	116	213	64	42	41	80	335
16	11	20	78	49	237	97	185	62	42	41	119	238
17	11	22	80	49	208	104	193	61	42	41	433	160
18	12	107	67	43	182	86	188	61	42	40	321	116
19	14	105	56	54	198	84	177	61	42	39	276	122
20	14	101	63	46	668	88	146	60	88	40	1700	115
21	14	83	62	63	1090	82	205	58	129	41	2560	71
22	16	73	45	79	1140	76	232	58	130	39	1180	115
23	14	70	51	100	931	192	226	57	81	39	231	45
24	14	74	46	120	624	933	211	56	54	39	184	44
25	14	115	51	117	411	1170	187	55	42	40	107	44
26	19	202	52	97	271	801	185	54	41	596	109	44
27	20	174	57	95	234	472	163	54	41	244	109	44
28	21	142	62	76	212	347	102	50	41	104	107	44
29	21	110	104	63	---	291	76	44	41	175	106	44
30	26	104	185	67	---	285	66	44	41	141	105	44
31	37	---	161	67	---	324	---	44	---	78	106	---
TOTAL	1131.5	2194	2408	2418	10992	9297	7888	2012	1787	15102	10476	13283
MEAN	36.5	73.1	77.7	78.0	393	300	263	64.9	59.6	487	338	443
MAX	130	202	185	157	1190	1170	559	250	130	4020	2560	3950
MIN	9.5	20	38	43	55	76	66	44	41	39	43	32
CFSM	.05	.10	.10	.10	.51	.39	.34	.08	.08	.63	.44	.57
IN.	.05	.11	.12	.12	.53	.45	.38	.10	.09	.73	.50	.64

CAL YR 1980 TOTAL 191112.6 MEAN 522 MAX 4600 MIN 5.2 CFSM .68 IN 9.21
WTR YR 1981 TOTAL 78988.5 MEAN 216 MAX 4020 MIN 9.5 CFSM .28 IN 3.81

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1961-1973, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1960 to September 1967, October 1978 to current year.
WATER TEMPERATURES: October 1953 to September 1954, November 1960 to September 1967, October 1978 to current year.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams. Daily records of specific conductance for period November 1960 to September 1964 are available in the district office in Raleigh, NC. For water years 1954, 1961-73, data were published as Neuse River at Falls (station 02087182).

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 355 micromhos Sept. 22, 1966; minimum daily, 37 micromhos Aug. 4, 1961.
WATER TEMPERATURES: Maximum daily, 32.0°C Aug. 7, 16, 1980; minimum daily, 0.0°C on many days during winter months of 1960-62.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 227 micromhos Nov. 23; minimum daily, 61 micromhos July 6.
WATER TEMPERATURES: Maximum daily, 29.0°C July 27, 28; minimum daily, 0.5°C Jan. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 05...	1500	54	220	6.8	13.0	15	9.8	32	0	7.6	3.1
JAN 06...	1525	74	145	6.7	3.0	20	14.6	28	0	6.5	2.9
FEB 10...	1600	128	139	6.1	4.5	15	12.8	32	2	7.5	3.2
MAY 04...	1115	53	135	7.9	20.5	15	10.0	33	0	7.8	3.2
JUN 12...	1645	42	150	6.8	25.0	70	4.6	37	0	9.1	3.4
JUL 06...	1400	4390	61	6.0	24.5	100	7.8	16	1	4.0	1.5

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV 05...	29	62	2.2	5.7	54	0	44	7.7	16	18	.4
JAN 06...	13	47	1.1	2.6	46	0	38	8.6	13	17	.2
FEB 10...	13	45	1.0	2.4	36	0	30	42	10	12	.2
MAY 04...	12	42	.9	2.7	50	0	41	.8	7.4	10	.2
JUN 12...	10	34	.7	3.8	62	0	51	11	6.9	11	.2
JUL 06...	4.5	33	.5	2.7	18	0	15	27	5.8	4.3	<.1

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, 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)
NOV											
05...	12	137	121	.19	20.0	3.7	.210	3.9	3.1	.880	.850
JAN											
06...	11	101	83	.14	20.2	.84	.010	.85	.85	.190	.200
FEB											
10...	11	92	78	.13	31.8	.56	.020	.58	.58	.700	.670
MAY											
04...	8.6	100	71	.14	14.3	.26	.040	.30	.33	.040	.070
JUN											
12...	11	109	76	.15	12.4	.02	.030	.05	.06	.390	.480
JUL											
06...	6.6	60	38	.08	711	.27	.040	.31	.31	.200	.200

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV											
05...	1.1	1.1	.42	--	1.30	--	--	5.2	23	--	1.40
JAN											
06...	.23	.26	.38	.25	.57	.12	.45	1.4	6.3	1.3	.280
FEB											
10...	--	.86	.70	.33	1.40	.40	1.0	2.0	8.8	1.6	.300
MAY											
04...	--	.09	.93	.37	.97	.53	.44	1.3	5.6	.77	.220
JUN											
12...	--	.62	.81	.92	1.20	.00	1.4	1.3	5.5	1.5	.270
JUL											
06...	--	.26	1.0	.49	1.20	.51	.69	1.5	6.7	1.0	.180

DATE	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
NOV										
05...	3.40	4.3	1.10	1.10	1.00	3.1	1	0	1	0
JAN										
06...	.71	.86	.180	.230	.170	.52	--	--	--	--
FEB										
10...	--	.92	.210	.240	.200	.61	--	--	--	--
MAY										
04...	--	.67	.120	.110	.090	.28	0	0	0	1
JUN										
12...	--	.83	.200	.200	.150	.46	--	--	--	1
JUL										
06...	--	.55	<.010	.080	.030	.09	--	--	--	--

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV, (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
NOV										
05...	0	3	10	0	25	2	2	0	5	4
JAN										
06...	--	--	10	6	4	--	--	--	4	1
FEB										
10...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	--	<1	10	8	2	1	1	0	2	1
JUN										
12...	--	--	3	--	--	2	--	--	3	--
JUL										
06...	--	--	<10	--	0	--	--	--	6	0

NEUSE RIVER BASIN

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV										
05...	1	1000	850	150	5	5	0	420	80	340
JAN										
06...	3	1000	880	120	5	5	0	--	--	--
FEB										
10...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	1	730	580	150	17	17	0	380	200	180
JUN										
12...	--	--	--	--	5	--	--	2100	--	--
JUL										
06...	7	2500	2200	320	<10	--	1	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)
NOV								
05...	.2	.0	.5	0	0	0	10	10
JAN								
06...	--	--	--	--	--	--	10	10
FEB								
10...	--	--	--	--	--	--	--	--
MAY								
04...	.1	.0	.1	0	0	0	10	--
JUN								
12...	<.1	--	--	--	--	--	20	--
JUL								
06...	--	--	--	--	--	--	20	--

DATE	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	METHY-LENE BLUE ACTIVE SUR-STANCE (MG/L)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPO-SURE (DAYS)
NOV							
05...	0	7.4	.5	--	--	--	--
JAN							
06...	0	4.6	.8	.10	--	--	--
FEB							
10...	--	9.3	.6	--	.945	.747	30
MAY							
04...	<4	9.9	2.0	.10	--	--	--
JUN							
12...	--	7.2	1.8	.10	--	--	--
JUL							
06...	<4	9.2	1.4	.00	--	--	--

NEUSE RIVER BASIN

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 5,80		JAN 6,81		MAY 4,81		JUL 6,81	
TIME	1500		1525		1115		1400	
TOTAL CELLS/ML	870		2500		46000		4900	
DIVERSITY: DIVISION	1.4		1.2		1.3		1.7	
.CLASS	1.4		1.3		1.3		1.7	
..ORDER	1.6		2.0		1.8		2.5	
...FAMILY	1.8		2.5		2.7		3.0	
....GENUS	1.8		2.6		3.2		3.9	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	14	1	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	3700	8	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	930	2	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	69	3	460	1	240	5
....DICTYOSPHAERIUM	--	-	150	6	3700	8	270	5
....GLOEOACTINIUM	--	-	--	-	--	-	110	2
....KIRCHNERIELLA	--	-	14	1	2300	5	380	8
....OOCYSTIS	--	-	--	-	--	-	110	2
....SELENASTRUM	13	1	--	-	460	1	--	-
....TETRAEDRON	--	-	--	-	--	-	27	1
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	110	4	5800	13	--	-
....SCENEDESMUS	130	15	--	-	4600	10	380	8
....TETRASTRUM	--	-	--	-	930	2	110	2
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	26	3	41	2	1200	3	190	4
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	81	2
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	52	6	55	2	15000#	33	540	11
....MELOSIRA	--	-	41	2	--	-	81	2
..PENNALES								
...FRAGILARIACEAE								
....SYNEDRA	--	-	41	2	1600	4	430	9
...GOMPHONEMATACEAE								
....GOMPHONEMA	13	1	14	1	--	-	--	-
...NAVICULACEAE								
....NAVICULA	26	3	110	4	--	-	160	3
...NITZSCHIACEAE								
....NITZSCHIA	13	1	140	6	2500	6	130	3

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 5,80 1500		JAN 6,81 1525		MAY 4,81 1115		JUL 6,81 1400	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...MALLOMONADACEAE								
....MALLOMONAS	--	-	14	1	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	13	1	--	-	230	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	430	9
....ANACYSTIS	570#	66	430#	17	1900	4	130	3
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	1200#	49	--	-	1000#	21
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	41	2	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	13	1	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	27	1
....TRACHELOMONAS	--	-	--	-	460	1	54	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	204	148	185	125	108	104	109	112	158	91	85
2	157	195	130	205	124	109	102	114	112	160	100	97
3	174	204	134	194	133	110	94	124	117	158	101	98
4	175	200	151	165	146	113	98	125	113	160	102	93
5	215	220	156	170	177	108	100	126	112	156	100	90
6	162	206	150	161	185	113	96	141	120	61	109	98
7	179	180	152	146	165	112	98	143	123	65	110	104
8	179	187	141	135	136	103	110	151	128	70	116	104
9	161	172	145	131	125	101	100	145	122	74	109	83
10	153	163	133	137	133	103	94	143	119	75	118	69
11	147	153	141	124	115	103	100	143	123	76	109	73
12	152	161	151	144	133	101	106	143	122	79	117	80
13	152	164	188	135	81	103	104	92	140	78	96	82
14	137	164	192	155	93	108	102	98	138	84	117	83
15	137	170	175	161	92	110	96	100	137	85	117	87
16	135	170	166	157	94	105	102	97	138	89	117	89
17	134	171	156	155	103	113	106	97	142	90	119	91
18	134	151	146	159	106	108	112	98	140	85	117	93
19	138	144	134	147	109	114	112	96	142	91	114	91
20	145	132	135	144	95	124	108	92	142	90	113	94
21	146	147	141	140	106	122	106	100	142	92	90	98
22	169	206	133	145	92	124	113	100	143	89	72	96
23	160	227	140	148	88	130	133	100	143	93	73	97
24	182	213	144	156	92	122	113	92	147	93	70	102
25	182	180	118	112	101	90	112	100	150	93	74	96
26	175	168	138	176	102	90	110	98	152	90	72	100
27	180	179	147	177	107	86	112	102	152	98	84	99
28	198	175	150	150	107	90	114	105	142	100	80	102
29	190	201	155	140	---	92	114	104	155	99	76	101
30	200	177	158	135	---	96	110	112	160	92	87	100
31	202	---	160	130	---	94	---	112	---	99	94	---
MEAN	165	179	149	152	117	107	106	113	134	97	99	93

WTR YR 1981 MEAN 126 MAX 227 MIN 61

NEUSE RIVER BASIN

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	12.0	7.0	5.0	4.0	10.0	16.0	22.0	21.5	26.5	27.0	23.0
2	21.0	12.0	9.0	5.5	6.0	10.0	15.0	20.0	21.0	27.0	26.5	23.0
3	20.0	13.0	7.5	4.5	3.5	10.0	16.0	25.0	21.5	25.5	26.5	22.5
4	21.5	13.0	7.5	3.0	4.0	11.0	17.5	26.5	22.0	26.5	27.5	23.0
5	19.0	12.0	6.5	2.0	3.5	10.5	17.5	20.5	23.0	25.5	27.5	23.0
6	13.0	11.0	7.5	2.5	2.0	9.0	17.0	21.5	24.5	24.5	27.0	23.5
7	17.0	12.5	7.0	3.0	3.0	9.5	16.0	19.5	24.5	24.5	28.5	25.0
8	18.0	14.0	8.0	2.5	2.5	8.0	16.0	18.5	25.0	25.5	28.0	24.5
9	20.0	13.0	8.0	2.5	2.5	9.5	15.5	18.0	25.0	26.5	28.5	22.0
10	20.0	13.5	10.0	2.0	3.0	9.0	15.5	18.5	25.0	26.5	28.0	22.5
11	22.0	11.0	9.0	1.5	6.5	9.5	19.5	19.5	24.5	26.5	27.5	23.0
12	18.0	11.5	9.5	.5	6.0	9.0	18.5	19.0	24.5	25.5	27.5	23.0
13	15.5	11.0	9.5	1.0	5.0	10.5	18.5	19.5	24.5	26.0	27.5	23.0
14	16.0	11.5	7.5	1.5	5.0	9.0	18.5	19.5	24.5	26.0	28.0	23.5
15	15.0	13.5	8.0	1.5	4.5	9.0	18.0	19.5	24.5	26.0	27.0	23.5
16	19.0	11.5	7.0	2.0	5.0	10.5	19.0	20.5	25.0	26.5	27.0	23.0
17	19.0	10.5	6.5	1.5	7.0	9.0	18.0	20.5	25.5	26.0	27.5	23.0
18	20.0	9.0	6.0	1.0	9.0	10.5	20.0	20.5	24.5	26.0	26.5	23.5
19	19.0	9.0	6.5	2.0	9.5	9.5	19.5	19.5	25.5	26.0	26.5	22.0
20	20.0	8.0	5.5	2.0	11.5	9.0	18.5	17.5	27.0	27.0	25.0	21.5
21	18.0	7.5	4.0	2.0	12.0	10.5	19.0	18.0	27.5	27.0	22.0	22.0
22	19.0	7.0	3.5	2.0	11.0	8.0	18.0	21.0	28.5	27.0	21.0	21.5
23	16.0	6.5	4.5	2.5	11.5	7.0	18.0	19.5	27.0	27.0	20.5	21.5
24	15.0	8.5	4.5	3.5	11.0	6.5	19.0	19.0	27.0	27.0	22.0	22.0
25	15.0	9.0	3.0	3.5	10.5	7.5	18.5	19.5	27.0	28.0	22.0	21.0
26	18.0	9.0	3.0	4.0	10.5	9.0	16.0	19.5	27.0	27.5	22.0	21.5
27	14.0	8.0	3.0	5.0	11.0	11.0	18.0	19.5	28.5	29.0	21.5	20.5
28	15.0	8.0	3.5	5.0	11.0	12.5	20.0	20.0	27.0	29.0	22.0	21.0
29	13.0	8.5	3.0	4.5	---	11.5	22.5	20.5	27.0	28.5	23.0	21.0
30	12.0	6.5	3.0	4.5	---	11.5	22.0	21.0	27.5	27.5	23.0	21.0
31	14.0	---	4.5	4.0	---	14.5	---	23.0	---	27.5	23.0	---
MEAN	17.5	10.5	6.0	3.0	7.0	9.5	18.0	20.0	25.0	26.5	25.5	22.5

WTR YR 1981 MEAN 16.0 MAX 29.0 MIN .5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
05...	1500	54	17	2.5	87
JAN					
06...	1525	74	16	3.2	90
FEB					
10...	1600	128	22	7.6	93
APR					
01...	1330	506	55	75	94
MAY					
04...	1115	53	27	3.9	77
JUN					
12...	1645	42	16	1.8	85
JUL					
06...	1400	4390	156	1850	54

NEUSE RIVER BASIN

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/13	10 20 0000		2.52	23	75		17.5	20.0	9.2	96.8	20	4.2
80/11/17	16 10 0000		2.43	19	55		9.0	15.0	9.8	84.5	23	4.1
81/01/23	10 09 0000		3.11	99	96	7.35	1.0	9.0	15.8	111.3	22	1.2
81/02/25	14 45 0000		4.71	411	110		7.0	40.0	9.8	80.3	19	1.7
81/03/24	15 35 0000		6.67	933	120	6.74	9.0	60.0	12.3	106.0	39	6.0
81/04/06	14 25 0000		4.03	309	110		20.0	30.0	9.4	102.0	25	2.0
81/05/27	15 00 0000		2.56	53	120	6.50	20.0		5.9	64.1		2.2
81/06/01	16 35 0000		2.50	29		7.43	21.0	7.0	7.3	81.1		3.1
81/07/07	11 40 0000		14.30	4440		6.40	25.0	70.0	7.4	88.1		1.9
81/08/19	13 55 0000		2.92	100		7.63	25.0	10.0	7.5	89.3		2.6
81/09/09	11 15 0000		13.64	4100		6.95	25.0	110.0	8.8	104.8		2.4

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/13	10 20 0000		50	34								
80/11/17	16 10 0000		10K	40	0.86	0.070	0.600	0.360	0.210			
81/01/23	10 09 0000		50	37	0.99	1.400	1.700	0.550	0.430			
81/02/25	14 45 0000		40	22	0.61	0.260	0.700	0.200	0.090	10K	50K	50K
81/03/24	15 35 0000		800	21	0.78	0.400	1.400	0.360	0.150			
81/04/06	14 25 0000		20	25	0.49	0.270	0.600	0.260	0.110			
81/05/27	15 00 0000		10K		0.10	0.330	0.800		0.050K		50K	50K
81/06/01	16 35 0000		10K	39	0.07	0.510	1.200	0.170	0.050K	10K	50K	50K
81/07/07	11 40 0000		60	14	0.30	0.130	0.700	0.140	0.050K			
81/08/19	13 55 0000		200	29	0.20	0.380	0.800	0.080	0.050K			
81/09/09	11 15 0000		720	15	0.40	0.160	0.800	0.200	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
81/02/25	14 45 0000		100K	40K	1300	100K	220.0	0.5K	50K
81/05/27	15 00 0000		100K	40K	1100	200	960.0		50K
81/06/01	16 35 0000		100K	40K	1800	100K	1300.0	0.5K	50K
81/09/09	11 15 0000		100K	40K	1900	100	320.0	0.5K	50K

K Less than noted value.

02087500 NEUSE RIVER NEAR CLAYTON, NC

LOCATION.--Lat 35°38'50", long 78°24'22" (revised), Johnston County, Hydrologic Unit 03020201, on left bank at downstream side of bridge on State Highway 42, 2.3 mi (3.7 km) upstream from Mill Creek, and 3 mi (5 km) east of Clayton.

DRAINAGE AREA.--1,150 mi² (2,978 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1927 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 1032: 1930, 1935(M). WSP 1333: 1935. WSP 1503: 1949.

GAGE.--Water-stage recorder. Datum of gage is 128.41 ft (39.139 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 18, 1942, at site 1,100 ft (335 m) upstream at same datum.

REMARKS.--Water-discharge records excellent. Diversions for municipal water supply for cities of Durham and Butner (see sta 02087183). Flow regulated by Falls Lake (see p. 328). The city of Raleigh diverted from Swift Creek (see p. 330), a downstream tributary, an average of 9.3 ft³/s (0.26 m³/s), and from the Neuse River upstream from station an average of 34.7 ft³/s (0.90 m³/s), most of which was returned as sewage effluent upstream from station.

AVERAGE DISCHARGE.--54 years, 1,168 ft³/s (33.08 m³/s), 13.79 in/yr (350 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft³/s (649 m³/s) Sept. 19, 1945, gage height, 22.12 ft (6.742 m); minimum, 44 ft³/s (1.25 m³/s) Sept. 15, 1932, gage height, 0.28 ft (0.085 m), site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1919, reached a stage of 21.15 ft (6.447 m), from floodmark at former site, discharge, 21,200 ft³/s (600 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,000 ft³/s (113 m³/s) July 8, gage height, 7.31 ft (2.228 m); minimum, 74 ft³/s (2.10 m³/s) June 29, gage height, 0.87 ft (0.265 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	324	187	228	371	225	456	588	175	156	86	139	204
2	317	178	213	338	271	443	669	173	177	164	97	163
3	232	180	188	299	401	416	718	164	179	256	88	122
4	254	185	176	270	359	392	615	153	165	616	91	114
5	204	288	170	242	348	579	499	145	128	1470	95	127
6	380	212	164	218	350	869	485	140	203	2830	93	335
7	352	174	166	239	309	962	476	143	656	3640	136	284
8	249	159	175	260	312	735	531	154	311	2970	219	1280
9	206	155	168	232	311	567	543	141	224	996	518	3060
10	154	161	190	221	305	494	536	156	178	327	355	3760
11	122	153	366	209	579	473	530	212	142	207	267	2310
12	109	142	312	201	1450	426	494	256	117	193	1250	541
13	101	129	319	200	1750	387	468	638	115	158	1090	355
14	99	124	285	195	1480	363	435	340	112	104	1020	342
15	91	119	272	195	872	325	387	179	109	118	342	502
16	90	130	247	198	536	295	339	147	103	120	180	369
17	89	141	234	188	465	283	319	139	103	127	518	346
18	91	421	215	175	419	280	326	134	154	120	648	250
19	98	435	200	179	424	262	324	137	166	102	482	207
20	105	273	187	189	1660	257	305	150	220	97	1050	208
21	106	245	179	221	1930	256	305	272	191	208	2450	196
22	100	218	174	378	1740	248	351	224	228	161	2720	165
23	101	197	189	309	1530	374	367	165	240	115	1030	188
24	104	212	233	285	1250	890	361	141	146	101	456	122
25	136	452	199	289	868	1450	342	130	123	123	350	114
26	174	373	169	274	619	1430	310	125	95	137	246	113
27	146	370	178	257	492	949	304	125	91	654	227	113
28	124	347	291	248	461	634	279	322	87	265	212	111
29	121	287	487	229	---	500	221	254	81	208	204	111
30	139	239	452	217	---	465	186	179	84	269	204	112
31	276	---	447	215	---	566	---	138	---	201	219	---
TOTAL	5194	6886	7473	7541	21716	17026	12613	5951	5084	17143	16996	16224
MEAN	168	230	241	243	776	549	420	192	169	553	548	541
MAX	380	452	487	378	1930	1450	718	638	656	3640	2720	3760
MIN	89	119	164	175	225	248	186	125	81	86	88	111
CFSM	.15	.20	.21	.21	.68	.48	.37	.17	.15	.48	.48	.47
IN.	.17	.22	.24	.24	.70	.55	.41	.19	.16	.55	.55	.52

CAL YR 1980 TOTAL 309751 MEAN 846 MAX 5540 MIN 74 CFSM .74 IN 10.02
WTR YR 1981 TOTAL 139847 MEAN 383 MAX 3760 MIN 81 CFSM .33 IN 4.52

02087500 NEUSE RIVER NEAR CLAYTON, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/14	10	10 0000	1.05	114	95		13.0	5.0	8.8	83.0	15	1.2
80/11/12	09	15 0000	1.25	151	150		7.0	4.0	10.8	88.5	27	1.4
80/12/08	09	10 0000	1.30	183	190		9.0	8.0	11.1	95.7	15	1.2
81/01/19	10	15 0000	1.32	179	71	7.38	4.0	7.0	13.8	105.3	13	1.2
81/02/09	11	00 0000	1.66	311	161	7.06	3.0	15.0	13.0	96.3	21	2.7
81/03/09	18	40 0000	2.14	555	130	6.91	12.0	20.0	10.2	94.4	20	1.9
81/04/08	14	35 0000	2.12	548	150		16.0	15.0	9.2	92.0	20	1.4
81/05/11	14	45 0000	1.29	187		7.33	18.5	10.0	7.8	83.0		0.9
81/06/10	13	00 0000	1.28	183		7.59	28.0	15.0	6.3	79.7	22	0.8
81/07/29	10	15 0000	1.30	190			28.0	9.0	6.5	82.3		0.9
81/08/12	15	15 0000	3.88	1570			26.0	110.0	7.3	89.0		2.8
81/09/03	10	45 0000	1.08	122		6.96	25.0	8.0	6.8	81.0		1.1

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/14	10	10 0000	160	30	3.00	0.080	0.500	1.500	1.500			
80/11/12	09	15 0000	150	42	2.30	0.050K	0.500	1.100	1.000			
80/12/08	09	10 0000	100	36	2.10	0.060	0.400	1.100	0.960	10K	50K	50K
81/01/19	10	15 0000	20	15	3.00	0.100	0.500	1.000	0.840			
81/02/09	11	00 0000	50	31	2.00	0.450	0.800	0.840	0.690		50K	50K
81/03/09	18	40 0000	80	22	1.10	0.110	0.600	0.420	0.300			
81/04/08	14	35 0000	20	29	1.00	0.050K	0.500	0.550	0.450			
81/05/11	14	45 0000	50	40	1.20	0.070	0.600	0.930	0.840			
81/06/10	13	00 0000		35	1.10	0.050K	0.500	1.000	0.930	10K	50K	50K
81/07/29	10	15 0000	10K	31	0.96	0.050K	0.600	1.200	1.100			
81/08/12	15	15 0000	2200	18	0.42	0.050K	1.000	0.500	0.200			
81/09/03	10	45 0000	40	24	0.88	0.060	0.500	1.300	1.200	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/08	09	10 0000	100K	40K	800	100K	200.0	0.5K	50K
81/02/09	11	00 0000	100K	40K	1000	100K	150.0	0.5K	50K
81/06/10	13	00 0000	100K	40K	900	100K	370.0	0.5K	50K
81/09/03	10	45 0000	100K	40K	700	100K	100.0	0.5K	50K

K Less than noted value.

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 (3 m) downstream from bridge on U.S. Highway 70, at Smithfield, 2.1 mi (3.4 km) upstream from Swift Creek and 177.6 mi (285.8 km) upstream from mouth.

DRAINAGE AREA.--1,206 mi² (3,124 km²), revised.

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.

GAGE.--Water-stage recorder. Datum of gage is 99.26 ft (30.254 m) 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.

REMARKS.--Records good. Diversions for municipal water supply for cities of Durham and Butner (see sta 02087183). Flow regulated by Falls Lake (see p. 328). The city of Raleigh diverted from Swift Creek (see p. 330), a downstream tributary, an average of 9.3 ft³/s (0.26 m³/s), and from Neuse River upstream from station an average of 34.7 ft³/s (0.98 m³/s), most of which was returned as sewage effluent upstream from station. The city of Smithfield diverted an average of 3.8 ft³/s (0.11 m³/s) 0.2 mi (0.3 km) upstream from station for municipal water supply, most of which was returned downstream as sewage effluent.

AVERAGE DISCHARGE.--9 years, 1,307 ft³/s (37.01 m³/s), 14.72 in/yr (374 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s (433 m³/s) Feb. 5, 1973, Mar. 21, 1975, gage height, 23.65 ft (7.209 m); minimum, 61 ft³/s (1.73 m³/s) July 29, 1977, gage height, 2.47 ft (0.753 m); minimum gage height observed, 2.38 ft (0.725 m) Sept. 26, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1908 reached a stage of 27.1 ft (8.26 m), discharge, 19,900 ft³/s (564 m³/s); July 24, 1919, 26.8 ft (8.17 m), discharge, 19,400 ft³/s (549 m³/s); Oct. 3, 1929, 26.4 ft (8.05 m), discharge, 18,700 ft³/s (530 m³/s); Sept. 20, 1945, 25.9 ft (7.89 m), discharge, 17,900 ft³/s (507 m³/s), from stage information furnished by National Weather Service and Corps of Engineers, and discharges determined from ratings developed since 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,530 ft³/s (100 m³/s) July 8, Sept. 11, gage height, 13.05 ft (3.978 m); minimum, 85 ft³/s (2.41 m³/s) June 30, July 1, gage height, 2.71 ft (0.826 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	236	255	436	235	538	654	182	161	98	149	227
2	370	199	248	373	282	519	728	172	212	106	115	200
3	281	205	224	339	425	493	800	164	193	277	92	142
4	249	215	198	303	422	457	758	155	207	833	93	123
5	248	305	191	277	381	579	614	142	152	1090	93	126
6	244	267	181	252	379	933	556	140	266	2270	100	259
7	493	209	178	253	356	1120	550	137	863	2990	116	296
8	295	183	183	278	343	950	555	144	582	3340	170	832
9	246	167	185	260	361	710	643	146	340	1660	451	2350
10	191	177	195	245	326	589	605	142	245	668	565	3230
11	143	165	348	242	494	549	604	192	183	268	279	3110
12	124	152	361	238	1450	507	582	205	147	222	1140	1130
13	111	138	351	232	1810	444	531	467	133	196	1440	476
14	108	130	321	225	1770	419	506	573	128	132	1190	439
15	101	126	300	215	1220	375	452	225	119	107	747	539
16	99	125	271	208	696	334	397	157	116	134	211	608
17	100	143	250	206	555	308	348	138	109	118	429	473
18	100	269	239	192	496	306	356	130	500	129	703	420
19	106	582	233	184	483	283	354	129	250	109	650	288
20	111	344	202	192	1730	274	331	145	243	99	1160	277
21	112	280	190	223	2520	270	315	206	249	150	1960	259
22	107	246	184	369	2240	267	335	263	223	240	2850	241
23	108	215	205	372	2030	300	380	186	260	131	2470	209
24	117	211	241	315	1700	685	385	148	196	108	797	204
25	143	420	232	303	1190	1420	374	130	145	106	504	149
26	177	479	196	292	846	1530	334	123	117	121	326	142
27	171	412	194	271	616	1190	313	134	101	470	269	137
28	137	396	306	259	542	816	300	2140	97	454	244	131
29	130	353	555	247	---	619	255	684	91	183	229	128
30	146	284	538	230	---	539	205	291	91	239	222	125
31	284	---	507	227	---	627	---	203	---	263	220	---
TOTAL	5626	7633	8262	8258	25898	18950	14120	8393	6719	17311	19984	17270
MEAN	181	254	267	266	925	611	471	271	224	558	645	576
MAX	493	582	555	436	2520	1530	800	2140	863	3340	2850	3230
MIN	99	125	178	184	235	267	205	123	91	98	92	123
CFSM	.15	.21	.22	.22	.77	.51	.39	.23	.19	.46	.54	.48
IN.	.17	.24	.25	.25	.80	.58	.44	.26	.21	.53	.62	.53

CAL YR 1980 TOTAL 332811 MEAN 909 MAX 6180 MIN 71 CFSM .75 IN 10.27
WTR YR 1981 TOTAL 158424 MEAN 434 MAX 3340 MIN 91 CFSM .36 IN 4.89

02088000 MIDDLE CREEK NEAR CLAYTON, NC

LOCATION.--35°34'10" (revised), long 78°35'30", Johnston County, Hydrologic Unit 03020201, on right bank 300 ft (91 m) downstream from bridge on State Highway 50, 0.5 mi (0.8 km) upstream from Buffalo Branch, 3.7 mi (6.0 km) downstream from Wake-Johnston County line, and 9.5 mi (15.3 km) southwest of Clayton.

DRAINAGE AREA.--83.5 mi² (216 km²), revised.

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.

GAGE.--Water-stage recorder. Datum of gage is 184.53 ft (56.245 m) National Geodetic Vertical Datum of 1929. Nov. 1-20, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--42 years, 90.8 ft³/s (2.571 m³/s), 14.77 in/yr (375 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,510 ft³/s (241 m³/s) Feb. 3, 1973, gage height, 13.42 ft (4.090 m), result of dam failure; no flow Oct. 11-13, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 21	2300	*638	18.1	*6.70	2.042

Minimum discharge, 0.52 ft³/s (0.015 m³/s) Aug. 6, gage height, 1.20 ft (0.366 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	39	11	53	34	56	46	12	11	1.4	.82	4.7
2	33	28	11	43	69	54	39	13	11	1.9	.67	4.4
3	17	25	10	37	118	50	34	11	10	6.1	.62	4.3
4	16	30	11	32	73	47	31	10	8.9	24	.61	3.8
5	11	56	10	28	55	70	31	10	7.7	15	.60	12
6	13	46	12	24	48	83	36	9.6	8.1	9.5	.58	26
7	17	18	11	30	44	65	34	11	19	5.8	.69	20
8	9.4	6.3	12	36	52	53	31	13	18	4.0	.74	34
9	6.3	5.0	12	38	56	47	30	12	11	3.0	1.5	39
10	4.9	3.6	15	29	47	44	34	12	8.8	2.6	1.4	25
11	5.3	2.5	80	26	145	42	35	15	6.6	2.2	3.5	14
12	5.3	3.0	60	23	316	39	33	17	5.9	1.8	300	11
13	5.2	3.2	50	22	165	36	29	14	5.9	1.5	260	9.9
14	5.2	2.8	35	24	97	34	26	11	5.9	1.4	37	8.1
15	5.6	4.0	30	26	79	32	24	9.3	5.4	1.2	19	6.5
16	6.3	9.6	60	27	68	33	22	8.3	4.6	1.0	12	5.7
17	7.3	14	44	26	60	35	21	7.5	3.8	1.0	9.6	5.0
18	8.8	51	40	24	54	35	22	7.0	3.3	1.0	7.8	4.5
19	14	32	36	25	67	36	21	7.4	3.3	1.0	10	4.6
20	18	11	32	23	373	35	18	8.4	3.8	3.1	29	4.2
21	24	8.1	31	31	532	34	17	14	3.7	22	25	4.1
22	18	8.8	28	79	443	33	16	16	3.2	8.0	34	3.9
23	18	7.2	31	67	142	46	16	12	2.8	4.0	35	3.8
24	18	11	38	49	102	69	16	9.4	2.3	2.5	24	4.3
25	25	90	34	41	81	54	14	7.8	1.9	1.6	15	4.4
26	33	39	28	37	71	43	13	6.8	1.8	1.3	11	4.6
27	36	21	27	37	63	38	12	6.3	1.6	1.3	8.5	4.8
28	36	19	73	35	58	37	12	19	1.3	3.2	6.9	4.9
29	39	16	193	34	---	33	11	20	1.2	3.0	5.6	4.6
30	46	13	121	33	---	35	10	13	1.1	1.6	5.1	4.3
31	56	---	72	34	---	51	---	9.9	---	1.1	4.9	---
TOTAL	594.6	623.1	1258	1073	3512	1399	734	352.7	182.9	138.1	871.13	290.4
MEAN	19.2	20.8	40.6	34.6	125	45.1	24.5	11.4	6.10	4.45	28.1	9.68
MAX	56	90	193	79	532	83	46	20	19	24	300	39
MIN	4.9	2.5	10	22	34	32	10	6.3	1.1	1.0	.58	3.8
CFSM	.23	.25	.49	.41	1.50	.54	.29	.14	.07	.05	.34	.12
IN.	.26	.28	.56	.48	1.56	.62	.33	.16	.08	.06	.39	.13

CAL YR 1980 TOTAL 23954.63 MEAN 65.4 MAX 527 MIN .93 CFSM .78 IN 10.67
WTR YR 1981 TOTAL 11028.93 MEAN 30.2 MAX 532 MIN .58 CFSM .36 IN 4.91

02088315 BEAVERDAM CREEK NEAR GRANTHAM, NC

LOCATION.--Lat 35°17'08", long 78°15'17", Wayne County, Hydrologic Unit 03020201, on right bank at upstream side of culvert on U.S. Highway 13, 0.6 mi (1.0 km) upstream from Falling Creek, and 5.3 mi (8.5 km) west of Grantham.

DRAINAGE AREA.--5.01 mi² (12.98 km²), revised.

PERIOD OF RECORD.--April 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 220 ft (67 m) from topographic map.

REMARKS.--Records good. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 966 ft³/s (27.4 m³/s) Aug. 12, 1981, gage height, 9.36 ft (2.853 m) from rating curve extended above 42 ft³/s (1.19 m³/s) on basis of culvert computation of peak flow; no flow at times, most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft³/s (1.13 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 25	1245	50	1.42	5.86	1.786	Aug. 22	1630	92	2.61	6.65	2.027
Aug. 12	0415	*966	27.4	*9.36	2.853	Aug. 31	0215	76	2.15	6.39	1.948
Aug. 20	0515	70	1.98	6.26	1.908						

No flow June 25 to July 2, 21, 26 to Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	3.3	3.9	5.1	2.6	2.3	2.2	.22	.37	.00	.00	16
2	6.1	2.6	3.8	4.6	6.4	2.6	2.2	.17	1.3	.00	.00	8.7
3	3.5	2.4	3.6	4.1	4.2	2.3	1.9	.15	1.7	.17	.00	6.3
4	3.2	5.0	3.6	3.9	2.9	2.1	1.8	.13	1.5	2.5	.00	5.2
5	2.4	10	3.6	3.4	2.6	5.0	2.0	.11	3.0	.96	.00	4.8
6	3.9	3.8	3.5	3.3	2.4	4.0	4.0	.10	1.1	1.9	.00	5.3
7	2.7	3.0	3.3	5.3	2.3	3.4	2.2	1.5	.78	4.2	.07	4.6
8	2.1	2.7	3.2	4.4	2.7	3.1	2.0	2.9	.44	1.2	.35	4.3
9	1.7	2.6	3.2	3.7	2.3	2.9	1.9	1.3	.29	.33	2.6	4.6
10	1.5	2.6	8.1	3.5	2.1	2.7	2.0	1.8	.14	.06	1.0	3.8
11	1.4	2.6	11	3.2	12	2.6	1.8	1.3	.06	.04	1.3	3.5
12	1.1	2.6	4.8	3.2	11	2.4	1.7	.79	.05	.03	197	3.3
13	1.0	2.6	4.3	3.1	4.9	2.3	1.5	.45	.06	.03	21	3.1
14	1.1	2.6	3.9	3.0	4.2	3.1	1.5	.27	.05	.03	7.6	2.9
15	1.2	2.9	3.7	2.9	3.7	4.2	1.5	.16	.04	.03	5.1	2.4
16	1.2	3.9	3.7	2.9	3.5	3.5	1.3	.10	.04	.03	4.1	2.3
17	1.1	3.8	3.5	2.9	3.4	3.0	1.3	.09	.04	.03	4.1	2.4
18	1.2	9.1	3.2	2.9	3.2	2.9	1.2	.08	.03	.03	4.1	2.4
19	1.4	5.1	3.1	2.8	3.7	2.8	1.0	.11	.06	.02	11	2.4
20	1.7	4.1	2.8	2.8	7.6	2.6	1.0	1.8	.08	.02	52	2.0
21	1.5	7.0	2.5	5.3	5.5	2.4	1.1	9.3	.04	.00	20	1.9
22	1.4	5.7	2.4	4.3	3.9	2.3	.94	2.2	.03	.04	51	1.8
23	1.5	4.5	7.6	3.4	3.4	3.7	.89	1.0	.02	.03	41	1.7
24	2.0	4.5	5.5	3.0	3.1	3.0	.84	.62	.02	.02	24	1.5
25	30	7.7	3.8	2.8	2.8	2.5	.68	.29	.00	.01	14	1.5
26	7.0	5.6	3.1	2.7	2.7	2.3	.59	.13	.00	.00	9.0	1.4
27	3.3	4.7	4.3	2.6	2.5	2.2	.51	.10	.00	.00	6.9	1.2
28	2.8	4.7	15	3.1	2.4	2.1	.35	.59	.00	.00	5.6	1.0
29	2.6	4.4	13	2.5	---	2.0	.21	.50	.00	.00	5.2	.85
30	6.9	4.0	7.9	2.2	---	2.6	.17	.16	.00	.00	9.1	.85
31	5.3	---	5.9	2.2	---	2.7	---	.08	---	.00	45	---
TOTAL	109.9	130.1	154.8	105.1	114.0	87.6	42.28	28.50	11.24	11.71	542.12	104.00
MEAN	3.55	4.34	4.99	3.39	4.07	2.83	1.41	.92	.37	.38	17.5	3.47
MAX	30	10	15	5.3	12	5.0	4.0	9.3	3.0	4.2	197	16
MIN	1.0	2.4	2.4	2.2	2.1	2.0	.17	.08	.00	.00	.00	.85
CFSM	.71	.87	1.00	.68	.81	.57	.28	.18	.07	.08	3.49	.69
IN.	.82	.97	1.15	.78	.85	.65	.31	.21	.08	.09	4.02	.77

CAL YR 1980 TOTAL 1809.66 MEAN 4.94 MAX 39 MIN .00 CFSM .99 IN 13.43
WTR YR 1981 TOTAL 1441.35 MEAN 3.95 MAX 197 MIN .00 CFSM .79 IN 10.70

02088470 LITTLE RIVER NEAR KENLY, NC

LOCATION (REVISED).--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 (1.1 km) downstream from Buffalo Creek, and 3.7 mi (6.0 km) west of Kenly.

DRAINAGE AREA.--191 mi² (495 km²), revised.

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 129.24 ft (39.392 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some diurnal fluctuation and some regulation during periods of low flow caused by mill 10 mi (16 km) upstream.

AVERAGE DISCHARGE.--17 years, 182 ft³/s (5.154 m³/s), 12.94 in/yr (329 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,030 ft³/s (142 m³/s) Oct. 6, 1964, gage height, 16.30 ft (4.968 m); minimum, 0.18 ft³/s (0.005 m³/s) Oct, 4, 5, 6, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0530	*1210	34.3	*12.02	3.664

Minimum discharge, 2.0 ft³/s (0.057 m³/s) Oct. 18, 19; minimum gage height, 2.96 ft (0.902 m) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	30	97	52	109	96	25	109	9.5	8.0	28
2	28	15	27	81	76	102	96	23	72	9.3	7.0	24
3	51	14	24	69	126	93	95	21	118	11	6.1	20
4	37	13	22	59	123	86	81	19	140	91	7.1	17
5	27	15	23	51	100	133	74	18	103	351	7.3	15
6	20	16	21	46	84	202	82	17	73	452	8.3	18
7	14	18	18	46	75	190	85	17	212	355	8.8	24
8	12	14	16	53	99	165	75	17	283	250	14	33
9	10	13	17	54	119	144	69	17	244	99	41	59
10	8.7	11	21	50	100	120	76	18	154	54	132	121
11	7.4	8.5	38	46	151	102	82	21	73	38	134	126
12	6.1	7.8	57	44	298	91	78	22	52	29	124	110
13	4.8	7.6	53	42	279	85	73	24	42	21	87	62
14	3.8	7.2	48	40	218	80	65	22	34	18	77	40
15	3.2	7.6	41	37	183	74	60	20	27	15	97	28
16	2.7	8.3	36	37	155	73	54	17	23	13	82	22
17	2.4	9.9	34	39	130	71	51	15	19	14	148	19
18	2.2	16	31	38	117	72	48	13	73	16	296	16
19	2.3	31	30	37	115	69	47	12	220	14	261	14
20	2.4	42	28	36	489	66	44	14	347	13	489	14
21	2.6	36	26	47	698	61	41	16	198	15	644	14
22	3.1	42	23	89	513	58	40	17	84	35	482	13
23	3.1	37	26	112	333	71	42	18	57	23	700	11
24	3.0	31	38	101	263	116	45	18	47	17	480	9.1
25	11	58	44	92	206	126	44	19	31	16	380	7.9
26	7.0	72	41	80	166	119	38	16	23	12	234	7.4
27	7.4	63	38	69	140	110	34	14	18	10	91	6.9
28	7.8	50	65	64	121	92	33	781	15	9.1	60	6.3
29	7.2	44	127	59	---	81	29	1090	12	8.3	45	6.1
30	8.5	36	137	55	---	78	26	457	11	8.2	36	5.5
31	12	---	114	54	---	91	---	164	---	8.3	33	---
TOTAL	332.7	758.9	1294	1824	5529	3130	1803	2982	2914	2034.7	5219.6	897.2
MEAN	10.7	25.3	41.7	58.8	197	101	60.1	96.2	97.1	65.6	168	29.9
MAX	51	72	137	112	698	202	96	1090	347	452	700	126
MIN	2.2	7.2	16	36	52	58	26	12	11	8.2	6.1	5.5
CFSM	.06	.13	.22	.31	1.03	.53	.32	.50	.51	.34	.88	.16
IN.	.06	.15	.25	.36	1.08	.61	.35	.58	.57	.40	1.02	.17

CAL YR 1980 TOTAL 49734.1 MEAN 136 MAX 792 MIN 1.8 CFSM .71 IN 9.69
WTR YR 1981 TOTAL 28719.1 MEAN 78.7 MAX 1090 MIN 2.2 CFSM .41 IN 5.59

02088500 LITTLE RIVER NEAR PRINCETON, NC

LOCATION.--Lat 35°30'40", long 78°09'38" (revised), Johnston County, Hydrologic Unit 03020201, on left bank 600 ft (183 m) downstream from bridge on Secondary Road 2320, 0.8 mi (1.3 km) upstream from Little Creek, and 3 mi (5 km) north of Princeton.

DRAINAGE AREA.--232 mi² (601 km²), revised.

PERIOD OF RECORD.--February 1930 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORD.--WSP 822: Drainage area. WSP 1233: 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 107.75 ft (32.842 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good. Slight diurnal fluctuation and occasional regulation for short periods, caused by mills above station.

AVERAGE DISCHARGE.--51 years, 250 ft³/s (7.080 m³/s), 14.64 in/yr (372 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,150 ft³/s (202 m³/s) Oct. 6, 1964, gage height, 13.94 ft (4.249 m); minimum, 0.95 ft³/s (0.027 m³/s) Sept. 3, 4, 5, 1980, gage height, 0.86 ft (0.262 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1919 reached a stage of 14.57 ft (4.441 m); September 1924, 14.90 ft (4.542 m); September 1928, 13.3 ft (4.054 m); October 1929, 13.47 ft (4.106 m); from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	1900	*1550	43.9	*8.31	2.533

Minimum discharge, 2.8 ft³/s (0.079 m³/s) Oct. 17; minimum gage height, 1.14 ft (0.347 m) July 4-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	40	126	70	135	104	26	121	19	10	47
2	31	24	36	110	94	128	102	24	89	19	9.2	41
3	32	22	32	96	145	122	101	22	92	18	9.8	36
4	46	24	30	86	144	116	93	22	126	17	11	29
5	32	31	32	77	120	138	84	22	116	205	12	25
6	28	23	28	68	103	217	88	19	95	491	13	24
7	19	26	24	68	94	221	92	20	232	450	12	30
8	13	21	22	78	103	184	86	19	319	309	14	39
9	11	16	24	75	129	160	79	19	301	150	19	56
10	9.0	14	30	73	118	140	82	20	192	72	11	112
11	7.4	12	54	67	202	126	86	19	92	53	15	133
12	6.0	9.3	100	60	402	115	84	19	68	40	45	124
13	5.0	8.8	88	59	376	109	79	19	54	30	129	88
14	4.2	10	80	58	271	105	73	19	45	23	133	57
15	3.6	11	72	58	213	100	67	19	37	22	124	41
16	3.4	12	68	58	180	96	62	17	30	23	95	32
17	2.9	13	64	59	156	94	57	15	28	21	105	26
18	3.1	25	58	57	146	92	54	15	31	19	126	22
19	3.7	34	54	57	145	91	51	15	133	18	105	18
20	3.7	50	50	57	386	87	49	19	407	17	235	17
21	3.8	54	48	65	906	84	46	18	294	21	369	17
22	3.6	53	46	98	822	78	42	15	106	20	440	17
23	4.6	50	50	125	481	86	41	14	71	21	771	15
24	6.5	42	58	119	335	115	43	14	60	23	855	12
25	53	80	65	110	250	131	44	14	45	23	567	11
26	25	120	64	100	196	123	40	13	31	22	347	12
27	9.4	80	62	89	164	119	35	12	26	16	140	10
28	7.8	70	95	84	145	107	31	437	24	12	88	10
29	7.6	60	180	79	---	96	29	1450	23	13	68	11
30	9.3	50	183	74	---	93	26	1020	21	13	57	12
31	15	---	152	72	---	99	---	210	---	11	52	---
TOTAL	425.6	1063.1	1989	2462	6896	3707	1950	3606	3309	2211	4987.0	1124
MEAN	13.7	35.4	64.2	79.4	246	120	65.0	116	110	71.3	161	37.5
MAX	53	120	183	126	906	221	104	1450	407	491	855	133
MIN	2.9	8.8	22	57	70	78	26	12	21	11	9.2	10
CFSM	.06	.15	.28	.34	1.06	.52	.28	.50	.47	.31	.69	.16
IN.	.07	.17	.32	.39	1.11	.59	.31	.58	.53	.35	.80	.18

CAL YR 1980 TOTAL 66291.75 MEAN 181 MAX 1220 MIN .95 CFSM .78 IN 10.63
WTR YR 1981 TOTAL 33729.70 MEAN 92.4 MAX 1450 MIN 2.9 CFSM .40 IN 5.41

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 (0.3 km) upstream from Stony Creek, 1.5 mi (2.4 km) downstream from Seaboard Coast Line Railroad bridge, 3.2 mi (5.1 km) south of Wayne County courthouse in Goldsboro, 4.3 mi (6.9 km) downstream from Little River, and 135 mi (217 km) upstream from mouth.

DRAINAGE AREA.--2,399 mi² (6,213 km²), revised.

PERIOD OF RECORD.--February 1930 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 1333: 1931, 1935.

GAGE.--Water-stage recorder. Datum of gage is 42.95 ft (13.091 m) National Geodetic Vertical Datum of 1929. Prior to July 24, 1931, nonrecording gage at railroad bridge, 1.5 mi (2.4 km) upstream at datum 2.00 ft (0.610 m) higher. July 24, 1931, to Aug. 31, 1948, water-stage recorder at site 2.3 mi (3.7 km) upstream at datum 1.71 ft (0.521 m) higher than present datum.

REMARKS.--Records good. Flows regulated by Falls Lake (see p. 328). Diversions for municipal water supply for cities of Durham and Butner (see sta 02087183). National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--51 years, 2,493 ft³/s (70.60 m³/s), 14.11 in/yr (358 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,700 ft³/s (869 m³/s) Sept. 23, 1945; maximum gage height, 26.72 ft (8.144 m) Sept. 23, 1945, site and datum then in use; minimum discharge, 76 ft³/s (2.15 m³/s) Sept. 26, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1866 and July 1919, reached stages of about 29 ft (8.8 m) and 28 ft (8.5 m), respectively, at site 2.3 mi (3.7 km) upstream at present datum, from flood profiles of Corps of Engineers. Flood of Oct. 5, 1929, reached a stage of 27.3 ft (8.32 m) at railroad bridge at present datum, discharge, 38,600 ft³/s (1,090 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,170 ft³/s (203 m³/s) Aug. 25, gage height, 15.52 ft (4.730 m); minimum, 140 ft³/s (3.96 m³/s) Aug. 6, gage height, 2.16 ft (0.658 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	536	814	2070	748	1460	1030	434	1780	189	309	819
2	610	605	745	1820	868	1330	1110	383	1120	184	307	871
3	685	598	686	1550	1030	1250	1140	354	952	242	229	997
4	747	578	638	1340	1230	1190	1170	339	934	536	185	906
5	650	703	597	1170	1350	1220	1170	333	1040	665	151	744
6	612	685	564	1010	1250	1300	1120	331	1010	1210	158	630
7	553	712	546	944	1140	1650	1020	350	1070	2350	183	573
8	567	697	528	927	1080	1890	1000	379	1510	2850	183	675
9	582	640	516	935	1030	1820	984	358	1570	3120	320	789
10	480	567	566	924	1040	1570	1010	408	1290	2770	372	1910
11	416	504	651	877	1290	1340	1010	408	961	1410	523	2640
12	358	463	712	818	1670	1200	978	381	744	744	3870	3050
13	306	426	867	703	2600	1120	957	398	577	490	4270	2670
14	277	402	907	664	3130	1040	908	417	458	392	5000	1260
15	253	386	875	694	3280	981	859	640	397	329	5300	816
16	241	390	817	734	2870	922	799	569	354	261	4100	682
17	232	381	766	726	2090	874	729	399	322	225	2300	710
18	223	426	706	697	1640	830	668	336	348	235	1270	643
19	223	503	665	668	1460	808	625	311	482	217	1290	566
20	226	691	642	646	1470	792	608	419	784	211	2490	490
21	220	892	620	685	2580	762	596	466	864	193	3040	409
22	217	840	585	745	3780	744	576	466	816	187	4920	382
23	220	794	617	864	4240	770	571	526	596	256	6170	358
24	229	751	673	1060	4400	791	572	515	469	321	6840	331
25	487	754	726	1060	4070	984	578	427	437	271	7120	320
26	533	820	781	979	3130	1560	574	362	364	230	5920	300
27	543	1040	789	913	2120	1890	551	325	298	188	3620	280
28	536	1020	1020	875	1730	1770	525	348	249	205	2040	260
29	526	941	1500	832	---	1420	495	2000	217	479	1400	240
30	516	878	1930	796	---	1160	463	2700	200	411	1080	220
31	526	---	2160	774	---	1040	---	2360	---	285	911	---
TOTAL	13334	19623	25209	29500	58316	37478	24396	18442	22213	21656	75871	25541
MEAN	430	654	813	952	2083	1209	813	595	740	699	2447	851
MAX	747	1040	2160	2070	4400	1890	1170	2700	1780	3120	7120	3050
MIN	217	381	516	646	748	744	463	311	200	184	151	220
CFSM	.18	.27	.34	.40	.87	.50	.34	.25	.31	.29	1.02	.36
IN.	.21	.30	.39	.46	.90	.58	.38	.29	.34	.34	1.18	.40

CAL YR 1980 TOTAL 689494 MEAN 1884 MAX 8380 MIN 107 CFSM .79 IN 10.69
WTR YR 1981 TOTAL 371579 MEAN 1018 MAX 7120 MIN 151 CFSM .42 IN 5.76

02089216 DAILEYS CREEK NEAR LIDDELL, NC

LOCATION.--Lat 35°12'30", long 77°48'32", Lenoir County, Hydrologic Unit 0320202, on left bank at downstream side of culvert on State Highway 55, 2.0 mi (3.2 km) upstream from mouth and 2.5 mi (4.0 km) north of Liddell.

DRAINAGE AREA.--3.80 mi² (9.84 km²), revised.

PERIOD OF RECORD.--April 1978 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 65 ft (20 m) from topographic map.

REMARKS.--Records good October to May, poor June to September. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 170 ft³/s (481 m³/s) July 25, 1978, gage height, 5.49 ft (1.673 m); minimum daily discharge, 0.45 ft³/s (0.013 m³/s) Sept. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 35 ft³/s (0.99 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 1	0215	*49	1.39	4.74	1.445	Aug. 20	0400	---	---	*5.15	1.570

Minimum daily discharge, 0.45 ft³/s (0.013 m³/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	2.1	3.2	4.8	3.9	3.1	5.4	1.6	2.3	1.3	.76	.97
2	7.7	1.7	3.3	4.7	9.5	3.1	3.3	1.6	2.8	1.3	1.0	.69
3	6.8	1.7	3.1	4.3	5.3	2.7	2.0	1.6	4.8	1.6	1.2	.89
4	5.6	3.5	2.9	4.0	4.3	2.7	1.7	1.4	2.8	2.3	1.1	.87
5	3.3	5.1	3.0	4.0	3.9	6.0	1.6	1.4	2.2	1.4	.76	.86
6	3.0	3.1	3.0	4.0	3.9	3.9	2.9	1.5	1.6	1.3	1.1	.63
7	2.4	2.7	2.9	5.4	4.2	3.1	2.5	2.2	1.8	1.9	1.1	.88
8	2.2	2.6	2.9	4.1	4.2	2.8	2.8	4.6	1.7	1.0	1.2	.92
9	1.9	2.6	3.2	3.9	3.6	2.6	3.4	2.2	1.6	1.2	1.1	1.1
10	1.8	2.6	8.2	3.7	3.3	2.2	3.6	3.0	1.2	1.2	1.1	.56
11	1.8	2.6	5.2	3.3	6.2	2.3	3.9	4.5	1.2	1.2	1.1	.56
12	1.5	2.7	3.2	3.0	6.1	2.4	4.0	1.9	1.4	.96	3.0	.56
13	1.5	2.8	3.1	2.8	5.0	3.1	2.9	1.7	1.6	1.2	.81	.56
14	1.5	2.8	2.8	3.2	4.9	3.2	3.5	1.6	1.2	1.1	.92	.56
15	1.5	3.6	2.8	3.5	4.3	3.1	3.2	1.5	1.4	1.1	.87	.52
16	1.4	4.1	3.2	3.5	4.5	3.2	3.0	1.4	1.3	.90	.89	.52
17	1.5	3.4	3.1	3.5	4.3	3.1	2.8	1.3	1.3	1.4	.84	.85
18	1.6	4.0	2.8	3.4	3.9	3.2	2.5	1.2	1.2	1.3	.99	.59
19	2.8	3.1	2.7	3.4	5.1	3.4	2.1	1.1	1.7	1.2	1.6	.56
20	2.0	3.0	2.5	3.4	6.0	2.9	2.4	1.4	1.7	.86	3.8	.56
21	1.4	5.0	2.3	9.8	4.4	2.6	2.1	3.8	1.5	1.1	1.1	.52
22	1.3	4.0	2.4	5.8	3.9	2.8	2.0	1.3	1.1	1.1	1.9	.52
23	1.5	3.3	6.6	4.7	3.9	4.0	1.9	.88	1.4	1.1	1.4	.49
24	2.9	3.5	3.7	3.8	3.4	3.0	1.8	.78	1.5	.85	1.2	.49
25	10	3.6	2.8	3.6	3.0	2.6	1.6	.64	1.4	1.1	.88	.52
26	2.7	3.1	2.5	3.4	2.8	2.3	1.5	.99	1.1	1.2	1.1	.49
27	1.9	3.4	5.7	3.3	2.8	2.1	1.3	2.0	1.4	1.1	1.1	.49
28	1.9	3.5	18	5.9	2.7	1.7	1.2	6.0	1.4	.86	1.0	.45
29	1.9	3.3	12	4.0	---	1.6	1.2	1.9	1.3	1.1	.84	.52
30	6.6	3.2	6.8	3.5	---	2.5	1.5	1.0	1.0	1.0	1.2	.56
31	3.4	---	5.3	3.4	---	1.9	---	.88	---	1.0	1.0	---
TOTAL	106.3	95.7	135.2	127.1	123.3	89.2	75.6	58.87	49.9	37.23	37.96	19.26
MEAN	3.43	3.19	4.36	4.10	4.40	2.88	2.52	1.90	1.66	1.20	1.22	.64
MAX	19	5.1	18	9.8	9.5	6.0	5.4	6.0	4.8	2.3	3.8	1.1
MIN	1.3	1.7	2.3	2.8	2.7	1.6	1.2	.64	1.0	.85	.76	.45
CFSM	.90	.84	1.15	1.08	1.16	.76	.66	.50	.44	.32	.32	.17
IN.	1.04	.94	1.32	1.24	1.21	.87	.74	.58	.49	.36	.37	.19

CAL YR 1980 TOTAL 1758.77 MEAN 4.81 MAX 42 MIN .77 CFSM 1.27 IN 17.21
WTR YR 1981 TOTAL 955.62 MEAN 2.62 MAX 19 MIN .45 CFSM .69 IN 9.35

02089222 BEAR CREEK NEAR PARKSTOWN, NC

LOCATION.--Lat 35°22'22", long 77°48'10", Greene County, Hydrologic Unit 03020203 on left bank at upstream side of culvert on Secondary Road 1136, 0.9 mi (1.4 km) east of Parkstown and 1.7 mi (2.7 km) upstream from mouth.

DRAINAGE AREA.--12.6 mi² (32.6 km²).

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 80 ft (25 m) from topographic map.

REMARKS.--Records good. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72 ft³/s (2.04 m³/s) Sept. 6, 1979, gage height, 7.36 ft (2.243 m); no flow July 8, 9, 26-31, Aug. 1-7, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62 ft³/s (1.76 m³/s) Aug. 12, gage height, 6.05 ft (1.844 m); minimum daily discharge, 0.01 ft³/s (<0.001 m³/s) June 29 to July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	3.0	1.9	6.0	2.2	2.1	1.7	.19	1.6	.01	.08	.73
2	2.2	2.1	1.8	4.9	4.8	2.2	2.6	.16	2.6	.01	.08	.61
3	2.6	1.5	1.7	4.2	7.3	1.9	2.0	.11	5.7	.01	.10	.50
4	3.3	2.3	1.4	3.9	4.8	1.7	1.5	.08	12	1.4	.11	.40
5	2.5	8.7	1.4	3.1	3.9	4.0	1.3	.08	5.5	3.2	.11	.33
6	2.2	5.5	1.4	2.9	3.2	4.0	1.7	.03	3.5	2.0	.13	.30
7	1.5	3.4	1.4	3.7	3.0	3.0	1.3	.19	10	11	.22	.27
8	1.0	2.4	1.4	3.8	3.0	2.2	1.1	.40	5.5	5.0	.21	.30
9	.82	1.9	1.4	3.5	2.5	2.0	.99	.44	2.9	2.1	6.7	.86
10	.64	1.7	2.2	3.0	2.2	1.9	.99	.90	1.7	1.1	4.3	.64
11	.54	1.3	3.3	2.5	6.7	1.7	.95	1.7	1.1	.64	5.7	.50
12	.47	1.1	3.2	2.2	11	1.7	.90	1.4	.93	.47	58	.37
13	.33	1.0	2.7	1.9	6.7	1.6	.82	.86	.95	.37	50	.30
14	.30	1.0	3.3	1.8	5.1	1.8	.73	.64	.92	.33	46	.27
15	.24	1.1	2.7	1.8	4.1	3.3	.64	.47	.78	.32	24	.22
16	.22	1.5	2.4	1.7	3.6	2.8	.50	.40	.63	.25	5.5	.22
17	.22	1.6	2.3	1.7	3.3	1.7	.47	.30	.50	.25	3.5	.19
18	.22	1.6	2.2	1.7	3.1	1.5	.47	.27	.44	.24	3.2	.16
19	.30	1.6	2.1	1.7	4.0	1.7	.44	.33	.37	.20	3.8	.11
20	.37	1.6	2.0	1.7	6.0	1.7	.40	4.5	.33	.14	44	.08
21	.37	2.2	1.7	2.6	6.6	1.5	.36	8.0	.30	.05	24	.08
22	.33	3.7	1.6	3.3	5.3	1.3	.32	4.8	.19	.04	30	.11
23	.33	2.9	2.1	3.0	4.3	2.2	.28	2.5	.16	.03	42	.08
24	.37	2.4	2.3	2.8	3.5	2.2	.27	1.5	.14	.02	19	.03
25	8.6	2.9	2.3	2.3	2.9	1.9	.25	.90	.08	.02	8.6	.02
26	7.7	3.2	2.3	2.1	2.5	1.6	.18	.64	.05	.02	4.3	.02
27	3.6	2.8	2.4	1.9	2.2	1.5	.16	.50	.03	.02	2.8	.02
28	2.2	2.7	7.3	2.2	2.1	1.3	.16	3.4	.02	.02	1.9	.02
29	1.5	2.4	19	2.4	---	1.1	.16	6.7	.01	.02	1.3	.02
30	2.4	2.1	11	2.2	---	1.1	.16	3.5	.01	.02	1.0	.02
31	3.9	---	7.6	2.4	---	1.4	---	1.8	---	.07	.90	---
TOTAL	52.47	73.2	101.8	84.9	119.9	61.6	23.80	47.69	58.94	29.37	391.54	7.78
MEAN	1.69	2.44	3.28	2.74	4.28	1.99	.79	1.54	1.96	.95	12.6	.26
MAX	8.6	8.7	19	6.0	11	4.0	2.6	8.0	12	11	58	.86
MIN	.22	1.0	1.4	1.7	2.1	1.1	.16	.03	.01	.01	.08	.02
CFSM	.13	.19	.26	.22	.34	.16	.06	.12	.16	.08	1.00	.02
IN.	.15	.22	.30	.25	.35	.18	.07	.14	.17	.09	1.16	.02

CAL YR 1980 TOTAL 1580.79 MEAN 4.32 MAX 45 MIN .00 CFSM .34 IN 4.67
WTR YR 1981 TOTAL 1052.99 MEAN 2.88 MAX 58 MIN .01 CFSM .23 IN 3.11

02089500 NEUSE RIVER AT KINSTON, NC

LOCATION.--Lat 35°15'29", long 77°35'09", Lenoir County, Hydrologic Unit 03020202, on left bank at Kinston, 600 ft (183 m) downstream from bridge on State Highway 11, and 90 mi (145 km) upstream from mouth.

DRAINAGE AREA.--2,692 mi² (6,972 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1930 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 1333: 1931-32.

GAGE.--Water-stage recorder. Datum of gage is 10.90 ft (3.322 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1934, nonrecording gage at highway bridge 1 mi (1.6 km) downstream at datum 0.80 ft (0.244 m) lower.

REMARKS.--Water-discharge record excellent. Flow regulated by Falls Lake (see p. 328). Diversions for municipal water supply for cities of Durham and Butner (see sta 02087183).

AVERAGE DISCHARGE.--51 years, 2,865 ft³/s (81.14 m³/s), 14.45 in/yr (367 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,000 ft³/s (736 m³/s) Oct. 13, 1964; maximum gage height, 22.86 ft (6.968 m) Oct. 13, 1964; minimum discharge, 124 ft³/s (3.51 m³/s) Sept. 26, 1932, gage height, 1.29 ft (0.393 m), site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1919 reached a stage of 25.0 ft (7.62 m), present site and datum, discharge, about 39,000 ft³/s (1,100 m³/s), from information by North Carolina State Highway Commission. Flood in October 1924 reached a stage of 24.7 ft (7.53 m), present site and datum, discharge, 36,000 ft³/s (1,020 m³/s), from information by North Carolina State Highway Commission. Flood of Sept. 25-26, 1928, reached a stage of 24.2 ft (7.38 m), present site and datum, discharge, 34,000 ft³/s (963 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,990 ft³/s (198 m³/s) Aug. 27, gage height, 13.80 ft (4.206 m); minimum, 222 ft³/s (6.29 m³/s) July 3; minimum gage height, 2.46 ft (0.750 m) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	892	833	1190	2640	1170	2720	1340	563	2590	247	442	1580
2	1040	780	1120	2590	1200	2220	1320	531	2410	230	390	1300
3	1080	791	1040	2420	1360	1840	1340	468	2070	243	413	1210
4	1170	845	962	2110	1510	1670	1340	426	1940	361	371	1260
5	1240	1040	897	1870	1630	1610	1350	395	1700	702	309	1230
6	1090	1220	850	1660	1750	1630	1380	379	1680	757	271	1100
7	966	1100	802	1500	1730	1630	1350	409	1510	1390	260	1050
8	881	1040	764	1420	1630	1800	1230	560	1460	2490	322	939
9	800	1020	739	1360	1530	2070	1170	596	1620	2790	342	930
10	822	942	756	1340	1450	2170	1150	569	1820	3000	439	1020
11	734	845	873	1320	1550	2020	1150	633	1600	3080	521	1670
12	639	754	969	1280	1910	1780	1150	686	1270	2350	1660	2450
13	561	690	986	1210	2210	1570	1120	579	1140	1300	3110	2780
14	508	648	1100	1110	2590	1430	1090	515	1080	831	3720	2960
15	455	619	1180	1060	3020	1330	1050	505	793	653	4220	2150
16	407	611	1180	1070	3300	1250	991	608	626	540	4640	1290
17	380	609	1140	1100	3360	1180	932	666	525	534	5030	1010
18	365	607	1070	1090	3010	1120	865	528	466	452	4780	929
19	365	630	997	1060	2450	1070	794	425	471	392	3280	893
20	360	671	929	1030	2100	1030	734	404	560	364	3270	793
21	349	853	882	1050	2030	1010	704	685	772	372	3720	714
22	335	1180	852	1130	2550	978	685	816	894	341	4140	630
23	329	1210	858	1160	3050	972	667	679	909	312	4520	576
24	347	1150	933	1220	3590	992	659	637	752	313	5220	539
25	441	1100	974	1380	4010	995	643	630	592	423	6000	503
26	669	1080	997	1430	4240	1100	645	546	512	473	6570	473
27	757	1120	1070	1370	4190	1550	639	462	452	435	6920	457
28	737	1270	1520	1310	3460	1950	624	504	373	333	6860	416
29	717	1350	2070	1290	---	2010	596	762	313	299	5470	384
30	757	1280	2430	1240	---	1770	583	1480	273	420	3630	368
31	833	---	2520	1190	---	1480	---	2380	---	550	2160	---
TOTAL	21026	27888	34650	44010	67580	47947	29291	20026	33173	26977	93000	33604
MEAN	678	930	1118	1420	2414	1547	976	646	1106	870	3000	1120
MAX	1240	1350	2520	2640	4240	2720	1380	2380	2590	3080	6920	2960
MIN	329	607	739	1030	1170	972	583	379	273	230	260	368
CFSM	.25	.35	.42	.53	.90	.58	.36	.24	.41	.32	1.11	.42
IN.	.29	.39	.48	.61	.93	.66	.40	.28	.46	.37	1.29	.46

CAL YR 1980 TOTAL 831806 MEAN 2273 MAX 9800 MIN 196 CFSM .84 IN 11.49
WTR YR 1981 TOTAL 479172 MEAN 1313 MAX 6920 MIN 230 CFSM .49 IN 6.62

02089500 NEUSE RIVER AT KINSTON, NC--Continued
(National stream-quality accounting network and pesticide station)

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 current year.
WATER TEMPERATURES: October 1949 to September 1950, January 1955 to September 1956, July 1973 to current year.

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 files of district office in Raleigh, NC.

COOPERATION.--Pesticide samples were collected by the U.S. Geological Survey and were analyzed by the Environmental Protection Agency. Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 218 micromhos Nov. 7, 1978; minimum daily, 43 micromhos Mar. 28, 1975.
WATER TEMPERATURES: Maximum daily, 33.5°C July 3, 1956; minimum daily, 0.0°C Feb. 7, 1978, Jan. 13, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 182 micromhos Aug. 3; minimum daily, 70 micromhos June 1, July 11, Aug. 29.
WATER TEMPERATURES: Maximum daily, 30.0°C July 19; minimum daily, 0.0°C Jan. 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT											
07...	1300	1010	140	5.6	18.0	1.7	8.2	610	290	27	12
NOV											
05...	1130	1030	121	6.7	13.5	1.0	9.5	K6200	K6500	24	6
DEC											
02...	1330	1120	103	6.6	9.0	2.6	11.4	240	96	23	6
JAN											
27...	1100	1370	125	6.7	5.5	3.5	12.0	160	140	19	0
FEB											
09...	1300	1520	115	6.4	4.0	4.7	12.7	170	K60	21	6
MAR											
23...	1200	972	103	5.9	9.0	2.6	10.8	K68	100	22	5
APR											
29...	1045	596	116	7.1	23.0	10	8.3	280	150	24	0
MAY											
26...	1300	543	113	7.3	25.5	8.2	--	240	160	21	0
JUN											
10...	1530	1820	90	6.6	28.0	.70	6.0	K260	240	17	0
JUL											
28...	1215	328	125	6.9	30.5	4.5	7.8	860	220	22	3
AUG											
19...	1415	3360	78	6.2	23.5	17	5.3	--	--	26	12
SEP											
15...	1430	2250	82	6.1	24.0	26	6.2	370	400	21	4

K Results based on colony count outside the acceptable range (non-ideal colony count).

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
07...	6.7	2.5	12	45	1.0	3.4	18	0	15	59	22
NOV											
05...	6.0	2.3	11	46	1.0	3.3	22	0	18	4.7	17
DEC											
02...	5.5	2.3	11	47	1.0	3.4	20	0	16	6.9	15
JAN											
27...	4.2	2.0	13	56	1.3	2.6	24	0	20	7.4	16
FEB											
09...	5.0	2.1	12	52	1.1	2.4	18	0	15	11	15
MAR											
23...	5.5	2.1	10	46	.9	2.4	21	0	17	42	14
APR											
29...	5.2	2.6	12	48	1.1	3.2	30	0	25	2.5	12
MAY											
26...	4.8	2.2	13	52	1.2	3.6	26	0	21	1.3	15
JUN											
10...	3.9	1.8	10	51	1.1	3.1	21	0	17	7.4	11
JUL											
28...	4.8	2.5	15	55	1.4	3.8	23	0	19	4.9	14
AUG											
19...	6.0	2.7	5.9	30	.5	2.9	17	0	14	8.6	13
SEP											
15...	4.9	2.0	6.4	37	.6	2.8	21	0	17	25	10

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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (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)
OCT											
07...	12	.2	13	107	84	.15	292	1.1	1.1	.070	.090
NOV											
05...	12	.1	11	80	75	.11	222	1.1	1.1	.070	.080
DEC											
02...	11	.1	13	76	73	.10	230	.67	.73	.060	.030
JAN											
27...	12	.2	11	90	78	.11	296	1.2	1.2	.110	.160
FEB											
09...	14	.1	7.1	82	70	.11	337	.95	.97	.090	.090
MAR											
23...	12	.1	10	79	70	.11	207	.92	.90	.080	.110
APR											
29...	11	.2	11	92	71	.13	148	.92	.94	.040	.060
MAY											
26...	13	.2	9.2	79	73	.11	116	.90	.89	.040	.050
JUN											
10...	9.5	.2	8.7	91	58	.12	447	.79	.14	.080	.070
JUL											
28...	13	.2	10	96	78	.13	85.0	.65	.71	.090	.110
AUG											
19...	7.6	.1	7.5	88	52	.12	798	.35	.36	.080	.100
SEP											
15...	7.6	.1	8.5	86	55	.12	522	.55	.55	.050	.070

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)
OCT										
07...	.08	.12	.90	.29	.97	.59	.38	2.1	9.2	1.5
NOV										
05...	.08	.10	.46	.56	.53	.00	.64	1.6	7.2	1.7
DEC										
02...	.07	.04	.48	.48	.54	.03	.51	1.2	5.4	1.2
JAN										
27...	.13	.21	.44	.17	.55	.22	.33	1.8	7.7	1.5
FEB										
09...	.11	.12	.32	.32	.41	.00	.41	1.4	6.0	1.4
MAR										
23...	--	.14	.36	.25	.44	.08	.36	1.4	6.0	1.3
APR										
29...	--	.08	.47	.36	.51	.09	.42	1.4	6.3	1.4
MAY										
26...	--	.06	.52	.51	.56	.00	.56	1.5	6.5	1.5
JUN										
10...	--	.09	.91	.48	.99	.44	.55	1.8	7.9	.69
JUL										
28...	--	.14	.54	.20	.63	.32	.31	1.3	5.7	1.0
AUG										
19...	--	.13	.73	.56	.81	.15	.66	1.2	5.1	1.0
SEP										
15...	--	.09	.62	.43	.67	.17	.50	1.2	5.4	1.1

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT										
07...	.380	1.2	.240	--	--	--	--	--	--	--
NOV										
05...	.300	.92	.160	0	0	0	100	60	40	1
DEC										
02...	.260	.80	.150	--	--	--	--	--	--	--
JAN										
27...	.260	.80	.140	1	0	1	100	70	30	0
FEB										
09...	.200	.61	.120	--	--	--	--	--	--	--
MAR										
23...	.230	.71	.120	--	--	--	--	--	--	--
APR										
29...	.330	1.0	.250	--	--	--	--	--	--	--
MAY										
26...	.330	1.0	.230	1	0	1	100	70	30	1
JUN										
10...	.370	1.1	.220	--	--	--	--	--	--	--
JUL										
28...	.270	.83	.190	--	--	--	--	--	--	--
AUG										
19...	.190	.58	.110	--	--	--	--	--	--	--
SEP										
15...	.220	.67	.150	--	--	1	100	0	100	<1

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
OCT										
07...	--	--	--	--	--	--	--	--	--	--
NOV										
05...	0	2	<10	--	10	1	1	0	3	3
DEC										
02...	--	--	--	--	--	--	--	--	--	--
JAN										
27...	--	<1	10	--	<10	2	0	2	3	0
FEB										
09...	--	--	--	--	--	--	--	--	--	--
MAR										
23...	--	--	--	--	--	--	--	--	--	--
APR										
29...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	--	<1	<10	--	<10	1	0	1	4	0
JUN										
10...	--	--	--	--	--	--	--	--	--	--
JUL										
28...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	--	--	--	--	--	--	--	--	--	--
SEP										
15...	--	<1	10	0	10	1	--	<1	6	2

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
07...	--	--	--	--	--	--	--	--	--	--
NOV										
05...	0	940	770	170	4	4	0	90	50	40
DEC										
02...	--	--	--	--	--	--	--	--	--	--
JAN										
27...	3	890	700	190	2	0	2	80	60	20
FEB										
09...	--	--	--	--	--	--	--	--	--	--
MAR										
23...	--	--	--	--	--	--	--	--	--	--
APR										
29...	--	--	--	--	--	--	--	--	--	--
MAY										
26...	4	1500	920	580	1	1	0	30	10	20
JUN										
10...	--	--	--	--	--	--	--	--	--	--
JUL										
28...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	--	--	--	--	--	--	--	--	--	--
SEP										
15...	4	1900	1300	600	3	0	3	120	80	40

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 19

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT									
07...	--	--	--	--	--	--	--	--	--
NOV									
05...	<.1	--	<.1	9	8	1	0	0	0
DEC									
02...	--	--	--	--	--	--	--	--	--
JAN									
27...	.1	.0	.4	11	8	3	0	0	0
FEB									
09...	--	--	--	--	--	--	--	--	--
MAR									
23...	--	--	--	--	--	--	--	--	--
APR									
29...	--	--	--	--	--	--	--	--	--
MAY									
26...	<.1	--	.2	8	3	5	0	0	0
JUN									
10...	--	--	--	--	--	--	--	--	--
JUL									
28...	--	--	--	--	--	--	--	--	--
AUG									
19...	--	--	--	--	--	--	--	--	--
SEP									
15...	<.1	--	<.1	3	2	1	<1	--	<

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON ORGANI SUS-PENDED TOTAL (MG/L AS C)
OCT									
07...	--	--	--	--	--	--	8.2	--	-
NOV									
05...	0	0	0	10	10	0	--	9.0	.
DEC									
02...	--	--	--	--	--	--	7.0	--	-
JAN									
27...	0	0	0	20	--	<4	--	8.0	.
FEB									
09...	--	--	--	--	--	--	5.6	--	--
MAR									
23...	--	--	--	--	--	--	5.2	--	--
APR									
29...	--	--	--	--	--	--	5.1	--	--
MAY									
26...	0	0	0	20	10	8	--	4.7	.9
JUN									
10...	--	--	--	--	--	--	13	--	--
JUL									
28...	--	--	--	--	--	--	6.5	--	--
AUG									
19...	--	--	--	--	--	--	13	--	--
SEP									
15...	<1	--	<1	40	--	<10	--	9.6	--

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, PERIOD MARCH TO SEPTEMBER 1980

DATE	TIME	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
AUG 19...	1215	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)
AUG 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PHYTOPLANKTON ANALYSES, SEPTEMBER 1980

DATE	SEP 10,80
TIME	1200
TOTAL CELLS/ML	120000
DIVERSITY: DIVISION	0.5
.CLASS	0.5
..ORDER	0.5
...FAMILY	0.6
....GENUS	0.6

ORGANISM	CELLS /ML	PERCENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...MICRACTINIACEAE		
....GOLENKINIA	*	0
....MICRACTINIUM	1000	1
...OOCYSTACEAE		
....DICTYOSPHAERIUM	4000	3
....KIRCHNERIELLA	1000	1
....OOCYSTIS	*	0
....TREUBARIA	*	0
...SCENEDESMACEAE		
....SCENEDESMUS	1300	1
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	2000	2
..PENNALES		
...NAVICULACEAE		
....NAVICULA	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	110000#	92

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

ND Not detected.

02089500 NEUSE RIVER AT KINSTON, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 5,80	MAR 23,81	MAY 26,81	JUN 10,81	JUL 28,81	AUG 19,81
TIME	1130	1200	1300	1530	1215	1415
TOTAL CELLS/ML	2500	3600	23000	5000	51000	18000
DIVERSITY: DIVISION	0.9	1.4	0.5	1.5	0.5	1.3
.CLASS	0.9	1.4	0.5	1.5	0.5	1.3
..ORDER	1.4	1.8	0.7	2.2	1.4	2.1
...FAMILY	1.6	2.3	2.0	3.0	1.5	2.5
....GENUS	1.7	2.5	2.5	3.2	1.5	3.3

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-	*	0
...COELASTRACEAE												
....COELASTRUM	--	-	130	4	--	-	--	-	730	1	760	4
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	*	0	--	-	--	-	--	-
....MICRACTINIUM	--	-	2100#	57	11000#	49	790#	16	*	0	95	1
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	260	1	45	1	*	0	290	2
....CHODATELLA	--	-	*	0	*	0	*	0	280	1	--	-
....DICTYOSPHAERIUM	--	-	51	1	2800	12	320	6	--	-	130	1
....KIRCHNERIELLA	--	-	--	-	1500	6	--	-	460	1	290	2
....OOCYSTIS	51	2	--	-	--	-	--	-	370	1	*	0
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-	*	0
....TETRAEDRON	--	-	--	-	*	0	--	-	--	-	*	0
....TREUBARIA	--	-	--	-	*	0	--	-	--	-	--	-
....WESTELLA	51	2	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....CRUCIGENIA	210	8	51	1	2800	12	--	-	--	-	640	4
....SCENEDESMUS	100	4	90	2	1900	8	900#	18	--	-	1500	9
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-	*	0
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	13	1	77	2	530	2	180	4	640	1	*	0
...PHACOTACEAE												
....PTEROMONAS	--	-	--	-	--	-	--	-	--	-	*	0
..ZYGNEMATALES												
...DESMIDIACEAE												
....EUASTRUM	--	-	--	-	--	-	45	1	--	-	--	-
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-	*	0
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	13	1	120	3	350	2	160	3	460	1	95	1
....MELOSIRA	--	-	150	4	*	0	360	7	--	-	1200	7
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	45	1	--	-	--	-
...FRAGILARIACEAE												
....FRAGILARIA	--	-	26	1	--	-	--	-	--	-	--	-
....SYNEDRA	13	1	*	0	--	-	--	-	*	0	--	-
...NAVICULACEAE												
....NAVICULA	39	2	26	1	--	-	110	2	*	0	--	-
...NITZSCHIACEAE												
....NITZSCHIA	26	1	39	1	350	2	180	4	*	0	480	3
.XANTHOPHYCEAE												
..HETEROCOCCALES												
...CENTRITRACTACEAE												
....CENTRITRACTUS	--	-	--	-	--	-	--	-	*	0	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	*	0	--	-	--	-	370	1	*	0
...CRYPTOMONADACEAE												
....CRYPTOMONAS	13	1	--	-	*	0	--	-	--	-	--	-

02089500 NEUSE RIVER AT KINSTON, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 5,80		MAR 23,81		MAY 26,81		JUN 10,81		JUL 28,81		AUG 19,81	
TIME	1130		1200		1300		1530		1215		1415	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-	1200	7
....ANACYSTIS	220	9	410	11	960	4	1200#	24	17000#	32	5300#	30
..HORMOGONALES												
...NOSTOCACEAE												
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-	290	2
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	--	-	3400#	19
....OSCILLATORIA	1700#	70	210	6	--	-	540	11	30000#	60	1400	8
...RIVULARIACEAE												
....RAPHIDIOPSIS	--	-	--	-	--	-	90	2	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	*	0
....TRACHELOMONAS	--	-	150	4	--	-	--	-	--	-	95	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02089500 NEUSE RIVER AT KINSTON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	112	96	83	112	102	99	137	70	133	169	98
2	117	109	94	85	105	104	102	137	74	143	180	102
3	121	107	101	89	102	105	104	135	77	143	182	98
4	127	117	100	87	99	106	106	135	78	133	170	92
5	139	112	100	94	107	110	102	137	93	112	140	93
6	142	107	100	102	116	110	101	132	95	102	142	100
7	135	102	102	102	121	106	112	137	98	112	124	111
8	122	102	101	102	125	108	111	122	102	102	134	99
9	107	102	102	107	121	110	105	116	93	97	138	90
10	112	105	102	105	112	110	109	118	98	102	121	101
11	122	112	100	110	116	110	106	118	99	70	150	101
12	122	107	97	163	116	105	108	127	100	86	120	100
13	131	105	96	114	110	106	108	127	95	93	118	96
14	120	104	100	107	112	107	113	132	86	106	80	88
15	112	102	100	107	111	100	118	133	92	110	80	86
16	117	109	101	102	115	101	122	133	99	103	75	87
17	117	110	97	117	112	109	118	136	97	96	77	103
18	122	112	90	112	104	110	118	162	100	116	92	101
19	122	112	94	102	101	107	118	168	107	126	84	94
20	122	112	101	164	101	106	108	163	107	114	87	107
21	122	117	96	115	102	115	113	143	107	118	77	104
22	123	114	99	102	106	110	122	120	122	110	87	114
23	123	114	99	101	105	105	118	112	122	130	94	106
24	124	112	99	111	97	112	127	118	87	126	86	107
25	117	99	96	107	94	104	126	138	90	123	90	125
26	117	99	92	104	93	116	127	128	102	140	80	121
27	122	98	98	117	94	106	127	133	118	130	76	120
28	108	100	97	102	96	123	127	133	122	146	81	116
29	122	102	89	99	---	117	122	107	122	130	70	137
30	114	104	89	100	---	113	122	118	122	132	86	126
31	107	---	89	102	---	101	---	79	---	134	82	---
MEAN	121	107	97	107	107	108	114	130	99	117	109	104

WTR YR 1981 MEAN 110 MAX 182 MIN 70

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	11.5	7.5	5.5	3.0	11.0	15.0	20.5	23.0	24.0	24.0	23.0
2	20.0	11.5	7.5	5.5	8.0	11.0	14.5	19.0	22.5	23.5	25.0	23.0
3	19.0	11.0	8.0	5.0	6.0	10.0	15.0	17.0	22.5	28.5	25.5	23.5
4	19.5	11.0	7.0	5.0	3.5	9.0	17.0	17.5	23.0	23.5	25.5	24.0
5	17.0	12.0	6.0	2.0	2.5	12.0	18.0	17.5	24.0	24.0	26.5	24.0
6	16.0	12.0	6.5	2.0	3.0	10.5	17.0	19.0	25.0	25.0	27.0	24.5
7	16.0	11.0	7.5	4.0	3.5	10.0	15.5	20.5	26.0	26.0	25.5	24.5
8	16.0	12.0	8.0	3.0	4.0	9.0	15.5	15.0	25.0	27.0	26.5	23.0
9	17.0	13.0	9.5	2.0	3.0	9.0	16.5	15.5	25.5	26.0	26.0	22.5
10	18.0	13.5	12.0	2.0	3.5	9.0	16.0	17.0	26.5	26.5	25.5	22.0
11	19.0	11.5	10.0	2.0	8.0	8.5	17.0	19.0	27.0	27.0	27.0	22.0
12	18.0	10.0	8.5	.5	7.0	8.0	18.0	20.0	26.0	27.0	25.0	22.5
13	16.0	9.0	8.5	.0	5.0	9.5	19.0	19.0	25.5	27.0	24.5	22.5
14	15.0	9.0	7.5	.5	5.5	10.0	17.5	20.0	26.0	27.0	23.0	22.5
15	14.5	12.0	7.0	2.0	6.0	8.5	17.0	21.5	27.0	27.0	23.5	22.5
16	15.0	12.0	8.0	2.0	5.5	10.5	16.0	21.0	28.0	26.5	23.5	23.5
17	16.0	10.0	7.0	2.0	6.5	8.5	17.0	20.5	28.5	26.0	24.0	23.0
18	18.5	10.5	5.5	1.0	8.0	10.0	17.0	20.5	28.0	26.0	22.5	23.0
19	20.0	9.0	6.5	1.5	9.5	8.5	18.0	21.0	26.0	30.0	23.0	20.0
20	19.0	7.5	6.0	2.0	10.5	8.0	20.0	20.0	25.0	27.0	21.0	19.0
21	17.0	8.5	5.0	4.5	11.0	8.0	17.0	16.0	26.5	27.5	20.0	19.0
22	16.0	7.5	3.0	4.0	11.5	9.0	15.0	15.5	28.0	26.5	20.0	19.5
23	15.5	8.0	4.0	4.5	12.0	8.5	18.0	19.0	28.5	27.0	20.0	20.0
24	14.0	9.0	4.5	4.5	11.0	7.5	18.5	20.0	26.0	27.0	20.0	17.5
25	15.0	10.0	4.0	4.0	10.0	9.0	19.0	22.0	27.0	26.0	20.0	17.0
26	12.5	8.5	2.0	4.5	10.5	10.0	20.0	23.0	27.5	26.0	20.0	17.0
27	11.5	9.0	3.0	5.5	10.0	11.0	17.0	22.5	25.0	27.0	20.0	18.0
28	12.5	9.5	4.0	7.5	10.0	11.5	19.0	22.0	23.5	27.5	20.5	20.0
29	13.5	8.0	7.0	5.5	---	12.0	21.0	21.5	23.0	27.5	21.5	18.5
30	12.5	7.5	6.0	6.0	---	13.0	21.0	23.0	23.0	26.0	22.0	18.0
31	11.0	---	6.0	4.5	---	13.5	---	23.0	---	25.0	22.0	---
MEAN	16.0	10.0	6.5	3.5	7.0	10.0	17.5	19.5	25.5	26.5	23.0	21.5

WTR YR 1981 MEAN 15.5 MAX 30.0 MIN .0

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
07...	1300	1010	25	68	94
NOV					
05...	1130	1030	37	103	75
DEC					
02...	1330	1120	20	60	88
JAN					
27...	1100	1370	16	59	88
FEB					
09...	1300	1520	20	82	74
MAR					
23...	1200	972	19	50	91
APR					
29...	1045	596	15	24	96
MAY					
26...	1300	543	28	41	96
JUN					
10...	1530	1820	50	246	90
JUL					
28...	1215	328	8	7.1	87
AUG					
19...	1415	3360	26	236	96
SEP					
15...	1430	2250	27	164	95

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/09	14 00	0000	3.96	786	105		20.0	15.0	8.0	87.0	30	0.9
80/11/24	14 45	0000	4.74	1140	80		10.0	12.0	9.4	83.2	23	2.2
80/12/11	14 50	0000	4.22	894	115		11.0	15.0	9.8	88.3	17	1.1
81/01/20	12 45	0000	5.36	1440	100		3.0	7.0	15.0	111.1	16	0.8
81/02/16	13 00	0000	9.06	3300	95		7.0	50.0	11.0	90.2	26	2.3
81/03/09	13 20	0000	6.74	2130	94		11.0	20.0	10.4	93.7	25	2.5
81/04/14	12 00	0000	4.49	1020	123		19.0	15.0	7.9	84.0	22	1.9
81/05/18	13 00	0000	3.26	519			23.0	8.0	8.0	92.0		1.6
81/06/08	15 45	0000	5.35	1430	91		26.0	25.0	6.8	82.9		1.5
81/07/31	12 45	0000	3.27	567			27.0	9.0	7.2	88.9		1.3
81/08/19	16 10	0000	8.92	3240			24.0	20.0	4.6	54.1		1.8
81/09/15	12 55	0000	7.14	2330			24.0	25.0	5.9	69.0	31	1.0

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/09	14 00	0000	310	18	0.84	0.070	0.400	0.260	0.120	10K	50K	50K
80/11/24	14 45	0000	450	18	0.81	0.050K	0.500	0.290	0.160			
80/12/11	14 50	0000	220	19	1.00	0.050K	0.500	0.270	0.110			
81/01/20	12 45	0000	30	20	2.10	0.120	0.400	0.250	0.130	10K	50K	50K
81/02/16	13 00	0000	20	16	0.85	0.160	0.600	0.290	0.090			
81/03/09	13 20	0000	360	14	0.87	0.050	0.400	0.280	0.120			
81/04/14	12 00	0000	310	22	0.66	0.050	0.500	0.300	0.140	10K	50K	50K
81/05/18	13 00	0000	180	29	0.85	0.050K	0.500	0.380	0.230			
81/06/08	15 45	0000	220	11	0.80	0.070	0.600	0.330	0.110			
81/07/31	12 45	0000	320	24	0.72	0.050	0.500	0.330	0.170	10K	50K	50K
81/08/19	16 10	0000	2700	11	0.29	0.050K	0.300	0.180	0.120			
81/09/15	12 55	0000	330	15	0.51	0.050	0.500	0.230	0.100			

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/09	14 00	0000	100K	40K	1000	100K	100.0	0.5K	50K
81/01/20	12 45	0000	100K	40K	700	100K	50.0	0.5K	50K
81/04/14	12 00	0000	100K	40K	1200	100K	70.0	0.5K	50K
81/07/31	12 45	0000	100K	40K	800	100K	50.0	0.5K	50K

K Less than noted value.

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC

LOCATION.--Lat 35°41'29", long 78°06'38" (revised), Wilson County, Hydrologic Unit 03020203, on right bank 250 ft (76 m) upstream from bridge on State Highway 581, 1.0 mi (1.6 km) downstream from Buckhorn Reservoir, 1.0 mi (1.6 km) upstream from Buckhorn Branch, and 6.5 mi (10.4 km) northwest of Lucama.

DRAINAGE AREA.--161 mi² (417 km²), revised.

PERIOD OF RECORD.--September 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 117.43 ft (35.793 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for period of no gage-height record, May 27 to June 19, which are poor. Since September 1976, some regulation at low flow by Buckhorn Reservoir 1 mile (1.6 km) upstream (see p. 331).

AVERAGE DISCHARGE.--17 years, 149 ft³/s (4.220 m³/s), 12.57 in/yr (319 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,860 ft³/s (166 m³/s) Oct. 6, 1964, gage height, 16.28 ft (4.962 m); minimum, 0.04 ft³/s (0.001 m³/s) Sept. 9-14, 1976, due to regulation; minimum gage height, 1.07 ft (0.326 m) July 14, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 889 ft³/s (25.2 m³/s) June 7, gage height, 7.90 ft (2.408 m), from high-water mark in well; minimum, 0.06 ft³/s (0.002 m³/s) Aug. 1, gage height, 1.25 ft (0.381 m); minimum daily, 0.11 ft³/s (0.003 m³/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	5.3	21	55	32	64	61	13	11	1.2	.11	11
2	.41	3.8	21	50	53	62	61	11	20	.95	.24	9.3
3	.34	4.1	27	37	68	59	50	5.2	19	3.1	.20	7.8
4	.39	8.4	11	40	69	52	46	4.7	6.0	13	.14	6.5
5	.26	15	14	30	60	91	47	3.9	4.0	13	.22	8.3
6	.27	12	15	28	53	155	56	4.6	30	11	.52	14
7	.26	13	16	38	49	143	41	6.1	400	8.7	.27	13
8	.26	12	17	31	65	102	43	5.5	350	9.5	.39	14
9	.26	12	19	32	74	86	43	5.8	140	7.8	.52	65
10	.26	15	25	34	64	76	47	11	50	6.0	4.7	86
11	.29	12	35	30	125	69	49	15	12	4.6	17	87
12	.37	4.9	39	30	253	62	48	17	5.0	4.7	17	66
13	.42	1.9	37	25	251	57	38	9.0	30	3.2	16	45
14	.33	3.3	34	26	158	63	36	7.8	25	3.1	16	29
15	.33	3.4	26	27	111	42	32	9.9	16	1.6	16	20
16	.33	6.7	26	28	89	69	29	8.7	12	1.2	17	17
17	.33	8.8	26	29	76	38	29	3.7	8.0	2.5	17	11
18	.37	22	24	26	67	34	31	2.7	6.0	3.0	16	9.8
19	.47	26	25	26	74	48	22	4.0	12	2.8	17	12
20	.53	27	21	27	353	51	24	4.9	87	2.0	15	4.5
21	.53	32	19	43	563	41	21	10	80	3.5	5.8	3.6
22	.56	25	18	64	363	35	20	11	46	4.2	68	4.2
23	4.1	22	27	77	225	60	23	7.9	27	2.7	186	5.0
24	11	32	31	70	160	80	33	7.6	18	1.5	157	3.9
25	16	69	36	60	118	88	20	6.4	13	1.5	90	2.2
26	12	68	25	52	87	77	9.2	4.2	9.8	2.4	52	2.1
27	7.8	52	31	47	72	72	13	7.0	5.5	1.2	33	2.6
28	.56	42	47	45	67	56	11	17	4.3	.99	22	4.1
29	.44	35	70	42	---	52	16	12	2.3	1.4	16	1.5
30	1.0	23	74	37	---	55	9.3	8.0	1.7	.42	14	1.7
31	2.6	---	65	36	---	61	---	6.0	---	.12	13	---
TOTAL	63.50	616.6	922	1222	3799	2100	1008.5	250.6	1450.6	122.88	828.11	567.1
MEAN	2.05	20.6	29.7	39.4	136	67.7	33.6	8.08	48.4	3.96	26.7	18.9
MAX	16	69	74	77	563	155	61	17	400	13	186	87
MIN	.26	1.9	11	25	32	34	9.2	2.7	1.7	.12	.11	1.5
CFSM	.01	.13	.18	.25	.85	.42	.21	.05	.30	.03	.17	.12
IN.	.01	.14	.21	.28	.88	.49	.23	.06	.34	.03	.19	.13

CAL YR 1980 TOTAL 39957.45 MEAN 109 MAX 779 MIN .07 CFSM .68 IN 9.23
WTR YR 1981 TOTAL 12950.89 MEAN 35.5 MAX 563 MIN .11 CFSM .22 IN 2.99

02090512 HOMINY SWAMP AT PHILLIPS STREET AT WILSON, NC

LOCATION.--Lat 35°42'39", long 77°55'00", Wilson County, Hydrologic Unit 03020203, on left bank 17 ft (5.2 km) upstream from culvert on Phillips Street, at Wilson, and 0.2 mi (0.3 km) upstream from Seaboard Coastline Railroad.

DRAINAGE AREA.--8.2 mi² (21.2 km²), revised.

PERIOD OF RECORD.--August 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 90 ft (27 m) from topographic map.

REMARKS.--Records good. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 411 ft³/s (11.6 m³/s) Mar. 18, 1980, gage height, 7.75 ft (2.362 m); no flow July 13-15, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 394 ft³/s (11.2 m³/s) Oct. 25, gage height, 7.54 ft (2.298 m), no peak above base of 400 ft³/s (11.3 m³/s); no flow July 13-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	.14	.45	1.1	1.2	.85	.52	.07	.05	.01	.25	.07
2	7.6	.05	.38	.74	16	.67	.52	.14	.22	.01	.03	.07
3	3.0	.02	.38	.52	3.7	.51	.52	.10	.14	5.7	.16	.05
4	1.1	11	.22	.52	1.7	6.9	.52	.05	.14	13	.10	.04
5	.25	.62	.25	.38	1.1	13	1.8	.04	.25	.45	.04	3.7
6	1.8	.07	.25	.34	.89	3.2	2.5	.04	3.9	.25	7.3	1.1
7	.22	.07	.25	3.1	3.5	1.7	.52	.30	.62	.18	.74	.30
8	.14	.03	.25	.52	4.7	1.0	.52	.25	.22	.22	.46	5.9
9	.10	.02	.30	.39	1.9	.68	2.5	.10	.10	.04	3.3	16
10	.04	.03	14	.36	1.1	.47	.62	3.1	.18	.01	.38	.62
11	.03	.01	2.7	.29	36	.46	.52	.90	.07	.01	1.5	.52
12	.01	.01	1.3	.26	10	.46	.52	.14	.04	.01	29	.52
13	.01	.01	.62	.23	3.8	.51	.52	.07	.03	.00	.62	.45
14	.01	.01	.45	.26	2.6	.47	.45	.04	.03	.00	.38	.45
15	.01	.04	.38	.34	1.8	.43	.45	.03	.03	.00	.14	.38
16	.01	.07	.74	.33	1.3	1.9	.38	.03	.03	5.3	.07	.38
17	.01	1.6	.74	.29	1.3	.58	.38	.03	.03	2.3	1.6	.38
18	.01	3.4	.30	.26	1.1	.33	.38	.03	4.1	.14	.25	30
19	3.6	.05	.30	.29	6.7	.50	.30	.07	29	.03	28	.25
20	.45	.05	.25	.31	43	.45	.25	6.9	14	.40	12	.25
21	.03	6.4	.22	18	8.2	.50	.25	1.1	1.4	4.4	1.4	.22
22	.01	.38	.22	4.9	4.2	1.6	.22	.25	.45	.25	99	.22
23	.01	.22	9.0	2.3	3.1	8.2	.14	.05	.38	.04	11	.18
24	.25	20	.90	1.2	2.4	.97	.18	.03	.14	.85	3.1	.18
25	68	10	.52	.85	1.9	.43	.10	.03	.03	.38	1.1	.14
26	1.8	2.7	.38	.74	1.5	.32	.07	.03	.02	.03	1.8	.14
27	.22	2.7	6.6	.64	1.1	.29	.07	.03	.01	.03	.62	.14
28	.05	1.1	7.0	1.7	1.0	.30	.05	15	.01	.24	.45	.10
29	.04	.74	3.9	.57	---	.25	.05	.52	.01	14	.30	.10
30	6.3	.52	2.4	1.2	---	4.5	.04	.25	.01	6.2	.25	.07
31	.38	---	1.6	1.7	---	3.3	---	.05	---	.47	.14	---
TOTAL	108.49	62.06	57.25	44.63	166.79	55.73	15.86	29.77	55.64	54.95	205.48	62.92
MEAN	3.50	2.07	1.85	1.44	5.96	1.80	.53	.96	1.85	1.77	6.63	2.10
MAX	68	20	14	18	43	13	2.5	15	29	14	99	30
MIN	.01	.01	.22	.23	.89	.25	.04	.03	.01	.00	.03	.04
CFSM	.43	.25	.23	.18	.73	.22	.07	.12	.23	.22	.81	.26
IN.	.49	.28	.26	.20	.76	.25	.07	.14	.25	.25	.93	.29

CAL YR 1980 TOTAL 2244.33 MEAN 6.13 MAX 164 MIN .01 CFSM .75 IN 10.18
WTR YR 1981 TOTAL 919.57 MEAN 2.52 MAX 99 MIN .00 CFSM .31 IN 4.17

NEUSE RIVER BASIN

02090625 TURNER SWAMP NEAR EUREKA, NC

LOCATION (REVISED).--Lat 35°34'14", long 77°52'47", Wayne County, Hydrologic Unit 03020203, on right bank at downstream side of bridge on Secondary Road 1505, 2.0 mi (3.2 km) north of Eureka, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--2.1 mi² (5.4 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 90 ft (27 m), by barometer.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--13 years, 2.32 ft³/s (0.0657 m³/s), 15.00 in/yr (381 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 652 ft³/s (18.5 m³/s) Aug. 5, 1974, gage height, 5.78 ft (1.762 m); minimum, 0.20 ft³/s (0.006 m³/s) Aug. 5, 1981; gage height, 0.80 ft (0.244 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 12	0300	*56	1.59	*3.02	0.920

Minimum discharge, 0.20 ft³/s (0.006 m³/s) Aug. 5, gage height, 0.80 ft (0.244 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	.61	.60	.83	.85	.85	.79	.44	.39	.40	.26	.49
2	2.6	.53	.60	.76	2.5	.80	.73	.40	.42	.45	.26	.47
3	.71	.53	.58	.74	1.3	.76	.69	.40	.42	.71	.30	.44
4	.59	1.7	.56	.71	.96	.85	.67	.39	.45	3.8	.29	.43
5	.50	1.3	.57	.66	.85	2.0	.84	.39	.44	.63	.26	.47
6	.71	.72	.57	.67	.81	1.2	1.5	.40	8.6	.57	.31	.50
7	.52	.62	.57	.97	.82	.96	.83	.49	3.3	.45	.34	.47
8	.47	.57	.57	.78	.90	.87	.75	.48	.74	.40	.32	.61
9	.43	.54	.57	.70	.78	.83	.77	.47	.53	.36	.56	2.1
10	.42	.52	1.8	.69	.76	.82	.77	.73	.45	.34	.37	.63
11	.40	.49	1.1	.65	4.7	.80	.69	.55	.39	.32	2.7	.50
12	.37	.51	.78	.62	2.4	.78	.65	.45	.44	.32	16	.46
13	.39	.52	.71	.60	1.4	.79	.61	.42	1.8	.30	.89	.44
14	.40	.52	.67	.58	1.2	.75	.62	.40	.60	.30	.54	.42
15	.40	.56	.65	.69	1.1	.74	.57	.39	.57	.29	.43	.40
16	.40	.62	.69	.66	1.0	.78	.56	.36	.52	.36	4.7	.41
17	.40	.61	.71	.64	.97	.75	.55	.36	.47	.42	15	.44
18	.40	.96	.65	.63	.97	.85	.54	.38	.47	.36	1.4	.44
19	.50	.64	.64	.64	1.4	.98	.51	.40	.65	.32	3.0	.42
20	.46	.58	.61	.64	2.7	.82	.53	.65	.63	.32	9.2	.39
21	.42	1.1	.57	1.5	1.7	.77	.53	.77	.49	.54	1.7	.39
22	.41	.77	.59	1.1	1.2	.77	.51	.49	.47	.46	16	.39
23	.42	.66	1.5	.84	1.1	1.3	.51	.43	.57	.32	4.5	.37
24	.48	.73	.96	.75	1.0	.97	.48	.40	.52	.34	1.8	.37
25	4.2	1.3	.74	.71	.92	.84	.46	.37	.47	.36	1.1	.37
26	.77	.75	.67	.71	.86	.79	.46	.36	.45	.31	.80	.37
27	.59	.73	.98	.71	.82	.78	.45	.80	.42	.29	.66	.36
28	.56	.70	2.1	.83	.81	.75	.44	1.8	.40	.31	.56	.35
29	.54	.65	1.6	.74	---	.75	.40	.44	.40	.35	.53	.34
30	1.3	.61	1.1	.72	---	.98	.41	.41	.40	.30	.53	.35
31	.86	---	.91	.70	---	.90	---	.33	---	.28	.51	---
TOTAL	23.22	21.65	25.92	23.17	36.78	27.58	18.82	15.55	26.87	15.28	85.82	14.59
MEAN	.75	.72	.84	.75	1.31	.89	.63	.50	.90	.49	2.77	.49
MAX	4.2	1.7	2.1	1.5	4.7	2.0	1.5	1.8	8.6	3.8	16	2.1
MIN	.37	.49	.56	.58	.76	.74	.40	.33	.39	.28	.26	.34
CFSM	.36	.34	.40	.36	.62	.42	.30	.24	.43	.23	1.32	.23
IN.	.41	.38	.46	.41	.65	.49	.33	.28	.48	.27	1.52	.26

CAL YR 1980 TOTAL 682.04 MEAN 1.86 MAX 32 MIN .30 CFSM .89 IN 12.08
WTR YR 1981 TOTAL 335.25 MEAN .92 MAX 16 MIN .26 CFSM .44 IN 5.94

02090625 TURNER SWAMP NEAR EUREKA, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/06	11 00	0000	1.00	1			13.0	6.0	8.8	83.0	15	0.8
80/11/25	09 45	0000	1.21	1	130		12.0	4.0	7.6	70.4	29	1.8
80/12/11	10 35	0000	1.15	1	95		9.0	10.0	9.1	78.4	24	1.0
81/01/26	11 20	0000	1.04	1	56		5.0		11.6	90.6	10K	0.3
81/02/12	12 00	0000	1.37	2	70		5.0	15.0	11.0	85.9	26	1.4
81/03/16	11 10	0000	1.08	1	65		10.0	4.0	12.6	111.5	10K	0.6
81/04/07	13 15	0000	1.08	1	61		14.0	6.0	10.6	101.9	16	1.1
81/05/13	11 50	0000	0.94	0.4			15.0	6.0	9.2	90.2		0.9
81/06/10	11 40	0000	0.98	1	61		23.0	7.0	6.0	69.0		1.1
81/07/23	12 00	0000	0.90	0.4			23.0	5.0	9.4	108.0		0.8
81/08/24	11 32	0000	1.31	2			20.0	6.0	6.3	68.5		0.7
81/09/23	11 00	0000	0.92	0.4			17.0	3.0	8.4	86.6		0.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/06	11 00	0000	50	11	0.97	0.050	0.400	0.050K	0.050K	10K	50K	50K
80/11/25	09 45	0000	110	12								
80/12/11	10 35	0000	640	8								
81/01/26	11 20	0000	610	10	1.10	0.050K	0.200	0.050	0.050K	10K	50K	50K
81/02/12	12 00	0000	70	6								
81/03/16	11 10	0000	460	12								
81/04/07	13 15	0000	110	12	1.30	0.050K	0.300	0.060	0.050K	10K	50K	50K
81/05/13	11 50	0000	70	14								
81/06/10	11 40	0000	290	13								
81/07/23	12 00	0000	400	11	0.84	0.050K	0.300	0.090	0.050	10K	50K	50K
81/08/24	11 32	0000	130	10								
81/09/23	11 00	0000	110	10								

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/06	11 00	0000	100K	40K	400	100K	50.0K	0.5K	50K
81/01/26	11 20	0000	100K	40K	300	100K	50.0K	0.5K	50K
81/04/07	13 15	0000	100K	40K	600	100K	50.0K	0.5K	50K
81/07/23	12 00	0000	100K	40K	500	100K	50.0K	0.5K	50K

K Less than noted value.

NEUSE RIVER BASIN

02091000 NAHUNTA SWAMP NEAR SHINE, NC

LOCATION.--Lat 35°29'20", long 77°00'00" (revised), Greene County, Hydrologic Unit 03020203, on right bank 10 ft (3 m) downstream from bridge on Secondary Road 1058, 2 mi (3.2 km) upstream from Appletree Swamp, 3.5 mi (5.6 km) north of Shine, and 8 mi (12.9 km) northwest of Snow Hill.

DRAINAGE AREA.--80.4 mi² (208 km²), revised.

PERIOD OF RECORD.--April 1954 to current year. Monthly discharges only for some periods, published in WSP 1723.

GAGE.--Water-stage recorder. Datum of gage is 50.74 ft (15.466 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1955, nonrecording gage at same site and datum.

REMARKS.--Records good except those for period of no gage-height record, Dec. 7 to Jan. 7, which are fair.

AVERAGE DISCHARGE.--27 years, 86.4 ft³/s (2.447 m³/s), 14.59 in/yr (371 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,470 ft³/s (155 m³/s) Oct. 6, 1964, gage height, 14.14 ft (4.310 m); minimum, 1.0 ft³/s (0.028 m³/s) Oct. 7, 8, 1954, gage height, 0.80 ft (0.244 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 580 ft³/s (16.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 12	0900	*864	24.5	*7.77	2.368	Aug. 22	2130	714	20.2	7.17	2.185

Minimum discharge, 5.3 ft³/s (0.15 m³/s) July 1, gage height, 1.03 ft (0.314 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	40	45	50	39	45	38	14	9.8	5.5	8.3	37
2	88	32	40	46	85	44	37	14	12	5.7	7.2	35
3	50	27	38	44	107	42	31	12	17	9.5	7.8	32
4	38	41	36	42	72	40	29	11	20	91	7.1	29
5	29	100	35	40	59	69	28	11	13	42	6.3	27
6	27	55	34	50	53	66	49	11	37	16	8.4	27
7	27	40	34	64	51	54	38	13	174	48	16	26
8	23	34	34	58	52	47	31	18	40	18	13	25
9	20	31	60	50	51	43	29	15	26	11	115	39
10	17	28	110	47	46	41	30	23	20	9.6	35	30
11	16	26	60	43	114	40	28	23	15	8.7	21	25
12	15	25	48	41	181	39	26	17	14	8.2	776	23
13	14	24	42	39	106	38	24	13	31	7.5	482	21
14	14	25	38	39	79	37	23	12	18	6.7	102	19
15	14	25	40	40	69	34	23	11	13	6.2	60	18
16	14	29	42	40	63	35	21	10	11	6.0	43	17
17	14	28	44	38	59	35	21	9.8	10	7.6	85	16
18	14	40	40	36	56	34	21	9.6	9.5	7.2	54	16
19	17	41	38	36	62	41	19	10	10	6.1	60	15
20	21	34	36	36	100	39	19	16	11	5.7	403	15
21	18	44	38	51	108	35	19	29	9.8	15	156	14
22	16	48	56	64	81	33	18	22	8.9	10	367	13
23	16	40	90	52	68	44	18	14	8.1	7.5	559	13
24	18	48	50	46	61	47	17	12	8.1	9.3	202	12
25	150	84	40	42	55	40	16	10	7.8	25	117	11
26	87	74	50	40	51	36	15	9.7	7.1	9.1	82	11
27	43	59	80	40	48	35	14	9.5	6.7	24	65	11
28	33	55	130	42	46	33	13	15	6.3	55	53	10
29	30	51	90	44	---	32	12	15	6.1	14	47	9.7
30	41	47	60	39	---	33	12	11	5.7	17	43	9.2
31	53	---	54	39	---	39	---	9.7	---	9.6	41	---
TOTAL	1031	1275	1632	1378	2022	1270	719	430.3	585.9	521.7	4042.1	605.9
MEAN	33.3	42.5	52.6	44.5	72.2	41.0	24.0	13.9	19.5	16.8	130	20.2
MAX	150	100	130	64	181	69	49	29	174	91	776	39
MIN	14	24	34	36	39	32	12	9.5	5.7	5.5	6.3	9.2
CFSM	.41	.53	.65	.55	.90	.51	.30	.17	.24	.21	1.62	.25
IN.	.48	.59	.76	.64	.94	.59	.33	.20	.27	.24	1.87	.28

CAL YR 1980 TOTAL 23120.9 MEAN 63.2 MAX 510 MIN 3.1 CFSM .79 IN 10.70
WTR YR 1981 TOTAL 15512.9 MEAN 42.5 MAX 776 MIN 5.5 CFSM .53 IN 7.18

02091500 CONTENTNEA CREEK AT HOOKERTON, NC

LOCATION.--Lat 35°25'38", long 77°35'09", Greene County, Hydrologic Unit 03020203, on right bank at Hookerton, 0.3 mi (0.5 km) upstream from bridge on State Highway 123, and 2.5 mi (4.0 km) upstream from Wheat Swamp Creek.

DRAINAGE AREA.--729 mi² (1,888 km²).

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 (4.526 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Nov. 26, 1934, nonrecording gage at site 200 ft (61 m) downstream at same datum.

REMARKS.--Water-discharge record good.

AVERAGE DISCHARGE.--52 years (water years 1929-81), 761 ft³/s (21.55 m³/s), 14.18 in/yr (360 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft³/s (487 m³/s) Oct. 7, 1964; maximum gage height, 22.11 ft (6.739 m) Oct. 8, 1964; minimum discharge, 15 ft³/s (0.42 m³/s) Oct. 28, 1933, gage height, 1.22 ft (0.372 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1928 reached a stage of 23.3 ft (7.10 m), from floodmark; high water of autumn 1924 was about 0.1 ft (0.03 m) lower, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,210 ft³/s (34.3 m³/s) Aug. 25, gage height, 10.83 ft (3.301 m); minimum, 42 ft³/s (1.19 m³/s) Aug. 6, gage height, 2.69 ft (0.820 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	174	305	559	301	571	311	89	373	78	57	242
2	209	160	280	509	320	493	338	83	530	70	52	204
3	246	143	256	467	403	435	341	78	572	67	53	178
4	281	132	227	423	473	403	319	73	460	112	50	158
5	222	183	207	380	495	404	294	69	354	233	46	141
6	161	247	194	341	476	443	282	66	264	255	44	130
7	125	243	184	321	446	495	300	67	593	356	45	122
8	109	207	178	324	415	522	313	75	710	264	46	120
9	96	177	171	326	389	528	298	78	678	160	76	148
10	86	152	174	313	381	518	280	94	485	110	115	169
11	78	135	222	297	419	481	264	121	316	87	120	195
12	72	124	282	283	556	435	255	117	240	75	298	217
13	66	116	307	252	664	398	242	98	207	67	739	236
14	63	112	303	237	721	370	229	88	187	62	854	231
15	60	111	289	243	751	347	215	79	160	59	809	205
16	59	116	275	243	762	333	201	72	132	56	417	178
17	58	118	263	236	753	322	187	66	112	57	267	155
18	58	126	251	229	696	314	174	63	98	55	261	140
19	59	134	237	224	609	307	162	62	87	54	260	124
20	64	145	221	220	555	304	151	112	78	55	670	109
21	66	170	204	237	581	298	142	149	151	56	859	99
22	66	211	192	297	656	282	136	146	358	60	940	90
23	64	225	193	349	730	278	131	124	431	57	1030	83
24	64	234	216	380	792	291	124	108	498	53	1120	77
25	89	247	251	384	846	315	117	94	526	62	1200	72
26	169	290	272	382	881	332	111	80	354	71	1150	68
27	279	339	270	372	862	339	106	70	209	64	1030	65
28	262	348	328	353	715	341	103	169	144	54	793	63
29	198	343	518	340	---	329	99	199	110	76	529	60
30	159	330	601	328	---	315	94	135	91	80	369	58
31	168	---	611	314	---	307	---	148	---	64	299	---
TOTAL	3909	5792	8482	10163	16648	11850	6319	3072	9508	3029	14598	4137
MEAN	126	193	274	328	595	382	211	99.1	317	97.7	471	138
MAX	281	348	611	559	881	571	341	199	710	356	1200	242
MIN	58	111	171	220	301	278	94	62	78	53	44	58
CFSM	.17	.27	.38	.45	.82	.52	.29	.14	.44	.13	.65	.19
IN.	.20	.30	.43	.52	.85	.60	.32	.16	.49	.15	.74	.21

CAL YR 1980 TOTAL 213177 MEAN 582 MAX 2680 MIN 43 CFSM .80 IN 10.88
WTR YR 1981 TOTAL 97507 MEAN 267 MAX 1200 MIN 44 CFSM .37 IN 4.98

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1969-72, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1979 to current year.
WATER TEMPERATURES: October 1949 to September 1950, March 1979 to current year.

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.

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 195 micromhos Oct. 6, 1980; minimum daily, 41 micromhos June 11, 1979.
WATER TEMPERATURES: Maximum daily, 29.0°C June 27, 28, 1950, July 21, 22, 23, Aug. 4, 5, 6, 1980; minimum daily, 1.0°C Jan. 13, 14, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 195 micromhos Oct. 6; minimum daily, 77 micromhos June 25.
WATER TEMPERATURES: Maximum daily, 28.5°C June 17, July 11, 12, 13; minimum daily, 1.0°C Jan. 13, 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV											
03...	1600	139	135	6.0	11.5	2.5	8.6	--	--	25	15
JAN											
07...	1200	322	118	6.9	4.0	2.3	12.2	390	420	18	1
MAR											
24...	1400	294	110	6.4	9.0	1.1	10.0	160	K40	22	9
MAY											
27...	1600	67	140	7.0	22.5	5.0	11.2	--	--	24	5
JUL											
29...	1045	78	140	6.9	28.0	7.5	7.1	150	190	24	3
SEP											
15...	1530	203	110	6.7	24.0	8.0	7.3	940	300	22	6

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV											
03...	6.5	2.2	11	44	1.0	4.0	12	0	10	18	17
JAN											
07...	4.4	1.8	8.5	46	.9	2.7	22	0	18	1.5	14
MAR											
24...	5.6	2.0	8.5	42	.8	2.9	16	0	13	14	12
MAY											
27...	6.3	2.1	14	50	1.2	4.4	23	0	19	2.7	13
JUL											
29...	6.0	2.2	16	53	1.4	5.1	25	0	21	4.4	13
SEP											
15...	5.6	2.0	10	45	.9	3.6	20	0	16	6.6	12

K Results based on colony count outside the acceptable range (non-ideal colony count).

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (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)
NOV											
03...	13	.1	10	78	79	.11	29.3	2.2	2.1	.310	.300
JAN											
07...	13	.1	9.0	82	65	.11	71.3	1.8	1.8	.440	.440
MAR											
24...	12	.1	8.3	86	69	.12	68.3	1.5	1.6	.440	.660
MAY											
27...	16	.2	<.1	86	66	.12	15.6	1.6	1.6	.220	.220
JUL											
29...	25	.2	7.4	118	93	.16	24.9	1.6	1.7	.120	.160
SEP											
15...	12	.2	7.1	85	71	.12	46.6	1.6	1.7	.060	.140

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)
NOV										
03...	.38	.39	.32	.32	.63	.01	.62	2.8	13	2.7
JAN										
07...	.53	.57	.30	.27	.74	.03	.71	2.5	11	2.5
MAR										
24...	--	.55	.45	.34	.89	.00	1.0	2.4	11	2.6
MAY										
27...	--	.28	1.2	1.4	1.40	.00	1.6	3.0	13	3.2
JUL										
29...	--	.21	.59	.53	.71	.02	.69	2.3	10	2.4
SEP										
15...	--	.18	1.0	1.1	1.10	.00	1.2	2.7	12	2.9

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
NOV										
03...	.230	.71	.290	1	0	1	100	60	40	0
JAN										
07...	.210	.64	.160	1	0	1	<50	--	40	0
MAR										
24...	.300	.92	.230	--	--	--	--	--	--	--
MAY										
27...	.530	1.6	.330	2	0	2	100	--	<2	1
JUL										
29...	.530	1.6	.410	--	--	--	--	--	--	--
SEP										
15...	.550	1.7	.420	--	--	2	100	0	100	<1

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	CORALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
NOV										
03...	0	3	10	0	10	1	1	0	4	2
JAN										
07...	0	0	10	0	10	0	0	0	2	0
MAR										
24...	--	--	--	--	--	--	--	--	--	--
MAY										
27...	--	<1	10	0	10	1	1	0	3	2
JUL										
29...	--	--	--	--	--	--	--	--	--	--
SEP										
15...	--	<1	20	10	10	1	--	<1	5	3

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 03...	2	610	430	180	1	1	0	30	0	30
JAN 07...	2	490	250	240	0	0	0	30	10	20
MAR 24...	--	--	--	--	--	--	--	--	--	--
MAY 27...	1	1100	--	<10	1	1	0	80	--	<1
JUL 29...	--	--	--	--	--	--	--	--	--	--
SEP 15...	2	1400	880	520	1	--	<1	50	10	40

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
NOV 03...	.2	.0	.2	3	2	1	0	0	0
JAN 07...	<.1	--	.2	0	0	0	0	0	0
MAR 24...	--	--	--	--	--	--	--	--	--
MAY 27...	<.1	--	--	3	3	0	0	0	0
JUL 29...	--	--	--	--	--	--	--	--	--
SEP 15...	<.1	--	<.1	2	1	1	<1	--	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
NOV 03...	0	0	0	20	10	9	--	5.5	.7
JAN 07...	1	1	0	20	10	7	--	8.0	.5
MAR 24...	--	--	--	--	--	--	6.2	--	--
MAY 27...	0	0	0	30	--	<4	--	6.7	.3
JUL 29...	--	--	--	--	--	--	8.7	--	--
SEP 15...	<1	--	<1	30	--	<10	--	8.8	1.2

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

PHYTOPLANKTON ANALYSES, AUGUST TO SEPTEMBER 1980

DATE	AUG 18,80	SEP 10,80
TIME	1100	1200
TOTAL CELLS/ML	17000	7500
DIVERSITY: DIVISION	1.3	0.9
.CLASS	1.4	0.9
..ORDER	1.6	1.5
...FAMILY	1.8	1.7
....GENUS	2.5	1.9

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...MICRACTINIACEAE				
....GOLENKINIA	--	-	*	0
....MICRACTINIUM	830	5	--	-
...OOCYSTACEAE				
....CHODATELLA	--	-	*	0
....DICTYOSPHAERIUM	--	-	310	4
....OOCYSTIS	280	2	--	-
....SELENASTRUM	--	-	47	1
....TETRAEDRON	280	2	--	-
...SCENEDESMACEAE				
....CRUCIGENIA	--	-	330	4
....SCENEDESMUS	550	3	570	8
....TETRASTRUM	370	2	--	-
..TETRASPORALES				
...PALMELLACEAE				
....SPHAEROCYSTIS	650	4	190	3
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	92	1	140	2
CHRYSOPHYTA				
.BACILLARIOPHYCEAE				
..CENTRALES				
...COSCINODISCACEAE				
....CYCLOTELLA	740	4	*	0
....MELOSIRA	830	5	47	1
..PENNALES				
...NITZSCHIACEAE				
....NITZSCHIA	460	3	120	2
.XANTHOPHYCEAE				
..HETEROCOCCALES				
...CHLOROTHECIACEAE				
....OPHIOCYTIUM	92	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)				
.CYANOPHYCEAE				
..CHROOCOCCALES				
...CHROOCOCCACEAE				
....AGMENELLUM	740	4	--	-
....ANACYSTIS	9700#	57	5000#	67
....COCCOCHLORIS	1000	6	--	-
..HORMOGONALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	--	-	660	9
EUGLENOPHYTA (EUGLENOIDS)				
.EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....EUGLENA	280	2	--	-
....TRACHELOMONAS	92	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 3,80		MAR 24,81		MAY 27,81		JUL 29,81	
TIME	1600		1400		1600		1045	
TOTAL CELLS/ML	1900		1900		73000		50000	
DIVERSITY: DIVISION	1.5		1.4		1.5		1.3	
.CLASS	1.5		1.4		1.6		1.3	
..ORDER	1.8		1.6		1.6		1.5	
...FAMILY	1.9		2.3		2.3		2.2	
....GENUS	2.1		2.9		2.6		3.2	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	350	1
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	4100	6	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	77	4	5900	8	520	1
...OOCYSTACEAE								
....ANKISTRODESMUS	26	1	370#	20	*	0	520	1
....DICTYOSPHAERIUM	--	-	77	4	--	-	8700#	17
....GLOEOACTINIUM	--	-	--	-	1800	2	4200	8
....KIRCHNERIELLA	--	-	--	-	--	-	2800	6
....OOCYSTIS	--	-	26	1	5900	8	--	-
....SELENASTRUM	--	-	39	2	1200	2	--	-
....TETRAEDRON	--	-	--	-	*	0	*	0
....TREUBARIA	--	-	--	-	--	-	520	1
...SCENEDESMACEAE								
....CRUCIGENIA	180	10	150	8	--	-	1000	2
....SCENEDESMUS	210	11	210	11	1800	2	8400#	17
....TETRASTRUM	--	-	--	-	3600	5	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	26	1	77	4	*	0	1900	4
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	26	1	39	2	11000	15	1900	4
....MELOSIRA	300#	16	65	3	590	1	1000	2
..PENNALES								
...NAVICULACEAE								
....NAVICULA	130	7	13	1	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	13	1	39	2	590	1	700	1
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	--	-	*	0	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	*	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	4200	8
....ANACYSTIS	990#	52	700#	37	35000#	48	13000#	26
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	*	0
....TRACHELOMONAS	--	-	13	1	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	120	112	101	122	97	105	127	137	100	99	112
2	119	117	102	103	119	98	105	132	84	102	122	112
3	135	125	98	102	117	107	105	127	85	102	128	100
4	136	133	98	124	107	107	105	127	86	104	122	112
5	178	117	102	112	143	107	107	127	88	91	118	112
6	195	112	99	133	115	122	111	127	98	93	122	117
7	164	102	99	122	117	100	106	127	89	100	133	122
8	163	115	98	114	112	102	107	118	84	97	122	122
9	153	128	97	138	112	102	104	122	90	112	128	112
10	128	133	99	134	107	102	109	122	94	98	122	107
11	122	122	100	121	112	100	124	113	106	112	128	102
12	122	133	97	123	105	94	105	116	102	118	88	120
13	130	135	96	122	102	102	107	118	103	121	112	122
14	122	133	105	122	99	102	103	118	109	117	96	148
15	120	122	107	140	107	102	110	122	108	117	98	129
16	117	120	113	133	102	102	111	125	102	102	112	103
17	117	122	112	113	99	102	111	127	103	112	122	106
18	117	122	105	121	100	99	107	132	114	122	122	99
19	117	122	102	117	102	102	110	135	108	112	112	103
20	113	120	97	139	107	107	101	121	108	112	99	108
21	112	120	95	124	107	102	114	118	112	112	100	105
22	107	118	104	134	102	107	107	118	116	103	92	109
23	112	120	105	114	107	102	114	127	78	122	96	102
24	117	112	98	122	102	107	117	127	96	122	94	103
25	112	128	99	117	94	107	117	137	77	122	91	103
26	112	133	96	133	93	112	117	147	80	112	91	122
27	107	133	102	122	100	111	118	147	86	122	101	112
28	143	122	107	117	98	112	118	98	86	117	107	121
29	131	110	102	117	---	102	119	96	95	143	102	106
30	153	107	102	107	---	103	120	108	100	138	112	124
31	155	---	101	108	---	98	---	118	---	138	106	---
MEAN	131	122	102	121	107	104	110	123	97	113	110	113

WTR YR 1981 MEAN 113 MAX 195 MIN 77

TEMPERATURE, WATER (DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	13.0	9.0	7.0	4.0	11.5	16.0	21.5	25.0	24.5	24.0	23.0
2	21.0	13.0	9.0	7.0	7.0	12.0	16.0	21.0	25.0	24.0	25.0	23.0
3	21.0	12.0	9.0	6.0	6.0	11.0	16.0	19.0	24.0	24.0	25.0	23.5
4	20.0	12.0	8.0	6.0	5.0	10.5	17.0	17.0	25.0	23.5	25.0	24.0
5	19.0	14.0	7.0	4.0	4.0	11.5	18.0	19.0	25.0	24.0	26.0	23.5
6	19.0	13.0	8.0	3.0	4.0	11.0	18.0	20.0	26.0	25.0	27.0	23.0
7	17.0	12.0	8.0	4.0	4.0	11.0	17.5	20.0	25.0	25.0	26.0	23.0
8	17.0	13.0	9.0	4.0	5.0	10.0	17.0	17.0	25.0	27.0	26.0	23.0
9	18.0	13.0	10.0	3.0	5.0	10.0	17.0	17.0	25.0	27.0	25.5	22.5
10	19.0	14.0	12.0	3.0	5.0	10.0	16.5	18.0	26.0	27.0	26.0	22.0
11	19.0	14.0	11.0	2.0	8.0	10.0	17.0	19.0	27.0	28.5	26.5	21.5
12	19.0	12.0	10.0	2.0	8.0	10.0	19.0	20.0	26.0	28.5	25.0	22.0
13	17.0	10.0	9.0	1.0	7.0	10.0	19.0	20.0	25.5	28.5	24.0	22.5
14	15.0	10.0	9.0	1.0	7.0	11.0	18.0	21.0	26.0	27.5	24.0	23.0
15	15.0	12.0	8.0	3.0	7.0	10.0	18.0	22.0	27.0	27.0	24.0	23.5
16	15.0	13.0	9.0	3.0	7.0	12.0	17.5	22.0	27.5	26.5	24.0	24.0
17	15.0	12.0	8.0	3.0	8.0	10.0	18.0	21.0	28.5	26.0	24.5	23.5
18	18.0	12.0	8.0	2.0	9.0	11.0	19.0	21.0	28.0	25.5	23.0	23.0
19	19.0	10.0	8.0	2.0	11.0	10.0	19.0	21.0	27.0	27.0	23.0	21.0
20	19.0	9.0	7.0	3.0	11.0	9.5	20.0	20.0	26.5	27.0	22.0	20.0
21	17.0	9.0	5.0	5.0	12.0	9.5	18.0	16.5	27.0	27.5	21.0	19.5
22	17.0	9.0	4.0	5.0	12.0	10.0	16.5	16.0	28.0	27.5	21.0	20.0
23	16.0	9.0	5.0	5.0	13.0	9.0	18.0	18.5	27.0	27.5	20.0	20.5
24	15.0	10.0	6.0	5.0	13.0	9.0	19.0	20.0	26.0	27.0	21.0	19.0
25	16.0	11.0	6.0	5.0	12.0	10.0	18.0	22.0	27.0	26.0	21.0	17.5
26	14.0	10.0	4.0	5.0	12.0	10.0	17.0	23.0	27.0	26.0	21.0	17.5
27	13.0	10.0	4.0	6.0	11.0	11.5	18.0	23.0	25.5	27.0	21.0	18.0
28	14.0	11.0	5.0	7.0	11.0	12.0	20.0	21.5	25.0	27.5	21.5	19.5
29	14.0	10.0	6.0	7.0	---	13.0	22.0	22.0	24.0	28.0	22.0	18.5
30	14.0	9.0	7.0	7.0	---	14.5	22.0	22.0	24.0	27.0	22.5	18.0
31	13.0	---	7.0	4.0	---	15.0	---	24.0	---	25.0	23.0	---
MEAN	17.0	11.5	7.5	4.0	8.0	11.0	18.0	20.0	26.0	26.5	23.5	21.5

WTR YR 1981 MEAN 16.5 MAX 28.5 MIN 1.0

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
03...	1600	139	21	7.9	67
JAN					
07...	1200	322	35	30	38
MAR					
24...	1400	294	7	5.6	86
MAY					
27...	1600	67	16	2.9	--
JUL					
29...	1045	78	16	3.4	89
SEP					
15...	1530	203	20	11	65

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/14	13 45	0000	3.11	63	120		15.0	8.0	7.9	77.5	20	1.2
80/11/05	13 40	0000	4.67	189	118		14.0	8.0	8.8	84.6	22	2.6
80/12/16	14 35	0000	5.36	272	107		8.0	8.0	11.4	95.8	23	2.1
81/01/12	12 15	0000	5.46	285	89		1.0	6.0	13.0	91.5	15	0.9
81/02/17	11 10	0000	8.79	753	229		11.0	20.0	11.0	99.1	24	1.9
81/03/09	14 50	0000	7.26	528	91		10.0	15.0	9.6	85.0	26	2.0
81/04/07	11 00	0000	5.51	306	106		16.0	7.0	7.9	79.0	26	2.1
81/05/14	11 10	0000	3.44	84			21.0	10.0	6.6	73.3		2.5
81/06/15	11 15	0000	4.39	161	110		27.0	25.0	4.5	55.6	34	2.8
81/07/22	15 10	0000	3.03	58			29.0	7.0	10.3	132.1		3.5
81/08/24	16 25	0000	10.65	1140			20.0	20.0	6.5	70.7		1.8
81/09/17	13 00	0000	4.18	153			24.0	10.0	6.6	77.6	35	2.5

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/14	13 45	0000	170	14	2.60	0.130	0.500	0.500	0.300	10K	50K	50K
80/11/05	13 40	0000	860	12								
80/12/16	14 35	0000		17								
81/01/12	12 15	0000	10	10	1.90	0.420	0.600	0.260	0.170	10K	50K	50K
81/02/17	11 10	0000	10	11								
81/03/09	14 50	0000	30	10								
81/04/07	11 00	0000	10	14	1.30	0.180	0.700	0.370	0.190	10K	50K	50K
81/05/14	11 10	0000	400	17								
81/06/15	11 15	0000	590	16								
81/07/22	15 10	0000	90	16	1.60	0.230	0.800	0.550	0.250	10K	50K	50K
81/08/24	16 25	0000	1200	12								
81/09/17	13 00	0000	270	10								

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/14	13 45	0000	100K	40K	900	100K	70.0	0.5K	50K
81/01/12	12 15	0000	100K	40K	500	100K	50.0K	0.5K	60
81/04/07	11 00	0000	100K	40K	1200	100K	70.0	0.5K	50K
81/07/22	15 10	0000	100K	40K	1200	100K	70.0	0.5K	70

K Less than noted value.

02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, NC

LOCATION.--Lat 35°32'40" (revised), long 77°30'41", Pitt County, Hydrologic Unit 03020203, near center of span on downstream side of bridge on U.S. Highway 264, 1.5 mi (2.4 km) upstream from Middle Swamp, and 5.5 mi (8.8 km) southeast of Farmville.

DRAINAGE AREA.--93.3 mi² (241.6 km²).

PERIOD OF RECORD.--Occasional low-flow measurements water years 1952-54, 1956. October 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (9 m), from topographic map. Oct. 1, 1956, to Aug. 19, 1958, and June 23, 1964, to Aug. 24, 1965, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--25 years, 116 ft³/s (3.285 m³/s), 16.88 in/yr (429 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,170 ft³/s (146 m³/s) Oct. 6, 1964, gage height, 19.65 ft (5.989 m) from floodmark, from rating curve extended above 1,500 ft³/s (42.5 m³/s); no flow part of each day July 30, 31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August and September 1955 reached stages of 18.9 ft (5.76 m) and 18.5 ft (5.64 m), respectively.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 660 ft³/s (18.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 6	2000	749	21.2	12.98	3.956	Aug. 23	1200	696	19.7	12.79	3.898
Aug. 12	2000	*903	25.6	*13.49	4.112						

Minimum discharge, 0.84 ft³/s (0.024 m³/s) Aug. 3, gage height, 6.82 ft (2.079 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	18	56	31	41	34	5.1	16	2.9	1.2	15
2	29	9.7	17	45	43	38	41	5.0	31	2.3	.99	12
3	22	7.4	16	37	93	36	43	4.3	56	3.0	.89	9.4
4	21	9.6	15	32	88	34	39	3.6	36	48	1.2	8.1
5	12	46	14	27	67	48	32	3.5	26	100	1.1	7.5
6	6.7	41	14	27	52	68	31	3.7	570	66	1.0	7.5
7	6.0	23	13	30	46	71	36	4.4	593	32	1.2	7.0
8	5.7	17	12	34	43	58	40	5.7	320	17	1.6	7.5
9	5.1	13	13	32	40	46	35	5.9	113	11	2.0	17
10	4.6	9.5	18	30	37	40	32	19	49	7.6	2.0	16
11	4.0	7.4	48	27	68	36	29	40	30	5.2	5.0	11
12	2.9	7.2	50	25	208	34	26	21	23	4.0	650	8.8
13	2.1	7.8	44	23	180	31	22	13	18	3.2	648	6.9
14	2.5	8.3	34	22	131	30	20	10	13	2.7	204	5.6
15	2.9	8.3	26	23	96	28	18	7.9	11	2.7	50	4.8
16	2.8	7.7	23	24	75	27	17	6.4	10	2.8	23	4.4
17	2.8	7.2	24	23	65	28	16	5.5	8.6	4.7	22	4.1
18	2.5	11	22	22	59	28	14	4.7	23	4.3	23	4.0
19	2.4	16	21	20	63	29	13	4.4	19	2.9	24	4.1
20	3.6	14	19	21	80	28	12	8.9	38	2.1	380	3.4
21	4.0	16	18	28	128	26	10	18	142	3.9	499	2.8
22	3.9	30	17	56	140	25	9.6	16	75	15	366	2.6
23	3.8	22	20	69	114	29	9.7	11	31	8.2	657	2.5
24	3.8	17	25	63	89	34	9.4	7.8	28	4.8	563	2.4
25	19	29	26	49	71	36	8.3	5.7	18	9.4	354	2.4
26	35	44	25	40	59	34	7.2	4.5	13	6.6	135	2.4
27	15	34	24	36	50	30	6.4	4.1	9.4	3.7	64	2.1
28	13	28	48	36	44	27	6.2	46	6.3	2.5	40	1.8
29	11	23	72	35	---	25	5.8	62	4.6	2.0	27	1.6
30	11	20	86	34	---	24	5.1	24	3.6	1.7	21	1.6
31	18	---	70	33	---	30	---	13	---	1.3	18	---
TOTAL	291.1	548.1	892	1059	2260	1099	627.7	394.1	2334.5	383.5	4786.18	186.3
MEAN	9.39	18.3	28.8	34.2	80.7	35.5	20.9	12.7	77.8	12.4	154	6.21
MAX	35	46	86	69	208	71	43	62	593	100	657	17
MIN	2.1	7.2	12	20	31	24	5.1	3.5	3.6	1.3	.89	1.6
CFSM	.10	.20	.31	.37	.87	.38	.22	.14	.83	.13	1.65	.07
IN.	.12	.22	.36	.42	.90	.44	.25	.16	.93	.15	1.91	.07

CAL YR 1980 TOTAL 33791.01 MEAN 92.3 MAX 814 MIN .53 CFSM .99 IN 13.47
WTR YR 1981 TOTAL 14861.48 MEAN 40.7 MAX 657 MIN .89 CFSM .44 IN 5.93

02091836 NEUSE RIVER AT STREETS FERRY NEAR VANCEBORO, NC
(Radiochemical station)

LOCATION.--Lat 35°12'20", long 77°07'40", Craven County, Hydrologic Unit 03020202, at bridge on Secondary Road 1400 at Streets Ferry, 1.4 mi (2.3 km) above the Gut, and 7 mi (11 km) south of Vanceboro.

DRAINAGE AREA.--4,040 mi² (10,460 km²).

PERIOD OF RECORD.--Water years 1955-66, 1969 to current year.

REMARKS.--Station operated as part of Radiochemical Network from October 1969 to present. Tritium determinations for period August to September 1981 were not available at time of this publication. Salinity station prior to October 1966; chemical analysis and temperature values were determined on integrated samples collected three times daily from September 1954 to September 1957, and top (T) and bottom (B) samples collected once daily from October 1957 to September 1964. Daily records of specific conductance for water years 1954-64 available in files of district office in Raleigh, NC. Records prior to water year 1958 published as Neuse River near Vanceboro.

WATER QUALITY DATA, PERIOD NOVEMBER 1979 TO JULY 1981

DATE	TIME	TRITIUM IN WATER MOLECULES (TU)	TRITIUM WATER MOLECULES COUNT ERROR (TU)
NOV			
03...	1000	34.1	1.4
DEC			
01...	1615	26.3	1.3
JAN			
07...1980	1720	28.6	1.4
FEB			
04...	1725	32.9	1.4
MAR			
06...	1300	29.8	1.5
APR			
01...	1620	29.0	1.4
MAY			
01...	1615	31.5	1.5
JUN			
02...	0805	35.0	1.5
JUL			
01...	1600	38.2	1.5
AUG			
01...	1730	31.0	1.3
SEP			
01...	0900	33.0	1.4
OCT			
02...	1620	30.5	1.3
NOV			
01...	1640	30.5	1.3
DEC			
04...	1210	32.8	1.4
JAN			
07...1981	1610	33.5	1.4
FEB			
04...	1615	32.7	1.3
MAR			
03...	1630	35.5	1.4
APR			
01...	1645	40.8	1.7
MAY			
02...	1800	35.0	1.5
JUN			
03...	1700	29.4	1.3
JUL			
01...	1245	37.2	1.5

02091970 CREEPING SWAMP NEAR VANCEBORO, NC

LOCATION.--Lat 35°23'30", long 77°13'46", Craven County, Hydrologic Unit 03020202, on left bank at downstream side of bridge on State Highway 43, 1.0 mi (1.6 km) upstream from mouth, and 7.9 mi (12.7 km) northwest of Vanceboro.

DRAINAGE AREA.--27 mi² (70 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1971 to current year.

GAGE.--Water-stage recorder and concrete control with a parabolic shaped sharp-crested weir. Datum of gage is National Geodetic Vertical Datum of 1929 (Soil Conservation Service benchmark). Prior to Oct. 1, 1972, at datum, 16.60 ft (5.060 m) higher.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--10 years, 37.2 ft³/s (1.054 m³/s), 18.71 in/yr (475 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft³/s (51.3 m³/s) Oct. 1, 1971, gage height, 24.53 ft (7.477 m) present datum; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 8	0830	*320	9.06	*21.66	6.602

Minimum discharge, 0.01 ft³/s (<0.001 m³/s) Oct. 1, May 6, 7; minimum gage height, 19.12 ft (5.828 m) May 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.88	7.9	52	13	16	8.6	.10	43	.39	.06	5.0
2	.08	1.2	7.7	43	26	14	9.0	.07	60	.30	.04	3.8
3	.14	1.3	7.3	33	52	13	8.3	.05	86	.60	.04	3.5
4	.60	1.1	6.8	27	51	12	7.4	.03	141	15	.04	3.5
5	.98	1.1	6.2	22	54	16	6.9	.02	123	22	.04	3.5
6	1.4	1.1	5.7	18	47	21	7.7	.01	97	13	.04	3.5
7	1.2	1.1	5.2	18	38	20	7.9	.02	229	8.9	.06	3.0
8	.90	1.0	4.7	18	31	19	7.3	.23	303	7.4	.07	3.5
9	.65	.97	4.4	16	27	18	6.7	.74	197	6.0	.11	10
10	.45	.84	5.4	15	23	16	6.2	1.8	98	4.5	.09	13
11	.32	.70	7.8	13	67	14	5.5	12	55	3.1	.06	9.6
12	.20	.59	8.7	11	196	13	4.9	47	34	2.0	.44	7.3
13	.12	.50	9.2	10	221	12	4.4	41	26	1.5	3.1	5.5
14	.08	.43	9.2	8.9	170	10	3.9	31	20	1.4	3.9	4.5
15	.06	.41	9.5	8.5	105	9.4	3.2	24	15	1.0	4.5	3.7
16	.05	.44	10	8.3	73	8.8	2.5	17	12	.83	2.3	2.9
17	.04	.41	11	8.1	56	8.3	2.0	12	8.3	.80	1.7	1.7
18	.03	.53	11	8.0	46	8.0	1.5	9.1	6.7	.80	1.4	1.6
19	.03	.52	10	8.0	40	7.8	1.2	6.2	6.0	.67	3.2	1.5
20	.04	.49	9.2	8.0	40	7.5	.98	8.5	8.2	.52	102	1.3
21	.03	.95	8.4	10	42	6.9	.81	61	11	.45	162	1.1
22	.02	1.7	7.8	15	38	6.7	.65	96	16	.51	194	.92
23	.02	2.6	9.5	18	35	8.2	.56	79	15	.42	189	.76
24	.03	3.7	11	17	32	9.2	.54	59	13	.33	150	.63
25	.14	4.9	12	16	27	9.1	.44	38	9.1	.27	103	.51
26	.17	5.6	11	16	23	8.6	.35	23	5.9	.22	59	.32
27	.15	6.6	13	16	20	8.1	.29	15	3.4	.16	34	.29
28	.13	7.3	29	15	17	7.7	.22	29	1.8	.11	20	.26
29	.13	7.3	50	15	---	7.3	.15	58	.96	.08	13	.21
30	.33	7.5	55	14	---	7.3	.10	48	.56	.09	8.6	.17
31	.66	---	57	13	---	8.1	---	45	---	.07	6.3	---
TOTAL	9.23	63.76	420.6	518.8	1610	351.0	110.19	760.87	1644.92	93.42	1062.09	97.06
MEAN	.30	2.13	13.6	16.7	57.5	11.3	3.67	24.5	54.8	3.01	34.3	3.24
MAX	1.4	7.5	57	52	221	21	9.0	96	303	22	194	13
MIN	.02	.41	4.4	8.0	13	6.7	.10	.01	.56	.07	.04	.17
CFSM	.01	.08	.50	.62	2.13	.42	.14	.91	2.03	.11	1.27	.12
IN.	.01	.09	.58	.71	2.22	.48	.15	1.05	2.27	.13	1.46	.13

CAL YR 1980 TOTAL 11076.90 MEAN 30.3 MAX 482 MIN .00 CFSM 1.12 IN 15.26
WTR YR 1981 TOTAL 6741.94 MEAN 18.5 MAX 303 MIN .01 CFSM .69 IN 9.29

NEUSE RIVER BASIN

02091970 CREEPING SWAMP NEAR VANCEBORO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, June to September 1981.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to June 1975.
WATER TEMPERATURES: July 1974 to September 1975.

INSTRUMENTATION.--Thermograph from April 1972 until September 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 120 micromhos Nov. 6, 1974; minimum daily, 36 micromhos Apr. 16, 18, 1975.
WATER TEMPERATURES.--Maximum 27.0°C Aug. 18, 19, 24-27, 1975; minimum, 5.5°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
JUN												
07...	1130	237	47	5.6	23.0	230	--	--	--	13	8	3.9
08...	1645	303	43	5.5	23.0	160	5.0	--	--	11	6	3.1
SEP												
01...	1200	5.8	50	6.0	23.0	90	5.0	K72	K1200	14	--	3.9

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JUN												
07...	.9	3.1	30	.4	2.0	6	0	5	20	4.9	7.0	<.1
08...	.8	3.3	36	.4	1.5	6	0	5	12	6.1	6.6	<.1
SEP												
01...	1.1	3.6	34	.4	1.0	--	0	--	--	4.7	8.5	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, 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)
JUN												
07...	5.1	63	29	.09	40.3	.20	.030	.23	.23	.060	.090	.12
08...	5.1	63	28	.09	51.5	--	<.010	.06	.07	.070	.060	.08
SEP												
01...	8.8	90	--	.12	1.4	--	<.010	.23	.15	--	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

02091970 CREEPING SWAMP NEAR VANCEBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
JUN											
07...	.80	.84	.86	.00	.93	1.1	4.8	1.2	.160	.49	.010
08...	.64	.50	.71	.15	.56	.77	3.4	.63	.040	.12	<.010
SEP											
01...	--	--	.99	.19	.80	1.2	5.4	.95	.040	.12	.030

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ENDOSULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
JUN											
07...	23	--	--	--	--	--	--	--	--	--	--
08...	22	<.10	<.01	<.10	<.01	<.01	<.01	<.01	<.01	<.01	<.01

DATE	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)
JUN										
07...	--	--	--	--	--	--	--	--	--	--
08...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10

DATE	TOTAL TRITHION (UG/L)
JUN	
08...	<.01

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAY				
12...	0924	50	43	5.8
28...	1405	29	37	2.9
28...	1605	31	41	3.4
28...	1705	38	37	3.8
29...	1400	60	28	4.5
JUN				
07...	1130	237	57	36
08...	1645	303	15	12
24...	0940	13	9	.32
AUG				
07...	0909	.10	45	.01
SEP				
01...	1200	5.8	4	.06

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 (4.0 km) upstream from bridge on State Highway 118, 2.5 mi (4.0 km) downstream from Clayroot Swamp, and 3.5 mi (5.6 km) northwest of Vanceboro.

DRAINAGE AREA.--182 mi^2 (471 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 2.07 ft (0.631 m) below National Geodetic Vertical Datum of 1929 (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 (1.829 m) higher.

REMARKS.--Records fair. During 1964, the channel was canalized from a point 12.2 mi (19.6 km) upstream to a point 2.5 mi (4.0 km) downstream from the gage.

AVERAGE DISCHARGE.--31 years, 209 ft^3/s (5.919 m^3/s), 15.59 in/yr (396 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,060 ft^3/s (172 m^3/s) Sept. 22, 1955, gage height, 19.67 ft (6.000 m), present datum; no flow Aug. 8-29, Oct. 4 to Nov. 9, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1909 reached a stage of 22 ft (6.7 m), present datum, and flood in 1928 reached a stage of 17.7 ft (5.39 m), present datum, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft^3/s (54.9 m^3/s) June 8, gage height 12.77 ft (3.892 m); - minimum, 13 ft^3/s (0.37 m^3/s) July 16, Sept. 30; minimum gage height, 4.72 ft (1.439 m) May 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	76	72	296	88	109	66	19	163	21	25	55
2	107	71	70	237	137	104	68	18	184	19	22	48
3	102	62	66	179	294	98	68	17	350	24	21	43
4	104	55	62	156	276	93	63	16	441	77	21	38
5	100	71	59	135	235	115	59	16	396	100	22	34
6	79	85	56	120	194	140	62	16	335	71	21	31
7	62	76	54	120	167	134	66	16	1400	63	24	30
8	52	68	52	121	151	122	62	26	1890	54	24	50
9	44	61	51	115	137	111	59	42	1430	41	26	196
10	38	54	53	108	122	103	56	47	844	33	27	190
11	34	49	81	100	287	98	54	146	425	27	26	111
12	32	46	93	87	811	93	51	210	232	22	305	74
13	28	43	87	78	750	88	47	182	162	19	696	59
14	26	40	82	76	606	83	45	143	121	17	353	50
15	24	39	76	74	440	78	42	114	95	16	118	44
16	22	39	74	72	321	75	39	92	79	14	58	38
17	21	39	76	72	255	74	37	73	67	25	50	34
18	21	42	80	70	213	72	35	59	64	39	38	32
19	21	45	79	70	195	70	34	47	232	30	37	29
20	23	46	73	69	214	67	32	88	249	23	951	26
21	26	54	68	75	243	63	30	276	147	20	1660	24
22	25	91	63	113	228	61	29	359	97	18	1410	22
23	22	94	68	127	201	63	28	291	75	17	1660	20
24	22	87	94	123	181	76	27	210	67	16	1340	19
25	39	86	101	113	161	77	26	149	57	15	863	17
26	83	90	97	105	141	74	24	109	47	22	467	16
27	70	88	93	100	126	70	23	86	39	25	250	15
28	58	86	215	98	115	65	22	284	32	23	153	15
29	49	83	373	97	---	61	21	491	28	22	103	14
30	47	77	417	95	---	60	20	337	24	30	78	13
31	66	---	354	91	---	66	---	222	---	29	64	---
TOTAL	1515	1943	3339	3492	7289	2663	1295	4201	9772	972	10913	1387
MEAN	48.9	64.8	108	113	260	85.9	43.2	136	326	31.4	352	46.2
MAX	107	94	417	296	811	140	68	491	1890	100	1660	196
MIN	21	39	51	69	88	60	20	16	24	14	21	13
CFSM	.27	.36	.59	.62	1.43	.47	.24	.75	1.79	.17	1.93	.25
IN.	.31	.40	.68	.71	1.49	.54	.26	.86	2.00	.20	2.23	.28

CAL YR 1980 TOTAL 77431.1 MEAN 212 MAX 2010 MIN 4.7 CFSM 1.17 IN 15.83
WTR YR 1981 TOTAL 48781.0 MEAN 134 MAX 1890 MIN 13 CFSM .74 IN 9.97

02092500 TRENT RIVER NEAR TRENTON, NC

LOCATION.--Lat 35°03'55", long 77°27'25", Jones County, Hydrologic Unit 03020204, on left bank 50 ft (15 m) downstream from Free Bridge on Secondary Road 1129, 800 ft (244 m) downstream from Little Chinquapin Branch, 1.5 mi (2.4 km) southwest of Phillips Crossroads, and 6 mi (10 km) west of Trenton.

DRAINAGE AREA.--168 mi^2 (435 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.15 ft (5.837 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 21, 1951, nonrecording gage on bridge 50 ft (15 m) upstream at same datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--30 years, 201 ft^3/s (5.692 m^3/s), 16.25 in/yr (413 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft^3/s (258 m^3/s) Sept. 21, 1955, gage height, 17.84 ft (5.438 m); minimum, 1.1 ft^3/s (0.031 m^3/s) Oct. 20, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 17.3 ft (5.27 m), discharge, 7,600 ft^3/s (215 m^3/s), from information furnished by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,940 ft^3/s (83.3 m^3/s) Aug. 22, gage height, 14.84 ft (4.523 m); minimum, 6.0 ft^3/s (0.17 m^3/s) May 6-7, gage height, 2.32 ft (0.707 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	68	77	879	164	117	66	12	301	22	56	223
2	154	69	66	744	180	108	73	9.4	234	21	51	219
3	196	67	57	592	254	107	74	9.0	358	26	40	177
4	250	66	52	468	293	102	71	8.5	434	35	37	139
5	286	65	48	373	299	116	64	7.5	522	38	43	105
6	278	62	45	288	282	185	56	6.6	553	37	45	79
7	224	59	43	223	254	245	53	6.3	478	52	37	71
8	151	55	40	199	224	257	50	11	387	56	29	74
9	107	49	40	189	197	233	49	22	316	59	29	81
10	82	45	42	179	172	193	51	47	292	49	109	89
11	64	37	54	166	264	164	44	123	290	33	152	81
12	48	31	66	151	456	141	38	207	250	25	151	70
13	39	28	73	129	545	116	35	209	166	22	149	56
14	33	24	72	116	608	99	33	178	104	20	139	42
15	29	23	67	110	573	88	36	129	69	17	98	34
16	26	24	66	104	496	83	31	88	51	15	64	29
17	24	24	69	100	419	85	26	56	46	14	238	37
18	23	27	70	96	336	74	24	39	250	13	441	55
19	24	31	68	94	270	69	22	30	507	16	512	60
20	29	36	63	89	263	68	20	29	445	16	1290	54
21	35	53	57	95	283	67	18	158	374	16	2420	50
22	37	91	50	125	295	70	17	291	233	15	2890	44
23	32	106	47	143	298	70	20	307	132	13	2430	36
24	29	104	68	147	285	76	20	285	85	12	1570	29
25	31	104	91	141	254	78	16	218	58	11	1010	25
26	38	108	100	136	212	72	14	137	44	19	713	22
27	47	105	106	130	171	64	13	89	36	38	522	19
28	53	100	241	127	137	60	11	297	30	29	372	17
29	53	93	547	148	---	55	10	463	27	20	233	15
30	54	85	743	166	---	52	9.8	509	24	25	176	14
31	64	---	885	171	---	57	---	456	---	48	185	---
TOTAL	2652	1839	4113	6818	8484	3371	1064.8	4437.3	7096	832	16231	2046
MEAN	85.5	61.3	133	220	303	109	35.5	143	237	26.8	524	68.2
MAX	286	108	885	879	608	257	74	509	553	59	2890	223
MIN	23	23	40	89	137	52	9.8	6.3	24	11	29	14
CFSM	.51	.37	.79	1.31	1.80	.65	.21	.85	1.41	.16	3.12	.41
IN.	.59	.41	.91	1.51	1.88	.75	.24	.98	1.57	.18	3.59	.45

CAL YR 1980 TOTAL 83200.3 MEAN 227 MAX 1830 MIN 3.4 CFSM 1.35 IN 18.42
WTR YR 1981 TOTAL 58984.1 MEAN 162 MAX 2890 MIN 6.3 CFSM .96 IN 13.06

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-53, 1955-63, 1965-67, 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1955 to December 1962, October 1978 to September 1981.
WATER TEMPERATURES: October 1951 to September 1953, January 1955 to December 1962, December 1964 to May 1967, October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1978.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams. Daily records of specific conductance for period January 1955 to December 1962 are available in the district office in Raleigh, NC. Malfunctions of water-quality monitor caused some loss of daily records during December 1980, January and September 1981.

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 284 micromhos Nov. 17, 1978; minimum daily, 31 micromhos July 2, 5, 6, 1962.
WATER TEMPERATURES: Maximum daily, 30.0°C June 17, 1957; minimum daily, 0.0°C on many days during most winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 228 micromhos May 8, 9; minimum, 53 micromhos Aug. 20, 21.
WATER TEMPERATURES: Maximum, 27.5°C July 21; minimum recorded, 2.0°C Feb. 5, 6, 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT											
07...	1120	228	120	5.4	16.5	70	7.4	44	35	15	1.7
NOV											
05...	0930	65	113	6.9	12.5	50	8.5	36	16	12	1.5
JAN											
27...	1400	130	115	6.6	6.0	50	11.4	37	13	13	1.2
APR											
29...	0900	10	195	7.0	19.0	40	5.6	77	1	28	1.7
JUL											
28...	1015	30	165	6.9	26.0	40	5.6	72	21	26	1.6
AUG											
19...	1230	503	79	6.7	22.0	200	6.1	28	11	10	.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT											
07...	4.0	16	.3	1.7	12	0	10	101	28	8.0	.1
NOV											
05...	4.6	21	.3	1.8	30	0	25	3.9	14	8.9	.0
JAN											
27...	4.5	20	.3	1.2	36	0	30	8.8	13	8.9	<.1
APR											
29...	3.7	9	.2	2.0	93	0	76	12	12	9.2	.1
JUL											
28...	3.5	9	.2	1.9	62	0	51	12	14	7.5	<.1
AUG											
19...	2.3	14	.2	1.6	21	0	17	4.7	10	5.8	<.1

NEUSE RIVER BASIN

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
07...	9.0	113	77	.15	69.6	.17	.000	.17	.20	--	.020
NOV											
05...	7.8	87	62	.12	15.3	.43	.000	.43	.44	1.8	.030
JAN											
27...	5.9	79	61	.11	27.7	.57	.010	.58	.64	--	.060
APR											
29...	4.1	123	97	.17	3.3	.72	.010	.73	.73	--	.090
JUL											
28...	4.9	135	90	.18	10.9	.70	.010	.71	.75	--	.050
AUG											
19...	4.5	93	43	.13	126	.24	.020	.26	.24	--	.070

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
OCT											
07...	.060	.02	.08	.57	.55	.59	.00	.61	--	.76	3.4
NOV											
05...	.040	.04	.05	.56	.39	.59	.16	.43	600	1.0	4.5
JAN											
27...	.100	.07	.13	.15	.25	.21	.00	.35	--	.79	3.5
APR											
29...	.090	--	.12	.43	.43	.52	.00	.52	--	1.3	5.5
JUL											
28...	.030	--	.04	.40	.23	.45	.19	.26	--	1.2	5.1
AUG											
19...	.070	--	.09	.67	.42	.74	.25	.49	--	1.0	4.4

DATE	NITRO-GEN, TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL (UG/L AS AS)
OCT											
07...	--	.81	.040	.03	.12	.030	.010	.010	.03	--	--
NOV											
05...	602	.87	.060	.28	.18	.040	.090	.030	.09	290	1
JAN											
27...	--	.99	.020	.31	.06	--	.100	--	--	--	--
APR											
29...	--	1.3	.070	--	.21	.050	.040	.040	.12	--	--
JUL											
28...	--	1.0	.090	--	.28	.050	.040	.020	.06	--	--
AUG											
19...	--	.73	.060	--	.18	.060	.030	.040	.12	--	--

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC SUS-PENDED 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 SUS-PENDED 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, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT 07...	--	--	--	--	--	--	--	30	21	9
NOV 05...	0	1	0	0	0	1	<10	10	--	--
JAN 27...	--	--	--	--	--	--	--	10	0	10
APR 29...	--	--	--	--	--	--	--	10	9	1
JUL 28...	--	--	--	--	--	--	--	<10	--	<1
AUG 19...	--	--	--	--	--	--	--	10	8	2

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	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)
OCT 07...	--	--	--	--	--	1	0	3	--	510
NOV 05...	<10	1	1	0	<10	2	2	0	<10	340
JAN 27...	--	--	--	--	--	3	0	3	--	260
APR 29...	--	--	--	--	--	2	2	0	--	530
JUL 28...	--	--	--	--	--	4	3	1	--	480
AUG 19...	--	--	--	--	--	48	46	2	--	900

DATE	IRON, SUS-PENDED 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, SUS-PENDED 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, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 07...	160	350	--	2	2	0	--	--	--	--
NOV 05...	170	170	1200	2	2	0	<10	10	6	4
JAN 27...	170	90	--	2	0	2	--	--	--	--
APR 29...	150	380	--	8	8	0	--	--	--	--
JUL 28...	320	160	--	2	1	1	--	--	--	--
AUG 19...	560	340	--	17	15	2	--	--	--	--

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)
OCT 07...	--	--	--	--	--	--	--	--	--	10	10
NOV 05...	17	.3	.0	.3	.00	0	0	0	0	10	10
JAN 27...	--	--	--	--	--	--	--	--	--	20	--
APR 29...	--	--	--	--	--	--	--	--	--	10	--
JUL 28...	--	--	--	--	--	--	--	--	--	10	--
AUG 19...	--	--	--	--	--	--	--	--	--	80	80

DATE	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPOSURE (DAYS)
OCT 07...	0	--	14	.7	--	--	--	.00	--	--	--
NOV 05...	0	11	9.7	.4	3.0	.2	3.2	--	--	--	--
JAN 27...	<4	--	14	.3	--	--	--	--	.866	.709	55
APR 29...	<4	--	11	--	--	--	--	.10	--	--	--
JUL 28...	<4	--	7.2	.4	--	--	--	.00	8.03	6.14	89
AUG 19...	4	--	21	.7	--	--	--	.00	--	--	--

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	OCT 7,80		NOV 5,80		APR 29,81		JUL 28,81	
TIME	1120		0930		0900		1015	
TOTAL CELLS/ML	250		39		6300		5400	
DIVERSITY: DIVISION	0.6		0.0		0.1		1.2	
.CLASS	0.6		0.0		0.1		1.2	
..ORDER	0.6		0.9		0.5		1.5	
...FAMILY	0.6		0.9		1.1		2.3	
....GENUS	0.6		0.9		1.1		3.2	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	*	0	110	2
....DICTYOSPHAERIUM	--	-	--	-	--	-	270	5
....KIRCHNERIELLA	--	-	--	-	--	-	280	5
....OOCYSTIS	--	-	--	-	--	-	56	1
....WESTELLA	--	-	--	-	--	-	670	12
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	1700#	32
....SCENEDESMUS	--	-	--	-	*	0	750	14
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	39#	16	--	-	*	0	150	3
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	26#	67	--	-	170	3
....MELOSIRA	--	-	--	-	--	-	56	1
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	28	1
...FRAGILARIACEAE								
....SYNEDRA	--	-	--	-	--	-	*	0
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	*	0
...NITZSCHIACEAE								
....NITZSCHIA	--	-	13#	33	--	-	28	1
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	*	0	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	42	1
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	42	1
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	39	1	70	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	100	2	--	-
....ANACYSTIS	--	-	--	-	270	4	770	14
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENOPSIS	--	-	--	-	4900#	77	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	960#	15	--	-
....OSCILLATORIA	210#	84	--	-	--	-	84	2
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	42	1
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	28	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	123	103	108	125	114	120	122	120	121	---	---	68
2	171	126	157	123	119	121	123	122	123	---	---	71
3	151	114	132	121	117	120	127	123	125	---	---	78
4	116	110	114	117	111	114	130	126	128	---	---	83
5	118	116	117	115	112	113	132	130	131	---	---	88
6	119	115	118	118	115	117	134	132	133	---	---	93
7	125	118	121	119	118	118	135	134	134	---	---	100
8	131	124	128	120	119	120	136	135	136	---	---	103
9	133	130	132	122	121	122	136	135	136	---	---	108
10	134	132	133	125	122	123	136	134	135	---	---	108
11	138	133	135	128	124	127	136	128	132	---	---	110
12	142	138	140	132	129	131	128	123	125	---	---	115
13	145	141	143	137	132	135	123	117	119	---	---	118
14	149	145	147	141	137	139	118	114	116	---	---	118
15	156	149	152	145	141	143	115	114	114	---	---	120
16	158	154	156	149	145	148	116	114	115	---	---	123
17	162	158	160	150	144	148	116	115	115	---	---	123
18	164	162	163	153	144	150	116	114	115	---	---	125
19	166	163	165	152	149	151	115	114	114	---	---	125
20	165	160	163	153	147	151	116	114	115	---	---	128
21	159	154	157	148	136	144	116	114	115	---	---	125
22	155	149	152	135	121	126	118	115	116	---	---	116
23	150	141	145	127	119	119	120	118	119	---	---	113
24	141	139	140	110	109	109	120	115	117	---	---	112
25	144	136	141	112	109	111	121	111	116	---	---	113
26	143	140	142	113	112	112	110	103	107	---	---	112
27	145	140	142	113	107	111	103	96	100	115	114	115
28	143	126	134	117	107	114	96	95	96	116	115	115
29	126	120	124	119	117	118	---	---	77	115	111	113
30	119	112	116	120	118	119	---	---	73	111	108	109
31	115	112	113	---	---	---	---	---	68	107	102	104
MONTH	171	103	138	153	107	127	136	95	116	116	102	108
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	103	96	100	125	119	122	139	136	137	214	204	208
2	107	103	105	126	125	126	135	128	132	209	206	207
3	104	100	102	128	126	127	128	125	127	212	207	210
4	101	98	99	128	127	127	126	124	125	215	212	213
5	99	97	98	128	119	124	128	124	126	217	213	215
6	98	97	97	119	104	111	131	127	130	221	216	219
7	99	97	98	104	98	101	133	130	132	222	219	221
8	103	99	101	97	94	95	137	133	136	228	222	225
9	106	102	104	99	95	97	139	136	137	228	200	217
10	107	105	106	104	99	101	139	137	138	197	181	187
11	108	89	100	106	103	104	141	138	139	183	116	147
12	92	86	89	110	105	107	144	141	142	117	105	111
13	87	85	86	116	110	113	147	134	144	112	109	110
14	86	85	85	120	115	118	152	147	150	120	113	116
15	87	85	86	125	120	123	154	152	152	128	120	124
16	91	87	89	127	124	125	157	152	155	137	128	133
17	97	91	94	126	124	125	163	156	160	149	138	143
18	103	97	100	129	125	127	165	160	163	160	150	155
19	107	103	105	132	129	131	172	164	168	169	161	166
20	107	105	106	136	130	132	176	168	173	178	170	175
21	106	103	105	136	134	135	177	174	175	161	104	130
22	102	100	102	133	132	133	182	176	179	107	102	105
23	100	97	100	133	130	132	186	180	183	104	102	103
24	101	99	100	130	127	128	186	181	183	106	104	105
25	104	101	103	128	125	126	190	182	186	115	106	110
26	109	104	107	126	125	125	193	189	190	126	116	121
27	116	108	111	130	126	128	191	188	190	137	125	131
28	120	113	116	133	129	131	194	189	191	132	73	94
29	---	---	---	136	132	134	201	193	197	80	74	77
30	---	---	---	140	135	137	205	199	201	82	75	78
31	---	---	---	140	138	139	---	---	---	90	81	85
MONTH	120	85	100	140	94	122	205	124	158	228	73	150

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	102	89	95	197	189	192	118	112	115	126	112	120
2	105	101	104	206	196	202	115	111	113	116	111	113
3	101	90	94	209	203	207	127	111	120	124	116	120
4	91	86	88	202	183	194	131	127	129	134	125	130
5	85	83	84	182	177	180	140	131	134	147	134	141
6	85	82	83	177	175	176	145	138	142	159	147	153
7	89	84	86	176	141	155	138	135	137	164	160	161
8	95	88	91	164	146	156	138	135	136	---	---	138
9	96	94	95	165	154	160	147	135	144	---	---	128
10	94	90	93	152	139	146	139	109	122	---	---	127
11	89	86	87	154	140	146	113	102	107	---	---	130
12	96	87	91	174	154	163	107	101	105	---	---	135
13	112	96	104	185	174	179	110	106	108	---	---	139
14	127	112	119	191	185	187	108	106	107	---	---	151
15	139	127	133	195	186	190	117	108	112	---	---	157
16	151	139	146	196	192	194	126	118	122	---	---	163
17	161	144	154	198	194	195	126	74	99	---	---	155
18	152	63	113	206	198	202	77	73	75	---	---	147
19	76	70	74	208	205	206	79	77	78	---	---	140
20	77	72	74	210	204	207	76	53	59	---	---	147
21	85	77	82	215	207	210	54	53	53	---	---	145
22	100	86	93	218	214	216	56	54	55	---	---	150
23	115	101	109	224	218	221	64	57	60	---	---	157
24	130	115	121	225	223	223	69	64	66	---	---	164
25	146	130	139	225	222	223	77	70	73	---	---	170
26	157	146	152	224	213	221	86	77	81	---	---	173
27	161	157	159	211	181	190	96	86	91	---	---	174
28	171	161	165	183	153	165	108	97	102	---	---	183
29	181	171	175	160	153	157	125	109	118	---	---	187
30	189	182	184	170	161	168	135	125	131	---	---	188
31	---	---	---	162	119	134	136	127	132	---	---	---
MONTH	189	63	113	225	119	186	147	53	104	164	111	150
YEAR	228	53	131									

TEMPERATURE, WATER (DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	20.0	20.0	13.0	12.0	12.5	9.5	9.0	9.0	---	---	---
2	21.0	19.5	20.0	13.0	12.0	12.5	10.0	9.0	9.5	---	---	---
3	21.0	20.0	20.5	12.0	11.5	11.5	10.0	9.0	10.0	---	---	---
4	20.5	19.0	20.0	12.0	11.5	11.5	9.0	8.0	8.5	---	---	---
5	19.0	18.0	18.0	13.5	12.0	13.0	8.0	7.5	8.0	---	---	---
6	18.0	17.5	18.0	13.5	12.0	12.5	8.5	8.0	8.0	---	---	---
7	17.5	16.5	17.0	12.0	11.5	12.0	9.0	8.5	8.5	---	---	---
8	16.5	15.5	16.0	13.5	12.0	13.0	10.0	9.0	9.5	---	---	---
9	17.0	16.0	16.5	14.5	13.5	14.0	11.0	9.5	10.5	---	---	---
10	18.0	17.0	17.5	15.5	14.0	14.5	12.0	11.0	11.5	---	---	---
11	18.0	17.0	17.5	14.5	12.5	13.5	12.0	10.5	11.0	---	---	---
12	18.0	17.5	18.0	12.5	11.0	12.0	10.5	9.5	10.0	---	---	---
13	18.0	15.5	17.0	11.0	10.5	11.0	10.5	9.5	10.0	---	---	---
14	15.5	15.0	15.0	11.5	10.5	11.0	10.5	9.0	10.0	---	---	---
15	15.5	14.5	15.0	12.5	11.0	12.0	8.5	8.0	8.5	---	---	---
16	16.0	14.5	15.0	13.0	12.5	12.5	9.0	8.5	8.5	---	---	---
17	17.5	15.5	16.5	12.5	12.0	12.5	9.0	9.5	9.0	---	---	---
18	18.0	17.0	17.5	12.5	12.0	12.5	8.0	7.5	7.5	---	---	---
19	18.5	18.0	18.5	12.5	10.5	11.5	8.5	7.5	8.0	---	---	---
20	18.5	18.0	18.5	10.5	9.5	10.0	8.5	7.0	8.0	---	---	---
21	18.0	16.5	17.5	10.0	9.0	9.5	7.0	5.0	6.0	---	---	---
22	16.5	15.5	16.0	9.0	8.5	9.0	5.5	4.5	5.0	---	---	---
23	16.0	15.5	15.5	9.0	8.5	8.5	6.5	5.5	6.0	---	---	---
24	15.5	15.0	15.5	10.0	8.5	9.5	7.0	6.0	6.5	---	---	---
25	16.0	15.0	15.5	11.0	10.0	10.5	7.0	5.0	6.0	---	---	---
26	15.5	14.0	14.5	11.0	10.5	10.5	5.0	4.0	4.5	---	---	---
27	14.0	13.0	13.5	11.0	10.0	10.5	4.5	4.0	4.5	7.0	6.0	6.5
28	14.0	13.0	13.5	11.5	11.0	11.5	5.0	4.5	4.5	7.0	6.5	7.0
29	14.5	13.5	14.0	11.0	9.5	10.5	---	---	---	7.0	6.5	6.5
30	14.0	12.5	13.5	9.5	9.0	9.0	---	---	---	7.0	5.5	6.5
31	12.5	12.0	12.0	---	---	---	---	---	---	5.5	3.5	4.5
MONTH	21.0	12.0	16.5	15.5	8.5	11.5	12.0	4.0	8.0	7.0	3.5	6.0

NEUSE RIVER BASIN

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	2.5	3.5	11.5	10.5	11.0	16.5	15.5	16.0	21.0	19.5	20.0
2	7.0	4.5	5.5	11.5	11.0	11.5	17.0	15.5	16.0	20.0	18.5	19.5
3	6.5	5.0	6.0	11.0	10.0	10.5	17.0	16.0	16.5	19.0	17.0	18.0
4	5.0	4.0	4.5	10.5	9.5	10.0	18.0	16.5	17.5	18.5	16.5	17.5
5	3.5	2.0	3.0	11.5	10.5	11.0	19.0	17.5	18.5	19.0	16.5	17.5
6	2.5	2.0	2.0	11.5	10.5	11.0	19.0	17.5	18.5	20.0	17.0	18.5
7	3.0	2.0	2.0	11.0	9.5	10.0	17.5	16.5	17.0	19.5	16.0	17.5
8	4.5	2.5	3.5	10.0	8.5	9.5	17.0	15.5	16.5	15.5	14.5	15.0
9	5.0	4.0	4.5	10.0	8.0	9.0	17.0	16.0	16.5	16.0	14.5	15.0
10	6.5	4.5	5.5	10.0	8.0	9.0	17.5	16.0	17.0	17.5	15.0	16.5
11	10.5	7.0	8.5	10.0	8.0	9.0	18.0	16.5	17.5	19.5	17.0	18.0
12	10.0	7.5	8.5	10.0	8.5	9.5	19.5	17.5	18.5	19.0	18.0	18.5
13	7.0	6.0	6.5	11.0	9.5	10.0	19.5	18.5	19.0	19.0	17.5	18.5
14	6.0	5.0	5.5	11.5	10.5	10.5	19.0	17.5	18.0	18.5	17.5	18.0
15	7.0	5.5	6.5	10.5	9.5	10.0	18.5	17.5	18.0	19.0	17.5	18.5
16	7.5	6.5	7.0	11.0	10.0	10.5	18.0	17.0	17.5	19.0	18.0	18.5
17	9.5	7.5	8.5	10.5	9.5	10.0	18.5	16.0	17.5	18.5	17.5	18.0
18	11.0	9.5	10.5	11.0	9.5	10.5	20.0	17.0	18.5	18.5	17.5	18.0
19	12.5	11.0	12.0	10.5	10.0	10.5	20.5	18.0	19.5	19.5	18.0	18.5
20	13.0	12.0	12.5	10.0	9.5	9.5	19.5	18.5	19.0	18.5	16.5	18.0
21	13.0	12.5	12.5	10.0	8.5	9.5	18.5	17.0	17.5	16.5	14.5	15.0
22	13.0	12.0	12.5	9.5	9.0	9.5	18.0	15.5	17.0	15.5	14.0	15.0
23	14.0	13.0	13.0	9.0	8.5	9.0	18.0	16.5	17.0	16.5	15.0	16.0
24	13.0	11.5	12.5	9.5	8.0	9.0	19.0	17.0	18.0	18.0	16.5	17.0
25	12.0	11.0	11.5	9.5	9.0	9.5	18.0	17.0	17.5	19.0	17.5	18.5
26	11.5	10.0	10.5	11.0	9.5	10.5	18.0	16.0	17.0	19.5	18.5	19.0
27	11.0	9.5	10.0	12.5	10.5	11.5	19.0	16.5	17.5	19.5	18.5	19.0
28	10.5	9.0	10.0	14.0	12.0	13.0	21.0	17.5	19.0	20.0	19.0	19.5
29	---	---	---	14.0	12.5	13.0	21.0	19.0	20.0	20.5	20.0	20.0
30	---	---	---	15.0	13.5	14.0	22.0	20.0	20.5	21.0	20.0	20.5
31	---	---	---	16.5	14.0	15.5	---	---	---	21.5	20.5	21.0
MONTH	14.0	2.0	8.0	16.5	8.0	10.5	22.0	15.5	18.0	21.5	14.0	18.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.0	21.0	21.5	22.0	20.5	21.0	24.0	23.0	23.5	23.0	22.0	22.5
2	21.5	20.5	21.0	21.0	20.5	21.0	24.5	23.5	24.0	23.5	22.0	22.5
3	22.0	21.0	21.5	20.5	20.0	20.5	24.0	23.5	23.5	23.0	22.0	22.5
4	22.5	21.5	22.0	22.5	20.5	21.5	25.0	23.5	24.0	22.5	22.0	22.5
5	23.0	22.5	22.5	23.5	21.5	22.5	25.5	24.0	25.0	22.5	21.5	22.0
6	23.5	23.0	23.0	24.0	23.0	23.5	26.0	25.0	25.5	22.5	21.5	22.0
7	23.5	23.0	23.5	25.0	23.5	24.0	25.5	24.5	25.0	22.0	21.5	21.5
8	24.0	23.0	23.5	25.5	24.0	24.5	27.0	25.0	26.0	---	---	---
9	24.0	23.0	23.5	25.5	24.5	25.0	26.0	25.0	25.5	---	---	---
10	25.0	23.5	24.0	26.0	25.0	25.5	26.0	25.0	25.5	---	---	---
11	25.0	24.0	24.5	26.5	25.5	25.5	26.0	25.0	25.5	---	---	---
12	24.5	23.0	24.0	26.0	24.5	25.5	25.5	25.0	25.5	---	---	---
13	24.0	23.0	23.5	25.5	24.5	25.0	25.5	24.5	25.0	---	---	---
14	24.5	23.0	24.0	26.0	24.5	25.0	25.0	23.5	24.0	---	---	---
15	25.0	23.5	24.0	26.0	24.5	25.0	24.0	23.5	24.0	---	---	---
16	25.5	23.5	24.5	25.0	24.0	24.5	25.0	23.5	24.0	---	---	---
17	25.5	24.0	24.5	25.5	24.0	24.5	24.5	23.0	24.0	---	---	---
18	24.5	23.5	23.5	26.0	24.0	25.0	23.0	22.0	22.5	---	---	---
19	24.0	23.5	23.5	25.5	24.0	25.0	22.5	22.0	22.0	---	---	---
20	24.0	23.0	23.5	27.0	24.5	25.5	22.5	21.0	21.5	---	---	---
21	24.5	23.5	24.0	27.5	25.5	26.0	22.0	21.0	21.0	---	---	---
22	25.5	24.0	24.5	27.0	25.0	26.0	21.5	20.5	21.0	---	---	---
23	25.0	24.0	24.5	26.5	25.0	26.0	21.5	20.0	20.5	---	---	---
24	24.5	23.5	24.0	25.5	24.5	25.0	21.0	20.0	20.5	---	---	---
25	25.0	23.5	24.0	26.0	24.0	25.0	21.0	20.5	21.0	---	---	---
26	24.0	23.5	24.0	26.0	24.0	25.0	21.5	20.5	21.0	---	---	---
27	23.5	22.5	23.0	27.0	24.5	25.5	21.0	20.5	21.0	---	---	---
28	22.5	21.0	22.0	27.0	25.5	26.5	21.5	20.5	21.0	---	---	---
29	22.0	20.0	21.0	27.0	26.0	26.5	22.0	21.0	21.0	---	---	---
30	22.0	20.0	21.0	26.0	24.0	25.0	22.0	21.5	21.5	---	---	---
31	---	---	---	24.0	23.5	23.5	23.0	21.5	22.0	---	---	---
MONTH	25.5	20.0	23.5	27.5	20.0	24.5	27.0	20.0	23.0	23.5	21.5	22.0
YEAR	27.5	2.0	16.0									

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
07...	1120	228	11	6.8	59
NOV					
05...	0930	65	8	1.4	67
JAN					
27...	1400	130	5	1.8	64
APR					
29...	0900	10	5	.13	90
JUN					
10...	1630	291	15	12	75
JUL					
28...	1015	30	10	.81	88
AUG					
19...	1230	503	14	19	80

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/09	11 45	0000	3.38	39	160		17.0	5.0	7.3	75.3	42	0.7
80/11/24	13 30	0000	4.90	94	175		9.0	4.0	9.0	77.6	32	2.1
80/12/16	12 00	0000	4.21	77	145		9.0	5.0	9.9	85.3	30	1.3
81/01/20	13 40	0000	4.27	80	100		3.0	3.0	13.0	96.3	22	0.6
81/02/05	13 00	0000	7.02	298	71		4.0	10.0	12.5	95.4	39	1.1
81/03/05	14 00	0000	4.77	68	109		11.0	4.0	9.1	82.0	31	1.1
81/04/09	14 41	0000	3.47	42	130		16.0	4.0	7.6	76.0	34	1.5
81/05/12	13 40	0000	6.02	208			18.0	15.0	6.1	64.2		2.1
81/06/08	13 45	0000	7.82	381	86		23.0		5.9	67.8		1.5
81/07/22	12 00	0000	2.50	14			25.0	3.0	6.4	72.6		1.0
81/08/19	14 35	0000	8.86	506			23.0	30.0	5.9	67.8		3.3
81/09/10	12 51	0000	4.43	90			21.0	5.0	5.7	63.3		1.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/09	11 45	0000	90	13	0.34	0.050K	0.400	0.050	0.050K	10K	50K	50K
80/11/24	13 30	0000	150	24								
80/12/16	12 00	0000		25								
81/01/20	13 40	0000	70	30	0.80	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/02/05	13 00	0000	80	17								
81/03/05	14 00	0000	70	32								
81/04/09	14 41	0000	10	44	0.42	0.050K	0.300	0.060	0.050K	10K	50K	50K
81/05/12	13 40	0000	700	22								
81/06/08	13 45	0000	230	18								
81/07/22	12 00	0000	50	73	1.30	0.050K	0.400	0.080	0.050K	10K	50K	50K
81/08/19	14 35	0000	1200	22								
81/09/10	12 51	0000	90	47								

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/09	11 45	0000	100K	40K	600	100K	50.0K	0.5K	50K
81/01/20	13 40	0000	100K	40K	200	100K	50.0K	0.5K	50K
81/04/09	14 41	0000	100K	40K	500	100K	50.0K	0.5K	50K
81/07/22	12 00	0000	100K	40K	500	100K	50.0K	0.5K	50K

K Less than noted value.

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 (revised), on right bank 50 ft (15 m) upstream from culvert on Secondary Road 1102 and 3.8 mi (6.1 km) southeast of Wilmington.

DRAINAGE AREA.--1.98 mi² (5.13 km²), revised.

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

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6 m) from topographic map.

REMARKS.--Records good. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 463 ft³/s (13.1 m³/s) Aug. 17, 1981, gage height, 4.40 ft (1.341 m); no flow for part of July 26, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 28	0930	130	3.68	2.72	0.829	Aug. 19	2230	252	7.14	3.41	1.039
June 18	0615	337	9.54	3.83	1.167	Aug. 22	0645	107	3.03	2.56	0.780
Aug. 9	0515	160	4.53	2.91	0.887	Sept. 7	2045	135	3.82	2.75	0.838
Aug. 17	0030	*463	13.1	*4.40	1.341						

Minimum discharge, 0.50 ft³/s (0.014 m³/s) July 11; minimum gage height, 1.33 ft (0.405 m) July 11, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	1.0	1.3	6.4	1.6	1.7	3.0	.88	1.3	2.0	1.6	4.3
2	4.8	1.0	1.3	5.3	9.4	2.9	2.3	.89	1.2	1.2	1.6	4.3
3	3.5	.90	1.3	4.7	3.5	2.0	2.0	.86	1.1	1.6	1.5	4.2
4	3.0	.99	1.2	4.1	2.8	1.7	2.0	.86	1.0	1.2	1.4	4.0
5	2.2	1.0	1.2	3.7	2.4	9.6	2.0	.86	.98	1.1	1.3	3.9
6	2.0	.86	1.2	3.5	2.0	3.5	2.0	.86	.97	1.0	1.3	3.9
7	1.9	.86	1.3	3.8	2.8	2.7	2.0	5.6	.94	.99	1.2	19
8	1.7	.86	1.3	3.2	2.6	2.2	2.0	13	.94	.99	1.1	16
9	1.7	.86	1.5	3.2	2.1	2.0	2.0	5.5	.90	1.1	30	9.7
10	1.6	.86	2.3	2.9	1.8	2.0	2.0	4.6	.86	2.6	7.0	6.0
11	1.6	.86	1.6	2.6	3.3	1.7	2.1	3.4	.78	1.7	4.6	4.9
12	1.5	.86	1.3	2.4	2.3	1.7	2.0	2.5	.73	1.3	3.6	4.3
13	1.4	.86	1.3	2.3	2.0	1.7	2.0	2.2	.79	1.1	3.2	4.1
14	1.4	.86	1.3	2.2	1.8	1.6	2.0	1.9	.73	1.0	2.8	3.5
15	1.3	.89	1.3	2.2	1.7	1.5	1.6	1.7	.74	.97	2.5	3.4
16	1.3	.92	1.4	2.1	1.7	1.8	1.6	1.6	.74	1.0	14	3.2
17	1.3	.89	1.4	2.0	1.6	1.8	1.5	1.5	.82	1.8	98	6.8
18	1.3	1.9	1.3	2.3	1.5	2.5	1.5	1.5	30	1.2	12	3.5
19	1.3	.91	1.5	2.3	16	2.0	1.4	1.9	3.7	.86	83	3.2
20	1.3	.86	1.4	2.2	5.7	1.7	1.8	2.0	2.5	.84	56	2.7
21	1.2	6.3	1.4	3.5	3.6	1.6	1.4	3.5	1.9	.80	16	2.6
22	1.2	1.8	1.4	2.4	3.0	3.1	1.3	1.6	1.6	1.6	41	2.6
23	1.2	1.4	4.0	2.3	2.7	3.7	1.3	1.4	1.4	.85	17	2.4
24	2.0	2.1	2.3	2.1	2.4	2.5	1.4	1.3	1.3	.82	11	2.3
25	1.6	2.0	1.9	1.7	2.1	2.1	1.3	1.2	1.3	.73	9.1	2.3
26	1.1	1.6	1.7	1.7	2.0	2.0	1.3	1.2	1.9	.75	8.0	2.3
27	1.0	2.0	4.3	1.7	1.8	1.9	1.2	1.6	1.1	.73	6.8	2.0
28	1.1	1.9	79	2.2	1.7	1.7	1.2	4.6	1.1	.71	6.2	1.9
29	1.2	1.6	26	1.8	---	1.7	1.2	1.6	1.0	.71	5.7	1.7
30	2.0	1.4	11	1.7	---	2.4	1.1	1.4	1.0	9.7	5.3	1.7
31	1.2	---	7.9	1.6	---	2.0	---	1.3	---	2.2	4.7	---
TOTAL	60.1	41.10	168.6	86.1	87.9	73.0	51.5	74.81	65.32	45.15	458.5	136.7
MEAN	1.94	1.37	5.44	2.78	3.14	2.35	1.72	2.41	2.18	1.46	14.8	4.56
MAX	9.2	6.3	79	6.4	16	9.6	3.0	13	30	9.7	98	19
MIN	1.0	.86	1.2	1.6	1.5	1.5	1.1	.86	.73	.71	1.1	1.7
CFSM	.98	.69	2.75	1.40	1.59	1.19	.87	1.22	1.10	.74	7.48	2.30
IN.	1.13	.77	3.17	1.62	1.65	1.37	.97	1.40	1.23	.85	8.61	2.57

CAL YR 1980 TOTAL 1047.35 MEAN 2.86 MAX 79 MIN .50 CFSM 1.44 IN 19.67
WTR YR 1981 TOTAL 1348.78 MEAN 3.70 MAX 98 MIN .71 CFSM 1.87 IN 25.33

CAPE FEAR RIVER BASIN

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 (1.3 km) downstream from Beaver Creek, and 2 mi (3 km) east of Oak Ridge.

DRAINAGE AREA.--20.6 mi² (53.4 km²), revised.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 771.30 ft (235.092 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 13, 1955, nonrecording gage at same site and datum.

REMARKS.--Records fair. Some diurnal fluctuation at medium and low flows caused by mill upstream.

AVERAGE DISCHARGE.--26 years, 23.2 ft³/s (0.657 m³/s), 15.29 in/yr (388 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s (112 m³/s) Oct. 10, 1959, gage height, 10.94 ft (3.335 m), from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of contracted-opening measurement of peak flow; maximum gage height, 12.41 ft (3.783 m) Sept. 22, 1979; minimum, 1.2 ft³/s (0.034 m³/s) Aug. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.9 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 7	1400	*517	14.6	*8.17	2.490

Minimum discharge, 3.4 ft³/s (0.096 m³/s) Aug. 25, gage height, 2.72 ft (0.829 m); minimum daily, 3.9 ft³/s (0.110 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	12	11	11	11	12	25	11	28	5.9	8.0	12
2	13	11	11	11	29	12	21	9.1	34	7.9	7.5	25
3	11	10	10	10	16	12	18	8.7	15	10	7.7	29
4	10	17	10	10	15	14	15	8.4	11	28	7.2	10
5	9.0	15	10	10	13	29	17	8.3	9.6	9.9	6.4	37
6	9.0	11	10	12	13	16	17	8.4	11	8.2	7.4	23
7	9.2	10	9.9	11	12	14	14	9.2	34	7.9	7.0	340
8	8.6	9.9	9.9	11	14	13	13	8.8	13	7.4	6.9	94
9	8.8	9.8	11	9.9	12	12	14	8.6	10	7.0	6.6	37
10	8.8	9.6	13	10	11	12	14	9.2	9.0	6.1	6.0	20
11	9.0	9.4	13	11	102	12	13	10	7.9	5.6	6.2	13
12	8.0	8.7	11	11	32	11	12	9.0	8.0	5.4	7.3	11
13	7.5	8.4	10	12	21	11	12	8.4	13	5.3	6.3	9.8
14	8.5	8.5	10	11	17	11	12	7.7	16	5.6	5.8	8.9
15	8.2	9.6	9.9	11	16	11	11	7.8	9.0	5.2	5.8	9.1
16	8.6	11	11	11	15	12	11	7.4	7.8	5.7	5.6	17
17	8.2	12	10	12	14	10	12	7.5	7.4	5.7	5.4	16
18	8.8	25	10	11	14	10	12	7.5	9.6	5.0	5.1	9.7
19	11	13	9.8	11	41	10	11	8.0	9.2	5.5	6.0	8.4
20	9.8	11	9.6	11	73	10	15	30	8.2	6.6	6.1	8.1
21	9.2	11	9.6	14	32	9.7	13	23	7.3	7.1	5.1	7.7
22	8.8	10	11	16	21	10	11	12	6.8	5.7	4.9	7.7
23	8.4	10	10	14	19	22	11	9.5	5.5	5.4	4.8	7.1
24	8.4	26	10	12	16	36	12	8.8	6.1	20	4.4	7.1
25	14	19	9.4	12	15	37	9.9	7.9	6.1	54	4.6	6.6
26	14	13	12	12	14	23	9.8	7.9	9.9	12	4.2	6.7
27	9.9	15	9.7	12	13	18	9.4	8.1	6.6	9.6	4.5	6.4
28	10	16	11	11	13	15	8.9	11	5.9	62	4.1	6.5
29	10	13	14	10	---	15	8.9	9.3	5.5	29	3.9	6.4
30	20	11	12	11	---	40	10	8.1	5.7	11	13	6.6
31	16	---	12	12	---	42	---	7.5	---	8.8	9.5	---
TOTAL	327.7	375.9	330.8	353.9	634	521.7	392.9	306.1	336.1	378.5	193.3	806.8
MEAN	10.6	12.5	10.7	11.4	22.6	16.8	13.1	9.87	11.2	12.2	6.24	26.9
MAX	24	26	14	16	102	42	25	30	34	62	13	340
MIN	7.5	8.4	9.4	9.9	11	9.7	8.9	7.4	5.5	5.0	3.9	6.4
CFSM	.52	.61	.52	.55	1.10	.82	.64	.48	.54	.59	.30	1.31
IN.	.59	.68	.60	.64	1.14	.94	.71	.55	.61	.68	.35	1.46

CAL YR 1980 TOTAL 8025.8 MEAN 21.9 MAX 365 MIN 6.5 CFSM 1.06 IN 14.49
WTR YR 1981 TOTAL 4957.7 MEAN 13.6 MAX 340 MIN 3.9 CFSM .66 IN 8.95

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 (0.3 km) downstream from Huffines Mill on Secondary Road 2719 1.2 mi (1.9 km) upstream from Buffalo Creek, and 6 mi (10 km) northwest of Gibsonville.

DRAINAGE AREA.--131 mi² (339 km²), revised.

WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder and rock-masonry control. Datum of gage is 626.88 ft (191.073 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Flow regulated since 1923 by Lake Brandt 14 mi (23 km) upstream (see p. 331), since 1957 by Lake Higgins on Brush Creek, a tributary to Lake Brandt, (see p. 331), since 1943 by Richland Lake 12 mi (19 km) above station, and since 1968 by Lake Townsend 9 mi (14 km) above station. City of Greensboro diverted from Lake Brandt an average of 16.3 ft³/s (0.46 m³/s) and an average of 21.5 ft³/s (0.61 m³/s) from Lake Townsend for municipal water supply. Cone Mills diverted from Richland Lake an average of 0.72 ft³/s (0.020 m³/s) during the year.

AVERAGE DISCHARGE.--53 years, 100 ft³/s (2.832 m³/s), 10.37 in/yr (263 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s (329 m³/s) Sept. 25, 1947, gage height, 20.77 ft (6.331 m); minimum daily, 0.4 ft³/s (0.011 m³/s) Oct. 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 17.90 ft (5.456 m), from information by local resident, discharge, 8,640 ft³/s (245 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 513 ft³/s (14.5 m³/s) Sept. 7, gage height, 3.42 ft (1.042 m); minimum discharge, 3.6 ft³/s (0.10 m³/s) July 20; minimum gage height, 0.65 ft (0.198 m) July 23, 24, Aug. 25-30; minimum daily, 3.7 ft³/s (0.10 m³/s) July 20, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	6.0	7.4	7.7	193	18	117	9.0	15	4.0	5.5	4.2
2	8.2	5.0	7.3	7.3	133	14	100	7.8	14	4.3	5.9	4.1
3	7.1	5.0	7.1	6.8	135	12	77	7.4	13	6.5	4.6	4.3
4	6.2	6.3	6.8	6.6	75	13	63	7.4	9.7	36	4.4	4.6
5	5.5	8.2	6.5	6.0	66	38	56	7.4	8.2	12	4.3	17
6	5.5	5.8	6.5	5.9	51	27	63	7.1	7.7	5.8	4.2	9.8
7	5.2	5.3	6.6	6.8	33	21	46	8.6	16	5.1	4.2	223
8	5.1	6.0	6.8	7.0	28	16	40	8.6	11	4.8	4.7	207
9	4.8	4.9	7.5	6.6	34	14	36	8.6	8.7	4.5	6.7	342
10	4.9	4.7	8.7	6.5	23	12	37	9.0	8.2	4.5	7.5	279
11	5.3	5.5	9.7	6.1	203	11	31	12	8.5	4.4	13	144
12	5.1	5.0	8.3	5.9	117	12	33	11	7.3	4.1	5.0	80
13	5.0	7.8	7.6	5.7	59	12	26	9.0	6.6	4.1	7.3	48
14	4.9	5.0	7.2	5.9	39	11	19	7.9	6.3	4.1	5.4	30
15	5.0	11	6.9	6.2	29	10	22	7.3	6.1	4.1	4.8	22
16	5.0	7.3	6.9	6.3	23	11	15	7.0	5.7	4.0	4.6	46
17	5.0	7.6	7.1	6.1	19	14	17	6.4	5.5	4.0	4.5	36
18	5.0	10	6.9	5.8	17	19	25	6.2	5.4	4.0	4.4	33
19	6.0	7.4	6.7	5.9	77	12	23	6.1	5.3	3.8	4.3	28
20	6.3	5.7	6.5	6.0	134	11	19	17	5.3	3.7	4.3	26
21	5.2	7.2	6.2	7.3	92	13	19	40	5.3	3.8	4.4	15
22	5.0	7.1	6.0	10	54	12	14	17	5.0	3.8	4.4	10
23	6.1	7.0	6.2	9.3	41	30	17	11	4.8	3.7	4.3	8.5
24	6.0	16	6.3	8.1	41	78	26	8.5	4.7	3.8	4.2	7.1
25	6.6	21	6.7	7.3	31	127	29	7.2	4.5	4.0	4.0	6.3
26	7.1	18	6.1	7.2	27	81	17	6.6	4.5	4.2	4.0	5.8
27	6.9	12	5.9	7.2	18	74	12	9.7	4.5	4.1	4.0	5.7
28	6.0	15	6.8	9.1	16	146	11	19	4.2	4.7	4.0	5.6
29	6.5	8.3	8.3	9.7	---	114	9.5	12	4.1	5.7	4.0	5.5
30	12	11	8.4	13	---	95	9.0	8.6	4.1	4.8	4.1	5.4
31	9.6	---	8.0	130	---	138	---	7.0	---	4.5	4.2	---
TOTAL	195.1	252.1	219.9	345.3	1808	1216	1028.5	317.4	219.2	174.9	155.2	1662.9
MEAN	6.29	8.40	7.09	11.1	64.6	39.2	34.3	10.2	7.31	5.64	5.01	55.4
MAX	13	21	9.7	130	203	146	117	40	16	36	13	342
MIN	4.8	4.7	5.9	5.7	16	10	9.0	6.1	4.1	3.7	4.0	4.1

CAL YR 1980 TOTAL 22238.3 MEAN 60.8 MAX 1020 MIN 4.7
WTR YR 1981 TOTAL 7594.5 MEAN 20.8 MAX 342 MIN 3.7

02094500 REEDY FORK NEAR GIBSONVILLE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
81/01/08	13	25 0000	0.82	7	360	7.30	3.0	10.0	11.0	81.5	50	7.7
81/02/26	15	10 0000	1.07	24	70	7.50	11.0	25.0	10.4	93.7	12	2.7
81/03/12	15	00 0000	0.92	12	78	6.70	10.0	15.0	11.2	99.1	10K	1.1
81/04/08	12	25 0000	1.20	35	79	6.80	17.0	15.0	9.4	96.9	12	0.8
81/05/26	14	50 0000	3.16	434		7.00	23.0	10.0	8.2	94.3		0.9
81/06/08	11	15 0000	0.86	12		7.00	25.0	120.0	6.7	79.8		1.8
81/07/14	10	20 0000	0.70	5		7.00	25.0	20.0	6.5	77.4		1.0
81/08/11	14	17 0000	0.85	5		7.10	26.0	25.0	6.1	74.4		1.9
81/09/29	14	10 0000	0.74	6		6.80	19.0	20.0	8.2	87.2		1.8

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
81/01/08	13	25 0000	330		0.64	7.800	8.200	2.800	2.400	10K	50K	50K
81/02/26	15	10 0000	80									
81/03/12	15	00 0000	10									
81/04/08	12	25 0000	180		0.08	0.110	0.400	0.050K	0.050K	10K	50K	50K
81/05/26	14	50 0000	300									
81/06/08	11	15 0000	430									
81/07/14	10	20 0000	70		0.18	0.050K	0.200	0.050	0.050K	10K	50K	50K
81/08/11	14	17 0000	1700									
81/09/29	14	10 0000	50									

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
81/01/08	13	25 0000	100K	40K	600	100K	230.0	0.5K	50K
81/04/08	12	25 0000	100K	40K	1000	100K	220.0	0.5K	50K
81/07/14	10	20 0000	100K	40K	800	100K	400.0	0.5K	50K

K Less than noted value.

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 (2 m) downstream from bridge on Secondary Road 2832, 4.2 mi (6.8 km) upstream from mouth, and 5.8 mi (9.3 km) northeast of post office in Greensboro.

DRAINAGE AREA.--37.1 mi² (96.1 km²).

WATER-DISCHARGE RECORDS

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 (206.660 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good. Diurnal fluctuation at low flow caused by mills above station. Diversion into basin from Greensboro and Proximity Mills enter above station.

AVERAGE DISCHARGE.--53 years, 54.5 ft³/s (1.543 m³/s), 19.95 in/yr (507 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,140 ft³/s (259 m³/s) Sept. 22, 1979, gage height, 20.12 ft (6.133 m) from floodmarks, from rating curve extended above 2,900 ft³/s (82.1 m³/s) on basis of contracted-opening measurements at gage heights 14.15 ft (4.313 m), 15.96 ft (4.865 m), and 16.63 ft (5.069 m); minimum, 1.6 ft³/s (0.045 m³/s) Aug. 28, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0830	*1330	37.7	*8.94	2.725	July 4	0530	1260	35.7	8.59	2.618

Minimum discharge, 10 ft³/s (0.28 m³/s) May 18, gage height, 1.87 ft (0.570 m); minimum daily, 19 ft³/s (0.54 m³/s) June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	29	28	26	27	30	43	34	84	43	23	57
2	31	26	28	26	172	30	40	26	72	48	25	40
3	28	26	28	25	44	30	37	23	36	73	35	27
4	25	115	26	25	32	94	34	25	30	421	27	25
5	22	38	27	27	30	113	66	27	28	33	23	187
6	24	28	26	31	29	41	45	27	73	29	57	44
7	25	26	26	42	28	34	34	56	106	33	29	398
8	25	28	27	31	61	29	33	28	30	26	43	60
9	24	26	26	30	31	31	53	25	28	25	33	47
10	24	26	80	29	31	32	40	27	26	24	24	35
11	23	27	35	27	559	31	33	42	27	22	24	32
12	21	27	29	29	67	31	30	27	35	21	30	30
13	22	27	27	28	45	30	31	26	29	23	206	28
14	23	27	25	27	38	28	31	25	28	24	28	28
15	23	28	27	25	34	26	30	26	27	27	24	43
16	24	41	30	26	33	30	30	23	29	39	22	106
17	24	72	26	24	32	29	36	23	28	234	24	71
18	22	82	26	23	32	29	35	23	164	27	24	29
19	185	32	27	24	318	29	27	29	30	22	49	26
20	30	31	24	26	169	28	67	201	25	38	38	24
21	25	27	23	56	58	27	35	120	23	36	24	25
22	24	27	25	38	43	35	29	31	23	26	22	25
23	24	24	30	28	53	194	29	26	26	22	21	25
24	24	182	25	26	43	152	42	23	26	197	23	24
25	65	47	22	25	39	78	27	23	25	141	23	25
26	30	32	22	26	37	47	26	25	34	29	23	24
27	25	54	23	26	35	40	29	65	22	29	23	23
28	27	38	49	27	34	34	28	60	19	171	23	24
29	27	27	43	26	---	32	27	37	21	108	22	25
30	146	25	31	32	---	165	34	27	21	32	63	25
31	38	---	30	31	---	63	---	24	---	26	29	---
TOTAL	1192	1245	921	892	2154	1622	1081	1204	1175	2049	1084	1582
MEAN	38.5	41.5	29.7	28.8	76.9	52.3	36.0	38.8	39.2	66.1	35.0	52.7
MAX	185	182	80	56	559	194	67	201	164	421	206	398
MIN	21	24	22	23	27	26	26	23	19	21	21	23

CAL YR 1980 TOTAL 20784 MEAN 56.8 MAX 632 MIN 20
WTR YR 1981 TOTAL 16201 MEAN 44.4 MAX 559 MIN 19

02095500 NORTH BUFFALO CREEK NEAR GREENSBORO, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/20	15 31	0000	2.25	34	370	7.30	13.0	15.0	6.9	65.1	30	3.0
80/11/06	08 01	0000	2.11	23	420	7.70	5.0	15.0	7.4	57.8	49	10.0
80/12/15	09 30	0000	2.05	19	528	7.50	9.0	10.0	8.0	69.0	36	1.5
81/01/08	14 45	0000	2.31	39	455	7.10	6.0	15.0	11.0	88.0	55	1.4
81/02/26	16 30	0000	2.34	42	446	7.40	13.0	35.0	8.8	83.0	53	1.4
81/03/12	16 10	0000	2.28	36	496	7.20	13.0	10.0	8.8	83.0	48	0.4
81/04/08	14 05	0000	2.32	40	467	7.30	18.0	7.0	7.2	75.8	37	3.9
81/05/26	15 55	0000	2.23	32		7.40	24.0	6.0	5.3	62.4		12.0
81/06/08	09 55	0000	2.09	22		7.50	25.0	20.0	4.8	57.1		13.0
81/07/14	09 02	0000	2.15	26		7.00	25.0	6.0	3.4	40.5		7.8
81/08/11	15 25	0000	2.19	28		7.30	25.0	10.0	3.1	36.9		1.6
81/09/29	15 30	0000	2.20	30		7.20	20.0	5.0	5.2	56.5		4.7

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/20	15 31	0000	3200		3.20	3.200	3.800	2.000	1.800	10K	50K	50K
80/11/06	08 01	0000	20000									
80/12/15	09 30	0000	10									
81/01/08	14 45	0000	40		0.25	5.800	7.200	1.600	1.100	10K	50K	50
81/02/26	16 30	0000	10									
81/03/12	16 10	0000	10K									
81/04/08	14 05	0000	140		0.29	4.000	7.000	2.100	2.100	10K	50K	50K
81/05/26	15 55	0000	230									
81/06/08	09 55	0000	1500									
81/07/14	09 02	0000	210		1.80	12.000	14.000	5.000	4.600	11	50K	50K
81/08/11	15 25	0000	170							10K		
81/09/29	15 30	0000	260							10K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/20	15 31	0000	100K	40K	800	100K	160.0	0.5K	50K
81/01/08	14 45	0000	100K	40K	700	100	180.0	0.5K	50K
81/04/08	14 05	0000	100K	40K	800	100K	220.0	0.5K	60
81/07/14	09 02	0000	100K	40K	700	100K	220.0	0.5K	50

K Less than noted value.

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 (198 m) downstream from Southern Railway bridge, 800 ft (244 m) downstream from bridge on U.S. Highway 70 and State Highway 49, and 3 mi (5 km) downstream from Stony Creek.

DRAINAGE AREA.--606 mi² (1,570 km²), revised.

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).

GAGE.--Water-stage recorder. Datum of gage is 471.69 ft (143.771 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some diurnal fluctuation and occasional regulation. City of Burlington diverted from two reservoirs on Stony Creek (see p. 331) an average of 14.1 ft³/s (0.40 m³/s) for municipal water supply, about half of which was returned above station as sewage effluent, the remainder was returned below station. Corps of Engineers gage-height telephone-telemeter at station.

AVERAGE DISCHARGE.--53 years, 571 ft³/s (16.17 m³/s), 12.80 in/yr (325 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,000 ft³/s (1,050 m³/s) Sept. 18, 1945, gage height, 31.10 ft (9.479 m), from floodmark; minimum 3 ft³/s (0.085 m³/s) Sept. 5, 1930, gage height, 0.92 ft (0.280 m); minimum daily, 5 ft³/s (0.14 m³/s) Sept. 6, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 4	0430	*6610	187	*14.40	4.389

Minimum discharge, 65 ft³/s (1.84 m³/s) June 30, gage height, 1.49 ft (0.454 m); minimum daily, 68 ft³/s (1.93 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	202	181	140	371	262	280	167	251	74	134	101
2	245	160	169	140	381	252	260	173	278	102	109	115
3	180	144	166	135	718	235	250	138	282	283	105	140
4	147	163	163	140	379	246	220	127	221	4700	119	120
5	131	350	156	170	293	626	500	125	194	1510	116	194
6	123	232	154	190	265	525	300	130	165	461	116	642
7	113	174	153	260	239	380	220	143	327	283	136	2550
8	123	159	155	190	256	313	210	173	312	217	125	1470
9	122	149	157	185	311	265	380	147	217	168	126	1060
10	119	142	214	180	248	245	340	132	195	141	122	961
11	115	135	306	165	3820	236	302	143	169	119	128	880
12	113	139	216	175	2480	228	278	174	141	112	140	557
13	107	141	189	170	834	216	254	151	153	103	240	364
14	102	144	177	165	617	216	230	138	148	96	900	235
15	107	144	168	155	483	201	223	128	157	96	280	181
16	108	156	163	160	385	197	207	124	107	132	190	278
17	107	175	170	150	327	196	194	119	120	372	165	607
18	111	260	165	145	301	196	209	112	196	410	150	385
19	219	265	158	150	875	190	220	93	342	135	144	243
20	439	186	154	160	2710	190	232	181	146	111	131	192
21	164	175	147	340	1200	180	348	709	133	113	136	158
22	133	162	137	240	768	300	262	369	118	132	99	139
23	122	152	135	210	604	1200	228	250	103	102	88	127
24	114	247	151	208	523	800	228	196	103	101	83	119
25	125	577	148	194	412	500	239	159	99	470	75	112
26	171	292	149	184	346	310	199	130	102	294	81	109
27	162	245	128	181	299	250	174	133	112	148	80	104
28	128	274	151	186	272	220	154	255	89	318	78	102
29	131	245	210	186	---	210	157	229	72	621	76	101
30	184	200	180	185	---	1000	150	188	68	293	75	100
31	372	---	170	186	---	500	---	151	---	176	114	---
TOTAL	4957	6189	5240	5625	20717	10885	7448	5587	5120	12393	4661	12446
MEAN	160	206	169	181	740	351	248	180	171	400	150	415
MAX	439	577	306	340	3820	1200	500	709	342	4700	900	2550
MIN	102	135	128	135	239	180	150	93	68	74	75	100
CFSM	.26	.34	.28	.30	1.22	.58	.41	.30	.28	.66	.25	.69
IN.	.30	.38	.32	.35	1.27	.67	.46	.34	.31	.76	.29	.76

CAL YR 1980 TOTAL 174300 MEAN 476 MAX 5920 MIN 88 CFSM .79 IN 10.70
WTR YR 1981 TOTAL 101268 MEAN 277 MAX 4700 MIN 68 CFSM .46 IN 6.22

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC

LOCATION.--Lat 36°01'33", long 79°10'30", Orange County, Hydrologic Unit 03030002, on right bank 0.1 mi (0.2 km) upstream from culvert on Secondary Road 1126, 2.5 mi (4.0 km) southeast of Buckhorn and 8.7 mi (14.0 km) from mouth.

DRAINAGE AREA.--0.64 mi² (1.66 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 595 ft (181 m) from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22 ft³/s (0.62 m³/s) Nov. 11, 1979, gage height, 3.68 ft (1.122 m); no flow for periods both years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft³/s (0.28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0530	*21	0.59	*3.57	1.088	Sept. 7	1015	17	0.48	3.21	0.978
July 4	0800	14	0.40	2.88	0.878						

No flow many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

.IONAL DATA

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.02	.02	.03	.07	.12	.24	.05	.94	.00	.00	.00
2	.10	.01	.02	.05	.13	.11	.19	.03	.70	.00	.00	.00
3	.04	.01	.02	.03	.30	.09	.17	.04	.20	.11	.00	.00
4	.10	.07	.02	.03	.13	.29	.15	.03	.13	7.3	.00	.00
5	.03	.05	.02	.03	.10	1.1	.21	.03	.08	.65	.00	.02
6	.10	.02	.02	.02	.09	.43	.28	.03	.11	.27	.00	.08
7	.01	.01	.02	.02	.08	.25	.18	.11	.16	.18	.01	4.6
8	.01	.01	.02	.02	.07	.19	.17	.06	.08	.11	.00	.46
9	.01	.01	.02	.05	.30	.17	.21	.06	.04	.09	.00	.17
10	.00	.01	.18	.03	.18	.16	.20	.09	.02	.08	.00	.06
11	.00	.01	.27	.02	8.2	.18	.17	.18	.01	.06	.00	.03
12	.00	.01	.06	.03	1.5	.16	.15	.08	.04	.04	.08	.02
13	.00	.01	.04	.03	.42	.16	.13	.06	.35	.04	.01	.01
14	.00	.01	.03	.03	.27	.14	.13	.04	.23	.03	.00	.01
15	.00	.02	.02	.04	.20	.13	.11	.04	.04	.03	.00	.01
16	.00	.03	.02	.04	.17	.13	.10	.03	.01	.04	.00	.09
17	.00	.03	.02	.03	.15	.11	.11	.03	.00	.08	.00	.03
18	.00	.08	.02	.03	.13	.11	.11	.03	.02	.03	.00	.03
19	.00	.03	.02	.03	1.3	.12	.09	.09	.13	.02	.23	.02
20	.00	.02	.02	.03	2.2	.11	.16	.31	.16	.03	.31	.02
21	.00	.02	.02	.03	.52	.11	.11	.16	.02	.04	.04	.01
22	.00	.01	.02	.03	.27	.11	.09	.06	.01	.01	.02	.01
23	.00	.01	.02	.03	.20	3.6	.09	.03	.00	.01	.02	.01
24	.00	.11	.03	.58	.17	1.3	.11	.02	.00	.01	.01	.01
25	.00	.16	.02	.19	.13	.42	.07	.01	.00	.13	.00	.01
26	.00	.04	.01	.10	.14	.27	.06	.01	.00	.02	.00	.01
27	.00	.04	.02	.07	.13	.22	.05	.02	.00	.01	.00	.01
28	.00	.08	.06	.10	.12	.18	.04	.20	.00	.00	.00	.01
29	.00	.04	.04	.20	---	.18	.03	.13	.00	.00	.00	.00
30	.00	.02	.04	.18	---	.44	.04	.04	.00	.00	.00	.00
31	.03	---	.02	.12	---	.37	---	.02	---	.00	.00	---
TOTAL	.73	1.00	1.18	2.25	17.67	11.46	3.95	2.12	3.48	9.42	.73	5.74
MEAN	.024	.033	.038	.073	.63	.37	.13	.068	.12	.30	.024	.19
MAX	.30	.16	.27	.58	8.2	3.6	.28	.31	.94	7.3	.31	4.6
MIN	.00	.01	.01	.02	.07	.09	.03	.01	.00	.00	.00	.00
CFSM	.04	.05	.06	.11	.98	.58	.20	.11	.19	.47	.04	.30
IN.	.04	.06	.07	.13	1.03	.67	.23	.12	.20	.55	.04	.33

CAL YR 1980 TOTAL 124.49 MEAN .34 MAX 8.0 MIN .00 CFSM .53 IN 7.22
WTR YR 1981 TOTAL 59.73 MEAN .16 MAX 8.2 MIN .00 CFSM .25 IN 3.47

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1977-78, 1980 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to September 1981.
WATER TEMPERATURES: October 1979 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--Zero flow Oct. 10-30, June 17, 23-30, July 1, 2, 28-31, Aug. 1-6, 8-11, 14-18, 25-31, Sept. 1-4, 29, 30. Basin above station is 95 percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man. For water years 1974-75, 1977-78 samples were collected from culvert at Secondary Road 1126, 0.1 mi (.16 km) downstream from gaging station and published as Cane Creek near Buckhorn (station 02096845).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 124 micromhos Sept. 23, 1980; minimum, 22 micromhos July 4, 1981.
WATER TEMPERATURES: Maximum, 26.0°C Aug. 12, 13, 1980; minimum, 0.5°C Dec. 4, 1979, Jan. 31, Feb. 1-6, 8, 11, 13, 18, 19, Mar. 1-4, 1980, Jan. 5-26, 30, 31, Feb. 1, 8, 13, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 107 micromhos Sept. 5; minimum, 22 micromhos July 4.
WATER TEMPERATURES: Maximum, 25.5°C June 22; minimum, 0.5°C Jan. 5-26, 30, 31, Feb. 1, 8, 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT											
06...	1500	.03	52	5.6	14.0	60	8.0	670	86	720	15
FEB											
11...	0230	2.8	47	--	--	80	--	--	--	--	18
11...	0300	7.4	49	--	--	--	--	--	--	--	--
11...	0330	14	44	--	--	85	--	--	--	--	12
11...	0400	18	46	--	--	--	--	--	--	--	--
11...	0430	20	48	--	--	100	--	--	--	--	16
11...	0600	20	48	--	--	--	--	--	--	--	--
11...	0630	19	48	--	--	90	--	--	--	--	16
11...	0800	15	46	--	--	85	--	--	--	--	15
11...	0830	14	46	--	--	--	--	--	--	--	--
11...	1115	10	44	5.9	7.0	90	11.6	--	K30	K260	15
11...	1530	5.9	46	5.2	8.0	90	11.1	--	--	--	14

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)
OCT											
06...	4	4.0	1.3	3.8	34	.4	.6	14	0	11	56
FEB											
11...	--	4.5	1.7	4.6	33	.5	1.4	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	3.0	1.1	2.9	32	.4	.9	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	3.9	1.5	3.2	28	.4	1.4	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	3.9	1.6	2.8	26	.3	1.0	--	--	--	--
11...	--	3.7	1.5	2.8	27	.3	.8	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	7	3.8	1.4	2.6	26	.3	.6	10	0	8	17
11...	6	3.4	1.3	2.8	30	.3	.5	9	0	7	49

K Results based on colony count outside the acceptable range (non-ideal colony count).

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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)
OCT											
06...	7.5	2.7	.1	18	53	46	.07	.00	.02	.000	.02
FEB											
11...	7.3	5.3	.1	10	58	41	.08	.44	.06	.020	.08
11...	--	--	--	--	--	--	--	--	.14	.010	.15
11...	6.9	4.4	.1	7.8	72	31	.10	2.7	--	--	--
11...	--	--	--	--	--	--	--	--	.12	.020	.14
11...	8.2	5.9	<.1	5.6	75	35	.10	4.0	.14	.020	.16
11...	--	--	--	--	--	--	--	--	.12	.020	.14
11...	8.0	5.1	<.1	5.4	80	30	.11	4.1	--	--	--
11...	8.2	4.9	<.1	6.3	74	29	.10	3.0	--	--	--
11...	--	--	--	--	--	--	--	--	.13	.020	.15
11...	7.6	4.3	<.1	7.5	70	33	.10	1.8	.08	.010	.09
11...	7.4	4.2	<.1	8.7	66	31	.09	1.0	--	--	--

DATE	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 TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT											
06...	.01	.040	.070	.05	.09	.33	.00	.37	.37	.00	.39
FEB											
11...	.09	.110	.080	--	.10	1.3	.55	1.40	.77	.63	1.5
11...	.17	.070	.100	--	.13	1.5	.51	1.60	.99	.61	1.8
11...	--	--	--	--	--	--	--	--	--	--	--
11...	.16	.080	.080	--	.10	2.7	.74	2.80	2.0	.82	2.9
11...	.21	.120	.090	--	.12	--	.62	--	--	.71	--
11...	.15	.090	.080	--	.10	.87	.83	.96	.05	.91	1.1
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	.17	.060	.090	--	.12	.71	.68	.77	.00	.77	.92
11...	.11	.030	.030	--	.04	.66	.48	.69	.18	.51	.78
11...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)
OCT											
06...	1.7	.01	.030	.06	.09	.010	.020	.010	.03	--	--
FEB											
11...	6.6	.72	.280	--	.86	.220	.080	.070	.21	--	--
11...	7.7	.78	.240	--	.74	.170	.020	<.010	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	13	.98	.360	--	1.1	.020	.020	<.010	--	--	--
11...	--	.92	--	--	--	.100	.040	<.010	--	1	0
11...	4.9	1.1	.080	--	.25	.030	.050	.020	.06	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	4.1	.94	.070	--	.21	.020	.030	.020	.06	--	--
11...	3.5	.62	<.010	--	.03	.030	.020	<.010	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT											
06...	--	--	--	--	20	18	2	--	--	--	2
FEB											
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	20	--	--	--	--	--	18
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	10	--	--	--	--	--	14
11...	1	1	0	1	10	10	0	2	2	0	14
11...	--	--	--	--	10	7	3	--	--	--	16
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	10	7	3	--	--	--	4
11...	--	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT											
06...	0	6	690	170	520	1	0	1	--	--	--
FEB											
11...	--	--	--	--	--	--	--	--	--	--	--
11...	12	6	1300	840	460	13	9	4	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	5	9	8100	7600	530	9	4	5	--	--	--
11...	1	13	6600	6400	250	12	6	6	220	200	20
11...	4	12	2800	2300	500	18	15	3	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	1	3	530	60	470	1	0	3	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT												
06...	--	--	--	--	--	--	10	0	20	5.9	.5	.00
FEB												
11...@0300	--	--	--	--	--	--	40	10	30	--	--	--
11...@0400	--	--	--	--	--	--	40	20	20	--	--	--
11...@0430	.1	.0	.1	0	0	0	50	20	30	--	--	--
11...@0600	--	--	--	--	--	--	50	10	40	--	--	--
11...@1115	--	--	--	--	--	--	70	60	8	21	1.0	.10

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	79	45	51	66	62	64	58	57	58	51	50	50
2	63	52	57	71	66	68	58	56	57	50	49	50
3	74	43	60	73	69	71	59	57	58	50	49	50
4	69	53	57	72	55	65	59	57	58	52	49	50
5	69	60	65	61	57	59	58	56	57	59	53	56
6	68	53	57	64	61	62	59	55	56	62	52	58
7	66	57	61	64	62	64	59	56	57	51	44	47
8	81	66	72	66	63	64	56	54	56	51	45	48
9	96	82	87	67	64	66	56	55	56	54	50	52
10	---	---	---	72	66	69	57	51	55	52	49	51
11	---	---	---	75	72	74	57	56	57	59	52	56
12	---	---	---	76	75	76	58	56	57	68	57	64
13	---	---	---	76	72	74	59	57	58	74	64	69
14	---	---	---	72	68	70	57	55	56	65	51	58
15	---	---	---	72	67	69	58	56	57	53	44	48
16	---	---	---	67	64	65	58	57	57	48	45	46
17	---	---	---	65	61	63	59	57	58	49	46	47
18	---	---	---	61	58	60	61	59	60	53	47	50
19	---	---	---	61	60	60	58	54	56	49	43	46
20	---	---	---	66	61	62	58	54	57	46	43	44
21	---	---	---	61	59	60	57	54	55	45	42	43
22	---	---	---	60	59	60	60	56	59	47	44	46
23	---	---	---	60	59	59	60	50	57	47	44	46
24	---	---	---	59	54	57	48	47	47	49	46	47
25	---	---	---	62	58	61	53	47	49	50	45	47
26	---	---	---	61	60	60	62	54	60	48	45	46
27	---	---	---	61	56	59	62	62	62	47	45	46
28	---	---	---	58	55	56	61	43	51	48	47	47
29	---	---	---	58	57	58	50	43	46	50	49	49
30	---	---	---	58	57	58	50	49	50	50	46	48
31	62	59	60	---	---	---	51	50	50	58	49	54
MONTH	96	43	63	76	54	64	62	43	56	74	42	50

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	60	46	54	51	50	50	51	50	50	64	62	63
2	55	41	49	51	50	51	51	50	51	65	61	63
3	55	51	53	51	50	50	52	51	51	63	60	62
4	57	52	55	50	44	49	54	52	53	62	59	61
5	55	52	54	47	46	46	54	49	53	63	59	61
6	56	51	53	47	46	47	52	51	51	64	61	63
7	53	47	51	48	47	48	52	51	52	64	59	61
8	51	43	48	49	48	48	53	51	52	61	58	60
9	51	50	51	49	48	49	54	50	52	62	60	61
10	51	50	50	49	49	49	54	52	53	63	60	61
11	51	43	46	50	49	49	56	54	55	63	55	59
12	43	42	42	50	49	50	59	56	57	64	60	62
13	43	42	42	51	49	50	58	56	57	64	60	62
14	44	43	43	51	50	51	57	56	57	64	61	63
15	45	44	44	51	50	50	58	57	57	67	63	65
16	46	45	45	51	50	51	58	56	57	68	64	66
17	47	46	46	51	50	51	58	57	57	68	63	66
18	48	47	47	51	51	51	59	55	57	67	63	65
19	48	43	46	51	50	51	60	58	59	63	60	61
20	47	46	46	51	50	50	60	53	57	61	48	54
21	47	46	46	51	50	50	58	56	57	59	50	54
22	47	47	47	51	48	51	58	57	57	62	58	59
23	48	48	48	47	38	40	61	58	59	64	60	62
24	48	48	48	42	39	40	61	58	59	66	62	65
25	49	48	48	44	42	43	61	58	59	68	65	66
26	49	48	49	47	45	46	60	58	59	71	66	69
27	49	48	49	48	47	48	62	59	60	71	55	68
28	52	48	49	49	48	49	65	61	62	57	51	55
29	---	---	---	51	49	50	65	62	64	62	54	57
30	---	---	---	52	47	50	66	63	64	66	62	63
31	---	---	---	50	48	49	---	---	---	76	66	69
MONTH	60	41	48	52	38	49	66	49	56	76	48	62

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	71	38	55	---	---	---	---	---	---	---	---	---
2	52	44	48	---	---	---	---	---	---	---	---	---
3	57	52	55	56	45	53	---	---	---	---	---	---
4	63	56	59	45	22	32	---	---	---	---	---	---
5	68	62	64	51	37	44	---	---	---	107	46	75
6	68	58	64	---	---	45	---	---	---	58	55	56
7	65	59	60	---	---	47	77	74	75	68	36	48
8	68	65	66	---	---	49	---	---	---	49	43	46
9	71	66	68	54	47	50	---	---	---	55	49	52
10	72	68	70	55	47	52	---	---	---	58	55	56
11	75	71	73	56	49	53	---	---	---	61	57	59
12	77	63	69	61	53	56	75	55	59	62	59	60
13	66	42	59	60	56	58	63	56	58	63	60	62
14	59	45	52	67	58	62	---	---	---	65	62	64
15	68	60	63	66	58	62	---	---	---	67	64	65
16	69	65	67	66	58	61	---	---	---	62	59	61
17	---	---	---	62	56	59	---	---	---	65	62	64
18	73	54	62	66	59	61	---	---	---	66	64	65
19	64	49	60	68	61	64	---	---	59	67	65	66
20	75	49	56	70	64	66	---	---	57	67	65	66
21	68	60	64	67	61	65	---	---	74	67	64	66
22	72	67	69	65	60	61	---	---	80	67	65	66
23	---	---	---	75	64	69	---	---	80	70	67	69
24	---	---	---	76	67	72	---	---	89	72	70	71
25	---	---	---	67	46	52	---	---	---	71	68	70
26	---	---	---	71	55	60	---	---	---	70	67	68
27	---	---	---	74	62	67	---	---	---	72	68	70
28	---	---	---	---	---	---	---	---	---	73	70	72
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	77	38	62	76	22	57	77	55	70	107	36	63
YEAR	107	22	57									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	.5	.5	12.5	8.0	9.5	13.5	9.5	11.0	17.5	13.5	15.0
2	5.5	1.0	3.0	11.5	7.5	9.5	15.5	8.5	11.5	16.0	11.0	13.0
3	3.5	1.0	2.0	9.5	5.0	7.0	15.0	7.5	11.0	15.0	8.0	11.5
4	1.5	1.0	1.0	7.0	2.5	5.0	17.5	11.0	14.0	16.0	8.5	12.5
5	1.5	1.0	1.0	8.5	7.5	8.0	16.0	13.5	14.5	16.5	10.5	14.0
6	1.5	1.0	1.0	8.5	6.0	7.0	14.0	8.5	11.5	16.5	13.5	15.0
7	1.5	1.0	1.0	8.0	4.5	6.0	12.5	6.0	9.0	16.0	11.5	13.5
8	2.5	.5	1.5	8.0	3.0	5.0	15.0	6.5	10.5	15.0	9.0	11.5
9	3.0	1.0	2.0	8.0	2.5	5.0	12.5	11.0	11.5	14.0	12.0	13.0
10	6.5	1.5	3.0	8.0	3.0	5.0	16.5	9.5	12.5	15.0	13.5	14.0
11	8.5	6.5	7.5	7.5	3.0	5.5	18.5	12.0	15.0	18.0	14.5	16.0
12	6.0	2.0	3.5	9.0	3.5	6.0	19.5	13.5	16.0	17.5	14.0	15.5
13	3.0	.5	1.5	9.5	2.5	6.0	15.0	12.0	14.0	16.0	10.5	13.5
14	5.0	1.0	2.5	9.5	4.0	7.0	17.5	11.5	14.0	17.5	11.5	14.5
15	6.0	2.0	3.5	9.0	1.5	5.5	17.5	11.0	14.0	18.5	15.0	16.5
16	7.0	2.5	4.5	9.0	4.0	7.0	16.0	7.5	11.5	17.0	12.5	14.5
17	8.5	5.0	6.5	8.5	2.0	5.0	14.0	11.5	12.5	16.5	13.0	14.5
18	10.5	7.5	9.0	8.0	4.5	6.0	19.5	11.5	15.0	16.5	14.0	15.5
19	10.0	9.0	9.5	7.0	4.0	5.5	17.5	11.0	14.5	15.5	12.5	13.5
20	10.5	8.5	9.5	7.0	1.5	4.0	14.5	13.0	14.0	12.5	11.5	12.0
21	10.5	8.0	9.0	8.5	1.0	4.5	15.0	9.0	11.5	16.0	11.5	13.5
22	11.0	8.0	9.5	5.0	1.5	3.5	15.5	7.5	11.0	16.5	11.0	14.0
23	11.5	7.5	9.5	6.0	1.5	4.5	17.0	12.5	14.5	17.0	12.5	15.0
24	8.5	6.0	7.5	8.5	4.5	6.5	16.5	13.0	15.0	18.0	13.0	15.5
25	9.5	4.5	7.0	9.0	4.0	6.5	15.0	9.5	12.0	18.5	14.0	16.5
26	9.0	4.5	6.5	10.0	4.5	7.0	15.5	7.5	11.5	19.5	15.5	17.5
27	8.5	3.0	5.5	12.0	7.0	8.5	19.5	10.5	14.5	18.5	17.0	17.5
28	10.0	3.5	7.0	12.0	5.5	8.0	20.0	13.5	16.5	19.0	17.0	18.0
29	---	---	---	12.0	5.5	9.0	18.0	13.0	16.0	20.0	16.5	18.0
30	---	---	---	12.0	10.0	11.0	16.0	13.5	15.0	20.5	16.0	18.0
31	---	---	---	14.5	8.0	11.0	---	---	---	21.5	17.5	19.5
MONTH	11.5	.5	5.0	14.5	1.0	6.5	20.0	6.0	13.0	21.5	8.0	15.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.0	18.5	20.0	---	---	---	---	---	---	---	---	---
2	19.5	18.0	19.0	---	---	---	---	---	---	---	---	---
3	21.0	18.5	19.5	20.0	19.0	19.5	---	---	---	---	---	---
4	22.0	19.5	20.5	20.5	20.0	20.5	---	---	---	---	---	---
5	22.0	20.0	21.0	21.0	19.5	20.0	---	---	---	21.5	20.5	21.0
6	22.0	20.5	21.0	21.0	20.5	21.0	---	---	---	21.0	20.5	20.5
7	22.5	20.5	21.5	21.5	20.5	21.0	23.0	20.5	21.5	21.0	20.0	20.5
8	22.5	20.0	21.0	22.0	20.5	21.0	---	---	---	21.0	19.5	20.5
9	23.0	20.0	21.5	22.0	20.5	21.5	---	---	---	20.0	17.5	19.0
10	24.0	21.0	22.5	23.0	21.5	22.0	---	---	---	18.5	15.5	17.0
11	23.0	22.0	22.5	23.0	22.0	22.5	---	---	---	18.5	15.5	17.0
12	22.0	20.5	21.0	23.0	22.0	22.5	21.5	20.5	21.0	19.0	16.0	17.5
13	24.0	20.5	22.0	23.0	22.0	22.5	21.5	19.5	20.5	19.5	16.5	18.0
14	23.5	21.0	22.5	23.0	22.0	22.5	---	---	---	19.5	17.0	18.5
15	23.5	21.5	22.5	22.5	21.5	22.0	---	---	---	20.5	18.0	19.0
16	24.5	21.5	23.0	22.0	21.0	21.5	---	---	---	20.5	19.0	20.0
17	---	---	---	22.5	21.5	22.0	---	---	---	19.5	18.0	19.0
18	23.0	21.5	22.0	22.0	20.5	21.5	---	---	---	18.0	16.0	17.0
19	23.5	21.5	22.5	22.5	21.0	21.5	---	---	---	16.0	14.5	15.5
20	24.5	22.0	23.0	23.0	21.5	22.5	---	---	---	16.0	13.0	14.5
21	24.5	21.5	23.0	23.5	22.0	22.5	---	---	---	16.0	12.5	14.5
22	25.5	22.5	23.5	23.0	21.5	22.0	---	---	---	16.5	13.5	15.0
23	---	---	---	23.0	21.5	22.5	---	---	---	16.0	14.0	15.5
24	---	---	---	23.5	22.0	22.5	---	---	---	14.5	11.0	13.0
25	---	---	---	23.0	22.0	22.5	---	---	---	14.0	11.0	12.5
26	---	---	---	23.0	22.0	22.5	---	---	---	14.5	11.5	13.0
27	---	---	---	24.5	22.5	23.0	---	---	---	15.0	12.0	13.5
28	---	---	---	---	---	---	---	---	---	15.5	13.5	14.5
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	25.5	18.0	21.5	24.5	19.0	22.0	23.0	19.5	21.0	21.5	11.0	17.0
YEAR	25.5	.5	11.0									

02096842 CANE CREEK 0.1 MILE UPSTREAM FROM SECONDARY ROAD 1126 NEAR BUCKHORN, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
06...	1500	.03	8	.00
DEC				
30...	1545	.04	5	.00
30...	1600	.04	5	.00
FEB				
09...	1435	.23	2	.00
09...	1440	.23	3	.00
11...	1115	10	54	1.5
11...	1130	9.5	67	1.7
11...	1145	9.2	56	1.4
11...	1200	8.9	61	1.5
11...	1215	8.6	72	1.7
11...	1230	8.3	70	1.6
11...	1245	8.0	68	1.5
11...	1300	7.7	61	1.3
11...	1400	6.8	81	1.5
11...	1530	5.9	54	.86
APR				
08...	1536	.17	4	.00

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 (150 m) upstream from Pokeberry Creek, 0.9 mi (1.4 km) south-southeast of Bynum, and 1.1 mi (1.8 km) downstream from U.S. Highway 15 and 501.

DRAINAGE AREA.--1,275 mi² (3,302 km²).

WATER-DISCHARGE RECORDS

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 (86.353 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Considerable regulation for short periods at low flow caused by power-plant above station. Gage height telemeter at station.

AVERAGE DISCHARGE.--8 years, 1,305 ft³/s (36.96 m³/s), 13.90 in/yr (353 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,800 ft³/s (1,297 m³/s) Mar. 14, 1975, gage height, 17.67 ft (5.386 m); minimum, 0.40 ft³/s (0.011 m³/s) Aug. 19, 1980, gage height, 1.95 ft (0.594 m); minimum daily, 13 ft³/s (0.37 m³/s) July 2, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft³/s (425 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1700	15,700	445	11.51	3.508	Sept. 7	1915	15,200	430	11.39	3.472
July 4	1215	*31,800	901	*15.35	4.679						

Minimum discharge, 1.6 ft³/s (0.045 m³/s) Sept. 1, gage height, 1.95 ft (0.594 m); minimum daily, 13 ft³/s (0.37 m³/s) July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	365	518	357	388	287	495	1340	335	721	162	268	94
2	777	297	289	342	592	486	1040	362	1580	13	177	244
3	498	226	257	235	1140	449	977	302	761	195	196	145
4	393	214	168	266	901	418	806	240	608	20600	203	193
5	290	294	231	301	563	748	708	224	492	5790	177	394
6	240	537	225	165	441	1400	781	215	393	1710	163	3150
7	207	353	218	296	406	885	860	225	700	904	209	7140
8	185	217	279	254	435	671	648	252	990	682	155	6280
9	189	222	150	241	561	569	575	277	561	468	249	2410
10	187	199	238	206	519	498	621	249	417	347	254	1630
11	181	186	503	231	8230	463	672	336	238	283	218	1430
12	173	175	541	289	7910	444	609	312	270	256	612	1030
13	81	171	374	125	2370	406	538	304	234	190	661	719
14	125	171	260	215	1430	404	465	253	336	241	531	511
15	133	177	330	221	1090	389	414	227	370	198	374	423
16	178	180	212	222	870	350	400	207	258	246	159	314
17	175	195	313	228	723	391	367	195	193	716	141	671
18	145	300	260	208	631	355	358	185	191	2090	239	864
19	137	389	237	210	837	345	378	185	1160	567	954	523
20	448	400	157	276	5260	322	375	231	817	333	3080	372
21	442	244	207	227	3170	274	462	637	410	261	874	350
22	229	211	262	298	1720	324	550	992	306	236	431	266
23	184	219	113	365	1260	850	419	515	224	261	282	398
24	150	327	200	359	1050	2760	388	333	186	201	276	329
25	156	766	225	311	872	2130	378	272	165	595	204	188
26	172	845	208	331	701	1520	372	239	109	810	192	194
27	212	468	205	285	595	1050	313	203	124	417	74	97
28	217	422	215	266	529	858	284	667	153	268	236	272
29	179	449	356	266	---	797	261	814	197	915	134	198
30	202	372	479	210	---	741	267	412	34	925	84	130
31	410	---	443	281	---	1380	---	306	---	431	179	---
TOTAL	7660	9744	8512	8118	45093	23172	16626	10506	13198	41311	11986	30959
MEAN	247	325	275	262	1610	747	554	339	440	1333	387	1032
MAX	777	845	541	388	8230	2760	1340	992	1580	20600	3080	7140
MIN	81	171	113	125	287	274	261	185	34	13	74	94
CFSM	.19	.26	.22	.21	1.26	.59	.44	.27	.35	1.05	.30	.81
IN.	.22	.28	.25	.24	1.32	.68	.49	.31	.39	1.21	.35	.90

CAL YR 1980 TOTAL 353516 MEAN 966 MAX 12800 MIN 34 CFSM .76 IN 10.31
WTR YR 1981 TOTAL 226885 MEAN 622 MAX 20600 MIN 13 CFSM .49 IN 6.62

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/20	14 35	0000	3.72	398	110		21.0	9.0	8.9	98.9	25	1.6
80/11/19	13 10	0000	3.77	390	155		8.0	15.0	10.4	87.4	30	1.8
80/12/10	11 05	0000	3.35	233	192		15.0	10.0	10.2	100.0	19	1.5
81/01/22	11 35	0000	3.60	298	207	7.09	6.0	9.0	14.0	112.0	37	2.7
81/02/18	13 30	0000	4.17	631	123		12.0	40.0	10.8	100.0	23	2.2
81/03/26	15 50	0000	5.02	1360	170	7.24	12.0	30.0	11.4	105.6	27	2.4
81/05/21	12 30	0000	4.09	603		6.10	16.0		8.1	81.0		1.5
81/06/16	09 00	0000	3.41	273	210	6.30	28.0	25.0	6.8	86.1		2.0
81/07/21	15 35	0000	3.39	270		7.81	25.0	35.0	7.1	84.5		2.1
81/08/27	11 45	0000	2.23	24		7.51	25.0	15.0	7.4	88.1		1.2
81/09/28	14 58	0000	3.57	337		7.80	25.0	9.0	7.8			1.3

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/20	14 35	0000	410	50								
80/11/19	13 10	0000	400	66								
80/12/10	11 05	0000	40	50	1.20	0.050K	0.400	0.610	0.530	10K	50K	50K
81/01/22	11 35	0000	10K	73								
81/02/18	13 30	0000	20	20	0.98	0.220	0.700	0.180	0.090	10K	50K	50K
81/03/26	15 50	0000	420	33								
81/05/21	12 30	0000	1000									
81/06/16	09 00	0000	70		1.70	0.050K	0.600	0.680	0.550	10K	50K	50K
81/07/21	15 35	0000	70	31								
81/08/27	11 45	0000	40	31								
81/09/28	14 58	0000	20	29	1.30	0.050K	0.600	0.350	0.290	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/10	11 05	0000	100K	40K	700	100K	50.0K	0.5K	50K
81/02/18	13 30	0000	100K	40K	1000	50K	90.0	0.5K	
81/06/16	09 00	0000	100K	40K	1200	100K	230.0	0.5K	50K
81/09/28	14 58	0000	100K	40K	700	100K	70.0	0.5K	50K

K Less than noted value.

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 (91.4 m) downstream from B. Everett Jordan Dam, 2.5 mi (4.0 km) north of Moncure, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--1,689 mi² (4,375 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year. Published as Haw River near Haywood, NC (02098200) October 1965 to September 1978.

GAGE.--Water-stage recorder. Datum of gage is 155.00 ft (47.244 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Oct. 1, 1978, water-stage recorder at site 0.3 mi (0.5 km) downstream at same datum. Since June 22, 1966, auxiliary water-stage recorder 2.9 mi (4.7 km) downstream.

REMARKS.--Water-discharge records good. Some regulation for short periods at low flow caused by powerplants above station and Dec. 16, 1972, to Aug. 31, 1981 by temporary storings in B. Everett Jordan Lake (see p. 328). On Sept. 1, 1981, B. Everett Jordan Lake gates closed and storage began.

AVERAGE DISCHARGE.--16 years, 1,555 ft³/s (44.04 m³/s), 12.50 in/yr (318 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,800 ft³/s (731 m³/s) Oct. 25, 1971, gage height, 22.41 ft (6.831 m) at former site; no flow for part of Aug. 1, 1980, result of gate closure by the U.S. Army Corps of Engineers to facilitate construction of gaging station, and part of June 19, 1981, for maintenance work at dam; minimum daily discharge, 35 ft³/s (0.99 m³/s) Sept. 12, 1966, at former site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,990 ft³/s (255 m³/s) July 5; maximum gage height, 11.98 ft (3.652 m) Feb. 12; no flow part of June 19; minimum daily discharge, 41 ft³/s (1.16 m³/s) June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	616	441	615	355	734	1600	389	696	104	365	171
2	799	402	397	531	618	715	1140	400	1480	180	218	177
3	553	287	339	412	1200	669	1070	392	928	152	293	208
4	469	268	306	365	1240	633	885	315	792	5650	170	194
5	385	292	221	524	765	764	787	276	670	8700	241	204
6	320	513	292	388	610	1600	799	269	485	7620	184	1950
7	271	447	282	344	532	1320	899	276	799	6710	214	2910
8	274	275	305	378	540	953	751	297	1070	4840	234	5570
9	219	272	311	369	663	787	672	329	753	950	315	3280
10	218	265	237	300	696	689	696	333	538	532	350	1870
11	203	213	540	381	3260	636	754	437	377	422	253	1430
12	187	185	707	475	7800	600	689	591	390	357	268	495
13	164	195	562	438	6810	555	635	658	258	367	969	256
14	87	193	395	336	4290	523	574	506	321	229	878	216
15	138	199	416	323	1310	508	513	348	463	292	556	335
16	154	204	356	320	989	490	489	300	189	272	261	136
17	196	221	369	328	849	514	463	267	57	320	292	138
18	173	392	342	386	756	515	446	248	41	1710	192	136
19	159	480	375	311	809	469	452	237	500	1140	260	143
20	240	556	234	337	5130	437	457	268	1540	522	3690	140
21	541	412	277	333	5960	359	492	593	547	359	1830	136
22	286	239	304	377	3320	384	627	1170	430	231	1220	136
23	204	299	247	525	1990	608	521	658	312	359	879	135
24	198	395	225	519	1360	2540	469	440	259	306	541	132
25	142	834	289	448	1110	2810	448	348	221	488	340	134
26	172	1160	308	432	973	1990	452	323	209	711	307	135
27	192	682	274	405	889	1240	402	245	128	914	246	131
28	268	545	308	366	780	941	367	379	169	649	214	129
29	210	550	532	363	---	856	332	1140	257	676	247	135
30	214	505	783	352	---	809	337	602	167	965	198	135
31	331	---	731	305	---	1180	---	447	---	549	283	---
TOTAL	8359	12096	11705	12286	55604	27828	19218	13481	15046	47276	16508	21297
MEAN	270	403	378	396	1986	898	641	435	502	1525	533	710
MAX	799	1160	783	615	7800	2810	1600	1170	1540	8700	3690	5570
MIN	87	185	221	300	355	359	332	237	41	104	170	129
CFSM	.16	.24	.22	.23	1.18	.53	.38	.26	.30	.90	.32	.42
IN.	.18	.27	.26	.27	1.22	.61	.42	.30	.33	1.04	.36	.47

CAL YR 1980 TOTAL 474529 MEAN 1297 MAX 7700 MIN 87 CFSM .77 IN 10.45
WTR YR 1981 TOTAL 260704 MEAN 714 MAX 8700 MIN 41 CFSM .42 IN 5.74

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-75, 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to September 1975, April 1980 to current year.
WATER TEMPERATURES: July 1973 to September 1975, April 1980 to current year.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams. For water years 1973-75, data were published as Haw River near Haywood (station 02098200).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 572 micromhos Nov. 11, 1973; minimum daily, 44 micromhos June 4, 1975.
WATER TEMPERATURES: Maximum daily, 33.0°C Aug. 8, 1980; minimum daily, 1.0°C Dec. 27, 29, 1980, Jan. 5, 6, 13-18, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 357 micromhos Oct. 24; minimum daily, 71 micromhos July 5.
WATER TEMPERATURES: Maximum daily, 32.0°C June 17, 25; minimum daily, 1.0°C Dec. 27, 29, Jan. 5, 6, 13-18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT												
14...	1500	56	230	7.1	14.0	20	8.5	35	9	8.5	3.3	31
DEC												
09...	1500	305	169	7.6	8.5	20	11.3	38	4	10	3.2	22
FEB												
13...	1130	6800	88	7.5	6.5	200	12.3	23	4	5.3	2.3	7.8
20...	1430	6340	132	7.9	8.5	80	12.2	30	0	6.8	3.2	19
21...	0900	6310	109	6.6	10.5	150	11.6	27	4	6.1	2.8	11
23...	1430	1850	107	6.4	11.5	120	10.3	29	7	6.6	3.0	10
MAY												
12...	1500	644	230	7.3	19.5	30	7.5	39	0	9.4	3.8	37
JUN												
22...	1030	508	144	6.6	28.5	50	6.5	32	0	7.6	3.2	14
JUL												
06...	1045	7620	72	6.2	23.0	120	8.5	17	2	4.1	1.6	5.7
07...	1200	6770	86	6.3	25.0	90	6.8	18	0	4.4	1.8	6.9
14...	1530	242	121	7.1	32.0	20	12.0	27	0	6.1	2.8	14

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	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)
OCT												
14...	62	2.3	5.6	53	0	44	6.8	27	19	.6	13	163
DEC												
09...	52	1.6	4.1	52	0	43	1.6	25	18	.2	6.9	133
FEB												
13...	39	.7	3.4	33	0	27	.7	13	8.2	.1	11	83
20...	55	1.5	3.1	49	0	40	.6	19	12	.1	15	114
21...	44	.9	2.8	28	0	23	12	13	8.7	.1	13	90
23...	40	.8	2.5	26	0	21	19	13	8.3	.1	14	90
MAY												
12...	64	2.6	5.1	66	0	54	4.6	24	20	.4	12	155
JUN												
22...	44	1.1	5.2	43	0	35	16	13	12	.2	14	106
JUL												
06...	37	.6	3.6	18	0	15	20	7.8	5.3	.1	6.5	72
07...	39	.7	4.1	22	0	18	18	10	6.5	.1	7.1	71
14...	49	1.2	3.7	33	0	27	4.2	16	9.7	.2	--	93

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (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 TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT												
14...	144	.22	24.6	2.0	.020	2.0	2.1	.080	.090	.10	.12	.69
DEC												
09...	118	.18	110	1.9	.030	1.9	1.9	.030	.010	.04	.01	.64
FEB												
13...	58	.11	1520	.55	.120	.67	.68	.470	.380	--	.49	1.4
20...	93	.16	1950	.81	.040	.85	.86	.400	.420	--	.54	1.3
21...	73	.12	1530	.55	.070	.62	.66	.430	.420	--	.54	.77
23...	72	.12	450	.64	.050	.69	.73	.160	.180	--	.23	.57
MAY												
12...	140	.21	270	2.9	.060	3.0	2.9	.150	.170	--	.22	1.1
JUN												
22...	90	.14	145	1.6	.040	1.6	1.6	.070	.070	--	.09	1.3
JUL												
06...	44	.10	1480	.61	.060	.67	.67	.300	.240	--	.31	1.1
07...	52	.10	1300	.50	.050	.55	.56	.170	.090	--	.12	1.0
14...	--	.13	60.8	.51	.010	.52	.53	.010	<.010	--	.01	.89

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG, SUSP, TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NH4 + ORG, TOT IN BOT MAT (MG/KG AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT												
14...	.65	.77	.03	.74	3490	2.8	12	2.8	.680	1.90	2.1	.590
DEC												
09...	.47	.67	.19	.48	--	2.6	11	2.4	.570	1.60	1.7	.500
FEB												
13...	.33	1.90	1.2	.71	--	2.6	11	1.4	.460	--	1.4	.060
20...	.40	1.70	.88	.82	--	2.6	11	1.7	.810	--	2.5	.320
21...	.38	1.20	.40	.80	--	1.8	8.1	1.5	.380	--	1.2	.130
23...	.55	.73	.00	.73	--	1.4	6.3	1.5	.290	--	.89	.190
MAY												
12...	1.0	1.20	.00	1.2	--	4.2	19	4.1	.750	--	2.3	.550
JUN												
22...	.73	1.40	.60	.80	--	3.0	13	2.4	.400	--	1.2	.290
JUL												
06...	.73	1.40	.43	.97	--	2.1	9.2	1.6	.260	--	.80	.100
07...	.70	1.20	.41	.79	--	1.8	7.7	1.4	.250	--	.77	.150
14...	--	.90	.30	.60	--	1.4	6.3	1.1	.190	--	.58	.110

DATE	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT												
14...	.610	.560	1.7	46	0	<10	10	4	6	30	<10	6
DEC												
09...	.510	.410	1.3	--	--	--	10	5	5	--	--	7
FEB												
13...	.390	.050	.15	--	--	--	20	15	5	--	--	16
20...	.380	.260	.80	--	--	--	10	3	7	--	--	20
21...	.250	.140	.43	--	--	--	--	--	--	--	--	--
23...	.170	.120	.37	--	--	--	--	--	--	--	--	--
MAY												
12...	.580	.500	1.5	--	--	--	10	10	0	--	--	5
JUN												
22...	.330	.260	.80	--	--	--	10	9	1	--	--	7
JUL												
06...	.160	.080	.25	--	--	--	<10	--	0	--	--	9
07...	.170	.170	.52	--	--	--	<10	--	0	--	--	8
14...	.190	.180	.55	--	--	--	10	--	--	--	--	4

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	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, SUS-PENDED 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, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
OCT											
14...	2	4	10	800	690	110	5000	2	0	2	20
DEC											
09...	0	8	--	750	620	130	--	3	1	2	--
FEB											
13...	10	6	--	10000	9500	480	--	20	17	3	--
20...	14	6	--	8800	8300	540	--	16	14	2	--
21...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
12...	0	5	--	1400	1200	250	--	2	2	0	--
JUN											
22...	4	3	--	2400	1100	1300	--	5	5	0	--
JUL											
06...	1	8	--	2600	2500	120	--	<10	8	1	--
07...	3	5	--	1200	1000	180	--	6	0	7	--
14...	0	5	--	920	--	<10	--	5	4	1	--

DATE	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED 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 DIS-SOLVED (MG/L AS C)
OCT								
14...	210	.00	0	30	20	9	57	11
DEC								
09...	--	--	--	30	20	7	--	11
FEB								
13...	--	--	--	40	30	3	--	10
20...	--	--	--	140	130	10	--	6.6
21...	--	--	--	--	--	--	--	10
23...	--	--	--	--	--	--	--	14
MAY								
12...	--	--	--	20	20	4	--	11
JUN								
22...	--	--	--	20	10	6	--	7.0
JUL								
06...	--	--	--	20	10	7	--	10
07...	--	--	--	20	10	10	--	8.8
14...	--	--	--	10	--	<4	--	7.4

DATE	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPO-SURE (DAYS)
OCT								
14...	.7	10	.0	10	.10	--	--	--
DEC								
09...	.7	--	--	--	--	4.88	4.25	27
FEB								
13...	>4.0	--	--	--	.10	--	--	--
20...	--	--	--	--	.10	--	--	--
21...	2.4	--	--	--	.10	--	--	--
23...	.1	--	--	--	.10	--	--	--
MAY								
12...	1.7	--	--	--	.10	--	--	--
JUN								
22...	1.5	--	--	--	.10	--	--	--
JUL								
06...	--	--	--	--	.00	--	--	--
07...	--	--	--	--	.00	--	--	--
14...	1.7	--	--	--	.00	--	--	--

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	OCT 14,80		MAY 12,81		JUN 22,81		JUL 6,81		JUL 14,81	
TIME	1500		1500		1030		1045		1530	
TOTAL CELLS/ML	760		11000		22000		7900		140000	
DIVERSITY: DIVISION	1.3		1.5		1.4		1.5		0.9	
.CLASS	1.3		1.5		1.4		1.5		0.9	
..ORDER	1.6		1.9		1.6		2.0		0.9	
...FAMILY	1.9		2.7		1.7		3.4		1.2	
....GENUS	2.1		3.0		1.8		3.8		2.0	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	250	2	--	-	70	1	*	0
...COELASTRACEAE										
....COELASTRUM	--	-	500	5	--	-	750	9	2200	2
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	1100	10	--	-	120	1	730	1
...OOCYSTACEAE										
....ANKISTRODESMUS	39	5	610	6	290	1	300	4	2300	2
....CHODATELLA	--	-	--	-	--	-	--	-	*	0
....DICTYOSPHAERIUM	--	-	910	8	--	-	420	5	*	0
....KIRCHNERIELLA	--	-	300	3	--	-	190	2	1900	1
....OOCYSTIS	13	2	--	-	1100	5	*	0	870	1
....SELENASTRUM	13	2	--	-	--	-	--	-	1700	1
....TETRAEDRON	--	-	--	-	*	0	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	210	3	9300	6
....SCENEDESMUS	250#	32	610	6	390	2	470	6	7000	5
....TETRASTRUM	--	-	--	-	--	-	93	1	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	52	7	450	4	190	1	70	1	*	0
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	*	0	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	26	3	400	4	11000#	51	630	8	2900	2
....MELOSIRA	--	-	500	5	190	1	160	2	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	*	0	47	1	*	0
...CYMBELLACEAE										
....CYMBELLA	--	-	*	0	--	-	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	--	-	120	1	--	-
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	*	0	--	-
....NAVICULA	--	-	100	1	*	0	120	1	--	-
...NITZSCHIACEAE										
....NITZSCHIA	26	3	250	2	190	1	160	2	1200	1
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	7800#	35	--	-	24000#	17
....ANACYSTIS	350#	46	4600#	43	--	-	630	8	87000#	61
..HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	--	-	1900#	24	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	890	11	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	--	-	--	-	--	-	470	6	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	100	1	190	1	--	-	*	0
....TRACHELOMONAS	--	-	*	0	290	1	47	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306	245	163	171	220	154	146	212	182	184	179	189
2	286	204	143	158	216	163	152	202	173	199	172	214
3	275	214	133	165	219	171	165	201	194	173	176	205
4	265	290	133	163	211	173	146	207	133	122	153	214
5	214	290	133	201	203	170	140	240	122	71	142	221
6	175	214	134	216	168	175	142	245	133	73	151	260
7	165	197	136	224	208	144	148	249	133	86	163	142
8	172	214	153	220	216	165	150	252	155	82	189	74
9	175	179	166	216	177	182	145	251	204	103	186	72
10	199	194	184	218	180	159	156	253	184	107	173	72
11	214	189	179	223	176	142	167	245	148	112	173	80
12	214	189	199	230	104	139	187	255	153	128	122	88
13	199	173	184	235	101	141	185	189	143	122	235	88
14	199	194	199	241	113	152	184	190	153	139	235	100
15	192	206	204	250	114	167	182	230	199	137	236	101
16	190	227	194	266	117	176	173	245	194	153	160	96
17	179	214	189	271	117	194	179	255	184	153	122	107
18	184	300	184	270	116	202	174	245	214	263	122	102
19	197	280	199	258	119	220	193	250	195	124	121	105
20	214	222	204	252	128	200	194	260	184	141	86	100
21	243	255	204	266	106	197	207	245	173	166	106	112
22	296	238	173	284	106	184	230	286	153	185	106	153
23	347	224	153	278	110	202	210	306	163	204	102	158
24	357	224	171	258	112	197	213	265	168	171	134	133
25	326	194	179	245	113	145	198	255	173	124	123	143
26	281	204	194	247	126	161	194	255	183	104	119	143
27	240	153	208	263	135	140	202	235	204	157	122	153
28	223	148	204	250	144	139	217	194	189	188	138	148
29	235	148	214	237	---	149	217	102	199	216	127	148
30	255	178	175	227	---	141	231	115	173	183	156	143
31	257	---	166	232	---	137	---	153	---	184	171	---
MEAN	235	213	176	233	149	168	181	229	172	147	152	135

WTR YR 1981 MEAN 183 MAX 357 MIN 71

TEMPERATURE, WATER (DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	12.0	7.0	5.0	2.0	11.0	14.0	21.0	25.0	26.0	26.0	28.0
2	21.0	12.0	8.0	5.0	6.0	12.0	14.5	19.0	25.0	25.0	26.0	29.0
3	19.0	12.0	9.0	4.0	5.0	11.0	15.0	18.0	25.0	23.5	28.0	29.0
4	18.0	12.0	7.0	3.0	2.0	10.0	17.0	20.0	25.0	22.0	30.0	27.0
5	17.0	13.0	7.0	1.0	2.0	10.0	18.0	23.0	26.0	23.0	31.0	27.0
6	16.0	12.0	8.0	1.0	1.5	9.0	15.5	23.0	26.0	24.0	30.0	24.0
7	17.0	11.0	10.0	1.5	2.0	8.5	14.5	24.0	26.0	26.5	30.0	22.0
8	17.0	12.5	10.0	2.0	3.0	8.0	14.5	23.5	25.5	28.0	30.0	23.0
9	21.0	15.0	10.0	1.5	3.0	8.0	15.0	23.0	26.0	28.0	30.0	22.5
10	22.0	16.0	10.0	2.0	4.0	8.5	16.0	24.0	27.0	29.0	29.0	23.0
11	22.0	15.0	11.0	1.5	8.0	9.0	18.0	20.0	28.0	30.0	31.0	23.0
12	20.0	11.0	8.0	1.5	6.0	9.5	19.5	20.0	28.0	30.5	25.0	23.0
13	18.0	11.0	8.0	1.0	5.0	9.5	19.0	20.0	28.0	30.0	27.0	23.0
14	18.0	11.0	8.0	1.0	5.5	10.0	18.0	20.0	31.0	30.5	27.0	22.5
15	17.5	12.0	7.0	1.0	5.5	9.5	18.0	23.0	31.0	30.0	28.0	23.5
16	18.0	11.5	7.0	1.0	5.5	11.0	17.5	22.0	31.0	30.0	28.0	23.5
17	18.0	11.0	7.0	1.0	7.0	9.5	18.0	22.5	32.0	28.5	29.0	23.0
18	20.0	9.0	6.5	1.0	8.0	11.0	19.0	23.0	30.0	28.0	27.0	23.5
19	20.0	8.0	6.5	1.5	8.5	9.0	20.0	21.0	29.0	27.0	25.0	23.0
20	19.5	7.0	7.0	2.0	10.5	8.0	20.0	17.5	29.0	27.0	21.0	23.0
21	16.0	8.0	5.0	2.5	10.5	9.0	17.0	18.0	29.0	29.0	23.0	23.0
22	16.0	8.0	3.0	3.0	11.0	9.0	17.0	20.0	31.0	30.0	22.0	24.0
23	16.0	8.0	4.0	3.0	11.0	6.0	18.0	21.0	29.0	30.0	23.0	23.0
24	14.0	9.0	4.0	3.5	10.5	8.0	19.0	21.0	30.5	29.0	22.0	23.0
25	14.0	9.0	4.0	4.0	9.5	8.0	17.0	23.0	32.0	28.0	28.0	23.0
26	14.0	7.5	2.0	5.0	9.5	9.0	18.5	24.5	30.5	28.0	22.0	22.0
27	13.0	7.5	1.0	5.5	9.0	10.0	19.0	24.0	27.0	28.0	24.0	23.0
28	13.0	7.5	4.0	6.5	9.0	11.0	23.0	24.0	28.0	30.0	26.0	23.0
29	13.0	7.0	1.0	6.5	---	11.0	25.0	23.0	27.0	29.0	26.0	22.0
30	12.5	6.5	5.0	6.0	---	13.0	23.0	23.0	28.0	27.0	26.0	22.0
31	12.0	---	5.0	2.0	---	14.0	---	25.0	---	26.0	26.0	---
MEAN	17.0	10.5	6.5	3.0	6.5	9.5	18.0	21.5	28.0	28.0	26.5	24.0

WTR YR 1981 MEAN 16.5 MAX 32.0 MIN 1.0

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
14...	1500	56	18	2.7	88
DEC					
09...	1500	305	10	8.2	87
FEB					
13...	1130	6800	211	3870	98
20...	1430	6340	242	4140	84
21...	0900	6310	141	2400	92
23...	1430	1850	96	480	98
MAY					
12...	1500	644	90	156	91
JUN					
22...	1030	508	66	91	96
JUL					
06...	1045	7620	147	3020	74
07...	1200	6770	54	987	87
14...	1530	242	16	10	94

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 (1.5 m) upstream from bridge on Secondary Road 1541, 3.3 mi (5.3 km) upstream from High Point Dam, and 5.2 mi (8.4 km) northeast of High Point College, High Point.

DRAINAGE AREA.--14.8 mi² (38.3 km²).

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 (232.873 m) National Geodetic Vertical Datum of 1929. Intake pipe extended to downstream side of bridge since Mar. 1, 1934.

REMARKS.--Records good. Slight diurnal fluctuation at low flow during growing season.

AVERAGE DISCHARGE.--53 years, 16.4 ft³/s (0.464 m³/s), 15.05 in/yr (382 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,300 ft³/s (178 m³/s) Sept. 24, 1947, gage height, 10.87 ft (3.313 m), from floodmark, from rating curve extended above 1,600 ft³/s (45.3 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.6 ft³/s (0.017 m³/s) Jan. 17, 1981 (result of temporary regulation); minimum unregulated, 1.0 ft³/s (0.028 m³/s) Aug. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 17	0100	3060	86.7	6.59	2.009	July 28	2145	914	25.9	2.96	0.902
July 24	2300	2570	72.8	5.50	1.676	Sept. 7	0015	1900	53.8	4.32	1.317
July 28	0100	*4200	119	*8.96	2.731	Sept. 7	0615	1640	46.4	3.91	1.192

Minimum discharge, 0.60 ft³/s (0.017 m³/s) Jan. 17, gage height, 0.12 ft (0.037 m), result of temporary regulation; minimum daily, 2.6 ft³/s (0.074 m³/s) July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	5.5	5.3	5.8	4.7	6.7	14	5.9	6.8	3.0	7.0	13
2	6.5	4.7	5.2	5.1	34	6.4	11	5.1	13	3.8	6.1	7.4
3	5.0	4.5	5.0	4.9	9.6	6.1	9.1	4.9	6.1	7.8	6.3	6.2
4	4.5	15	4.8	4.8	6.5	16	8.4	5.1	5.2	22	5.3	4.3
5	4.2	7.1	4.8	7.2	5.8	22	11	4.9	4.3	6.4	4.5	35
6	4.3	4.8	4.8	7.4	5.5	12	9.4	4.7	16	5.2	5.7	153
7	4.2	4.5	4.8	8.0	5.6	8.8	8.0	5.8	25	4.2	5.0	464
8	4.1	4.3	4.8	6.6	8.9	7.6	7.4	4.9	7.8	3.5	5.5	36
9	4.0	4.1	4.8	4.5	6.2	7.1	9.1	4.7	6.3	3.3	4.8	16
10	4.0	4.0	9.0	4.4	5.9	6.8	7.9	5.1	4.7	3.1	4.1	10
11	4.0	3.9	6.1	4.0	166	6.5	7.5	6.8	4.1	2.9	4.0	8.3
12	3.7	3.8	5.4	3.9	21	6.5	7.1	5.2	5.2	2.9	4.7	7.2
13	3.8	3.7	5.2	4.2	13	6.4	6.8	5.9	5.7	3.0	11	5.7
14	3.9	3.7	5.0	4.5	9.7	6.1	7.5	5.1	5.0	2.9	5.1	5.0
15	3.9	4.3	4.8	4.6	8.3	6.0	7.4	4.3	3.9	2.6	4.3	7.3
16	3.7	5.4	4.9	4.4	7.5	6.1	6.6	4.1	3.1	74	3.9	18
17	3.6	13	4.9	4.1	7.3	5.7	6.8	4.1	6.9	380	3.8	8.3
18	3.6	14	4.8	4.1	6.9	5.8	7.0	4.2	8.4	9.8	3.6	5.8
19	12	5.9	4.8	4.4	94	5.7	6.2	4.7	5.2	6.5	5.3	5.0
20	5.0	4.8	4.6	4.4	58	5.5	9.0	24	4.4	13	5.5	4.6
21	4.4	4.4	4.4	7.1	19	5.2	6.6	17	3.7	6.7	4.1	4.4
22	4.1	4.2	4.4	5.5	14	6.4	5.9	7.7	3.4	4.2	3.6	4.2
23	3.9	4.1	4.9	4.9	11	28	6.1	5.9	3.1	3.5	3.4	4.0
24	4.0	28	4.6	4.7	9.3	73	6.4	4.8	3.0	229	3.3	4.1
25	14	12	4.0	4.5	8.0	40	5.6	4.3	2.9	255	3.1	4.0
26	6.5	6.9	4.2	4.6	7.4	21	5.3	4.1	5.1	13	3.1	3.9
27	4.8	11	4.4	4.9	6.9	15	5.4	4.8	3.2	21	3.0	3.8
28	5.1	8.9	7.2	4.7	6.8	11	5.4	6.6	2.9	620	2.9	3.7
29	4.8	6.4	6.8	4.5	---	9.4	5.2	6.2	2.8	52	2.9	3.6
30	22	5.6	6.0	5.0	---	50	7.2	4.7	2.8	15	28	3.7
31	8.7	---	5.8	4.7	---	22	---	4.2	---	9.2	7.5	---
TOTAL	187.3	212.5	160.5	156.4	566.8	440.8	226.3	189.8	180.0	1788.5	170.4	859.5
MEAN	6.04	7.08	5.18	5.05	20.2	14.2	7.54	6.12	6.00	57.7	5.50	28.7
MAX	22	28	9.0	8.0	166	73	14	24	25	620	28	464
MIN	3.6	3.7	4.0	3.9	4.7	5.2	5.2	4.1	2.8	2.6	2.9	3.6
CFSM	.41	.48	.35	.34	1.37	.96	.51	.41	.41	3.90	.37	1.94
IN.	.47	.53	.40	.39	1.42	1.11	.57	.48	.45	4.50	.43	2.16

CAL YR 1980 TOTAL 5216.1 MEAN 14.3 MAX 234 MIN 3.1 CFSM .97 IN 13.11
WTR YR 1981 TOTAL 5138.8 MEAN 14.1 MAX 620 MIN 2.6 CFSM .95 IN 12.92

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 (152 m) downstream from bridge on Secondary Road 1929, 0.2 mi (0.3 km) downstream from inactive Coltrane's mill, 0.5 mi (0.8 km) south of Guilford County line, 4.8 mi (7.7 km) upstream from Muddy Creek, and 7 mi (11 km) north of Randleman.

DRAINAGE AREA.--125 mi^2 (324 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 782: 1929-30. WSP 1383: 1934-35, 1941. WSP 1723: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 638.11 ft (194.496 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good except those below 30 ft^3/s (0.85 m^3/s), which are fair. Some regulation by High Point Lake and Oak Hollow Reservoir (see p. 331). City of High Point diverted an average of 17.9 ft^3/s (0.51 m^3/s) for municipal water supply during water year; 11.2 ft^3/s (0.32 m^3/s) was discharge as sewage effluent into Richland Creek above station and 3.8 ft^3/s (0.11 m^3/s) into Rich Fork Creek in Pee Dee River basin.

AVERAGE DISCHARGE.--53 years, 124 ft^3/s (3.512 m^3/s), 13.47 in/yr (342 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft^3/s (566 m^3/s) Sept. 25, 1947, gage height, 32.2 ft (9.81 m), from floodmark, from rating curve extended above 7,100 ft^3/s (201 m^3/s) on basis of contracted-opening measurement of peak flow at bridge 1.5 mi (2.4 km) upstream; minimum, 0.5 ft^3/s (0.014 m^3/s) Nov. 28, 1931, gage height, 1.41 ft (0.430 m); minimum daily, 1.2 ft^3/s (0.034 m^3/s) Nov. 12, 1933.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,440 ft^3/s ((69.1 m^3/s) July 28, gage height, 12.28 ft (3.743 m), no peak above base of 2,600 ft^3/s (74 m^3/s); minimum, 12 ft^3/s (0.34 m^3/s) Oct. 12, 13, gage height, 1.85 ft (0.564 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	24	35	58	24	64	173	40	144	16	57	28
2	33	18	32	51	142	64	149	27	75	17	50	26
3	22	16	29	68	65	62	149	24	40	32	51	21
4	19	71	26	64	39	73	123	24	32	213	46	21
5	17	47	23	58	33	159	91	27	27	33	33	108
6	16	25	21	38	30	100	90	25	95	30	51	62
7	19	21	20	44	30	82	62	33	218	36	36	457
8	18	19	19	41	50	70	59	27	83	26	33	235
9	18	17	21	40	37	66	55	22	62	21	41	130
10	17	15	121	37	33	65	57	21	47	23	24	99
11	15	18	123	34	1020	64	49	26	42	24	29	83
12	17	18	92	35	241	62	45	25	50	52	33	37
13	13	18	89	25	117	62	44	21	47	63	108	34
14	16	18	85	25	84	59	44	20	48	23	32	35
15	16	19	95	26	66	56	40	21	28	21	25	66
16	16	20	91	24	57	61	39	19	27	39	51	101
17	16	21	89	22	53	57	38	18	24	662	47	166
18	14	73	85	22	50	46	39	18	123	88	26	103
19	90	28	85	23	588	36	35	22	35	50	48	48
20	26	22	80	24	485	33	39	118	27	85	46	44
21	20	20	78	29	204	31	40	126	22	77	27	40
22	18	19	80	36	122	31	36	44	20	37	22	22
23	17	17	81	27	109	216	34	35	20	27	20	17
24	17	126	80	24	97	360	42	31	21	103	20	22
25	29	70	79	22	79	419	32	31	20	1080	21	19
26	31	44	78	22	68	258	29	32	19	177	21	17
27	18	53	82	25	62	212	30	35	17	96	20	15
28	19	75	98	27	71	204	31	46	15	1530	19	16
29	20	55	121	24	---	65	30	38	14	510	18	16
30	102	46	96	26	---	189	31	33	16	195	97	16
31	45	---	91	26	---	223	---	31	---	102	38	---
TOTAL	866	1053	2225	1047	4056	3549	1755	1060	1458	5488	1190	2104
MEAN	27.9	35.1	71.8	33.8	145	114	58.5	34.2	48.6	177	38.4	70.1
MAX	112	126	123	68	1020	419	173	126	218	1530	108	457
MIN	13	15	19	22	24	31	29	18	14	16	18	15

CAL YR 1980 TOTAL 37602 MEAN 103 MAX 1870 MIN 11
WTR YR 1981 TOTAL 25851 MEAN 70.8 MAX 1530 MIN 13

02099500 DEEP RIVER NEAR RANDLEMAN, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/28	13 10 0000		1.99	17	540	7.50	7.0	40.0	8.7	71.3	42	4.7
80/11/20	13 50 0000		2.06	22	180	6.90	2.0	60.0	10.8	78.3	46	5.9
80/12/09	09 50 0000		2.05	21	356	6.90	9.0	10.0	10.3	88.8	38	1.7
81/01/27	13 20 0000		2.05	23	475	7.10	5.0	15.0	11.8	92.2	41	4.3
81/02/16	14 35 0000		2.41	66	214	7.20	8.0	25.0	11.9	100.0	25	3.4
81/03/10	13 30 0000		2.46	62	170	7.20	10.0	20.0	10.4	92.0	23	2.3
81/04/28	12 00 0000		2.13	28	402	7.50	26.0	6.0	7.7	93.9	40	6.0
81/05/21	09 35 0000		3.00	150		6.90	13.0	140.0	10.0	94.3		6.2
81/06/17	12 10 0000		2.00	21		7.40	27.0	20.0	5.9	72.8		8.2L
81/07/22	14 00 0000		2.15	32		6.90	28.0	140.0	7.1	89.9		5.6
81/08/25	12 50 0000		2.00	21		7.40	25.0	9.0	7.5	89.3		1.7
81/09/09	11 50 0000		2.89	119		6.90	23.0	20.0	7.8	89.7		3.3

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/28	13 10 0000		290		4.00	4.800	7.400	3.000	2.900	10K	50K	50K
80/11/20	13 50 0000		3100									
80/12/09	09 50 0000		30									
81/01/27	13 20 0000		30		1.90	8.200	8.700	2.900	2.500	10K	50K	50K
81/02/16	14 35 0000		30									
81/03/10	13 30 0000		30									
81/04/28	12 00 0000		40		0.62	5.900	6.900	2.000	1.800	10K	50K	50K
81/05/21	09 35 0000		10000									
81/06/17	12 10 0000		90									
81/07/22	14 00 0000		1300		1.10	0.660	1.300	0.670	0.440	10K	50K	50K
81/08/25	12 50 0000		30									
81/09/09	11 50 0000		990									

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/28	13 10 0000		100K	40K	900	100K	300.0	0.5K	70
81/01/27	13 20 0000		100K	40K	800	100K	260.0	0.5K	70
81/04/28	12 00 0000		100K	40K	800	100K	370.0	0.5K	50K
81/07/22	14 00 0000		100K	40K	1800	100K	220.0	0.5K	50K

K Less than noted value.
L Greater than noted value.

02100500 DEEP RIVER AT RAMSEUR, NC

LOCATION (REVISED).--Lat 34°43'34", long 79°39'20", Randolph County, Hydrologic Unit 03030003, on right bank 0.2 mi (0.3 km) downstream from Main Street bridge in Ramseur, 0.5 mi (0.8 km) downstream from mill dam, and 1.5 mi (2.4 km) downstream from Sandy Creek.

DRAINAGE AREA.--349 mi² (904 km²), revised.

WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder. Datum of gage is 419.50 ft (127.864 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good. Flow slightly regulated by High Point Municipal Lake, Oak Hollow Reservoir (see p. 331) and small powerplant reservoirs. Prior to January 1963 large diurnal fluctuation caused by powerplant immediately above station. Town of Asheboro diverted an average of 5.5 ft³/s (0.16 m³/s) for water supply from Pee Dee River basin and discharged an average of 4.7 ft³/s (0.13 m³/s) of sewage effluent into the Deep River above the station.

AVERAGE DISCHARGE.--58 years (1923-81), 350 ft³/s (9.91 m³/s), 13.62 in/yr (346 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,000 ft³/s (1,220 m³/s) Sept. 18, 1945, gage height, 34.04 ft (10.375 m), from floodmark, from rating curve extended above 18,000 ft³/s (510 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.4 ft³/s (0.011 m³/s) May 27, Nov. 28, 29, 1941; minimum daily, 0.7 ft³/s (0.020 m³/s) Nov. 29, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1901 reached a stage of 28.75 ft (8.763 m), from floodmarks, 0.2 mi (0.3 km) upstream, discharge, 30,000 ft³/s (850 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0930	7250	205	12.27	3.740	Sept. 5	1830	*8830	250	*14.31	4.362

Minimum discharge, 21 ft³/s (0.59 m³/s) Oct. 15, 16; minimum gage height, 0.64 ft (0.195 m) July 1, 2; minimum daily, 22 ft³/s (0.62 m³/s) Oct. 14, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	79	77	148	59	140	355	66	353	25	137	92
2	152	54	68	106	143	135	284	64	513	25	112	78
3	81	47	62	95	368	128	253	63	316	37	100	74
4	66	43	56	105	147	125	236	61	167	1860	95	68
5	55	132	53	95	102	294	197	57	122	460	90	3150
6	46	82	50	92	90	263	242	56	127	152	80	1420
7	40	55	48	89	83	188	182	59	650	108	84	1590
8	34	50	47	91	106	156	148	70	248	102	94	912
9	30	47	48	89	137	138	146	74	154	91	197	380
10	27	44	77	85	103	133	165	69	126	81	118	232
11	27	37	295	81	4440	130	146	65	109	69	97	183
12	25	33	171	75	1280	125	128	68	208	59	1080	138
13	23	34	135	71	409	123	118	69	200	63	552	94
14	22	37	127	67	284	118	113	64	129	86	177	88
15	22	40	122	62	222	108	111	60	122	81	113	85
16	22	44	134	59	185	108	106	54	100	76	102	187
17	23	48	129	59	165	111	101	47	82	1460	472	378
18	25	122	120	56	151	108	95	43	235	393	133	233
19	27	120	116	53	1090	101	95	42	256	145	1780	146
20	40	67	114	52	1620	95	92	46	116	107	1720	97
21	49	53	106	53	654	90	88	291	99	162	319	92
22	46	46	103	58	359	84	92	152	83	115	159	87
23	42	42	112	66	274	390	92	105	66	97	111	78
24	40	57	115	69	246	908	86	88	52	87	101	66
25	38	296	113	66	200	785	86	78	43	1450	90	55
26	35	119	104	62	170	469	84	67	35	391	80	51
27	39	91	112	59	148	348	82	62	32	177	72	49
28	43	115	131	57	138	326	80	64	31	2030	65	45
29	44	120	239	58	---	239	78	76	28	1080	54	38
30	48	91	207	57	---	191	72	77	26	374	51	35
31	175	---	178	59	---	560	---	71	---	206	138	---
TOTAL	1515	2245	3569	2294	13373	7217	4153	2328	4828	11650	8573	10221
MEAN	48.9	74.8	115	74.0	478	233	138	75.1	161	376	277	341
MAX	175	296	295	148	4440	908	355	291	650	2030	1780	3150
MIN	22	33	47	52	59	84	72	42	26	25	51	35
CFSM	.14	.21	.33	.21	1.37	.67	.40	.22	.46	1.08	.79	.98
IN.	.16	.24	.38	.24	1.43	.77	.44	.25	.51	1.24	.91	1.09

CAL YR 1980 TOTAL 99622 MEAN 272 MAX 5010 MIN 20 CFSM .78 IN 10.62
WTR YR 1981 TOTAL 71966 MEAN 197 MAX 4440 MIN 22 CFSM .56 IN 7.67

CAPE FEAR RIVER BASIN

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947, 1957, 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1978 to September 1981.
WATER TEMPERATURES: October 1946 to September 1947, October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1978.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 450 micromhos Nov. 1, 1980; minimum, 42 micromhos Feb. 24, 1979.
WATER TEMPERATURES: Maximum, 30.0°C July 17, 21, 22, Aug. 8, 9, 11, 1980; minimum daily, 0.5°C Feb. 10, 28, 1947.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 450 micromhos Nov. 1; minimum, 56 micromhos Sept. 6.
WATER TEMPERATURES: Maximum, 29.0°C June 25; minimum, 1.0°C Jan. 13, 14, 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT												
06...	1130	46	255	7.0	18.0	30	8.2	44	3	11	4.1	34
DEC												
30...	1130	200	157	7.9	5.0	12	13.2	34	0	8.6	3.1	12
MAR												
10...	1200	130	185	6.6	10.0	30	--	40	3	9.1	4.3	25
AUG												
11...	1230	95	177	7.1	28.0	50	6.4	33	0	8.0	3.2	19
19...	1700	3030	124	--	--	100	--	28	--	7.4	2.2	13
19...	1900	4960	91	--	--	90	--	28	--	6.8	2.6	1.4
19...	2100	5620	89	--	--	90	--	25	--	6.1	2.3	8.1

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	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)
OCT												
06...	59	2.2	5.6	50	0	41	8.0	24	33	.4	17	186
DEC												
30...	41	.9	3.0	64	0	52	.6	12	13	.2	15	102
MAR												
10...	55	1.7	3.3	46	0	38	14	22	17	.2	22	121
AUG												
11...	52	1.4	4.4	51	0	42	4.2	18	13	.2	12	130
19...	47	1.1	3.6	--	--	--	--	16	9.4	.1	8.5	113
19...	8	.1	4.2	--	--	--	--	16	9.3	.1	8.6	105
19...	38	.7	3.2	--	--	--	--	11	6.9	<.1	7.5	83

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, 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 TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
06...	170	.25	23.1	2.8	.060	2.9	2.9	.070	.050	.08	.06	.78
DEC												
30...	89	.14	55.1	1.8	.030	1.8	1.8	.540	.580	.65	.75	.38
MAR												
10...	136	.16	42.5	1.5	.080	1.6	1.6	.700	.810	--	1.0	.90
AUG												
11...	94	.18	33.3	1.6	.040	1.6	1.5	.110	.140	--	.18	.81
19...	73	.15	924	1.8	.020	1.8	--	--	--	--	--	--
19...	61	.14	1410	1.8	.020	1.8	--	--	--	--	--	--
19...	56	.11	1260	1.2	.020	1.2	--	--	--	--	--	--

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS. (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)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT												
06...	.83	.85	.00	.88	780	3.8	17	3.8	1.00	2.90	3.1	.940
DEC												
30...	.27	.92	.07	.85	--	2.7	12	2.7	.630	1.60	1.9	.570
MAR												
10...	.29	1.60	.50	1.1	--	3.2	14	2.7	.680	--	2.1	.560
AUG												
11...	.81	.92	.00	.95	--	2.5	11	2.5	.570	--	1.7	.510
19...	--	1.00	--	--	--	2.8	12	--	.590	--	1.8	--
19...	--	1.20	--	--	--	3.0	13	--	.600	--	1.8	--
19...	--	1.00	--	--	--	2.2	9.7	--	.540	--	1.7	--

DATE	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT												
06...	.930	.890	2.7	230	0	<10	30	24	6	10	20	5
DEC												
30...	.530	.520	1.6	--	--	--	10	8	2	--	--	6
MAR												
10...	.600	.540	1.7	--	--	--	10	5	5	--	--	5
AUG												
11...	.540	.500	1.5	--	--	--	20	--	<1	--	--	5
19...	.410	--	--	--	--	--	--	--	--	--	--	--
19...	.410	--	--	--	--	--	--	--	--	--	--	--
19...	.310	--	--	--	--	--	--	--	--	--	--	--

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED 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, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)
OCT											
06...	0	5	<10	880	680	200	4800	2	0	2	<10
DEC											
30...	0	6	--	410	240	170	--	2	1	1	--
MAR											
10...	0	6	--	1100	470	630	--	13	0	2	--
AUG											
11...	3	2	--	570	280	290	--	14	7	7	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT								
06...	130	.00	0	50	20	30	30	6.8
DEC								
30...	--	--	--	20	10	10	--	5.2
MAR								
10...	--	--	--	170	150	20	--	5.3
AUG								
11...	--	--	--	100	100	4	--	7.4

DATE	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPOSURE (DAYS)
OCT								
06...	--	1.7	.1	1.8	.10	--	--	--
DEC								
30...	.5	--	--	--	--	--	--	--
MAR								
10...	.8	--	--	--	.10	--	--	--
AUG								
11...	.7	--	--	--	.10	3.15	2.68	11

CAPE FEAR RIVER BASIN

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	OCT 6,80		MAR 10,81		AUG 11,81	
TIME	1130		1200		1230	
TOTAL CELLS/ML	2000		1800		8100	
DIVERSITY: DIVISION	1.4		1.3		1.3	
.CLASS	1.4		1.3		1.3	
..ORDER	2.0		2.1		1.5	
...FAMILY	2.5		3.2		2.0	
....GENUS	3.1		3.6		2.8	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...MICRACTINIACEAE						
....MICRACTINIUM	39	2	26	1	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	90	5	140	8	1200#	15
....CHODATELLA	--	-	26	1	--	-
....DICTYOSPHAERIUM	77	4	180	10	370	5
....GLOEOACTINIUM	--	-	--	-	140	2
....KIRCHNERIELLA	26	1	--	-	470	6
....OOCYSTIS	13	1	--	-	93	1
....SELENASTRUM	130	7	13	1	--	-
....TETRAEDRON	--	-	--	-	93	1
...SCENEDESMACEAE						
....CRUCIGENIA	100	5	--	-	560	7
....SCENEDESMUS	460#	24	100	6	1300#	16
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	52	3	440#	25	93	1
...PHACOTACEAE						
....PTEROMONAS	--	-	13	1	--	-
...VOLVOCACEAE						
....PANDORINA	--	-	210	12	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	26	1	26	1	420	5
....MELOSIRA	26	1	64	4	--	-
..PENNALES						
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	26	1	--	-
....SYNEDRA	--	-	190	11	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	13	1	--	-
...NAVICULACEAE						
....NAVICULA	--	-	26	1	47	1
...NITZSCHIACEAE						
....NITZSCHIA	64	3	140	8	140	2
...SURIRELLACEAE						
....SURIRELLA	--	-	26	1	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	13	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	550#	28	77	4	3100#	38
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	230	12	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	52	3	--	-	--	-
....TRACHELOMONAS	13	1	13	1	47	1
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	--	-	13	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

CAPE FEAR RIVER BASIN

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	346	307	322	450	440	445	338	312	324	167	160	163
2	356	340	345	447	428	437	339	318	332	160	156	158
3	357	326	347	439	432	436	313	271	291	163	156	158
4	321	302	312	432	374	406	270	219	240	165	159	164
5	301	259	278	373	307	331	218	213	215	160	154	157
6	258	253	255	348	306	323	218	206	211	199	162	178
7	258	253	256	369	353	363	218	212	216	234	198	225
8	266	254	261	373	353	365	231	216	223	231	205	216
9	270	263	267	355	323	337	245	230	239	208	191	196
10	269	262	265	326	307	316	262	243	248	192	189	191
11	262	255	258	309	301	304	275	256	266	199	188	191
12	256	251	253	308	302	305	262	256	260	207	191	199
13	255	249	252	311	301	307	260	218	234	236	209	228
14	254	238	245	302	299	300	247	221	236	236	226	232
15	239	231	237	301	280	289	271	245	256	227	214	220
16	241	234	238	285	278	280	303	272	285	219	196	207
17	242	237	239	278	261	273	311	286	302	195	184	189
18	252	242	249	280	256	268	284	225	255	183	177	182
19	263	253	259	305	278	292	224	201	208	188	182	184
20	290	261	272	336	306	318	218	205	213	205	188	196
21	307	294	303	348	335	344	219	213	216	226	206	216
22	311	296	305	345	330	338	215	202	207	239	227	233
23	296	291	294	329	303	312	203	184	192	255	241	249
24	295	287	293	306	257	284	188	182	183	265	256	261
25	288	283	285	350	262	324	202	184	193	278	267	272
26	287	279	283	368	356	363	206	200	203	284	277	281
27	289	281	283	351	321	338	207	200	203	288	280	284
28	303	296	299	322	290	309	205	197	202	308	266	274
29	310	302	306	286	256	265	195	162	179	263	246	254
30	300	288	293	311	258	281	163	155	159	258	245	248
31	436	299	364	---	---	---	168	163	166	282	246	250
MONTH	436	231	281	450	256	328	339	155	231	308	154	215
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	264	251	258	157	150	152	156	138	143	260	255	257
2	273	233	253	161	157	159	154	140	149	258	245	251
3	297	272	290	168	160	163	150	139	143	253	247	250
4	266	246	252	173	168	170	160	147	154	260	247	253
5	260	252	256	204	172	182	164	160	162	267	261	263
6	273	251	254	231	203	220	167	159	163	272	264	269
7	249	235	240	233	189	210	175	169	171	274	264	270
8	243	228	233	188	173	179	177	170	174	263	253	257
9	255	236	246	181	172	175	175	165	170	273	260	266
10	265	250	256	189	182	185	167	160	163	282	270	275
11	248	86	140	189	181	186	170	162	166	282	276	280
12	91	84	87	181	164	173	180	169	176	294	283	288
13	99	92	95	172	165	167	183	163	174	294	285	289
14	110	100	105	187	173	179	169	158	164	296	281	290
15	116	111	113	204	188	193	168	160	165	305	295	299
16	125	117	121	206	197	202	169	163	165	302	282	293
17	125	124	124	201	195	197	188	163	179	289	274	282
18	125	122	123	195	184	191	206	149	193	289	279	285
19	141	124	136	186	181	183	218	204	210	294	286	289
20	156	103	121	189	181	184	230	210	222	289	278	285
21	114	105	110	196	187	190	233	221	229	337	287	318
22	114	110	112	199	195	197	242	226	236	354	317	342
23	112	110	111	229	200	213	241	229	238	319	287	311
24	119	113	115	216	156	175	232	225	230	338	308	328
25	127	120	124	190	159	170	226	210	218	346	334	341
26	141	127	134	157	134	142	224	209	216	347	340	343
27	144	139	141	137	127	132	250	224	240	341	308	328
28	151	145	147	134	127	130	266	249	258	311	273	293
29	---	---	---	159	133	142	269	254	263	272	218	241
30	---	---	---	154	145	149	268	253	261	229	217	224
31	---	---	---	167	148	161	---	---	---	250	230	244
MONTH	297	84	168	233	127	176	269	138	193	354	217	284

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	259	208	244	225	222	223	101	98	99	201	197	199
2	261	201	223	226	222	224	108	101	105	206	178	192
3	253	210	228	225	169	214	116	108	112	182	166	172
4	243	222	235	164	119	145	128	116	122	181	169	177
5	230	195	212	120	109	112	138	129	135	242	66	159
6	203	157	188	120	110	116	145	138	142	64	56	59
7	176	141	159	125	113	119	154	143	146	116	65	81
8	147	140	143	136	120	126	172	155	166	110	92	98
9	194	151	174	137	129	132	173	137	158	91	88	89
10	218	196	211	133	129	131	166	138	157	99	89	94
11	230	201	219	147	134	143	179	165	176	105	98	102
12	201	167	187	149	146	148	166	83	103	111	106	109
13	168	160	164	154	148	150	178	88	138	114	111	113
14	175	160	167	167	155	163	176	163	171	119	111	115
15	177	162	171	162	155	160	165	154	158	123	119	121
16	163	159	162	154	135	145	161	152	156	133	122	130
17	171	161	167	226	95	154	148	103	134	176	133	153
18	216	170	180	90	81	83	164	140	153	171	148	157
19	261	219	248	86	82	83	169	75	137	169	148	159
20	242	191	210	108	86	95	82	60	74	177	169	172
21	191	184	189	136	109	123	82	76	79	178	173	176
22	189	184	187	136	126	133	84	78	82	177	172	175
23	191	187	188	132	125	129	84	80	82	179	173	177
24	189	184	187	135	131	134	88	81	84	175	169	174
25	197	190	195	197	87	131	99	88	92	175	168	171
26	201	198	199	89	83	85	106	97	102	168	161	164
27	206	200	204	95	89	93	111	104	109	162	159	160
28	215	206	211	121	78	94	115	108	112	163	161	162
29	218	214	215	93	79	87	126	114	120	---	---	163
30	221	218	220	91	87	88	138	126	133	---	---	164
31	---	---	---	98	91	96	198	138	159	---	---	---
MONTH	261	140	196	226	78	131	198	60	126	242	56	145
YEAR	450	56	206									

TEMPERATURE, WATER (DEG. C). WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	19.5	19.5	13.0	11.5	12.5	7.5	6.5	7.0	5.0	4.0	4.5
2	21.5	19.5	20.5	13.0	11.5	12.0	7.5	6.5	7.0	5.0	4.5	4.5
3	21.0	20.0	20.5	12.5	11.0	11.5	7.5	6.0	7.0	5.0	4.5	5.0
4	20.5	19.5	20.0	12.5	11.5	12.0	7.0	5.0	6.5	4.5	3.5	4.0
5	20.0	18.5	19.0	12.0	11.0	11.5	7.5	5.5	6.5	4.5	3.0	3.5
6	18.0	17.0	18.0	11.5	10.0	11.0	7.0	6.5	6.5	4.0	3.0	3.5
7	18.0	16.0	17.0	12.0	10.0	11.0	7.5	6.0	6.5	3.0	2.0	2.5
8	18.0	15.5	17.0	12.5	10.5	11.5	7.5	6.0	7.0	4.0	2.5	3.0
9	18.0	15.5	17.0	13.0	11.0	12.0	8.5	7.0	7.5	4.5	3.0	3.5
10	19.0	17.0	18.0	13.5	11.5	12.5	9.0	8.0	8.5	4.0	2.5	3.0
11	20.5	18.0	19.0	13.0	10.5	11.5	9.5	7.5	8.5	3.5	2.5	3.0
12	19.0	17.0	18.0	12.0	10.0	10.5	8.0	7.5	7.5	2.5	2.0	2.5
13	18.0	15.5	17.0	12.0	9.5	10.5	8.0	7.0	7.5	2.5	1.0	2.0
14	17.5	14.5	16.0	12.0	9.5	11.0	8.0	7.0	7.5	2.0	1.0	1.5
15	17.5	14.0	15.5	11.5	10.5	11.0	8.0	7.0	7.5	2.5	1.0	1.5
16	17.0	14.5	16.0	11.0	9.5	10.5	7.5	7.0	7.5	2.5	1.5	2.0
17	18.0	15.0	16.5	10.0	10.0	10.0	7.5	6.5	7.0	2.5	2.0	2.0
18	18.5	16.5	17.5	10.5	9.5	10.0	7.5	6.5	7.0	3.0	2.0	2.5
19	19.0	18.0	18.5	9.5	8.0	9.0	7.0	6.5	6.5	3.5	1.5	2.5
20	19.0	17.5	18.0	9.0	7.0	8.0	6.5	5.5	6.5	3.0	2.0	2.5
21	18.5	16.5	17.5	9.0	7.0	8.0	6.5	5.0	5.5	3.0	2.5	3.0
22	18.0	15.0	16.5	9.0	6.5	7.5	5.0	4.5	5.0	5.0	3.0	3.5
23	16.0	15.0	15.5	8.0	7.5	7.5	4.5	4.0	4.5	4.5	3.0	4.0
24	15.0	14.5	14.5	8.0	7.5	8.0	5.0	4.0	4.5	5.0	3.0	4.0
25	14.5	13.0	14.5	9.0	7.5	8.0	4.5	4.0	4.5	5.0	4.0	4.5
26	14.5	12.0	13.5	8.5	7.5	8.0	4.5	3.5	4.0	5.5	3.5	4.5
27	13.0	12.0	12.5	8.0	7.5	7.5	3.5	2.0	2.5	5.5	4.5	5.0
28	13.0	12.0	12.5	7.5	7.0	7.5	2.5	2.5	2.5	6.5	5.0	5.5
29	13.0	12.0	12.5	7.5	6.5	7.0	4.5	2.5	3.5	7.0	4.5	5.5
30	12.0	11.5	11.5	7.5	6.5	7.0	5.0	4.5	4.5	5.5	4.0	5.0
31	12.5	11.5	12.0	---	---	---	4.5	4.0	4.5	5.5	4.0	4.5
MONTH	21.5	11.5	15.5	13.5	6.5	10.0	9.5	2.0	6.0	7.0	1.0	3.5

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	3.0	4.0	12.0	10.0	11.0	14.5	13.5	14.0	22.0	19.5	20.5
2	4.5	3.0	4.0	12.5	11.0	12.0	14.5	13.5	14.0	20.0	18.5	19.5
3	5.0	3.0	4.5	12.5	11.0	11.5	16.0	14.0	15.0	19.5	17.5	18.5
4	4.5	3.0	3.5	11.0	10.0	10.5	17.0	14.5	15.5	19.5	17.5	18.5
5	4.0	2.5	3.0	10.5	10.0	10.0	17.0	16.0	16.5	20.0	17.5	19.0
6	3.5	2.5	3.0	11.0	10.0	10.5	16.0	14.5	15.5	20.5	19.0	20.0
7	3.5	2.5	3.0	11.0	9.5	10.0	16.0	14.0	14.5	20.0	17.5	18.5
8	3.5	3.0	3.0	10.0	8.5	9.5	16.5	14.0	15.0	18.0	16.5	17.0
9	4.5	2.5	3.5	10.0	8.5	9.5	16.0	15.0	15.5	17.5	16.5	17.0
10	4.5	3.0	4.0	10.0	9.0	9.5	16.5	14.5	15.5	17.5	17.0	17.0
11	8.0	4.5	7.0	10.0	9.0	9.5	18.0	16.0	17.0	19.0	17.0	18.0
12	7.0	6.5	6.5	10.0	8.0	9.5	19.0	17.0	18.0	20.0	18.0	19.0
13	6.5	4.0	5.5	11.0	8.5	9.5	18.5	17.5	17.5	20.0	18.0	19.0
14	6.0	5.0	5.5	10.5	9.0	9.5	18.5	17.0	17.5	20.5	18.0	19.5
15	6.5	5.0	6.0	11.0	9.0	10.0	18.5	17.0	17.5	22.5	19.5	21.0
16	7.0	5.5	6.0	10.5	9.5	10.0	18.5	17.0	17.5	21.0	19.5	20.5
17	7.0	6.0	6.5	10.5	8.5	9.5	18.5	17.0	17.5	20.5	19.0	20.0
18	7.5	7.0	7.5	11.0	9.5	10.0	19.5	17.0	18.0	21.0	19.5	20.5
19	10.0	7.5	8.5	10.0	9.0	9.5	19.0	17.0	18.0	20.0	17.5	19.0
20	11.0	10.0	10.5	10.0	8.5	9.5	19.0	18.0	18.5	17.5	16.0	17.0
21	11.0	10.0	10.5	10.0	8.0	9.0	19.0	16.5	18.0	17.0	15.0	16.0
22	11.0	10.0	10.5	8.5	7.0	8.0	18.5	16.5	17.5	18.5	17.0	18.0
23	12.0	11.0	11.5	7.5	7.0	7.5	19.0	17.0	18.0	19.0	17.5	18.0
24	11.5	10.0	11.0	7.5	6.5	7.0	19.5	17.5	18.5	20.5	18.5	19.5
25	11.0	9.5	10.0	8.5	6.5	7.5	19.0	17.0	18.0	22.0	20.0	21.0
26	11.0	9.5	10.0	9.0	7.0	8.0	18.0	16.5	17.5	23.0	21.0	22.0
27	11.0	9.5	10.0	10.0	9.0	9.5	19.5	17.0	18.0	22.0	21.0	21.5
28	11.5	9.5	10.5	11.0	9.5	10.5	20.5	18.0	19.5	22.0	21.0	21.5
29	---	---	---	12.5	10.0	11.5	22.5	19.5	21.0	22.5	20.5	21.5
30	---	---	---	13.5	11.0	12.0	21.5	20.0	20.5	23.0	21.0	22.0
31	---	---	---	14.0	12.0	13.0	---	---	---	24.5	22.0	23.5
MONTH	12.0	2.5	7.0	14.0	6.5	10.0	22.5	13.5	17.0	24.5	15.0	19.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	22.5	24.0	24.5	22.5	23.5	24.5	24.0	24.5	24.5	23.5	24.0
2	22.5	22.0	22.0	23.5	22.5	23.0	25.0	24.5	24.5	24.5	23.5	24.0
3	22.5	22.0	22.5	22.5	21.5	22.5	25.5	24.5	25.0	25.0	24.0	24.5
4	23.5	22.5	23.0	22.0	21.0	21.5	26.5	25.0	25.5	25.5	24.5	25.0
5	24.0	22.5	23.5	22.5	21.0	22.0	27.0	25.5	26.5	25.0	22.5	24.0
6	24.5	23.5	24.0	24.0	21.5	23.0	27.5	26.5	27.0	23.0	22.0	22.5
7	24.5	22.5	23.5	24.0	23.0	23.5	27.0	26.0	26.5	23.0	22.5	22.5
8	24.5	24.0	24.0	25.5	23.5	24.5	27.0	26.5	26.5	23.0	22.0	22.5
9	25.0	24.0	24.5	26.5	24.5	25.5	26.5	26.5	26.5	23.0	23.0	23.0
10	25.5	24.0	24.5	27.0	25.5	26.5	27.0	26.5	26.5	23.5	22.5	23.0
11	26.0	24.5	25.0	28.0	26.5	27.0	28.0	26.5	27.0	23.5	21.5	23.0
12	25.0	24.0	25.0	28.0	26.5	27.0	26.5	23.5	24.5	24.0	22.5	23.5
13	25.0	24.0	24.5	28.5	27.0	27.5	25.5	24.0	25.0	24.0	23.0	23.5
14	25.5	24.0	25.0	28.5	26.5	27.5	26.5	25.5	26.0	24.5	23.0	24.0
15	26.5	25.5	26.0	27.0	25.5	26.5	26.0	25.5	25.5	24.5	23.5	24.0
16	27.0	25.5	26.5	26.5	25.5	26.0	26.5	25.5	25.5	25.0	24.0	24.5
17	28.5	26.5	27.5	26.0	24.0	25.0	25.5	24.0	25.0	24.0	23.0	23.5
18	27.0	25.5	26.5	25.0	24.0	24.5	24.5	16.0	23.5	23.0	15.0	22.5
19	25.0	24.5	25.0	26.0	25.0	25.5	24.0	21.0	23.0	22.0	21.0	21.5
20	25.5	24.5	25.0	26.0	25.0	25.5	21.0	20.5	20.5	21.0	20.0	20.5
21	26.0	25.0	25.5	26.5	25.5	26.0	21.0	20.5	20.5	21.0	19.5	20.0
22	27.0	25.5	26.5	26.5	25.5	26.0	21.5	20.5	21.5	21.0	20.0	20.5
23	27.5	26.5	27.0	26.5	25.5	26.0	22.0	21.0	21.5	21.0	20.0	20.5
24	27.0	26.0	26.5	26.5	25.0	26.0	22.5	21.5	22.0	20.5	19.0	20.0
25	29.0	26.0	27.5	26.0	23.5	25.0	23.5	22.0	22.5	20.0	18.5	19.5
26	27.0	26.0	26.0	24.5	23.5	24.0	24.0	22.5	23.0	20.0	18.5	19.0
27	26.0	24.5	25.5	26.0	24.5	25.5	24.0	22.5	23.0	20.0	18.5	19.5
28	25.5	23.0	24.5	26.5	24.5	25.0	24.0	23.0	23.5	19.5	19.0	19.0
29	25.5	22.5	24.0	25.0	24.5	25.0	24.0	23.5	23.5	---	---	---
30	25.0	23.0	24.0	25.5	24.5	25.0	24.0	23.5	23.5	---	---	---
31	---	---	---	25.0	24.5	25.0	24.0	23.5	24.0	---	---	---
MONTH	29.0	22.0	25.0	28.5	21.0	25.0	28.0	16.0	24.5	25.5	15.0	22.5
YEAR	29.0	1.0	15.5									

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
06...	1130	46	19	2.4	88
DEC					
30...	1130	200	15	8.1	34
MAR					
10...	1200	130	17	6.0	97
AUG					
11...	1230	95	15	3.8	93

02101800 TICK CREEK NEAR MOUNT VERNON SPRINGS, NC

LOCATION.--Lat 35°39'37", long 79°24'08" (revised), Chatham County, Hydrologic Unit 03030003, on right bank 200 ft (61 m) upstream from bridge on U.S. Highway 421, 1.5 mi (2.4 km) east of Mount Vernon Springs, and 4 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--15.5 mi² (40.1 km²), revised.

PERIOD OF RECORD.--June 1958 to September 1981 (discontinued).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 455 ft (139 m), by barometer.

REMARKS.--Records good.

AVERAGE DISCHARGE.--23 years, 14.8 ft³/s (0.419 m³/s), 12.97 in/yr (329 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,120 ft³/s (88.4 m³/s) July 13, 1975, gage height, 9.43 ft (2.874 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1000	*536	15.2	*5.28	1.609	July 4	0400	448	12.7	5.01	1.527

No flow Oct. 1-3, 12-30, June 29-July 2, Aug. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.09	.67	2.4	1.3	3.3	7.0	1.5	.39	.00	.01	.14
2	.00	.05	.53	2.0	19	3.0	5.6	1.6	.61	.00	.01	.13
3	.00	.03	.47	1.6	11	2.7	4.2	1.5	1.1	.26	.01	.12
4	.09	.05	.59	1.4	5.4	2.5	3.5	1.4	.82	142	.02	.06
5	.04	.21	.56	1.1	3.7	5.4	3.4	1.4	.37	9.0	.01	50
6	.06	.21	.59	.99	2.8	4.3	4.2	1.4	1.2	9.2	.01	19
7	.03	.16	.38	1.3	2.6	3.5	3.3	1.8	2.5	3.8	.01	78
8	.01	.10	.53	1.5	5.8	3.3	2.8	1.9	1.2	1.8	.01	19
9	.01	.07	.35	1.4	5.5	3.2	2.8	1.7	.62	1.1	.00	4.5
10	.01	.05	.18	1.2	3.9	3.2	3.6	1.7	.32	.68	.00	1.6
11	.01	.04	4.0	.99	278	3.4	3.0	4.1	.18	.39	.00	.92
12	.00	.04	1.9	.83	36	2.3	2.6	2.1	1.8	.22	1.5	.66
13	.00	.04	1.4	.64	15	2.0	2.3	1.3	3.0	.16	.62	.58
14	.00	.04	1.6	.83	9.8	1.9	2.1	1.1	1.1	.17	.18	.39
15	.00	.06	1.2	1.0	7.6	1.6	2.0	1.0	.48	.47	.06	.32
16	.00	.09	1.2	1.0	6.2	1.7	1.8	.76	.23	.15	.03	.52
17	.00	.15	1.3	.90	5.5	1.7	1.7	.63	.13	.22	.16	.66
18	.00	1.7	1.2	.77	4.9	1.7	1.8	.66	.08	.15	.14	.64
19	.00	.94	1.1	.86	51	1.8	1.7	.73	.06	.09	28	.57
20	.00	.61	.97	.90	48	1.6	1.6	2.8	.06	.07	16	.48
21	.00	.49	.79	1.4	20	1.6	1.6	4.0	.07	.16	3.2	.42
22	.00	.38	.63	1.9	12	1.9	1.4	1.7	.06	.10	1.5	.40
23	.00	.35	.88	1.6	8.9	26	1.4	1.2	.04	.06	1.0	.32
24	.00	9.2	1.2	1.4	6.9	17	1.4	.93	.03	.03	.67	.28
25	.00	7.8	1.2	1.3	5.5	7.6	1.2	.71	.02	.02	.42	.22
26	.00	2.1	.88	1.3	4.6	5.5	1.1	.57	.02	.01	.26	.19
27	.00	1.8	.88	1.3	3.7	4.4	1.0	.54	.02	.01	.17	.16
28	.00	1.7	2.1	1.4	3.4	3.6	.95	3.6	.01	.01	.14	.12
29	.00	1.3	11	1.4	---	3.1	1.2	2.4	.00	.01	.11	.09
30	.00	1.4	5.7	1.4	---	11	1.4	1.6	.00	.01	.15	.09
31	.05	---	3.4	1.5	---	13	---	.99	---	.02	.16	---
TOTAL	.31	31.25	49.38	39.51	588.0	148.8	73.65	49.32	16.52	170.37	54.56	180.58
MEAN	.010	1.04	1.59	1.27	21.0	4.80	2.46	1.59	.55	5.50	1.76	6.02
MAX	.09	9.2	11	2.4	278	26	7.0	4.1	3.0	142	28	78
MIN	.00	.03	.18	.64	1.3	1.6	.95	.54	.00	.00	.00	.06
CFSM	.001	.07	.10	.08	1.36	.31	.16	.10	.04	.36	.11	.39
IN.	.00	.07	.12	.09	1.41	.36	.18	.12	.04	.41	.13	.43

CAL YR 1980 TOTAL 4177.44 MEAN 11.4 MAX 350 MIN .00 CFSM .74 IN 10.03
WTR YR 1981 TOTAL 1402.25 MEAN 3.84 MAX 278 MIN .00 CFSM .25 IN 3.37

CAPE FEAR RIVER BASIN

02102000 DEEP RIVER AT MONCURE, NC

LOCATION (REVISED).--Lat 35°37'38", long 79°06'58", Lee County, Hydrologic Unit 03030003, on right bank 1.0 mi (1.6 km) upstream from Lockville Dam, 1.2 mi (1.9 km) upstream from bridge on U.S. Highway 1, 1.5 mi (2.4 km) northwest of Moncure, 2.2 mi (3.5 km) downstream from Rocky River, and 4.5 mi (7.2 km) upstream from confluence with Haw River.

DRAINAGE AREA.--1,434 mi² (3,714 km²), revised.

WATER-DISCHARGE RECORDS

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 822: Drainage area. WSP 1082: (1930-46 not previously published).

GAGE.--Water-stage recorder. Datum of gage is 185.06 ft (56.406 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Diurnal fluctuation and some regulation at low flow caused by small powerplants above station.

AVERAGE DISCHARGE.--51 years, 1,445 ft³/s (40.92 m³/s), 13.68 in/yr (347 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,300 ft³/s (2,270 m³/s) Sept. 18, 1945, gage height, 17.20 ft (5.243 m); minimum, 5.5 ft³/s (0.16 m³/s) Oct. 10, 1954, gage height, 0.35 ft (0.107 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft³/s (348 m³/s) Feb. 12, gage height, 6.77 ft (2.063 m), no peak above base of 15,000 ft³/s (425 m³/s); minimum discharge, 47 ft³/s (1.331 m³/s) Oct. 23, gage height, 0.90 ft (0.274 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	115	326	677	213	533	1010	186	340	56	446	350
2	251	224	269	538	335	494	871	173	485	53	293	308
3	506	213	227	441	957	478	754	161	541	57	214	276
4	408	159	202	357	1250	449	613	155	686	5760	183	219
5	303	168	186	302	785	456	522	152	487	7470	164	374
6	307	149	176	278	498	542	487	152	325	1870	157	4380
7	226	210	170	263	384	756	468	165	437	1150	147	5870
8	161	230	163	273	351	618	498	179	495	1080	142	4640
9	131	165	161	267	378	494	439	160	690	536	532	2540
10	112	132	174	267	481	434	403	184	367	329	300	1180
11	98	110	266	258	4260	400	404	214	239	245	444	754
12	82	98	566	227	11900	374	417	306	201	197	5520	508
13	72	89	627	213	7620	355	391	253	302	166	9580	394
14	66	83	436	208	1870	337	355	227	744	144	2990	317
15	62	81	344	208	1160	319	333	194	452	132	940	251
16	60	83	302	206	903	308	308	164	275	123	506	215
17	59	91	280	201	752	286	297	143	215	148	378	198
18	58	228	277	195	651	270	286	130	170	995	754	280
19	59	314	273	185	767	264	280	116	145	1050	950	495
20	56	412	262	186	6380	265	272	116	476	439	7410	362
21	55	339	244	198	6320	258	271	147	440	267	4870	271
22	51	234	228	246	2980	244	267	164	281	211	1430	207
23	49	179	224	276	1590	392	259	361	185	202	755	179
24	50	179	220	286	1150	1580	255	270	143	221	507	166
25	53	843	221	278	930	1920	240	190	122	477	383	155
26	55	1370	226	260	756	1290	232	160	112	1050	315	142
27	63	724	230	244	662	970	223	147	101	1070	273	127
28	67	439	255	230	584	710	217	158	83	485	236	114
29	67	358	575	221	---	580	209	218	69	1190	215	107
30	76	354	966	218	---	544	198	357	62	1700	393	102
31	98	---	961	218	---	616	---	279	---	854	407	---
TOTAL	3949	8373	10037	8425	56867	17536	11779	5981	9670	29727	41834	25481
MEAN	127	279	324	272	2031	566	393	193	322	959	1349	849
MAX	506	1370	966	677	11900	1920	1010	361	744	7470	9580	5870
MIN	49	81	161	185	213	244	198	116	62	53	142	102
CFSM	.09	.20	.23	.19	1.42	.40	.27	.14	.23	.67	.94	.59
IN.	.10	.22	.26	.22	1.48	.45	.31	.16	.25	.77	1.09	.66

CAL YR 1980 TOTAL 403162 MEAN 1102 MAX 14100 MIN 44 CFSM .77 IN 10.46
WTR YR 1981 TOTAL 229659 MEAN 629 MAX 11900 MIN 49 CFSM .44 IN 5.96

02102000 DEEP RIVER AT MONCURE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/20	10 55	0000	0.95	54	75		19.0	6.0	9.4	100.0	21	1.3
80/11/14	10 45	0000	1.08	84	50		10.0	6.0	10.6	93.8	18	0.9
81/01/15	12 15	0000	1.40	207	41	7.40	6.0	6.0	12.8	102.4	16	0.6
81/02/19	12 15	0000	2.19	767	76		12.0	80.0	9.6	88.9	39	1.5
81/03/26	12 20	0000	2.75	1300		7.17	10.0	20.0	10.7	94.7	23	1.7
81/04/09	12 20	0000	1.85	486	120		16.0	9.0	9.7	97.0	16	0.9
81/05/21	10 00	0000	1.22	107		6.20	14.0		8.2	78.8		0.4
81/06/08	12 10	0000	1.83	380		7.86	29.0	85.0	6.5	83.3		1.8
81/07/21	12 45	0000	2.06	662		7.39	25.0	20.0	7.4	88.1		2.2
81/08/06	13 10	0000	1.28	164		6.48	25.0	60.0	6.1	72.6		5.5
81/09/10	12 15	0000	2.54	1170		7.26	24.0	80.0	8.5	100.0		1.0

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/20	10 55	0000	10	31								
80/11/14	10 45	0000	10K	48								
81/01/15	12 15	0000	10K	26								
81/02/19	12 15	0000	70	13	0.81	0.170	0.600	0.170	0.060	10K	50K	50K
81/03/26	12 20	0000	50	27								
81/04/09	12 20	0000	10K	23								
81/05/21	10 00	0000	300									
81/06/08	12 10	0000	50	25	1.50	0.070	0.600	0.420	0.270	10K	50K	50K
81/07/21	12 45	0000	100	21								
81/08/06	13 10	0000	10	18								
81/09/10	12 15	0000	150	14	0.56	0.050K	0.700	0.230	0.120	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
81/02/19	12 15	0000	100K	40K	1700	100K	80.0	0.5K	50K
81/06/08	12 10	0000	100K	40K	900	100K	200.0	1.4	50K
81/09/10	12 15	0000	100K	40K	1100	100K	70.0	0.5K	50K

K Less than noted value.

02102192 BUCKHORN CREEK NEAR CORINTH, NC

LOCATION (REVISED).--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 (0.3 km) downstream from White Oak Creek, 1.2 mi (1.9 km) downstream from Shearon Harris Main Reservoir, and 2 mi (3.2 km) east of Corinth.

DRAINAGE AREA.--76.3 mi² (198 km²), revised.

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

GAGE.--Water-stage recorder. Datum of gage is 154.63 ft (47.131 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Since Dec. 1, 1980, considerable regulation by Shearon Harris Main Reservoir (see p. 331).

AVERAGE DISCHARGE.--9 years, 75.0 ft³/s (2.124 m³/s), 13.35 in/yr (339 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,920 ft³/s (196 m³/s) Feb. 2, 1973, gage height, 20.02 ft (6.102 m); minimum, 0.01 ft³/s (<0.001 m³/s) Sept. 2, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 284 ft³/s (8.04 m³/s) Feb. 19, gage height, 3.93 ft (1.198 m); minimum, 0.10 ft³/s (0.003 m³/s) July 23, Aug. 6; minimum gage height, 1.15 ft (0.351 m) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	5.3	1.1	2.8	2.8	2.6	2.3	1.4	1.0	.14	.14	.62
2	6.8	3.5	1.1	2.5	7.4	2.6	2.2	1.3	.86	.19	.16	.52
3	4.8	2.7	1.5	2.5	4.9	2.5	2.0	1.4	.99	.53	.19	.49
4	8.2	3.9	1.8	2.5	3.5	2.6	2.0	1.7	.84	2.3	.16	.49
5	7.4	2.9	2.4	2.3	3.1	3.8	2.3	1.6	.72	.80	.12	1.2
6	14	.38	2.2	2.5	2.8	2.8	2.6	1.5	1.7	.65	.14	1.8
7	8.1	.38	2.0	2.8	2.8	2.5	2.0	2.7	2.7	.58	.17	2.4
8	4.2	.50	2.0	2.5	3.3	2.5	2.0	2.6	1.1	.49	.64	2.5
9	2.5	.48	1.9	2.3	3.1	2.3	2.0	2.1	.75	.44	1.2	3.0
10	1.3	.46	5.1	2.3	2.8	2.1	2.3	2.5	.61	.37	.68	1.7
11	.87	.83	3.0	2.2	25	2.1	1.9	3.6	.51	.32	.56	1.2
12	.84	.79	1.6	2.0	9.6	2.0	1.5	2.8	.90	.31	9.7	.98
13	.79	1.6	1.5	2.0	5.5	2.0	1.7	2.0	1.0	.28	1.3	.90
14	.71	2.1	1.4	2.3	4.6	1.9	1.6	1.9	.80	.20	.68	.74
15	.71	4.0	1.4	2.3	4.1	2.0	1.5	1.9	.65	.18	.57	.68
16	.71	5.6	1.8	2.3	3.5	2.1	1.6	1.6	.53	.17	.56	.68
17	1.0	8.5	1.9	2.2	3.3	2.2	1.8	1.5	.45	.20	.55	.68
18	1.4	9.6	1.7	2.0	3.3	2.7	1.8	1.8	.38	.16	.50	.68
19	2.0	3.9	1.6	2.2	50	2.7	1.7	1.9	.44	.16	2.4	.65
20	2.7	2.4	1.7	2.2	58	2.7	1.7	2.5	.58	.16	2.5	.55
21	2.5	2.4	1.6	4.4	14	2.5	1.9	3.1	.52	.15	1.2	.50
22	2.3	2.0	1.7	3.8	7.6	2.6	1.6	2.5	.44	.13	2.0	.51
23	2.0	1.4	2.9	3.1	5.6	9.0	1.5	1.9	.33	.11	2.3	.46
24	2.7	4.7	3.1	2.7	4.6	4.4	1.5	1.4	.29	.15	1.3	.44
25	2.8	5.6	2.7	2.5	3.9	2.9	1.6	1.3	.24	.15	.99	.42
26	3.4	2.5	2.4	2.5	3.3	2.5	1.6	1.1	.21	.16	.86	.38
27	3.2	1.3	3.1	2.5	3.0	2.2	1.6	1.3	.18	.26	.73	.36
28	3.1	1.1	9.2	2.5	2.8	2.1	1.4	3.5	.19	.20	.65	.32
29	3.2	.85	10	2.5	---	1.9	1.5	2.0	.17	.16	.62	.29
30	7.5	.93	4.3	2.8	---	3.0	1.3	1.5	.14	.16	.69	.30
31	7.4	---	3.4	2.7	---	2.9	---	1.1	---	.14	.71	---
TOTAL	118.53	82.60	83.1	78.7	248.2	84.7	54.0	61.0	20.22	10.40	34.97	26.44
MEAN	3.82	2.75	2.68	2.54	8.86	2.73	1.80	1.97	.67	.34	1.13	.88
MAX	14	9.6	10	4.4	58	9.0	2.6	3.6	2.7	2.3	9.7	3.0
MIN	.71	.38	1.1	2.0	2.8	1.9	1.3	1.1	.14	.11	.12	.29

CAL YR 1980 TOTAL 19138.19 MEAN 52.3 MAX 951 MIN .38
WTR YR 1981 TOTAL 902.86 MEAN 2.47 MAX 58 MIN .11

CAPE FEAR RIVER BASIN

02102500 CAPE FEAR RIVER AT LILLINGTON, NC

LOCATION.--Lat 35°24'22" (revised), long 78°48'48", Harnett County, Hydrologic Unit 03030004, on right bank 60 ft (18 m) downstream from downstream bridge on U.S. Highway 401, 1,860 ft (567 m) downstream from Southern Railway bridge (revised), 0.5 mi (0.8 km) north of Lillington, 1 mi (1.6 km) downstream from Neal Creek, and at mile 178 (286 km).

DRAINAGE AREA.--3,464 mi² (8,972 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 1002: 1930(M). WSP 1032: 1942(m). WSP 1303: 1944(M). WSP 1333: 1945. WSP 1383: 1924-29, 1936. WSP 1703: 1929.

GAGE.--Water-stage recorder. Datum of gage is 104.62 ft (31.888 m) 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 (18 m) upstream in bridge pier at same datum. Gage height telemeters at station.

REMARKS.--Water-discharge 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 (see p. 328). Diurnal fluctuation and slight regulation at low flow caused by powerplants above station. Fluctuation and regulation by Buckhorn Reservoir 13 mi (21 km) above station ended in December 1962.

AVERAGE DISCHARGE.--57 years (water years 1924-81), 3,354 ft³/s (94.99 m³/s), 13.15 in/yr (334 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s (4,250 m³/s) Sept. 19, 1945, gage height, 33.19 ft (10.116 m), from floodmark, from rating curve extended above 76,000 ft³/s (2,150 m³/s); maximum daily, 140,000 ft³/s (3,960 m³/s) Sept. 19, 1945; minimum discharge, 11 ft³/s (0.31 m³/s) Oct. 14, 15, 1954, gage height, -0.17 ft (-0.052 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,000 ft³/s (595 m³/s) Feb. 12, gage height, 11.48 ft (3.499 m), no peak above base of 30,000 ft³/s (850 m³/s); minimum, 117 ft³/s (3.31 m³/s) July 2, gage height, 0.56 ft (0.171 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	726	747	915	1540	694	1360	2730	551	712	204	987	597
2	998	813	854	1240	912	1280	2540	563	1700	144	637	451
3	1370	688	719	1080	1990	1230	2080	571	1800	217	465	430
4	1180	584	582	835	2900	1150	1830	505	1560	5520	434	420
5	887	607	527	775	1990	1240	1520	426	1320	17500	343	403
6	868	669	552	768	1370	1980	1450	399	1020	11700	353	3630
7	723	831	549	664	1100	2380	1470	440	1040	8950	325	7660
8	602	734	531	784	1050	1890	1460	470	1390	7250	402	11400
9	498	568	591	725	1100	1480	1270	472	1770	2800	782	7470
10	445	500	534	697	1280	1270	1190	507	1120	1050	876	3550
11	433	450	809	641	3760	1150	1260	549	794	757	557	2800
12	410	400	1220	619	20200	1080	1260	773	557	613	5250	1570
13	370	360	1460	617	17500	1030	1110	947	577	519	10400	801
14	322	342	1080	503	8110	1010	1030	895	816	452	5970	688
15	246	350	836	620	3530	946	953	659	1030	377	1980	535
16	305	389	860	612	2340	920	841	512	740	354	1060	624
17	337	394	674	574	1940	854	804	449	309	388	674	376
18	380	717	758	554	1680	881	753	379	229	1130	615	368
19	361	919	748	569	1970	840	746	357	199	3130	1120	483
20	350	1090	687	539	11200	812	759	350	1960	1320	7410	611
21	637	1010	561	697	14400	774	733	489	1470	759	8850	498
22	601	733	546	733	8020	746	868	1250	827	552	3770	420
23	399	580	710	889	4610	951	863	1200	584	365	2120	365
24	339	587	555	940	3130	3430	746	931	431	606	1310	320
25	334	1320	585	880	2460	5390	707	680	351	557	838	299
26	277	2900	576	801	2040	4010	717	529	302	1100	631	292
27	317	2000	608	808	1680	2880	654	464	264	2290	556	285
28	387	1280	739	723	1510	2050	603	511	194	1430	441	272
29	440	1060	1190	669	---	1690	558	1230	219	937	443	253
30	432	1030	1840	661	---	1580	515	1120	275	2930	444	247
31	495	---	2010	632	---	1730	---	871	---	1760	580	---
TOTAL	16469	24652	25406	23389	124466	50014	34020	20049	25560	77661	60623	48118
MEAN	531	822	820	754	4445	1613	1134	647	852	2505	1956	1604
MAX	1370	2900	2010	1540	20200	5390	2730	1250	1960	17500	10400	11400
MIN	246	342	527	503	694	746	515	350	194	144	325	247
CFSM	.15	.24	.24	.22	1.28	.47	.33	.19	.25	.72	.57	.46
IN.	.18	.26	.27	.25	1.34	.54	.37	.22	.27	.83	.65	.52

CAL YR 1980 TOTAL 1003023 MEAN 2741 MAX 25800 MIN 161 CFSM .79 IN 10.77
WTR YR 1981 TOTAL 530427 MEAN 1453 MAX 20200 MIN 144 CFSM .42 IN 5.70

02102500 CAPE FEAR RIVER AT LILLINGTON, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/08	11 10 0000		1.59	617	200	5.90	18.0	3.2	12.4	130.5	21	0.8
80/11/04	11 45 0000		1.50	547	170	7.40	16.0	3.6	10.0	100.0	19	2.2
80/12/11	12 10 0000		1.83	769	110	6.60	13.0	10.0	9.2	86.8	23	1.0
81/01/29	12 30 0000		1.70	677	202	6.60	7.0	5.0	12.0	98.4	19	1.0
81/02/03	12 00 0000		3.10	2030	175	6.50	5.0	20.0	11.8	92.2	20	1.7
81/03/16	12 40 0000		1.90	820	134	6.76	12.0	25.0	10.6	98.1	18	1.6
81/04/08	12 15 0000		2.58	1420	134	6.97	20.0	15.0	8.6	93.5	32	1.3
81/05/12	14 20 0000		1.92	835		6.50	21.0	6.0	8.5	94.4		0.5
81/06/03	12 24 0000		2.76	1520		6.97	24.0	15.0	7.3	85.9		1.1
81/07/23	10 45 0000		1.15	334		6.81	25.0	35.0	6.2	73.8		0.9
81/08/26	11 10 0000		1.64	630		6.99	24.0	25.0	7.4	87.1		1.3
81/09/16	12 45 0000		1.48	529		6.93	25.0	50.0	7.2	85.7		1.2

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/08	11 10 0000		30		1.50	0.050K	0.500	0.410	0.360			
80/11/04	11 45 0000		10K		1.90	0.050K	1.000	0.600	0.540			
80/12/11	12 10 0000		60		0.95	0.050K	0.400	0.270	0.180	10K	50K	50K
81/01/29	12 30 0000		60		1.40	0.490	1.000	0.550	0.440			
81/02/03	12 00 0000		100		1.00	0.400	0.900	0.470	0.390			
81/03/16	12 40 0000		30		0.99	0.050K	0.400	0.300	0.110	10K	50K	50K
81/04/08	12 15 0000		10K		0.82	0.150	0.500	0.230	0.160			
81/05/12	14 20 0000		110		1.00	0.060	0.600	0.290	0.210			
81/06/03	12 24 0000		40		1.00	0.160	0.600	0.350	0.280	10K	50K	50K
81/07/23	10 45 0000		100		0.76	0.060	0.500	0.270	0.180			
81/08/26	11 10 0000		50		0.67	0.050K	0.500	0.200	0.110			
81/09/16	12 45 0000		110		0.74	0.050	0.900	0.210	0.100	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/11	12 10 0000		100K	40K	600	100K	50.0K		50K
81/03/16	12 40 0000		100K	40K	1600	100K	300.0	0.5K	50K
81/06/03	12 24 0000		100K	40K	800	100K	90.0	1.1	50K
81/09/16	12 45 0000		100K	40K	900	100K	60.0		50K

K Less than noted value.

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 (5 m) downstream from culvert on Manchester Road, 0.4 mi (0.6 km) upstream from mouth, and 3.6 mi (5.8 km) east of Inverness.

DRAINAGE AREA.--7.63 mi² (19.76 km²), revised.

PERIOD OF RECORD.--June 1968 to current year.

REVISED RECORDS.--WDR NC-72-1: 1968-70 (M).

GAGE.--Water-stage recorder. Datum of gage is 191.18 ft (58.272 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some diurnal fluctuation at low flow during growing season.

AVERAGE DISCHARGE.--13 years, 12.7 ft³/s (0.360 m³/s), 22.60 in/yr (574 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 394 ft³/s (11.2 m³/s) Apr. 1, 1973, gage height, 7.30 ft (2.225 m); minimum, 2.4 ft³/s (0.068 m³/s) Feb. 12, 1969, gage height, 0.85 ft (0.259 m) due to regulation from unknown source; minimum unregulated, 2.6 ft³/s (0.074 m³/s) July 15, 16, 1981, gage height, 0.74 ft (0.226 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft³/s (1.59 m³/s) Oct. 1, gage height, 1.89 ft (0.576 m), no peak above base of 60 ft³/s (1.70 m³/s); minimum, 2.6 ft³/s (0.074 m³/s) July 15, 16, gage height, 0.74 ft (0.226 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	10	8.6	10	8.4	8.2	8.0	6.1	5.0	4.2	4.6	6.4
2	33	8.7	8.4	10	14	8.2	7.6	5.6	5.4	4.7	5.1	5.6
3	17	8.4	8.3	9.5	10	8.0	7.0	5.4	5.4	11	7.5	5.2
4	17	12	8.1	9.4	8.2	8.0	6.9	5.4	5.0	14	5.1	5.1
5	13	14	8.1	9.0	7.8	13	7.0	5.2	4.6	6.5	4.1	5.5
6	17	9.5	8.1	8.7	7.7	9.7	8.3	5.2	4.6	5.9	3.9	5.9
7	12	8.7	8.4	11	7.9	8.5	7.1	13	6.5	4.8	5.4	6.9
8	11	8.3	8.2	9.9	10	8.4	6.9	12	5.3	4.2	8.6	7.9
9	9.9	8.0	8.2	8.9	8.5	8.4	6.9	6.9	4.9	3.8	37	8.0
10	9.5	7.5	15	8.9	7.9	8.3	7.1	7.2	4.6	3.6	9.9	5.7
11	9.1	7.3	19	8.5	21	8.1	6.7	7.0	4.3	3.4	6.2	5.0
12	8.6	7.4	11	8.3	15	8.1	6.6	5.9	5.8	3.6	6.2	4.7
13	8.7	7.5	9.7	8.0	9.7	7.9	6.5	5.4	5.7	3.4	5.9	4.6
14	8.8	7.5	9.1	8.6	9.1	7.7	6.6	5.2	5.1	3.3	5.0	4.5
15	8.4	8.1	8.9	8.9	8.7	7.5	6.4	5.0	4.5	3.3	4.6	4.4
16	8.2	10	9.0	8.7	8.4	7.6	6.3	4.9	4.2	4.5	4.4	4.1
17	8.2	10	9.1	8.5	8.2	7.4	6.3	5.0	4.1	6.2	4.8	4.5
18	8.3	20	8.8	8.3	8.4	7.5	6.3	5.0	4.2	4.3	5.1	4.6
19	9.3	11	8.7	8.3	15	8.6	6.0	5.1	6.9	3.7	12	4.4
20	9.1	9.0	8.4	8.0	28	7.8	6.6	5.8	8.5	3.6	17	4.2
21	8.2	11	8.3	13	13	7.6	6.5	9.3	4.9	3.8	8.0	4.2
22	8.2	9.6	8.3	11	10	7.6	6.2	6.1	4.2	4.0	10	4.1
23	8.4	8.9	13	9.1	9.8	18	6.2	5.2	3.9	3.4	14	4.1
24	11	12	12	8.5	9.2	13	6.0	4.9	3.9	4.0	10	4.1
25	10	18	10	8.2	8.8	8.9	5.7	4.7	3.9	8.5	9.0	4.1
26	9.0	11	9.2	8.1	8.6	8.1	5.7	4.7	4.6	4.6	8.0	3.9
27	8.3	10	9.7	8.1	8.3	7.8	5.6	5.3	4.1	4.7	7.6	3.8
28	8.3	10	18	8.1	8.3	7.4	5.4	20	3.9	4.3	7.2	3.7
29	8.4	9.4	18	7.8	---	7.3	5.2	8.1	3.8	3.9	7.0	3.7
30	19	8.8	12	7.9	---	9.5	5.3	5.8	3.8	4.1	6.8	3.8
31	16	---	11	7.9	---	9.8	---	5.0	---	4.5	8.4	---
TOTAL	389.9	301.6	320.6	277.1	297.3	271.9	194.9	206.4	145.6	151.8	258.4	146.7
MEAN	12.6	10.1	10.3	8.94	10.6	8.77	6.50	6.66	4.85	4.90	8.34	4.89
MAX	49	20	19	13	28	18	8.3	20	8.5	14	37	8.0
MIN	8.2	7.3	8.1	7.8	7.7	7.3	5.2	4.7	3.8	3.3	3.9	3.7
CFSM	1.65	1.32	1.35	1.17	1.39	1.15	.85	.87	.64	.64	1.09	.64
IN.	1.90	1.47	1.56	1.35	1.45	1.33	.95	1.01	.71	.74	1.26	.72

CAL YR 1980 TOTAL 4585.4 MEAN 12.5 MAX 100 MIN 5.1 CFSM 1.64 IN 22.35
WTR YR 1981 TOTAL 2962.8 MEAN 8.12 MAX 49 MIN 3.3 CFSM 1.06 IN 14.44

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 (30 m) upstream from William O. Huske Lock, 1 mi (1.6 km) downstream from Cumberland-Bladen County line, 7 mi (11 km) north of Tarheel, 9 mi (14 km) upstream from Phillips Creek, and at mile 123 (198 km).

DRAINAGE AREA.--4,852 mi² (12,567 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1964, published as Cape Fear River at Lock 3 near Tarheel, NC.

GAGE.--Water-stage recorder and concrete lock and dam control. Datum of gage is 28.968 ft (8.829 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 8, 1939, nonrecording gage on upper lock wall 100 ft (30 m) downstream at same datum. Auxiliary water-stage recorder 1.8 mi (2.9 km) downstream from base gage; prior to Jan. 14, 1943, auxiliary nonrecording gage 400 ft (122 m) downstream on lower end of lock wall; Jan. 14, 1943, to Sept. 30, 1953, auxiliary water-stage recorder at site 600 ft (183 m) downstream.

REMARKS.--Water-discharge 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 (see p. 328). Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station.

AVERAGE DISCHARGE.--44 years, 4,942 ft³/s (140.0 m³/s), 13.83 in/yr (351 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined; maximum gage height, 43.44 ft (13.24 m) Sept. 22, 1945; maximum daily discharge, 112,000 ft³/s (3,170 m³/s) Sept. 21, 1945; minimum discharge, 170 ft³/s (4.81 m³/s) Sept. 20, 1954; minimum daily, 208 ft³/s (5.89 m³/s) Sept. 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,900 ft³/s (564 m³/s) Feb. 13; maximum gage height, 11.82 ft (3.603 m) Feb. 13; minimum discharge, 392 ft³/s (11.1 m³/s) June 30, gage height, 0.69 ft (0.210 m); minimum daily, 417 ft³/s (11.8 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2660	1530	2110	3420	1360	2730	2880	819	1510	544	1840	1440
2	3460	1720	1830	2910	1550	2530	3480	849	1380	736	1250	1370
3	3860	1640	1660	2580	2140	2390	2910	843	2120	842	938	1090
4	3730	1520	1490	2330	3360	2260	2550	849	2080	1440	768	937
5	2960	1580	1340	2010	3690	2350	2270	776	1930	10600	716	851
6	2330	1590	1270	1860	2860	2640	2050	699	1640	14700	610	1020
7	2020	1660	1260	1860	2180	3430	1990	919	1420	11600	651	5810
8	1710	1660	1260	1840	1960	3440	2000	1310	1470	9130	590	9090
9	1490	1480	1230	1920	1970	2850	1840	1190	1790	6150	1150	10800
10	1290	1280	1350	1850	2030	2420	1800	1150	1900	2600	1810	7920
11	1120	1160	1580	1740	2560	2160	1790	1110	1400	1530	1560	4830
12	1030	1080	2000	1640	11000	2030	1870	1170	1060	1770	2760	3670
13	947	994	2520	1470	18600	1910	1730	1310	857	1340	8340	2310
14	871	931	2540	1390	16100	1840	1570	1410	851	976	10300	1450
15	810	905	2080	1330	9200	1740	1500	1290	1120	810	5300	1200
16	736	947	1780	1440	4720	1640	1400	1050	1260	677	2700	1060
17	719	1050	1730	1440	3480	1560	1310	871	995	698	2180	1020
18	745	1490	1580	1390	2990	1510	1260	768	647	703	1560	802
19	802	1940	1610	1360	2780	1560	1190	727	798	2060	1620	734
20	832	2120	1580	1340	6330	1530	1150	715	1310	2590	4580	785
21	820	2260	1440	1400	15100	1490	1140	1040	2440	1530	11000	888
22	1060	2100	1310	1660	14300	1440	1110	1170	1720	1140	8500	799
23	1090	1750	1390	1810	10200	1690	1220	1750	1200	869	5750	706
24	957	1550	1660	1950	6850	2070	1220	1560	890	681	3570	624
25	922	1630	1630	1880	5290	5130	1110	1250	699	789	2350	573
26	938	2740	1610	1760	4240	5820	1040	987	609	895	1630	544
27	886	3750	1570	1780	3490	4600	1030	830	566	1600	1280	533
28	866	2940	1830	1600	3000	3530	951	1330	512	2170	1080	525
29	887	2340	2510	1460	---	2680	885	1540	446	1560	909	509
30	1090	2080	2970	1400	---	2390	848	2060	417	1700	923	484
31	1370	---	3540	1420	---	2380	---	1780	---	2720	1210	---
TOTAL	45008	51417	55260	55240	163330	77740	49094	35122	37037	87150	89425	64374
MEAN	1452	1714	1783	1782	5833	2508	1636	1133	1235	2811	2885	2146
MAX	3860	3750	3540	3420	18600	5820	3480	2060	2440	14700	11000	10800
MIN	719	905	1230	1330	1360	1440	848	699	417	544	590	484
CFSM	.30	.35	.37	.37	1.20	.52	.34	.23	.26	.58	.60	.44
IN.	.35	.39	.42	.42	1.25	.60	.38	.27	.28	.67	.69	.49

CAL YR 1980 TOTAL 1458114 MEAN 3984 MAX 23700 MIN 509 CFSM .82 IN 11.18
WTR YR 1981 TOTAL 810197 MEAN 2220 MAX 18600 MIN 417 CFSM .46 IN 6.21

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/15	15 30	0000	1.16	831	120	6.50	21.0	4.8	9.6	106.7	22	3.8
80/11/06	14 30	0000	1.81	1580	100	6.80	16.0	3.4	9.9	99.0	13	2.4
80/12/15	16 00	0000	1.11	779	70	6.30	10.0	8.0	9.6	85.0	17	0.9
81/01/13	15 45	0000	1.67	1470	70		6.0	10.0	12.8	102.4	15	0.9
81/02/16	17 40	0000	3.31	4100	98	6.49	10.0	140.0	10.8	95.6	34	2.5
81/03/17	18 10	0000	1.13	800	97	5.80	14.0	15.0	10.8	103.8	14	1.0
81/04/16	15 35	0000	1.69	1430	114		19.0	5.0	8.4	89.4	13	0.7
81/05/13	17 00	0000	1.60	1320		7.13	24.0	9.0	8.3	97.6		1.8
81/06/10	17 00	0000	1.99	1820		6.63	26.0	15.0	7.0	85.4		0.8
81/07/09	15 20	0000	3.96	5590		7.09	25.0	50.0	6.7	79.8		1.9
81/08/19		0000	3.30	4080		6.54	21.0	30.0	6.6	73.3		1.6
81/09/23	17 28	0000	0.95	619		7.06	23.0	25.0	5.5	63.0		1.1

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/15	15 30	0000	30									
80/12/15	16 00	0000	290		0.69	0.250	0.500	0.240	0.180	10K	50K	50K
81/01/13	15 45	0000	10									
81/02/16	17 40	0000	230									
81/03/17	18 10	0000	10K	20	0.83	0.310	0.500	0.470	0.340	10K	50K	50K
81/04/16	15 35	0000	10	20								
81/05/13	17 00	0000	10K									
81/06/10	17 00	0000	100		1.60	0.410	0.900	0.520	0.390	10K	50K	50K
81/07/09	15 20	0000	60									
81/08/19		0000	1100									
81/09/23	17 28	0000	10		0.86	0.550	1.300	0.340	0.200	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/15	16 00	0000	100K	40K	700	100K	70.0	1.2	50K
81/03/17	18 10	0000	100K	40K	700	100K	110.0	0.5K	50K
81/06/10	17 00	0000	100K	40K	800	100K	110.0	0.9	50K
81/09/23	17 28	0000	100K	40K	800	100K	210.0	0.5K	50K

K Less than noted value.

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC

LOCATION.--Lat 34°46'02", long 78°41'24", Bladen County, Hydrologic Unit 03030005, on right bank 15 ft (5 m) upstream from culvert on Secondary Road 1325, 0.2 mi (0.3 km) upstream from mouth, and 3.0 mi (4.8 km) northeast of White Oak.

DRAINAGE AREA.--1.81 mi² (4.69 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder with concrete control. Altitude of gage is 70 ft (21 m) from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5.6 ft³/s (0.16 m³/s) Aug. 22, 1981, gage height, 2.99 ft (0.911 m); no flow at times each year.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 5.6 ft³/s (0.16 m³/s) Aug. 22, gage height, 2.99 ft (0.911 m); no flow many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	.93	.20	1.7	.48	.32	.20	.00	.00	.00	4.9	.41
2	.20	.54	.18	1.2	1.2	.28	.17	.00	.28	.00	4.6	.29
3	.06	.39	.14	.85	1.3	.28	.12	.00	4.7	.00	4.4	.17
4	.04	.95	.14	.66	1.0	.25	.08	.00	4.3	.92	4.0	.08
5	.06	1.3	.12	.52	.76	1.2	.06	.00	3.8	.75	3.2	.04
6	.04	.81	.10	.44	.60	1.4	.12	.00	3.2	.37	1.6	.04
7	.03	.55	.10	.52	.52	1.2	.13	.00	2.0	.19	.59	.03
8	.01	.42	.10	.55	.49	.88	.09	.15	.67	.04	.33	.06
9	.00	.31	.08	.50	.43	.63	.06	.42	.28	.01	.15	.73
10	.00	.20	.26	.42	.44	.52	.05	.38	.06	.00	.15	.53
11	.00	.12	.53	.37	1.9	.46	.03	.22	.01	.03	.07	.25
12	.00	.08	.48	.32	2.4	.40	.02	.04	.00	.90	.37	.07
13	.00	.06	.44	.29	2.2	.34	.01	.00	.00	.46	.36	.02
14	.00	.05	.40	.26	2.0	.30	.00	.00	.00	.10	.12	.00
15	.00	.04	.35	.25	1.6	.24	.00	.00	.00	.01	.03	.00
16	.00	.05	.34	.22	1.3	.21	.00	.00	.00	.00	.01	.00
17	.00	.07	.31	.21	.91	.20	.00	.00	.11	.01	.02	.08
18	.00	.20	.28	.20	.75	.17	.00	.00	1.7	.00	.03	.25
19	.00	.28	.23	.19	.75	.24	.00	.00	2.1	.00	2.5	.15
20	.00	.22	.20	.18	.75	.26	.00	.00	3.9	.00	5.1	.04
21	.00	.37	.17	.51	.69	.20	.00	.06	3.3	.00	4.9	.02
22	.00	.44	.14	.68	.60	.20	.00	.12	2.0	.00	5.2	.00
23	.00	.42	1.2	.63	.54	.36	.00	.03	.40	.00	5.2	.00
24	.00	.40	1.7	.54	.48	.39	.00	.00	.06	.00	4.9	.00
25	.31	.44	1.6	.47	.44	.32	.00	.00	.01	.00	4.6	.00
26	.53	.42	1.2	.43	.41	.26	.00	.00	.00	.00	4.2	.00
27	.41	.39	1.2	.40	.37	.20	.00	.00	.00	.00	3.7	.00
28	.25	.34	2.4	.59	.34	.15	.00	.00	.00	.00	2.9	.00
29	.12	.30	2.5	.66	---	.12	.00	.00	.00	.00	2.0	.00
30	1.0	.24	2.3	.57	---	.14	.00	.00	.00	.00	1.2	.00
31	1.5	---	2.0	.51	---	.22	---	.00	---	2.8	.69	---
TOTAL	4.93	11.33	21.39	15.84	25.65	12.34	1.14	1.42	32.88	6.59	72.02	3.26
MEAN	.16	.38	.69	.51	.92	.40	.038	.046	1.10	.21	2.32	.11
MAX	1.5	1.3	2.5	1.7	2.4	1.4	.20	.42	4.7	2.8	5.2	.73
MIN	.00	.04	.08	.18	.34	.12	.00	.00	.00	.00	.01	.00
CFSM	.09	.21	.38	.28	.51	.22	.02	.03	.61	.12	1.28	.06
IN.	.10	.23	.44	.33	.53	.25	.02	.03	.68	.14	1.48	.07

CAL YR 1980 TOTAL 236.23 MEAN .65 MAX 3.8 MIN .00 CFSM .36 IN 4.85
WTR YR 1981 TOTAL 208.79 MEAN .57 MAX 5.2 MIN .00 CFSM .32 IN 4.29

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1981.
WATER TEMPERATURES: October 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Zero flow Oct. 9-24, Apr. 14-30, May 1-7, 13-20, 24-31, June 1, 12-16, 26-30, July 1, 2, 3, 10, 16, 18-30, Sept. 14, 15, 16, 22-30. 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 CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 85 micromhos Oct. 6; minimum, 19 micromhos Aug. 14.
WATER TEMPERATURES: Maximum recorded, 31.0°C Aug. 11; minimum, 0.0°C Dec. 22, Jan. 5, 6, 11-14, 18, 19, Feb. 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT												
06...	1330	.04	80	3.9	19.0	70	3.4	K1200	K6	K6	13	--
NOV												
03...	1400	.41	62	3.8	13.5	15	5.3	440	K16	K4	5	--
JAN												
21...	0935	.68	39	3.8	4.5	40	9.0	--	30	76	4	--
MAR												
23...	1420	.38	32	4.5	7.0	50	8.9	--	K2	K13	3	--
JUL												
06...	1445	.34	35	4.7	27.0	90	5.6	--	--	--	3	2
31...	1615	5.4	20	6.0	--	80	6.3	--	--	--	6	--
AUG												
03...	1100	3.0	41	4.2	22.5	200	2.9	--	--	--	7	--

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)
OCT												
06...	.4	20	3.0	1.3	4.8	42	.6	1.1	--	0	--	--
NOV												
03...	.2	10	1.2	.6	3.2	55	.6	.2	--	0	--	--
JAN												
21...	.6	30	.9	.5	2.9	57	.6	.3	--	0	--	--
MAR												
23...	.1	5.0	.6	.3	2.8	67	.7	.2	--	0	--	--
JUL												
06...	--	--	.8	.2	2.9	66	.8	.3	1	0	1	78
31...	--	--	1.5	.5	1.3	27	.2	1.3	--	0	--	--
AUG												
03...	.5	25	1.9	.6	2.2	36	.4	1.0	--	0	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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)
OCT											
06...	23	3.7	.1	14	72	54	.10	.01	.00	.000	.00
NOV											
03...	13	3.7	.0	10	48	33	.07	.05	.01	.000	.01
JAN											
21...	7.1	4.0	<.1	10	49	28	.07	.09	--	<.010	.06
MAR											
23...	3.9	4.2	<.1	9.5	36	22	.05	.04	--	<.010	.01
JUL											
06...	3.2	4.0	<.1	11	51	24	.07	.05	--	<.010	.01
31...	9.1	1.9	<.1	4.4	48	22	.07	.70	--	<.010	.02
AUG											
03...	11	4.6	<.1	8.4	88	32	.12	.71	--	<.010	<.01

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (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, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT											
06...	.02	--	.020	.040	.02	.05	.50	.25	.52	.23	.29
NOV											
03...	.01	3.4	.040	.060	.05	.08	.37	.05	.41	.30	.11
JAN											
21...	.07	--	<.010	<.010	.01	.01	--	--	.13	.01	.12
MAR											
23...	.02	--	.040	.050	--	.06	.19	.16	.23	.02	.21
JUL											
06...	.02	--	.010	.040	--	.05	.60	.52	.61	.05	.56
31...	.04	--	.010	.040	--	.05	.49	.54	.50	.00	.58
AUG											
03...	.05	--	<.010	--	--	--	--	--	.60	--	--

DATE	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)	NITRO-GEN, TOT IN BOT-TOM MA-TERIAL (MG/KG AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT											
06...	--	.52	2.3	--	.31	.020	.00	.06	.020	.000	.020
NOV											
03...	890	.42	1.9	893	.12	.040	.06	.12	.010	.020	.020
JAN											
21...	--	.19	.84	--	.19	<.010	.03	.03	<.010	<.010	<.010
MAR											
23...	--	.24	1.1	--	.23	.010	--	.03	.020	.020	.030
JUL											
06...	--	.62	2.7	--	.58	.010	--	.03	<.010	<.010	<.010
31...	--	.52	2.3	--	.62	.020	--	.06	<.010	.030	<.010
AUG											
03...	--	--	--	--	--	.080	--	.25	.060	<.010	.050

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
OCT											
06...	.06	--	--	--	--	--	--	--	--	--	30
NOV											
03...	.06	27	0	0	0	0	0	0	0	<10	20
JAN											
21...	.03	--	--	--	--	--	--	--	--	--	10
MAR											
23...	.09	--	--	--	--	--	--	--	--	--	10
JUL											
06...	--	--	--	--	--	--	--	--	--	--	<10
31...	--	--	1	1	0	--	1	0	5	--	--
AUG											
03...	.15	--	2	1	1	--	1	0	4	--	20

DATE	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)
OCT											
06...	11	19	--	--	--	--	--	3	0	10	--
NOV											
03...	16	4	30	1	1	0	<10	1	0	3	<10
JAN											
21...	8	2	--	--	--	--	--	1	1	0	--
MAR											
23...	9	1	--	--	--	--	--	2	0	3	--
JUL											
06...	--	0	--	--	--	--	--	3	0	3	--
31...	--	<1	--	2	0	2	--	7	5	2	--
AUG											
03...	--	<1	--	2	0	3	--	6	2	4	--

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED 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, SUSPENDED 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, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT											
06...	1400	480	920	--	2	0	3	--	--	--	--
NOV											
03...	420	120	300	350	1	0	3	<10	40	0	50
JAN											
21...	610	330	280	--	0	0	0	--	--	--	--
MAR											
23...	630	370	260	--	17	16	1	--	--	--	--
JUL											
06...	1400	700	700	--	5	4	1	--	--	--	--
31...	430	60	370	--	2	0	4	--	60	0	60
AUG											
03...	2000	300	1700	--	9	6	3	--	90	0	90

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT										
06...	--	--	--	--	--	--	--	--	--	20
NOV										
03...	3	.2	.0	.2	.00	0	0	0	0	20
JAN										
21...	--	--	--	--	--	--	--	--	--	20
MAR										
23...	--	--	--	--	--	--	--	--	--	20
JUL										
06...	--	--	--	--	--	--	--	--	--	10
31...	--	<.1	--	<.1	--	<1	--	<1	--	20
AUG										
03...	--	--	--	--	--	<1	--	<1	--	10

DATE	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT									
06...	0	40	--	18	1.3	--	--	--	.10
NOV									
03...	10	10	3	7.0	.6	9.3	.0	9.3	--
JAN									
21...	10	6	--	9.2	.7	--	--	--	.00
MAR									
23...	10	9	--	9.9	--	--	--	--	.10
JUL									
06...	3	7	--	13	1.3	--	--	--	.10
31...	0	20	--	15	.9	--	--	--	.10
AUG									
03...	0	20	--	--	2.6	--	--	--	.10

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 3,80	JAN 21,81	MAR 23,81	AUG 3,81
TIME	1400	0935	1420	1100
TOTAL CELLS/ML	26	490	26	350
DIVERSITY: DIVISION	1.0	0.2	1.0	0.7
.CLASS	1.0	0.2	1.0	1.1
..ORDER	1.0	0.2	1.0	1.2
...FAMILY	1.0	0.2	1.0	1.2
....GENUS	1.0	0.2	1.0	1.4

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	13#	50	--	-	13#	50	70#	20
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	13#	50	--	-	--	-	14	4
..PENNALES								
...NAVICULACEAE								
....PINNULARIA	--	-	--	-	--	-	14	4
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....DINOBRYON	--	-	--	-	--	-	14	4
....OCHROMONAS	--	-	--	-	--	-	240#	68
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	13#	50	--	-
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	480#	97	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	13	3	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	50	63	59	61	45	44	45	50	49	49
2	---	---	54	63	63	63	45	43	45	49	46	48
3	---	---	64	64	63	63	45	43	44	48	47	47
4	---	---	68	63	44	56	44	41	43	47	46	46
5	---	---	64	53	47	50	43	43	43	46	44	45
6	85	83	84	57	53	55	43	43	43	45	42	44
7	83	78	81	58	57	58	43	42	43	44	43	43
8	80	73	75	59	58	59	43	42	42	43	41	42
9	---	---	---	59	58	59	42	41	42	42	41	42
10	---	---	---	59	55	58	45	41	43	42	42	42
11	---	---	---	57	56	56	43	40	41	42	41	42
12	---	---	---	57	55	56	42	41	41	43	42	42
13	---	---	---	55	54	55	43	42	42	46	42	43
14	---	---	---	55	53	54	44	43	44	42	40	41
15	---	---	---	54	53	54	44	43	43	40	39	40
16	---	---	---	53	52	53	44	43	43	40	39	39
17	---	---	---	53	51	52	43	42	43	39	37	39
18	---	---	---	52	48	50	42	42	42	40	39	39
19	---	---	---	48	47	47	42	41	42	40	37	39
20	---	---	---	48	47	47	42	41	41	39	38	38
21	---	---	---	48	47	48	41	40	40	41	38	40
22	---	---	---	47	45	46	40	40	40	40	38	39
23	---	---	---	48	46	47	46	40	43	41	40	41
24	---	---	---	48	48	48	48	43	45	41	41	41
25	55	35	46	48	46	47	49	48	48	41	40	40
26	62	56	60	46	41	46	49	47	48	41	40	40
27	65	62	63	48	46	46	48	46	47	40	40	40
28	66	65	65	47	46	46	49	47	48	41	40	41
29	66	65	66	46	45	46	50	49	50	41	39	40
30	65	47	56	46	43	45	50	49	50	41	40	41
31	59	50	55	---	---	---	50	49	50	40	40	40
MONTH	85	35	63	64	41	52	50	40	44	50	37	42
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	41	40	40	35	34	35	33	32	32			---
2	46	41	44	35	34	35	33	32	32			---
3	44	41	43	35	33	34	33	32	32			---
4	43	42	43	35	33	34	33	32	32			---
5	43	42	42	40	36	39	34	33	33			---
6	42	41	41	39	39	39	35	34	34			---
7	41	41	41	40	39	39	33	32	33			---
8	41	41	41	39	37	38	33	31	32			56
9	41	40	40	37	36	37	32	31	32			49
10	40	39	40	37	36	36	34	32	33			48
11	49	40	46	36	35	36	34	32	33			53
12	47	46	46	36	34	35	37	33	34			68
13	46	45	45	35	34	35	45	34	37			---
14	46	45	45	35	34	34	---	---	---			---
15	46	43	45	35	32	33	---	---	---			---
16	45	43	44	34	33	33	---	---	---			---
17	43	42	42	34	32	32	---	---	---			---
18	42	42	42	33	30	32	---	---	---			---
19	42	41	42	33	31	32	---	---	---			---
20	42	41	41	32	31	31	---	---	---			---
21	41	39	40	32	31	31	---	---	---			64
22	40	39	40	32	31	31	---	---	---			58
23	40	38	39	33	31	31	---	---	---			71
24	38	37	37	33	32	32	---	---	---			---
25	37	36	36	33	32	32	---	---	---			---
26	36	34	36	33	32	33	---	---	---			---
27	36	35	35	33	32	33	---	---	---			---
28	36	34	35	33	32	32	---	---	---			---
29	---	---	---	33	32	32	---	---	---			---
30	---	---	---	35	32	33	---	---	---			---
31	---	---	---	34	32	33	---	---	---			---
MONTH	49	34	41	40	30	34	45	31	33			58

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1			---	---	---	---	38	30	34	36	35	36
2			51	---	---	---	41	37	39	36	35	36
3			36	---	---	---	41	38	40	37	36	36
4			37	---	---	40	40	38	39	38	36	37
5			37	---	---	42	39	35	36	38	37	38
6			38	35	34	35	34	31	33	39	38	38
7			40	35	33	34	30	28	29	39	38	38
8			46	34	33	34	28	27	28	41	38	39
9			51	34	33	34	27	26	26	39	36	37
10			64	---	---	---	26	25	25	37	36	37
11			84	48	39	42	30	23	25	37	36	37
12			---	38	35	35	25	22	24	38	36	37
13			---	35	33	34	23	21	22	39	37	38
14			---	33	32	33	23	19	21	---	---	---
15			---	34	33	33	34	20	26	---	---	---
16			---	---	---	---	42	33	37	---	---	---
17			59	38	34	35	38	34	36	44	37	41
18			41	---	---	---	35	33	34	37	35	36
19			40	---	---	---	34	23	28	36	34	35
20			38	---	---	---	34	24	30	36	34	34
21			38	---	---	---	39	34	36	35	34	35
22			40	---	---	---	39	29	33	---	---	---
23			49	---	---	---	35	33	34	---	---	---
24			64	---	---	---	38	36	37	---	---	---
25			84	---	---	---	40	38	39	---	---	---
26			---	---	---	---	40	38	39	---	---	---
27			---	---	---	---	39	38	38	---	---	---
28			---	---	---	---	38	36	37	---	---	---
29			---	---	---	---	37	36	36	---	---	---
30			---	---	---	---	36	35	36	---	---	---
31				38	23	30	36	35	35	---	---	---
MONTH			49	48	23	35	42	19	33	44	34	37
YEAR	85	19	42									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	14.0	11.0	12.5	10.5	5.0	7.5	8.5	6.0	7.0
2	---	---	---	14.0	10.5	12.0	12.0	5.5	8.5	8.0	5.0	6.5
3	---	---	---	13.5	9.0	10.5	10.5	5.5	8.0	6.5	3.5	5.0
4	---	---	---	14.0	10.5	12.0	8.5	3.5	6.0	5.5	2.0	4.0
5	---	---	---	14.5	11.5	13.0	8.5	2.5	5.5	3.0	.0	1.5
6	---	---	---	13.0	10.0	11.0	9.5	3.5	6.5	2.5	.0	1.0
7	20.5	13.0	16.5	13.5	9.0	11.0	11.5	5.0	8.0	6.5	2.5	4.0
8	19.5	13.5	16.5	15.5	10.5	12.5	13.0	6.0	9.0	5.0	1.5	3.0
9	---	---	---	18.0	12.5	14.5	14.5	8.5	11.5	2.5	.5	1.5
10	---	---	---	17.5	12.0	14.0	13.5	11.0	12.5	4.0	.5	1.5
11	---	---	---	13.5	8.5	11.0	11.0	7.5	9.5	2.0	.0	.5
12	---	---	---	12.5	7.0	9.0	9.0	6.0	7.5	1.5	.0	.5
13	---	---	---	12.0	5.5	8.5	9.5	6.5	7.5	.5	.0	.0
14	---	---	---	13.5	6.5	10.5	9.5	6.0	7.5	1.5	.0	.5
15	---	---	---	13.0	11.0	12.0	8.5	4.5	6.5	6.5	.5	3.0
16	---	---	---	12.5	9.5	11.5	8.0	6.5	7.0	6.0	2.0	3.5
17	---	---	---	10.0	8.5	9.5	9.5	5.5	7.0	5.0	1.0	2.5
18	---	---	---	10.0	8.5	9.5	9.0	3.5	6.0	4.5	.0	1.5
19	---	---	---	11.0	6.5	8.0	10.5	5.5	7.5	5.5	.0	2.0
20	---	---	---	10.0	5.0	7.0	8.5	3.5	6.5	4.5	2.0	3.0
21	---	---	---	10.5	7.5	8.5	5.5	1.0	3.0	5.0	4.0	4.5
22	---	---	---	10.0	6.0	7.5	2.0	.0	1.0	6.0	3.5	4.5
23	---	---	---	8.5	7.0	8.0	6.0	2.0	4.5	7.0	3.5	4.5
24	---	---	---	11.0	8.5	10.0	7.0	5.5	6.5	6.5	3.0	4.0
25	15.0	13.0	14.5	14.0	10.0	11.5	7.0	2.0	5.5	7.0	2.0	4.0
26	14.5	11.0	12.5	11.0	8.0	9.0	2.0	1.0	1.5	6.5	2.5	4.5
27	14.5	10.0	12.0	10.5	8.0	9.0	2.5	1.5	2.0	9.0	5.0	7.0
28	15.0	11.5	13.5	10.0	7.5	8.5	6.5	2.5	5.0	8.0	6.0	7.5
29	15.5	13.5	14.5	9.5	6.0	7.5	8.0	6.5	7.5	8.5	5.0	6.5
30	13.5	11.5	12.0	10.0	5.0	7.0	8.0	7.0	7.5	6.5	2.5	5.0
31	14.0	11.5	12.5	---	---	---	8.5	7.0	7.5	5.0	1.0	2.0
MONTH	20.5	10.0	14.0	18.0	5.0	10.0	14.5	.0	6.5	9.0	.0	3.5

CAPE FEAR RIVER BASIN

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	.5	3.0	13.5	10.0	11.5	16.5	14.5	15.5			
2	9.5	6.0	7.5	15.5	10.5	12.0	22.5	12.5	16.5			
3	6.0	2.0	4.5	14.0	7.5	10.0	21.5	11.0	15.5			
4	4.0	1.0	2.0	10.0	5.5	8.0	23.5	14.0	18.0			
5	3.5	.0	1.0	12.5	9.0	10.5	23.0	17.0	19.0			
6	3.0	.5	1.5	12.0	9.0	10.0	22.5	13.5	17.0			
7	3.0	1.0	2.0	10.5	7.5	8.5	20.0	10.0	14.0			
8	5.5	3.0	4.0	10.5	6.0	8.0	22.0	9.5	14.5			
9	7.0	2.5	4.0	10.5	5.5	7.5	18.5	13.5	15.5			
10	8.5	3.0	5.5	11.5	6.0	8.0	24.5	12.5	18.0			
11	11.0	8.0	9.5	11.0	5.5	7.5	25.5	16.0	20.0			
12	8.0	3.5	5.5	12.5	6.0	8.5	26.5	17.0	21.5			
13	5.0	2.0	3.0	13.5	6.5	9.0	24.0	18.5	20.5			
14	6.5	3.0	4.5	14.0	7.0	9.0	---	---	---			
15	8.5	5.0	6.5	13.0	5.0	8.0	---	---	---			
16	10.0	5.5	7.5	11.5	5.5	8.5	---	---	---			
17	10.0	8.0	9.0	12.5	4.5	7.5	---	---	---			
18	12.5	9.0	10.5	12.0	7.0	9.0	---	---	---			
19	12.0	10.5	11.0	11.0	6.5	8.5	---	---	---			
20	14.0	11.0	12.0	11.5	5.0	7.0	---	---	---			
21	14.0	10.0	11.0	13.0	3.5	7.5	---	---	---			
22	14.0	10.5	11.5	7.5	6.0	6.5	---	---	---			
23	13.5	9.5	11.0	8.0	6.0	7.0	---	---	---			
24	12.0	8.0	9.5	13.5	7.0	9.5	---	---	---			
25	12.5	7.0	9.0	15.0	7.0	10.0	---	---	---			
26	13.5	7.5	9.5	15.5	7.5	10.5	---	---	---			
27	13.0	6.0	9.0	18.5	9.5	13.5	---	---	---			
28	13.0	5.5	9.0	19.0	9.0	13.0	---	---	---			
29	---	---	---	18.5	8.0	12.5	---	---	---			
30	---	---	---	19.0	12.0	15.0	---	---	---			
31	---	---	---	22.5	13.0	17.0	---	---	---			
MONTH	14.0	.0	7.0	22.5	3.5	9.5	26.5	9.5	17.5			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				---	---	---	24.5	22.0	23.0	27.0	22.0	24.0
2				---	---	---	24.5	23.0	23.5	27.0	22.0	24.0
3				---	---	---	25.0	23.0	23.5	28.0	22.5	25.0
4				---	---	---	26.0	23.5	24.5	28.0	22.5	25.0
5				---	---	---	26.0	23.5	25.0	26.5	23.0	24.5
6				27.5	24.5	26.0	26.5	24.0	25.0	27.5	22.5	24.5
7				28.5	24.0	25.5	26.5	23.5	25.0	28.0	22.5	25.0
8				30.0	23.5	26.5	29.0	24.0	26.0	27.0	23.0	25.0
9				29.0	24.5	26.5	27.0	24.5	25.0	25.0	22.0	23.0
10				---	---	---	29.0	16.0	25.0	25.0	20.0	22.0
11				30.0	25.5	27.5	31.0	24.5	27.0	27.0	19.5	22.5
12				26.5	23.5	24.5	26.0	23.5	24.5	28.0	21.0	24.0
13				27.5	24.0	25.5	27.0	23.0	24.5	28.5	21.5	24.5
14				30.0	24.5	26.5	28.5	22.5	25.0	---	---	---
15				30.0	24.5	26.5	27.0	21.5	24.0	---	---	---
16				---	---	---	27.0	23.0	24.5	---	---	---
17				29.0	24.5	26.5	25.5	23.0	24.5	25.0	22.0	23.0
18				---	---	---	24.0	21.5	23.0	22.5	19.0	21.0
19				---	---	---	23.0	21.5	22.5	22.5	17.0	19.0
20				---	---	---	23.0	21.5	22.0	23.5	14.0	18.0
21				---	---	---	23.5	21.5	22.5	22.5	15.0	18.5
22				---	---	---	22.5	21.0	22.0	---	---	---
23				---	---	---	23.5	20.0	21.5	---	---	---
24				---	---	---	24.0	22.0	23.0	---	---	---
25				---	---	---	24.5	21.5	23.0	---	---	---
26				---	---	---	23.5	21.5	22.5	---	---	---
27				---	---	---	23.5	21.0	22.5	---	---	---
28				---	---	---	23.0	21.0	22.5	---	---	---
29				---	---	---	23.5	22.5	23.0	---	---	---
30				---	---	---	24.5	22.5	23.5	---	---	---
31				22.5	21.0	22.0	26.0	22.5	24.0	---	---	---
MONTH				30.0	21.0	26.0	31.0	16.0	24.0	28.5	14.0	23.0
YEAR	31.0	.0	12.5									

02105524 ELLIS CREEK TRIBUTARY AT SECONDARY ROAD 1325 NEAR WHITE OAK, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
06...	1330	.04	14	.00
NOV				
03...	1400	.41	5	.01
JAN				
21...	0935	.68	12	.02
MAR				
23...	1420	.38	8	.01
JUL				
06...	1445	.34	14	.01
31...	1615	5.4	22	.32
AUG				
03...	1100	3.0	10	.08

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC

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 (2.1 km) upstream from Natmore Creek, 2.0 mi (3.2 km) upstream from bridge on State Highway 11, 4.6 mi (7.4 km) southeast of Kelly, and at mile 67 (108 km).

DRAINAGE AREA.--5,255 mi² (13,610 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1969 to current year.

GAGE.--Water-stage recorder with concrete lock and dam control. Datum of gage is -2.90 ft (-0.884 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Water-discharge record 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 (see p. 328). Slight diurnal fluctuation and some regulation for short periods at low flow caused by power-plants above station. The city of Wilmington diverted an average of 15.0 ft³/s (0.42 m³/s) for municipal water supply, most of which is returned as sewage below station. Gage height telemeter at station.

AVERAGE DISCHARGE.--12 years, 5,740 ft³/s (162.6 m³/s), 14.83 in/yr (377 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,700 ft³/s (1,630 m³/s) Mar. 3, 1979, gage height, 24.92 ft (7.596 m) from floodmarks; minimum, 406 ft³/s (11.5 m³/s) July 1, 1981, gage height, 14.54 ft (4.432 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft³/s (462 m³/s) Feb. 15, gage height, 19.79 ft (6.032 m); minimum, 406 ft³/s (11.5 m³/s) July 1, gage height, 14.54 ft (4.432 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	1440	2260	3880	1600	3220	2450	792	1690	440	3030	1590
2	3030	1600	2150	3900	1600	2920	3080	753	1600	563	2160	1670
3	3740	1740	1930	3470	1740	2710	3340	766	2120	741	1660	1470
4	4030	1650	1690	3050	2480	2510	2910	768	2930	1210	1430	1140
5	3790	1630	1500	2800	3600	2650	2610	750	2760	3450	1130	1010
6	2990	1650	1350	2550	3890	2840	2250	689	2440	10700	893	977
7	2400	1650	1250	2320	3410	3210	2060	753	2000	13200	771	2220
8	2010	1710	1220	2190	2740	3780	2010	1070	1680	12600	692	6420
9	1680	1670	1210	2110	2330	3610	2080	1240	1700	10300	750	9700
10	1450	1500	1220	2080	2200	3030	1900	1190	1950	6440	1390	10600
11	1240	1280	1360	2020	2360	2600	1800	1200	1780	2930	1710	7780
12	1080	1130	1560	1940	4280	2330	1820	1200	1340	2290	1600	5130
13	955	1020	2030	1880	11800	2150	1850	1200	1050	1950	4260	3550
14	875	958	2560	1800	15200	2030	1590	1270	899	1410	8360	2220
15	783	904	2650	1640	16000	1880	1520	1290	871	1040	8950	1490
16	739	892	2310	1540	12400	1840	1410	1140	1090	819	5250	1210
17	684	904	1970	1510	7380	1640	1300	910	1070	782	3430	1250
18	670	1060	1780	1500	5890	1580	1250	750	946	741	2450	1080
19	700	1440	1640	1480	5130	1600	1170	712	824	869	2240	910
20	751	1850	1620	1450	4660	1580	1100	663	1440	2270	6550	818
21	771	2240	1580	1430	8200	1530	1040	1030	2250	2200	9700	878
22	796	2340	1460	1470	13000	1490	1020	1250	2590	1500	12600	886
23	981	2200	1380	1620	14400	1600	1040	1380	1830	1040	12100	798
24	1020	1860	1450	1850	11900	1810	1150	1660	1250	799	9040	704
25	976	1630	1700	2040	8140	2850	1090	1430	894	720	6040	645
26	942	1760	1700	2030	5820	5270	990	1110	727	764	4060	600
27	922	3070	1760	1970	4540	5420	962	909	598	978	2860	588
28	882	3750	2110	1950	3690	4550	923	1010	554	1700	2160	580
29	872	3220	2480	1880	---	3480	851	1410	512	1840	1720	555
30	932	2620	2910	1780	---	2690	796	1660	461	1960	1480	539
31	1190	---	3440	1670	---	2410	---	1930	---	2910	1430	---
TOTAL	45601	52368	57230	64800	180380	82810	49362	33885	43846	91156	121896	69008
MEAN	1471	1746	1846	2090	6442	2671	1645	1093	1462	2941	3932	2300
MAX	4030	3750	3440	3900	16000	5420	3340	1930	2930	13200	12600	10600
MIN	670	892	1210	1430	1600	1490	796	663	461	440	692	539
CFSM	.28	.33	.35	.40	1.23	.51	.31	.21	.28	.56	.75	.44
IN.	.32	.37	.41	.46	1.28	.59	.35	.24	.31	.65	.86	.49

CAL YR 1980 TOTAL 1619228 MEAN 4424 MAX 23100 MIN 472 CFSM .84 IN 11.46
WTR YR 1981 TOTAL 892342 MEAN 2445 MAX 16000 MIN 440 CFSM .47 IN 6.32

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to current year.
WATER TEMPERATURES: January 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1973.

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 (3.2 km) downstream and published as Cape Fear River near Acme (station 02105771).

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 317 micromhos Oct. 19, 20, 1976; minimum, 40 micromhos June 26, 1973.
WATER TEMPERATURES: Maximum, 32.0°C July 9, 19, 20, 21, 1977, Aug. 10, 1979; minimum, 0.5°C Jan. 24, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 169 micromhos Nov. 19; minimum, 51 micromhos Aug. 21.
WATER TEMPERATURES: Maximum, 30.5°C June 16, 17, 25; minimum, 3.5°C Jan. 13-21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT											
14...	1115	861	107	6.2	18.5	1.6	7.9	K8	K36	15	0
NOV											
03...	1030	1760	120	6.0	14.5	.90	8.2	K26	40	16	0
DEC											
03...	1015	1940	145	5.7	10.0	1.9	10.4	K8	K28	22	0
JAN											
21...	1245	1430	108	6.5	4.0	3.2	12.2	K16	K30	18	0
FEB											
23...	1100	14600	90	6.2	11.5	23	10.9	100	260	19	2
MAR											
23...	1115	1600	105	6.5	11.0	5.0	9.8	--	140	21	1
APR											
27...	1000	945	108	7.1	21.0	4.5	7.5	K8	K8	21	0
MAY											
28...	1200	995	120	6.9	23.5	3.3	7.2	--	--	18	0
JUN											
15...	1530	873	138	6.6	30.0	5.6	6.5	K8	K10	21	0
JUL											
31...	1200	2920	110	7.2	28.5	14	6.7	--	--	21	0
AUG											
17...	1230	3340	72	5.8	25.0	40	6.4	140	2000	17	--
SEP											
14...	1120	2230	75	6.2	24.5	35	6.7	K28	350	19	4

K Results based on colony count outside the acceptable range (non-ideal colony count).

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
14...	3.2	1.8	15	63	1.7	2.7	22	0	18	17	16
NOV											
03...	3.6	1.6	14	62	1.5	2.6	20	0	16	33	14
DEC											
03...	4.9	2.3	16	57	1.5	3.3	28	0	23	78	13
JAN											
21...	4.3	1.8	11	53	1.1	2.1	25	0	21	12	12
FEB											
23...	4.5	1.9	7.5	43	.7	2.1	21	0	17	9.8	12
MAR											
23...	5.1	2.0	10	48	1.0	2.0	24	0	20	9.3	14
APR											
27...	4.5	2.3	12	52	1.1	2.5	26	0	21	1.9	13
MAY											
28...	3.9	2.1	14	58	1.4	2.7	35	0	29	5.2	12
JUN											
15...	4.8	2.3	15	56	1.4	3.0	28	0	23	8.3	13
JUL											
31...	4.8	2.2	11	48	1.0	3.9	32	0	26	2.1	15
AUG											
17...	4.2	1.5	6.2	40	.7	2.7	--	0	--	--	9.3
SEP											
14...	4.5	1.8	5.2	34	.5	2.7	18	0	15	15	8.9

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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (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)
OCT											
14...	13	.2	9.2	84	75	.11	195	.60	.61	.100	.120
NOV											
03...	15	.1	6.2	82	72	.11	390	.88	.89	.240	.240
DEC											
03...	13	.2	7.9	90	76	.12	471	.82	.80	.120	.170
JAN											
21...	11	.1	8.4	77	66	.10	297	.71	.72	.300	.290
FEB											
23...	8.8	<.1	9.3	84	60	.11	3310	.64	.63	.210	.160
MAR											
23...	11	.1	9.9	72	66	.10	311	.77	.76	.310	.320
APR											
27...	10	.2	8.2	75	64	.10	191	.87	.90	.170	.190
MAY											
28...	11	.2	5.4	73	68	.10	196	.72	.73	.140	.170
JUN											
15...	12	.2	8.8	96	73	.13	226	.79	.84	.120	.150
JUL											
31...	9.9	.2	10	89	71	.12	702	.75	.76	.060	.120
AUG											
17...	6.5	.1	6.7	91	46	.12	821	.57	--	.050	.000
SEP											
14...	6.2	<.1	6.9	65	47	.09	391	.59	.59	.120	.120

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)
OCT										
14...	.12	.15	.39	.32	.49	.05	.44	1.1	4.8	1.1
NOV										
03...	.29	.31	.64	.00	.88	.68	.20	1.8	7.8	1.1
DEC										
03...	.15	.22	.46	.27	.58	.14	.44	1.4	6.2	1.2
JAN										
21...	.33	.37	.28	.11	.58	.18	.40	1.3	5.7	1.1
FEB										
23...	--	.21	.74	.37	.95	.42	.53	1.6	7.0	1.2
MAR										
23...	--	.41	.28	.19	.59	.08	.51	1.4	6.0	1.3
APR										
27...	--	.24	.79	.67	.96	.10	.86	1.8	8.1	1.8
MAY										
28...	--	.22	.57	.36	.71	.18	.53	1.4	6.3	1.3
JUN										
15...	--	.19	.70	.73	.82	.00	.88	1,6	7.1	1.7
JUL										
31...	--	.15	.47	.54	.53	.00	.66	1.3	5.7	1.4
AUG										
17...	--	.00	.41	--	.46	--	--	1.0	4.6	--
SEP										
14...	--	.15	.53	.53	.65	.00	.65	1.2	5.5	1.2

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT										
14...	.180	.55	.160	--	--	--	--	--	--	--
NOV										
03...	.290	.89	.280	1	0	1	100	70	30	0
DEC										
03...	.280	.86	.240	--	--	--	--	--	--	--
JAN										
21...	.230	.71	.170	1	0	1	<50	--	30	0
FEB										
23...	.310	.95	.130	0	0	0	100	0	100	1
MAR										
23...	.210	.64	.150	--	--	--	--	--	--	--
APR										
27...	.260	.80	.230	--	--	--	--	--	--	--
MAY										
28...	.320	.98	.250	2	0	2	100	80	20	1
JUN										
15...	.340	1.0	.300	--	--	--	--	--	--	--
JUL										
31...	.280	.86	.260	--	--	--	--	--	--	--
AUG										
17...	.180	.55	.130	--	--	--	--	--	--	--
SEP										
14...	.180	.55	.140	2	0	2	100	0	100	<1

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
OCT 14...	--	--	--	--	--	--	--	--	--	--
NOV 03...	0	1	30	20	10	0	0	0	3	1
DEC 03...	--	--	--	--	--	--	--	--	--	--
JAN 21...	0	2	20	10	10	0	0	0	4	4
FEB 23...	1	0	30	10	20	1	1	0	16	12
MAR 23...	--	--	--	--	--	--	--	--	--	--
APR 27...	--	--	--	--	--	--	--	--	--	--
MAY 28...	0	1	10	--	<10	1	1	0	5	2
JUN 15...	--	--	--	--	--	--	--	--	--	--
JUL 31...	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--
SEP 14...	--	<1	20	10	10	1	--	<1	6	2

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 14...	--	--	--	--	--	--	--	--	--	--
NOV 03...	2	610	250	360	1	0	2	110	40	70
DEC 03...	--	--	--	--	--	--	--	--	--	--
JAN 21...	0	730	550	180	3	0	3	60	10	50
FEB 23...	4	5300	5100	190	11	11	0	180	140	40
MAR 23...	--	--	--	--	--	--	--	--	--	--
APR 27...	--	--	--	--	--	--	--	--	--	--
MAY 28...	3	860	360	500	1	1	0	120	10	110
JUN 15...	--	--	--	--	--	--	--	--	--	--
JUL 31...	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--
SEP 14...	4	1500	1100	420	2	--	<1	60	0	60

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT									
14...	--	--	--	--	--	--	--	--	--
NOV									
03...	.1	.0	.6	4	3	1	0	0	0
DEC									
03...	--	--	--	--	--	--	--	--	--
JAN									
21...	<.1	--	.2	1	0	2	0	0	0
FEB									
23...	.2	.0	.2	9	9	0	0	0	0
MAR									
23...	--	--	--	--	--	--	--	--	--
APR									
27...	--	--	--	--	--	--	--	--	--
MAY									
28...	<.1	--	.3	16	16	0	0	0	0
JUN									
15...	--	--	--	--	--	--	--	--	--
JUL									
31...	--	--	--	--	--	--	--	--	--
AUG									
17...	--	--	--	--	--	--	--	--	--
SEP									
14...	<.1	--	<.1	2	0	2	<1	--	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	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)
OCT									
14...	--	--	--	--	--	--	2.4	.5	4.4
NOV									
03...	1	1	0	10	5	5	--	--	--
DEC									
03...	--	--	--	--	--	--	--	--	--
JAN									
21...	2	2	0	20	10	7	--	--	--
FEB									
23...	1	1	0	40	20	20	<.8	5.8	3.7
MAR									
23...	--	--	--	--	--	--	--	--	--
APR									
27...	--	--	--	--	--	--	--	--	--
MAY									
28...	0	0	0	20	10	10	--	--	--
JUN									
15...	--	--	--	--	--	--	--	--	--
JUL									
31...	--	--	--	--	--	--	--	--	--
AUG									
17...	--	--	--	--	--	--	--	--	--
SEP									
14...	<1	--	<1	40	--	<10	--	--	--

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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 DIS-SOLVED, EXTRAC-TION (UG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT								
14...	<.4	4.1	<.4	.08	.04	9.8	--	--
NOV								
03...	--	--	--	--	--	--	6.0	.4
DEC								
03...	--	--	--	--	--	7.1	--	--
JAN								
21...	--	--	--	--	--	--	7.9	.6
FEB								
23...	4.1	3.5	3.8	.07	.06	--	13	1.1
MAR								
23...	--	--	--	--	--	5.2	--	--
APR								
27...	--	--	--	--	--	5.3	--	--
MAY								
28...	--	--	--	--	--	--	5.3	.6
JUN								
15...	--	--	--	--	--	7.4	--	--
JUL								
31...	--	--	--	--	--	8.4	--	--
AUG								
17...	--	--	--	--	--	11	--	--
SEP								
14...	--	--	--	--	--	--	9.0	.6

PHYTOPLANKTON ANALYSES, SEPTEMBER 1980

DATE	SEP 9,80
TIME	1025
TOTAL CELLS/ML	180
DIVERSITY: DIVISION	0.6
.CLASS	0.6
..ORDER	0.6
...FAMILY	0.6
....GENUS	0.6

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
....SCENEDESMUS	160#	86
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..PERIDINIALES		
...GLENODINIACEAE		
....GLENODINIUM	26	14

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 3,80	MAR 23,81	MAY 28,81	JUN 15,81	JUL 31,81	AUG 17,81
TIME	1030	1115	1200	1530	1200	1230
TOTAL CELLS/ML	13	210	540	1800	14	550
DIVERSITY: DIVISION	0.0	0.5	1.3	1.3	0.0	1.1
.CLASS	0.0	0.5	1.3	1.3	0.0	1.1
..ORDER	0.0	0.5	1.7	2.0	0.0	1.5
...FAMILY	0.0	0.5	1.7	2.6	0.0	2.2
....GENUS	0.0	1.1	1.7	2.9	0.0	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	--	-	64	4	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	13	1	--	-	14	3
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	220#	41
....SELENASTRUM	--	-	--	-	--	-	51	3	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	100	6	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-	84#	15
....SCENEDESMUS	--	-	--	-	150#	29	100	6	--	-	56	10
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	13	2	180	10	--	-	28	5
...VOLVOCACEAE												
....PANDORINA	--	-	--	-	--	-	620#	35	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	26	13	26	5	130	7	--	-	28	5
....MELOSIRA	--	-	150#	75	--	-	77	4	--	-	--	-
..PENNALES												
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	--	-	77	4	--	-	--	-
....SYNEDRA	--	-	--	-	26	5	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	--	-	--	-	--	-	--	-	--	-	14	3
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	--	-	--	-	14#	100	28	5
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	13#	100	26	13	26	5	350#	20	--	-	70	13
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	300#	55	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	151	147	116	108	147	135	108	101	118	113	82	80
2	145	120	112	107	146	135	108	99	119	116	81	79
3	124	87	126	111	145	143	100	93	117	114	80	78
4	102	80	131	113	146	135	104	101	115	109	80	77
5	102	74	113	94	165	148	105	103	127	109	83	78
6	78	74	103	96	168	163	107	103	125	121	83	81
7	84	77	107	96	164	156	113	107	125	120	83	81
8	84	78	120	102	155	144	115	112	127	126	83	81
9	84	75	110	96	145	135	123	114	128	126	82	81
10	84	74	106	96	135	123	123	121	133	128	85	82
11	84	74	110	101	123	119	120	115	137	133	88	83
12	86	77	115	104	122	119	114	110	138	135	93	87
13	97	85	115	102	127	122	112	109	137	113	96	92
14	108	95	115	101	127	119	111	107	139	102	102	97
15	120	104	115	108	120	112	107	103	99	91	107	102
16	125	111	117	114	112	101	104	102	95	92	107	106
17	126	117	130	118	106	102	109	103	94	90	108	99
18	127	119	150	130	108	105	109	104	94	89	111	108
19	125	115	169	152	106	102	107	104	97	94	112	107
20	124	115	164	151	103	99	108	107	97	95	108	104
21	125	118	151	133	101	99	110	107	95	91	105	104
22	135	120	149	135	101	99	109	107	90	76	105	103
23	142	134	144	136	105	100	107	102	95	79	105	102
24	150	140	150	136	111	105	109	102	92	85	102	99
25	151	140	151	143	112	106	114	109	86	83	102	99
26	139	127	144	131	107	104	115	113	84	82	100	96
27	127	121	139	131	109	105	114	112	83	80	105	90
28	129	122	134	128	112	109	112	106	81	79	122	106
29	127	120	134	127	112	107	106	103	---	---	137	123
30	120	111	142	131	107	104	109	103	---	---	140	135
31	121	112	---	---	107	102	114	109	---	---	138	134
MONTH	151	74	169	94	168	99	123	93	139	76	140	77
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	134	115	116	113	148	132	137	119	114	103	65	63
2	114	111	116	115	154	140	128	120	130	115	67	66
3	114	111	117	116	153	145	131	126	124	108	71	67
4	117	114	116	112	164	138	133	116	107	104	73	70
5	116	106	113	111	163	142	123	112	106	102	76	70
6	105	99	118	113	147	115	143	116	103	101	79	76
7	110	106	118	117	115	102	151	74	106	102	83	79
8	111	107	124	118	120	109	83	64	106	104	94	83
9	116	109	124	122	129	113	75	63	107	104	107	84
10	122	117	122	114	152	131	79	75	107	104	137	106
11	122	117	121	110	156	145	84	78	104	100	116	77
12	120	117	125	122	151	138	87	82	109	103	79	75
13	121	119	126	122	144	131	92	86	126	109	76	73
14	119	115	127	123	141	132	98	88	145	92	75	73
15	115	113	123	119	140	132	102	94	102	84	74	73
16	116	112	120	116	146	137	114	97	99	76	74	73
17	112	109	122	116	154	145	100	96	76	70	74	73
18	110	109	128	122	154	150	97	92	72	69	74	71
19	111	109	127	125	153	147	93	87	74	71	71	70
20	113	110	126	117	160	150	96	85	70	53	74	70
21	113	110	118	113	156	151	100	95	63	51	77	74
22	114	112	120	117	152	136	100	92	80	63	80	77
23	114	112	121	116	143	122	92	75	84	75	81	80
24	114	106	115	99	125	113	77	73	74	62	82	80
25	107	105	119	100	116	111	85	76	63	61	82	79
26	106	105	120	115	116	111	94	85	62	60	83	82
27	113	103	119	113	119	111	96	91	61	59	85	83
28	109	104	124	116	121	114	102	92	60	58	86	85
29	113	109	125	111	123	118	121	104	61	59	86	83
30	113	112	128	115	123	118	121	116	62	61	84	80
31	---	---	139	128	---	---	115	109	64	62	---	---
MONTH	134	99	139	99	164	102	151	63	145	51	137	63
YEAR	169	51										

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.5	22.5	15.0	14.5	10.5	9.5	6.5	6.0	6.5	6.0	12.0	11.5
2	22.5	22.5	15.0	14.5	10.5	9.5	6.0	6.0	7.5	6.5	12.5	12.0
3	22.5	22.0	15.0	14.0	10.0	9.0	6.5	6.0	7.0	6.5	12.0	12.0
4	22.0	20.5	15.0	14.0	9.5	9.0	6.5	6.0	7.0	6.5	12.0	11.5
5	20.5	19.5	14.5	13.5	9.0	8.5	6.0	5.5	7.0	6.0	12.5	12.0
6	19.5	19.0	14.0	13.5	9.0	8.5	6.0	5.5	6.5	6.0	12.5	12.5
7	19.0	18.0	14.0	13.0	9.0	8.5	6.0	6.0	6.0	6.0	12.5	12.0
8	19.0	18.0	14.0	13.0	9.0	8.5	6.0	5.5	6.0	5.5	12.5	12.0
9	19.0	18.5	14.0	12.5	9.5	9.0	5.5	5.0	6.0	5.5	12.5	12.0
10	19.5	18.5	14.0	13.5	10.0	9.5	5.0	5.0	6.5	6.0	12.5	11.5
11	19.5	18.5	13.5	13.0	10.0	9.5	5.0	4.5	7.0	6.5	12.0	11.5
12	19.0	18.5	13.0	12.5	9.5	9.5	4.5	4.0	7.0	6.5	12.0	11.5
13	19.0	18.5	13.0	12.5	9.5	9.5	4.0	3.5	7.5	6.0	12.0	11.5
14	19.0	17.5	13.5	12.0	9.5	9.5	3.5	3.5	8.0	6.5	12.5	12.0
15	19.5	18.0	13.0	12.5	9.5	9.0	4.0	3.5	7.5	7.0	12.0	11.5
16	19.0	18.0	13.0	12.5	9.5	9.0	4.0	3.5	8.0	7.5	12.0	11.5
17	19.0	18.5	13.0	12.5	9.5	9.0	4.0	3.5	8.0	7.5	12.0	11.5
18	19.0	18.5	13.0	12.0	9.5	9.0	4.0	3.5	8.5	8.0	12.0	11.5
19	19.5	18.5	12.5	12.0	9.5	9.0	4.0	3.5	9.0	8.5	12.0	11.5
20	19.5	18.0	12.0	11.5	9.5	9.0	4.0	3.5	9.5	8.5	11.5	11.5
21	19.0	18.0	12.0	11.0	9.0	8.5	4.0	3.5	10.5	9.5	11.5	11.0
22	18.5	18.0	11.5	11.0	8.0	8.0	4.5	4.0	12.0	10.5	11.5	11.0
23	18.0	16.5	11.5	10.5	8.0	7.5	4.5	4.0	12.0	11.5	11.0	11.0
24	17.0	16.5	11.5	10.5	7.5	7.5	5.0	4.5	12.0	11.5	11.5	11.0
25	17.0	16.0	11.5	11.0	7.5	7.0	5.0	4.5	12.0	11.5	11.5	11.0
26	16.5	16.0	11.5	11.0	7.0	6.5	5.5	5.0	12.0	11.5	12.0	11.5
27	16.5	15.5	11.0	10.5	6.5	6.0	5.5	5.0	12.0	11.5	12.0	11.5
28	16.0	15.5	10.5	9.5	6.0	6.0	6.0	5.5	12.0	11.5	12.0	11.5
29	16.0	15.5	10.5	10.0	6.5	6.0	6.5	6.0	---	---	13.0	12.0
30	15.5	14.5	10.0	9.5	6.5	6.0	6.5	6.5	---	---	13.0	12.5
31	15.5	14.0	---	---	6.5	6.0	6.5	6.0	---	---	13.5	12.5
MONTH	22.5	14.0	15.0	9.5	10.5	6.0	6.5	3.5	12.0	5.5	13.5	11.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.0	13.5	23.0	22.0	25.0	24.5	29.0	28.5	28.0	26.5	24.5	24.0
2	14.5	13.5	22.5	21.5	25.0	24.5	28.5	28.0	27.0	26.5	25.0	24.0
3	15.5	14.5	22.5	21.5	25.5	25.0	28.0	27.5	27.5	27.0	25.5	24.5
4	16.0	15.0	22.5	21.5	25.5	25.0	27.5	27.0	28.0	27.0	26.0	25.0
5	17.0	16.0	22.5	21.5	26.0	25.5	28.0	27.0	28.0	27.5	26.0	25.5
6	18.0	17.0	22.5	22.0	26.0	25.5	27.0	25.5	28.0	27.5	26.0	26.0
7	18.0	17.0	22.0	21.0	26.5	25.5	25.5	23.0	28.5	27.5	26.5	25.5
8	18.0	17.0	21.0	20.0	27.0	26.0	23.5	23.0	28.5	27.5	26.5	26.0
9	18.0	18.0	20.0	19.5	27.5	26.5	24.5	23.0	29.0	28.0	26.5	25.5
10	18.5	18.0	20.5	19.5	28.5	27.0	25.0	24.5	28.5	28.0	25.5	24.0
11	19.0	18.0	21.0	20.0	29.5	28.5	26.0	25.0	29.0	28.0	24.0	23.5
12	19.5	18.5	21.5	20.0	29.0	28.5	27.0	26.0	28.5	28.0	24.0	23.5
13	20.0	19.5	21.5	20.5	29.5	28.5	28.0	26.5	28.5	28.0	24.0	23.5
14	20.0	20.0	22.0	21.0	30.0	29.0	29.0	27.0	29.0	28.0	25.0	24.0
15	20.0	20.0	22.5	21.5	30.0	29.5	29.0	28.0	28.0	26.5	25.5	24.5
16	20.0	19.5	23.0	22.0	30.5	29.5	29.0	28.5	26.5	26.0	25.5	25.0
17	20.0	19.5	22.5	22.0	30.5	30.0	29.0	28.5	26.0	25.0	25.5	25.0
18	20.5	19.5	23.0	22.0	30.0	30.0	29.5	28.0	25.0	24.5	25.5	25.0
19	21.0	20.0	23.5	22.0	30.0	30.0	29.0	29.0	25.0	23.5	25.0	24.5
20	21.5	20.5	22.5	22.0	30.0	29.5	29.5	29.0	23.5	22.5	25.0	24.0
21	21.0	20.5	21.5	21.5	30.0	29.5	29.5	29.0	23.5	21.5	24.5	19.0
22	21.0	20.0	22.0	21.0	30.0	29.5	30.0	29.0	23.0	21.5	24.5	19.0
23	21.5	20.5	22.0	21.0	30.0	29.5	29.5	29.0	22.0	21.0	24.5	24.0
24	21.5	21.0	22.0	21.0	30.0	29.5	29.0	29.0	21.0	21.0	24.5	23.5
25	21.5	20.5	22.5	21.0	30.5	29.5	29.0	29.0	22.0	21.0	24.0	23.0
26	21.5	20.0	23.5	22.0	29.5	29.5	29.5	29.0	22.0	21.5	24.0	23.0
27	21.5	20.5	23.0	23.0	29.5	29.5	29.5	29.0	23.0	22.0	24.5	23.0
28	22.0	21.0	23.5	23.0	29.5	29.0	29.5	29.0	23.0	22.5	24.5	20.5
29	22.5	21.5	24.0	23.0	29.5	29.0	30.0	29.5	23.5	23.0	23.5	22.5
30	23.0	21.5	24.5	23.0	29.5	29.0	29.5	29.0	24.0	23.0	24.0	20.0
31	---	---	25.0	23.5	---	---	29.0	28.0	24.0	23.5	---	---
MONTH	23.0	13.5	25.0	19.5	30.5	24.5	30.0	23.0	29.0	21.0	26.5	19.0
YEAR	30.5	3.5										

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
14...	1115	861	8	19	94
NOV					
03...	1030	1760	9	43	97
DEC					
03...	1015	1940	4	21	91
JAN					
21...	1245	1430	18	69	93
FEB					
23...	1100	14600	115	4530	97
MAR					
23...	1115	1600	11	48	79
APR					
27...	1000	945	8	20	78
MAY					
28...	1200	995	10	27	--
JUN					
15...	1530	873	10	24	68
JUL					
31...	1200	2920	15	118	86
AUG					
17...	1230	3340	22	198	94
SEP					
14...	1120	2230	11	66	81

CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/15	13 30	0000	14.98	783	110	6.10	19.0	4.2	10.8	114.9	24	1.2
80/11/06	12 56	0000	15.59	1650	90	6.70	16.0	3.8	9.6	96.0	18	2.5
80/12/15	14 15	0000	16.64	2500	90	5.00	10.0	9.0	9.8	86.7	11	0.5
81/01/13	13 30	0000	15.72	1880								
81/02/16	15 30	0000	18.76	11400	84	6.71	9.0	200.0	10.0	86.2	41	3.3
81/03/17	16 00	0000	15.58	1630	97	5.74	12.0	10.0	8.7	80.6	16	0.7
81/04/16	13 50	0000	15.39	1320	125		23.0	8.0	8.6	98.9	15	1.4
81/05/13	14 30	0000	15.32	1210								
81/06/10	15 10	0000	15.80	2030		6.53	27.0	5.0	5.2	64.2		1.3
81/07/09	14 20	0000	18.48	10100		6.78	24.0	60.0	6.5	76.5		1.5
81/08/20	13 30	0000	17.72	7350		6.28	21.0	30.0	6.8	75.6		1.4
81/09/23	15 35	0000	14.87	669		7.20	23.0	30.0	7.4	85.0		0.7

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/15	13 30	0000	10		0.92	0.240	0.700	0.360	0.220			
80/11/06	12 56	0000	110		0.77	0.260	0.600	0.240	0.170			
80/12/15	14 15	0000	10		0.88	0.250	0.500	0.280	0.210	10K	50K	50K
81/02/16	15 30	0000	200		0.74	0.310	1.000	0.410	0.080			
81/03/17	16 00	0000	10	19	0.88	0.190	0.500	0.490	0.420	10K	50K	50K
81/04/16	13 50	0000	10K	21	0.91	0.150	0.500	0.260	0.180			
81/06/10	15 10	0000	300		1.00	0.230	0.700	0.340	0.220	10K	50K	50K
81/07/09	14 20	0000	160		0.70	0.050K	0.500	0.190	0.090			
81/08/20	13 30	0000	2100		0.44	0.070	0.600	0.180	0.060			
81/09/23	15 35	0000	10K		0.52	0.060	0.700	0.230	0.090	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/15	14 15	0000	100K	40K	500	100K	50.0	0.5K	50K
81/03/17	16 00	0000	100K	40K	700	100	140.0	0.5K	50K
81/06/10	15 10	0000	100K	40K	800	100K	120.0	1.6	50K
81/09/23	15 35	0000	100K	40K	1000	100K	80.0	0.5K	50K

K Less than noted value.

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 (1.9 km) east of Roseboro, and 1.5 mi (2.4 km) upstream from Bearskin Swamp.

DRAINAGE AREA.--92.8 mi² (240 km²), revised.

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

GAGE.--Water-stage recorder. Datum of gage is 80.52 ft (24.542 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 12, 1951, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--31 years, 116 ft³/s (3.285 m³/s), 16.97 in/yr (431 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s (96.3 m³/s) Oct. 7, 1964, gage height, 9.97 ft (3.039 m); minimum, 0.1 ft³/s (0.003 m³/s) Sept. 13, 14, 27, Oct. 1-11, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD..--Flood in 1924 reached a stage of 11.6 ft (3.54 m), from information by North Carolina State Highway Commission

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,670 ft³/s (47.3 m³/s) Aug. 22, gage height, 8.43 ft (2.569 m); minimum, 1.3 ft³/s (0.037 m³/s) July 1; minimum gage height, 1.27 ft (0.387 m) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	106	59	209	89	75	48	6.7	19	1.4	29	151
2	68	102	57	216	99	72	45	6.6	35	2.0	16	154
3	82	79	54	206	114	74	42	6.9	60	14	12	126
4	99	62	51	183	118	74	39	5.9	64	85	11	85
5	99	98	50	153	120	100	37	5.2	89	78	7.3	67
6	76	110	49	130	99	107	43	4.5	59	57	5.4	60
7	51	121	48	110	78	103	47	6.7	44	47	5.2	56
8	38	128	47	102	76	94	44	27	33	38	9.3	53
9	31	106	48	102	75	79	39	38	24	29	9.1	75
10	25	76	57	100	73	69	37	34	18	21	18	67
11	22	62	97	98	111	64	36	27	14	15	24	66
12	19	55	93	95	161	62	34	23	10	11	32	57
13	16	51	96	88	164	58	33	17	8.3	8.5	42	47
14	14	48	93	81	174	54	31	13	9.6	7.4	56	41
15	13	49	76	83	177	52	29	10	7.7	5.7	99	37
16	12	53	64	78	141	51	26	7.7	5.3	4.6	183	34
17	12	58	59	78	106	49	24	6.3	3.7	4.8	251	36
18	13	66	56	74	92	48	22	5.3	40	4.5	228	34
19	16	70	53	70	89	50	21	4.9	189	3.6	219	33
20	20	73	51	67	92	50	19	5.6	78	3.0	488	30
21	17	84	49	81	99	49	19	28	68	3.7	475	28
22	16	89	47	101	111	46	19	42	32	3.1	1110	27
23	15	82	68	110	124	48	17	42	19	2.2	1450	25
24	18	79	102	121	131	54	17	32	12	1.5	1280	22
25	98	79	109	124	127	56	15	21	8.0	1.5	1070	21
26	140	73	112	109	115	52	14	15	6.0	3.6	669	19
27	144	72	110	92	98	46	12	11	4.2	3.4	450	18
28	143	69	152	100	84	43	11	9.9	2.9	7.1	343	17
29	111	65	181	108	---	41	9.3	13	2.0	12	268	16
30	79	62	185	104	---	41	7.9	22	1.6	9.8	214	15
31	117	---	198	96	---	47	---	19	---	24	171	---
TOTAL	1671	2327	2571	3469	3137	1908	837.2	516.2	966.3	512.4	9244.3	1517
MEAN	53.9	77.6	82.9	112	112	61.5	27.9	16.7	32.2	16.5	298	50.6
MAX	144	128	198	216	177	107	48	42	189	85	1450	154
MIN	12	48	47	67	73	41	7.9	4.5	1.6	1.4	5.2	15
CFSM	.58	.84	.89	1.21	1.21	.66	.30	.18	.35	.18	3.21	.55
IN.	.67	.93	1.03	1.39	1.26	.76	.34	.21	.39	.21	3.71	.61

CAL YR 1980 TOTAL 34757.18 MEAN 95.0 MAX 485 MIN .88 CFSM 1.02 IN 13.93
WTR YR 1981 TOTAL 28676.40 MEAN 78.6 MAX 1450 MIN 1.4 CFSM .85 IN 11.50

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 (9 m) upstream from bridge on State Highway 411, 0.2 mi (0.3 km) downstream from Clear Run Swamp, and 3.8 mi (6.1 km) northeast of Tomahawk.

DRAINAGE AREA.--676 mi² (1,751 km²), revised.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1723: 1955(M).

GAGE.--Water-stage recorder. Datum of gage is 24.61 ft (7.501 m) 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 (7.620 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--30 years, 786 ft³/s (22.26 m³/s), 15.79 in/yr (401 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s (317 m³/s) Oct. 9, 1964, gage height, 21.14 ft (6.443 m); minimum, 8.5 ft³/s (0.24 m³/s) Oct. 13, 1954, gage height, 0.59 ft (0.180 m), present site and datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 22.0 ft (6.71 m), present datum, discharge, 14,500 ft³/s (411 m³/s) and floods in 1945 and 1948 reached a stage of 17.6 ft (5.36 m), present datum, discharge, 5,420 ft³/s (153 m³/s), from information furnished by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,390 ft³/s (209 m³/s) Aug. 23, gage height, 19.53 ft (5.953 m); minimum, 71 ft³/s (2.01 m³/s) July 24-25; minimum gage height, 1.45 ft (0.442 m), May 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	648	387	1020	550	516	345	90	188	94	373	2040
2	382	632	371	994	550	490	359	84	470	90	389	1690
3	454	567	355	936	709	520	360	81	694	115	362	1390
4	473	506	340	862	784	528	331	79	959	423	644	1070
5	486	516	325	793	747	605	309	77	1030	850	556	860
6	490	605	313	719	696	802	302	75	1010	907	301	756
7	512	631	302	651	647	827	325	80	989	786	193	684
8	454	639	294	640	608	743	343	108	886	504	195	627
9	354	609	289	632	571	657	335	203	755	336	223	746
10	262	554	292	597	535	580	308	272	547	260	307	793
11	203	488	380	560	581	520	286	269	348	212	308	669
12	165	431	530	521	915	479	271	247	242	192	417	575
13	138	388	534	448	1050	448	252	199	186	163	924	512
14	118	352	502	447	1100	422	234	156	158	138	1120	458
15	110	325	475	461	1080	400	221	129	140	121	1430	409
16	102	312	455	438	1020	380	207	111	123	106	2270	367
17	98	313	431	439	928	369	192	96	105	96	2970	452
18	92	328	410	428	833	359	181	87	129	91	2890	549
19	90	359	391	406	767	350	170	82	380	85	2590	490
20	107	379	367	389	766	348	160	83	887	78	3330	408
21	151	392	347	404	781	343	149	165	1170	73	4460	343
22	154	452	326	527	763	338	143	348	1290	72	6040	302
23	129	495	326	591	722	348	139	359	1190	76	7210	272
24	118	491	468	575	696	394	136	308	571	73	7350	244
25	136	482	603	549	670	414	130	243	275	109	7240	225
26	260	466	595	525	641	396	125	179	195	204	6740	208
27	394	452	561	508	604	380	117	142	154	128	5760	195
28	410	434	536	491	558	348	110	192	129	98	4790	184
29	412	420	878	558	---	330	102	284	110	80	3890	172
30	428	407	984	626	---	313	96	235	97	90	3150	158
31	555	---	1020	597	---	321	---	177	---	143	2510	---
TOTAL	8497	14073	14487	18332	20872	14268	6738	5240	15407	6793	80932	17848
MEAN	274	469	467	591	745	460	225	169	514	219	2611	595
MAX	555	648	1020	1020	1100	827	360	359	1290	907	7350	2040
MIN	90	312	289	389	535	313	96	75	97	72	193	158
CFSM	.41	.69	.69	.87	1.10	.68	.33	.25	.76	.32	3.86	.88
IN.	.47	.77	.80	1.01	1.15	.79	.37	.29	.85	.37	4.45	.98

CAL YR 1980 TOTAL 246933 MEAN 675 MAX 3450 MIN 28 CFSM 1.00 IN 13.59
WTR YR 1981 TOTAL 223487 MEAN 612 MAX 7350 MIN 72 CFSM .91 IN 12.30

02106648 BLACK RIVER AT SECONDARY ROAD 1722 NEAR DUNN, NC

LOCATION.--Lat 35°20'52", long 78°37'28", Harnett County, Hydrologic Unit 03030006, at bridge on Secondary Road 1722 and 3.0 mi (4.8 km) north-northwest of Dunn.

DRAINAGE AREA.--38 mi² (98 km²).

PERIOD OF RECORD.--Water years 1977 to September 1981 (discontinued).

REMARKS.--Station operated to define the effects of channelization on stream quantity and quality in the Black River basin.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)
OCT											
06...	1000	23	100	4.8	14.5	6.8	480	80	260	.3	15
DEC											
02...	0950	45	98	5.7	3.5	9.8	430	180	160	.0	.0
FEB											
11...	1330	66	71	5.6	12.0	8.2	--	K1900	K4000	.4	20
12...	1220	83	70	6.7	5.0	10.0	--	600	1500	--	--
MAY											
28...	1300	16	110	5.6	20.0	5.8	--	--	--	.3	15
AUG											
12...	1135	520	45	4.7	23.0	--	--	K8400	K30000	.3	15
12...	1845	600	45	4.8	24.0	--	--	K6800	K24000	.3	15
13...	0825	350	56	4.9	23.0	--	--	2100	3300	.3	15
14...	0900	155	75	4.6	22.5	4.4	--	240	600	.4	20
15...	0945	81	75	4.6	22.0	4.6	--	K260	790	.4	20

DATE	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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)
OCT											
06...	4	0	3	101	107	.15	6.6	.06	.000	.06	.380
DEC											
02...	15	0	12	12	75	.10	9.1	.02	.000	.02	.000
FEB											
11...	5	0	4	4.9	58	.08	10.3	.11	.010	.12	.100
12...	16	0	13	1.2	60	.08	13.4	.12	.010	.13	.170
MAY											
28...	11	0	9	44	107	.15	4.6	.95	.050	1.0	.290
AUG											
12...	3	0	2	96	63	.09	88.5	.08	.010	.09	.070
12...	4	0	3	101	70	.10	113	.13	.010	.14	.040
13...	2	0	2	98	69	.09	65.2	--	<.010	.14	.030
14...	--	0	--	--	87	.12	36.4	--	<.010	.05	.050
15...	--	0	--	--	101	.14	22.1	--	<.010	.04	.050

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
06...	.46	--	--	--	--	.090	.00	.28	.000	19
DEC										
02...	.00	.62	.62	.64	2.8	.030	.03	.09	.010	13
FEB										
11...	--	.64	.74	.86	3.8	.020	--	.06	.050	9.5
12...	--	.35	.52	.65	2.9	<.010	--	.03	.040	11
MAY										
28...	--	1.2	1.50	2.5	11	.300	--	.92	.150	14
AUG										
12...	--	.70	.77	.86	3.8	.090	--	.28	.060	19
12...	--	--	--	--	--	.120	--	.37	.070	18
13...	--	.70	.73	.87	3.9	.060	--	.18	.030	19
14...	--	.95	1.00	1.1	4.6	.040	--	.12	<.010	18
15...	--	.68	.73	.77	3.4	.040	--	.12	.010	22

K Results based on colony count outside the acceptable range (non-ideal colony count).

02106648 BLACK RIVER AT SECONDARY ROAD 1722 NEAR DUNN, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
06...	1000	23	5	.31
DEC				
02...	0950	45	3	.36
FEB				
11...	1330	66	28	5.0
11...	1405	65	26	4.6
12...	1220	83	11	2.5
MAY				
28...	1300	16	20	.86
AUG				
12...	1135	520	30	42
12...	1153	540	28	41
12...	1845	600	35	57
13...	0825	350	14	13
13...	1113	330	9	8.0
14...	0900	155	6	2.5
14...	0924	152	6	2.5
15...	0945	81	6	1.3
15...	1010	80	5	1.1

02106651 BLACK RIVER NEAR ERWIN, NC

LOCATION.--Lat 35°18'44", long 78°38'44", Harnett County, Hydrologic Unit 03030006, at bridge on Secondary Road 1735, 1.5 mi (2.4 km) below Southern Railway and 2.0 mi (3.2 km) southeast of Erwin.

DRAINAGE AREA.--41 mi² (106 km²).

PERIOD OF RECORD.--Water years 1977 to September 1981 (discontinued).

REMARKS.--Station operated to define the effects of channelization on stream quantity and quality in the Black River basin. During period 1977-78, water-quality data was published as Black River near Dunn (station 02106681).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)
OCT										
06...	1040	105	4.7	15.5	9.0	500	210	200	.3	15
DEC										
02...	1115	91	5.6	5.5	11.0	470	100	80	.0	.0
FEB										
11...	1200	70	6.0	12.0	9.7	--	240	2000	.2	10
11...	1430	75	5.8	12.5	9.6	--	180	K800	--	--
12...	1050	75	6.7	5.0	11.0	--	1200	K2500	--	--
MAY										
14...	1330	110	5.8	34.0	8.1	--	K8	K4	.2	10
28...	1345	83	5.7	24.0	7.7	--	--	--	.2	10
JUL										
03...	1542	42	5.2	--	--	--	--	--	.2	10
AUG										
12...	1230	58	5.1	24.0	--	--	K23000	K34000	.3	15
12...	1820	54	4.8	24.0	--	--	K15000	K18000	.3	15
13...	0930	53	4.8	23.0	--	--	3000	2600	.3	15
14...	1005	70	4.6	23.0	5.5	--	160	350	.3	15
15...	1050	78	4.7	23.0	5.7	--	180	640	.3	15

DATE	BICARBONATE FET-FLD (MG/L AS HCO3)	CARBONATE FET-FLD (MG/L AS CO3)	ALKALINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT										
06...	2	0	2	64	108	.15	.08	.000	.08	.060
DEC										
02...	11	0	9	20	75	.10	.00	.000	.00	.000
FEB										
11...	9	0	7	3.9	59	.08	.20	.010	.21	.040
11...	6	0	5	3.1	59	.08	--	<.010	.19	.030
12...	18	0	15	.8	58	.08	--	<.010	.17	.030
MAY										
14...	5	0	4	5.7	80	.11	--	<.010	.09	.030
28...	8	0	7	26	97	.13	.80	.040	.84	.150
JUL										
03...	6	0	5	49	40	.05	.39	.040	.43	.090
AUG										
12...	4	0	3	51	72	.10	.24	.010	.25	.030
12...	2	0	2	124	71	.10	.16	.010	.17	.130
13...	2	0	2	51	76	.10	.12	.010	.13	.060
14...	--	0	--	--	79	.11	--	<.010	.07	.040
15...	--	0	--	--	88	.12	--	<.010	.05	.050

K Results based on colony count outside the acceptable range (non-ideal colony count).

02106651 BLACK RIVER NEAR ERWIN, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT										
06...	.07	.56	.62	.70	3.1	.050	.00	.15	.000	22
DEC										
02...	.00	.40	.40	.40	1.8	.030	.03	.09	.010	13
FEB										
11...	--	.42	.46	.67	3.0	<.010	--	.03	.040	10
11...	--	.94	.97	1.2	5.1	<.010	--	.03	.030	9.7
12...	--	.55	.58	.75	3.3	<.010	--	.03	.040	11
MAY										
14...	--	.54	.57	.66	2.9	.030	--	.09	<.010	6.5
28...	--	.78	.93	1.8	7.8	.290	--	.89	.140	13
JUL										
03...	--	1.1	1.20	1.6	7.2	.210	--	.64	.090	11
AUG										
12...	--	.87	.90	1.2	5.1	.190	--	.58	.080	20
12...	--	.74	.87	1.0	4.6	.140	--	.43	.060	18
13...	--	.75	.81	.94	4.2	.070	--	.21	.040	18
14...	--	.51	.55	.62	2.7	.040	--	.12	<.010	20
15...	--	.81	.86	.91	4.0	.040	--	.12	<.010	19

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
OCT		
06...	1040	9
DEC		
02...	1115	8
FEB		
11...	1200	104
11...	1220	110
11...	1430	83
11...	1445	111
12...	1050	56
12...	1300	73
MAY		
14...	1330	5
28...	1345	66
JUL		
03...	1542	202
AUG		
12...	1230	170
12...	1820	325
13...	0930	133
13...	1054	102
14...	1005	27
14...	1020	25
15...	1033	15
15...	1050	12

CAPE FEAR RIVER BASIN

02106681 BLACK RIVER NEAR DUNN, NC

LOCATION.--Lat 35°17'03", long 78°38'21", Harnett County, Hydrologic Unit 03030006, at bridge on Secondary Road 1780, 1.5 mi (2.4 km) below Popes Pond and 2.3 mi (3.7 km) southwest of Dunn.

DRAINAGE AREA.--49 mi² (127 km²).

PERIOD OF RECORD.--Water years 1977 to September 1981 (discontinued).

REMARKS.--Station operated to define the effects of channelization on stream quantity and quality in the Black River basin.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
06...	1055	54	8	1.2
FEB				
11...	1235	105	505	143
11...	1310	101	400	109
11...	1515	92	215	53
12...	1000	78	78	16
12...	1322	77	67	14
MAY				
14...	1230	.15	17	.01
28...	1420	60	40	6.5
JUL				
03...	1515	220	324	192
03...	1530	210	313	177
AUG				
12...	1300	423	119	136
12...	1340	425	129	148
12...	1759	495	221	295
13...	1000	505	86	117
13...	1045	500	85	115
14...	1033	240	17	11
14...	1200	230	17	11
15...	1116	140	10	3.8
15...	1250	138	11	4.1

02107000 SOUTH RIVER NEAR PARKERSBURG, NC

LOCATION.--Lat 34°48'45", long 78°27'26", Bladen County, Hydrologic Unit 03030006, near center of span on downstream side of bridge on Secondary Road 1503, 1.9 mi (3.1 km) southwest of Parkersburg, and 2.1 mi (3.4 km) upstream from Cypress Creek.

DRAINAGE AREA.--379 mi^2 (982 km^2), revised.

PERIOD OF RECORD.--October 1951 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 50.38 ft (15.356 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 13, 1961, nonrecording gage at present site at datum 50.00 ft (15.240 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--30 years, 418 ft^3/s (11.84 m^3/s), 14.98 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft^3/s (167 m^3/s) Oct. 10, 1964, gage height, 14.32 ft (4.365 m); minimum, 0.1 ft^3/s (0.003 m^3/s) Oct. 3-6, 11-14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1918 or 1928 reached a stage of 15.88 ft (4.84 m), present datum, from high-water mark witnessed by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,300 ft^3/s (65.1 m^3/s) Aug. 24, gage height, 11.57 ft (3.527 m); minimum, 8.3 ft^3/s (0.24 m^3/s) July 31, gage height, 2.51 ft (0.765 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	113	160	302	223	469	139	24	79	14	48	931
2	27	117	157	313	227	470	137	21	144	15	49	765
3	39	112	154	324	236	458	134	18	242	24	55	643
4	57	108	151	333	239	435	129	16	311	95	87	556
5	78	125	147	334	236	428	125	15	369	121	57	465
6	106	134	144	329	231	418	127	14	386	121	38	375
7	123	135	143	329	226	395	130	14	360	103	27	296
8	126	141	144	330	221	362	126	23	290	79	21	252
9	121	143	147	329	216	327	121	44	203	63	17	259
10	112	140	153	325	211	298	117	55	138	51	16	273
11	102	134	174	316	229	274	113	54	100	40	15	279
12	92	125	195	300	277	256	108	48	77	32	16	268
13	83	117	203	290	312	242	103	39	63	30	20	250
14	76	109	204	270	332	230	98	32	53	38	18	227
15	69	104	199	246	354	219	94	26	43	47	15	202
16	64	100	194	228	378	209	89	21	34	47	13	178
17	58	96	190	215	393	200	85	18	29	42	70	178
18	53	98	185	202	399	191	80	16	43	35	229	174
19	51	104	180	194	399	182	76	14	66	28	781	162
20	50	109	176	189	400	174	70	13	219	23	1720	145
21	49	120	171	195	402	164	65	22	232	19	1870	129
22	44	139	166	209	401	156	61	38	191	17	2000	116
23	40	150	171	216	394	155	57	43	133	15	2230	104
24	39	156	203	218	385	155	53	41	91	15	2290	93
25	52	162	223	218	393	150	49	37	67	21	2220	83
26	105	168	224	218	415	146	44	30	51	20	2050	75
27	119	169	221	216	437	143	40	26	36	15	1850	68
28	107	169	236	218	456	140	35	24	26	11	1670	62
29	85	167	259	224	---	136	30	23	20	9.8	1500	56
30	77	163	277	229	---	135	27	27	16	8.7	1320	50
31	98	---	290	228	---	138	---	46	---	24	1120	---
TOTAL	2321	3927	5841	8087	9022	7855	2662	882	4112	1223.5	23432	7714
MEAN	74.9	131	188	261	322	253	88.7	28.5	137	39.5	756	257
MAX	126	169	290	334	456	470	139	55	386	121	2290	931
MIN	19	96	143	189	211	135	27	13	16	8.7	13	50
CFSM	.20	.35	.50	.69	.85	.67	.23	.08	.36	.10	2.00	.68
IN.	.23	.39	.57	.79	.89	.77	.26	.09	.40	.12	2.30	.76

CAL YR 1980 TOTAL 111278.1 MEAN 304 MAX 1400 MIN 1.1 CFSM .80 IN 10.92
WTR YR 1981 TOTAL 77078.5 MEAN 211 MAX 2290 MIN 8.7 CFSM .56 IN 7.57

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 (165 m) downstream from bridge on State Highway 41, 0.5 mi (0.8 km) downstream from Muddy Creek, and 1.2 mi (1.9 km) west of Chinquapin.

DRAINAGE AREA.--599 mi² (1,551 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1940 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 17.28 ft (5.267 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--41 years, 730 ft³/s (20.67 m³/s), 16.55 in/yr (420 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,400 ft³/s (578 m³/s) July 6, 1962, gage height, 20.16 ft (6.145 m); minimum, 5.3 ft³/s (0.15 m³/s) Oct. 10, 11, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage of 22.6 ft (6.89 m) at old bridge site 1,000 ft (305 m) upstream from gage. Flood in 1928 reached a stage of 0.8 ft (0.2 m) lower than that in 1908, from information by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,980 ft³/s (141 m³/s) Aug. 22, gage height, 13.37 ft (4.075 m); minimum, 51 ft³/s (1.44 m³/s) July 21, gage height, 1.44 ft (0.439 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	514	470	354	2140	625	501	297	94	757	70	195	1120
2	711	470	333	1910	646	486	492	89	838	66	197	914
3	808	438	310	1610	794	501	615	94	957	79	173	734
4	820	407	290	1320	854	491	614	90	1260	138	221	574
5	800	385	274	1070	847	616	536	86	1520	203	218	461
6	724	373	263	866	801	756	447	81	1600	254	168	384
7	607	358	252	746	759	784	394	80	1510	263	164	337
8	501	349	243	705	717	752	369	91	1510	306	194	309
9	424	358	235	663	669	703	339	137	1730	369	207	329
10	365	398	233	623	618	648	308	215	1900	321	364	319
11	307	426	280	577	710	577	288	276	1830	203	400	304
12	250	413	339	526	1150	508	271	398	1300	142	404	270
13	204	374	376	455	1390	454	253	475	662	118	483	228
14	167	328	388	450	1390	411	233	448	386	101	574	194
15	145	286	384	441	1320	374	218	360	273	85	724	169
16	130	259	378	440	1210	347	204	230	204	74	1060	152
17	118	241	383	439	1080	325	193	167	175	67	1560	180
18	109	244	384	415	945	312	181	140	186	61	1840	270
19	117	260	371	396	866	316	173	124	226	61	1800	293
20	148	265	342	391	906	311	164	122	667	60	2300	243
21	179	303	309	417	941	299	155	356	595	53	3990	192
22	188	425	282	523	937	283	148	634	422	83	4840	160
23	173	481	281	584	896	296	145	731	315	69	4920	139
24	161	483	388	597	842	332	139	654	253	62	4650	122
25	201	461	460	582	774	342	135	571	195	56	4180	107
26	266	443	474	559	699	328	129	431	151	68	3540	97
27	296	426	466	525	619	309	122	284	123	97	2870	88
28	307	414	751	511	550	294	115	315	102	166	2340	82
29	313	394	1500	611	---	278	109	591	88	151	1860	74
30	324	372	2120	660	---	266	101	739	78	181	1480	68
31	417	---	2240	655	---	274	---	771	---	212	1300	---
TOTAL	10794	11304	15683	22407	24555	13474	7887	9874	21813	4239	49216	8913
MEAN	348	377	506	723	877	435	263	319	727	137	1588	297
MAX	820	483	2240	2140	1390	784	615	771	1900	369	4920	1120
MIN	109	241	233	391	550	266	101	80	78	53	164	68
CFSM	.58	.63	.85	1.21	1.46	.73	.44	.53	1.21	.23	2.65	.50
IN.	.67	.70	.97	1.39	1.52	.84	.49	.61	1.35	.26	3.06	.55

CAL YR 1980 TOTAL 272095 MEAN 743 MAX 5160 MIN 23 CFSM 1.24 IN 16.90
WTR YR 1981 TOTAL 200159 MEAN 548 MAX 4920 MIN 53 CFSM .92 IN 12.43

02108000 NORTHEAST CAPE FEAR RIVER NEAR CHINQUAPIN, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/09	10 30	0000	4.20	428	201		17.0	15.0	7.1	73.2	45	0.9
80/11/17	11 45	0000	3.11	240	150		10.0	6.0	8.5	75.2	42	2.1
80/12/16	11 45	0000	3.97	376	154		7.0	4.0	9.4	77.0	40	0.7
81/01/14	14 45	0000	0.20	445	185		2.0	6.0	13.4	97.1	25	0.7
81/02/16	12 20	0000	7.88	1210	86		9.0	8.0	12.4	106.9	35	1.2
81/03/10	10 40	0000	5.42	648	99		9.0	5.0	9.6	82.8	34	0.9
81/04/09	11 15	0000	3.48	309	152		16.0	6.0	10.0	100.0	37	0.9
81/05/11	10 50	0000	2.85	265			19.5	8.0	11.8	128.3		1.7
81/06/17	11 30	0000	2.48	155			28.5	5.0	4.6	59.0		1.3
81/07/07	13 05	0000	3.00	261			26.0	6.0	7.8	95.1		4.3
81/08/20	10 40	0000	10.47	2240			23.0	15.0	6.8	78.2		1.8
81/09/01	11 50	0000	7.57	1120			22.0	5.0	6.0	68.2		1.3

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/09	10 30	0000	90									
80/11/17	11 45	0000	120	14	0.48	0.070	0.500	0.080	0.050K	10K	50K	50K
80/12/16	11 45	0000	180	20								
81/01/14	14 45	0000	40	9								
81/02/16	12 20	0000	80									
81/03/10	10 40	0000	90	10	0.55	0.050K	0.500	0.080	0.050K	10K	50K	50K
81/04/09	11 15	0000	40	16								
81/05/11	10 50	0000	360	15								
81/06/17	11 30	0000	30	19	1.00	0.210	0.600	0.140	0.050	10K	50K	50K
81/07/07	13 05	0000	60	9								
81/08/20	10 40	0000	11000	3								
81/09/01	11 50	0000	40	8	0.52	0.110	1.000	0.120	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/11/17	11 45	0000	100K	40K	700	100K	130.0	0.5K	50K
81/03/10	10 40	0000	100K	40K	500	100K	50.0K	0.5K	50K
81/06/17	11 30	0000	100K	40K	900	100K	50.0	0.5K	50K
81/09/01	11 50	0000	100K	40K	1100	100K	60.0	0.5K	70

K Less than noted value.

02108500 ROCKFISH CREEK NEAR WALLACE, NC

LOCATION.--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 (2.4 km) upstream from Doctors Creek, and 2.5 mi (4.0 km) west of Wallace.

DRAINAGE AREA.--69.3 mi² (179.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1955 to September 1981 (discontinued).

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

GAGE.--Water-stage recorder. Datum of gage is 29.36 ft (8.949 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1958, nonrecording gage at site 1.0 mi (1.6 km) downstream at different datum. Oct. 1, 1958, to June 1, 1960, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--26 years, 94.8 ft³/s (2.685 m³/s), 18.58 in/yr (472 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,540 ft³/s (157 m³/s) Nov. 7, 1977, gage height, 13.17 ft (4.014 m) from floodmarks; minimum daily, 0.4 ft³/s (0.011 m³/s) July 27-30, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1948 reached a stage of about 15.5 ft (4.72 m) at former site and datum, from information by local resident, discharge, 2,800 ft³/s (79.3 m³/s). A discharge of 0.04 ft³/s (0.001 m³/s) was measured on Sept. 8, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 20	2400	*2020	57.2	*11.14	3.395

Minimum discharge, 3.9 ft³/s (0.11 m³/s) Oct. 13; minimum gage height, 0.96 ft (0.293 m) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	13	153	41	32	43	8.6	53	7.6	37	48
2	19	14	13	104	47	37	87	7.8	152	8.3	30	39
3	15	11	11	69	70	46	67	8.3	161	8.3	31	27
4	11	9.2	11	54	77	45	46	7.7	199	36	92	20
5	9.0	11	12	44	74	88	35	8.1	212	79	102	17
6	7.2	12	12	39	56	125	32	7.9	194	85	84	16
7	7.3	9.8	11	39	47	118	31	8.7	120	81	36	14
8	6.9	8.6	9.9	42	42	101	27	12	60	29	19	15
9	5.8	7.1	10	41	40	69	24	16	50	14	41	25
10	6.1	7.0	13	36	37	51	23	14	32	12	170	22
11	6.2	8.2	17	32	68	44	22	35	21	9.6	72	17
12	5.2	8.1	20	31	154	40	20	66	16	9.1	47	13
13	4.2	7.0	18	31	160	36	18	31	14	8.5	49	10
14	4.3	7.6	15	30	173	33	18	20	13	9.1	54	9.1
15	5.4	7.1	16	28	151	29	17	16	12	9.3	42	7.7
16	5.0	6.8	16	27	102	28	16	13	11	8.3	21	7.3
17	6.0	7.3	17	27	73	27	15	11	10	7.3	30	13
18	5.6	8.4	18	25	59	26	15	9.5	19	8.3	39	22
19	4.5	9.5	17	24	60	34	14	9.3	25	7.0	84	23
20	6.8	9.8	15	24	85	30	13	11	139	6.4	1400	15
21	8.6	12	14	30	97	28	13	46	203	5.9	1580	11
22	7.5	21	15	46	93	25	12	54	101	13	775	9.4
23	6.4	21	17	50	79	33	12	35	34	16	580	8.1
24	6.7	18	31	44	60	40	13	20	18	9.9	496	7.2
25	9.8	17	33	37	50	34	12	15	14	14	358	6.6
26	12	16	30	33	43	30	12	12	11	29	233	5.9
27	12	14	26	30	37	26	10	11	10	22	147	5.6
28	10	12	60	34	34	24	10	27	9.6	29	83	5.1
29	8.9	12	167	48	---	22	9.4	149	8.0	14	49	5.0
30	9.0	11	191	50	---	23	8.3	127	7.3	18	53	4.9
31	15	---	196	47	---	26	---	74	---	26	53	---
TOTAL	266.4	342.5	1064.9	1349	2109	1350	694.7	890.9	1928.9	639.9	6887	448.9
MEAN	8.59	11.4	34.4	43.5	75.3	43.5	23.2	28.7	64.3	20.6	222	15.0
MAX	20	21	196	153	173	125	87	149	212	85	1580	48
MIN	4.2	6.8	9.9	24	34	22	8.3	7.7	7.3	5.9	19	4.9
CFSM	.12	.17	.50	.63	1.09	.63	.34	.41	.93	.30	3.20	.22
IN.	.14	.18	.57	.72	1.13	.72	.37	.48	1.04	.34	3.70	.24

CAL YR 1980 TOTAL 24761.2 MEAN 67.7 MAX 1030 MIN 2.2 CFSM .98 IN 13.29
WTR YR 1981 TOTAL 17972.1 MEAN 49.2 MAX 1580 MIN 4.2 CFSM .71 IN 9.65

CAPE FEAR RIVER BASIN

02108500 ROCKFISH CREEK NEAR WALLACE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/09	14 45	0000	1.28	6	170		16.0	3.0	8.6	86.0	28	0.7
80/11/17	15 15	0000	1.62	8	100		10.0	4.0	10.0	88.5	34	2.2
80/12/16	10 45	0000	1.79	15	163		7.0	2.0	10.8	88.5	24	0.3
81/01/14	14 15	0000	2.18	28	250		1.0	6.0	13.4	94.4	15	0.2
81/02/16	11 20	0000	4.09	102	80		8.0	4.0	11.4	95.8	36	5.2
81/03/10	10 00	0000	3.01	51	99		9.0	4.0	10.8	93.1	36	6.0
81/04/09	10 30	0000	2.08	25	128		17.0	5.0	9.2	94.8	26	1.2
81/05/11	13 00	0000	2.96	49			19.5	80.0	14.4	156.5	60	8.0
81/06/17	10 40	0000	1.33	11			25.5	4.0	5.0	61.0		0.7
81/07/07	11 50	0000	3.81	85			24.0	5.0	7.1	83.5		3.0
81/08/20	10 10	0000	10.38	1440			23.0	40.0	6.9	79.3		2.3
81/09/01	11 05	0000	3.18	48			22.0	4.0	6.4	72.7		0.9

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/09	14 45	0000	10K	37								
80/11/17	15 15	0000	10K	26	0.37	0.470	0.900	0.160	0.110	10K	50K	50K
80/12/16	10 45	0000	10K	48								
81/01/14	14 15	0000	10K	30								
81/02/16	11 20	0000	50	5								
81/03/10	10 00	0000	10K	7	5.60	0.210	0.800	0.200	0.110	10K	50K	50K
81/04/09	10 30	0000	10K	28	0.69	0.950	1.600	0.260	0.170			
81/05/11	13 00	0000	130	26								
81/06/17	10 40	0000	10K	30	0.87	1.600	2.500	0.420	0.240	10K	50K	50K
81/07/07	11 50	0000	240	7								
81/08/20	10 10	0000	11000	4								
81/09/01	11 05	0000	100	10	0.56	0.050K	0.800	0.140	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/11/17	15 15	0000	100K	40K	500	100K	50.0K	0.7	50K
81/03/10	10 00	0000	100K	40K	400	100K	50.0K	0.5K	1400
81/04/09	10 30	0000							50K
81/06/17	10 40	0000	100K	40K	700	100K	50.0K	0.5	50K
81/09/01	11 05	0000	100K	40K	900	100K	50.0K	0.5K	80

K Less than noted value.

02108548 LITTLE ROCKFISH CREEK AT WALLACE, NC

LOCATION.--Lat 34°44'02", long 77°58'03" (revised), Duplin County, Hydrologic Unit 03030007, on right bank, 0.4 mi (0.6 km) downstream from bridge on State Highway 41, 0.6 mi (1.0 km) east-southeast of Wallace, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--7.8 mi² (20.2 km²), approximately.

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 (8.406 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF PERIOD.--Maximum discharge, 336 ft³/s (9.52 m³/s) Nov. 6, 1977, gage height, 7.55 ft (2.301 m); no flow June 19, 22, Sept. 27-30, Oct. 10-28, Nov. 1-3, 7, 20-22, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s (4.81 m³/s) revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	0230	175	4.96	4.99	1.521	Aug. 20	0715	*330	9.35	*7.47	2.277
June 18	0515	185	5.24	5.15	1.570						

Minimum discharge, 0.01 ft³/s (<0.001 m³/s) Apr. 28, 29, July 29; minimum gage height, 2.10 ft (0.640 m) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.6	.78	17	7.5	4.5	11	.34	21	.28	.34	4.5
2	.80	2.0	.69	13	15	8.0	18	.29	45	.31	.33	3.3
3	.66	.58	.66	10	22	7.8	9.2	.17	23	6.0	3.1	2.4
4	.53	.55	.58	9.1	14	6.9	6.8	.29	15	8.2	.92	2.1
5	.43	.35	.52	7.6	11	42	5.8	2.1	9.2	3.7	1.1	1.7
6	.57	.27	.48	6.8	9.4	32	5.1	1.1	6.5	1.6	.73	1.5
7	.27	.21	.48	8.2	8.9	18	4.0	1.6	4.5	.84	.69	1.3
8	.25	.19	.55	7.9	8.7	12	3.2	6.5	3.0	.50	.30	8.8
9	.20	.37	.45	6.8	8.0	9.8	2.8	4.7	2.2	.24	15	8.6
10	.16	.22	2.8	6.0	7.1	8.4	2.5	15	1.5	.16	66	4.0
11	.14	.11	1.8	5.9	35	7.3	2.2	14	1.0	1.7	12	2.2
12	.26	.10	1.6	5.0	54	6.4	1.9	7.0	.58	.42	4.5	1.5
13	.21	.10	1.3	4.2	26	5.7	1.6	3.9	.46	.30	2.5	1.2
14	.10	.08	1.3	4.1	18	5.0	1.4	1.9	.36	.15	2.5	.88
15	.09	.22	.98	3.9	14	4.4	1.2	1.2	.23	.13	3.1	.61
16	.09	.39	1.8	3.7	12	4.1	.90	.81	.14	.12	4.9	.79
17	.10	.39	1.3	3.5	10	3.6	.76	.47	.13	.21	7.4	.69
18	.13	.76	1.1	3.4	8.6	4.8	.73	.34	18	.26	7.0	.51
19	1.6	.19	1.0	3.2	15	6.1	.65	.22	10	.26	46	.67
20	.95	.18	.98	3.1	23	5.1	.70	12	26	.26	270	.64
21	.67	6.8	1.0	8.4	17	4.0	.40	96	9.0	1.2	114	.38
22	.64	4.1	.84	8.6	12	4.8	.25	26	3.8	.40	60	.26
23	.61	2.4	5.0	7.2	9.5	7.8	.21	9.6	1.8	.21	53	.20
24	1.8	2.0	4.7	6.3	8.1	7.1	.40	6.1	.99	.55	32	.14
25	3.2	1.6	3.2	5.7	6.8	5.4	.17	4.0	.56	.50	20	.25
26	1.5	1.2	2.1	5.0	6.0	4.5	.13	2.6	.38	.29	12	.44
27	.88	1.3	7.1	4.7	5.1	3.9	.10	4.2	.44	.08	8.4	.65
28	.82	1.3	69	9.4	4.6	3.5	.03	17	.34	.16	6.0	.33
29	.84	1.2	95	11	---	3.1	.01	34	.28	.13	11	.25
30	4.4	1.0	36	9.6	---	3.4	.12	15	.33	3.1	11	.25
31	3.0	---	23	8.2	---	3.5	---	7.2	---	1.6	6.8	---
TOTAL	27.20	32.76	268.09	216.5	396.3	252.9	82.26	295.63	205.72	33.86	782.61	51.04
MEAN	.88	1.09	8.65	6.98	14.2	8.16	2.74	9.54	6.86	1.09	25.2	1.70
MAX	4.4	6.8	95	17	54	42	18	96	45	8.2	270	8.8
MIN	.09	.08	.45	3.1	4.6	3.1	.01	.17	.13	.08	.30	.14
CFSM	.11	.14	1.11	.90	1.82	1.05	.35	1.22	.88	.14	3.23	.22
IN.	.13	.16	1.28	1.03	1.89	1.21	.39	1.41	.98	.16	3.73	.24

CAL YR 1980 TOTAL 3752.57 MEAN 10.3 MAX 227 MIN .03 CFSM 1.32 IN 17.89
WTR YR 1981 TOTAL 2644.87 MEAN 7.25 MAX 270 MIN .01 CFSM .93 IN 12.61

02109500 WACCAMAW RIVER AT FREELAND, NC

LOCATION.--Lat 34°05'43", long 78°32'55" (revised), Brunswick County, Hydrologic Unit 03040206, on left bank 150 ft downstream from New Britton Bridge on State Highway 130, 1 mi (2 km) southwest of Freeland, 7 mi (11 km) downstream from Juniper Creek, and 117 mi (188 km) upstream from mouth in Winyah Bay.

DRAINAGE AREA.--680 mi² (1,761 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 1172: Drainage area. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 15.52 ft (4.730 m) National Geodetic Vertical Datum of 1929. Prior to July 15, 1943, nonrecording gage 150 ft (46 m) upstream at same datum. Auxiliary nonrecording gage 3.3 mi (5.3 km) 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.--Water-discharge records good except those for period of no gage-height record, Dec. 8 to Jan. 6, which are fair.

AVERAGE DISCHARGE.--42 years, 705 ft³/s (19.97 m³/s), 14.08 in/yr (358 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) Sept. 25, 1955; maximum gage height, 16.63 ft (5.069 m) Sept. 26, 1955; minimum discharge, 0.1 ft³/s (0.003 m³/s) Aug. 30, Sept. 9, 10, 28, Oct. 4-14, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,700 ft³/s (218 m³/s) Aug. 23, gage height, 15.97 ft (4.868 m); minimum, 24 ft³/s (0.68 m³/s) Nov. 19; minimum gage height, 1.60 ft (0.488 m) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	45	40	300	148	343	456	54	124	204	352	2960
2	121	41	40	400	164	332	527	48	122	203	392	472
3	124	39	39	430	197	326	579	45	125	218	444	422
4	122	38	38	440	211	321	609	40	134	263	515	375
5	115	38	37	450	218	335	615	37	142	287	606	336
6	107	37	36	460	223	444	591	36	151	272	658	299
7	99	36	36	448	224	519	547	37	159	240	680	1360
8	93	35	35	430	227	578	494	64	164	213	695	1220
9	87	34	34	400	224	613	441	100	165	192	720	1280
10	81	32	35	370	219	621	397	111	162	170	806	1360
11	78	30	36	339	248	614	360	175	156	144	951	1370
12	72	28	36	311	331	598	327	336	151	127	1060	1310
13	66	27	36	282	411	573	298	391	157	109	1100	1150
14	62	27	35	258	470	542	272	407	197	94	1110	1060
15	58	26	35	235	505	505	245	382	237	83	1080	964
16	54	26	35	224	515	464	223	326	255	76	1050	871
17	51	26	36	214	508	425	203	266	265	78	1180	787
18	49	27	37	203	495	387	185	217	278	69	1390	721
19	53	26	37	190	484	365	166	186	310	65	1670	698
20	46	25	36	178	485	358	152	163	324	61	3470	694
21	41	28	36	173	488	344	137	153	319	58	5600	678
22	39	33	36	174	484	326	127	147	304	56	7060	650
23	38	36	37	174	476	334	118	133	285	54	7620	615
24	38	38	38	169	462	430	109	117	256	83	7610	572
25	42	38	41	164	439	485	101	104	241	146	7130	524
26	42	38	44	160	415	510	88	94	234	135	6520	472
27	39	39	46	155	386	511	80	84	229	120	5920	422
28	38	42	50	152	365	496	71	97	222	111	5320	375
29	37	42	64	155	---	480	67	110	215	102	4690	336
30	38	41	120	152	---	462	60	122	211	144	4060	299
31	45	---	200	150	---	449	---	129	---	286	3470	---
TOTAL	2094	1018	1441	8340	10022	14090	8645	4711	6294	4463	84929	24652
MEAN	67.5	33.9	46.5	269	358	455	288	152	210	144	2740	822
MAX	124	45	200	460	515	621	615	407	324	287	7620	2960
MIN	37	25	34	150	148	321	60	36	122	54	352	299
CFSM	.10	.05	.07	.40	.53	.67	.42	.22	.31	.21	4.03	1.21
IN.	.11	.06	.08	.46	.55	.77	.47	.26	.34	.24	4.65	1.35

CAL YR 1980 TOTAL 229753 MEAN 628 MAX 5100 MIN 12 CFSM .92 IN 12.57
WTR YR 1981 TOTAL 170699 MEAN 468 MAX 7620 MIN 25 CFSM .69 IN 9.34

02109500 WACCAMAW RIVER AT FREELAND, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/29	11	10 0000	1.90	37	80		15.0	3.0	8.1	79.4	55	3.6
80/11/12	13	15 0000	1.70	28	40		12.0	3.0	9.1	84.3	66	4.8
80/12/11	11	45 0000	1.90	36	77		9.0	4.0	10.6	91.4	44	1.8
81/01/12	14	15 0000	6.09	311			1.0	4.0	13.2	93.0	52	1.3
81/02/03	14	15 0000	4.33	197	84	5.20	5.0	5.0	12.4	96.9	48	1.5
81/03/04	15	30 0000	6.21	321	107		12.0	2.0	10.2	94.4	57	1.6
81/04/01	15	00 0000		456	74		18.0	7.0	8.2	86.3	56	1.7
81/05/14	11	20 0000	7.30	410			19.5	8.0	4.8	52.2		2.7
81/06/15	15	00 0000	4.75	240			27.5	4.0	5.4	68.4	130	3.0
81/07/08	14	30 0000	4.02	210			27.5	3.0	4.5	57.0	120	2.3
81/08/13	11	25 0000	11.78	1110			26.0	2.0	4.2	51.2	110	2.1
81/09/10	12	10 0000	12.18	1360			23.0	3.0	4.0	46.0	119	3.2

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/29	11	10 0000	20	1								
80/11/12	13	15 0000	10	1	0.37	0.200	0.600	0.050K	0.050K	10K	50K	50K
80/12/11	11	45 0000	20	2								
81/01/12	14	15 0000	10K									
81/02/03	14	15 0000	30									
81/03/04	15	30 0000	10K		0.06	0.050K	0.600	0.050K	0.050K	10K	50K	50K
81/04/01	15	00 0000	230									
81/05/14	11	20 0000	60	4								
81/06/15	15	00 0000	10K	3	0.41	0.090	1.600	0.050	0.050K	10K	50K	50K
81/07/08	14	30 0000	40	3								
81/08/13	11	25 0000	20	1								
81/09/10	12	10 0000	100	1	0.05	0.080	1.000	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/11/12	13	15 0000	100K	40K	1200	100K	100.0	0.5K	70
81/03/04	15	30 0000	100K	40K	500	100K	150.0	0.5K	50K
81/06/15	15	00 0000	100K	40K	1800	100K	90.0	1.2	50
81/09/10	12	10 0000	100K	40K	1700	100	50.0K	0.5K	50K

K Less than noted value.

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 (61 m) upstream from bridge on State Highway 268, 0.4 mi (0.6 km) upstream from Warrior Creek, 0.5 mi (0.8 km) south of Patterson, 2 mi (3 km) downstream from Walnut Branch, and at mile 416 (669 km).

DRAINAGE AREA.--28.8 mi² (74.6 km²).

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 (369.256 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940 nonrecording gage at present site, at datum 1.00 ft (0.305 m) higher. Prior to Oct. 20, 1970 at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Corps of Engineers rainfall and stage radio telemeter at station.

AVERAGE DISCHARGE.--42 years, 49.8 ft³/s (1.410 m³/s), 23.48 in/yr (596 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s (459 m³/s) Aug. 13, 1940, gage height, 12.70 ft (3.871 m), datum then in use, from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of computation of peak flow over dam 1 mi (1.6 km) upstream at gage heights 4.58 ft (1.396 m), 6.60 ft (2.012 m), 7.70 ft (2.347 m), 12.70 ft (3.871 m); minimum observed, 3.0 ft³/s (0.085 m³/s) May 15, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	2400	*408	11.6	*2.91	0.887

Minimum discharge, 7.3 ft³/s (0.21 m³/s) Aug. 26, 28, 29, 30, gage height, 0.68 ft (0.207 m); minimum daily, 7.5 ft³/s (0.21 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	19	21	18	13	26	49	18	74	22	13	8.0
2	23	18	20	17	60	24	40	17	96	17	15	8.3
3	20	18	19	16	23	22	35	16	183	22	20	48
4	19	18	19	16	20	24	32	16	150	21	15	32
5	20	18	18	12	20	34	38	15	100	23	13	27
6	23	18	19	16	19	26	32	16	81	22	13	44
7	19	17	18	17	17	23	28	18	75	19	13	28
8	18	17	18	14	17	23	27	17	58	15	15	23
9	18	17	18	16	16	22	27	16	48	14	14	17
10	17	17	19	13	28	21	26	15	41	14	12	14
11	17	17	18	11	192	21	25	55	35	13	11	12
12	17	17	17	12	60	20	25	26	33	14	11	11
13	17	17	17	14	41	19	24	21	33	14	10	11
14	17	17	17	15	30	19	24	19	35	12	10	10
15	17	20	16	15	25	18	25	22	29	12	10	10
16	17	21	16	14	23	20	23	19	27	14	9.9	21
17	17	20	16	12	23	19	23	17	25	20	10	15
18	18	24	16	12	29	18	24	17	24	13	10	12
19	23	19	15	14	36	18	23	18	24	13	9.7	10
20	19	18	16	15	55	17	30	28	26	12	9.3	10
21	17	18	15	18	44	17	25	31	22	11	9.0	9.9
22	17	17	14	16	36	19	23	25	20	11	9.0	9.7
23	17	17	18	15	56	28	23	22	19	13	8.9	9.3
24	18	49	18	15	49	33	25	19	18	29	8.7	9.0
25	44	28	16	14	40	40	22	18	17	56	8.0	8.9
26	27	22	14	14	34	41	21	17	16	19	7.7	8.8
27	21	31	18	14	29	36	20	227	15	15	8.0	8.7
28	21	32	21	14	27	30	19	201	15	15	7.7	8.6
29	20	24	22	13	---	28	19	89	14	25	7.5	8.3
30	23	22	21	15	---	83	19	68	15	18	7.9	8.2
31	20	---	19	13	---	68	---	71	---	14	8.1	---
TOTAL	633	627	549	450	1062	857	796	1194	1368	552	334.4	460.7
MEAN	20.4	20.9	17.7	14.5	37.9	27.6	26.5	38.5	45.6	17.8	10.8	15.4
MAX	44	49	22	18	192	83	49	227	183	56	20	48
MIN	17	17	14	11	13	17	19	15	14	11	7.5	8.0
CFSM	.71	.73	.62	.50	1.32	.96	.92	1.34	1.58	.62	.38	.54
IN.	.82	.81	.71	.58	1.37	1.11	1.03	1.54	1.77	.71	.43	.60

CAL YR 1980 TOTAL 19789.0 MEAN 54.1 MAX 622 MIN 14 CFSM 1.88 IN 25.56
WTR YR 1981 TOTAL 8883.1 MEAN 24.3 MAX 227 MIN 7.5 CFSM .84 IN 11.47

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 (213 m) upstream from bridge on State Highway 268, in community of Elkville, and 3,400 ft (1,040 m) upstream from mouth.

DRAINAGE AREA.--48.1 mi² (124.6 km²).

PERIOD OF RECORD.--October 1965 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 1,082.40 ft (329.916 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Corps of Engineers rainfall and gage-height radio telemeter at station.

AVERAGE DISCHARGE.--16 years, 106 ft³/s (3.002 m³/s), 29.93 in/yr (760 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s (329 m³/s) Nov. 6, 1977, gage height, 9.58 ft (2.920 m) from floodmarks, from rating curve extended above 2,400 ft³/s (68.0 m³/s) on basis of contracted-opening measurement at gage height 7.28 ft (2.219 m); minimum, 11 ft³/s (0.31 m³/s) Jan. 5, 1981, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 13, 1940 reached a stage of about 22 ft (6.7 m), discharge, about 70,000 ft³/s (1,980 m³/s), on basis of several contracted-opening and slope-area measurements. A discharge of 6.0 ft³/s (0.17 m³/s) was measured Sept. 19, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (20 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	2330	*2780	78.7	*4.87	1.484

Minimum discharge, 11 ft³/s (0.31 m³/s) Jan. 5, result of freezeup; minimum daily, 14 ft³/s (0.40 m³/s) Aug. 27-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	32	35	27	19	54	114	35	114	38	27	15
2	39	32	33	26	103	49	88	35	129	36	26	18
3	35	30	33	26	54	47	76	33	225	39	27	80
4	32	30	32	25	33	47	70	33	225	40	28	48
5	35	29	32	17	29	76	70	33	153	35	23	31
6	43	30	30	25	29	70	68	33	126	60	23	47
7	35	29	30	27	35	62	60	35	126	46	24	45
8	29	29	30	21	35	56	56	38	108	32	29	44
9	29	29	29	22	27	54	54	33	88	29	25	30
10	29	29	29	21	36	51	54	33	76	28	20	25
11	29	29	29	17	317	49	49	129	68	27	20	23
12	27	27	29	20	109	46	49	74	62	30	20	21
13	26	26	29	20	66	44	47	58	68	26	19	20
14	26	26	27	24	57	43	46	51	74	23	19	20
15	26	27	27	23	51	43	46	58	60	24	18	20
16	26	33	27	20	47	43	44	49	53	29	18	94
17	26	32	27	17	44	46	44	44	51	41	18	39
18	26	39	27	19	47	44	44	41	49	31	18	27
19	44	33	27	20	56	43	44	41	49	29	18	23
20	32	30	27	24	95	41	53	58	47	29	18	22
21	27	29	21	27	85	39	51	90	44	26	17	21
22	27	29	20	26	70	41	46	74	41	24	16	20
23	27	29	29	25	100	53	44	62	38	23	16	20
24	27	64	27	23	106	62	47	54	38	35	16	19
25	62	49	22	22	80	83	41	49	36	31	15	18
26	47	38	18	23	66	93	39	46	32	28	15	18
27	36	41	25	23	58	83	36	713	30	25	14	18
28	35	49	26	23	56	78	36	706	30	39	14	17
29	35	41	27	23	---	70	35	210	29	51	14	16
30	35	36	26	22	---	150	35	138	29	33	14	16
31	35	---	27	20	---	157	---	114	---	27	14	---
TOTAL	1043	1006	857	698	1910	1917	1586	3200	2298	1014	603	875
MEAN	33.6	33.5	27.6	22.5	68.2	61.8	52.9	103	76.6	32.7	19.5	29.2
MAX	62	64	35	27	317	157	114	713	225	60	29	94
MIN	26	26	18	17	19	39	35	33	29	23	14	15
CFSM	.70	.70	.57	.47	1.42	1.29	1.10	2.14	1.59	.68	.41	.61
IN.	.81	.78	.66	.54	1.48	1.48	1.23	2.47	1.78	.78	.47	.68

CAL YR 1980 TOTAL 37060 MEAN 101 MAX 2050 MIN 18 CFSM 2.10 IN 28.66
WTR YR 1981 TOTAL 17007 MEAN 46.6 MAX 713 MIN 14 CFSM .97 IN 13.15

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 (168 m) upstream from bridge on Secondary Road 1517, 1.2 mi (1.9 km) northwest of North Wilkesboro, 1.4 mi (2.3 km) upstream from North Wilkesboro municipal dam, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--89.2 mi² (231.0 km²).

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 (298.283 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Slight diurnal fluctuation at low flow during growing season.

AVERAGE DISCHARGE.--42 years, 145 ft³/s (4.106 m³/s), 22.08 in/yr (561 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s (765 m³/s) Aug. 14, 1940, gage height, 22.02 ft (6.712 m), from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of computation of peak flow over dam; minimum, 22 ft³/s (0.62 m³/s) Aug. 17, 1954, gage height, 0.63 ft (0.192 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 28	0100	*2030	57.5	*5.56	1.695

Minimum discharge, 30 ft³/s (0.850 m³/s) Aug. 29; minimum gage height, 0.73 ft (0.223 m) Aug. 26, 29; minimum daily, 31 ft³/s (0.878 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	79	79	66	55	82	126	64	119	78	50	36
2	91	77	77	64	165	79	105	61	157	70	51	49
3	81	76	75	64	88	76	95	60	136	83	53	176
4	77	77	73	63	59	81	90	60	131	81	49	149
5	90	76	73	47	69	117	98	59	112	67	47	75
6	98	74	73	65	72	96	92	58	116	99	52	174
7	81	73	72	66	74	87	83	64	200	75	55	116
8	77	73	72	65	68	82	81	63	156	64	63	69
9	75	73	72	64	64	79	84	60	120	60	51	57
10	74	72	75	63	65	77	82	62	103	57	50	50
11	73	70	71	66	373	76	78	332	93	55	45	47
12	70	70	70	60	146	74	77	120	89	87	43	44
13	70	70	69	59	104	73	75	89	119	78	42	43
14	70	70	69	64	86	72	75	80	116	61	41	42
15	71	74	68	66	85	70	81	85	90	57	41	42
16	70	76	69	61	81	71	73	74	83	55	40	408
17	70	77	68	58	81	69	74	70	78	62	40	95
18	72	91	67	58	86	69	79	70	76	55	41	69
19	101	76	67	55	100	70	74	77	76	54	39	60
20	76	73	66	58	136	68	104	128	77	54	40	55
21	72	73	59	68	104	67	90	143	72	51	37	52
22	72	72	55	64	93	69	80	99	68	48	35	50
23	71	72	61	66	143	95	79	84	66	46	35	48
24	72	125	67	59	136	100	91	77	65	93	34	45
25	146	99	59	61	108	123	77	72	76	62	33	44
26	99	82	51	61	96	127	74	68	65	122	32	44
27	82	100	65	62	88	111	72	389	61	61	33	43
28	83	105	72	62	84	95	69	758	60	55	32	42
29	80	88	70	60	---	87	68	257	59	61	31	41
30	89	82	69	63	---	210	67	169	64	53	32	41
31	85	---	68	49	---	179	---	139	---	51	39	---
TOTAL	2559	2395	2121	1907	2909	2831	2493	3991	2903	2055	1306	2306
MEAN	82.5	79.8	68.4	61.5	104	91.3	83.1	129	96.8	66.3	42.1	76.9
MAX	146	125	79	68	373	210	126	758	200	122	63	408
MIN	70	70	51	47	55	67	67	58	59	46	31	36
CFSM	.93	.90	.77	.69	1.17	1.02	.93	1.45	1.09	.74	.47	.86
IN.	1.07	1.00	.88	.80	1.21	1.18	1.04	1.66	1.21	.86	.54	.96

CAL YR 1980 TOTAL 63405 MEAN 173 MAX 2820 MIN 51 CFSM 1.94 IN 26.44
WTR YR 1981 TOTAL 29776 MEAN 81.6 MAX 758 MIN 31 CFSM .92 IN 12.42

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 (46 m) upstream from bridge on State Highway 18 and 268 between North Wilkesboro and Wilkesboro, 150 ft (46 m) downstream from Reddies River, 0.5 mi (0.8 km) northeast of Wilkesboro, and 382 mi (615 km) upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--504 mi² (1,305 km²).

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 (287.228 m) 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 (1.9 km) 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 (0.366 m) lower than that used 1903-09.

REMARKS.--Records good. Flow regulated by W. Kerr Scott Reservoir 5.5 mi (8.8 km) upstream since 1962 (see p. 328). Corps of Engineers gage-height radio telemeter at station.

AVERAGE DISCHARGE.--66 years (1903-8, 1920-81), 828 ft³/s (23.45 m³/s), 22.31 in/yr (567 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft³/s (4,530 m³/s) Aug. 14, 1940, gage height, 37.6 ft (11.46 m), from floodmarks, from rating curve extended above 20,000 ft³/s (566 m³/s) on basis of slope-area measurement of peak flow; minimum, 86 ft³/s (2.44 m³/s) Dec. 4, 1965; minimum daily, 110 ft³/s (3.12 m³/s) Sept. 18, 19, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 34.5 ft (10.52 m) present site and datum, from floodmark, discharge, 116,000 ft³/s (3,290 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,190 ft³/s (147 m³/s) May 28, gage height, 7.49 ft (2.283 m); minimum, 154 ft³/s (4.361 m³/s) Aug. 30, 31, gage height, 1.56 ft (0.475 m); minimum daily, 160 ft³/s (4.531 m³/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	453	432	420	357	465	868	439	1330	522	457	172
2	435	464	433	420	553	455	715	454	1340	480	462	243
3	435	456	426	420	390	445	661	454	2380	479	460	522
4	450	450	416	420	366	461	557	448	2540	479	447	548
5	470	443	415	405	381	513	550	451	1360	462	443	397
6	450	440	419	443	410	474	614	448	835	510	453	541
7	435	442	418	444	420	456	543	458	1100	472	454	441
8	445	447	424	422	430	452	466	454	1160	456	469	434
9	440	448	466	437	407	444	449	454	1090	473	450	399
10	440	445	449	425	431	434	445	459	614	479	447	407
11	475	440	417	411	933	432	445	1010	578	480	438	420
12	420	441	415	421	490	429	443	750	572	525	437	417
13	450	442	417	435	460	446	433	529	607	517	428	416
14	455	444	416	440	450	447	427	465	650	481	302	410
15	450	449	417	434	445	440	433	489	575	475	223	370
16	455	434	418	423	434	437	414	447	482	473	212	650
17	455	433	415	420	433	427	412	454	465	480	209	421
18	465	438	416	424	449	427	425	452	467	472	210	397
19	496	420	425	426	496	423	412	463	472	470	209	413
20	465	427	430	431	561	418	467	582	478	474	211	421
21	460	421	420	424	497	413	493	656	470	467	193	345
22	460	417	430	405	473	417	443	626	459	470	187	264
23	460	417	460	397	537	489	458	561	457	466	170	233
24	465	498	455	393	530	462	508	473	474	550	169	205
25	559	447	450	397	503	509	436	460	498	477	182	205
26	475	439	430	395	487	508	435	463	480	544	185	209
27	472	506	460	396	475	473	418	1080	473	479	187	209
28	473	484	470	396	474	443	419	3680	470	473	185	203
29	466	451	440	392	---	426	434	4830	467	487	172	199
30	487	438	430	401	---	757	440	3540	515	464	160	202
31	470	---	425	381	---	884	---	1820	---	456	166	---
TOTAL	14323	13374	13354	12898	13272	14706	14663	28349	23858	14992	9377	10713
MEAN	462	446	431	416	474	474	489	914	795	484	302	357
MAX	559	506	470	444	933	884	868	4830	2540	550	469	650
MIN	420	417	415	381	357	413	412	439	457	456	160	172
(†)	-26	+6	-52	-98	+175	+54	-6	+21	-52	-105	-72	-1
MEAN‡	436	452	379	318	649	528	483	935	743	379	230	356
CFSM‡	.87	.90	.75	.63	1.29	1.05	.96	1.86	1.47	.75	.46	.71
IN‡	1.00	1.00	.86	.73	1.34	1.21	1.07	2.14	1.64	.86	.53	.79

CAL YR 1980 TOTAL 354174 MEAN 968 MAX 6710 MIN 415 MEAN‡ 958 CFSM‡ 1.90 IN‡ 25.86
WTR YR 1981 TOTAL 183879 MEAN 504 MAX 4830 MIN 160 MEAN‡ 489 CFSM‡ .97 IN‡ 13.17

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; furnished by Corps of Engineers.
‡ Adjusted for change in W. Kerr Scott Reservoir.

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 (244 m) upstream from bridge on Secondary Road 1990, 3.8 mi (6.1 km) northwest of village of Roaring River, and 4.1 mi (6.6 km) upstream from mouth.

DRAINAGE AREA.--128 mi² (332 km²).

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 (294.086 m) 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.

AVERAGE DISCHARGE.--17 years, 195 ft³/s (5.522 m³/s), 20.69 in/yr (526 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft³/s (753 m³/s) Oct. 17, 1975, gage height, 22.54 ft (6.870 m), from floodmark in gage well, from rating curve extended above 2,400 ft³/s (68.0 m³/s) on basis of slope-area measurement of peak flow, and at gage heights 14.40 ft (4.389 m), and 10.83 ft (3.301 m); minimum, 37 ft³/s (1.05 m³/s) Aug. 26, 29, 1981; minimum daily, 37 ft³/s (1.05 m³/s) Aug. 29, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 28 ft (8.5 m), estimated discharge, 45,000 ft³/s (1,270 m³/s) and the flood of August 1940 about 24 ft, (7.3 m), estimated discharge, 31,000 ft³/s (878 m³/s), from stage information by local residents and rating curve extended as explained above. A discharge of 24.2 ft³/s (0.69 m³/s) was measured Sept. 18, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 28	0500	*2370	67.1	*5.60	1.707	Sept. 16	0200	2000	56.6	5.06	1.542

Minimum discharge, 37 ft³/s (1.05 m³/s) Aug. 26, 29, gage height, 1.08 ft (0.329 m); minimum daily, 37 ft³/s (1.05 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	98	97	83	110	102	162	87	164	108	56	45
2	109	94	95	80	228	98	134	84	263	82	56	73
3	99	93	92	79	107	94	120	82	261	115	59	157
4	94	96	90	79	96	102	114	81	208	98	55	202
5	112	97	90	72	101	135	124	79	163	81	53	148
6	127	92	89	90	110	111	123	78	164	105	68	105
7	101	90	88	88	112	101	108	83	473	84	69	101
8	96	90	88	90	90	97	105	91	252	77	67	75
9	94	90	89	86	110	94	111	76	184	70	59	65
10	91	87	95	79	94	92	111	78	155	67	55	59
11	90	86	89	86	536	90	103	311	137	65	53	56
12	87	86	86	101	226	89	100	142	126	74	50	54
13	87	86	86	105	140	88	97	108	127	87	49	52
14	87	86	85	107	146	88	96	98	132	67	48	51
15	87	91	84	101	110	86	106	116	111	64	47	53
16	87	93	85	86	105	86	94	97	103	64	47	722
17	87	95	84	81	104	84	95	90	98	69	46	141
18	89	115	83	79	107	85	106	89	94	63	48	96
19	135	95	84	74	135	83	98	106	97	62	46	79
20	96	90	83	86	203	81	152	202	96	61	46	72
21	90	89	81	89	143	81	130	238	90	61	43	67
22	90	88	84	84	122	84	111	146	85	55	42	63
23	89	88	87	81	179	120	109	120	82	53	41	61
24	91	148	89	81	169	124	147	107	79	107	41	58
25	179	124	79	79	137	132	113	98	82	79	40	56
26	124	101	81	75	122	122	104	96	78	71	38	56
27	101	122	94	77	112	111	100	454	73	64	39	55
28	102	134	89	76	107	103	94	1130	72	59	39	54
29	98	109	88	74	---	97	91	399	71	85	37	52
30	111	100	85	79	---	291	90	252	76	62	39	52
31	106	---	85	72	---	248	---	196	---	58	48	---
TOTAL	3162	2953	2704	2599	4061	3399	3348	5404	4196	2317	1524	2980
MEAN	102	98.4	87.2	83.8	145	110	112	174	140	74.7	49.2	99.3
MAX	179	148	97	107	536	291	162	1130	473	115	69	722
MIN	87	86	79	72	90	81	90	76	71	53	37	45
CFSM	.80	.77	.68	.66	1.13	.86	.88	1.36	1.09	.58	.38	.78
IN.	.92	.86	.79	.76	1.18	.99	.97	1.57	1.22	.67	.44	.87

CAL YR 1980 TOTAL 76775 MEAN 210 MAX 3080 MIN 79 CFSM 1.64 IN 22.31
WTR YR 1981 TOTAL 38647 MEAN 106 MAX 1130 MIN 37 CFSM .83 IN 11.23

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 (0.5 km) downstream from Elkin River and 362 mi (582 km) upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--869 mi² (2,251 km²).

WATER-DISCHARGE RECORDS

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 (263.966 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 28, 1964, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--Water-discharge records good. Considerable regulation by W. Kerr Scott Reservoir (see p. 328). The Corps of Engineers has a stage radio-telemeter and the National Weather Service, a telephone-telemeter, at station.

AVERAGE DISCHARGE.--17 years, 1,457 ft³/s (41.26 m³/s), 22.77 in/yr (578 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 ft³/s (700 m³/s) Aug. 10, 1970, gage height, 23.52 ft (7.169 m); minimum, 239 ft³/s (6.77 m³/s) Aug. 31, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 36.0 ft (10.97 m), from information by North Carolina State Highway Commission. Flood of August 1940 reached a stage of 37.5 ft (11.43 m). A discharge of 172 ft³/s (4.87 m³/s) was measured on Sept. 19, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,130 ft³/s (202 m³/s) Sept. 5, gage height, 9.79 ft (2.984 m); minimum, 239 ft³/s (6.77 m³/s) Aug. 31, gage height, 0.50 ft (0.152 m); minimum daily, 246 ft³/s (6.97 m³/s) Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	929	730	687	644	891	706	1460	666	1780	783	557	263
2	761	702	683	634	916	679	1220	661	1630	631	561	381
3	693	703	676	633	740	665	1120	658	2360	682	574	551
4	694	692	664	610	630	673	1020	653	3050	667	564	1210
5	728	690	660	590	620	884	951	651	1970	612	551	2170
6	843	674	659	620	630	779	1020	644	1160	633	578	757
7	693	670	659	660	660	714	955	657	1790	644	597	970
8	698	670	657	612	669	700	851	657	1670	589	599	1160
9	687	670	673	630	625	681	821	643	1540	576	569	621
10	681	667	697	610	629	674	835	644	1080	581	552	595
11	680	655	668	600	2120	662	792	1240	875	574	540	585
12	675	651	653	610	1310	657	761	1110	816	594	546	578
13	658	651	651	640	1000	663	753	781	802	646	525	573
14	666	653	651	660	821	673	732	650	883	585	503	562
15	666	670	648	650	749	664	762	674	813	568	348	571
16	673	686	651	620	707	650	720	640	690	564	338	1710
17	672	668	650	600	694	645	710	612	637	583	324	913
18	673	771	648	600	705	640	739	600	630	565	335	679
19	877	673	648	628	768	630	720	614	635	557	331	624
20	725	660	650	622	1130	646	778	836	662	556	333	622
21	683	658	610	638	932	642	869	996	628	562	317	606
22	679	651	630	636	816	648	776	847	607	546	298	504
23	676	651	675	610	856	791	763	761	591	539	281	461
24	676	814	652	604	986	931	893	652	595	725	265	415
25	975	852	630	607	843	945	764	608	611	680	261	405
26	901	712	620	604	783	916	730	600	622	644	262	401
27	742	783	660	601	739	841	690	834	588	595	263	401
28	734	937	700	601	718	776	650	4750	582	585	262	396
29	737	776	667	595	---	731	655	5460	569	635	257	388
30	800	715	653	599	---	1380	669	4590	682	588	247	388
31	801	---	651	584	---	1730	---	2310	---	561	246	---
TOTAL	22776	21155	20381	19152	23687	24016	25179	36699	31548	18850	12784	20460
MEAN	735	705	657	618	846	775	839	1184	1052	608	412	682
MAX	975	937	700	660	2120	1730	1460	5460	3050	783	599	2170
MIN	658	651	610	584	620	630	650	600	569	539	246	263
(†)	-26	+6	-52	-98	+175	+54	-6	+21	-52	-105	-72	-1
MEAN‡	709	711	605	520	1021	829	833	1205	1000	503	340	681
CFSM‡	.82	.82	.70	.60	1.17	.95	.96	1.39	1.15	.58	.39	.78
IN‡	.94	.92	.81	.69	1.22	1.10	1.07	1.60	1.28	.67	.45	.87

CAL YR 1980 TOTAL 570700 MEAN 1559 MAX 10800 MIN 610 MEAN‡ 1549 CFSM‡ 1.78 IN‡ 24.30
WTR YR 1981 TOTAL 276687 MEAN 758 MAX 5460 MIN 246 MEAN‡ 743 CFSM‡ .86 IN‡ 11.62

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; furnished by Corps of Engineers.
‡ Adjusted for change in W. Kerr Scott Reservoir.

02112250 YADKIN RIVER AT ELKIN, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/15	19 15	0000	1.70	688	49	6.60	11.0	10.0	10.9	98.2	10K	1.3
80/11/18	10 10	0000	1.92	813	30	8.80	2.0	15.0	12.9	93.5	10K	0.3
80/12/11	08 40	0000	1.65	660	41	8.50	6.0	6.0	12.1	96.8	10K	1.3
81/01/28	18 05	0000	1.46	564	43	6.80	6.0	6.0	13.4	107.2	12	2.8
81/02/19	16 50	0000	1.90	800	34	6.70	9.0	10.0	11.9	102.6	15	3.7
81/03/18	10 30	0000	1.62	640	48	6.90	8.0	7.0	12.2	102.5	16	1.9
81/04/23	09 30	0000	1.66	710	36	6.50	15.0	5.0	9.4	92.2	14	2.6
81/05/05	10 00	0000	1.49	580		6.40	17.0	15.0	8.6	88.7		1.7
81/06/02	14 40	0000	3.52	1710		6.60	22.0	180.0	8.2	93.2		1.9
81/07/21	15 45	0000	1.30	495		6.70	28.0	25.0	7.5	94.9		1.0
81/08/18	17 00	0000	0.76	340		6.80	24.0	9.0	9.1	107.1		0.8
81/09/17	09 05	0000	2.17	952		6.00	19.0	130.0	7.6	80.9		1.2

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/15	19 15	0000	10		0.05K	0.050K	0.200	0.080	0.050K	10K	50K	50K
80/11/18	10 10	0000	530									
80/12/11	08 40	0000	140									
81/01/28	18 05	0000	10		0.15	0.050K	0.200	0.090	0.050K	10K	50K	50K
81/02/19	16 50	0000	190									
81/03/18	10 30	0000	10									
81/04/23	09 30	0000	100		0.34	0.050K	0.400	0.120	0.050K	10K	50K	50K
81/05/05	10 00	0000	60									
81/06/02	14 40	0000	2400									
81/07/21	15 45	0000	90		0.57	0.050K	0.200	0.080	0.050K	10K	50K	50K
81/08/18	17 00	0000	40									
81/09/17	09 05	0000	4200									

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/15	19 15	0000	100K	40K	500	100K	50.0K	0.5K	50K
81/01/28	18 05	0000	100K	40K	300	100K	50.0K	0.5K	50K
81/04/23	09 30	0000	100K	40K	800	100K	60.0	0.5K	50K
81/07/21	15 45	0000	100K	40K	1100	100K	80.0	0.5K	50K

K Less than noted value.

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 (85 m) upstream from bridge on Secondary Road 1001, 1.8 mi (2.9 km) upstream from Grass Creek, and 3.3 mi (5.3 km) east of State Road.

DRAINAGE AREA.--78.8 mi² (204.1 km²).

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 (282.586 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 129 ft³/s (3.653 m³/s), 22.23 in/yr (565 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,470 ft³/s (212 m³/s) Sept. 22, 1979, gage height, 16.42 ft (5.005 m); minimum, 24 ft³/s (0.68 m³/s) Aug. 29, 30, 31, Sept. 1, 1981, gage height, 1.56 ft (0.475 m); minimum daily, 24 ft³/s (0.68 m³/s) Aug. 30, 31, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, about 18 ft (5.49 m) in August 1940, from information by local resident, estimated discharge, 9,000 ft³/s (255 m³/s). A discharge of 16.5 ft³/s (0.47 m³/s) was measured on Sept. 19, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 5	0230	*6510	184	*14.07	4.288

Minimum discharge, 24 ft³/s (0.68 m³/s) Aug. 29, 30, 31, Sept. 1, gage height, 1.56 ft (0.475 m); minimum daily, 24 ft³/s (0.68 m³/s) Aug. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	64	61	52	47	66	105	54	75	68	37	30
2	74	62	60	51	81	64	91	51	107	49	36	34
3	66	61	58	49	69	61	80	49	85	75	36	73
4	62	61	56	48	51	62	77	49	76	67	35	170
5	68	62	54	38	46	81	81	48	69	51	47	1680
6	82	60	54	48	56	71	81	48	79	58	44	191
7	67	59	54	49	60	65	71	49	232	54	46	121
8	63	58	54	49	55	62	69	50	106	45	48	88
9	61	58	54	47	54	62	71	47	85	40	43	71
10	60	58	59	48	54	62	74	47	75	39	37	60
11	60	55	57	48	243	61	69	76	68	35	34	54
12	57	55	56	43	111	60	68	65	63	41	33	49
13	56	55	55	47	72	60	66	54	70	57	33	47
14	55	55	55	51	76	60	64	50	84	42	31	43
15	55	56	54	50	70	57	67	55	63	39	30	46
16	55	57	54	52	66	57	63	51	57	37	30	490
17	55	57	54	51	67	56	62	47	53	40	29	149
18	55	76	52	43	67	55	61	47	50	37	29	88
19	76	62	52	49	70	55	60	57	49	35	29	71
20	63	58	51	52	100	57	73	95	49	36	28	63
21	59	56	46	53	79	57	71	92	47	37	28	57
22	58	56	49	57	73	56	63	69	45	32	27	53
23	58	56	52	52	87	79	62	59	43	30	26	50
24	58	70	52	48	90	89	76	54	41	38	26	47
25	113	82	46	48	78	95	64	50	41	63	26	44
26	83	70	47	48	73	88	59	48	41	59	25	44
27	68	72	48	48	70	81	58	99	39	50	25	43
28	66	85	55	48	68	76	57	309	37	60	25	42
29	65	70	55	47	---	68	55	140	34	62	25	39
30	69	62	54	47	---	183	54	100	58	45	24	39
31	69	---	54	37	---	151	---	86	---	39	24	---
TOTAL	2049	1868	1662	1498	2133	2257	2072	2195	2021	1460	996	4076
MEAN	66.1	62.3	53.6	48.3	76.2	72.8	69.1	70.8	67.4	47.1	32.1	136
MAX	113	85	61	57	243	183	105	309	232	75	48	1680
MIN	55	55	46	37	46	55	54	47	34	30	24	30
CFSM	.84	.79	.68	.61	.97	.92	.88	.90	.86	.60	.41	1.73
IN.	.97	.88	.78	.71	1.01	1.07	.98	1.04	.95	.69	.47	1.92

CAL YR 1980 TOTAL 48132 MEAN 132 MAX 1750 MIN 46 CFSM 1.68 IN 22.72
WTR YR 1981 TOTAL 24287 MEAN 66.5 MAX 1680 MIN 24 CFSM .84 IN 11.47

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 (152 m) upstream from bridge on State Highway 268, 1 mi (2 km) upstream from Cody Creek, and 2 mi (3 km) northwest of Copeland.

DRAINAGE AREA.--128 mi² (332 km²).

PERIOD OR RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 1303: 1933(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 913 ft (278 m), by barometer. Prior to Sept. 5, 1936, nonrecording gage at same site and datum.

REMARKS.--Records good except those below 70 ft³/s (2.0 m³/s) during winter periods, which are fair. Some irrigation diversions at times in the growing season.

AVERAGE DISCHARGE.--50 years, 183 ft³/s (5.183 m³/s), 19.42 in/yr (493 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,200 ft³/s (969 m³/s) Sept. 22, 1979, gage height, 19.61 ft (5.977 m) from rating curve extended above 6,200 ft³/s (176 m³/s) on basis of slope-area measurement of peak flow at gage height 18.4 ft (5.61 m); minimum, 12 ft³/s (0.34 m³/s) Aug. 30, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft³/s (62 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 5	0630	*6150	174	*10.85	3.307	Sept. 16	0330	2550	72.2	6.58	2.006

Minimum discharge, 12 ft³/s (0.34 m³/s) Aug. 30, gage height, 1.71 ft (0.521 m); minimum daily, 13 ft³/s (0.37 m³/s) Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	77	81	67	50	103	153	79	104	76	30	22
2	92	74	78	64	174	94	127	72	155	64	30	30
3	85	72	76	62	132	90	111	69	146	104	32	94
4	77	74	74	61	78	91	102	67	132	97	32	720
5	83	79	73	43	66	125	113	65	105	67	28	2240
6	119	74	73	46	84	104	113	64	107	69	32	581
7	88	72	72	49	106	94	98	69	484	67	39	257
8	79	72	71	66	81	89	94	72	147	54	59	149
9	76	71	72	64	67	86	102	64	113	47	35	109
10	74	70	79	55	73	86	109	65	96	42	32	88
11	72	67	75	60	489	85	97	100	86	39	28	77
12	67	65	71	59	224	83	92	98	79	63	27	69
13	63	65	70	57	132	82	89	74	109	61	26	64
14	63	66	69	66	122	81	88	67	144	45	24	58
15	64	70	67	71	111	79	95	77	86	40	23	65
16	65	74	67	70	103	79	89	73	74	39	23	1180
17	65	74	68	60	101	74	85	64	68	47	23	300
18	67	99	67	60	101	75	94	63	63	41	20	147
19	95	83	65	67	103	77	85	87	65	38	22	111
20	76	75	65	71	140	73	114	169	63	39	21	94
21	67	71	51	69	118	70	116	162	59	35	22	84
22	67	70	54	73	108	73	94	109	54	32	18	80
23	66	70	60	66	121	101	108	88	50	28	17	73
24	67	100	67	60	143	131	137	78	47	28	18	67
25	139	114	57	61	118	130	113	72	48	44	18	63
26	122	88	54	59	110	112	103	66	56	54	14	62
27	85	93	69	59	106	101	100	77	45	42	14	60
28	81	115	76	59	100	95	94	450	42	35	13	58
29	80	95	69	58	---	89	83	211	40	47	14	54
30	87	86	68	58	---	275	79	142	40	40	14	53
31	87	---	69	51	---	255	---	118	---	33	16	---
TOTAL	2532	2375	2127	1891	3461	3182	3077	3131	2907	1557	764	7109
MEAN	81.7	79.2	68.6	61.0	124	103	103	101	96.9	50.2	24.6	237
MAX	139	115	81	73	489	275	153	450	484	104	59	2240
MIN	63	65	51	43	50	70	79	63	40	28	13	22
CFSM	.64	.62	.54	.48	.97	.81	.81	.79	.76	.39	.19	1.85
IN.	.74	.69	.62	.55	1.01	.92	.89	.91	.84	.45	.22	2.07

CAL YR 1980 TOTAL 69841 MEAN 191 MAX 4810 MIN 51 CFSM 1.49 IN 20.30
WTR YR 1981 TOTAL 34113 MEAN 93.5 MAX 2240 MIN 13 CFSM .73 IN 9.91

02113500 YADKIN RIVER AT SILOAM, NC

LOCATION.--Lat 35°16'55", long 80°33'46", Yadkin County, Hydrologic Unit 03040101, on right bank at upstream side of bridge on Secondary Road 1003, at Siloam, 70 ft (21 m) upstream from Hagan Creek, and 339 mi (545 km) upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--1,226 mi² (3,175 km²).

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

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

GAGE.--Water-stage recorder. Datum of gage is 782.02 ft (238.360 m) National Geodetic Vertical Datum of 1929 (North Carolina Department of Transportation bench mark). Prior to February 22, 1977, nonrecording gage at same site and datum.

REMARKS.--Records good. Some regulation by W. Kerr Scott Reservoir (see p. 328).

AVERAGE DISCHARGE.--5 years, 2,089 ft³/s (59.16 m³/s), 23.14 in/yr (588 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s (1,150 m³/s) Sept. 22, 1979 gage height, 26.72 ft (8.144 m); minimum, 304 ft³/s (8.61 m³/s) Aug. 31, Sept. 1, 1981, gage height, 2.66 ft (0.811 m); minimum daily, 315 ft³/s (8.92 m³/s) Sept. 1, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 14 or 15, 1940 reached a stage of 816.7 ft (248.93 m) National Geodetic Vertical Datum of 1929, 34.7 ft (10.58 m) gage datum, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,600 ft³/s (470 m³/s) Sept. 5, gage height, 16.28 ft (4.962 m); minimum, 304 ft³/s (8.61 m³/s) Aug. 31, Sept. 1, gage height, 2.66 ft (0.811 m); minimum daily, 315 ft³/s (8.92 m³/s) Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	1020	1010	925	778	1120	2050	941	2210	1170	736	315
2	1210	963	991	901	1190	1090	1720	918	2100	958	727	396
3	1020	938	976	894	1490	1060	1530	905	2470	1000	732	720
4	977	955	953	893	963	1060	1420	901	3210	1060	746	2750
5	978	967	942	806	935	1330	1360	889	2610	933	732	6260
6	1220	933	942	816	963	1290	1420	875	1700	869	745	1750
7	1050	922	942	972	978	1150	1340	883	2570	976	811	2320
8	977	921	936	881	1010	1090	1210	900	2120	884	856	2030
9	976	921	933	913	955	1070	1150	886	1910	826	813	1250
10	957	912	981	898	932	1050	1190	874	1600	804	749	1040
11	942	889	974	814	2600	1040	1140	1120	1230	800	731	965
12	930	875	928	814	2530	1020	1110	1760	1120	802	702	946
13	867	877	921	885	1540	1010	1080	1210	1080	906	701	911
14	890	880	926	943	1380	1020	1060	987	1270	876	669	868
15	896	907	911	931	1270	1020	1070	936	1170	801	546	862
16	905	958	908	888	1200	1010	1060	966	1010	780	439	3400
17	901	927	914	866	1160	990	1020	874	913	787	406	2150
18	902	1060	908	838	1160	983	1030	862	874	798	397	1310
19	1110	1010	908	906	1210	990	1040	871	863	768	397	1100
20	1090	934	908	889	1580	982	1060	1160	904	762	403	993
21	943	925	900	928	1520	967	1270	1510	885	758	405	1000
22	917	909	834	960	1320	974	1110	1330	839	738	378	846
23	914	909	948	894	1280	1160	1050	1140	803	712	360	736
24	904	1070	958	873	1520	1470	1170	995	780	806	355	679
25	1170	1360	935	870	1360	1460	1180	892	785	1070	345	632
26	1470	1080	813	867	1270	1400	1050	849	838	895	338	639
27	1060	1060	910	854	1200	1320	1030	888	785	905	336	632
28	998	1380	985	853	1130	1220	990	4430	753	812	335	582
29	998	1200	993	850	---	1120	962	5130	743	842	335	567
30	1050	1060	952	863	---	1730	942	4850	741	852	335	557
31	1110	---	947	860	---	2930	---	3010	---	765	332	---
TOTAL	31572	29722	28987	27345	36424	37126	35814	44742	40886	26715	16892	39206
MEAN	1018	991	935	882	1301	1198	1194	1443	1363	862	545	1307
MAX	1470	1380	1010	972	2600	2930	2050	5130	3210	1170	856	6260
MIN	867	875	813	806	778	967	942	849	741	712	332	315
(†)	-26	+6	-52	-98	+175	+54	-6	+21	-52	-105	-72	-1

CAL YR 1980 TOTAL 763196 MEAN 2085 MAX 20600 MIN 813 MEAN‡ 2075 CFSM‡ 1.69 IN‡ 22.94
WTR YR 1981 TOTAL 395431 MEAN 1083 MAX 6260 MIN 315 MEAN‡ 1068 CFSM‡ .87 IN‡ 11.81

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; furnished by Corps of Engineers.
‡ Adjusted for change in W. Kerr Scott Reservoir.

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 (81 m) upstream from bridge (relocated) on Secondary Road 2019 at Ararat, and 300 ft (91 m) downstream from Flat Shoal Creek.

DRAINAGE AREA.--231 mi² (598 km²).

PERIOD OF RECORD.--April 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 880.97 ft (268.520 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 311 ft³/s (8.808 m³/s), 18.28 in/yr (464 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft³/s (991 m³/s) Sept. 22, 1979, gage height, 24.46 ft (7.455 m); minimum, 19 ft³/s (0.54 m³/s) Aug. 29, 30, 1981; minimum daily, 21 ft³/s (0.59 m³/s) Aug. 29, 30, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 14, 1947 reached a stage of 21.4 ft (6.52 m), result of failure of dams upstream, discharge 26,000 ft³/s (736 m³/s), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,810 ft³/s (80 m³/s) Sept. 16, gage height, 5.34 ft (1.628 m), no peak above base of 3,000 ft³/s (85 m³/s); minimum, 19 ft³/s (0.54 m³/s) Aug. 29, 30, gage height, 0.66 ft (0.201 m); minimum daily, 21 ft³/s (0.59 m³/s) Aug. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	156	145	142	99	158	276	160	174	96	49	33
2	168	144	145	135	341	155	235	149	202	94	45	86
3	172	140	144	130	198	150	210	141	212	162	50	78
4	156	152	135	129	110	156	202	140	181	159	71	1230
5	169	162	127	89	110	205	226	137	163	136	51	526
6	223	143	127	113	124	174	234	133	323	124	56	215
7	171	140	123	140	124	160	194	140	558	110	67	379
8	157	140	124	117	141	155	186	136	230	93	122	219
9	152	137	128	117	127	152	209	125	186	83	90	163
10	147	133	152	124	134	148	222	129	162	75	63	120
11	147	122	140	106	845	147	195	168	143	71	56	105
12	125	124	136	92	325	145	187	164	128	82	51	97
13	118	122	136	76	184	144	179	132	136	78	48	86
14	118	121	132	92	176	140	175	124	133	73	45	84
15	122	124	129	110	174	135	206	147	118	72	41	136
16	124	134	133	121	164	139	178	137	113	63	41	1500
17	121	133	132	92	163	137	177	121	106	72	41	357
18	124	195	129	99	162	128	200	123	97	67	39	212
19	190	156	127	110	182	132	177	184	103	61	41	157
20	148	139	130	120	227	127	245	280	104	60	39	130
21	127	134	116	148	196	124	233	258	99	61	41	120
22	123	132	102	154	179	127	193	177	89	53	37	112
23	119	133	144	141	203	192	189	150	82	48	35	106
24	118	195	136	133	220	211	250	135	78	95	26	99
25	227	211	122	127	189	178	200	127	79	100	26	93
26	207	162	99	125	175	162	181	118	118	80	24	90
27	156	168	132	129	166	160	179	158	81	70	22	90
28	152	195	143	131	163	157	172	553	73	60	22	88
29	160	169	144	124	---	153	166	340	70	64	21	82
30	180	153	146	132	---	489	164	233	69	62	21	83
31	180	---	149	113	---	406	---	190	---	52	26	---
TOTAL	4792	4469	4107	3711	5601	5346	6040	5409	4410	2576	1407	6876
MEAN	155	149	132	120	200	172	201	174	147	83.1	45.4	229
MAX	227	211	152	154	845	489	276	553	558	162	122	1500
MIN	118	121	99	76	99	124	164	118	69	48	21	33
CFSM	.67	.65	.57	.52	.87	.75	.87	.75	.64	.36	.20	.99
IN.	.77	.72	.66	.60	.90	.86	.97	.87	.71	.41	.23	1.11

CAL YR 1980 TOTAL 129623 MEAN 354 MAX 8410 MIN 99 CFSM 1.53 IN 20.87
WTR YR 1981 TOTAL 54744 MEAN 150 MAX 1500 MIN 21 CFSM .65 IN 8.82

02114450 LITTLE YADKIN RIVER AT DALTON, NC

LOCATION.--Lat 36°17'56", long 80°25'53" (revised), Stokes County, Hydrologic Unit 03040101, on left bank 1,200 ft (370 m) downstream from bridge on U.S. Highway 52, 1.0 mi (1.6 km) southwest of Dalton, 1.3 mi (2.1 km) downstream from Southern Railway bridge, and 2.0 mi (3.2 km) downstream from Danbury Creek.

DRAINAGE AREA.--42.8 mi² (110.9 km²).

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 (248.02 m) National Geodetic Vertical Datum of 1929 (North Carolina State Highway Commission bench mark).

REMARKS.--Records good. A Soil Conservation Service flood-control dam on upstream tributary, drainage area 4.7 mi² (12.2 km²) with flood storage of 695 acre-ft (857,000 m³) was completed on June 21, 1977.

AVERAGE DISCHARGE.--21 years, 46.9 ft³/s (1.328 m³/s), 14.88 in/yr (378 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,400 ft³/s (266 m³/s) Sept. 22, 1979, gage height, 20.29 ft (6.184 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement at gage height 17.86 ft (5.444 m); minimum, 1.3 ft³/s (0.037 m³/s) Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 7	0900	*2570	72.8	*7.56	2.304

Minimum discharge, 3.5 ft³/s (0.10 m³/s) Aug. 29, but may have been less during period of ice effect Jan. 11, gage height, 0.44 ft (0.13 m); minimum daily, 3.8 ft³/s (0.11 m³/s) Aug. 26, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	22	22	18	17	21	51	18	15	9.6	6.6	5.4
2	18	20	21	17	47	21	38	16	25	12	6.8	11
3	17	19	21	17	37	20	32	16	19	16	33	5.5
4	16	50	20	16	31	23	29	16	16	17	41	25
5	18	33	19	17	22	36	41	15	16	12	11	23
6	31	24	19	17	20	27	41	16	15	12	17	14
7	19	22	19	18	19	24	32	18	43	12	13	602
8	17	21	19	17	20	23	29	16	21	9.9	9.6	167
9	16	20	19	16	18	22	32	15	17	8.8	8.7	68
10	15	19	20	15	18	23	31	16	14	7.8	7.8	28
11	15	18	19	16	163	22	28	19	13	7.0	7.2	20
12	14	18	18	16	80	21	27	16	14	6.6	6.9	17
13	14	18	18	17	44	21	25	15	16	8.1	6.6	15
14	14	18	18	17	31	21	24	15	14	6.7	5.8	14
15	14	20	18	18	27	20	24	19	12	6.6	5.6	21
16	14	21	18	17	25	21	23	16	11	6.2	5.5	70
17	15	21	18	16	24	20	23	14	10	7.1	5.3	81
18	15	31	18	17	24	21	24	14	9.8	6.1	4.9	26
19	40	22	18	17	29	21	22	16	11	5.6	4.6	18
20	18	20	17	17	50	20	31	42	10	6.1	5.5	16
21	16	19	16	23	33	20	26	26	9.9	7.6	4.9	15
22	16	19	17	23	28	21	23	19	9.3	5.3	4.4	14
23	15	19	18	19	27	40	23	16	8.4	4.5	4.3	13
24	15	57	17	17	25	46	36	15	7.6	32	4.4	12
25	54	41	16	17	24	50	24	14	7.4	23	4.2	11
26	29	28	18	17	23	36	22	14	9.6	11	3.8	11
27	21	29	17	17	22	30	22	19	7.4	11	3.9	11
28	20	30	19	16	21	27	20	30	6.8	19	3.8	11
29	19	25	19	16	---	25	19	21	6.5	10	3.8	11
30	42	23	19	17	---	173	18	16	7.0	8.1	4.3	11
31	28	---	19	16	---	96	---	15	---	7.1	4.7	---
TOTAL	640	747	574	534	949	1012	840	553	401.7	321.8	258.9	1366.9
MEAN	20.6	24.9	18.5	17.2	33.9	32.6	28.0	17.8	13.4	10.4	8.35	45.6
MAX	54	57	22	23	163	173	51	42	43	32	41	602
MIN	14	18	16	15	17	20	18	14	6.5	4.5	3.8	5.4
CFSM	.48	.58	.43	.40	.79	.76	.65	.42	.31	.24	.20	1.07
IN.	.56	.65	.50	.46	.82	.88	.73	.48	.35	.28	.23	1.19

CAL YR 1980 TOTAL 17451.0 MEAN 47.7 MAX 1070 MIN 10 CFSM 1.11 IN 15.17
WTR YR 1981 TOTAL 8198.3 MEAN 22.5 MAX 602 MIN 3.8 CFSM .53 IN 7.13

02115360 YADKIN RIVER AT ENON, NC

LOCATION.--Lat 36°07'55", long 80°26'39", Forsyth County, Hydrologic Unit 03040101, on left bank 100 ft (30 m) upstream from bridge on Secondary Road 1525, 1.5 mi (2.4 km) east of Enon, 4 mi (6.4 km) upstream from Forbush Creek, and 324 mi (521 km) upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--1,694 mi² (4,390 km²).

WATER-DISCHARGE RECORDS

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 (213.881 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1968, nonrecording gage on downstream side of bridge at same site and datum.

REMARKS.--Water-discharge records good. Some regulation by W. Kerr Scott Reservoir (see p. 328). Corps of Engineers stage-radio telemeter at station.

AVERAGE DISCHARGE.--17 years, 2,591 ft³/s (73.38 m³/s), 20.77 in/yr (528 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,300 ft³/s (2,080 m³/s) June 21, 1972; maximum gage height, 29.52 ft (8.998 m) Sept. 22, 1979; minimum, 363 ft³/s (10.3 m³/s) Aug. 31, Sept. 1, 1981, gage height, 2.05 ft (0.625 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 15, 1940 reached a stage of 737.5 ft (224.79 m) National Geodetic Vertical Datum of 1929 (35.8 ft or 10.91 m, gage datum), from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharge, 20,200 ft³/s (572 m³/s) Sept. 5, gage height, 16.99 ft (5.179 m); minimum, 363 ft³/s (10.3 m³/s) Aug. 31, Sept. 1, gage height, 2.05 ft (0.625 m); minimum daily, 368 ft³/s (10.4 m³/s) Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510	1300	1300	1150	965	1230	2570	1130	2690	1200	814	368
2	1490	1200	1250	1150	1260	1260	2130	1100	2480	1240	803	444
3	1270	1170	1250	1100	2080	1200	1890	1070	2690	1210	831	552
4	1180	1320	1200	1100	1280	1190	1770	1070	3450	1430	872	3790
5	1170	1320	1200	1050	1100	1540	1740	1060	3180	1180	843	8910
6	1470	1200	1200	960	1110	1520	1890	1060	2180	1070	837	2280
7	1380	1150	1200	1150	1130	1410	1760	1090	3240	1120	930	6250
8	1200	1140	1150	1150	1160	1330	1550	1100	2710	1060	988	2970
9	1180	1140	1150	1030	1110	1300	1370	1080	2260	953	1010	1770
10	1160	1140	1200	1050	1070	1280	1500	1060	2020	905	860	1240
11	1140	1100	1300	961	3000	1270	1450	1120	1530	889	809	1100
12	1120	1080	1200	940	4010	1250	1400	2070	1380	872	760	1040
13	1070	1070	1150	960	1980	1240	1350	1550	1440	996	735	992
14	1070	1080	1150	1100	1640	1250	1300	1270	1520	1020	698	958
15	1090	1100	1150	1120	1480	1180	1300	1200	1430	895	658	947
16	1100	1170	1150	1060	1360	1170	1300	1290	1260	895	516	4200
17	1110	1150	1150	1020	1320	1140	1300	1140	1120	872	516	3460
18	1110	1330	1100	985	1310	1110	1250	1130	1060	889	468	1710
19	1360	1340	1100	1050	1410	1170	1250	1160	1050	843	468	1320
20	1430	1160	1100	1050	1760	1110	1300	1570	1090	866	475	1160
21	1160	1130	1100	1090	1870	1090	1400	2040	1080	854	473	1100
22	1120	1110	1050	1160	1550	1090	1300	1830	1030	809	458	1030
23	1110	1100	1100	1080	1480	1310	1250	1530	965	764	425	901
24	1100	1310	1150	1040	1740	1800	1350	1370	930	1330	409	831
25	1390	1800	1150	1020	1640	1750	1400	1190	930	1320	382	764
26	1980	1600	1100	1010	1480	1670	1300	1130	1000	1090	386	740
27	1390	1400	1100	1010	1390	1560	1250	1190	987	1050	391	731
28	1270	1600	1200	1010	1320	1430	1200	4590	895	959	386	722
29	1270	1700	1300	1010	---	1340	1150	6390	871	947	386	696
30	1360	1450	1200	1000	---	2200	1130	6020	860	986	396	682
31	1450	---	1200	1030	---	4190	---	4050	---	872	372	---
TOTAL	39210	37860	36300	32596	44005	44740	44150	55650	49328	31387	19355	53758
MEAN	1265	1262	1171	1051	1572	1443	1472	1795	1644	1012	624	1792
MAX	1980	1800	1300	1160	4010	4190	2570	6390	3450	1430	1010	8910
MIN	1070	1070	1050	940	965	1090	1130	1060	860	764	372	368
(†)	-26	+6	-52	-98	+175	+54	-6	+21	-52	-105	-72	-1

CAL YR 1980 TOTAL 965110 MEAN 2637 MAX 32000 MIN 1020 MEAN‡ 2627 CFSM‡ 1.55 IN‡ 21.10
WTR YR 1981 TOTAL 488339 MEAN 1338 MAX 8910 MIN 368 MEAN‡ 1323 CFSM‡ .78 IN‡ 10.59

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; furnished by Corps of Engineers.
‡ Adjusted for change in W. Kerr Scott Reservoir.

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/02	10 55	0000	4.06	1520	57	8.20	14.0	30.0	9.5	91.3	10K	1.1
80/11/13	15 00	0000	3.46	1120	40		5.0	8.0	15.0	117.2	10K	1.4
80/12/08	11 15	0000	3.51	1150	54	8.20	8.0	6.0	13.8	116.0	10K	1.0
81/01/14	16 00	0000	3.43	1110	43	7.20	2.0	6.0	15.6	113.0	10	1.9
81/02/04	14 50	0000	3.63	1220	44	7.00	2.0	15.0	15.4	111.6	10K	2.1
81/03/04	10 15	0000	3.60	1200	43	6.40	10.0	5.0	11.4	100.9	10K	1.8
81/04/09	15 50	0000	3.94	1440	49	6.60	15.0	15.0	9.6	94.1	10K	1.0
81/05/14	11 20	0000	3.61	1210		6.40	20.0	40.0	9.3	101.1		1.8
81/06/02	09 30	0000	5.47	2550		6.20	18.0	130.0	8.5	89.5		1.5
81/07/08	13 20	0000	3.32	1040		7.00	29.0	40.0	8.0	102.6		1.9
81/08/20	10 35	0000	2.30	480		6.20	19.0	7.0	8.5	90.4		1.3
81/09/30	15 25	0000	2.64	659		7.10	20.0	5.0	9.2	100.0		0.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/02	10 55	0000	300		0.37	0.050K	0.500	0.190	0.080	10K	50K	50K
80/11/13	15 00	0000	20	18								
80/12/08	11 15	0000	20									
81/01/14	16 00	0000	60		0.21	0.050K	0.200	0.080	0.050K	10K	50K	50K
81/02/04	14 50	0000	40									
81/03/04	10 15	0000	10									
81/04/09	15 50	0000	30		0.50	0.070	0.300	0.140	0.050K	10K	50K	50K
81/05/14	11 20	0000	110									
81/06/02	09 30	0000	280									
81/07/08	13 20	0000	70		0.42	0.050	0.300	0.130	0.050K	10K	50K	50K
81/08/20	10 35	0000	10									
81/09/30	15 25	0000	10K									

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/02	10 55	0000	100K	40K	1400	100K	80.0	0.5K	50K
81/01/14	16 00	0000	100K	40K	400	100K	50.0	0.5K	50K
81/04/09	15 50	0000	100K	50	900	100K	50.0	0.5K	50K
81/07/08	13 20	0000	100K	40K	1500	100K	80.0	0.5K	50K

K Less than noted value.

02115856 SALEM CREEK NEAR ATWOOD, NC

LOCATION.--Lat 36°02'10", long 80°18'35", Forsyth County, Hydrologic Unit 03040101, on left bank 5 ft (1.5 m) upstream from bridge at Winston-Salem Elledge Wastewater Treatment Plant, 2,700 ft (820 m) upstream from effluent outfall, 4,100 ft (1,250 m) upstream from bridge on Secondary Road 1120, 1.4 mi (2.3 km) southeast of Atwood, and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--65.6 mi² (169.9 km²).

PERIOD OF RECORD.--May 1971 to current year.

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

GAGE.--Water-stage recorder and concrete control since Dec. 1, 1972. Datum of gage is 693.97 ft (211.522 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Salem Lake in the headwaters. The city of Winston-Salem diverted an average of 19.7 ft³/s (0.56 m³/s) from Salem Lake for water supply. Diurnal fluctuation at low flow caused by filtration plant and industry. Creek channel improved by dredging in 1916, 1934-35, 1961, 1967. Recording rain gage at station.

AVERAGE DISCHARGE.--10 years, 72.3 ft³/s (2.048 m³/s), 14.97 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,620 ft³/s (103 m³/s) May 13, 1971, gage height, 16.30 ft (4.968 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 13, 1976, Sept. 4, 1977; minimum daily, 12 ft³/s (0.34 m³/s) Sept. 4, 1977, Aug. 24, 28, 30, 1981; minimum gage height, 0.59 ft (0.180 m) Oct. 15, 16, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) Sept. 7, gage height, 10.43 ft (3.179 m); minimum, 12 ft³/s (0.34 m³/s) Aug. 23, 24, 30, 31, gage height, 1.30 ft (0.396 m); minimum daily, 12 ft³/s (0.34 m³/s) Aug. 24, 28, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	28	26	22	22	27	60	36	110	53	17	15
2	29	25	26	22	102	25	46	30	186	58	16	30
3	26	25	25	23	31	24	38	26	55	82	18	104
4	24	124	25	23	25	88	32	26	32	81	16	163
5	23	38	26	24	26	71	54	25	25	28	16	218
6	23	30	25	22	25	40	38	25	75	22	70	68
7	21	28	24	26	24	32	30	45	183	23	45	717
8	22	27	24	23	29	28	27	27	58	19	24	301
9	21	26	24	24	23	29	50	24	38	19	20	75
10	21	25	47	22	33	27	44	25	30	17	17	39
11	21	24	27	21	248	25	42	41	25	16	16	29
12	18	24	25	24	48	26	37	28	43	24	15	25
13	19	24	24	23	34	26	39	25	33	18	14	20
14	20	24	23	22	34	24	36	22	26	18	14	19
15	20	38	24	22	33	23	35	21	23	17	14	43
16	21	34	25	21	36	24	34	18	22	43	90	68
17	21	88	24	20	35	23	43	15	21	20	30	47
18	21	64	23	20	37	24	41	17	25	17	14	24
19	40	31	23	21	241	24	38	25	45	15	26	21
20	23	28	22	21	201	22	82	222	27	116	20	19
21	23	27	22	31	85	22	48	76	20	35	15	18
22	22	26	23	25	59	30	40	37	19	19	14	18
23	21	25	23	22	62	155	38	27	19	17	13	17
24	21	101	25	22	46	66	41	25	19	68	12	15
25	163	37	23	21	40	53	32	23	18	52	13	14
26	37	29	24	21	38	44	29	21	19	23	13	13
27	29	59	25	23	34	38	32	61	17	18	13	13
28	33	34	24	22	31	31	28	56	16	81	12	13
29	26	28	23	21	---	27	26	33	16	36	13	13
30	103	26	23	30	---	220	44	23	17	19	12	14
31	34	---	23	26	---	95	---	20	---	18	14	---
TOTAL	1005	1147	770	710	1682	1413	1204	1125	1262	1092	656	2193
MEAN	32.4	38.2	24.8	22.9	60.1	45.6	40.1	36.3	42.1	35.2	21.2	73.1
MAX	163	124	47	31	248	220	82	222	186	116	90	717
MIN	18	24	22	20	22	22	26	15	16	15	12	13

CAL YR 1980 TOTAL 21692 MEAN 59.3 MAX 906 MIN 16
WTR YR 1981 TOTAL 14259 MEAN 39.1 MAX 717 MIN 12

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC

LOCATION.--Lat 35°51'24", long 80°23'10", Davidson County, Hydrologic Unit 03040101, near left bank on downstream side of pier of bridge on U.S. Highway 64, 1.5 mi (2.4 km) south of Yadkin College, 6.2 mi (10.0 km) downstream from Reedy Creek, and 295 mi (475 km) upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--2,280 mi² (5,900 km²), approximately.

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 638.65 ft (194.661 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 26, 1957 at site on left bank 80 ft (24 m) downstream at same datum.

REMARKS.--Water-discharge record good. Diurnal fluctuation and occasionally some regulation during low flow caused by small hydroelectric plant with little storage capacity 10 mi (16 km) upstream. Since August 1962, some regulation by W. Kerr Scott Reservoir (see p. 328). Corps of Engineers have a stage radio and satellite telemeter, and the National Weather Service, a telephone telemeter, at station.

AVERAGE DISCHARGE.--53 years, 2,982 ft³/s (84.45 m³/s), 17.76 in/yr (451 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,200 ft³/s (2,270 m³/s) Aug. 15, 1940, gage height, 33.75 ft (10.287 m); minimum observed, 177 ft³/s (5.01 m³/s) Oct. 12, 1954, gage height, -0.42 ft (-0.128 m); minimum daily, 330 ft³/s (9.35 m³/s) Oct. 9, 1954, Sept. 23, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916, reached a stage of 36.3 ft (11.06 m), from floodmarks, discharge, 94,300 ft³/s (2,670 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,700 ft³/s (388 m³/s) Sept. 5, gage height, 12.16 ft (3.706 m); minimum, (result of regulation), 208 ft³/s (5.89 m³/s) Aug. 20, gage height, -0.38 ft (-0.116 m); minimum daily, 365 ft³/s (10.3 m³/s) Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1820	1720	1660	1470	1270	1590	3680	1330	3240	1050	922	413
2	1820	1560	1610	1420	1430	1590	2790	1290	3430	1420	887	616
3	1570	1480	1570	1400	2300	1530	2280	1250	2860	1400	908	731
4	1450	1730	1540	1380	1880	1520	2030	1230	3220	1810	943	2040
5	1380	2000	1510	1320	1450	1930	1940	1220	3580	1550	939	7980
6	1510	1650	1500	1200	1470	2040	2050	1200	2700	1250	933	5780
7	1720	1530	1500	1470	1520	1790	1980	1220	3180	1220	1030	4910
8	1530	1500	1480	1490	1530	1620	1780	1260	3630	1220	1010	5630
9	1400	1480	1480	1350	1550	1590	1730	1240	2570	1100	1070	2930
10	1390	1470	1560	1400	1420	1510	1690	1220	2310	994	987	1610
11	1360	1430	1620	1240	2740	1510	1730	1330	1920	987	900	1290
12	1340	1400	1530	1070	5540	1480	1640	1570	1500	965	893	1170
13	1310	1390	1480	1110	3020	1460	1560	1870	1440	1050	897	1110
14	1270	1420	1470	1300	2180	1450	1530	1400	1580	1090	845	1060
15	1290	1420	1450	1470	1970	1440	1480	1280	1570	1020	808	1040
16	1320	1530	1440	1460	1810	1430	1500	1280	1410	973	777	1920
17	1320	1550	1450	1330	1700	1410	1490	1270	1300	1010	551	5080
18	1320	1880	1430	1250	1680	1400	1490	1180	1280	966	645	2340
19	1490	1850	1440	1340	2110	1430	1440	1170	1170	959	619	1520
20	1740	1620	1420	1470	3050	1430	1500	1660	1210	934	460	1270
21	1510	1520	1400	1410	2680	1390	1640	2240	1210	1150	530	1190
22	1380	1500	1330	1550	2190	1380	1720	2000	1150	941	470	1120
23	1350	1470	1370	1470	1910	1700	1540	1600	1100	881	490	1030
24	1350	1620	1490	1370	1960	2400	1530	1430	1060	1450	530	956
25	1650	2250	1470	1330	2070	2420	1630	1300	961	1520	365	769
26	2280	2070	1400	1360	1850	2160	1500	1210	1020	1400	415	817
27	1980	1770	1430	1310	1740	1950	1420	1200	1080	1140	423	803
28	1550	2000	1550	1320	1660	1790	1390	1920	959	1050	423	880
29	1550	2100	1620	1310	---	1660	1330	6180	991	1180	417	791
30	1780	1810	1530	1300	---	2140	1300	6300	934	1040	419	767
31	1940	---	1510	1300	---	5600	---	4820	---	1010	434	---
TOTAL	47670	49720	46240	41970	57680	55740	52310	56670	55565	35730	21940	59563
MEAN	1538	1657	1492	1354	2060	1798	1744	1828	1852	1153	708	1985
MAX	2280	2250	1660	1550	5540	5600	3680	6300	3630	1810	1070	7980
MIN	1270	1390	1330	1070	1270	1380	1300	1170	934	881	365	413
(†)	-26	+6	-52	-98	+175	+54	-6	+21	-52	-105	-72	-1

CAL YR 1980 TOTAL 1168530 MEAN 3193 MAX 31500 MIN 1200 MEAN‡ 3183 CFSM‡ 1.40 IN‡ 19.06
WTR YR 1981 TOTAL 580798 MEAN 1591 MAX 7980 MIN 365 MEAN‡ 1576 CFSM‡ .69 IN‡ 9.37

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; furnished by Corps of Engineers.
‡ Adjusted for change in W. Kerr Scott Reservoir.

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued
(National stream-quality accounting network station)

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 TEMPERATURES: 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.

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 815 micromhos Aug. 26, 1971; minimum recorded, 20 micromhos Nov. 2, 16, 28, Dec. 1, 6, 7, 1971.
WATER TEMPERATURES: Maximum daily, 31.0°C Aug. 24, 1959; minimum daily, 0.0°C on many days during most winter months.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,970 mg/L May 26, 1952; minimum daily mean, 1 mg/L Dec. 3, 1953.
SEDIMENT LOADS: Maximum daily, 182,000 tons (165,000 tonnes) June 22, 1972; minimum daily, 3 tons (2.7 tonnes) Dec. 3, 1953.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 155 micromhos Aug. 22; minimum daily, 45 micromhos May 31.
WATER TEMPERATURES: Maximum daily, 28.0°C June 24, 25, 26, 29, July 11-14, 29, Aug. 14; minimum daily, 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,130 mg/L Sept. 5; minimum daily mean, 4 mg/L Jan. 25.
SEDIMENT LOADS: Maximum daily, 25,700 tons (23,300 tonnes) Sept. 5; minimum daily, 14 tons (13 tonnes) Jan. 25.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV 17...	1030	1540	75	7.6	7.5	7.0	8.9	110	K14	17	0
JAN 20...	1000	1500	75	7.2	.0	1.6	13.8	120	K24	16	0
MAR 16...	1030	1450	78	7.1	10.0	2.2	10.4	K32	42	18	0
MAY 19...	1000	1160	80	6.8	19.5	9.0	8.2	88	75	19	0
JUL 21...	1030	1210	90	6.5	28.0	66	6.0	>6000	5000	20	0
SEP 01...	1100	440	130	6.8	25.0	6.5	7.3	K38	95	23	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV 17...	4.2	1.6	7.1	44	.7	2.3	32	0	26	1.3	3.3
JAN 20...	4.1	1.4	6.9	45	.8	1.7	30	0	25	2.1	3.6
MAR 16...	4.5	1.6	7.4	44	.8	2.1	32	0	26	4.1	4.6
MAY 19...	4.7	1.4	8.3	47	.9	2.3	28	0	23	7.1	5.4
JUL 21...	5.4	1.6	9.1	45	.9	3.2	28	0	23	14	9.6
SEP 01...	6.0	2.0	14	52	1.3	4.2	32	0	26	8.1	9.9

K Results based on colony count outside the acceptable range (non-ideal colony count).

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (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)
NOV 17...	5.2	.1	12	54	49	.07	225	.14	.11	.110	.130
JAN 20...	5.6	.1	12	53	47	.07	215	.25	.27	.390	.400
MAR 16...	6.5	<.1	9.0	52	49	.07	204	.22	.22	.370	.380
MAY 19...	7.0	.1	12	60	54	.08	188	.90	.89	.200	.190
JUL 21...	6.3	.2	10	65	64	.09	212	.68	.66	.070	.070
SEP 01...	10	.2	9.4	87	78	.12	103	1.3	1.3	<.010	.040

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)
NOV 17...	.13	.17	.17	.00	.28	.19	.09	.42	1.9	.20
JAN 20...	.47	.52	.15	.10	.54	.04	.50	.79	3.5	.77
MAR 16...	--	.49	.05	.03	.42	.01	.41	.64	2.8	.63
MAY 19...	--	.24	.65	.44	.85	.22	.63	1.8	7.7	1.5
JUL 21...	--	.09	1.0	.14	1.10	.89	.21	1.8	7.9	.87
SEP 01...	--	.05	--	.38	.57	.15	.42	1.9	8.3	1.7

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
NOV 17...	.170	.52	.130	0	0	0	100	80	20	0
JAN 20...	.150	.46	.160	0	0	1	<50	--	20	0
MAR 16...	.190	.58	.110	--	--	--	--	--	--	--
MAY 19...	.290	.89	.200	0	0	0	<50	--	20	1
JUL 21...	.310	.95	.080	--	--	--	--	--	--	--
SEP 01...	.550	1.7	.450	2	0	2	100	0	100	3

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	CORALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
NOV										
17...	0	0	10	0	10	0	0	0	5	2
JAN										
20...	--	<1	<10	--	<10	2	2	0	3	0
MAR										
16...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	--	<1	<10	--	10	2	2	0	15	7
JUL										
21...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	1	2	10	0	10	2	0	2	4	2

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV										
17...	3	830	590	240	4	3	1	40	20	20
JAN										
20...	3	360	230	130	0	0	0	30	0	30
MAR										
16...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	8	1100	920	180	13	13	0	70	50	20
JUL										
21...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	2	850	730	120	8	5	3	90	80	10

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
NOV									
17...	.1	.0	.1	6	3	3	1	1	0
JAN									
20...	.1	.0	.1	10	4	6	0	0	0
MAR									
16...	--	--	--	--	--	--	--	--	--
MAY									
19...	.1	.0	.1	12	5	7	0	0	0
JUL									
21...	--	--	--	--	--	--	--	--	--
SEP									
01...	<.1	--	<.1	4	0	4	<1	--	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
NOV									
17...	0	0	0	10	4	6	--	4.3	1.1
JAN									
20...	0	0	0	30	30	0	--	3.6	.3
MAR									
16...	--	--	--	--	--	--	3.5	--	--
MAY									
19...	0	0	0	40	40	5	--	2.5	.7
JUL									
21...	--	--	--	--	--	--	5.5	--	--
SEP									
01...	2	--	<1	10	0	10	--	11	1.0

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 17,80		MAR 16,81		MAY 19,81		JUL 21,81		SEP 1,81	
TIME	1030		1030		1000		1030		1100	
TOTAL CELLS/ML	1300		3200		8400		28000		37000	
DIVERSITY: DIVISION	1.2		0.9		1.4		1.0		0.3	
.CLASS	1.2		0.9		1.4		1.0		0.3	
..ORDER	1.5		1.5		1.8		1.3		0.3	
...FAMILY	1.6		2.0		2.7		2.3		1.8	
....GENUS	1.7		2.1		2.9		3.1		2.4	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	*	0
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	2000	7	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	8900#	24
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	2000	5
....MICRACTINIUM	--	-	--	-	270	3	--	-	13000#	36
...OOCYSTACEAE										
....ANKISTRODESMUS	13	1	--	-	50	1	2900	10	6800#	19
....DICTYOSPHAERIUM	--	-	--	-	*	0	630	2	1700	5
....GLOEOACTINIUM	--	-	--	-	--	-	--	-	1100	3
....KIRCHNERIELLA	--	-	--	-	--	-	*	0	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	840	2
....TETRAEDRON	13	1	--	-	*	0	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	6000#	22	--	-
....SCENEDESMUS	78	6	--	-	370	4	7500#	27	--	-
....TETRALLANTOS	--	-	--	-	--	-	1000	4	--	-
....TETRASTRUM	--	-	--	-	130	2	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	39	1	50	1	750	3	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....COSCINODISCUS	--	-	*	0	*	0	--	-	--	-
....CYCLOTELLA	13	1	*	0	130	2	880	3	2100	6
....MELOSIRA	260#	21	380	12	1600#	19	380	1	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	*	0	250	1	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	130	4	*	0	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	67	1	--	-	--	-
....FRAGILARIA	13	1	--	-	--	-	--	-	--	-
....SYNEDRA	26	2	39	1	--	-	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	*	0	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	39	3	130	4	100	1	750	3	--	-
...NITZSCHIACEAE										
....NITZSCHIA	13	1	*	0	320	4	2900	10	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	1600#	50	350	4	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	790#	63	39	1	220	3	1500	5	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	1700#	20	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	780#	24	2900#	35	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	72	55	66	92	73	66	98	50	90	100	126
2	64	64	54	64	83	69	70	93	57	84	101	143
3	69	65	53	66	73	71	74	89	71	90	96	117
4	69	68	62	65	78	73	80	83	62	76	92	138
5	67	70	67	58	76	99	80	80	57	74	100	58
6	67	70	69	64	76	70	74	90	56	77	101	51
7	62	73	71	71	80	79	78	92	66	78	112	67
8	65	74	70	76	76	74	73	85	55	79	92	47
9	66	74	66	78	72	67	78	90	71	85	90	57
10	68	67	67	76	72	69	88	90	60	93	86	62
11	69	70	67	73	80	72	82	88	67	98	88	77
12	67	70	69	77	65	73	82	90	75	98	98	90
13	66	71	65	88	63	72	81	77	78	93	98	84
14	66	72	72	73	69	76	81	73	87	82	98	84
15	67	76	69	74	71	77	84	81	72	97	102	83
16	67	75	68	70	67	83	85	88	79	99	106	120
17	67	66	65	73	68	82	88	84	82	100	132	61
18	73	90	63	72	70	75	90	90	80	96	98	65
19	70	65	67	74	72	86	81	90	88	98	110	69
20	64	66	71	66	74	92	77	122	114	94	124	71
21	68	67	76	75	68	94	74	78	91	132	113	80
22	68	69	70	74	68	80	69	82	89	90	155	82
23	66	67	73	68	66	87	80	79	87	103	135	86
24	70	63	66	77	67	82	78	76	96	105	122	92
25	81	59	63	72	66	81	83	75	111	93	102	98
26	65	59	60	67	69	74	82	75	99	80	127	102
27	62	62	61	67	69	82	76	78	95	90	153	98
28	63	62	59	74	73	86	82	110	96	78	150	94
29	65	57	56	75	---	85	80	61	96	110	153	92
30	70	61	63	73	---	73	82	46	90	84	153	102
31	68	---	65	80	---	68	---	45	---	90	143	---
MEAN	67	68	65	72	72	78	79	83	79	91	114	87

WTR YR 1981 MEAN 80 MAX 155 MIN 45

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	10.0	5.0	5.0	.0	11.0	14.0	18.0	20.0	23.0	24.0	24.0
2	18.0	11.0	6.0	5.0	3.0	11.0	15.0	17.0	21.0	23.0	24.0	25.0
3	19.0	10.0	7.0	4.0	1.0	10.0	15.0	15.0	20.0	23.0	25.0	25.0
4	18.0	11.0	5.0	4.0	2.0	9.0	15.0	15.0	21.0	22.0	25.0	25.0
5	18.0	10.0	5.0	3.0	.0	8.0	15.0	17.0	22.0	23.0	25.0	23.0
6	15.0	10.0	5.0	1.0	.0	7.0	15.0	19.0	23.0	24.0	27.0	22.0
7	18.0	10.0	5.0	.0	.0	8.0	14.0	18.0	22.0	24.0	27.0	23.0
8	15.0	11.0	6.0	3.0	2.0	8.0	14.0	15.0	23.0	25.0	27.0	22.0
9	15.0	13.0	8.0	1.0	3.0	7.0	15.0	16.0	23.0	26.0	26.0	20.0
10	16.0	13.0	10.0	.0	4.0	9.0	15.0	17.0	25.0	27.0	27.0	20.0
11	17.0	12.0	8.0	.0	5.0	5.0	17.0	17.0	25.0	28.0	27.0	20.0
12	16.0	10.0	6.0	1.0	4.0	9.0	18.0	20.0	25.0	28.0	27.0	24.0
13	15.0	8.0	6.0	.0	4.0	8.0	19.0	18.0	25.0	28.0	26.0	21.0
14	13.0	8.0	5.0	1.0	5.0	9.0	16.0	18.0	25.0	28.0	28.0	22.0
15	13.0	10.0	5.0	.0	4.0	9.0	16.0	19.0	26.0	27.0	26.0	23.0
16	14.0	10.0	5.0	.0	5.0	10.0	15.0	18.0	27.0	27.0	27.0	23.0
17	15.0	10.0	5.0	.0	8.0	8.0	16.0	19.0	27.0	27.0	26.0	22.0
18	16.0	9.0	5.0	.0	8.0	8.0	16.0	19.0	26.0	27.0	24.0	20.0
19	16.0	7.0	5.0	.0	10.0	9.0	17.0	19.0	25.0	26.0	24.0	18.0
20	16.0	7.0	5.0	.0	10.0	9.0	18.0	15.0	25.0	27.0	22.0	18.0
21	17.0	5.0	3.0	1.0	10.0	9.0	16.0	18.0	25.0	27.0	21.0	17.0
22	14.0	5.0	3.0	.0	12.0	8.0	15.0	15.0	26.0	26.0	23.0	22.0
23	15.0	6.0	3.0	.0	11.0	8.0	18.0	17.0	27.0	26.0	21.0	20.0
24	13.0	7.0	3.0	.0	10.0	8.0	17.0	20.0	28.0	27.0	23.0	18.0
25	12.0	7.0	2.0	3.0	14.0	7.0	16.0	21.0	28.0	25.0	23.0	17.0
26	10.0	7.0	.0	4.0	9.0	8.0	15.0	24.0	28.0	25.0	23.0	18.0
27	10.0	7.0	.0	.0	9.0	10.0	16.0	21.0	25.0	27.0	24.0	18.0
28	12.0	6.0	1.0	5.0	9.0	10.0	21.0	20.0	24.0	27.0	23.0	20.0
29	13.0	5.0	3.0	5.0	---	10.0	20.0	19.0	28.0	28.0	24.0	18.0
30	12.0	5.0	5.0	4.0	---	13.0	19.0	18.0	24.0	25.0	23.0	18.0
31	10.0	---	5.0	3.0	---	13.0	---	20.0	---	25.0	25.0	---
MEAN	15.0	8.5	4.5	1.5	6.0	9.0	16.5	18.0	24.5	26.0	24.5	21.0

WTR YR 1981 MEAN 14.5 MAX 28.0 MIN .0

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SUSPENDED-SEDIMENT. WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	61	300	24	111	18	81	20	79	13	45	40	172
2	52	256	20	84	19	83	12	46	11	42	30	129
3	45	191	18	72	14	59	10	38	38	236	40	165
4	46	180	46	215	13	54	12	45	32	162	59	242
5	35	130	70	378	12	49	19	68	19	74	72	375
6	40	163	36	160	11	45	15	49	16	64	45	248
7	59	274	20	83	10	40	18	71	13	53	31	150
8	39	161	16	65	27	108	9	36	11	45	27	118
9	45	170	25	100	27	108	8	29	10	42	22	94
10	39	146	20	79	20	84	8	30	12	46	20	82
11	30	110	24	93	20	87	6	20	208	1890	20	82
12	26	94	19	72	12	50	6	17	548	8200	20	80
13	25	88	11	41	13	52	7	21	221	1800	21	83
14	25	86	10	38	22	87	5	18	83	489	20	78
15	24	84	15	58	11	43	7	28	28	149	20	78
16	22	78	19	78	14	54	8	32	19	93	20	77
17	25	89	17	71	10	39	8	29	33	151	21	80
18	26	93	49	249	10	39	9	30	21	95	21	79
19	40	161	28	140	31	121	13	47	79	450	20	77
20	41	193	14	61	17	65	8	32	184	1520	20	77
21	36	147	13	53	21	79	11	42	100	724	41	154
22	32	119	10	40	15	54	11	46	60	355	40	149
23	29	106	9	36	10	37	7	28	56	289	31	142
24	20	73	13	57	14	56	5	18	47	249	81	525
25	39	174	51	310	11	44	4	14	56	313	70	457
26	72	443	46	257	6	23	6	22	41	205	51	297
27	60	321	23	110	5	19	7	25	26	122	45	237
28	38	159	28	151	8	33	9	32	34	152	39	188
29	27	113	50	283	9	39	10	35	---	---	37	166
30	30	144	47	230	8	33	10	35	---	---	90	742
31	40	210	---	---	18	73	9	32	---	---	531	8030
TOTAL	---	5056	---	3775	---	1838	---	1094	---	18055	---	13653
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	290	2880	37	133	337	2950	56	159	45	112	26	29
2	164	1240	35	122	290	2690	106	406	40	96	70	116
3	100	616	32	108	206	1590	80	302	39	96	70	138
4	81	444	32	106	200	1740	115	562	40	102	269	2010
5	64	335	29	96	241	2330	109	456	39	99	1130	25700
6	91	504	30	97	188	1370	92	310	41	103	766	13600
7	69	369	33	109	300	2580	82	270	61	170	630	11800
8	55	264	40	136	330	3230	52	171	44	120	860	13100
9	49	229	39	131	250	1730	45	134	48	139	400	3160
10	51	233	40	132	210	1310	45	121	41	109	195	848
11	46	215	100	359	131	679	36	96	39	95	101	352
12	50	221	110	466	105	425	38	99	49	118	68	215
13	49	206	81	409	80	311	36	102	80	194	58	174
14	46	190	72	272	89	380	37	109	60	137	50	143
15	49	196	61	211	89	377	35	96	36	79	49	138
16	54	219	45	156	70	266	21	55	40	84	254	2490
17	55	221	44	151	66	232	46	125	35	52	751	10600
18	51	205	36	115	67	232	39	102	52	91	320	2020
19	43	167	36	114	79	250	40	104	39	65	131	538
20	41	166	93	484	64	209	39	98	25	31	75	257
21	49	217	140	847	52	170	119	369	40	57	52	167
22	53	246	84	454	43	134	48	122	30	38	45	136
23	46	191	75	324	45	134	41	98	30	40	40	111
24	45	186	51	197	46	132	228	1190	29	41	31	80
25	50	220	40	140	40	104	248	1020	24	24	33	69
26	41	166	38	124	40	110	111	420	20	22	30	66
27	38	146	35	113	41	120	64	197	19	22	25	54
28	35	131	117	781	36	93	74	210	20	23	29	69
29	29	104	559	9330	31	83	99	315	15	17	27	58
30	30	105	421	7160	39	98	60	168	19	21	25	52
31	---	---	338	4400	---	---	55	150	19	22	---	---
TOTAL	---	10832	---	27777	---	26059	---	8136	---	2419	---	88290

TOTAL LOAD FOR YEAR: 206984 TONS.

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
17...	1030	1540	18	75	85
JAN					
20...	1000	1500	5	20	85
MAR					
16...	1030	1450	18	70	78
MAY					
19...	1000	1160	32	100	89
JUL					
21...	1030	1210	148	484	93
SEP					
01...	1100	440	23	27	87

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/01	11 16	0000	2.00	1880	91	7.20	13.0	40.0	8.9	84.0	16	1.7
80/11/04	11 00	0000	1.62	1520	77	6.70	5.0	15.0	11.2	87.5	10K	1.3
80/12/09	16 10	0000	1.63	1530	61	6.70	11.0	10.0	11.9	107.2	10K	1.1
81/01/12	12 30	0000	0.96	1020	81	8.00	1.0	8.0	14.8	104.2	10K	1.0
81/02/09	12 45	0000	1.72	1610	70	6.80	4.0	7.0	13.6	103.8	10	1.9
81/03/19	14 30	0000	1.52	1430	72	6.90	10.0	10.0	10.8	95.6	13	1.9
81/04/14	13 50	0000	1.62	1520	77	7.00	20.0	15.0	8.8	95.7	12	1.6
81/05/07	13 10	0000	1.23	1220		6.90	17.0	15.0	7.6	78.4		1.4
81/06/10	09 00	0000	2.53	2380		6.50	26.0	140.0	6.6	80.5		1.5
81/07/15	13 50	0000	0.95	1016		7.60	29.0	25.0	8.2	105.1		1.8
81/08/04	12 15	0000	0.82	920		7.10	27.0	25.0	8.3	102.5		1.6
81/09/10	12 50	0000	1.82	1640		6.70	22.0	130.0	7.6	86.4		1.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/01	11 16	0000	560		0.57	0.180	0.400	0.320	0.180	10K	50K	50K
80/11/04	11 00	0000	690		0.33	0.110	1.100	0.210	0.130			
80/12/09	16 10	0000	50		0.30	0.360	0.600	0.190	0.120			
81/01/12	12 30	0000	10		0.31	0.140	0.400	0.210	0.130	10K	50K	50K
81/02/09	12 45	0000	30		0.37	0.170	0.400	0.190	0.110			
81/03/19	14 30	0000	30		0.29	0.330	0.600	0.320	0.180			
81/04/14	13 50	0000	40		0.44	0.170	0.500	0.210	0.090	10K	50K	50K
81/05/07	13 10	0000	70		0.56	0.160	0.500	0.220	0.100			
81/06/10	09 00	0000	380		0.73	0.080	0.700	0.320	0.060			
81/07/15	13 50	0000	30		0.38	0.050K	0.400	0.270	0.140	10K	50K	50K
81/08/04	12 15	0000	20		0.73	0.200	0.800	0.290	0.190			
81/09/10	12 50	0000	600		0.55	0.050K	0.600	0.360	0.050K			

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/01	11 16	0000	100K	40K	2000	100K	100.0	0.5K	50K
81/01/12	12 30	0000	100K	40K	500	100K	50.0	0.5K	50K
81/04/14	13 50	0000	100K	40K	900	100K	70.0	0.5K	50K
81/07/15	13 50	0000	100K	40K	900	100K	80.0	0.5K	50K

K Less than noted value.

02117030 HUMPY CREEK NEAR FORK, NC

LOCATION.--Lat 35°51'17", long 80°26'24", Davie County, Hydrologic Unit 03040101, on left bank 9 ft (3 m) upstream from culvert on Secondary Road 1813, 1.9 mi (3.0 km) south of Fork, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--1.05 mi² (2.72 km²).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 695 ft (212 m), from topographic map.

REMARKS.--Records good. Diurnal fluctuation at low flow during growing season. A one-acre farm pond with a drainage area of 0.05 mi² (0.13 km²) in the basin was completed in June 1976.

AVERAGE DISCHARGE.--13 years, 1.08 ft³/s (0.031 m³/s), 13.97 in/yr (355 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 365 ft³/s (10.3 m³/s) May 30, 1975, from rating curve extended above 65 ft³/s (1.84 m³/s) on basis of computed culvert rating and computation of peak flow through culvert with flow-over-road; maximum gage height, 6.71 ft (2.045 m) June 16, 1979; minimum, 0.02 ft³/s (0.001 m³/s) July 31, Aug. 6, 7, 1977, gage height, 0.27 ft (0.082 m); minimum daily, 0.09 ft³/s (0.003 m³/s) July 25, 31, Aug. 1, 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 0.08 ft³/s (0.002 m³/s) was measured on Sept. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft³/s (1.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 5	0800	*63	1.79	*2.34	0.713

Minimum discharge, 0.03 ft³/s (0.001 m³/s) Sept. 11, gage height, 0.28 ft (.085 m), result of temporary regulation; minimum daily, 0.14 ft³/s (0.004 m³/s) Aug. 28, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	.48	.51	.41	.42	.60	.94	.32	2.7	.22	.18	.14
2	.42	.43	.49	.41	1.1	.57	.78	.30	6.2	.26	.22	.15
3	.35	.40	.45	.41	.61	.53	.71	.27	1.2	.63	.17	.15
4	.32	1.3	.44	.41	.50	.72	.67	.27	.72	.55	.14	.50
5	.31	.69	.44	.39	.45	.82	.75	.23	.55	.37	.15	7.3
6	.30	.52	.44	.39	.45	.64	.70	.26	.53	.37	.17	.51
7	.29	.47	.43	.45	.47	.62	.62	.30	.48	.32	.15	.35
8	.28	.45	.42	.40	.53	.59	.60	.29	.42	.26	.27	.68
9	.27	.43	.43	.39	.47	.57	.68	.30	.39	.24	.18	.33
10	.27	.40	.81	.38	.60	.58	.62	.36	.33	.23	.17	.26
11	.26	.38	.55	.38	4.0	.50	.55	.40	.29	.23	.16	.21
12	.24	.37	.49	.36	1.6	.47	.52	.30	2.2	.23	.98	.22
13	.25	.38	.47	.38	1.0	.46	.51	.27	.58	.21	.37	.21
14	.26	.38	.45	.39	.89	.53	.49	.27	.46	.21	.22	.21
15	.28	.46	.45	.41	.81	.50	.47	.27	.37	.19	.20	.22
16	.28	.43	.44	.40	.75	.51	.54	.26	.32	.21	.19	.39
17	.28	.81	.43	.39	.72	.55	.48	.24	.30	.19	.19	.33
18	.29	.85	.42	.39	.71	.49	.46	.26	.38	.18	.18	.22
19	.78	.56	.42	.39	3.8	.41	.42	.36	.34	.18	.23	.20
20	.34	.49	.42	.40	3.4	.41	.42	1.2	.32	.18	.20	.19
21	.31	.46	.42	.47	1.6	.39	.41	.62	.29	.17	.19	.19
22	.30	.43	.40	.45	1.1	.49	.41	.34	.26	.15	.18	.19
23	.30	.42	.42	.44	.98	1.8	.40	.27	.24	.16	.17	.18
24	.32	1.0	.43	.42	.82	1.9	.38	.26	.23	.17	.16	.18
25	.87	.73	.42	.42	.73	1.5	.37	.27	.23	.23	.15	.17
26	.45	.58	.42	.42	.67	1.1	.34	.25	.22	.18	.15	.16
27	.38	.83	.44	.41	.63	.83	.32	.78	.19	.16	.15	.16
28	.48	.75	.44	.41	.62	.72	.34	.73	.19	.17	.14	.15
29	.40	.61	.43	.39	---	.68	.32	.48	.18	.20	.15	.16
30	1.2	.53	.42	.43	---	1.9	.34	.37	.22	.17	.16	.16
31	.63	---	.42	.41	---	1.3	---	.63	---	.18	.15	---
TOTAL	12.49	17.02	14.06	12.60	30.43	23.68	15.56	11.73	21.33	7.40	6.47	14.47
MEAN	.40	.57	.45	.41	1.09	.76	.52	.38	.71	.24	.21	.48
MAX	1.2	1.3	.81	.47	4.0	1.9	.94	1.2	6.2	.63	.98	7.3
MIN	.24	.37	.40	.36	.42	.39	.32	.23	.18	.15	.14	.14
CFSM	.38	.54	.43	.39	1.04	.72	.50	.36	.68	.23	.20	.46
IN.	.44	.60	.50	.45	1.08	.84	.55	.42	.75	.26	.23	.51

CAL YR 1980 TOTAL 313.28 MEAN .86 MAX 12 MIN .16 CFSM .82 IN 11.09
WTR YR 1981 TOTAL 187.24 MEAN .51 MAX 7.3 MIN .14 CFSM .49 IN 6.63

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 (27 m) downstream from bridge (relocated) on Secondary Road 1972, 1 mi (2 km) upstream from Little Creek, 4 mi (6.4 km) downstream from Fifth Creek, 4.5 mi (7.2 km) upstream from Hunting Creek, and 6.5 mi (10.5 km) southwest of Mocksville.

DRAINAGE AREA.--306 mi² (793 km²).

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 (202.271 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. The city of Statesville diverted an average of 7.8 ft³/s (0.22 m³/s) for water supply and waste-treatment dilution. The Alexander Water Corporation withdraws an average of 1.5 ft³/s (0.042 m³/s) for water supply.

AVERAGE DISCHARGE.--43 years, 343 ft³/s (9.714 m³/s), 15.22 in/yr (387 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s (334 m³/s) Oct. 17, 1964; maximum gage height, 18.59 ft (5.666 m) Sept. 23, 1979; minimum, 30 ft³/s (0.85 m³/s) Aug. 14, 16, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Oct. 3, 1929 reached a stage of 22.6 ft (6.89 m), from floodmark established by local resident (discharge, about 22,000 ft³/s or about 620 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,700 ft³/s (76 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 3	1700	*4090	116	*11.83	3.606

Minimum discharge, 73 ft³/s (2.07 m³/s) Aug. 30, gage height, 1.54 ft (0.469 m); minimum daily, 74 ft³/s (2.10 m³/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321	235	237	188	123	206	647	160	278	140	146	82
2	284	206	223	181	219	201	433	154	2320	180	137	109
3	216	199	212	170	270	199	342	142	3540	169	212	108
4	193	256	208	169	173	190	294	152	1950	189	172	494
5	190	293	200	150	168	233	291	145	530	219	146	304
6	199	235	198	134	195	252	332	142	436	166	131	292
7	217	209	202	189	180	209	302	176	789	159	123	481
8	192	201	196	183	193	198	272	185	512	170	120	254
9	179	196	192	160	185	197	254	163	360	142	123	367
10	172	198	215	154	171	185	256	150	291	130	114	188
11	167	184	220	145	482	177	252	163	249	125	114	142
12	160	177	202	123	597	184	229	170	260	118	117	124
13	155	178	192	148	347	175	217	148	236	113	116	113
14	157	178	189	173	271	168	221	135	332	121	102	108
15	153	182	190	178	256	174	212	134	252	112	105	117
16	151	208	188	164	230	168	201	143	198	102	99	127
17	159	217	184	161	225	167	196	144	180	102	94	142
18	152	288	191	159	218	161	208	131	223	110	99	144
19	187	262	179	178	318	159	199	137	180	107	97	118
20	188	220	177	178	521	166	200	228	191	100	100	102
21	164	204	177	174	431	159	201	320	217	111	90	105
22	157	195	159	185	330	159	191	213	191	99	86	107
23	156	191	171	175	294	257	184	160	164	88	84	99
24	155	252	149	161	278	413	189	150	150	103	97	91
25	186	359	185	162	250	446	179	134	146	815	85	88
26	243	283	153	170	233	398	170	134	145	408	77	93
27	224	273	167	164	227	336	165	136	134	187	76	96
28	191	332	200	161	207	281	170	323	124	332	84	87
29	198	302	200	168	---	260	159	322	133	298	78	87
30	244	262	193	162	---	566	152	222	125	222	74	82
31	274	---	195	143	---	1210	---	181	---	169	77	---
TOTAL	5984	6975	5974	5110	7592	8254	7318	5397	14836	5607	3365	4851
MEAN	193	233	193	165	271	266	244	174	495	181	109	162
MAX	321	359	237	189	597	1210	647	323	3540	815	212	494
MIN	151	177	153	123	123	159	152	131	124	88	74	82
CFSM	.63	.76	.63	.54	.89	.87	.80	.57	1.62	.59	.36	.53
IN.	.73	.85	.73	.62	.92	1.00	.89	.66	1.80	.68	.41	.59

CAL YR 1980 TOTAL 138237 MEAN 378 MAX 3070 MIN 122 CFSM 1.24 IN 16.81
WTR YR 1981 TOTAL 81263 MEAN 223 MAX 3540 MIN 74 CFSM .73 IN 9.88

02118500 HUNTING CREEK NEAR HARMONY, NC

LOCATION.--Lat 36°00'00" (revised), long 80°44'44", Iredell County, Hydrologic Unit 03040102, on right bank 52 ft (16 m) downstream from bridge on Secondary Road 2115, 0.8 mi (1.3 km) downstream from Kennedy Creek, 1 mi (2 km) east of Houstonville, 2 mi (3 km) downstream from U.S. Highway 21, and 3.5 mi (5.6 km) northeast of Harmony.

DRAINAGE AREA.--155 mi² (401 km²).

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 (223.961 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1951, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--31 years, 207 ft³/s (5.862 m³/s), 18.14 in/yr (461 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s (419 m³/s) Sept. 22, 1979, gage height, 25.05 ft (7.635 m), from high-water mark in gage house; minimum, 18 ft³/s (0.51 m³/s) Oct. 8, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 1	2330	*2780	78.7	*10.70	3.261

Minimum discharge, 37 ft³/s (1.05 m³/s) Aug. 29, gage height, 0.11 ft (0.034 m); minimum daily, 39 ft³/s (1.10 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	104	98	102	82	110	263	88	313	93	66	42
2	134	95	110	99	152	107	190	85	809	74	78	64
3	111	90	107	96	149	103	159	82	203	90	84	119
4	101	126	104	96	115	105	144	81	143	99	70	205
5	101	118	102	85	119	143	151	80	115	107	61	228
6	147	96	103	108	123	126	166	78	110	124	61	151
7	113	92	101	109	113	115	138	88	165	165	63	201
8	99	90	101	102	107	110	130	89	121	92	76	270
9	93	87	100	114	101	107	127	81	104	73	67	150
10	88	86	107	101	96	106	129	80	93	63	58	107
11	86	81	106	86	341	104	122	89	85	60	60	89
12	79	79	100	101	255	103	118	86	83	66	61	78
13	77	79	99	113	142	102	114	77	88	95	66	71
14	78	80	98	110	138	101	113	75	88	62	57	65
15	78	83	97	106	125	99	113	82	77	59	55	64
16	79	99	96	103	118	98	106	81	71	58	52	109
17	78	93	97	101	115	97	105	72	67	57	50	109
18	79	125	96	102	116	97	107	71	73	56	48	80
19	84	105	96	105	128	98	105	76	69	54	47	70
20	84	92	96	104	179	97	106	121	85	53	49	64
21	78	86	91	101	160	97	108	119	74	53	48	62
22	76	82	75	104	137	100	99	88	87	52	44	60
23	77	81	104	100	135	136	98	76	65	53	43	57
24	77	134	97	94	141	187	103	71	58	219	42	55
25	125	165	94	93	127	225	100	67	57	279	42	53
26	145	109	73	92	120	205	94	64	56	107	41	51
27	96	119	99	93	115	178	93	80	56	84	40	50
28	93	161	109	95	112	154	91	262	55	77	40	49
29	97	123	108	92	---	138	87	171	56	103	39	46
30	128	105	104	94	---	540	89	117	59	81	40	45
31	133	---	107	84	---	560	---	101	---	70	42	---
TOTAL	3093	3065	3076	3085	3861	4648	3668	2878	3585	2778	1690	2864
MEAN	99.8	102	99.2	99.5	138	150	122	92.8	120	89.6	54.5	95.5
MAX	179	165	110	114	341	560	263	262	809	279	84	270
MIN	76	79	73	84	82	97	87	64	55	52	39	42
CFSM	.64	.66	.64	.64	.89	.97	.79	.60	.77	.58	.35	.62
IN.	.74	.74	.74	.74	.93	1.12	.88	.69	.86	.67	.41	.69

CAL YR 1980 TOTAL 81300 MEAN 222 MAX 2750 MIN 73 CFSM 1.43 IN 19.51
WTR YR 1981 TOTAL 38291 MEAN 105 MAX 809 MIN 39 CFSM .68 IN 9.19

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 (21 m) upstream from bridge on U. S. Highway 70, 1.3 mi (2.1 km) downstream from Withrow Creek, and 2.7 mi (4.3 km) east of Barber.

DRAINAGE AREA.--118 mi² (306 km²).

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 (195.776 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some diurnal fluctuation caused by industry 0.7 mi (1.1 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,260 ft³/s (64.0 m³/s) June 17, 1979, gage height, 14.03 ft (4.276 m); minimum, 9.8 ft³/s (0.28 m³/s) Aug. 24, Sept. 2, 1980.

EXTREMES FOR THE CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 2	1130	*1960	55.5	*12.36	3.767	July 25	0830	1740	49.3	11.51	3.508
June 13	2300	1300	36.8	9.67	2.947						

Minimum discharge, 12 ft³/s (0.34 m³/s) Sept. 1, gage height, 1.42 ft (0.433 m); minimum daily, 14 ft³/s (0.40 m³/s) Aug. 28, 29, Sept. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	50	62	48	37	59	93	35	27	45	38	15
2	60	45	59	43	75	57	80	33	1410	45	63	14
3	42	42	57	40	60	55	68	33	267	85	75	14
4	36	101	56	39	45	57	63	33	122	56	40	48
5	34	74	56	36	41	70	65	32	88	48	33	237
6	34	53	55	51	41	58	65	32	86	48	31	239
7	33	48	54	46	41	54	56	83	288	343	31	192
8	32	46	54	41	46	53	55	44	89	70	30	80
9	31	44	53	39	41	53	57	37	70	53	30	54
10	29	42	109	37	41	52	57	38	60	43	28	42
11	29	40	88	36	357	51	53	42	52	39	27	39
12	27	40	66	33	138	51	52	35	149	37	27	35
13	27	40	60	38	86	50	51	33	260	36	29	34
14	29	41	55	42	75	49	51	32	314	33	24	32
15	29	45	53	42	69	48	51	30	81	31	22	34
16	29	48	54	39	64	49	49	29	62	30	22	41
17	28	50	51	36	62	48	50	27	54	34	38	34
18	29	86	51	39	62	49	50	28	115	29	22	30
19	56	56	50	38	134	48	49	29	63	28	22	28
20	38	50	48	37	256	47	50	76	54	29	26	28
21	33	48	47	41	141	46	48	68	50	68	21	27
22	32	46	51	39	97	49	44	37	48	24	19	27
23	31	45	50	37	85	104	46	32	48	20	18	26
24	32	89	49	37	76	128	48	30	47	20	17	25
25	58	82	47	36	69	94	44	27	47	1120	16	25
26	46	64	52	36	66	71	41	26	57	132	15	25
27	37	87	54	36	63	64	40	64	47	71	15	24
28	41	101	56	36	60	59	38	81	46	53	14	24
29	40	73	54	34	---	57	37	47	46	44	14	22
30	90	65	51	38	---	197	37	34	45	38	18	23
31	71	---	51	36	---	157	---	37	---	39	18	---
TOTAL	1270	1741	1753	1206	2428	2084	1588	1244	4192	2791	843	1518
MEAN	41.0	58.0	56.5	38.9	86.7	67.2	52.9	40.1	140	90.0	27.2	50.6
MAX	107	101	109	51	357	197	93	83	1410	1120	75	239
MIN	27	40	47	33	37	46	37	26	27	20	14	14
CFSM	.35	.49	.48	.33	.74	.57	.45	.34	1.19	.76	.23	.43
IN.	.40	.55	.55	.38	.77	.66	.50	.39	1.32	.88	.27	.48

CAL YR 1980	TOTAL 36518	MEAN 99.8	MAX 1670	MIN 13	CFSM .85	IN 11.51		
WTR YR 1981	TOTAL 22658	MEAN 62.1	MAX 1410	MIN 14	CFSM .53	IN 7.14		

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 (0.5 km) upstream from mouth, and 0.5 mi (0.8 km) northeast of Linwood.

DRAINAGE AREA.--9.62 mi² (24.92 km²).

PERIOD OF RECORD.--May 1979 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 630 ft (192.0 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 992 ft³/s (28.1 m³/s) June 17, 1979, gage height, 7.97 ft (2.429 m); minimum, 1.0 ft³/s (0.028 m³/s) Aug. 28, 29, 1981; minimum daily, 1.4 ft³/s (0.040 m³/s) Aug. 26, 28, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 190 ft³/s (5.38 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 12	1200	*410	11.6	*5.35	1.631

Minimum discharge, 1.0 ft³/s (0.028 m³/s) Aug. 28, 29; minimum daily, 1.4 ft³/s (0.040 m³/s) Aug. 26, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.2	4.9	4.5	3.9	6.2	8.1	3.5	3.8	2.9	1.9	1.5
2	6.4	5.4	4.8	4.2	11	5.9	6.9	3.4	36	3.1	2.3	1.5
3	3.8	5.2	4.6	4.1	6.3	5.5	6.2	3.4	7.7	5.6	2.4	2.1
4	3.3	8.0	4.5	4.0	5.1	6.2	5.9	3.3	5.5	6.6	2.1	2.2
5	2.9	6.3	4.6	4.2	4.9	8.4	6.7	3.1	4.2	3.9	1.9	15
6	3.0	4.5	4.5	4.2	4.7	6.4	6.1	3.1	7.8	3.2	2.0	5.2
7	2.9	4.2	4.5	4.6	4.6	6.0	5.4	4.4	8.1	3.1	1.9	6.9
8	2.8	4.0	4.5	4.2	5.7	5.7	5.2	3.5	4.6	2.9	1.8	4.4
9	3.0	4.0	4.6	4.0	4.6	5.5	5.8	3.3	4.0	2.7	2.0	3.0
10	3.0	3.9	17	3.9	5.0	5.3	5.6	3.6	3.6	2.6	1.7	2.5
11	3.0	3.8	10	3.6	58	5.3	5.2	4.0	3.3	2.5	1.7	2.3
12	2.9	3.8	7.0	3.2	15	4.9	5.0	3.3	92	2.5	1.9	2.2
13	2.8	3.9	6.0	3.7	10	4.9	4.9	3.1	15	2.5	3.9	2.2
14	2.9	3.9	5.4	3.7	8.2	4.8	4.7	3.1	8.4	2.4	2.0	2.1
15	2.8	4.3	5.0	3.8	7.3	4.7	4.6	3.0	6.0	2.3	1.9	2.0
16	2.7	4.3	4.7	3.8	6.7	4.8	4.5	2.9	4.1	2.5	1.8	2.9
17	2.5	7.0	4.5	3.8	6.3	4.7	4.7	2.8	4.0	2.5	1.8	3.3
18	3.0	8.9	4.4	3.6	6.2	4.6	4.7	2.9	6.0	2.4	1.7	2.1
19	11	5.2	4.3	3.8	35	4.4	4.4	3.2	4.3	2.5	2.5	2.0
20	5.5	4.6	4.1	3.8	37	4.4	4.7	8.7	4.0	2.4	2.4	2.0
21	3.3	4.4	3.9	4.2	16	4.2	4.2	6.6	3.7	2.4	1.9	1.9
22	3.0	4.2	4.2	4.1	11	4.7	4.1	3.7	3.5	2.0	1.8	1.9
23	2.9	4.2	4.4	4.0	9.2	29	4.2	3.4	3.2	2.0	1.8	1.8
24	2.9	21	4.5	3.9	8.1	18	4.4	3.2	3.1	2.1	1.7	1.8
25	7.6	9.6	4.5	3.8	7.3	11	3.9	3.1	3.0	3.2	1.5	1.8
26	5.0	6.5	4.6	3.8	6.8	8.5	3.9	3.0	2.9	2.2	1.4	1.8
27	3.8	8.8	4.9	3.9	6.5	7.1	3.9	3.8	2.8	2.0	1.5	1.8
28	4.1	7.7	5.6	3.9	6.4	6.5	3.7	3.9	2.7	1.9	1.4	1.7
29	4.0	6.0	5.2	3.8	---	6.2	3.6	3.3	2.7	2.0	1.5	1.7
30	13	5.2	4.8	4.0	---	15	3.6	3.1	2.8	1.8	1.8	1.8
31	8.6	---	4.6	3.6	---	10	---	3.2	---	1.9	1.8	---
TOTAL	138.4	179.0	165.1	121.7	316.8	228.8	148.8	111.9	262.8	84.6	59.7	85.4
MEAN	4.46	5.97	5.33	3.93	11.3	7.38	4.96	3.61	8.76	2.73	1.93	2.85
MAX	13	21	17	4.6	58	29	8.1	8.7	92	6.6	3.9	15
MIN	2.5	3.8	3.9	3.2	3.9	4.2	3.6	2.8	2.7	1.8	1.4	1.5
CFSM	.46	.62	.55	.41	1.18	.77	.52	.38	.91	.28	.20	.30
IN.	.54	.69	.64	.47	1.22	.88	.58	.43	1.02	.33	.23	.33

CAL YR 1980 TOTAL 3293.2 MEAN 9.00 MAX 131 MIN 1.8 CFSM .94 IN 12.73
WTR YR 1981 TOTAL 1903.0 MEAN 5.21 MAX 92 MIN 1.4 CFSM .54 IN 7.36

02121493 LEONARD CREEK NEAR BETHESDA, NC

LOCATION.--Lat 35°53'14", long 80°12'30", Davidson County, Hydrologic Unit 03040103, on left downstream wingwall of bridge on Secondary Road 1837, 1.6 mi (2.6 km) upstream from Lexington City Lake, 2.0 mi (3.2 km) downstream from Cain Creek, 2.2 mi (3.5 km) east of Bethesda and 3.0 mi (4.8 km) southeast of Welcome.

DRAINAGE AREA.--5.16 mi² (13.36 km²).

PERIOD OF RECORD.--October 1978 to December 1981 (discontinued).

GAGE.--Water-stage recorder and concrete, rock-ledge control. Altitude of gage is 718 ft (218.8 m), from topographic map.

REMARKS.--Records fair. Slight diurnal fluctuation at low flow during growing season. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 531 ft³/s (15.0 m³/s) Sept. 22, 1979, gage height, 4.59 ft (1.399 m); minimum, 0.41 ft³/s (0.012 m³/s) Aug. 28, 29, Sept. 2, 3, 11, 15, 1981, gage height, 1.17 ft (0.357 m); minimum daily, 0.47 ft³/s (0.013 m³/s) Aug. 28.

EXTREMES FOR CURRENT PERIOD.--Water year 1981: Maximum discharge, 61 ft³/s (1.73 m³/s) Feb. 11, gage height, 2.28 ft (0.695 m), no peak above base of 260 ft³/s (7.4 m³/s); minimum, 0.41 ft³/s (0.012 m³/s) Aug. 28, 29, Sept. 2, 3, 11, 15, gage height, 1.17 ft (0.357 m); minimum daily, 0.47 ft³/s (0.013 m³/s) Aug. 28.

October to December 1981: Maximum discharge, 122 ft³/s (3.46 m³/s) Dec. 31, gage height, 2.75 ft (0.838 m), no peak above base of 260 ft³/s (7.4 m³/s); minimum, 0.59 ft³/s (0.017 m³/s) Oct. 1, 7; minimum gage height, 1.21 ft (0.369 m) Oct. 1, 7, 8, 9, 13, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	2.6	2.3	2.1	2.0	2.9	3.7	1.6	10	1.1	.63	.59
2	1.9	2.2	2.3	2.1	6.7	2.8	3.2	1.4	12	1.3	.63	.54
3	1.5	2.0	2.2	2.0	3.0	2.7	2.9	1.4	3.5	2.4	.64	.69
4	1.3	4.9	2.1	1.8	2.8	3.3	2.7	1.3	2.7	3.5	.59	.91
5	1.2	3.5	2.1	1.3	2.5	4.1	3.3	1.3	2.3	2.8	.54	1.4
6	1.3	2.2	2.1	1.8	2.2	3.3	3.0	1.3	4.2	2.0	.86	.99
7	1.2	2.0	2.1	2.3	2.1	2.9	2.5	1.5	7.8	2.4	.74	1.4
8	1.2	2.0	2.1	1.9	2.9	2.7	2.3	1.4	2.8	1.6	1.8	1.9
9	1.2	1.9	2.2	1.9	2.1	2.6	2.6	1.3	2.3	1.5	1.2	.96
10	1.1	1.8	3.6	1.9	2.4	2.5	2.6	1.5	1.9	1.5	.86	.74
11	1.1	1.7	2.7	1.2	34	2.6	2.5	1.9	1.6	1.3	.80	.69
12	1.1	1.7	2.4	1.1	8.7	2.5	2.4	1.5	2.5	1.3	1.0	.68
13	1.1	1.7	2.3	1.8	5.5	2.6	2.2	1.3	2.0	1.4	1.0	.69
14	1.0	1.7	2.2	2.0	3.9	2.4	2.1	1.3	1.7	1.2	.74	.64
15	1.0	1.9	2.1	2.0	3.6	2.4	2.1	1.3	1.6	1.2	.69	.74
16	1.1	1.9	2.2	1.6	3.2	2.7	2.0	1.2	1.4	1.3	1.4	1.6
17	1.0	2.3	2.1	1.9	3.0	2.7	2.1	1.1	1.2	1.3	1.3	4.1
18	1.1	4.6	2.1	1.9	2.8	2.7	2.2	1.2	3.4	1.2	.74	1.1
19	4.8	2.2	2.1	2.0	18	2.6	2.0	1.4	1.8	1.1	.86	1.0
20	1.8	1.9	2.0	2.0	21	2.5	2.2	5.1	1.5	1.3	.86	.92
21	1.4	1.9	1.8	2.3	7.5	2.5	2.0	5.1	1.5	1.3	.74	.86
22	1.3	1.8	1.6	2.3	4.8	2.8	1.9	1.9	1.4	.81	.69	.80
23	1.3	1.7	2.1	2.2	4.3	9.2	1.9	1.5	1.2	.73	.64	.80
24	1.3	8.8	2.1	2.0	4.0	9.3	2.0	1.4	1.2	.91	.59	.74
25	4.3	5.0	1.8	2.0	3.5	6.0	1.9	1.3	1.2	.93	.54	.74
26	2.8	3.0	1.9	2.0	3.3	4.1	1.8	1.2	1.1	.80	.50	.74
27	2.1	3.5	1.8	2.1	3.1	3.6	1.6	1.4	.99	.69	.50	.73
28	2.3	3.5	2.2	2.1	3.0	3.3	1.5	1.5	.98	.64	.47	.67
29	2.1	2.7	2.7	1.9	---	3.2	1.5	1.4	.97	.69	.50	.63
30	6.6	2.4	2.3	1.8	---	7.0	1.6	1.2	1.1	.59	.80	.66
31	3.7	---	2.3	1.5	---	5.3	---	1.2	---	.54	.74	---
TOTAL	60.6	81.0	67.9	58.8	165.9	111.9	68.3	50.4	79.84	41.33	24.64	29.65
MEAN	1.95	2.70	2.19	1.90	5.93	3.61	2.28	1.63	2.66	1.33	.79	.99
MAX	6.6	8.8	3.6	2.3	34	9.3	3.7	5.1	12	3.5	1.8	4.1
MIN	1.0	1.7	1.6	1.1	2.0	2.4	1.5	1.1	.97	.54	.47	.54
CFSM	.38	.52	.42	.37	1.15	.70	.44	.32	.52	.26	.15	.19
IN.	.44	.58	.49	.42	1.20	.81	.49	.36	.58	.30	.18	.21

CAL YR 1980 TOTAL 1591.93 MEAN 4.35 MAX 81 MIN .60 CFSM .84 IN 11.47
WTR YR 1981 TOTAL 840.26 MEAN 2.30 MAX 34 MIN .47 CFSM .45 IN 6.06

02121493 LEONARD CREEK NEAR BETHESDA, N. C.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	1.2	2.0									
2	.74	1.1	2.4									
3	.65	1.0	1.6									
4	.66	1.0	1.6									
5	.68	1.0	1.5									
6	.66	1.3	1.4									
7	.60	1.0	1.4									
8	.63	1.1	1.4									
9	.66	1.1	1.3									
10	.79	1.0	1.3									
11	.80	1.1	1.3									
12	.74	1.1	1.5									
13	.71	1.1	1.5									
14	.70	1.1	2.7									
15	.77	1.1	12									
16	.74	1.1	8.8									
17	.68	1.1	3.3									
18	.75	1.1	2.6									
19	.89	1.1	2.5									
20	.81	1.3	4.5									
21	.90	1.2	4.2									
22	.91	1.2	2.8									
23	1.1	1.2	2.4									
24	1.6	1.7	2.5									
25	2.7	1.4	18									
26	5.2	1.3	9.7									
27	10	1.4	4.7									
28	2.4	1.4	3.4									
29	1.7	1.3	2.8									
30	1.3	1.3	2.4									
31	1.2	---	30									
TOTAL	43.31	35.4	139.5									
MEAN	1.40	1.18	4.50									
MAX	10	1.7	30									
MIN	.60	1.0	1.3									
CFSM	.27	.23	.87									
IN.	.31	.26	1.01									

CAL YR 1981 TOTAL 848.97 MEAN 2.33 MAX 34 MIN .47 CFSM .45 IN 6.12

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 (91 m) downstream from Little Creek, 400 ft (122 m) upstream from bridge on Secondary Road 1134, and 10 mi (16 km) southwest of Richfield.

DRAINAGE AREA.--55.6 mi² (144 km²).

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 (130.034 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those below 1 ft³/s (0.03 m³/s), which are fair.

AVERAGE DISCHARGE.--27 years, 56.7 ft³/s (1.606 m³/s), 13.85 in/yr (352 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft³/s (314 m³/s) Aug. 22, 1967, gage height, 15.95 ft (4.862 m); no flow at times 1954, 1961-64, 1966-69, 1972, 1976-77, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1921 reached a stage of about 19 ft (5.8 m), from information by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft³/s (68 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0530	2640	74.8	8.20	2.499	Aug. 12	0630	*7770	220	*13.67	4.167
June 12	0700	5390	153	11.59	3.533						

Minimum discharge, 0.30 ft³/s (0.008 m³/s) Oct. 13-23, 28; minimum gage height, 0.72 ft (0.219 m) Oct. 22, 23; minimum daily, 0.30 ft³/s (0.008 m³/s) Oct. 14-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	.80	11	8.2	3.7	12	27	2.0	524	.99	11	5.0
2	37	.80	9.0	7.4	6.1	11	20	1.6	48	292	10	4.5
3	12	.70	7.8	6.5	18	10	15	1.4	21	244	14	4.0
4	7.3	1.7	6.7	5.8	12	9.4	11	1.2	18	346	9.7	3.8
5	4.4	5.3	6.0	4.9	9.0	15	10	1.1	9.1	63	6.4	59
6	2.8	3.2	5.6	4.4	7.7	13	11	1.0	6.8	37	5.3	25
7	2.1	2.2	5.2	4.8	7.4	10	8.9	3.0	36	32	3.9	239
8	1.6	1.7	4.7	5.1	9.0	9.0	7.9	2.2	12	19	3.5	67
9	1.2	1.4	4.6	4.7	11	8.4	7.6	1.6	7.4	12	3.0	43
10	.99	1.1	6.5	4.3	9.3	8.0	8.4	1.4	5.1	9.0	2.6	23
11	.61	.90	17	3.8	1160	7.7	7.7	6.5	3.4	7.0	2.4	15
12	.40	.90	12	3.4	170	7.4	7.0	3.3	1660	5.9	1410	12
13	.35	.90	9.4	2.9	71	7.1	6.3	2.0	180	5.0	75	9.4
14	.30	.80	7.9	3.0	49	6.9	5.5	1.4	108	4.7	33	8.0
15	.30	1.1	6.8	3.3	37	6.3	5.0	1.1	33	3.9	18	7.6
16	.30	1.7	6.4	3.4	28	6.1	4.5	.81	18	31	13	8.0
17	.30	3.9	6.4	3.3	24	5.7	4.3	.70	11	39	11	12
18	.30	21	5.8	3.1	24	5.7	4.3	.61	22	12	8.7	8.5
19	.30	14	5.2	3.0	307	5.6	4.0	.58	16	8.0	129	6.9
20	.30	8.4	4.6	3.0	233	5.3	4.8	1.8	10	26	97	6.1
21	.30	6.4	4.1	3.8	93	5.1	4.3	2.6	7.5	27	35	5.6
22	.30	5.3	3.7	4.5	55	5.0	3.8	3.5	5.7	11	20	5.1
23	.30	4.5	3.8	5.0	40	35	3.6	2.0	4.0	7.4	14	4.5
24	.40	40	4.0	5.0	30	43	3.5	1.3	3.1	6.1	11	4.0
25	.80	76	4.0	4.5	22	21	2.8	.83	2.4	19	8.8	3.8
26	.70	28	3.5	4.5	18	14	2.4	.60	2.8	9.7	7.4	3.7
27	.60	21	3.4	4.2	15	11	2.3	8.2	2.1	6.7	6.6	3.5
28	.40	37	4.0	4.2	14	9.2	1.9	9.7	1.5	6.4	5.8	3.2
29	.40	24	5.9	3.9	---	8.2	1.7	5.4	1.2	7.4	5.3	2.8
30	1.2	15	6.9	3.9	---	32	1.7	3.4	.98	109	5.8	2.9
31	1.3	---	8.0	3.9	---	55	---	2.9	---	18	6.1	---
TOTAL	151.55	329.70	199.9	135.7	2483.2	408.1	208.2	75.73	2780.08	1425.19	1992.3	605.9
MEAN	4.89	11.0	6.45	4.38	88.7	13.2	6.94	2.44	92.7	46.0	64.3	20.2
MAX	72	76	17	8.2	1160	55	27	9.7	1660	346	1410	239
MIN	.30	.70	3.4	2.9	3.7	5.0	1.7	.58	.98	.99	2.4	2.8
CFSM	.09	.20	.12	.08	1.60	.24	.13	.04	1.67	.83	1.16	.36
IN.	.10	.22	.13	.09	1.66	.27	.14	.05	1.86	.95	1.33	.41

CAL YR 1980 TOTAL 18138.65 MEAN 49.6 MAX 1580 MIN .00 CFSM .89 IN 12.14
WTR YR 1981 TOTAL 10795.55 MEAN 29.6 MAX 1660 MIN .30 CFSM .53 IN 7.22

02125557 GOURDVINE CREEK AT SECONDARY ROAD 1715 NEAR OLIVE BRANCH, NC

LOCATION.--Lat 35°06'02", long 80°20'11", Union County, Hydrologic Unit 03040105, on right bank 3 ft (1 m) downstream from bridge on Secondary Road 1715, 0.8 mi (1.3 km) downstream from Secondary Road 1006, 0.9 mi (1.4 km) southwest of Olive Branch, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--8.75 mi² (22.66 km²).

PERIOD OF RECORD.--July 1978 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 372 ft (113 m), from topographic map.

REMARKS.--Records good except those below 0.10 ft³/s (0.003 m³/s), which are fair. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s (65.1 m³/s) June 16, 1979, gage height, 7.15 ft (2.179 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 610 ft³/s (17.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0330	*1120	31.7	*6.55	1.996	July 3	2245	754	21.4	6.19	1.887

No flow June 11, 14-July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	.03	2.3	1.3	.20	2.0	1.5	.02	.35	.00	.24	.02
2	1.7	.05	1.9	1.0	1.3	1.8	1.1	.02	1.7	.00	2.7	.01
3	.60	.03	1.6	.78	1.6	1.6	.83	.01	.31	75	10	.02
4	.55	.25	1.2	.71	.88	1.5	.68	.01	.07	11	1.0	.02
5	.16	1.1	.89	.59	.65	3.4	.67	.01	.04	.83	.26	.73
6	.08	.22	.83	.57	.57	2.6	.62	.01	.03	.16	.09	4.4
7	.06	.09	.75	.68	.55	1.9	.45	.02	.02	.06	.05	17
8	.04	.07	.67	.70	1.2	1.5	.37	.02	.02	.03	29	2.2
9	.04	.05	.67	.54	1.2	1.4	.39	.02	.01	.02	12	.73
10	.03	.04	2.8	.46	.89	1.3	.39	.02	.01	.01	9.7	.23
11	.02	.04	3.1	.42	257	1.2	.33	.02	.00	.01	4.7	.09
12	.02	.04	1.8	.30	18	1.2	.26	.01	.01	.01	.94	.06
13	.02	.04	1.5	.23	9.5	1.1	.21	.02	.01	.01	.46	.04
14	.01	.04	1.1	.30	6.9	1.0	.16	.02	.00	1.1	.21	.03
15	.01	.04	.87	.35	5.4	.86	.13	.01	.00	2.0	.11	.14
16	.01	.05	.86	.37	4.2	.93	.11	.01	.00	41	2.0	.19
17	.01	.10	.83	.30	3.5	.77	.11	.01	.00	4.1	4.4	.06
18	.01	3.1	.69	.26	3.1	.76	.11	.01	.00	.54	.32	.06
19	.03	1.0	.61	.25	54	.79	.11	.01	.00	.13	12	.05
20	.02	.40	.51	.24	47	.63	.10	.02	.00	.06	3.0	.04
21	.02	.20	.37	.39	14	.53	.09	.02	.00	.04	1.1	.02
22	.02	.13	.30	.52	8.4	.56	.08	.02	.00	.02	.50	.02
23	.02	.11	.43	.45	6.4	14	.07	.02	.00	.04	.24	.02
24	.02	71	.53	.35	4.7	6.1	.07	.02	.00	.14	.14	.02
25	.03	18	.46	.29	3.5	2.9	.05	.02	.00	24	.10	.02
26	.02	5.4	.37	.24	2.8	2.0	.05	.01	.00	.80	.06	.02
27	.02	14	.41	.24	2.3	1.6	.04	.02	.00	.16	.04	.02
28	.02	10	.93	.24	2.1	1.3	.03	.52	.00	.06	.03	.02
29	.02	4.5	2.0	.20	---	1.2	.03	.93	.00	.04	.02	.02
30	.03	2.9	1.5	.18	---	2.0	.02	.06	.00	6.1	.02	.02
31	.02	---	1.5	.20	---	2.2	---	27	---	.96	.02	---
TOTAL	53.66	133.02	34.28	13.65	461.84	62.63	9.16	28.94	2.58	168.43	95.45	26.32
MEAN	1.73	4.43	1.11	.44	16.5	2.02	.31	.93	.086	5.43	3.08	.88
MAX	50	71	3.1	1.3	257	14	1.5	27	1.7	75	29	17
MIN	.01	.03	.30	.18	.20	.53	.02	.01	.00	.00	.02	.01
CFSM	.20	.51	.13	.05	1.89	.23	.04	.11	.01	.62	.35	.10
IN.	.23	.57	.15	.06	1.96	.27	.04	.12	.01	.72	.41	.11

CAL YR 1980 TOTAL 2685.63 MEAN 7.34 MAX 164 MIN .00 CFSM .84 IN 11.42
WTR YR 1981 TOTAL 1089.96 MEAN 2.99 MAX 257 MIN .00 CFSM .34 IN 4.63

02125696 LANE CREEK AT SECONDARY ROAD 2115 NEAR TRINITY, NC

LOCATION.--Lat 34°50'39", long 80°28'49", Union County, Hydrologic Unit 03040105, on left bank downstream of culvert on Secondary Road 2115 and 3.0 miles (4.8 km) southeast of Trinity.

DRAINAGE AREA.--3.98 mi^2 (10.31 km^2).

PERIOD OF RECORD.--July 1978 to current year.

GAGE.--Water-stage recorder and V-notch weir. Altitude of gage is 538 ft (164 m), from topographic map.

REMARKS.--Records good except those below 0.10 ft^3/s (0.003 m^3/s), which are fair. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 970 ft^3/s (27.5 m^3/s) May 10, 1979, gage height, 6.25 ft (1.905 m); no flow at times in most years.

EXTREMES FOR THE CURRENT YEAR.--Peak discharges above base of 360 ft^3/s (10.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	0415	*519	14.7	*5.33	1.625

No flow many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	.00	.70	.79	.07	.56	.64	.00	.00	.01	.95	.00
2	.80	.00	.54	.49	.60	.52	2.0	.00	.00	.00	9.5	.00
3	.19	.00	.37	.33	.68	.39	.78	.00	.00	7.1	6.1	.00
4	.11	1.2	.25	.25	.32	.27	.37	.00	.05	10	1.1	.00
5	.05	.81	.22	.13	.22	1.1	.21	.00	.00	.81	.33	18
6	.02	.26	.20	.12	.20	1.7	.21	.00	.00	11	.63	3.1
7	.00	.12	.19	.26	.22	.73	.14	.00	2.8	12	.84	9.5
8	.00	.09	.15	.24	.43	.41	.11	.00	25	.55	.96	2.6
9	.00	.06	.17	.17	.36	.28	.08	.00	2.7	.11	.35	.47
10	.00	.03	1.6	.15	.62	.20	.06	.00	.98	.04	.14	.05
11	.00	.02	1.6	.11	149	.16	.04	.00	.15	27	.04	.02
12	.00	.00	.73	.09	8.1	.14	.03	.00	.05	45	.02	.00
13	.00	.00	.51	.09	3.2	.13	.02	.00	.00	1.8	.02	.00
14	.00	.00	.35	.08	2.4	.11	.02	.00	.00	.38	.01	.00
15	.00	.00	.26	.09	1.9	.09	.02	.00	.01	.13	.00	.00
16	.00	.23	.27	.09	1.6	.10	.02	.00	.01	7.3	.00	.03
17	.00	1.2	.22	.06	1.4	.09	.02	.00	.01	6.4	.00	.18
18	.00	2.5	.16	.05	1.3	.07	.02	.00	.00	.70	.00	.11
19	.00	.71	.13	.06	5.8	.06	.02	.00	.71	.23	.00	.03
20	.00	.36	.10	.06	6.4	.05	.02	.00	.53	.06	.00	.00
21	.00	.23	.07	.16	2.4	.04	.01	.00	.12	.03	.00	.00
22	.00	.14	.06	.19	1.5	.07	.00	.00	.10	.00	.00	.00
23	.00	.11	.10	.18	1.3	3.3	.00	.01	.01	.00	.00	.00
24	.00	25	.14	.14	1.0	2.5	.00	.01	.01	.00	.00	.00
25	.00	8.5	.13	.11	.85	.87	.00	.01	.01	39	.00	.00
26	.00	2.2	.08	.12	.74	.47	.00	.01	.02	3.7	.00	.00
27	.00	8.2	.08	.09	.64	.27	.00	.03	.00	.55	.00	.00
28	.00	4.8	.47	.09	.59	.17	.00	.01	.00	.18	.00	.00
29	.00	1.8	1.0	.06	---	.13	.00	.00	.00	.11	.00	.00
30	.00	.97	.87	.06	---	.24	.00	.00	.00	19	.00	.00
31	.00	---	1.2	.06	---	.56	---	.03	---	4.5	.00	---
TOTAL	11.17	59.54	12.92	4.97	193.84	15.78	4.84	.11	33.27	197.69	20.99	34.09
MEAN	.36	1.98	.42	.16	6.92	.51	.16	.004	1.11	6.38	.68	1.14
MAX	10	25	1.6	.79	149	3.3	2.0	.03	25	45	9.5	18
MIN	.00	.00	.06	.05	.07	.04	.00	.00	.00	.00	.00	.00
CFSM	.09	.50	.11	.04	1.74	.13	.04	.001	.28	1.60	.17	.29
IN.	.10	.56	.12	.05	1.81	.15	.05	.00	.31	1.85	.20	.32

CAL YR 1980 TOTAL 1714.83 MEAN 4.69 MAX 170 MIN .00 CFSM 1.18 IN 16.02
WTR YR 1981 TOTAL 589.21 MEAN 1.61 MAX 149 MIN .00 CFSM .41 IN 5.51

02125699 WICKER BRANCH AT SECONDARY ROAD 1940 NEAR TRINITY, NC

LOCATION.--Lat 34°52'53", long 80°26'24", Union County, Hydrologic Unit 03040105, on left bank at upstream side of bridge on Secondary Road 1940, 2.8 miles (4.5 km) southwest of Allens crossroads, and 4.0 miles (6.4 km) northeast of Trinity.

DRAINAGE AREA.--5.83 mi² (15.1 km²).

PERIOD OF RECORD.--July 1978 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 520 ft (158 m), from topographic map.

REMARKS.--Records good except those below 0.10 ft³/s (0.009 m³/s), which are fair. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,260 ft³/s (35.7 m³/s) Jan. 21, 1979, gage height, 6.98 ft (2.128 m); no flow June 27-30, 1981.

EXTREMES FOR THE CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0445	844	23.9	5.45	1.661	July 11	2230	*1140	32.3	*6.59	2.009

No flow June 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	.61	1.6	1.6	.32	.75	.86	.03	.02	.01	.30	.07
2	4.1	.42	1.2	1.0	1.8	.72	.84	.03	.03	.02	10	.05
3	1.6	.23	.95	.74	1.6	.60	.58	.03	.03	20	4.9	.04
4	1.1	4.4	.73	.63	.77	.55	.46	.03	.06	8.5	.99	.04
5	.50	2.9	.65	.46	.56	2.9	.42	.03	.07	.30	.35	14
6	.30	1.1	.59	.38	.47	3.6	.44	.03	.03	.14	.32	.85
7	.22	.55	.52	.58	.48	1.6	.37	.05	.03	.09	.96	14
8	.17	.45	.49	.69	.97	1.0	.37	.04	6.3	.05	.28	1.9
9	.14	.38	.45	.52	.91	.80	.37	.03	.22	.03	.17	.52
10	.11	.37	2.4	.45	.88	.68	.37	.04	.06	.02	.12	.24
11	.09	.36	3.1	.36	214	.60	.35	.04	.03	134	.09	.14
12	.08	.31	1.4	.29	11	.55	.31	.02	.03	19	.07	.10
13	.07	.28	1.0	.24	4.7	.50	.28	.03	.01	1.3	.78	.08
14	.08	.26	.79	.26	3.4	.47	.24	.03	.01	.39	.28	.07
15	.13	.30	.63	.33	2.7	.41	.21	.04	.01	.22	.12	.08
16	.14	.69	.61	.37	2.1	.41	.18	.01	.01	9.0	.08	.10
17	.13	3.2	.59	.35	1.8	.39	.18	.02	.01	3.8	.06	.09
18	.13	6.8	.50	.28	1.5	.35	.17	.01	.01	.48	.06	.12
19	.20	2.0	.44	.26	39	.45	.16	.02	.06	.21	.28	.09
20	.19	1.1	.39	.27	20	.42	.13	.02	.44	.14	.15	.06
21	.17	.74	.34	.47	6.3	.37	.09	.03	.07	.10	.10	.06
22	.15	.57	.30	.66	3.4	.39	.06	.01	.03	.08	.08	.05
23	.17	.47	.34	.57	2.7	8.9	.06	.01	.01	.07	.06	.05
24	.21	70	.49	.48	1.9	3.7	.05	.01	.01	.07	.06	.06
25	.15	17	.52	.40	1.4	1.7	.05	.01	.01	9.7	.06	.06
26	.08	4.8	.40	.37	1.1	1.1	.04	.01	.02	.56	.06	.07
27	.08	15	.37	.37	.91	.82	.04	.07	.00	.18	.06	.06
28	.14	9.6	1.1	.37	.81	.63	.04	.39	.00	.10	.09	.05
29	.21	4.0	2.9	.36	---	.53	.04	.07	.00	.08	.13	.05
30	1.7	2.3	1.8	.32	---	1.0	.04	.03	.00	3.0	.07	.05
31	1.1	---	2.3	.30	---	1.5	---	.04	---	1.1	.08	---
TOTAL	60.64	151.19	29.89	14.73	327.48	38.39	7.80	1.26	7.62	212.74	21.21	33.20
MEAN	1.96	5.04	.96	.48	11.7	1.24	.26	.041	.25	6.86	.68	1.11
MAX	47	70	3.1	1.6	214	8.9	.86	.39	6.3	134	10	14
MIN	.07	.23	.30	.24	.32	.35	.04	.01	.00	.01	.06	.04
CFSM	.34	.86	.17	.08	2.01	.21	.05	.007	.04	1.18	.12	.19
IN.	.39	.96	.19	.09	2.09	.24	.05	.01	.05	1.36	.14	.21

CAL YR 1980 TOTAL 2442.35 MEAN 6.67 MAX 238 MIN .01 CFSM 1.14 IN 15.58
WTR YR 1981 TOTAL 906.15 MEAN 2.48 MAX 214 MIN .00 CFSM .43 IN 5.78

02126000 ROCKY RIVER NEAR NORWOOD, NC

LOCATION.--Lat 35°08'54", long 80°10'33", Stanly County, Hydrologic Unit 03040105, on left bank 1,000 ft (300 m) downstream from Lanes Creek, 1.5 mi (2.4 km) upstream from bridge on Secondary Road 1935, 6 mi (10 km) southwest of Norwood, and 11.2 mi (18.0 km) upstream from mouth.

DRAINAGE AREA.--1,372 mi² (3,553 km²).

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 (64.895 m) National Geodetic Vertical Datum of 1929, (levels by Corps of Engineers).

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--52 years, 1,327 ft³/s (37.58 m³/s), 13.13 in/yr (334 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft³/s (2,970 m³/s) Sept. 18, 1945, gage height, 46.37 ft (14.134 m), from floodmark; minimum, 17 ft³/s (0.48 m³/s) Oct. 8, 1954, gage height, 0.00 ft (0.000 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1908 reached a stage of 35 ft (10.7 m), from information by local residents, discharge, 67,600 ft³/s (1,910 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 16,000 ft³/s (450 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1700	*24,300	688	*17.66	5.383	July 4	0200	18,600	527	14.72	4.487

Minimum discharge, 75 ft³/s (2.15 m³/s) July 2, gage height, 0.47 ft (0.143 m) July 2; minimum daily, 79 ft³/s (2.24 m³/s) July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2480	300	445	312	171	450	860	151	832	79	430	135
2	1690	222	372	292	176	425	584	143	704	818	280	130
3	601	168	328	261	292	396	465	128	340	2690	903	133
4	345	159	296	232	396	368	391	116	345	9240	618	121
5	239	296	269	208	304	420	345	116	257	1300	345	659
6	179	455	250	188	239	561	340	121	205	567	232	1600
7	145	308	236	185	222	523	336	126	229	372	185	4960
8	135	218	225	222	246	410	300	173	435	340	257	3670
9	128	179	218	232	280	354	280	185	420	257	1390	1290
10	123	162	250	201	288	328	284	154	269	201	1170	572
11	118	143	460	170	16000	316	292	133	188	168	653	372
12	114	138	561	130	10600	308	269	148	4490	737	3770	296
13	102	130	420	154	2670	296	250	143	7100	737	1310	246
14	98	130	332	174	1360	284	236	133	2220	208	501	208
15	93	135	288	201	976	265	222	126	942	182	312	185
16	95	157	265	195	784	250	212	111	465	154	222	218
17	95	225	261	179	672	250	205	102	316	1020	276	512
18	100	450	257	160	612	243	195	93	320	534	261	386
19	98	797	246	162	3660	246	185	98	659	308	1150	261
20	95	496	229	166	8300	239	192	104	517	192	1950	192
21	104	328	205	192	3810	232	208	130	300	359	685	154
22	111	257	185	205	1930	218	205	280	225	201	382	145
23	114	218	173	208	1220	491	192	198	176	157	269	135
24	104	730	176	205	942	1350	182	140	148	179	212	130
25	104	4190	195	188	763	804	182	116	135	2800	182	130
26	107	1410	182	179	630	545	165	109	157	1350	159	162
27	157	737	168	176	550	420	148	109	168	523	145	148
28	145	1270	171	179	491	359	145	126	160	280	135	143
29	130	1030	215	182	---	312	143	205	111	212	126	140
30	138	624	276	182	---	308	140	205	89	612	128	138
31	205	---	304	179	---	797	---	188	---	1070	182	---
TOTAL	8492	16062	8458	6099	58584	12768	8153	4410	22922	27847	18820	17571
MEAN	274	535	273	197	2092	412	272	142	764	898	607	586
MAX	2480	4190	561	312	16000	1350	860	280	7100	9240	3770	4960
MIN	93	130	168	130	171	218	140	93	89	79	126	121
CFSM	.20	.39	.20	.14	1.53	.30	.20	.10	.56	.66	.44	.43
IN.	.23	.44	.23	.17	1.59	.35	.22	.12	.62	.76	.51	.48

CAL YR 1980 TOTAL 486369 MEAN 1329 MAX 27300 MIN 60 CFSM .97 IN 13.19
WTR YR 1981 TOTAL 210186 MEAN 576 MAX 16000 MIN 79 CFSM .42 IN 5.70

PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/29	14 30	0000	1.64	134	410		14.0	5.0	9.2	88.5	28	1.1
80/11/19	12 00	0000	3.11	1800	238		8.0	80.0	9.3	78.2	18	2.6
80/12/16	11 00	0000	2.09	790	252		5.0	10.0	11.4	89.1	20	1.1
81/01/22	12 00	0000	1.92	678	338		4.0	10.0	13.9	106.1	39	1.6
81/02/20	11 30	0000	8.57	8700	97		13.0	200.0	9.2	86.8	41	4.5
81/03/12	12 45	0000	1.21	312	237		12.0	5.0	10.7	99.1	20	2.0
81/04/24	14 40	0000	1.85	635	255		23.0	6.0	8.0	92.0	22	1.7
81/05/29	11 30	0000	1.95	698			25.0	8.0	7.8	92.9		1.5
81/06/25	13 30	0000	0.70	874			32.0	15.0	7.0	94.6		1.3
81/07/28	11 30	0000	2.14	280			29.0	35.0	6.8	87.2		1.1
81/08/19	14 55	0000	2.65	1240			23.0	70.0	7.6	87.4		1.5
81/09/14	12 30	0000	2.90	210			26.0	15.0	7.2	87.8		0.9

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/29	14 30	0000	20	110	0.92	0.050K	0.700	1.200	1.100	10K	50K	50K
80/11/19	12 00	0000	860	54								
80/12/16	11 00	0000	10	56								
81/01/22	12 00	0000	20	77								
81/02/20	11 30	0000	4400	17	2.00	0.100	1.200	0.480	0.100	13	50K	50K
81/03/12	12 45	0000	10K	45								
81/04/24	14 40	0000	10	83								
81/05/29	11 30	0000	110	100	0.79	0.050	0.700	1.300	1.200	10K	50K	50K
81/06/25	13 30	0000	20	64								
81/07/28	11 30	0000	400	42	1.10	0.060	0.600	0.360	0.230			
81/08/19	14 55	0000	1000	70	1.30	0.050K	0.600	0.560	0.390	10K	50K	50K
81/09/14	12 30	0000	90	4	0.94	0.050K	0.400	0.500	0.440			

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/29	14 30	0000	100K	40K	400	100K	50.0K	1.6	50K
81/02/20	11 30	0000	100K	40K	6000	100K	460.0	0.8	50K
81/05/29	11 30	0000	100K	40K	300	100K	80.0	1.4	50K
81/08/19	14 55	0000	100K	40K	1300	100K	150.0	17.0	50K

K Less than noted value.

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 (3 m) downstream from bridge on Secondary Road 1340, 50 ft (15 m) upstream from Black Rock Branch, 0.2 mi (0.3 km) upstream from Norfolk Southern Railway bridge, 0.3 mi (0.5 km) downstream from West Fork Little River, and 3 mi (5 km) west of Star.

DRAINAGE AREA.--106 mi² (275 km²).

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 (124.663 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--27 years, 110 ft³/s (3.115 m³/s), 14.09 in/yr (358 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s (295 m³/s) Oct. 15, 1954, gage height, 16.46 ft (5.017 m); minimum, 0.24 ft³/s (0.007 m³/s) Oct. 4, 5, 1968, gage height, 0.68 ft (0.207 m), may be affected by upstream storage releases for water supply.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached a stage of about 20 ft (6.0 m), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft³/s (65 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1300	3870	110	9.60	2.926	Aug. 12	0900	*7370	209	*13.53	4.124
July 4	0730	2410	68.3	7.51	2.289	Aug. 20	0030	3200	90.6	8.71	2.655

Minimum discharge, 3.4 ft³/s (0.096 m³/s) June 30, July 1, 2, gage height, 1.24 ft (0.378 m); minimum daily, 3.4 ft³/s (0.096 m³/s) July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	27	26	42	27	55	73	34	16	3.4	22	47
2	86	16	23	37	62	53	90	31	16	9.5	18	36
3	38	12	21	32	146	48	64	28	28	32	17	31
4	40	15	20	29	61	46	54	26	29	1280	40	38
5	21	26	19	26	46	59	52	26	24	165	26	60
6	15	28	20	25	46	67	72	26	19	104	16	89
7	12	19	20	28	40	57	70	35	37	134	12	172
8	10	14	20	31	46	51	52	51	41	56	11	174
9	9.2	12	20	31	55	48	49	39	24	33	11	91
10	8.7	10	32	27	47	45	53	33	17	24	9.1	54
11	7.7	10	71	24	2260	44	53	36	14	20	8.9	40
12	7.1	10	51	23	434	44	48	37	37	17	3250	34
13	7.0	11	34	23	125	43	45	33	63	15	229	30
14	7.0	11	28	24	92	43	42	28	35	14	88	28
15	7.2	14	25	25	76	41	41	26	21	13	51	27
16	7.0	18	24	25	66	41	38	24	15	13	63	31
17	7.1	23	25	23	60	41	38	23	12	17	200	38
18	7.3	48	24	22	58	41	39	23	11	13	60	45
19	6.9	44	23	24	486	42	39	23	10	13	779	35
20	7.8	28	22	24	605	41	40	31	9.2	21	1170	28
21	7.8	20	21	26	240	40	38	76	8.8	32	153	24
22	7.8	17	20	29	113	40	36	47	8.0	25	81	23
23	7.8	15	21	28	94	60	35	28	7.4	17	59	22
24	7.2	141	22	27	80	158	36	22	6.4	13	49	21
25	7.1	208	23	26	70	73	36	18	5.7	13	43	19
26	7.2	64	21	25	63	53	35	17	7.1	34	36	19
27	7.6	40	21	25	58	47	32	16	5.9	20	31	19
28	8.5	40	27	25	55	43	30	35	4.6	13	29	18
29	10	40	62	24	---	41	29	26	4.1	11	28	16
30	17	32	74	24	---	51	28	22	3.7	58	163	16
31	29	---	47	25	---	112	---	18	---	26	74	---
TOTAL	493.0	1013	907	829	5611	1668	1387	938	539.9	2258.9	6827.0	1325
MEAN	15.9	33.8	29.3	26.7	200	53.8	46.2	30.3	18.0	72.9	220	44.2
MAX	86	208	74	42	2260	158	90	76	63	1280	3250	174
MIN	6.9	10	19	22	27	40	28	16	3.7	3.4	8.9	16
CFSM	.15	.32	.28	.25	1.89	.51	.44	.29	.17	.69	2.08	.42
IN.	.17	.36	.32	.29	1.97	.59	.49	.33	.19	.79	2.40	.46

CAL YR 1980 TOTAL 34583.5 MEAN 94.5 MAX 1680 MIN 1.6 CFSM .89 IN 12.14
WTR YR 1981 TOTAL 23796.8 MEAN 65.2 MAX 3250 MIN 3.4 CFSM .62 IN 8.35

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 (4.0 km) upstream from Falling Creek, 3.3 mi (5.3 km) downstream from Blewett Falls hydroelectric plant, 6 mi (10 km) west of Rockingham, and 192 mi (309 km) upstream from mouth in Winyah Bay.

DRAINAGE AREA.--6,863 mi² (17,780 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1906 to January 1912, October 1927 to current year. Published as Yadkin River near Pee Dee, NC, 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 (36.783 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). August 1906 to January 1912, nonrecording gage at site 3.3 mi (5.3 km) upstream at different datum. September 1927 to Sept. 30, 1931, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Water-discharge record good. Flow regulated since 1928 by Blewett Falls Lake and five other reservoirs upstream. (See p. 329).

AVERAGE DISCHARGE.--59 years (1906-11, 1927-81), 8,019 ft³/s (227.1 m³/s), 15.87 in/yr (403 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 276,000 ft³/s (7,820 m³/s) Aug. 27, 1908, gage height, 31.28 ft (9.534 m), present site and datum, from records of State Highway Commission; minimum, 50 ft³/s (1.42 m³/s) Dec. 2, 3, 1951; minimum daily, 58 ft³/s (1.64 m³/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 ft³/s (2.72 m³/s) Oct. 25, 1943; minimum daily, 120 ft³/s (3.40 m³/s) Oct. 8, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,400 ft³/s (1,290 m³/s) Feb. 12, gage height, 9.40 ft (2.865 m); minimum, 155 ft³/s (4.39 m³/s) July 18, 19, gage height, 0.64 ft (0.195 m); minimum daily, 158 ft³/s (4.47 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8040	1090	3240	2860	680	2250	5690	1940	190	3020	321	5560
2	7060	610	3470	2610	2450	4750	6270	692	4830	4180	197	2270
3	3370	2540	4920	2120	2970	6350	3560	670	7850	7480	3470	1350
4	3580	4920	6690	895	3290	7300	1560	1220	9290	27600	4000	1130
5	1230	4330	4090	3240	6150	9830	1060	1020	9560	13300	6580	399
6	3280	4880	1460	4450	3290	5360	4040	2700	8940	7610	6360	2550
7	3540	3490	1060	3520	1900	240	4820	2700	8110	5250	2030	7310
8	4410	2360	3630	5780	937	657	7250	2500	8280	1730	462	9820
9	4750	1540	3590	2120	3630	5400	4140	3860	10300	2800	419	9880
10	2980	4750	4160	3210	7340	4910	1850	1570	8050	7540	4330	9330
11	350	2040	6410	304	15900	5140	1050	1160	8510	3430	3480	7620
12	1420	5740	4710	3010	33800	5400	299	3110	7790	380	6650	989
13	4160	3490	1420	4660	14400	6560	3840	3040	12500	3660	13500	501
14	2250	4250	1480	3820	10200	945	4940	2210	11000	7620	10600	6520
15	4800	4540	3310	2550	4140	3100	2290	882	5310	439	4470	4090
16	4540	3280	3890	5080	3950	3310	4410	262	5180	1380	310	1590
17	2860	4250	4490	1320	4060	3700	4960	262	5820	1320	1050	5020
18	271	5870	5830	368	7260	3700	526	3990	5250	280	4150	7000
19	262	2470	3590	2670	8200	4000	650	4010	4340	158	8780	7950
20	3180	1560	2220	2980	15900	4800	4520	4200	1500	3520	9620	1950
21	5360	3490	2170	3080	14700	1630	4180	3080	1210	3850	8360	1520
22	3630	1940	5610	2430	9660	1490	1520	1170	3180	1480	2730	1090
23	3490	236	934	3100	7660	5140	632	350	3110	338	426	2690
24	4540	4370	4010	1440	8420	1970	1050	219	3710	209	3470	2110
25	446	5960	1280	280	7750	5410	454	219	5130	2370	4020	1060
26	294	8680	3780	2900	5900	7000	290	2680	3650	3350	419	1320
27	3520	7520	2380	2340	8470	4900	344	3860	1870	4760	1300	1320
28	3590	3180	2410	5150	5720	1190	462	6020	703	4950	1630	2280
29	3010	4120	2380	2800	---	1610	1900	3060	1460	3070	299	3430
30	5830	2300	2520	5500	---	5420	2190	3700	2120	2670	285	6370
31	5650	---	4920	2330	---	4180	---	921	---	3360	2600	---
TOTAL	105693	109896	106554	88917	218627	127642	80747	67277	168743	133104	116318	116019
MEAN	3409	3663	3437	2868	7808	4117	2692	2170	5625	4294	3752	3867
MAX	8040	8680	6690	5780	33800	9830	7250	6020	12500	27600	13500	9880
MIN	262	236	934	280	680	240	290	219	190	158	197	399
(†)	-612	+199	-746	-473	+1200	+268	+1031	+759	-356	+99	-761	+88

CAL YR 1980 TOTAL 3033740 MEAN 8289 MAX 54700 MIN 223 MEAN‡ 8196 CFSM‡ 1.19 IN‡ 16.20
WTR YR 1981 TOTAL 1439537 MEAN 3944 MAX 33800 MIN 158 MEAN‡ 3991 CFSM‡ .58 IN‡ 7.87

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir, furnished by Corps of Engineers; High Rock Lake, Tuckertown Reservoir, and Badin Lake, furnished by Yadkin, Inc.; and Lake Tillery and Blewett Falls Lake, furnished by Carolina Power and Light Co.

‡ Adjusted for change in contents.

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued
(National stream-quality accounting network and pesticide station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-48, 1958 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1967, July to September 1973, March 1974 to current year.
WATER TEMPERATURES: October 1946 to September 1948, October 1957 to September 1967, July to September 1973, March 1974 to current year.

REMARKS.--Station operated as part of NASQAN network from October 1974 to present. Miscellaneous chemical data published for water years 1945, 1955-56. Daily records of specific conductance for water years 1958-64 are available in files of district office in Raleigh, NC. Flow regulated by Blewett Falls Lake and five other reservoirs upstream.

COOPERATION.--Pesticide samples were collected by the U.S. Geological Survey and were analyzed by the Environmental Protection Agency. Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 140 micromhos May 25, 1967, July 28, 1981; minimum daily, 48 micromhos July 15, 1975, Feb. 25, 1979.
WATER TEMPERATURES: Maximum daily, 33.0°C July 11, 1977; minimum daily, 0.0°C on many days in 1961-62.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 140 micromhos July 28; minimum daily, 65 micromhos July 7.
WATER TEMPERATURES: Maximum daily, 30.5°C July 21; minimum daily, 3.0°C Jan. 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT											
14...	1215	244	82	6.4	17.5	1.6	8.1	K1	K5	17	0
NOV											
12...	1230	7080	88	7.3	15.0	10	9.3	K1	K2	21	0
DEC											
09...	1200	5360	88	7.3	11.0	3.2	11.0	K2	K2	20	0
JAN											
21...	1200	8070	102	5.7	4.5	3.4	12.6	K10	K7	22	0
FEB											
23...	1200	8250	85	6.4	11.0	18	9.8	--	100	24	5
MAR											
17...	1300	1540	100	6.8	10.5	4.0	13.4	K1	K1	23	0
APR											
20...	1230	6180	88	7.5	18.0	14	9.2	20	88	21	0
MAY											
12...	1100	3590	110	7.0	19.5	11	8.0	K1	K470	22	0
JUN											
15...	1130	6270	85	6.5	24.0	80	6.0	42	53	21	0
JUL											
27...	1015	3780	102	6.6	28.0	17	--	K1	K260	21	0
AUG											
18...	1215	6140	89	6.7	26.0	29	4.2	K13	--	19	0
SEP											
14...	1130	7980	84	6.4	24.5	29	4.8	20	K190	23	3

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
14...	3.6	2.0	8.2	47	.9	2.5	28	0	23	14	6.6
NOV											
12...	4.8	2.2	13	53	1.2	2.8	42	0	34	2.3	9.6
DEC											
09...	4.7	2.0	9.8	48	1.0	2.3	31	0	25	2.2	7.7
JAN											
21...	5.3	2.1	9.9	46	.9	2.4	33	0	27	93	7.3
FEB											
23...	5.8	2.4	7.7	38	.7	2.1	24	0	20	16	11
MAR											
17...	5.7	2.1	9.4	44	.9	2.2	30	0	25	6.5	7.4
APR											
20...	5.1	2.1	9.3	45	.9	2.4	34	0	28	1.4	8.9
MAY											
12...	5.0	2.4	13	52	1.2	2.6	42	0	34	5.1	8.8
JUN											
15...	5.0	2.1	8.3	42	.8	2.7	25	0	21	10	8.0
JUL											
27...	4.8	2.3	9.9	46	.9	3.0	27	0	22	13	8.0
AUG											
18...	4.3	2.0	9.0	--	.9	--	26	0	21	7.8	7.8
SEP											
14...	5.2	2.3	6.4	35	.6	2.7	24	0	20	14	7.2

K Results based on colony count outside the acceptable range (non-ideal colony count).

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (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)
OCT											
14...	6.8	.2	10	62	52	.08	40.8	.36	.39	.070	.080
NOV											
12...	9.6	.2	12	78	70	.11	1490	.46	.52	.020	.110
DEC											
09...	7.7	.1	13	71	63	.10	1030	.60	.62	.010	.040
JAN											
21...	9.0	.1	12	72	65	.10	1570	.53	.56	.010	.040
FEB											
23...	9.4	.1	9.9	87	65	.12	1940	.86	.93	.140	.140
MAR											
17...	8.8	.1	9.0	67	59	.09	279	.32	.35	.020	.040
APR											
20...	8.8	.1	8.6	68	61	.09	1140	.39	.40	.080	.110
MAY											
12...	11	.1	9.4	69	70	.09	669	.36	.41	.110	.230
JUN											
15...	7.1	.2	9.3	67	56	.09	1130	.66	.67	.150	.130
JUL											
27...	8.8	.2	8.0	75	63	.10	765	.45	.54	.090	.160
AUG											
18...	7.1	.1	7.2	57	53	.08	945	.36	--	.040	.200
SEP											
14...	6.6	.1	7.4	67	51	.09	1440	.42	.43	.100	.140

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)
OCT										
14...	.08	.10	.39	.35	.46	.03	.43	.82	3.6	.82
NOV										
12...	.02	.14	.15	--	.17	--	--	.63	2.8	--
DEC										
09...	.01	.05	.16	.15	.17	.00	.19	.77	3.4	.81
JAN										
21...	.01	.05	.23	.13	.24	.07	.17	.77	3.4	.73
FEB										
23...	--	.18	.48	.35	.62	.13	.49	1.5	6.6	1.4
MAR										
17...	--	.05	.25	.14	.27	.09	.18	.59	2.6	.53
APR										
20...	--	.14	.48	.52	.56	.00	.63	.95	4.2	1.0
MAY										
12...	--	.30	.49	.44	.60	.00	.67	.96	4.3	1.2
JUN										
15...	--	.17	.44	.47	.59	.00	.60	1.3	5.5	1.3
JUL										
27...	--	.21	.64	.43	.73	.14	.59	1.2	5.2	1.1
AUG										
18...	--	.26	.49	--	.53	--	--	.89	3.9	--
SEP										
14...	--	.18	.53	.45	.63	.04	.59	1.1	4.6	1.0

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT 14...	.040	.12	.030	--	--	--	--	--	--	--
NOV 12...	.080	.25	.090	1	0	1	100	80	20	0
DEC 09...	.040	.12	.030	--	--	--	--	--	--	--
JAN 21...	.050	.15	.030	1	0	1	<50	--	20	0
FEB 23...	.120	.37	<.010	--	--	--	--	--	--	--
MAR 17...	.060	.18	.030	--	--	--	--	--	--	--
APR 20...	.060	.18	.040	--	--	--	--	--	--	--
MAY 12...	.060	.18	.030	0	0	0	<50	--	20	1
JUN 15...	.160	.49	.050	--	--	--	--	--	--	--
JUL 27...	.080	.25	.050	--	--	--	--	--	--	--
AUG 18...	.090	.28	.040	--	--	--	--	--	--	--
SEP 14...	.100	.31	.050	2	0	2	100	0	100	<1

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV, (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
OCT 14...	--	--	--	--	--	--	--	--	--	--
NOV 12...	0	1	20	10	10	0	0	0	2	0
DEC 09...	--	--	--	--	--	--	--	--	--	--
JAN 21...	0	1	10	--	<10	0	0	1	2	2
FEB 23...	--	--	--	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	<1	10	0	10	1	1	0	3	0
JUN 15...	--	--	--	--	--	--	--	--	--	--
JUL 27...	--	--	--	--	--	--	--	--	--	--
AUG 18...	--	--	--	--	--	--	--	--	--	--
SEP 14...	--	<1	20	10	10	1	--	<1	6	3

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT										
14...	--	--	--	--	--	--	--	--	--	--
NOV										
12...	3	560	490	70	0	0	1	60	40	20
DEC										
09...	--	--	--	--	--	--	--	--	--	--
JAN										
21...	0	500	390	110	0	0	0	60	30	30
FEB										
23...	--	--	--	--	--	--	--	--	--	--
MAR										
17...	--	--	--	--	--	--	--	--	--	--
APR										
20...	--	--	--	--	--	--	--	--	--	--
MAY										
12...	4	560	440	120	1	1	0	120	60	60
JUN										
15...	--	--	--	--	--	--	--	--	--	--
JUL										
27...	--	--	--	--	--	--	--	--	--	--
AUG										
18...	--	--	--	--	--	--	--	--	--	--
SEP										
14...	3	1200	1000	170	4	2	2	150	90	60

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
OCT									
14...	--	--	--	--	--	--	--	--	--
NOV									
12...	.2	.0	.2	7	1	6	0	0	0
DEC									
09...	--	--	--	--	--	--	--	--	--
JAN									
21...	.1	--	<.1	0	0	3	0	0	0
FEB									
23...	--	--	--	--	--	--	--	--	--
MAR									
17...	--	--	--	--	--	--	--	--	--
APR									
20...	--	--	--	--	--	--	--	--	--
MAY									
12...	<.1	--	<.1	6	4	2	0	0	0
JUN									
15...	--	--	--	--	--	--	--	--	--
JUL									
27...	--	--	--	--	--	--	--	--	--
AUG									
18...	--	--	--	--	--	--	--	--	--
SEP									
14...	<.1	--	<.1	3	2	1	<1	--	<1

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT 14...	--	--	--	--	--	--	5.4	--	--
NOV 12...	0	0	0	10	9	1	--	3.6	.4
DEC 09...	--	--	--	--	--	--	4.8	--	--
JAN 21...	2	1	1	20	10	7	--	4.3	.4
FEB 23...	--	--	--	--	--	--	9.9	--	--
MAR 17...	--	--	--	--	--	--	3.0	--	--
APR 20...	--	--	--	--	--	--	4.4	--	--
MAY 12...	0	0	0	50	--	<4	--	3.0	.5
JUN 15...	--	--	--	--	--	--	5.5	--	--
JUL 27...	--	--	--	--	--	--	5.8	--	--
AUG 18...	--	--	--	--	--	--	6.3	--	--
SEP 14...	<1	--	<1	40	--	<10	--	5.6	.8

WATER QUALITY DATA, PERIOD MARCH TO SEPTEMBER 1980

DATE	TIME	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
MAY 14...	1020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 19...	1300	--	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
MAY 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND Not detected.

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

PHYTOPLANKTON ANALYSES, SEPTEMBER 1980

DATE	SEP 9.80
TIME	1200
TOTAL CELLS/ML	1400
DIVERSITY: DIVISION	1.0
.CLASS	1.0
..ORDER	1.0
...FAMILY	1.0
....GENUS	1.3

ORGANISM	CELLS /ML	PER-CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	500#	35
....MELOSIRA	78	5
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..HORMOGONALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	830#	58
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..PERIDINIALES		
...GLENODINIACEAE		
....GLENODINIUM	13	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 12,80		MAR 17,81		MAY 12,81		JUN 15,81		JUL 27,81		AUG 18,81	
TIME	1230		1300		1100		1130		1015		1215	
TOTAL CELLS/ML	230		7100		1800		600		1900		4100	
DIVERSITY: DIVISION	0.8		0.0		0.3		1.5		1.1		1.6	
.CLASS	0.8		0.0		0.3		1.5		1.1		1.6	
..ORDER	1.1		0.2		0.5		2.1		1.9		2.1	
...FAMILY	1.1		0.2		0.5		2.5		2.0		2.4	
....GENUS	1.1		0.2		1.0		2.7		2.5		3.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	26	1	*	0
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	--	-	450	11
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-	*	0
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	26	1	14	2	--	-	28	1
....KIRCHNERIELLA	--	-	--	-	--	-	28	5	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	13	1	*	0
...SCENEDESMACEAE												
....CRUCIGENIA	--	-	--	-	--	-	140#	23	150	8	--	-
....SCENEDESMUS	--	-	--	-	26	1	--	-	130	7	280	7
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	26	11	--	-	--	-	28	5	--	-	84	2
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIUM	--	-	--	-	--	-	--	-	--	-	*	0
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	180#	78	--	-	26	1	14	2	120	6	380	9
....MELOSIRA	--	-	--	-	1500#	85	180#	30	77	4	770#	19
....STEPHANODISCUS	--	-	6900#	96	130	7	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	14	2	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	270	4	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	--	-	13	1	*	0
...NAVICULACEAE												
....GYROSIGMA	--	-	--	-	--	-	14	2	--	-	--	-
....NAVICULA	--	-	--	-	--	-	--	-	13	1	*	0
...NITZSCHIACEAE												
....NITZSCHIA	13	6	--	-	51	3	56	9	--	-	150	4
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	--	-	--	-	410#	22	900#	22
....ANACYSTIS	13	6	--	-	26	1	110#	19	26	1	390	10
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-	350	9
..HORMOGONALES												
...NOSTOCACEAE												
....CYLINDROSPERMUM	--	-	--	-	--	-	--	-	--	-	170	4
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	820#	44	--	-
....PHORMIDIUM	--	-	--	-	--	-	--	-	77	4	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-	42	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	95	93	102	107	97	110	109	118	94	116	102
2	95	92	100	122	117	96	99	124	118	107	106	102
3	107	88	97	110	102	96	117	112	113	117	102	102
4	110	86	98	102	122	96	114	117	118	99	110	107
5	113	90	81	101	120	94	104	123	113	97	128	112
6	107	105	86	104	127	98	113	112	108	69	126	112
7	93	102	82	102	112	116	104	113	98	65	108	122
8	87	102	84	102	122	110	114	119	108	70	94	112
9	86	98	96	110	122	98	111	131	108	89	106	94
10	92	88	102	102	122	98	95	121	113	86	98	80
11	84	86	102	98	94	98	101	113	113	89	92	80
12	85	88	99	99	90	98	105	118	108	90	90	92
13	75	96	96	117	102	96	98	124	92	90	72	89
14	75	93	88	100	86	107	114	122	86	98	82	87
15	80	82	102	112	88	101	109	122	97	95	93	87
16	85	81	102	117	91	100	113	118	97	95	95	87
17	81	82	112	116	90	108	108	118	102	98	105	99
18	81	82	122	117	96	112	111	127	90	95	99	94
19	79	85	112	122	112	115	109	125	102	104	98	98
20	80	87	105	102	98	118	102	122	90	96	96	98
21	78	84	97	114	91	111	111	122	89	90	96	94
22	79	86	102	122	94	106	104	120	102	124	106	92
23	90	92	99	133	95	97	114	118	112	127	92	92
24	86	105	107	133	95	103	98	113	112	102	95	92
25	84	101	105	122	96	100	96	113	98	121	90	91
26	85	93	102	122	97	126	105	113	112	114	102	92
27	84	95	102	122	95	137	103	113	104	117	98	94
28	82	101	85	112	97	119	104	113	102	140	92	96
29	84	99	89	128	---	105	118	132	101	132	102	99
30	84	93	102	132	---	105	112	127	101	112	108	98
31	90	---	100	124	---	109	---	118	---	114	97	---
MEAN	88	92	98	114	103	105	107	119	104	101	100	97

WTR YR 1981 MEAN 102 MAX 140 MIN 65

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	16.5	10.0	7.0	6.0	---	14.0	20.0	26.0	26.0	27.0	26.5
2	23.0	16.5	10.0	7.0	6.5	---	14.5	20.5	23.0	26.0	25.0	26.0
3	22.0	16.0	9.5	6.0	5.5	---	14.0	20.5	24.0	26.0	26.0	26.5
4	22.0	15.5	10.0	5.0	5.0	---	15.5	21.5	24.5	23.5	28.0	26.0
5	22.0	15.5	9.5	6.0	5.0	---	14.5	23.0	24.0	24.0	28.0	25.5
6	21.0	15.0	9.5	5.5	4.0	---	15.0	20.5	24.0	25.0	28.0	26.0
7	21.5	15.5	10.0	5.5	4.5	---	15.5	18.0	24.5	26.0	30.0	26.5
8	21.0	16.0	10.0	4.5	4.5	---	16.0	19.0	24.5	28.5	27.5	26.0
9	21.0	16.0	10.0	5.5	4.5	---	14.5	19.0	25.0	29.0	28.0	25.5
10	21.5	16.0	11.0	5.5	5.0	---	17.0	19.5	25.0	29.5	28.0	---
11	22.5	14.0	11.0	3.0	7.5	---	16.0	19.5	26.0	29.0	28.0	---
12	22.5	14.0	10.5	4.0	6.0	---	17.5	19.0	25.5	30.0	27.0	---
13	20.5	15.0	10.5	4.0	6.0	---	16.5	21.5	26.0	29.0	26.5	26.0
14	21.5	14.5	10.0	4.0	6.0	---	18.0	22.0	25.5	29.5	26.0	26.0
15	20.5	14.0	9.5	5.0	7.0	---	19.0	21.0	26.5	29.5	27.0	25.0
16	20.0	13.5	9.5	4.5	7.0	---	18.0	21.5	27.0	28.0	27.0	25.0
17	20.5	13.0	9.5	4.5	7.5	10.5	17.0	21.5	27.5	28.5	27.0	25.0
18	21.0	12.5	9.0	4.5	7.5	10.5	20.5	20.5	27.0	29.5	26.5	24.5
19	22.0	12.0	9.0	5.0	8.0	10.0	19.0	20.0	27.0	29.5	27.0	24.5
20	20.5	12.5	8.0	4.5	8.5	9.5	17.5	19.0	27.0	29.0	26.5	25.0
21	21.0	12.0	6.5	4.5	9.5	10.5	18.0	20.5	27.0	30.5	26.0	25.0
22	20.5	11.5	7.0	5.0	---	8.0	18.0	22.0	28.0	29.0	26.5	25.0
23	19.0	11.0	7.0	5.5	---	7.5	18.0	24.5	28.0	29.5	26.5	24.5
24	18.0	11.0	6.5	5.5	---	10.5	20.0	24.0	29.0	28.5	26.0	24.0
25	17.5	12.0	6.0	6.0	---	10.0	19.0	24.5	29.0	29.0	26.0	22.0
26	17.0	11.5	6.0	6.0	---	10.0	19.5	23.0	28.5	29.0	26.5	21.0
27	17.0	11.0	6.0	5.5	---	10.5	23.0	22.5	28.0	29.5	26.5	21.5
28	16.5	6.5	6.5	7.0	---	14.0	21.5	23.0	28.0	29.5	25.0	22.0
29	16.5	9.5	6.0	8.0	---	13.5	21.0	24.5	27.5	28.5	26.0	22.0
30	14.5	11.0	6.0	5.5	---	12.0	21.0	24.0	26.5	28.0	26.5	23.0
31	15.0	---	6.0	6.0	---	14.5	---	25.0	---	28.0	27.0	---
MEAN	20.0	13.5	8.5	5.5	6.0	11.0	17.5	21.5	26.5	28.0	27.0	24.5

WTR YR 1981 MEAN 18.0 MAX 30.5 MIN 3.0

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
14...	1215	244	5	3.3	94
NOV					
12...	1230	7080	14	268	83
DEC					
09...	1200	5360	8	116	94
JAN					
21...	1200	8070	11	240	89
FEB					
23...	1200	8250	42	936	96
MAR					
17...	1300	1540	21	87	94
APR					
20...	1230	6180	17	284	84
MAY					
12...	1100	3590	17	165	96
JUN					
15...	1130	6270	54	914	96
JUL					
27...	1015	3780	17	174	96
AUG					
18...	1215	6140	37	613	95
SEP					
14...	1130	7980	32	689	95

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/23	12 50	0000	3.30	5650	70	6.10	18.0	4.6	8.8	92.6	10	0.6
80/11/20	12 33	0000	2.39	2220	70	6.30	12.0	4.3	10.2	94.4	13	0.9
80/12/30	10 35	0000	2.15	1730	40	6.10	7.0	4.0	9.8	80.3	10K	0.4
81/01/27	12 43	0000	2.68	3280	115	6.40	10.0	6.0	12.2	108.0	10K	0.7
81/02/19	14 20	0000	3.83	7790	97	7.06	10.0	20.0	11.0	97.3	10K	1.2
81/03/26	15 25	0000	3.88	7980	134		13.0	10.0			11	0.8
81/04/21	14 20	0000	2.56	2580	122		20.0	5.0	9.3	101.1	14	1.0
81/05/19	13 22	0000	3.52	6280		7.17	22.0	10.0	7.1	80.7		1.4
81/06/17	14 00	0000	3.48	6100		7.00	28.0	75.0	4.9	62.0		1.1
81/07/22	13 00	0000	0.80	204		7.03	23.0	15.0	7.5	86.2		0.7
81/08/24	12 35	0000	1.15	374		6.53	21.0	2.0	6.5	72.2		1.2
				387								
81/09/29	14 40	0000	1.30	419		7.72	24.0	5.0	8.7	102.0		0.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/23	12 50	0000	10K		0.29	0.050	0.400	0.060	0.050K			
80/11/20	12 33	0000	10K		0.43	0.050K	0.300	0.050	0.050K			
80/12/30	10 35	0000	10		0.44	0.050K	0.200	0.050	0.050K	10K	50K	50K
81/01/27	12 43	0000	10K		0.55	0.050	0.200	0.080	0.050K			
81/02/19	14 20	0000	40		0.73	0.090	0.300	0.100	0.050K			
81/03/26	15 25	0000	60	22	0.50	0.070	0.400	0.160	0.070	10K	50K	50K
81/04/21	14 20	0000	20	23	0.37	0.050	0.400	0.060	0.050K			
81/05/19	13 22	0000	110		0.36	0.170	0.500	0.060	0.050K			
81/06/17	14 00	0000	20		0.76	0.140	0.500	0.140	0.050	10K	50K	50K
81/07/22	13 00	0000	40		0.44	0.050K	0.300	0.070	0.050K			
81/08/24	12 35	0000	50		0.05K	0.050K	0.600	0.050	0.050K			
81/09/29	14 40	0000	10		0.22	0.060	0.400	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/30	10 35	0000	100K	40K	300	100K	50.0K	0.8	50K
81/03/26	15 25	0000	100K	40K	600	100K	90.0	0.5K	50K
81/06/17	14 00	0000	100K	40K	800	100K	50.0K	1.0	50K
81/09/29	14 40	0000	100K	40K	200	100K	60.0	0.5K	50K

K Less than noted value.

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 (3 m) downstream from bridge on U.S. Highway 1, 0.8 mi (1.3 km) downstream from Deep Creek, 1 mi (2 km) upstream from Seaboard Coast Line Railroad bridge, and 4 mi (6 km) northeast of Hoffman.

DRAINAGE AREA.--183 mi^2 (474 km^2).

PERIOD OR RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 972: 1941(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--42 years, 259 ft^3/s (7.335 m^3/s), 19.22 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft^3/s (309 m^3/s) Sept. 18, 1945, gage height, 10.29 ft (3.136 m); minimum, 22 ft^3/s (0.62 m^3/s) Oct. 5, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 807 ft^3/s (22.9 m^3/s) Oct. 2, gage height, 6.01 ft (1.832 m), no peak above base of 850 ft^3/s (24 m^3/s); minimum, 26 ft^3/s (0.74 m^3/s) June 30, gage height, 1.28 ft (0.390 m); minimum daily, 28 ft^3/s (0.79 m^3/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	486	277	190	266	147	206	186	85	67	40	36	85
2	744	252	180	222	177	200	170	124	67	39	37	70
3	744	180	175	195	229	196	151	96	72	64	112	63
4	568	169	169	183	249	191	140	79	74	150	137	64
5	423	228	164	174	203	207	134	72	77	190	80	82
6	334	285	162	164	171	239	150	67	66	237	57	126
7	306	264	160	172	164	238	151	125	61	239	74	119
8	256	193	158	193	170	204	136	187	95	136	63	177
9	199	169	159	198	175	186	129	160	80	88	190	247
10	171	158	175	181	169	178	131	115	61	71	685	253
11	155	150	237	168	206	174	132	142	50	61	546	177
12	142	143	306	136	310	169	126	187	49	60	222	106
13	130	139	306	126	458	162	121	147	91	53	154	89
14	124	139	264	157	541	159	117	100	130	40	288	81
15	124	142	198	165	481	153	117	85	81	55	458	73
16	122	171	183	163	340	150	112	75	58	70	477	66
17	119	197	181	158	259	150	108	69	45	69	378	65
18	118	247	182	151	225	148	108	64	42	65	263	80
19	127	322	174	147	232	152	106	63	53	50	175	85
20	162	349	166	148	296	153	109	65	90	40	228	69
21	175	306	159	163	402	146	117	77	82	42	267	62
22	145	234	153	197	541	143	112	83	56	58	212	61
23	130	194	161	212	546	164	106	67	42	49	140	57
24	138	191	179	187	427	191	105	57	35	42	120	53
25	151	229	181	166	319	191	100	51	31	43	105	52
26	149	271	171	157	266	167	93	49	29	43	91	50
27	139	285	160	153	237	151	90	57	33	42	79	52
28	130	279	175	154	219	145	86	135	37	34	73	49
29	130	232	211	150	---	138	80	161	29	30	72	47
30	163	208	261	145	---	142	72	116	28	32	73	45
31	226	---	276	145	---	174	---	83	---	35	93	---
TOTAL	7230	6603	5976	5296	8159	5367	3595	3043	1811	2267	5985	2705
MEAN	233	220	193	171	291	173	120	98.2	60.4	73.1	193	90.2
MAX	744	349	306	266	546	239	186	187	130	239	685	253
MIN	118	139	153	126	147	138	72	49	28	30	36	45
CFSM	1.27	1.20	1.06	.93	1.59	.95	.66	.54	.33	.40	1.06	.49
IN.	1.47	1.34	1.21	1.08	1.66	1.09	.73	.62	.37	.46	1.22	.55

CAL YR 1980 TOTAL 89492 MEAN 245 MAX 873 MIN 44 CFSM 1.34 IN 18.19
WTR YR 1981 TOTAL 58037 MEAN 159 MAX 744 MIN 28 CFSM .87 IN 11.80

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 (15 m) downstream from bridge on U.S. Highway 74, 1 mi (1.6 km) downstream from Seaboard Coast Line Railroad bridge at Boardman, 1.5 mi (2.4 km) downstream from Big Swamp, and 40.5 mi (65.2 km) upstream from mouth.

DRAINAGE AREA.--1,228 mi² (3,181 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1929 to current year.

REVISED RECORDS.--WSP 892: Drainage area. WSP 1303: 1932(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 72.05 ft (21.961 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 30, 1936, nonrecording gage at site 100 ft (30 m) downstream at same datum. Sept. 30, 1936, to June 8, 1943, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--52 years, 1,327 ft³/s (37.58 m³/s), 14.68 in/yr (373 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft³/s (379 m³/s) Sept. 24, 1945, gage height, 10.64 ft (3.243 m); minimum, 66 ft³/s (1.87 m³/s) Oct. 9, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1928 reached a stage of 11.8 ft (3.60 m), from floodmark witnessed by local resident, discharge, 25,000 ft³/s (708 m³/s). Flood of July 22, 1901, the highest during the period 1896-1913, reached a stage of 10.8 ft (3.29 m), from observations by Butters Lumber Co., discharge, 14,800 ft³/s (419 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) Aug. 26, gage height, 6.16 ft (1.878 m); minimum, 176 ft³/s (4.98 m³/s) Sept. 30; minimum gage height, 1.51 ft (0.460 m) July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	384	577	658	580	804	659	220	325	238	436	995
2	364	397	565	659	585	807	647	212	334	208	544	906
3	406	404	543	657	590	808	610	205	393	228	703	824
4	445	414	530	656	600	816	575	198	567	360	769	682
5	474	430	523	661	610	875	559	194	544	477	842	569
6	502	450	522	669	620	872	552	192	496	623	871	488
7	526	470	520	685	630	841	544	210	475	644	911	455
8	564	480	514	693	640	806	542	259	451	660	880	414
9	616	484	499	689	650	780	532	280	429	681	885	420
10	682	484	490	680	642	756	512	294	401	711	921	457
11	751	476	495	660	689	742	493	309	329	724	876	469
12	781	461	486	650	724	735	476	330	298	714	788	480
13	759	450	484	640	745	734	457	354	285	691	648	483
14	706	445	489	620	768	724	438	375	278	684	657	474
15	639	450	498	610	781	701	426	376	257	682	676	462
16	573	453	511	600	790	668	405	353	226	678	647	455
17	514	440	524	600	797	627	383	333	207	683	623	501
18	455	430	533	600	804	586	364	322	237	657	601	519
19	400	414	541	605	830	571	347	299	317	617	793	455
20	359	406	546	610	862	561	336	270	626	579	1220	416
21	330	425	551	610	889	547	323	311	665	535	1370	368
22	319	448	556	610	913	534	311	298	681	458	1580	331
23	314	464	578	615	944	550	299	287	650	374	1670	298
24	316	481	594	620	964	571	286	307	549	340	1660	276
25	323	496	584	620	959	598	275	311	509	316	1680	256
26	325	510	573	615	917	618	268	290	466	311	1680	239
27	328	528	575	610	869	628	258	264	440	304	1640	222
28	332	550	614	605	830	631	249	243	425	272	1530	208
29	331	569	638	600	---	636	241	258	412	243	1400	193
30	344	578	640	595	---	646	231	308	329	271	1270	181
31	369	---	650	590	---	657	---	323	---	371	1130	---
TOTAL	14469	13871	16943	19592	21222	21430	12598	8785	12601	15334	31901	13496
MEAN	467	462	547	632	758	691	420	283	420	495	1029	450
MAX	781	578	650	693	964	875	659	376	681	724	1680	995
MIN	314	384	484	590	580	534	231	192	207	208	436	181
CFSM	.38	.38	.45	.52	.62	.56	.34	.23	.34	.40	.84	.37
IN.	.44	.42	.51	.59	.64	.65	.38	.27	.38	.46	.97	.41

CAL YR 1980 TOTAL 433016 MEAN 1183 MAX 4990 MIN 122 CFSM .96 IN 13.12
WTR YR 1981 TOTAL 202242 MEAN 554 MAX 1680 MIN 181 CFSM .45 IN 6.13

02134500 LUMBER RIVER AT BOARDMAN, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/16	14 20 0000		3.95	576	90	6.20	16.0	1.3	11.0	110.0	45	1.1
80/11/18	12 50 0000		3.53	430	80	6.10	11.0	1.2	9.2	82.9	45	0.7
80/12/16	13 40 0000		2.68	338	60	6.20	9.0	3.0	9.7	83.6	26	0.5
81/01/15	13 35 0000		2.30	242								
81/02/24	12 30 0000		5.21	969	79	6.10	13.0	3.0	8.6	81.1	35	1.2
81/03/24	14 21 0000		5.15	964			10.0	4.0	10.4	92.0	27	1.0
81/04/14	13 35 0000		5.08	883	132		21.0	4.0	6.3	70.0	42	1.9
81/05/20	13 05 0000		2.19	263		7.03	20.0	3.0	8.6	93.5		1.2
81/06/11	12 51 0000		2.68	347		6.43	26.0	5.0	7.6	92.7		0.6
81/06/23	14 50 0000		4.18	680		6.87	28.0	1.0K	7.3	92.4		1.3
81/07/14	13 10 0000		4.33	687		5.95	26.0	8.0	6.7	81.7		1.6
81/08/13	14 10 0000		4.25	672		6.54	24.0	2.0	7.6	89.4		0.7
81/09/01	12 00 0000		5.01	910		6.04	24.0	2.0	5.2	61.2		0.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/16	14 20 0000		100		0.05K	0.050K	0.600	0.090	0.050K			
80/11/18	12 50 0000		40		0.09	0.050K	0.300	0.160	0.100			
80/12/16	13 40 0000		60			0.050K	1.000	0.080	0.060	10K	50K	50K
81/02/24	12 30 0000		10K		0.05K	0.050K	0.400	0.070	0.050K			
81/03/24	14 21 0000		100	17	0.30	0.070	0.400	0.170	0.080	10K	50K	50K
81/04/14	13 35 0000		10K	22	0.48	0.070	0.700	0.240	0.160			
81/05/20	13 05 0000		10		0.53	0.050K	0.500	0.260	0.200			
81/06/11	12 51 0000		350		0.58	0.090	0.400	0.240	0.170	10K	50K	50K
81/06/23	14 50 0000		100		0.35	0.050	0.800	0.190	0.110		50K	50K
81/07/14	13 10 0000		80		0.15	0.050K	0.700	0.220	0.080			
81/08/13	14 10 0000		1200		0.32	0.050K	0.600	0.140	0.050			
81/09/01	12 00 0000		90		0.17	0.050K	0.700	0.090	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/12/16	13 40 0000		100K	40K	300	100K	50.0K	0.5K	50K
81/03/24	14 21 0000		100K	40K	300	100K	50.0K	0.5K	50K
81/06/11	12 51 0000		100K	40K	700	100K	50.0K	4.4	50K
81/06/23	14 50 0000		100K	40K	800	100K	50.0K	0.9	50K
81/09/01	12 00 0000		100K	40K	700	100K	50.0K	0.5K	50K

K Less than noted value.

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 (5 m) downstream from bridge on SR 1221, 0.8 mi (1.3 km) upstream from Buck Creek, and 0.8 mi (1.3 km) southeast of Pleasant Gardens, and at mile 297 (478 km).

DRAINAGE AREA.--126 mi² (326 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963, 1970-73, 1975. October 1980 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 1,230 ft (375 m) from topographic map.

REMARKS.--Records good. About 1.0 ft³/s (0.028 m³/s) is diverted by the town of Marion for water supply.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft³/s (73.6 m³/s) May 27, gage height, 6.65 ft (2.027 m), no peak above base of 2,500 ft³/s (71 m³/s); minimum, 51 ft³/s (1.44 m³/s) Sept. 1, gage height, 1.12 ft (0.341 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	415	154	173	121	103	179	351	128	244	102	115	52
2	233	145	162	116	226	171	283	124	260	179	140	72
3	174	138	155	114	150	161	247	122	236	170	111	100
4	151	137	148	113	135	167	227	119	233	128	99	88
5	163	132	144	103	123	215	261	116	223	110	92	81
6	164	128	141	105	120	175	228	114	205	108	95	843
7	143	126	138	105	114	163	208	134	215	103	98	395
8	134	126	136	107	116	156	200	127	201	99	96	202
9	129	124	134	108	112	154	196	116	183	92	85	144
10	126	122	139	105	208	150	190	117	168	89	78	117
11	123	121	130	98	1080	146	183	336	154	113	77	103
12	118	117	127	100	385	140	177	171	159	153	75	95
13	115	117	126	105	261	138	170	143	169	103	72	90
14	116	117	124	110	220	140	165	133	152	90	69	86
15	115	122	121	113	196	135	162	152	137	85	68	89
16	114	150	121	107	182	139	153	130	129	87	66	99
17	114	136	119	106	184	136	161	125	122	102	66	85
18	118	190	117	105	367	134	176	127	179	91	66	79
19	150	142	117	105	493	133	159	140	133	122	64	76
20	121	133	115	105	426	130	184	240	129	96	66	73
21	114	130	113	121	332	128	167	207	119	84	61	72
22	112	127	109	111	277	146	155	165	112	78	59	69
23	111	131	113	106	279	200	157	147	107	81	59	68
24	115	284	114	103	243	208	173	135	106	194	58	65
25	248	202	112	102	219	265	151	127	126	134	56	64
26	158	168	107	103	205	319	146	122	108	119	55	64
27	135	330	110	105	192	314	143	1500	98	114	58	63
28	155	276	121	104	183	281	136	787	96	104	54	62
29	145	212	146	100	---	242	134	423	94	88	54	59
30	209	184	142	103	---	651	134	329	94	87	56	58
31	175	---	129	101	---	506	---	288	---	98	55	---
TOTAL	4713	4721	4003	3310	7131	6322	5577	7144	4691	3403	2322	3613
MEAN	152	157	129	107	255	204	186	230	156	110	74.9	120
MAX	415	330	173	121	1080	651	351	1500	260	194	140	843
MIN	111	117	107	98	103	128	134	114	94	78	54	52
CFSM	1.20	1.24	1.02	.84	2.01	1.61	1.47	1.81	1.23	.87	.59	.95
IN.	1.38	1.38	1.17	.97	2.09	1.85	1.63	2.09	1.37	1.00	.68	1.06

WTR YR 1981 TOTAL 56950 MEAN 156 MAX 1500 MIN 52 CFSM 1.23 IN 16.68

02138000 CATAWBA RIVER NEAR MARION, NC

LOCATION.--Lat 35°42'26", long 82°02'00", McDowell County, Hydrologic Unit 03050101, on right bank 15 ft (5 m) downstream from bridge on U.S. Highway 221, 0.2 mi (0.3 km) downstream from Tom Creek, 2.2 mi (3.5 km) northwest of Marion, and at mile 294 (473 km). Records include flow of small tributary on right bank 250 ft (76 m) downstream.

DRAINAGE AREA.--172 mi² (445 km²), including area of small downstream tributary.

PERIOD OF RECORD.--October 1941 to September 1981 (discontinued).

REVISED RECORDS.--WSP 1032: 1942, 1943(P). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,208 ft (368.2 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Some diurnal fluctuation and regulation for short periods of low flow caused by Lake Tahoma hydroelectric plant above station. About 4 ft³/s (0.11 m³/s) is diverted by the town of Marion for water supply.

AVERAGE DISCHARGE.--40 years, 348 ft³/s (9.855 m³/s), 27.48 in/yr (698 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s (708 m³/s) Nov. 6, 1977, gage height, 17.04 ft (5.194 m), from rating curve extended as explained below; minimum, 28 ft³/s (0.79 m³/s) Sept. 30, Oct. 1, 5, 1954, gage height, 0.50 ft (0.152 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 13, 1940 reached a stage of 19.34 ft (5.895 m), discharge, 71,400 ft³/s (2,020 m³/s), from rating curve extended above 10,000 ft³/s (283 m³/s), on basis of contracted opening measurements at gage height, 15.02 ft (4.578 m) and 19.34 ft (5.895 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft³/s (96 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1230	*3750	106	*6.88	2.097

Minimum daily discharge, 80 ft³/s (2.27 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	525	185	199	152	146	236	463	166	431	149	162	84
2	295	174	189	146	289	228	367	163	555	250	221	91
3	223	165	181	145	195	215	315	157	411	243	170	132
4	192	166	171	147	135	224	289	157	396	193	153	142
5	185	160	167	128	135	301	335	154	351	174	139	140
6	207	155	165	130	155	236	296	154	314	165	140	1430
7	184	151	162	130	150	221	262	181	319	157	152	606
8	172	152	158	130	150	211	254	177	289	150	145	292
9	165	152	154	125	155	207	249	157	266	137	134	217
10	159	150	160	125	253	203	241	157	247	130	121	179
11	157	145	151	124	1390	198	232	484	229	145	116	155
12	154	138	147	125	517	191	226	248	226	223	114	143
13	150	136	146	130	338	188	219	199	243	157	109	136
14	148	137	144	130	279	192	215	183	232	132	105	127
15	146	162	139	130	256	184	210	205	205	124	112	128
16	146	194	141	135	238	198	200	178	192	125	105	145
17	145	166	142	134	239	179	206	171	182	149	103	127
18	144	217	138	133	479	180	229	172	241	133	104	116
19	149	172	138	141	660	181	210	188	197	166	102	109
20	153	158	137	141	589	175	236	329	188	144	102	107
21	152	155	137	167	448	174	218	292	178	124	99	103
22	151	150	131	155	366	197	203	222	167	113	94	100
23	150	151	137	148	376	272	205	199	161	108	93	99
24	148	334	142	144	331	273	226	184	155	297	92	93
25	286	246	144	143	295	349	197	172	169	204	89	90
26	194	196	128	141	277	427	190	165	154	189	85	90
27	163	386	134	145	250	412	186	1880	141	163	86	91
28	184	327	149	146	240	366	177	1010	139	158	83	88
29	175	249	175	138	---	308	173	584	135	139	82	84
30	247	213	172	144	---	805	172	447	136	133	85	80
31	211	---	163	141	---	684	---	400	---	160	86	---
TOTAL	5860	5642	4741	4293	9331	8415	7201	9535	7249	5034	3583	5524
MEAN	189	188	153	138	333	271	240	308	242	162	116	184
MAX	525	386	199	167	1390	805	463	1880	555	297	221	1430
MIN	144	136	128	124	135	174	172	154	135	108	82	80
CFSM	1.10	1.09	.89	.80	1.94	1.58	1.40	1.79	1.41	.94	.67	1.07
IN.	1.27	1.22	1.03	.93	2.02	1.82	1.56	2.06	1.57	1.09	.77	1.19

CAL YR 1980 TOTAL 132170 MEAN 361 MAX 4570 MIN 126 CFSM 2.10 IN 28.59
WTR YR 1981 TOTAL 76408 MEAN 209 MAX 1880 MIN 80 CFSM 1.22 IN 16.53

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 (113 m) upstream from bridge on State Highway 126, 0.2 mi (0.3 km) downstream from Shooks Creek, 0.5 mi (0.8 km) upstream from Lake James, 2.0 mi (3.2 km) northeast of Longtown, and 6.0 mi (9.7 km) northeast of Nebo.

DRAINAGE AREA.--66.7 mi² (172.8 km²).

WATER-DISCHARGE RECORDS

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 gage. Datum of gage is 1,203.87 ft (366.940 m) National Geodetic Vertical Datum of 1929. May 1907, to August 1908 nonrecording gage about 1.2 mi (1.9 km) 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 (6.1 m) downstream from bridge on State Highway 126 at datum 1.00 ft (0.305 m) higher. Oct. 1, 1970, to Sept. 30, 1973 at present site at datum 1.00 ft (0.305 m) higher. Oct. 1, 1973, to Aug. 25, 1981 at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--59 years, (1922-81), 149 ft³/s (4.220 m³/s), 30.34 in/yr (771 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,500 ft³/s (1,120 m³/s) Aug. 13, 1940, gage height, 11.4 ft (3.47 m), site and datum then in use, from rating curve extended above 6,400 ft³/s (181 m³/s) on basis of slope-area measurement of peak flow; minimum, 2 ft³/s (0.057 m³/s) Jan. 9, 1956 (result of freezeup); minimum daily, 8 ft³/s (0.23 m³/s) Sept. 7-9, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of about 11 ft (3.4 m) former site and datum, discharge, 34,600 ft³/s (980 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s (39.1 m³/s) Feb. 11, gage height, 2.98 ft (0.908 m), no peak above base of 1,600 ft³/s (45 m³/s); minimum, 12 ft³/s (0.34 m³/s) Aug. 27, 28, 30, 31, gage height, 0.97 ft (0.296 m); minimum daily, 13 ft³/s (0.37 m³/s) Aug. 27-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	52	76	53	41	92	270	64	226	44	37	15
2	129	49	72	49	153	88	209	61	274	60	38	22
3	79	47	70	42	125	84	172	58	258	74	38	27
4	61	46	67	43	72	100	151	55	294	67	36	59
5	57	44	63	25	68	140	149	54	231	60	33	68
6	65	43	62	34	68	120	153	54	192	56	32	209
7	63	43	60	47	65	110	125	66	215	54	32	100
8	54	41	58	34	65	108	115	67	199	51	32	58
9	49	41	57	43	60	104	110	59	160	47	30	44
10	47	40	62	34	72	100	107	55	141	43	29	39
11	44	40	67	31	1000	98	99	187	125	40	27	32
12	42	38	60	25	400	94	95	154	140	38	25	30
13	39	36	55	29	180	90	90	101	191	36	24	27
14	38	36	53	37	120	88	87	89	142	34	24	26
15	38	43	52	39	110	85	86	89	123	34	23	25
16	37	57	50	37	100	84	85	88	105	32	23	36
17	37	53	50	30	95	99	78	78	95	101	23	58
18	37	62	49	30	105	89	81	76	87	74	23	43
19	46	67	49	33	140	87	80	77	80	57	23	34
20	48	55	47	35	230	83	98	116	76	44	23	31
21	45	65	40	38	170	80	109	206	71	33	23	28
22	43	47	29	38	130	82	89	151	59	30	22	26
23	41	46	43	39	230	93	84	120	55	28	22	25
24	40	107	47	38	160	112	85	106	56	35	16	24
25	73	156	40	37	130	106	82	95	58	46	15	23
26	119	94	30	39	115	129	74	88	52	36	14	21
27	75	90	38	40	105	163	71	499	48	32	13	20
28	58	112	53	43	95	198	68	666	47	53	13	20
29	58	101	62	41	---	195	67	341	44	39	13	18
30	58	86	59	43	---	443	67	255	43	39	13	18
31	57	---	57	30	---	449	---	324	---	35	13	---
TOTAL	1901	1837	1677	1156	4404	3993	3236	4499	3887	1452	752	1206
MEAN	61.3	61.2	54.1	37.3	157	129	108	145	130	46.8	24.3	40.2
MAX	224	156	76	53	1000	449	270	666	294	101	38	209
MIN	37	36	29	25	41	80	67	54	43	28	13	15
CFSM	.92	.92	.81	.56	2.35	1.93	1.62	2.17	1.95	.70	.36	.60
IN.	1.06	1.02	.94	.64	2.46	2.23	1.80	2.51	2.17	.81	.42	.67

CAL YR 1980 TOTAL 48454 MEAN 132 MAX 1810 MIN 29 CFSM 1.98 IN 27.02
WTR YR 1981 TOTAL 30000 MEAN 82.2 MAX 1000 MIN 13 CFSM 1.23 IN 16.73

02138500 LINVILLE RIVER NEAR NEBO, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/31	10 15	0000	0.37	63	30		11.0	15.0	10.2	91.9	10K	0.2
80/11/18	13 45	0000	0.40	68	27		8.0	3.0	10.3	86.6	10K	0.4
81/01/29	10 30	0000	0.29	46	31		4.0	2.0	12.7	96.9	12	0.6
81/02/25	10 50	0000		130	24		8.0	3.0	11.7	98.3	10K	0.6
81/03/26	12 30	0000	0.75	135	27		11.0	2.0	12.2	109.9	14	0.5
81/04/08	12 45	0000	0.68	122			16.0		12.0	120.0	10K	0.6
81/05/27	15 10	0000	1.37	300			19.0	15.0	8.4	89.4		1.3
81/06/16	13 20	0000	0.59	103			25.0	3.0	8.2	97.6		0.9
81/07/08	12 45	0000	0.29	50			26.0	2.0	8.6	104.9		0.4
81/08/18	12 15	0000	0.08	23			23.0	5.0	7.9	90.8		1.1
81/09/16	12 15	0000	0.20	365			23.0	2.0	8.6	98.9		0.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/31	10 15	0000	10	16	0.05K	0.050K	0.200	0.050K	0.050K	10K	50K	50K
80/11/18	13 45	0000	10	13								
81/01/29	10 30	0000	10K	11								
81/02/25	10 50	0000	10K	5	0.23	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/03/26	12 30	0000	10K	7								
81/04/08	12 45	0000	10K	8								
81/05/27	15 10	0000	110	12	0.14	0.050K	0.300	0.090	0.050	10K	50K	50K
81/06/16	13 20	0000	10K	12								
81/07/08	12 45	0000	10	20								
81/08/18	12 15	0000	10	20	0.05K	0.050K	0.300	0.080	0.050K	10K	50K	50K
81/09/16	12 15	0000	25	16								

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/31	10 15	0000	100K	40K	500	100K	50.0K	5.5	50K
81/02/25	10 50	0000	100K	40K	200	100K	50.0K	0.5K	50K
81/05/27	15 10	0000	100K	40K	800	100K	90.0	5.0	50K
81/08/18	12 15	0000	100K	40K	400	100K	50.0K	0.5K	50K

K Less than noted value.

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 (0.5 km) downstream from Grassy Creek, 0.4 mi (0.6 km) upstream from Lambert Creek, 2.2 mi (3.5 km) northeast of All Healing Springs, and 4 mi (6.4 km) northwest of Taylorsville.

DRAINAGE AREA.--28.2 mi² (73.0 km²).

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. Altitude of gage is 1,070 ft (326 m), by barometer. Prior to June 13, 1953, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--29 years, 38.2 ft³/s (1.082 m³/s), 18.40 in/yr (467 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,850 ft³/s (137 m³/s) Aug. 10, 1970, gage height, 15.68 ft (4.779 m); minimum, 2.9 ft³/s (0.082 m³/s) Sept. 20, 21, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft³/s (16 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 28	0400	609	17.2	5.47	1.667	July 24	0330	*819	23.2	*6.37	1.942
June 2	0230	707	20.0	5.90	1.798	Sept. 8	0200	684	19.4	5.80	1.768

Minimum discharge, 6.3 ft³/s (0.18 m³/s) Aug. 29, Sept. 29; minimum gage height, 0.94 ft (0.287 m) Aug. 29; minimum daily, 6.9 ft³/s (0.20 m³/s) Aug. 29, Sept. 1, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	17	19	14	19	19	46	13	67	20	14	6.9
2	19	17	18	13	26	18	33	13	287	14	17	28
3	17	17	17	13	22	18	28	12	88	17	22	12
4	17	18	17	13	19	20	25	12	54	15	19	16
5	20	17	16	13	18	26	32	12	39	14	15	13
6	20	17	16	14	18	21	27	12	49	14	14	11
7	18	17	16	17	14	20	24	16	44	14	14	11
8	17	17	16	17	16	19	23	13	40	13	14	110
9	16	16	16	16	15	18	23	12	29	11	12	20
10	16	16	17	17	17	18	22	13	24	10	18	14
11	15	15	15	18	75	17	21	24	21	9.6	13	11
12	15	15	15	18	37	17	20	15	20	14	16	10
13	15	15	15	16	28	17	19	14	19	11	13	9.7
14	15	16	15	16	22	16	19	13	19	9.5	12	9.1
15	16	18	15	15	21	16	19	16	17	9.1	11	9.2
16	15	19	15	16	20	16	18	13	16	9.2	11	14
17	15	18	15	16	19	16	18	12	15	15	11	14
18	16	22	14	16	21	16	18	13	15	13	11	10
19	16	18	14	15	28	16	17	15	14	12	10	9.3
20	15	17	14	15	41	16	20	29	15	11	10	9.0
21	15	17	14	16	30	15	17	20	14	10	9.3	8.7
22	15	16	14	15	25	17	16	16	13	9.6	9.0	8.4
23	15	16	14	15	28	25	17	14	12	9.3	8.7	8.1
24	17	27	14	15	25	28	17	13	12	157	9.0	7.8
25	30	20	14	15	23	35	16	13	11	29	8.1	7.8
26	18	18	14	15	21	32	15	13	11	20	7.5	7.5
27	17	32	14	15	20	26	15	38	10	17	7.5	7.5
28	19	28	15	15	20	23	15	262	10	19	7.2	7.2
29	18	21	15	14	---	21	14	47	9.8	20	6.9	6.9
30	25	19	15	15	---	120	14	36	25	15	7.5	6.9
31	19	---	14	17	---	78	---	37	---	14	7.2	---
TOTAL	544	556	472	475	688	780	628	801	1019.8	575.3	364.9	424.0
MEAN	17.5	18.5	15.2	15.3	24.6	25.2	20.9	25.8	34.0	18.6	11.8	14.1
MAX	30	32	19	18	75	120	46	262	287	157	22	110
MIN	15	15	14	13	14	15	14	12	9.8	9.1	6.9	6.9
CFSM	.62	.66	.54	.54	.87	.89	.74	.92	1.21	.66	.42	.50
IN.	.72	.73	.62	.63	.91	1.03	.83	1.06	1.35	.76	.48	.56

CAL YR 1980 TOTAL 15917.0 MEAN 43.5 MAX 545 MIN 12 CFSM 1.54 IN 21.00
WTR YR 1981 TOTAL 7328.0 MEAN 20.1 MAX 287 MIN 6.9 CFSM .71 IN 9.67

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 (183 m) downstream from McIntyre Creek, 1.2 mi (1.9 km) upstream from Gutter Branch, and 3.6 mi (5.8 km) north of community of Paw Creek.

DRAINAGE AREA.--16.4 mi² (42.5 km²).

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 (197.72 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional diversions for irrigation by upstream golf course.

AVERAGE DISCHARGE.--16 years, 17.5 ft³/s (0.496 m³/s), 14.49 in/yr (368 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,720 ft³/s (105 m³/s) May 30, 1975, gage height, 11.46 ft (3.493 m); minimum, 0.48 ft³/s (0.014 m³/s) Aug. 13, 1976, result of upstream diversions.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 7	0845	*530	15.0	*6.19	1.887

Minimum daily, 1.00 ft³/s (0.028 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	4.0	6.7	4.7	4.4	7.2	15	2.9	6.1	2.7	1.5	1.5
2	11	3.4	6.0	4.4	14	6.8	11	2.9	3.0	5.5	18	1.3
3	4.8	3.0	5.2	4.2	4.5	6.2	8.6	2.7	3.1	8.7	8.0	1.2
4	3.4	25	4.8	4.2	4.1	6.2	7.5	2.7	2.5	4.0	3.1	1.2
5	3.0	9.5	4.8	3.7	4.0	13	8.7	2.6	2.0	2.0	2.7	21
6	2.7	5.1	4.7	3.9	4.5	8.6	8.1	2.5	3.8	2.4	2.4	14
7	2.4	4.2	4.7	4.8	5.6	7.1	6.5	4.3	15	2.1	2.3	124
8	2.2	3.8	4.6	4.2	6.2	6.4	6.1	3.1	3.8	2.0	2.3	11
9	2.1	3.5	4.6	4.0	4.2	6.1	6.6	2.6	2.7	1.8	3.1	8.4
10	2.0	3.1	12	3.9	10	5.9	6.9	2.7	2.3	1.7	3.5	3.6
11	3.0	2.9	9.5	3.6	209	5.8	5.9	3.4	2.1	2.7	21	2.5
12	6.2	2.9	6.5	3.5	30	5.6	5.5	2.6	14	7.1	5.6	2.2
13	3.6	3.0	5.7	3.5	17	5.5	5.1	2.3	6.1	2.1	5.7	1.9
14	2.9	3.0	5.2	3.8	14	5.4	4.8	2.2	3.4	1.9	3.0	1.7
15	1.9	6.7	4.9	4.1	12	5.2	4.7	2.0	2.7	1.8	2.4	1.8
16	1.9	9.7	4.9	3.9	11	5.3	4.3	1.9	2.3	2.0	2.4	2.5
17	1.9	21	4.7	3.7	9.6	5.0	4.3	1.9	2.3	9.8	4.1	1.7
18	2.0	28	4.5	3.6	10	5.1	4.5	1.8	11	2.1	2.2	1.5
19	3.6	9.3	4.5	3.7	39	5.1	4.2	1.9	3.8	2.0	2.8	1.4
20	2.3	6.2	4.2	3.9	41	4.8	7.8	9.4	3.8	2.9	2.9	1.5
21	2.1	5.2	4.2	4.7	22	4.8	5.1	9.7	2.5	2.0	2.0	1.5
22	2.0	4.8	4.2	4.4	15	5.0	4.2	2.8	2.1	1.8	1.8	1.4
23	2.0	4.5	4.4	4.2	13	20	4.2	2.4	2.0	2.0	1.7	1.3
24	2.1	33	4.4	4.0	11	14	4.7	2.2	1.8	2.2	1.7	1.1
25	5.5	17	4.1	3.8	9.3	8.8	4.0	2.0	1.9	66	1.6	1.1
26	3.3	9.2	3.7	3.8	8.5	7.3	3.9	1.8	7.7	7.4	1.5	1.2
27	2.4	24	4.1	3.7	7.9	6.6	3.3	9.7	2.4	4.1	1.4	1.1
28	2.4	18	5.2	3.6	7.3	6.0	3.1	7.5	2.0	5.6	1.3	1.1
29	2.6	10	4.9	4.4	---	5.7	2.9	5.2	1.8	19	1.3	1.0
30	14	7.5	4.8	4.7	---	44	3.0	2.5	1.8	4.4	1.9	1.0
31	6.1	---	5.6	4.5	---	26	---	7.3	---	1.9	1.8	---
TOTAL	153.4	290.5	162.3	125.1	548.1	274.5	174.5	111.5	121.8	183.7	117.0	217.7
MEAN	4.95	9.68	5.24	4.04	19.6	8.85	5.82	3.60	4.06	5.93	3.77	7.26
MAX	46	33	12	4.8	209	44	15	9.7	15	66	21	124
MIN	1.9	2.9	3.7	3.5	4.0	4.8	2.9	1.8	1.8	1.7	1.3	1.0
CFSM	.30	.59	.32	.25	1.20	.54	.36	.22	.25	.36	.23	.44
IN.	.35	.66	.37	.28	1.24	.62	.40	.25	.28	.42	.27	.49

CAL YR 1980 TOTAL 5776.33 MEAN 15.8 MAX 430 MIN .78 CFSM .96 IN 13.10
WTR YR 1981 TOTAL 2480.10 MEAN 6.79 MAX 209 MIN 1.0 CFSM .41 IN 5.63

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 (99 m) downstream from bridge on Secondary Road 1124, at site of Old Link Ford, 1.2 mi (1.9 km) downstream from Burke-Catawba County line, and 2 mi (3 km) southeast of village of Henry River.

DRAINAGE AREA.--83.2 mi² (215 km²).

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 (271.6 m) National Geodetic Vertical Datum of 1929. July 1925 to November 1931, at site 450 ft (137 m) upstream at same datum.

REMARKS.--Records good except those for winter periods and those for June through September, which are fair. The mill above the station which in previous years caused diurnal fluctuation and regulation continued inactive. An average of 2.0 ft³/s (0.057 m³/s) was diverted for water supply by City of Morganton and wasted into Catawba River.

AVERAGE DISCHARGE.--45 years (1925-31, 1942-81), 133 ft³/s (3.767 m³/s), 21.71 in/yr (551 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s (433 m³/s) Oct. 2, 1929 gage height, 18.40 ft (5.608 m), site then in use, from rating curve extended above 2,300 ft³/s (65.1 m³/s) on basis of computation of peak flow over dam at Henry River, at gage height 29.2 ft (8.90 m); minimum, 3 ft³/s (0.085 m³/s) Dec. 20, 1942; minimum daily, 4 ft³/s (0.11 m³/s) Nov. 15, Dec. 20, 1942, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft (8.90 m) Aug. 13, 1940 at former site, from floodmarks, discharge, 31,300 ft³/s (886 m³/s). The flood of July 16, 1916 reached a stage of about 23 ft (7.0 m) at former site, discharge, 20,700 ft³/s (586 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,980 ft³/s (56.1 m³/s) May 27, gage height, 5.61 ft (1.710 m), no peak above base of 2,800 ft³/s (79 m³/s); minimum daily, 32 ft³/s (0.91 m³/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	393	101	111	71	42	78	214	58	153	76	68	39
2	183	87	100	68	72	76	155	56	403	63	66	48
3	116	80	92	65	76	72	127	56	243	79	77	44
4	91	100	86	64	51	70	114	55	140	73	60	68
5	87	93	83	47	53	88	118	54	113	64	55	65
6	95	82	81	56	57	78	122	54	100	58	52	208
7	82	78	78	69	56	69	106	61	118	56	54	293
8	76	76	77	57	59	69	99	61	104	54	60	149
9	73	74	75	59	53	67	98	55	87	49	67	80
10	70	72	80	53	56	66	98	54	78	46	60	70
11	68	69	76	44	252	65	90	276	75	45	50	58
12	64	68	72	47	238	64	87	160	72	131	50	54
13	63	68	71	53	174	63	84	92	75	76	50	50
14	64	68	69	59	100	64	82	75	84	53	58	48
15	64	72	68	63	85	62	81	81	73	47	56	46
16	63	83	68	55	79	63	76	67	68	45	54	65
17	63	77	68	47	76	64	77	61	65	93	51	54
18	62	98	66	52	96	63	85	60	62	59	50	48
19	91	81	65	62	114	63	76	62	60	51	48	44
20	72	74	65	59	166	61	85	123	58	47	46	42
21	64	72	63	61	193	60	80	129	56	49	45	41
22	63	70	56	59	147	64	73	88	54	45	43	39
23	61	70	66	58	120	86	73	72	52	42	43	37
24	62	133	64	56	122	108	75	64	49	499	42	36
25	144	232	63	56	105	132	70	59	48	397	39	35
26	121	120	62	55	94	169	67	56	48	209	38	34
27	83	181	56	56	86	185	65	491	46	101	36	33
28	88	291	68	56	81	178	62	570	46	94	36	32
29	86	169	78	54	---	130	60	208	46	78	37	32
30	110	130	76	55	---	388	61	137	54	76	38	32
31	144	---	78	52	---	495	---	116	---	70	39	---
TOTAL	2956	3069	2271	1768	2903	3360	2760	3611	2730	2925	1568	1924
MEAN	95.4	102	73.3	57.0	104	108	92.0	116	91.0	94.4	50.6	64.1
MAX	393	291	111	71	252	495	214	570	403	499	77	293
MIN	61	68	52	44	42	60	60	54	46	42	36	32
CFSM	1.15	1.23	.88	.69	1.25	1.30	1.11	1.39	1.09	1.14	.61	.77
IN.	1.32	1.37	1.02	.79	1.30	1.50	1.23	1.61	1.22	1.31	.70	.86

CAL YR 1980 TOTAL 59068 MEAN 161 MAX 2650 MIN 52 CFSM 1.94 IN 26.41
WTR YR 1981 TOTAL 31845 MEAN 87.2 MAX 570 MIN 32 CFSM 1.05 IN 14.24

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 (5 m) downstream from bridge on Secondary Road 1924, 0.6 mi (1.0 km) downstream from Queens Creek, and 0.6 mi (1.0 km) north of Ramsey.

DRAINAGE AREA.--25.7 mi² (66.6 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1960-61. October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,103.00 ft (336.194 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--20 years, 50.5 ft³/s (1.430 m³/s), 26.68 in/yr (678 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,220 ft³/s (204 m³/s) Oct. 17, 1975, gage height, 19.74 ft (6.017 m), from rating curve extended above 3,400 ft³/s (96.3 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 7.3 ft³/s (0.21 m³/s) July 28, 29, 1966; minimum gage height, 1.58 ft (0.482 m) Sept. 3, 4, 5, 6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of about 39 ft (11.9 m), from information by local resident. Flood of July 1916 reached a stage of about 19 ft (5.8 m), from information by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 30	1330	768	21.7	4.96	1.512	May 27	2230	876	24.8	5.32	1.622
May 27	1530	*1440	40.8	*7.28	2.219	July 24	0200	900	25.5	5.41	1.649

Minimum discharge, 8.5 ft³/s (0.24 m³/s) Sept. 29, gage height, 1.72 ft (0.524 m); minimum daily, 9.2 ft³/s (0.26 m³/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	271	34	35	24	19	26	64	22	39	18	22	12
2	72	29	32	23	26	25	46	22	36	19	31	12
3	41	27	30	23	18	24	39	22	34	31	85	13
4	32	38	28	22	20	25	36	21	31	23	32	17
5	32	35	27	20	20	29	50	21	29	18	25	21
6	30	31	26	23	20	25	50	21	28	16	22	80
7	27	29	26	23	18	24	41	26	31	16	21	44
8	25	27	25	20	20	23	37	23	26	14	20	26
9	24	26	25	21	19	23	37	21	24	14	18	21
10	24	25	27	18	22	23	35	23	23	13	17	17
11	23	24	25	20	133	23	33	138	22	27	17	15
12	22	24	24	24	57	22	32	44	23	27	17	14
13	22	24	24	25	39	21	32	30	24	19	25	14
14	22	24	24	24	30	21	33	26	25	15	18	13
15	22	26	24	21	28	21	32	28	21	14	16	14
16	21	27	24	19	26	22	31	23	19	16	16	18
17	22	28	24	20	26	22	31	22	20	20	16	18
18	22	33	23	20	31	21	31	22	21	15	16	14
19	26	28	23	20	46	21	29	23	20	15	15	13
20	22	27	23	20	66	21	33	48	19	15	15	12
21	21	26	22	21	51	21	29	38	18	19	14	12
22	21	25	21	21	38	23	28	29	17	14	14	12
23	21	25	23	20	40	32	29	25	16	13	13	11
24	22	77	23	20	38	34	29	23	16	259	13	11
25	55	58	22	19	33	46	27	21	15	66	13	11
26	31	38	21	20	30	61	26	20	16	32	12	11
27	26	63	22	20	27	65	25	412	14	24	12	11
28	30	72	25	19	26	51	24	287	13	21	12	9.7
29	28	60	26	19	---	39	24	77	13	20	12	9.2
30	49	41	26	20	---	317	24	47	16	20	12	9.3
31	44	---	25	20	---	130	---	40	---	25	12	---
TOTAL	1150	1051	775	649	966	1281	1017	1645	669	878	603	515.2
MEAN	37.1	35.0	25.0	20.9	34.5	41.3	33.9	53.1	22.3	28.3	19.5	17.2
MAX	271	77	35	25	133	317	64	412	39	259	85	80
MIN	21	24	21	18	18	21	24	20	13	13	12	9.2
CFSM	1.44	1.36	.97	.81	1.34	1.61	1.32	2.07	.87	1.10	.76	.67
IN.	1.66	1.52	1.12	.94	1.40	1.85	1.47	2.38	.97	1.27	.87	.75

CAL YR 1980 TOTAL 21398.0 MEAN 58.5 MAX 1080 MIN 16 CFSM 2.28 IN 30.97
WTR YR 1981 TOTAL 11199.2 MEAN 30.7 MAX 412 MIN 9.2 CFSM 1.20 IN 16.21

02143040 JACOB FORK AT RAMSEY, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/31	13 00	0000	2.18	42	20		11.0	2.0	10.2	91.9	10K	0.6
80/11/18	12 30	0000	2.07	32	13		8.0	6.0	10.2	85.7	10K	0.5
81/01/29	13 30	0000	1.87	23	16		6.0	2.0	12.2	97.6	10K	0.8
81/02/25	13 25	0000	2.06	27	19		8.0	2.0	11.6	97.5	10K	0.7
81/03/26	14 00	0000	2.26	50	15		11.0	3.0	11.6	104.5	15	0.6
81/04/08	14 10	0000	2.11	37			16.0		9.8	98.0	10K	0.4
81/05/27	13 40	0000	3.95	444			18.0	1200.0	8.5	89.5	170	4.1
81/06/16	12 00	0000	1.89	19			24.0	3.0	8.4	98.8		0.7
81/07/09	10 15	0000	1.81	14			23.0	4.0	8.2	94.3		2.0
81/08/17	12 35	0000	1.85	16			22.0	4.0	8.4	95.5		1.3
81/09/10	11 20	0000	1.88	17			17.0	3.0	9.0	92.8		0.8

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/31	13 00	0000	360	7	0.05K	0.050K	0.100	0.050K	0.050K	10K	50K	50K
80/11/18	12 30	0000	90	8								
81/01/29	13 30	0000	10K	6								
81/02/25	13 25	0000	10	6	0.05K	0.050K	0.100	0.050K	0.050K	10K	50K	50K
81/03/26	14 00	0000	10K	5								
81/04/08	14 10	0000	10K	6								
81/05/27	13 40	0000	4700	8	0.29	0.160	2.600	1.200	0.050K	17	50K	50K
81/06/16	12 00	0000	110	12								
81/07/09	10 15	0000	100	13								
81/08/17	12 35	0000	120	13	0.06	0.050K	0.100	0.050K	0.050K	10K	50K	50K
81/09/10	11 20	0000	120	9								

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/31	13 00	0000	100K	40K	700	100K	50.0K	2.1	50K
81/02/25	13 25	0000	100K	40K	400	200	50.0K	2.2	50K
81/05/27	13 40	0000	100K	40K	12000	200	630.0	2.3	60
81/08/17	12 35	0000	100K	50	300	100K	50.0K	0.5K	50K

K Less than noted value.

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 (76 m) upstream from remains of Rudisill Mill dam, 0.5 mi (0.8 km) upstream from bridge on Secondary Road 1252, 1.5 mi (2.4 km) upstream from mouth, 1.5 mi (2.4 km) south of Laboratory, and 3.5 mi (5.6 km) south of Lincolnton.

DRAINAGE AREA.--69.2 mi² (179.2 km²).

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. Altitude of gage is 736 ft (224 m), by barometer.

REMARKS.--Records good.

AVERAGE DISCHARGE.--30 years, 91.1 ft³/s (2.580 m³/s), 17.88 in/yr (454 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,450 ft³/s (239 m³/s) Aug. 10, 1970, gage height, 10.61 ft (3.234 m); minimum, 4.6 ft³/s (0.13 m³/s) Oct. 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peak discharge of flood in October 1929 was 9,920 ft³/s (281 m³/s); flood in July 1916, 7,840 ft³/s (222 m³/s); flood in August 1940, 6,000 ft³/s (170 m³/s). Discharge based on computation of peak flow over dam 1 mi (2 km) downstream, using floodmarks and information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 25	0430	*1910	54.1	*5.25	1.600

Minimum discharge, 9.4 ft³/s (0.266 m³/s) Sept. 28, 29, 30, gage height, 0.71 ft (0.216 m); minimum daily, 9.4 ft³/s (0.266 m³/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	56	64	43	40	50	118	36	45	31	28	15
2	137	49	59	44	58	50	89	33	54	25	29	13
3	76	46	55	43	49	44	75	33	47	55	102	14
4	56	185	52	42	35	43	67	32	42	44	39	13
5	50	93	52	37	29	57	73	33	35	29	29	20
6	49	67	51	32	32	48	74	36	35	25	25	22
7	43	56	52	44	34	45	60	54	79	23	25	82
8	41	52	50	41	39	43	56	40	42	31	22	27
9	39	49	49	40	38	44	58	34	35	22	24	25
10	37	47	59	40	39	45	59	32	28	17	22	19
11	37	46	57	34	288	43	58	40	26	19	23	17
12	35	44	52	35	115	45	58	37	135	24	23	16
13	35	43	50	37	73	44	53	29	62	22	22	15
14	34	43	48	40	61	40	50	28	51	21	22	15
15	34	46	47	40	57	40	53	28	34	16	22	15
16	34	51	47	35	55	40	47	28	27	15	20	15
17	35	49	47	32	55	40	48	29	25	40	21	14
18	35	62	45	27	62	40	53	28	35	25	20	14
19	152	50	44	29	76	40	50	29	29	21	18	15
20	55	47	45	34	123	38	55	97	29	18	19	16
21	44	47	45	43	91	39	47	56	24	23	18	15
22	40	45	43	42	75	44	46	37	22	19	17	12
23	38	45	44	39	65	96	46	30	21	15	17	11
24	38	132	44	40	60	96	48	28	20	63	18	12
25	52	95	43	38	54	68	42	27	22	1050	16	12
26	48	69	42	37	53	61	43	27	19	101	14	13
27	42	205	42	37	54	50	43	38	18	49	14	12
28	44	159	45	38	51	47	43	108	19	42	15	11
29	44	91	45	36	---	49	39	47	18	31	14	9.4
30	76	71	44	37	---	371	39	37	20	27	15	10
31	74	---	46	38	---	243	---	43	---	34	17	---
TOTAL	1954	2140	1508	1174	1861	2043	1690	1214	1098	1977	730	519.4
MEAN	63.0	71.3	48.6	37.9	66.5	65.9	56.3	39.2	36.6	63.8	23.5	17.3
MAX	400	205	64	44	288	371	118	108	135	1050	102	82
MIN	34	43	42	27	29	38	39	27	18	15	14	9.4
CFSM	.91	1.03	.70	.55	.96	.95	.81	.57	.53	.92	.34	.25
IN.	1.05	1.15	.81	.63	1.00	1.10	.91	.65	.59	1.06	.39	.28

CAL YR 1980 TOTAL 36133.0 MEAN 98.7 MAX 1490 MIN 19 CFSM 1.43 IN 19.42
WTR YR 1981 TOTAL 17908.4 MEAN 49.1 MAX 1050 MIN 9.4 CFSM .71 IN 9.63

02144000 LONG CREEK NEAR BESSEMER CITY, NC

LOCATION.--Lat 35°18'23" (revised), long 81°14'05", Gaston County, Hydrologic Unit 03050102, on right bank 700 ft (213 m) upstream from bridge on Secondary Road 1456, 2 mi (3 km) northeast of Bessemer City, and 8.2 mi (13.2 km) upstream from mouth.

DRAINAGE AREA.--31.8 mi² (82.4 km²).

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. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 706.1 ft (215.22 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Bessemer City diverts water supply from above gaging station and returns waste water to South Fork Catawba River below mouth of Long Creek, causing some diurnal fluctuation; an average of 1.7 ft³/s (0.048 m³/s) was diverted during the year.

AVERAGE DISCHARGE.--29 years, 36.0 ft³/s (1.020 m³/s), 15.37 in/yr (390 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s (184 m³/s) Oct. 16, 1971, gage height, 9.10 ft (2.774 m), from rating curve extended above 2,100 ft³/s (59.5 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.4 ft³/s (0.011 m³/s) Oct. 7, 1954; minimum daily, 0.8 ft³/s (0.023 m³/s) Oct. 7, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 26 ft (7.92 m) at site on left bank 1,500 ft (460 m) upstream, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Sept. 7	0700	*932	26.4	*5.22	1.591

Minimum discharge, 2.4 ft³/s (0.068 m³/s) Sept. 29; minimum gage height, 0.91 ft (0.277 m) Sept. 2, 3, 4; minimum daily, 2.8 ft³/s (0.079 m³/s) Sept. 4, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	312	19	30	18	14	21	37	12	17	8.7	8.0	3.3
2	75	17	26	18	26	21	29	12	13	8.3	10	3.2
3	36	16	24	17	19	19	26	12	13	24	13	3.4
4	25	68	23	17	14	20	24	12	12	15	7.8	2.8
5	21	35	23	15	14	30	26	12	12	10	6.6	4.6
6	19	25	22	17	16	22	25	11	11	12	6.4	5.2
7	17	23	21	19	15	20	22	24	13	9.2	6.1	307
8	16	20	23	17	16	19	21	14	10	11	5.7	31
9	15	19	22	16	15	19	22	12	9.2	7.4	6.6	17
10	14	19	31	16	17	18	22	12	8.4	6.7	5.8	8.2
11	14	17	26	13	153	18	21	15	7.9	6.4	5.7	6.1
12	13	16	22	13	48	17	20	13	20	9.6	8.8	5.3
13	13	16	23	15	32	17	19	11	13	7.1	6.5	5.0
14	12	17	21	16	28	17	19	11	19	6.2	5.5	4.3
15	13	23	22	16	26	16	21	11	9.5	5.7	5.3	4.1
16	13	26	21	15	25	18	19	10	8.3	6.0	4.7	4.1
17	13	32	20	17	24	16	18	11	7.3	18	4.8	4.1
18	13	48	19	15	27	16	18	11	109	7.8	4.6	3.6
19	27	28	19	16	36	16	17	11	20	7.5	4.2	3.6
20	15	24	18	17	56	16	20	25	13	6.3	4.8	3.7
21	13	23	17	17	37	16	17	17	11	5.8	4.0	4.1
22	13	21	18	16	30	18	16	12	9.6	4.7	3.9	3.6
23	13	20	18	16	30	39	16	10	8.2	4.8	3.8	3.1
24	13	64	19	15	26	32	16	9.7	7.8	16	3.7	2.9
25	22	40	18	14	23	23	14	9.3	7.6	142	3.5	2.9
26	16	29	19	16	22	21	14	9.2	12	18	3.2	2.9
27	15	89	17	15	21	20	14	27	7.8	11	3.5	2.9
28	16	56	20	15	21	19	13	55	7.7	10	3.1	3.1
29	15	37	21	14	---	18	13	16	6.6	8.5	3.4	3.2
30	35	31	21	14	---	112	12	12	7.0	8.2	3.3	2.8
31	25	---	21	14	---	55	---	12	---	8.0	3.7	---
TOTAL	892	918	665	489	831	749	591	451.2	430.9	429.9	170.0	461.1
MEAN	28.8	30.6	21.5	15.8	29.7	24.2	19.7	14.6	14.4	13.9	5.48	15.4
MAX	312	89	31	19	153	112	37	55	109	142	13	307
MIN	12	16	17	13	14	16	12	9.2	6.6	4.7	3.1	2.8
CFSM	.91	.96	.68	.50	.93	.76	.62	.46	.45	.44	.17	.48
IN.	1.04	1.07	.78	.57	.97	.88	.69	.53	.50	.50	.20	.54

CAL YR 1980 TOTAL 13953.1 MEAN 38.1 MAX 513 MIN 6.3 CFSM 1.20 IN 16.32
WTR YR 1981 TOTAL 7078.1 MEAN 19.4 MAX 312 MIN 2.8 CFSM .61 IN 8.28

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 (671 m) upstream from Southern Railway bridge, 0.7 mi (1.1 km) upstream from Taggart Creek, and 4.2 mi (6.8 km) southwest of City Hall, Charlotte.

DRAINAGE AREA.--30.7 mi² (79.0 km²).

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 (180.298 m) National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--Records good. Fluctuation at low flow caused by wash water, from city of Charlotte water filtration plants and industry, diverted into the basin from the Catawba River (city water supply). Wash water from city water plants averaged 1.15 ft³/s (0.033 m³/s) prior to July 2, after that date water diverted to creek below gage via sewer to 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.

AVERAGE DISCHARGE.--19 years, 43.2 ft³/s (1.223 m³/s), 19.11 in/yr (485 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft³/s (251 m³/s) May 30, 1975, gage height, 18.04 ft (5.499 m); minimum, 3.9 ft³/s (0.11 m³/s) Aug. 7, 8, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 6, 1936 reached a stage of about 17.3 ft (5.27 m) at site 400 ft (122 m) downstream, from information by plant employee. Peak may have been affected by failure of Lakewood Dam 5 mi (8.0 km) upstream. Flood of Jan. 6, 1962 reached a stage of 14.32 ft (4.365 m), from floodmarks, discharge, 4,120 ft³/s (117 m³/s). Flood of Apr. 11, 1962 reached a stage of 15.18 ft (4.627 m), from floodmarks, discharge, 4,740 ft³/s (134 m³/s), on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0300	1240	35.1	7.59	2.313	July 25	0200	2720	77.0	9.45	2.880
June 12	0545	1580	44.7	7.35	2.240	Sept. 5	1215	1810	51.3	7.83	2.387
July 16	2045	2080	58.9	8.37	2.551	Sept. 7	0545	*2740	77.6	*9.45	2.890

Minimum discharge, 4.5 ft³/s (0.13 m³/s) July 23, gage height, 0.41 ft (0.125 m); minimum daily, 5.1 ft³/s (0.14 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	11	14	13	11	14	24	13	59	8.1	12	6.3
2	22	11	15	12	55	13	18	7.7	11	15	145	5.7
3	13	9.4	12	11	15	13	16	7.7	15	77	29	5.5
4	11	112	12	11	13	23	15	8.5	13	16	9.7	5.3
5	9.6	20	12	12	12	48	25	8.6	8.0	9.4	8.1	265
6	11	15	11	13	11	18	14	17	11	9.0	7.3	14
7	9.1	12	11	18	15	15	14	43	32	6.4	7.3	469
8	8.7	11	12	13	19	13	13	8.9	10	6.2	51	71
9	9.6	10	11	12	13	16	25	7.0	7.0	6.0	19	30
10	7.6	11	49	12	88	16	14	7.7	6.7	5.8	32	14
11	8.5	9.6	16	12	470	15	15	14	6.2	22	48	14
12	8.2	9.4	12	20	49	15	13	8.1	209	19	69	13
13	7.7	10	12	25	30	14	12	7.7	18	6.2	14	12
14	7.7	10	12	18	25	14	12	8.0	11	5.8	12	11
15	11	85	11	13	23	14	18	7.4	9.9	6.2	9.9	57
16	7.9	36	12	13	21	14	11	6.7	11	194	7.8	21
17	8.1	104	11	11	22	14	11	7.0	10	38	9.7	20
18	9.5	49	10	13	25	16	10	7.4	24	6.3	8.3	8.8
19	15	18	11	12	150	14	12	10	21	6.2	21	8.7
20	9.6	14	10	12	65	14	25	100	15	13	14	7.6
21	9.5	13	10	21	31	14	12	24	11	6.6	6.8	8.8
22	9.6	12	12	14	23	34	13	10	9.6	5.3	6.2	9.2
23	9.0	13	11	12	25	81	14	8.3	8.9	19	5.9	8.6
24	10	132	13	10	19	24	15	7.0	8.2	37	6.0	8.1
25	43	28	10	11	17	18	12	7.4	15	352	6.4	7.7
26	13	17	11	11	15	18	12	7.7	28	12	5.5	7.1
27	11	74	12	10	14	15	13	82	9.5	9.6	5.6	6.7
28	14	27	33	10	14	14	12	21	7.5	7.6	5.5	6.2
29	10	17	15	12	---	13	13	9.7	7.9	9.1	5.1	5.9
30	86	15	29	17	---	136	15	12	7.9	147	19	5.4
31	16	---	17	12	---	33	---	23	---	14	8.6	---
TOTAL	529.9	915.4	449	416	1290	733	448	517.5	621.3	1094.8	614.7	1132.6
MEAN	17.1	30.5	14.5	13.4	46.1	23.6	14.9	16.7	20.7	35.3	19.8	37.8
MAX	104	132	49	25	470	136	25	100	209	352	145	469
MIN	7.6	9.4	10	10	11	13	10	6.7	6.2	5.3	5.1	5.3
CFSM	.56	.99	.47	.44	1.50	.77	.49	.54	.67	1.15	.65	1.23
IN.	.64	1.11	.54	.50	1.56	.89	.54	.63	.75	1.33	.74	1.37

CAL YR 1980 TOTAL 14794.8 MEAN 40.4 MAX 706 MIN 6.4 CFSM 1.32 IN 17.93
WTR YR 1981 TOTAL 8762.2 MEAN 24.0 MAX 470 MIN 5.1 CFSM .78 IN 10.62

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC

LOCATION.--Lat 35°08'52", long 80°51'29", Mecklenburg County, Hydrologic Unit 03050103, on left bank at downstream side of bridge on Secondary Road 3657 (Archdale Drive) in Charlotte, 0.7 mi (1.1 km) downstream from Little Hope Creek, and 5.3 mi (8.5 km) south of City Hall, Charlotte.

DRAINAGE AREA.--42.6 mi² (110.3 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 564.46 ft (172.047 m) National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--Records good. The city of Charlotte diverted an average of 70.7 ft³/s (2.00 m³/s) for municipal water supply from Catawba River at Mountain Island Lake. An average of 17.4 ft³/s (0.49 m³/s) of sewage effluent from Little Sugar Creek waste treatment plant was discharged into the stream 0.4 mi (0.6 km) upstream from gage. Since 1911 the creek channel has been dredged and improved. The drainage area is urbanized and has an impervious area of about 20 percent.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,900 ft³/s (195 m³/s) Mar. 23, 1979, gage height, 12.44 ft (3.792 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 24, 1981, gage height, 1.79 ft (0.546 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 22, 1975 reached a stage of about 12.7 ft (3.87 m), from flood-marks, discharge, 7,360 ft³/s (208 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,100 ft³/s (59 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0145	2900	82.1	8.94	2.725	Sept. 7	0615	*6540	185	*12.22	3.725
July 25	0215	4410	125	10.48	3.194						

Minimum discharge, 11 ft³/s (0.31 m³/s) Sept. 24, gage height, 1.79 ft (0.546 m); minimum daily, 15 ft³/s (0.42 m³/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	29	31	31	30	30	33	35	121	22	42	21
2	41	26	32	30	105	30	30	26	50	35	500	21
3	34	26	30	29	35	29	28	25	39	96	92	18
4	28	237	29	28	31	43	26	26	42	51	36	21
5	26	39	28	29	30	89	38	26	24	25	30	313
6	29	31	27	30	30	36	33	28	27	27	27	31
7	27	28	26	41	38	30	30	57	68	22	27	1060
8	27	27	27	31	48	28	30	28	23	20	190	115
9	27	26	27	30	31	29	41	25	21	19	70	48
10	27	26	98	30	183	29	35	25	21	18	130	26
11	26	26	35	29	976	29	30	30	21	50	180	24
12	25	26	33	30	78	29	28	26	354	41	264	23
13	25	27	29	32	40	28	30	25	35	20	90	22
14	26	27	27	41	38	28	30	25	25	19	28	22
15	26	202	33	32	38	27	40	25	24	20	24	48
16	26	96	30	31	38	28	29	24	24	80	33	51
17	26	177	26	31	37	29	28	23	24	21	50	40
18	26	86	26	30	37	30	28	33	29	19	24	25
19	39	33	27	30	313	29	27	26	25	19	50	19
20	28	30	27	30	97	28	51	172	23	18	34	15
21	27	29	26	46	42	27	28	40	21	19	23	19
22	26	27	28	32	38	53	29	26	22	18	22	24
23	25	26	29	31	39	150	29	24	22	43	21	21
24	26	263	36	30	36	35	32	23	23	190	22	21
25	93	45	25	29	36	30	27	24	27	694	26	20
26	28	32	25	30	35	29	26	24	66	28	22	20
27	34	137	28	30	30	29	27	207	21	21	21	20
28	34	54	49	29	31	27	27	58	20	20	21	20
29	28	29	32	27	---	26	27	28	21	23	20	20
30	180	27	53	35	---	236	28	38	21	300	20	20
31	37	---	37	37	---	44	---	59	---	50	21	---
TOTAL	1252	1894	1016	981	2540	1344	925	1261	1284	2048	2160	2168
MEAN	40.4	63.1	32.8	31.6	90.7	43.4	30.8	40.7	42.8	66.1	69.7	72.3
MAX	180	263	98	46	976	236	51	207	354	694	500	1060
MIN	25	26	25	27	30	26	26	23	20	18	20	15
CFSM	.95	1.48	.77	.74	2.13	1.02	.72	.96	1.01	1.55	1.64	1.70
IN.	1.09	1.65	.89	.86	2.22	1.17	.81	1.10	1.12	1.79	1.89	1.89

CAL YR 1980 TOTAL 27281 MEAN 74.5 MAX 1040 MIN 20 CFSM 1.75 IN 23.82
WTR YR 1981 TOTAL 18873 MEAN 51.7 MAX 1060 MIN 15 CFSM 1.21 IN 16.48

02146600 McALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC

LOCATION (REVISED).--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 (2.7 km) downstream from Irvins Creek, and 7 mi (11 km) southeast of City Hall, Charlotte.

DRAINAGE AREA.--39.6 mi² (102.6 km²), revised.

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 553.39 ft (168.673 m) National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--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 adjacent to the city of Charlotte. The drainage basin is urban and has an impervious area of about 15 percent, expected development by 1995, about 22 percent.

AVERAGE DISCHARGE.--19 years, 39.8 ft³/s (1.127 m³/s), 14.11 in/yr (358 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,690 ft³/s (189 m³/s) Mar. 24, 1979, gage height, 16.7 ft (5.090 m) from floodmark; no flow Nov. 15, 1972, result of upstream construction; minimum, not affected by construction, 0.60 ft³/s (0.017 m³/s) Sept. 26, Oct. 6, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962 reached a stage of about 14.0 ft (4.27 m), from floodmarks, discharge, 4,150 ft³/s (118 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (37 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0400	2340	66.3	10.80	3.292	July 30	0315	1320	37.4	8.14	2.481
June 12	0830	*2640	74.8	*11.41	3.478	Aug. 12	1900	2340	66.3	10.81	3.295
July 25	0345	2620	74.2	11.38	3.469						

Minimum discharge, 1.5 ft³/s (0.042 m³/s) July 22, 23, gage height, 0.91 ft (0.277 m); minimum daily, 1.9 ft³/s (0.054 m³/s) July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	6.2	9.4	10	6.9	13	15	6.3	62	3.0	16	5.8
2	14	4.9	8.2	8.6	33	13	13	5.4	19	9.6	72	5.4
3	7.1	4.4	7.5	7.5	16	12	11	5.0	15	28	55	6.0
4	5.3	77	6.9	7.2	9.7	14	11	4.8	17	30	15	5.3
5	5.3	19	6.8	7.0	8.4	30	15	4.8	6.4	9.7	9.6	143
6	5.1	7.8	6.8	8.0	8.3	19	13	5.0	11	11	7.8	20
7	4.1	6.0	6.8	13	9.8	13	9.8	11	33	5.9	7.0	188
8	3.6	5.3	6.6	9.0	20	12	9.2	7.0	15	4.1	83	34
9	3.6	5.0	6.8	8.0	12	12	11	5.6	6.5	3.2	91	18
10	3.3	4.7	26	7.5	33	12	10	5.6	4.9	2.8	120	10
11	3.1	4.3	15	6.8	982	12	9.1	7.3	3.9	16	126	8.3
12	2.8	4.2	9.8	7.0	60	11	9.3	5.6	608	9.2	373	7.5
13	2.7	4.2	8.6	7.2	29	11	11	4.8	31	5.3	89	6.8
14	2.9	4.3	7.7	6.6	20	11	11	4.6	13	4.2	25	6.2
15	2.9	25	7.2	6.9	17	10	13	4.3	8.4	3.5	14	5.8
16	2.9	34	7.4	6.6	16	10	9.1	3.9	6.4	41	57	6.7
17	3.0	56	7.4	6.2	14	10	9.1	3.9	5.4	29	56	7.8
18	2.9	38	6.8	6.0	14	11	9.4	3.7	9.2	4.6	15	5.8
19	6.5	14	6.8	6.2	186	11	10	3.9	5.7	3.2	49	5.1
20	4.3	9.4	6.5	6.4	104	9.8	17	21	5.2	2.9	35	4.7
21	3.1	7.2	6.2	9.3	38	9.9	9.4	10	4.5	2.3	14	4.7
22	3.0	6.6	6.5	7.7	27	13	8.5	5.2	3.7	1.9	11	4.8
23	2.8	6.3	8.2	6.9	26	52	8.7	4.4	3.3	40	9.4	4.5
24	3.0	117	7.9	6.6	20	20	9.1	4.4	2.9	60	8.6	4.0
25	20	34	7.3	6.4	16	14	7.5	3.9	3.0	604	7.8	3.9
26	6.6	14	6.3	6.3	15	12	6.9	3.5	23	20	7.1	4.0
27	4.1	46	7.1	6.5	14	12	6.7	39	4.1	9.3	6.8	3.8
28	5.6	26	16	6.5	13	11	6.4	20	3.0	6.8	6.5	3.6
29	5.1	14	11	6.2	---	9.8	6.2	8.4	2.6	6.6	6.3	3.4
30	45	11	16	8.2	---	57	6.0	17	2.6	403	6.3	3.7
31	12	---	15	8.9	---	25	---	45	---	37	6.3	---
TOTAL	263.7	615.8	282.5	231.2	1768.1	492.5	301.4	284.3	938.7	1417.1	1405.5	540.6
MEAN	8.51	20.5	9.11	7.46	63.1	15.9	10.0	9.17	31.3	45.7	45.3	18.0
MAX	68	117	26	13	982	57	17	45	608	604	373	188
MIN	2.7	4.2	6.2	6.0	6.9	9.8	6.0	3.5	2.6	1.9	6.3	3.4
CFSM	.22	.52	.23	.19	1.59	.40	.25	.23	.79	1.15	1.14	.46
IN.	.25	.58	.27	.22	1.66	.46	.28	.27	.88	1.33	1.32	.51

CAL YR 1980 TOTAL 14894.7 MEAN 40.7 MAX 954 MIN 1.1 CFSM 1.03 IN 13.99
WTR YR 1981 TOTAL 8541.4 MEAN 23.4 MAX 982 MIN 1.9 CFSM .59 IN 8.02

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 downstream side of culvert wingwall at Sharon View Road (Secondary Road 3673), 3.3 mi (5.3 km) south of Queens College, Charlotte, and 6.9 mi (11.1 km) upstream from mouth.

DRAINAGE AREA.--6.95 mi² (18.00 km²).

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 (180.719 m) National Geodetic Vertical Datum of 1929 (levels by city of Charlotte). Prior to Oct. 13, 1970, at site 73 ft (22.2 m) upstream at same datum. Oct. 13, 1970 to Dec. 30, 1971, at site 154 ft (47 m) downstream at datum 2.00 ft (0.610 m) lower.

REMARKS.--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.

AVERAGE DISCHARGE.--19 years, 7.71 ft³/s (0.218 m³/s), 15.06 in/yr (383 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft³/s (67.7 m³/s) Mar. 23, 1979, gage height, 9.91 ft (3.021 m); no flow Aug. 31, Sept. 1, 2, 1962, Sept. 19-23, 1963, Sept. 3, 4, Oct. 5, 1968, Oct. 8, 27, 28, 1970, Mar. 28, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962 reached a stage of 7.5 ft (2.29 m), former site and datum, from floodmarks, discharge, 1,040 ft³/s (29.5 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0200	826	23.4	6.17	1.881	July 25	0330	1020	28.9	7.06	2.152
July 11	2045	552	15.6	4.66	1.420	Aug. 12	2015	797	22.6	6.02	1.835
July 16	2145	506	14.3	4.40	1.341	Sept. 7	0615	*1340	37.9	*8.31	2.533

Minimum discharge, 0.13 ft³/s (0.004 m³/s) June 24, 25, July 23, gage height, 0.72 ft (0.219 m); minimum daily, 0.17 ft³/s (0.005 m³/s) June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	.86	1.0	1.3	.99	1.4	1.7	.54	19	.33	1.7	.65
2	2.3	.62	.90	1.1	12	1.3	1.5	.36	8.0	1.2	9.9	.61
3	1.6	.56	.80	1.1	1.4	1.2	1.4	.32	3.7	11	21	.53
4	.85	32	.73	1.0	1.0	3.9	1.3	.34	3.3	3.9	6.5	.58
5	.65	1.8	.70	.86	.90	6.9	3.4	.40	.71	1.2	3.8	30
6	.49	.85	.70	1.0	.83	2.0	1.5	.53	1.2	1.4	2.1	1.7
7	.49	.78	.70	2.0	2.7	1.3	1.1	3.1	12	19	1.5	170
8	.46	.78	.68	.98	3.5	1.1	.96	.63	1.7	1.6	56	25
9	.56	.70	2.2	1.1	1.2	1.1	1.9	.41	.49	.34	13	4.3
10	.54	.66	13	.92	38	1.1	1.3	.47	.42	.24	11	1.4
11	.57	.75	1.6	.73	217	1.1	.96	1.1	.34	42	15	1.0
12	.49	.96	1.1	.69	8.4	1.1	.95	.43	40	3.2	106	.84
13	.42	.96	.90	.73	4.8	1.1	.90	.33	1.3	.47	30	.75
14	.40	.94	.80	.83	2.8	1.0	1.0	.29	.67	.31	3.1	.79
15	.44	24	.75	.89	2.1	.96	2.3	.27	.46	.24	1.7	.67
16	.40	13	.76	.73	1.8	1.0	.73	.23	.42	41	27	.77
17	.40	26	.76	.69	1.7	.95	.74	.27	.42	6.3	6.4	.99
18	.41	7.3	.72	.84	1.8	1.3	.71	.24	2.0	.57	1.7	.50
19	2.2	1.7	.70	.78	64	1.3	.82	.62	.47	.36	6.6	.48
20	.53	1.0	.71	.71	19	.91	2.6	12	.34	.28	2.6	.43
21	.35	.80	.64	2.1	5.4	.86	.66	1.2	.31	.24	1.2	.82
22	.36	.68	.61	.93	3.4	5.0	.64	.43	.28	.25	1.0	.82
23	.32	5.0	1.2	.81	3.0	14	.89	.31	.23	24	.89	.38
24	.56	30	1.4	.75	2.4	1.7	.86	.31	.17	55	.86	.36
25	11	5.0	1.5	.73	1.8	1.3	.48	.27	3.5	163	.79	.35
26	.87	3.0	1.3	.83	1.6	1.1	.52	.21	9.3	2.3	.72	.47
27	.45	15	1.6	.83	1.4	1.1	.53	17	.37	1.2	.65	.53
28	1.6	3.0	3.7	.81	1.2	.98	.43	2.4	.20	.89	.66	.81
29	.68	1.5	1.3	.73	---	.97	.41	.79	.28	1.3	.68	.41
30	20	1.2	6.7	2.4	---	27	.73	9.0	.38	52	.62	.29
31	2.3	---	2.1	1.6	---	2.5	---	15	---	5.6	.69	---
TOTAL	73.69	181.40	52.26	31.50	406.12	88.53	33.92	69.80	111.96	440.72	335.36	247.23
MEAN	2.38	6.05	1.69	1.02	14.5	2.86	1.13	2.25	3.73	14.2	10.8	8.24
MAX	21	32	13	2.4	217	27	3.4	17	40	163	106	170
MIN	.32	.56	.61	.69	.83	.86	.41	.21	.17	.24	.62	.29
CFSM	.34	.87	.24	.15	2.09	.41	.16	.32	.54	2.04	1.55	1.19
IN.	.39	.97	.28	.17	2.17	.47	.18	.37	.60	2.36	1.79	1.32

CAL YR 1980 TOTAL 3347.11 MEAN 9.15 MAX 244 MIN .15 CFSM 1.32 IN 17.91
WTR YR 1981 TOTAL 2072.49 MEAN 5.68 MAX 217 MIN .17 CFSM .82 IN 11.09

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 (46 m) downstream from McMullen Creek, 735 ft (224 m) upstream from effluent outfall, and 2.1 mi (3.4 km) south of Pineville.

DRAINAGE AREA.--92.4 mi² (239.3 km²).

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 516.29 ft (157.365 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977 at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. The drainage area is the eastern side of the city of Charlotte and has an impervious area of about 12 percent.

AVERAGE DISCHARGE.--7 years, 128 ft³/s (3.625 m³/s), 18.81 in/yr (478 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,480 ft³/s (184 m³/s) Mar. 30, 1977, gage height, 12.16 ft (3.706 m), former datum; maximum gage height, 13.53 ft (4.124 m), former datum, Oct. 9, 1976 (affected by backwater from Sugar Creek); minimum, 1.1 ft³/s (0.031 m³/s) Sept. 16, 17, 1980; minimum daily, 1.2 ft³/s (0.034 m³/s) Sept. 16, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1964, about 12.9 ft (3.93 m), former datum, Apr. 1, 1973, from information by plant operator.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,380 ft³/s (39 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1345	*3520	99.7	*9.72	2.963	Aug. 9	0630	1490	42.2	6.68	2.036
July 25	1300	1970	55.8	7.65	2.332	Sept. 7	1100	3440	97.4	9.63	2.935

Minimum discharge, 3.4 ft³/s (0.096 m³/s) July 23, gage height, 1.02 ft (0.311 m); minimum daily, 3.8 ft³/s (0.108 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	497	19	32	25	18	31	39	12	184	4.2	39	10
2	60	13	28	22	65	29	33	11	26	12	144	9.5
3	26	11	24	20	42	27	28	9.3	35	43	225	9.8
4	17	195	22	20	23	27	26	9.1	44	79	42	9.6
5	13	66	21	16	21	70	31	9.0	15	22	22	800
6	12	25	20	19	20	43	38	9.5	18	23	17	188
7	11	18	19	25	20	31	25	20	98	17	14	1910
8	9.4	15	19	22	39	27	23	18	27	39	170	489
9	9.0	14	19	18	27	25	24	11	14	7.6	1170	197
10	8.7	12	41	17	43	25	28	10	9.3	5.8	139	51
11	8.1	11	48	15	2510	24	23	14	7.7	47	810	36
12	7.4	10	27	16	626	24	22	12	598	153	452	29
13	6.9	10	24	16	108	23	20	9.1	169	14	801	24
14	7.2	10	22	18	70	23	19	8.5	27	7.6	86	20
15	8.4	47	20	20	54	22	26	8.2	16	5.6	41	18
16	8.4	123	20	18	46	22	19	7.4	11	16	32	16
17	8.8	118	20	17	41	21	18	6.9	9.1	170	189	22
18	8.5	237	18	16	40	21	18	7.0	15	16	35	18
19	18	50	18	22	485	25	19	7.3	13	8.7	48	14
20	17	35	17	17	628	21	32	23	9.7	7.3	86	13
21	9.7	27	16	22	171	20	19	33	8.3	6.3	31	12
22	8.9	23	16	22	84	22	16	10	6.8	5.2	22	12
23	8.0	21	21	18	69	120	17	7.9	5.4	22	19	11
24	7.3	378	21	17	52	51	19	7.0	4.8	274	16	9.6
25	43	237	19	16	43	32	15	6.9	4.4	1440	14	9.2
26	21	56	18	16	37	27	13	6.2	40	137	13	9.1
27	10	153	18	16	34	25	12	55	10	29	12	9.0
28	11	115	33	16	32	23	12	61	5.2	19	11	8.6
29	13	50	31	15	---	22	11	18	4.1	14	11	8.4
30	108	37	32	16	---	129	11	14	3.8	689	11	8.2
31	44	---	41	23	---	78	---	122	---	159	11	---
TOTAL	1045.7	2136	745	576	5448	1110	656	563.3	1438.6	3492.3	4733	3981.0
MEAN	33.7	71.2	24.0	18.6	195	35.8	21.9	18.2	48.0	113	153	133
MAX	497	378	48	25	2510	129	39	122	598	1440	1170	1910
MIN	6.9	10	16	15	18	20	11	6.2	3.8	4.2	11	8.2
CFSM	.37	.77	.26	.20	2.11	.39	.24	.20	.52	1.22	1.66	1.44
IN.	.42	.86	.30	.23	2.19	.45	.26	.23	.58	1.41	1.91	1.60

CAL YR 1980 TOTAL 41802.2 MEAN 114 MAX 3130 MIN 1.2 CFSM 1.23 IN 16.83
WTR YR 1981 TOTAL 25924.9 MEAN 71.0 MAX 2510 MIN 3.8 CFSM .77 IN 10.44

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 (27 m) upstream from bridge on State Highway 16, 680 ft (207 m) downstream from West Fork Twelve Mile Creek, and 2.5 mi (4.0 km) north of Waxhaw.

DRAINAGE AREA.--76.5 mi² (198.1 km²).

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 (149.059 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 13, 1962, water-stage recorder at site 70 ft (21 m) downstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--21 years, 71.9 ft³/s (2.036 m³/s), 12.76 in/yr (324 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,700 ft³/s (218 m³/s) Apr. 1, 1973, gage height, 19.92 ft (6.072 m); no flow Oct. 6, 1968, Oct. 7-15, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, 23.6 ft (7.19 m) Sept. 7, 1949, from floodmarks. No flow observed on Oct. 6, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	1700	*2340	66.3	*13.42	4.090	Sept. 7	1100	1670	47.3	11.98	3.652

Minimum discharge, 0.50 ft³/s (0.014 m³/s) June 29-July 1, gage height, 1.21 ft (0.369 m); minimum daily, 0.55 ft³/s (0.016 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	330	13	26	18	10	29	25	7.1	10	.61	726	3.1
2	51	8.2	22	16	20	28	20	6.8	12	23	726	2.7
3	20	6.4	20	14	33	26	17	6.2	19	23	726	2.6
4	12	46	18	13	19	23	16	5.9	21	118	726	13
5	8.1	57	17	12	15	45	20	5.8	11	12	726	840
6	5.8	20	16	11	13	44	25	5.5	6.1	6.1	726	98
7	4.8	12	15	12	13	32	20	7.5	4.7	4.1	726	1110
8	4.2	8.8	14	13	16	26	18	7.5	4.7	4.0	726	224
9	3.8	7.8	13	12	18	23	18	6.9	3.7	2.1	726	92
10	3.4	7.0	21	11	16	22	18	6.7	3.0	1.6	546	35
11	2.9	6.1	46	10	1800	22	17	10	2.4	12	379	22
12	2.2	5.8	26	9.7	389	21	16	11	3.8	118	48	16
13	2.0	6.1	19	9.4	95	21	15	6.6	5.3	10	51	13
14	1.9	6.1	17	9.9	59	20	13	5.5	3.3	4.3	21	11
15	1.9	7.0	15	11	45	19	13	4.9	2.2	2.3	14	9.2
16	2.0	25	15	11	38	18	12	4.2	1.7	1.6	11	8.4
17	2.0	37	15	11	34	17	12	3.7	1.4	56	8.9	63
18	2.0	132	14	10	31	17	12	3.5	5.4	7.9	7.6	21
19	3.9	38	13	10	910	19	12	3.5	6.0	3.1	8.0	12
20	6.3	22	12	10	729	18	13	3.6	6.8	2.0	23	9.5
21	5.0	17	11	11	192	17	12	4.2	3.6	5.7	11	7.7
22	3.8	13	10	13	97	18	11	4.2	2.1	3.0	7.5	6.7
23	2.8	12	11	12	67	80	10	3.5	1.4	1.5	6.0	5.9
24	2.5	293	12	12	51	30	12	3.1	.99	1.1	5.4	5.2
25	3.8	332	12	11	40	20	10	2.8	.84	608	4.9	4.7
26	5.9	60	11	11	36	17	9.2	2.6	.80	57	4.2	4.4
27	5.1	66	11	11	32	15	8.8	4.1	.73	726	3.5	4.3
28	4.8	104	13	11	29	14	8.0	20	.67	726	3.1	4.2
29	5.3	46	17	10	---	13	7.4	8.3	.57	726	3.1	3.9
30	16	32	18	10	---	90	7.1	5.7	.55	726	3.0	3.2
31	27	---	18	10	---	50	---	11	---	726	3.1	---
TOTAL	552.2	1446.3	518	356.0	4847	854	427.5	191.9	145.75	4718.01	7706.3	2655.7
MEAN	17.8	48.2	16.7	11.5	173	27.5	14.3	6.19	4.86	152	249	88.5
MAX	330	332	46	18	1800	90	25	20	21	726	726	1110
MIN	1.9	5.8	10	9.4	10	13	7.1	2.6	.55	.61	3.0	2.6
CFSM	.23	.63	.22	.15	2.26	.36	.19	.08	.06	1.99	3.26	1.16
IN.	.27	.70	.25	.17	2.36	.42	.21	.09	.07	2.29	3.75	1.29

CAL YR 1980 TOTAL 30968.78 MEAN 84.6 MAX 2040 MIN .12 CFSM 1.11 IN 15.06
WTR YR 1981 TOTAL 24418.66 MEAN 66.9 MAX 1800 MIN .55 CFSM .88 IN 11.87

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 (12 m) upstream from bridge on U.S. Highways 64 and 74, 1.0 mi (1.6 km) upstream from mouth, and 5 mi (8 km) east of town of Lake Lure.

DRAINAGE AREA.--79.0 mi² (204.6 km²).

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 (248.53 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 20, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--31 years, 136 ft³/s (3.852 m³/s), 23.38 in/yr (594 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft³/s (200 m³/s) June 5, 1957, gage height, 18.53 ft (5.65 m); minimum, 21 ft³/s (0.59 m³/s) Sept. 8, 9, 28, 30, Oct. 1-3, 5-7, 11-13, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 23 ft (7.0 m), from records of North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 930 ft³/s (26.3 m³/s) Feb. 11, gage height, 5.30 ft (1.615 m), no peak above base of 1,400 ft³/s (40 m³/s); minimum, 34 ft³/s (0.96 m³/s) Aug. 28, 29, gage height, 1.84 ft (0.561 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	119	125	84	71	101	176	64	250	70	69	40
2	174	112	119	81	126	97	141	62	191	153	89	42
3	134	109	113	80	93	93	125	62	169	116	69	48
4	118	113	109	80	84	94	114	62	154	87	59	43
5	120	107	107	74	80	118	135	62	135	72	54	47
6	120	103	104	75	75	97	119	62	119	68	54	424
7	110	102	102	75	75	92	108	77	114	65	58	219
8	105	101	99	74	78	90	103	70	104	62	62	104
9	101	100	99	74	75	89	101	65	97	56	53	80
10	99	98	102	73	98	87	97	65	90	53	50	68
11	98	96	96	75	597	85	92	202	84	52	49	61
12	95	96	94	75	217	84	90	97	82	55	48	57
13	94	96	94	75	150	84	87	80	90	56	49	55
14	94	96	93	80	130	82	85	75	87	49	46	52
15	94	117	91	84	118	80	84	80	76	47	45	53
16	92	122	92	83	111	80	79	70	71	64	45	59
17	92	108	91	81	110	79	82	69	68	64	45	51
18	93	127	90	77	151	79	87	69	96	51	46	48
19	116	110	89	75	286	79	82	79	71	54	43	47
20	97	105	88	72	227	77	97	131	67	51	46	46
21	94	103	86	82	172	77	82	109	63	46	43	45
22	92	100	86	74	145	87	77	85	60	41	41	44
23	92	101	85	71	148	118	79	76	58	39	40	43
24	95	176	85	69	131	121	80	70	57	63	41	41
25	171	144	83	69	120	145	74	66	57	243	38	42
26	118	123	82	70	114	147	72	64	66	76	37	41
27	106	232	82	70	108	129	70	437	55	70	39	41
28	124	206	83	69	104	112	67	391	53	75	36	41
29	114	154	83	67	---	103	65	184	52	72	36	39
30	152	136	97	70	---	376	65	170	56	63	39	39
31	133	---	89	68	---	265	---	296	---	69	43	---
TOTAL	3641	3612	2938	2326	3994	3447	2815	3551	2792	2202	1512	2060
MEAN	117	120	94.8	75.0	143	111	93.8	115	93.1	71.0	48.8	68.7
MAX	304	232	125	84	597	376	176	437	250	243	89	424
MIN	92	96	82	67	71	77	65	62	52	39	36	39
CFSM	1.48	1.52	1.20	.95	1.81	1.41	1.19	1.46	1.18	.90	.62	.87
IN.	1.71	1.70	1.38	1.10	1.88	1.62	1.33	1.67	1.31	1.04	.71	.97

CAL YR 1980 TOTAL 64136 MEAN 175 MAX 1630 MIN 76 CFSM 2.22 IN 30.20
WTR YR 1981 TOTAL 34890 MEAN 95.6 MAX 597 MIN 36 CFSM 1.21 IN 16.43

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 (0.3 km) downstream from dam at Cliffside Mills, at Cliffside, and 1.3 mi (2.1 km) upstream from mouth.

DRAINAGE AREA.--220 mi² (570 km²), revised.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 892: 1928(M), drainage area. WSP 1553: 1935-39(m).

GAGE.--Water-stage recorder. Datum of gage is 670.5 ft (204.37 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--Water-discharge records good. Considerable diurnal fluctuation and some low-flow regulation by mills above station.

AVERAGE DISCHARGE.--56 years, 313 ft³/s (8.864 m³/s), 19.32 in/yr (491 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) Aug. 14, 1940, gage height, 17.93 ft (5.465 m); minimum, 4 ft³/s (0.11 m³/s) Sept. 27, 1935, Aug. 3, 1937, July 24, 1943; minimum daily, 6 ft³/s (0.17 m³/s) June 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,000 ft³/s (56.1 m³/s) May 28, gage height, 4.09 ft (1.247 m), no peak above base of 3,000 ft³/s (85 m³/s); minimum, 12 ft³/s (0.34 m³/s) Oct. 25, gage height, 0.62 ft (0.189 m); minimum daily, 43 ft³/s (1.22 m³/s) July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	778	241	274	195	156	202	484	139	444	183	145	105
2	517	222	251	153	183	200	366	126	347	108	152	56
3	341	214	232	183	198	189	292	148	372	173	186	85
4	269	245	226	138	176	189	261	179	285	191	181	94
5	251	245	212	157	136	227	264	139	255	146	123	76
6	254	218	206	196	173	204	308	129	223	132	94	419
7	232	193	203	150	144	185	258	185	237	110	122	925
8	215	202	202	183	159	185	237	154	212	109	125	307
9	211	198	198	139	172	183	230	137	202	109	129	209
10	207	201	207	153	145	175	236	144	172	108	82	145
11	162	192	202	150	631	174	211	376	165	111	116	135
12	187	180	195	130	561	173	207	296	156	66	111	126
13	183	172	180	138	332	172	204	202	130	101	102	111
14	212	203	181	183	263	153	198	154	149	98	107	103
15	186	183	190	182	238	166	212	177	148	100	102	135
16	155	214	188	167	221	172	192	149	149	86	77	112
17	189	210	193	140	208	173	182	154	135	116	100	121
18	153	233	152	145	242	139	200	177	119	114	96	90
19	256	213	186	173	292	176	191	153	138	98	93	76
20	201	200	148	173	374	143	203	172	95	144	119	89
21	185	196	171	144	331	154	201	240	107	79	56	93
22	179	175	171	171	286	169	186	183	111	43	106	104
23	176	188	175	171	276	231	182	153	113	76	63	96
24	177	263	176	126	275	237	178	147	118	655	120	92
25	239	341	173	156	241	253	165	141	98	720	79	53
26	258	264	165	173	225	253	171	175	110	233	54	110
27	216	346	169	134	209	227	173	201	97	181	112	72
28	202	573	175	172	197	208	161	1390	65	144	55	71
29	227	381	187	138	---	199	142	526	88	150	100	86
30	265	312	189	151	---	498	184	324	95	140	58	93
31	315	---	191	153	---	926	---	427	---	147	98	---
TOTAL	7598	7218	5968	4917	7044	6935	6679	7397	5135	4971	3263	4389
MEAN	245	241	193	159	252	224	223	239	171	160	105	146
MAX	778	573	274	196	631	926	484	1390	444	720	186	925
MIN	153	172	148	126	136	139	142	126	65	43	54	53
CFSM	1.11	1.10	.88	.72	1.15	1.02	1.01	1.09	.78	.73	.48	.66
IN.	1.28	1.22	1.01	.83	1.19	1.17	1.13	1.25	.87	.84	.55	.74

CAL YR 1980 TOTAL 131328 MEAN 359 MAX 3040 MIN 120 CFSM 1.63 IN 22.21
WTR YR 1981 TOTAL 71514 MEAN 196 MAX 1390 MIN 43 CFSM .89 IN 12.09

02151000 SECOND BROAD RIVER AT CLIFFSIDE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/29	14 30	0000	1.57	222		7.20	11.0	10.0	9.5	85.6	10K	0.6
80/11/10	11 00	0000	1.54	209	22		13.0		9.1	85.8	10K	0.4
80/12/17	10 40	0000	1.50	193	124		6.0	4.0	11.0	88.0	10K	0.6
81/01/30	13 30	0000	1.36	142	122		6.0	6.0	11.5	92.0	10K	1.5
81/02/05	12 25	0000	1.47	181	108		0.5	6.0	13.7	96.5	10K	1.3
81/03/24	11 30	0000	1.63	247	72	7.00	8.0	9.0	10.6	89.1	10K	0.9
81/04/15	11 00	0000	1.56	218	101	7.20	18.0	10.0	8.5	89.5	10K	1.2
81/05/21	10 50	0000	1.67	264		7.30	14.0	15.0	9.3	89.4		0.9
81/06/09	13 15	0000	1.54	2		7.10	25.0	20.0	7.4	88.1		0.7
81/07/09	13 00	0000	1.18	92	120	7.10	25.0	10.0	7.3	86.9		1.3
81/08/11	09 30	0000	1.40	156	84	7.00	24.0	15.0	7.8	91.8		1.8
81/09/09	10 00	0000	1.53	205		7.00	21.0	45.0	7.4	82.2		1.2

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/29	14 30	0000	2700	23	0.21	0.050K	0.300	0.170	0.110	10K	50K	50K
80/11/10	11 00	0000	100	22								
80/12/17	10 40	0000	220	23	0.33	0.110	0.200	0.190	0.100	10K	50K	50K
81/01/30	13 30	0000	50	22								
81/02/05	12 25	0000	10	22								
81/03/24	11 30	0000	80	19	0.36	0.090	0.200	0.120	0.050		50K	50K
81/04/15	11 00	0000	830	22								
81/05/21	10 50	0000	1100	22								
81/06/09	13 15	0000	410	21	0.42	0.140	0.200	0.100	0.050K		50K	50K
81/07/09	13 00	0000	250	24								
81/08/11	09 30	0000	210	21								
81/09/09	10 00	0000	300	17	0.28	0.050	0.400	0.130	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/29	14 30	0000	100K	40K	700	100K	80.0	0.5K	50K
80/12/17	10 40	0000	100K	40K	600	100K	80.0	0.5K	50K
81/03/24	11 30	0000	100K	40K	600	100K	60.0	0.5K	50K
81/06/09	13 15	0000	100K	40K	900	100K	110.0	0.5K	50K
81/09/09	10 00	0000	100K	40K	1700	100	110.0	0.5K	50K

K Less than noted value.

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 (0.8 km) upstream from Sandy Run Creek, 3 mi (5 km) downstream from Second Broad River, and 3.5 mi (5.6 km) southwest of Boiling Springs. Water-quality samples collected at bridge on State Highway 150, 2.4 mi (3.9 km) downstream.

DRAINAGE AREA.--875 mi² (2,266 km²), revised.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 639.92 ft (195.048 m) National Geodetic Vertical Datum of 1929 (Duke Power Co. bench mark). Prior to July 20, 1934, at site 500 ft (152 m) upstream at datum 1 ft (0.305 m) higher. Duke Power Company stage telephone-telemeter at station.

REMARKS.--Water-discharge records good. Considerable diurnal fluctuation and some regulation caused by powerplants above station.

AVERAGE DISCHARGE.--56 years, 1,512 ft³/s (42.82 m³/s), 23.47 in/yr (596 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,300 ft³/s (2,080 m³/s) Aug. 16, 1928, gage height, 24.3 ft (7.4 m), former site, present datum; minimum, 40 ft³/s (1.13 m³/s) Oct. 17, 1954, gage height, 1.02 ft (0.311 m); minimum daily, 105 ft³/s (2.97 m³/s) Oct. 10, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,750 ft³/s (135 m³/s) Sept. 6, gage height, 5.00 ft (1.524 m), no peak above base of 9,000 ft³/s (250 m³/s); minimum, 287 ft³/s (8.13 m³/s) Aug. 23, 30, gage height, 1.46 ft (0.445 m); minimum daily, 316 ft³/s (8.95 m³/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3650	1140	1210	1010	706	1030	2320	965	2090	679	636	469
2	2710	982	1330	776	773	877	1660	794	1650	567	645	425
3	1960	888	1210	905	1120	1040	1490	642	1660	1790	679	454
4	1360	1110	1190	716	898	1060	1310	627	1520	1450	679	482
5	1090	1130	1250	778	873	1300	1330	970	1460	970	636	464
6	969	998	1270	1030	889	1290	1410	726	1330	750	559	2030
7	1220	897	1010	910	892	1230	1160	844	1090	670	576	3150
8	1100	901	911	882	736	942	1160	891	1030	636	534	1470
9	910	851	989	833	735	894	1110	813	1210	602	593	924
10	900	818	1070	870	941	979	1220	584	1100	567	525	773
11	881	841	1210	716	2380	959	1190	994	978	542	534	708
12	777	863	1050	614	2690	1070	932	1550	855	537	517	679
13	834	1080	959	926	1740	933	948	1240	804	589	493	511
14	853	890	883	947	1420	961	1250	1020	699	584	509	556
15	780	809	897	924	1200	707	1160	778	661	584	468	560
16	779	944	1160	881	1030	674	940	1010	918	550	437	554
17	831	897	1130	845	1320	939	863	638	660	602	468	567
18	953	1060	1020	694	1280	940	1090	727	642	593	445	518
19	1200	1010	1010	711	1520	828	863	849	704	484	493	514
20	984	971	954	891	2170	745	844	950	617	567	509	511
21	1070	918	844	853	1790	778	1140	1070	639	559	437	509
22	1040	821	825	899	1570	674	1190	1090	649	567	509	501
23	929	799	919	887	1240	832	873	1010	627	509	316	493
24	936	1050	1130	922	1430	1240	951	679	653	941	476	458
25	1150	1560	860	706	1390	1040	884	679	593	1200	431	452
26	1160	1310	822	715	1400	1150	737	679	619	1060	407	470
27	922	1530	896	892	1320	940	767	930	619	696	466	374
28	1040	2330	897	872	1230	1080	921	4110	509	653	401	463
29	951	1630	861	836	---	910	822	2100	525	610	428	448
30	1080	1250	1130	830	---	1500	863	1650	534	645	336	474
31	1280	---	1190	848	---	3740	---	1740	---	645	393	---
TOTAL	36299	32278	32087	26019	36683	33282	33398	33349	27645	22398	15535	20961
MEAN	1171	1076	1035	839	1310	1074	1113	1076	922	723	501	699
MAX	3650	2330	1330	1030	2690	3740	2320	4110	2090	1790	679	3150
MIN	777	799	822	614	706	674	737	584	509	484	316	374
CFSM	1.34	1.23	1.18	.96	1.50	1.23	1.27	1.23	1.05	.83	.57	.80
IN.	1.54	1.37	1.36	1.11	1.56	1.41	1.42	1.42	1.18	.95	.66	.89

CAL YR 1980 TOTAL 649304 MEAN 1774 MAX 11900 MIN 677 CFSM 2.03 IN 27.60
WTR YR 1981 TOTAL 349934 MEAN 959 MAX 4110 MIN 316 CFSM 1.10 IN 14.88

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946, 1957-67, 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1956 to September 1967, October 1978 to September 1981.
WATER TEMPERATURES: October 1945 to September 1946, October 1956 to September 1967, October 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1978.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams. Daily records of specific conductance for period October 1956 to September 1964 are available in the district office in Raleigh, NC. Once-daily observer readings used several times when water-quality monitor malfunctioned. Interruptions in the record during maximum water temperature period due to instrument malfunctioning.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,000 micromhos Apr. 12, 1962; minimum daily, 22 micromhos Mar. 30, 1960, Nov. 8, 1980.
WATER TEMPERATURES: Maximum recorded, 33.5°C July 14, 15, 1981; minimum, 0.0°C on several days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 112 micromhos Aug. 31; minimum, 22 micromhos Nov. 8.
WATER TEMPERATURES: Maximum recorded, 33.5°C July 14, 15; minimum, 2.0°C Dec. 13, 27, Jan. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT											
14...	1430	830	50	7.5	17.0	15	9.8	12	0	2.9	1.2
FEB											
18...	0900	1400	49	7.0	9.0	5	10.0	11	0	2.7	1.1
MAY											
18...	0930	700	62	6.4	18.5	18	9.2	15	0	3.5	1.5
AUG											
25...	0800	324	80	7.1	24.0	15	6.9	16	0	3.9	1.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT											
14...	4.3	40	.5	1.4	20	0	16	1.0	2.8	3.3	.1
FEB											
18...	4.7	45	.6	1.1	18	0	15	2.9	3.6	3.5	<.1
MAY											
18...	5.9	43	.7	1.4	30	0	25	19	4.4	4.6	<.1
AUG											
25...	9.0	52	1.0	1.8	22	0	18	2.8	7.5	6.8	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT											
14...	16	45	43	.06	101	.17	.010	.18	.19	5.4	.040
FEB											
18...	14	37	41	.05	140	--	<.010	.28	.22	--	.010
MAY											
18...	15	59	45	.08	112	--	--	--	--	--	--
AUG											
25...	14	59	57	.08	51.6	--	<.010	.23	.26	--	.060

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITROGEN, TOTAL (MG/L AS N)
OCT										
14...	.060	.05	.08	.13	.04	.17	.07	.10	100	.35
FEB										
18...	.010	--	.01	.12	.00	.13	.12	.01	--	.41
MAY										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	.040	--	.05	.17	.12	.23	.07	.16	--	.46

DATE	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN, TOT IN BOTTOM MATERIAL (MG/KG AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHATE, TOTAL (MG/L AS PO4)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
OCT										
14...	1.6	105	.29	.050	.09	.15	.030	.030	.020	.06
FEB										
18...	1.8	--	.23	.040	--	.12	.050	.010	.040	.12
MAY										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	2.0	--	.42	.080	--	.25	.060	.050	.050	.15

DATE	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
OCT										
14...	280	0	<10	10	9	1	<10	<10	7	4
FEB										
18...	--	--	--	20	19	1	--	--	3	0
MAY										
18...	--	--	--	10	10	0	--	--	5	0
AUG										
25...	--	--	--	10	--	<1	--	--	9	5

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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, SUS-PENDED 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, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
OCT 14...	3	<10	1100	940	160	1100	3	3	0	<10
FEB 18...	3	--	590	460	130	--	6	6	0	--
MAY 18...	11	--	760	540	220	--	1	0	2	--
AUG 25...	4	--	14000	14000	190	--	17	16	1	--

DATE	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED 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 DIS-SOLVED (MG/L AS C)
OCT 14...	240	.00	0	10	6	4	6	11
FEB 18...	--	--	--	20	--	<4	--	2.5
MAY 18...	--	--	--	40	30	7	--	--
AUG 25...	--	--	--	30	20	10	--	2.6

DATE	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPO-SURE (DAYS)
OCT 14...	.3	.9	.0	.9	.00	--	--	--
FEB 18...	.7	--	--	--	--	--	--	--
MAY 18...	--	--	--	--	.00	16.1	12.4	26
AUG 25...	.3	--	--	--	.10	6.93	4.88	42

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	OCT 14,80		FEB 18,81		MAY 18,81		AUG 25,81	
TIME	1430		0900		0930		0800	
TOTAL CELLS/ML	77		3100		1100		320	
DIVERSITY: DIVISION	0.7		1.1		1.2		1.0	
.CLASS	0.7		1.1		1.2		1.0	
..ORDER	1.3		1.2		1.4		1.0	
...FAMILY	2.3		1.7		2.1		2.3	
....GENUS	2.3		1.7		2.2		2.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	120#	36
...MICRACTINIACEAE								
....GOLENKINIA	13#	17	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	520#	46	--	-
...OOCYSTACEAE								
....DICTYOSPHAERIUM	--	-	28	1	--	-	--	-
....OOCYSTIS	13#	17	--	-	13	1	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	26#	33	--	-	220#	20	58#	18
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	13#	17	98	3	13	1	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....STAURASTRUM	--	-	*	0	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	13#	17	*	0	13	1	--	-
....MELOSIRA	--	-	--	-	52	5	--	-
....STEPHANODISCUS	--	-	--	-	39	3	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	42	1	--	-	14	5
...CYMBELLACEAE								
....CYMBELLA	--	-	70	2	--	-	29	9
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	130	4	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEIS	--	-	42	1	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	42	1	13	1	72#	23
...NITZSCHIACEAE								
....NITZSCHIA	--	-	28	1	13	1	29	9
...TABELLARIACEAE								
....TABELLARIA	--	-	410	13	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	28	1	230#	21	--	-
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	2100#	69	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	48	45	47	41	39	40	72	68	70	61	59	60
2	44	42	43	44	39	41	74	69	72	62	59	61
3	44	42	43	49	45	47	73	62	66	60	56	57
4	46	40	43	55	50	52	60	55	57	58	56	57
5	---	---	46	55	52	53	54	49	51	56	55	56
6	---	---	47	56	54	55	48	38	41	56	51	53
7	---	---	42	53	26	39	40	37	38	58	53	55
8	---	---	45	37	22	29	46	37	40	60	58	59
9	---	---	53	50	36	42	47	43	45	61	55	59
10	---	---	52	55	48	52	48	44	47	57	53	55
11	---	---	51	56	53	55	45	41	43	62	53	58
12	---	---	55	55	54	55	45	43	43	72	57	63
13	---	---	58	---	---	43	43	41	42	61	46	51
14	61	52	55	---	---	49	45	43	44	55	48	52
15	70	55	63	---	---	51	50	45	47	58	51	54
16	68	54	61	---	---	48	51	43	46	58	52	54
17	62	50	56	---	---	48	52	48	49	58	51	54
18	61	42	48	---	---	44	55	52	54	64	56	60
19	51	42	47	---	---	46	58	55	57	65	57	62
20	48	42	44	---	---	46	57	56	57	57	49	52
21	40	33	35	---	---	51	58	55	56	60	49	55
22	40	30	34	---	---	52	61	59	60	62	55	58
23	38	31	34	---	---	58	60	58	60	61	55	57
24	34	26	29	---	---	51	59	55	56	61	54	56
25	46	24	34	---	---	42	56	52	55	63	55	60
26	49	42	46	56	47	51	56	54	55	66	63	64
27	57	45	51	54	47	50	56	56	56	64	51	56
28	56	53	55	58	50	56	59	56	57	59	50	54
29	57	50	55	66	55	58	67	59	62	59	55	57
30	55	53	54	72	64	66	72	67	68	59	52	55
31	52	48	50	---	---	---	72	61	65	61	53	58
MONTH	70	24	48	72	22	49	74	37	54	72	46	57
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	64	58	61	54	44	49	41	37	39	71	36	49
2	60	55	59	55	44	49	39	29	33	72	60	65
3	54	50	52	55	48	52	46	34	38	62	59	61
4	55	52	54	56	53	55	51	40	45	68	55	60
5	55	53	54	56	48	51	52	46	48	65	40	50
6	56	53	55	58	52	55	50	41	45	58	44	52
7	59	56	58	58	54	56	50	44	46	76	55	66
8	61	58	60	54	49	51	52	44	48	61	40	47
9	60	57	58	53	46	49	48	44	46	65	45	55
10	57	46	56	53	51	52	41	29	35	75	50	60
11	50	38	43	50	46	48	40	27	31	66	46	56
12	44	37	42	46	40	42	55	31	41	42	33	38
13	44	36	39	42	41	41	79	45	61	45	39	41
14	42	35	38	42	40	41	74	63	69	57	42	49
15	42	35	40	40	38	39	54	47	50	48	44	47
16	50	34	41	39	37	39	57	45	51	55	44	49
17	54	45	48	59	37	45	66	58	63	55	46	52
18	46	42	44	61	47	54	67	57	61	64	57	61
19	46	38	41	78	52	63	63	59	60	62	37	55
20	46	30	37	76	64	71	65	64	65	37	33	36
21	33	28	30	69	57	61	65	49	57	46	26	35
22	38	31	33	63	59	61	57	42	48	42	35	39
23	48	39	44	58	50	53	63	53	57	41	36	40
24	48	44	46	50	41	45	60	47	54	60	49	54
25	49	45	47	51	43	47	58	45	50	69	65	61
26	50	45	47	51	39	44	54	48	51	57	41	50
27	43	37	40	53	46	50	48	44	47	41	36	39
28	44	40	42	53	47	50	47	32	37	37	24	31
29	---	---	---	53	46	49	48	36	41	46	41	44
30	---	---	---	53	39	50	48	32	38	51	24	40
31	---	---	---	44	27	35	---	---	---	42	29	36
MONTH	64	28	47	78	27	50	79	27	49	76	24	49

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	36	25	32	---	---	55	69	65	68	110	70	85
2	45	38	51	---	---	50	66	64	65	101	81	86
3	45	31	38	---	---	38	66	62	64	103	82	89
4	43	36	38	---	---	38	68	65	66	103	82	91
5	40	27	34	---	---	45	74	66	70	93	83	88
6	43	31	37	---	---	50	77	69	73	90	65	80
7	48	35	42	---	---	55	83	71	77	71	62	66
8	44	32	39	---	---	55	82	70	77	83	71	75
9	54	44	50	---	---	60	74	71	72	86	81	83
10	64	56	61	---	---	69	73	68	71	88	82	85
11	68	50	57	---	---	75	71	65	69	92	85	88
12	74	55	64	---	---	65	76	66	71	93	84	87
13	74	55	65	77	64	71	80	67	74	93	88	91
14	65	57	61	78	64	69	86	72	78	95	87	88
15	65	58	62	80	64	73	89	74	81	90	82	86
16	58	46	52	86	66	77	82	75	78	88	82	85
17	65	50	57	86	68	77	82	74	79	88	77	84
18	66	53	61	92	68	85	76	65	72	88	79	83
19	65	51	58	80	73	76	75	64	69	86	77	81
20	63	49	58	80	65	75	89	69	75	83	79	81
21	61	52	57	77	62	68	90	72	76	83	76	80
22	66	55	61	76	63	69	91	73	82	81	74	76
23	62	54	58	88	64	75	83	79	81	81	66	70
24	69	51	58	91	63	77	92	76	84	85	74	78
25	---	---	57	88	64	73	91	67	75	90	76	82
26	---	---	60	66	58	60	81	67	74	93	78	84
27	---	---	53	65	59	62	103	79	86	93	81	87
28	---	---	50	66	64	65	104	76	82	89	75	81
29	---	---	60	72	66	69	100	80	87	82	72	78
30	---	---	60	71	64	68	98	81	88	81	72	76
31	---	---	---	70	65	68	112	74	91	---	---	---
MONTH	74	25	53	92	58	65	112	62	76	110	62	82
YEAR	112	22	57									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	18.5	19.0	12.5	11.0	12.0	11.5	7.5	10.0	9.0	7.0	7.5
2	21.0	18.5	20.0	12.5	11.0	12.0	13.0	9.5	11.5	8.5	6.5	7.5
3	20.5	18.5	20.0	12.5	11.0	11.5	13.0	11.0	12.0	8.0	6.0	7.0
4	18.5	17.0	17.5	13.0	12.0	12.5	11.5	9.5	10.5	8.0	6.5	7.0
5	---	---	---	12.5	11.5	12.0	11.0	8.5	10.0	6.5	5.0	6.0
6	---	---	---	11.5	9.5	10.5	8.5	6.0	6.5	7.0	4.5	6.0
7	---	---	---	11.0	9.0	10.0	7.5	6.0	7.0	8.0	6.0	7.0
8	---	---	---	13.0	10.5	11.5	11.0	7.0	9.0	7.0	5.0	6.5
9	---	---	---	14.5	12.5	13.5	12.5	11.0	11.5	7.0	4.5	6.0
10	---	---	---	14.0	13.0	13.5	13.5	12.5	12.5	5.5	3.5	4.5
11	---	---	---	13.0	9.5	11.5	12.5	10.5	12.0	4.5	3.5	4.0
12	---	---	---	11.0	9.5	10.5	12.0	8.5	10.0	5.5	2.0	3.5
13	---	---	---	---	---	---	8.5	2.0	6.5	4.5	2.5	4.0
14	19.0	17.5	18.5	---	---	---	7.0	6.0	6.5	5.5	3.0	4.0
15	19.5	16.5	18.0	---	---	---	10.0	6.0	8.0	5.5	3.5	4.0
16	19.5	16.0	18.0	---	---	---	11.5	9.0	10.0	5.5	3.5	4.5
17	18.5	17.0	18.0	---	---	---	11.5	10.0	10.5	6.0	4.0	5.0
18	18.5	17.5	18.0	---	---	---	11.0	9.0	10.0	5.5	3.0	4.5
19	19.0	18.0	18.5	---	---	---	10.5	9.0	10.0	7.0	4.0	5.0
20	18.0	16.5	17.5	---	---	---	9.5	7.0	7.5	6.0	4.5	5.5
21	17.0	14.5	15.5	---	---	---	6.5	5.0	5.5	7.5	6.0	6.5
22	17.0	14.0	16.0	---	---	---	6.0	4.0	5.5	9.0	7.0	8.0
23	16.5	15.0	15.5	---	---	---	5.5	3.5	4.5	9.0	7.0	8.0
24	15.5	13.0	13.5	---	---	---	6.5	4.0	5.5	8.5	6.5	7.0
25	13.5	12.5	13.0	---	---	---	6.0	3.5	4.0	7.5	5.5	6.5
26	12.5	11.0	12.0	12.5	11.0	11.0	6.0	3.5	5.0	9.5	6.0	7.5
27	16.0	12.0	14.0	11.5	9.5	10.0	5.0	2.0	3.5	10.5	9.0	9.5
28	14.5	12.5	13.0	11.5	9.0	10.5	8.5	3.5	6.0	11.0	9.5	10.5
29	14.0	13.5	14.0	11.0	8.5	10.0	10.5	7.5	9.0	10.0	8.5	9.5
30	13.5	12.5	13.0	8.5	7.0	8.0	11.0	9.5	10.5	10.0	8.5	9.0
31	13.0	12.0	12.5	---	---	---	10.0	7.5	9.0	8.5	6.5	7.0
MONTH	21.0	11.0	16.0	14.5	7.0	11.0	13.5	2.0	8.5	11.0	2.0	6.5

SANTEE RIVER BASIN

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	5.5	6.0	13.0	11.0	12.0	15.0	12.5	13.5	20.5	18.5	19.5
2	8.0	6.0	7.0	16.5	13.0	14.5	15.5	12.5	14.0	19.5	17.0	18.0
3	7.0	5.0	6.0	14.5	12.5	14.0	15.5	13.5	14.5	18.5	15.0	17.0
4	6.0	4.0	5.5	14.0	11.5	12.0	15.5	13.5	14.5	20.5	15.0	18.0
5	6.0	4.5	5.5	13.0	10.0	11.5	15.5	14.5	15.0	22.0	18.0	20.0
6	7.0	4.5	6.0	13.0	11.0	12.5	16.5	13.0	14.5	24.0	20.0	22.0
7	7.0	5.0	6.5	12.5	9.5	11.0	16.0	12.5	14.5	22.0	19.5	21.0
8	8.5	6.5	7.0	10.0	8.0	9.0	17.0	13.0	15.0	20.5	17.0	19.0
9	9.0	5.5	7.5	13.5	7.5	10.5	16.5	15.0	16.0	19.5	16.0	18.0
10	9.0	7.0	8.0	13.0	10.0	11.5	20.0	14.5	17.5	17.5	17.0	17.0
11	8.5	6.5	7.5	13.0	10.5	12.0	19.5	16.5	17.5	20.5	16.5	19.0
12	6.5	5.5	6.0	13.5	10.0	12.0	20.5	18.0	19.5	22.0	18.0	20.0
13	6.5	4.0	5.5	13.0	10.5	12.0	24.0	18.5	21.5	21.5	18.5	20.5
14	7.5	5.5	6.5	12.5	10.0	11.5	22.0	18.5	20.0	21.5	18.0	19.5
15	7.0	6.0	6.5	11.5	8.5	10.0	20.0	17.5	18.5	20.0	18.5	19.5
16	11.0	6.5	8.5	15.0	10.5	13.0	20.5	17.0	18.5	18.5	16.0	17.5
17	11.0	9.5	10.5	15.0	11.0	13.5	19.0	18.5	19.0	20.0	16.5	18.0
18	10.0	9.5	9.5	15.0	12.5	14.0	20.0	17.0	18.5	22.0	18.0	20.0
19	10.5	9.0	9.5	14.5	12.5	13.5	19.5	16.0	18.0	21.5	20.5	21.0
20	11.0	9.5	10.5	14.0	10.5	12.5	19.5	18.0	18.5	20.5	16.5	18.5
21	12.0	9.0	10.5	13.5	11.0	12.5	18.0	16.5	17.0	20.0	15.5	18.0
22	12.5	10.0	11.0	12.5	10.5	11.5	18.5	17.0	18.0	20.5	16.5	18.5
23	13.5	11.5	12.5	11.0	9.0	10.0	19.5	18.0	18.5	20.5	17.0	18.5
24	13.5	11.0	12.5	12.0	7.5	10.0	19.5	17.5	18.5	21.5	17.5	19.5
25	13.0	10.0	12.0	14.5	10.5	12.5	19.0	16.0	17.5	22.5	18.5	20.5
26	14.0	10.5	12.5	15.0	11.5	13.5	19.0	15.5	17.5	24.5	20.0	22.0
27	13.5	10.5	12.0	15.5	12.5	14.0	21.0	17.0	19.0	24.0	20.5	23.0
28	11.0	9.0	10.0	13.5	11.0	12.0	23.0	19.0	21.0	20.5	19.0	19.5
29	---	---	---	13.0	12.0	12.5	22.0	20.0	21.5	22.5	19.0	20.5
30	---	---	---	15.0	12.5	13.5	21.5	18.5	20.0	21.5	18.5	20.5
31	---	---	---	14.0	12.5	13.0	---	---	---	22.5	20.0	21.0
MONTH	14.0	4.0	8.5	16.5	7.5	12.0	24.0	12.5	17.5	24.5	15.0	19.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.0	20.5	21.0	---	---	---	23.0	22.0	22.0	29.0	22.5	25.5
2	21.5	20.0	20.5	---	---	---	23.0	21.0	22.0	30.0	26.5	28.0
3	21.5	20.0	21.0	---	---	---	29.0	22.0	25.5	30.5	27.0	28.5
4	22.0	20.5	21.0	---	---	---	30.5	26.0	28.5	28.5	27.0	27.5
5	23.0	20.5	22.0	---	---	---	32.5	27.5	30.0	27.5	26.0	26.5
6	24.0	21.5	23.0	---	---	---	32.0	28.5	30.0	26.0	21.5	23.5
7	23.5	22.5	23.0	---	---	---	32.0	28.5	30.5	22.5	21.0	22.0
8	28.0	22.5	25.0	---	---	---	31.0	25.5	27.5	26.0	22.0	24.0
9	27.5	24.5	26.0	---	---	---	28.5	24.5	26.0	25.5	23.5	24.5
10	29.0	25.5	27.5	---	---	---	32.5	25.5	29.0	24.5	23.0	23.5
11	30.0	25.0	28.5	---	---	---	32.0	28.0	30.0	24.5	22.5	23.5
12	29.0	26.5	27.5	---	---	---	31.0	28.0	29.5	24.0	21.0	22.0
13	27.5	25.0	26.0	---	---	---	32.0	28.0	29.5	23.5	20.5	22.0
14	26.5	22.5	25.0	33.5	29.5	32.0	31.5	28.0	29.5	27.0	21.0	24.0
15	27.5	21.5	24.5	33.5	29.5	31.5	29.5	25.0	27.0	27.5	24.5	26.5
16	24.5	21.5	23.0	33.0	30.0	31.5	27.0	25.5	26.5	28.5	24.5	26.5
17	25.5	22.5	23.5	33.0	28.5	31.0	27.0	24.5	25.5	27.0	24.0	25.0
18	23.0	20.5	21.5	31.5	29.5	30.5	25.5	23.5	24.5	24.0	21.5	23.0
19	22.5	19.5	20.5	30.5	28.5	29.5	24.5	22.5	23.5	21.5	18.5	20.5
20	23.5	18.0	21.0	33.0	28.0	30.5	23.5	20.5	22.0	20.5	17.5	19.0
21	24.0	20.5	22.5	33.0	28.5	31.0	23.5	21.5	22.5	22.0	17.5	19.5
22	25.5	21.5	23.5	31.5	28.5	30.5	24.5	21.5	23.0	21.5	18.5	20.0
23	25.5	22.0	24.0	32.5	28.5	30.5	24.5	21.5	23.0	22.0	19.5	20.5
24	26.0	22.0	23.5	30.5	28.0	29.0	28.5	22.5	25.0	21.5	18.0	20.0
25	---	---	---	28.5	25.0	27.0	29.0	25.0	27.5	21.0	17.5	19.0
26	---	---	---	28.0	24.5	26.0	28.5	25.5	27.0	19.0	16.0	17.5
27	---	---	---	33.0	26.0	29.5	28.0	25.0	26.0	20.5	16.0	18.0
28	---	---	---	32.0	28.0	30.0	26.0	23.5	24.5	23.5	17.0	20.0
29	---	---	---	33.0	28.5	30.5	25.0	22.5	23.5	22.5	19.5	21.0
30	---	---	---	31.0	24.5	27.5	24.5	22.5	23.5	22.0	18.5	20.0
31	---	---	---	24.5	23.0	24.0	24.5	22.5	23.5	---	---	---
MONTH	30.0	18.0	23.5	33.5	23.0	29.5	32.5	20.5	26.0	30.5	16.0	22.5
YEAR	33.5	2.0	16.5									

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
14...	1430	830	14	31	92
FEB					
18...	1130	1330	22	79	79
MAY					
18...	0930	700	15	28	78
AUG					
25...	0800	324	18	16	68

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 (174 m) upstream from bridge on Secondary Road 1530, 0.5 mi (0.8 km) upstream from No Business Creek, and 4.0 mi (6.4 km) southwest of Casar.

DRAINAGE AREA.--60.5 mi² (156.7 km²), revised.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-56, March 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 890 ft (271 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--22 years, 95.0 ft³/s (2.690 m³/s), 21.32 in/yr (542 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,760 ft³/s (220 m³/s) Oct. 17, 1975, gage height, 16.70 ft (5.090 m); minimum, 17 ft³/s (0.48 m³/s) July 20, 1970, gage height, 0.97 ft (0.296 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 and August 1940 reached a stage of about 25 ft (7.6 m), from information by local resident. A discharge of 14.5 ft³/s (0.41 m³/s) was measured on Sept. 21, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 890 ft³/s (25.2 m³/s) Sept. 6, gage height, 4.65 ft (1.417 m), no peak above base of 1,200 ft³/s (34 m³/s); minimum, 22 ft³/s (0.62 m³/s) Aug. 29, Sept. 29, 30, gage height, 0.62 ft (0.189 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	259	71	69	48	39	55	114	39	74	40	44	24
2	129	67	64	47	55	54	87	37	68	55	48	24
3	92	64	61	44	46	51	74	37	61	57	84	26
4	79	77	58	44	45	51	66	37	57	54	46	30
5	75	71	58	46	45	63	80	36	54	36	37	38
6	74	66	55	45	45	52	85	37	48	33	34	220
7	69	65	55	46	45	50	72	44	51	33	34	112
8	67	64	54	43	39	47	68	39	46	30	64	55
9	65	63	54	42	38	47	68	36	43	28	38	40
10	63	61	58	42	40	44	66	36	40	27	33	34
11	62	60	54	48	225	44	60	218	38	28	32	31
12	59	60	52	50	114	44	55	88	37	33	31	29
13	58	60	51	55	80	43	55	60	39	29	30	28
14	58	60	50	60	66	43	54	51	42	26	29	27
15	58	62	50	63	60	42	54	52	37	25	28	27
16	58	68	48	50	55	42	50	46	35	27	27	35
17	58	64	48	51	54	40	51	43	34	39	28	29
18	59	72	47	51	68	40	55	42	33	29	28	27
19	65	65	47	50	91	40	50	44	34	27	26	25
20	60	62	47	51	116	40	63	87	33	26	27	25
21	57	61	46	52	98	40	52	74	32	26	25	25
22	57	60	48	50	79	46	48	54	31	24	25	25
23	56	60	46	50	87	63	50	47	29	23	25	25
24	57	105	46	48	80	63	51	43	29	198	25	24
25	95	95	44	43	72	77	44	40	28	84	24	24
26	69	77	45	42	66	77	43	38	27	58	23	23
27	62	133	45	42	60	69	43	152	26	38	23	23
28	70	132	47	42	57	60	42	256	26	42	23	23
29	67	95	52	40	---	54	39	114	25	47	22	22
30	93	77	52	39	---	275	40	84	26	36	23	23
31	83	---	52	38	---	201	---	88	---	52	27	---
TOTAL	2333	2197	1603	1462	1965	1957	1779	2099	1183	1310	1013	1123
MEAN	75.3	73.2	51.7	47.2	70.2	63.1	59.3	67.7	39.4	42.3	32.7	37.4
MAX	259	133	69	63	225	275	114	256	74	198	84	220
MIN	56	60	44	38	38	40	39	36	25	23	22	22
CFSM	1.25	1.21	.86	.78	1.16	1.04	.98	1.12	.65	.70	.54	.62
IN.	1.43	1.35	.99	.90	1.21	1.20	1.09	1.29	.73	.81	.62	.69

CAL YR 1980 TOTAL 38112 MEAN 104 MAX 1280 MIN 40 CFSM 1.72 IN 23.43
WTR YR 1981 TOTAL 20024 MEAN 54.9 MAX 275 MIN 22 CFSM .91 IN 12.31

02152610 SUGAR BRANCH NEAR BOILING SPRINGS, NC

LOCATION.--Lat 35°15'00", long 81°37'15" (revised), Cleveland County, Hydrologic Unit 03050105, on left downstream wingwall of culvert on State Higwhay 150, 0.5 mi (0.8 km) upstream from mouth, and 2.8 mi (4.5 km) east of Boiling Springs.

DRAINAGE AREA.--1.42 mi² (3.68 km²), revised.

PERIOD OF RECORD.--Annual maximum, water years 1954-68, June 1968 to current year.

REVISED RECORDS.--WDR NC-70-1: 1968(M).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 696.83 ft (212.394 m) National Geodetic Vertical Datum of 1929. June 10, 1953, to May 31, 1968, crest-stage gage on left bank 31 ft (9 m) upstream from culvert entrance at datum 16.37 ft (4.990 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 2.25 ft³/s (0.064 m³/s), 21.52 in/yr (547 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s (31.4 m³/s) Oct. 16, 1971, gage height, 6.58 ft (2.01 m), from rating curve extended above 120 ft³/s (3.40 m³/s) on basis of computation of peak flow through culvert; minimum, 0.13 ft³/s (0.004 m³/s) Aug. 13, 14, 1977, Sept. 28, 29, 30, 1981, gage height, 0.91 ft (0.277 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 108 ft³/s (3.06 m³/s) July 25, gage height, 2.59 ft (0.789 m), no peak above base of 150 ft³/s (4.2 m³/s); minimum, 0.13 ft³/s (0.004 m³/s) Sept. 28, 29, 30, gage height, 0.91 ft (0.277 m); minimum daily, 0.15 ft³/s (0.004 m³/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	1.1	1.8	1.0	.87	1.1	1.7	.66	1.4	.40	.71	.28
2	3.5	1.1	1.7	1.0	1.1	1.1	1.4	.64	.88	.46	.68	.29
3	2.0	1.0	1.5	1.0	.88	1.0	1.3	.64	.80	2.9	.62	.35
4	1.4	4.4	1.5	.99	.88	1.2	1.2	.63	.75	.68	.55	.36
5	1.1	1.8	1.4	.98	.88	1.3	1.3	.62	.70	.52	.52	.39
6	1.0	1.5	1.3	.99	.87	1.1	1.1	.67	2.6	.46	.51	.38
7	.98	1.4	1.3	1.0	.86	1.0	1.1	1.3	1.4	.43	.49	.51
8	.90	1.3	1.3	.97	.88	1.0	1.1	.72	.75	.39	.65	.38
9	.88	1.2	1.3	.96	.84	1.0	1.1	.68	.67	.36	.54	.34
10	.88	1.2	1.5	.94	1.1	1.0	1.1	.70	.61	.34	.48	.30
11	.85	1.1	1.3	.95	4.3	1.0	1.0	1.1	.57	.33	.47	.29
12	.85	1.1	1.3	.98	1.9	.98	.97	.68	.64	.33	3.3	.27
13	.80	1.1	1.2	1.0	1.5	.94	.94	.64	.59	.32	.71	.26
14	.80	1.1	1.2	1.0	1.4	.92	1.0	.63	.55	.35	.57	.25
15	.81	1.3	1.2	.95	1.3	.91	.96	.62	.51	.32	.53	.24
16	.79	1.2	1.2	.93	1.3	.88	.90	.60	.48	4.0	.52	.24
17	.78	1.5	1.2	.91	1.3	.87	.96	.60	.49	.80	.52	.23
18	.82	1.5	1.1	.92	1.3	.85	.93	.61	2.2	.43	.48	.22
19	2.9	1.3	1.1	.92	2.3	.82	.92	.65	.58	.42	.47	.21
20	.98	1.2	1.1	.91	2.1	.80	.92	.93	.52	.42	.45	.21
21	.91	1.2	1.1	.93	1.7	.79	.86	.67	.48	.37	.43	.19
22	.89	1.1	1.1	.91	1.5	.97	.85	.60	.44	.33	.40	.20
23	.86	1.1	1.1	.91	1.5	1.1	.90	.58	.40	.32	.40	.19
24	.89	3.3	1.1	.90	1.3	.94	.82	.56	.41	1.4	.39	.19
25	1.2	1.8	1.1	.89	1.3	.90	.78	.54	.42	6.3	.37	.19
26	.90	1.6	1.2	.89	1.2	.87	.76	.54	.43	.61	.34	.18
27	.88	7.6	1.3	.91	1.2	.85	.75	1.9	.38	.51	.32	.18
28	.99	2.9	1.4	.88	1.2	.85	.72	2.0	.36	.47	.31	.17
29	.92	2.2	1.2	.87	---	.84	.70	.69	.35	5.0	.31	.15
30	1.8	1.9	1.2	.90	---	8.1	.70	2.8	.39	1.8	.32	.17
31	1.3	---	1.1	.87	---	2.3	---	2.3	---	.86	.31	---
TOTAL	41.56	53.1	39.4	29.16	38.76	38.28	29.74	27.50	21.75	32.63	17.67	7.81
MEAN	1.34	1.77	1.27	.94	1.38	1.23	.99	.89	.73	1.05	.57	.26
MAX	7.0	7.6	1.8	1.0	4.3	8.1	1.7	2.8	2.6	6.3	3.3	.51
MIN	.78	1.0	1.1	.87	.84	.79	.70	.54	.35	.32	.31	.15
CFSM	.94	1.25	.89	.66	.97	.87	.70	.63	.51	.74	.40	.18
IN.	1.09	1.39	1.03	.76	1.01	1.00	.78	.72	.57	.85	.46	.20

CAL YR 1980 TOTAL 882.84 MEAN 2.41 MAX 52 MIN .41 CFSM 1.70 IN 23.11
WTR YR 1981 TOTAL 377.36 MEAN 1.03 MAX 8.1 MIN .15 CFSM .73 IN 9.88

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 mi² or 52.3 km²), lat 36°40'36", long 80°23'51", Patrick County, VA, Hydrologic Unit 03010103, 4.5 mi (7.2 km) northeast of Kibler. Townes Dam (drainage area, 32.9 mi² or 85.2 km²), lat 36°41'11", long 80°25'49", Patrick County, VA, Hydrologic Unit 03010103, 4 mi (6.4 km) 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 ft³ (9,900,000 m³) and Townes Reservoir, 60,000,000 ft³ (1,700,000 m³). 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 (0.6 km) northwest of dam on Hyco River, 1.1 mi (1.8 km) southwest of McGehees Mill and 8 mi (13 km) northwest of Roxboro. DRAINAGE AREA, 189 mi² (499 km²). 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 (121.856 m), 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 or 3.039 m gage height) Mar. 19, 1965. Total capacity at top of spillway is 3,288,000,000 ft³ (93,120,000 m³). Lake cannot be drawn below -0.03 ft or -0.009 m (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 (0.3 km) upstream from Black Gut Creek, and 2.7 mi (4.3 km) northwest of Thelma. DRAINAGE AREA, 8,339 mi² (21,598 km²). 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 ft³ (635,330,000 m³). Usable capacity is 20,127,000,000 ft³ (570,000,000 m³) between elevations 165 ft or 50.3 m and 203 ft or 61.9 m (top of spillway gates) of which 2,788,000,000 ft³ (78,960,000 m³) between elevations 200 ft (61.0 m) and 203 ft (61.9 m) is reserved for flood control. Storage for power generation is 10,673,000,000 ft³ (302,260,000 m³) between elevations 185 ft (56.4 m) and 200 ft (61.0 m). 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 (2.4 km) upstream from bridge on State Highway 48, and 2.2 mi (3.5 km) north of Roanoke Rapids. DRAINAGE AREA, 8,395 mi² (21,743 km²). 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 ft³ (95,161,400 m³) at normal highwater elevation of 132.0 ft (40.23 m) and 3,515,290,000 ft³ (99,553,000 m³) at elevation 132.75 ft or 40.462 m (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 (16.1 km) north of Raleigh, and 235 mi (378.1 km) above mouth. DRAINAGE AREA, 770 mi² (1,994 km²). 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. An elevation of 227.0 ft (69.19 m) was reached on June 5, 1981. Total capacity is 17,283,563,000 ft³ (489,416,000 m³) at elevation 264.0 ft (80.47 m) of which 10,585,951,000 ft³ (299,761,000 m³) is controlled flood storage. (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 (0.5 km) downstream of mouth of New Hope River, 2.5 mi (4.0 km) north of Moncure, 4.2 mi (6.8 km) upstream of mouth of Haw River, and 202.2 mi (325.3 km) upstream from mouth of Cape Fear River. DRAINAGE AREA, 1,700 mi² (4,400 km²). 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. Total capacity is 32,825,074,000 ft³ (929,606,080 m³) at elevation 240.0 ft (73.15 m) of which 23,454,011,000 ft³ (664,217,590 m³) 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 (0.3 km) upstream from Fish Trap Creek, 2.0 mi (3.2 km) upstream from Millers Creek, and 4.0 mi (6.4 km) west of Wilkesboro. DRAINAGE AREA, 350 mi² (910 km²), 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 ft³ (188,744,000 m³) of which 6,316,200,000 ft³ (178,870,000 m³) 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 (1.3 km) northwest of High Rock, 2 mi (3 km) upstream from Lick Creek, and 256 mi (412 km) upstream from mouth of Pee Dee River in Winyah Bay. DRAINAGE AREA, 4,000 mi² (10,400 km²), 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 (9.42 m) 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 ft³ (314,100,000 m³) and usable capacity is 10,230,000,000 ft³ (289,700,000 m³) between elevations 625 ft (190 m) and 655 ft (200 m) 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.

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 (4.0 km) upstream from Garr Creek, 3.8 mi (6.1 km) northeast of New London, and 250 mi (400 km) upstream from mouth of Pee Dee River in Winyah Bay. DRAINAGE AREA, 4,120 mi² (10,670 km²), approximately. PERIOD OF RECORD, April 1962 to current year. GAGE, remote water-stage recorder in powerhouse. Datum of gage is 30.9 ft (9.42 m) 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 ft³ (52,460,000 m³) and usable capacity is 293,800,000 ft³ (8,320,000 m³) between elevations 593 ft (181 m) and 596 ft (182 m) 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 (2.4 km) northeast of Badin, 2.5 mi (4.0 km) upstream from Falls Dam, and 242 mi (389 km) upstream from mouth of Pee Dee River in Winyah Bay. DRAINAGE AREA, 4,180 mi² (10,800 km²), 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 (9.42 m) 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 ft³ (297,302,200 m³) and usable capacity is 5,616,584,000 ft³ (159,061,600 m³) between elevations 510.00 ft (155.448 m) and 541.10 ft (164.927 m). 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 (213 m) upstream from Norfolk Southern Railroad bridge, 3.5 mi (5.6 km) southeast of Norwood, 5 mi (8 km) upstream from Rocky River, and 224 mi (360 km) upstream from mouth in Winyah Bay. DRAINAGE AREA, 4,600 mi² (12,000 km²), 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 (11.787 m) 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 ft³ (206,014,000 m³) and usable capacity is 5,927,040,000 ft³ (167,854,000 m³) between elevations 200.5 ft (61.11 m) and 239.5 ft (73.00 m) 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 (1.9 km) upstream from Cartledge Creek, 6.5 mi (10.5 km) northwest of Rockingham, and 195 mi (314 km) upstream from mouth in Winyah Bay. DRAINAGE AREA, 6,830 mi² (18,000 km²), 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 (11.912 m) 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 ft³ (119,661,000 m³) and usable capacity is 1,850,000,000 ft³ (52,400,000 m³) between elevations 120.0 ft (36.58 m) and 139.0 ft (42.37 m) 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 (3.4 km) northeast of Bridgewater and 279 mi (449 km) upstream from mouth of Wateree River. DRAINAGE AREA, 380 mi² (980 km²), 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-sychronous motor to indicator in power house. Staff gage at Catawba River Dam is also read when lake elevation drops below 1,160 ft or 353.6 m (60 ft or 18.3 m, gage datum) and lake becomes two separate reservoirs. Datum of gage is 1,100.00 ft (335.280 m) 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 (30.48 m) gage datum (crest of spillway) is 12,581,800,000 ft³ (356,317,000 m³) and usable capacity is 7,943,700,000 ft³ (224,970,000 m³) between elevations (gage datum) 65 ft (19.8 m) and 100 ft (30.5 m). 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 (1.3 km) west of Rhodhiss, 1.8 mi (2.9 km) south of Granite Falls, and 243 mi (391 km) upstream from mouth of Wateree River. DRAINAGE AREA, 1,090 mi² (2,820 km²), 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 (272.83 m) 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 ft³ (90,300,900 m³) and usable capacity is 1,717,000,000 ft³ (48,630,000 m³) between elevations (gage datum) 85.0 ft (25.91 m) and 100.0 ft or 30.48 m (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 (3 km) upstream from Lower Little River, 7 mi (11 km) south of Taylorsville, and 226 mi (364 km) upstream from mouth of Wateree River. DRAINAGE AREA, 1,310 mi² (3,390 km²), 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 (254.51 m) 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 ft³ (157,260,500 m³). Sept. 30, 1935 to Sept. 30, 1957, the usable capacity considered as 2,277,970,200 ft³ (64,512,120 m³) between elevations (gage datum) 85.0 ft (25.91 m) and 100.0 ft (30.48 m) (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 ft³ (95,676,300 m³) between elevations 75.0 ft (22.86 m) and 100.0 ft or 30.48 m (top of flood gates) from Oct. 1, 1964 to present, usable capacity considered as 2,277,800,000 ft³ (64,507,000 m³) between elevations (gage datum) 85.0 ft (25.91 m) and 100.0 ft or 30.48 m (top of flood gates). Records furnished by Duke Power Co.

Lakes and Reservoirs in South Atlantic Slope basin--Continued

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 (6 km) upstream from bridge on U.S. Highways 64 and 70, 4.2 mi (6.8 km) north of Catawba, and 216 mi (348 km) upstream from mouth of Wateree River. DRAINAGE AREA, 1,450 mi² (3,760 km²), 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 (224.97 m) 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 ft³ (38,379,000 m³). Capacity has been reduced by silting. Prior to October 1957, the usable capacity considered as 473,980,000 ft³ (13,423,000 m³) and October 1957 to Sept. 30, 1964, as 388,300,000 ft³ (11,000,000 m³) between elevations (gage datum) 90.0 ft (27.43 m) and 100.0 ft (30.48 m) (crest of spillway). From Oct. 1, 1964 to present, usable capacity considered as 208,200,000 ft³ (5,896,000 m³) between elevations (gage datum) 95.0 ft (28.95 m) and 100.0 ft or 30.48 m (crest of spillway). Flood of July 16, 1916, washed out an earth dike. Records furnished by Duke Power Co.

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 (1.3 km) upstream from Derr Creek, 7.8 mi (12.6 km) southwest of Davidson, and 182 mi (293 km) upstream from mouth of Wateree River. DRAINAGE AREA, 1,790 mi³ (4,640 km³), approximately. PERIOD OF RECORD, March 1962 to current year. GAGE, float gage with tramsmitter to dial meter in control room. Datum of gage is 660 ft (201.2 m) 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 ft³ (1,347,640,000 m³) and usable capacity is 26,910,400,000 ft³ (762,102,500 m³) between elevations (gage datum) 75.0 ft (22.86 m) and 100 ft or 30.5 m (top of flood gages). Records furnished by Duke Power Co.

02142676 MOUNTAIN ISLAND LAKE.--Lat 35°20'03", long 80°59'12", Gaston County, Hydrologic Unit 0305010, at Mountain Island Dam on Catawba River, 1.5 mi (2.4 km) downstream from bridge on State Highway 16, 3 mi (5 km) northeast of Mount Holly, and 167 mi (269 km) upstream from mouth of Wateree River. DRAINAGE AREA, 1,860 mi² (4,820 km²), 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 (166.88 m) 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 ft³ (70,686,380 m³). Prior to October 1964 usable capacity is considered 1,132,000,000 ft³ (32,060,000 m³) between elevations (gage datum) 90.0 ft (27.43 m) and 100.0 ft or 30.48 m (crest of spillway) October 1964 to present considered as 845,000,000 ft³ (23,900,000 m³) between elevations (gage datum), 93.0 ft (28.35 m) and 100.0 ft or 30.48 m (crest of spillway). Records furnished by Duke Power Co.

OTHER RESERVOIRS.--The following smaller reservoirs in the South Atlantic Slope basins 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 mi² (60.1 km²). Total capacity 380,991,000 ft³ (10,790,000 m³). Dam completed and filled April 1978. (See station 02077250)

02077303 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 mi² (508 km²). Total capacity is approximately 522,720,000 ft³ (14,480,300 m³) with a surface area of about 650 acres (260 hm²) at a normal elevation of 385 ft (117 m), 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 (117 m) on Aug. 22, 1974.

02077665 MAYO 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 mi² (135.2 km²). Total capacity is 3,831,000,000 ft³ (108,504,000 m³) with a surface area of 2,800 acres (1,130 km²) at a normal elevation of 434 ft (132 m) National Geodetic Vertical Datum of 1929. Dam completed and storage began Aug. 1, 1980. (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 (5 km) southeast of Bahama, and 5 mi (8 km) upstream from confluence with Eno River. DRAINAGE AREA, 170 mi² (440 km²) 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 ft³ (17,500,000 m³) between elevations (gage datum) 300.0 ft (91.44 m) and 341 ft or 103.9 m (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 mi² (18.26 km²). Total capacity is 98,900,000 ft³ (2,800,000 m³). 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 mi² (31.9 km²). Total capacity is 13,400,000 ft³ (379,000 m³). 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 mi² (98 km²), approximately. Total capacity is 267,400,000 ft³ (7,573,000 m³). 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 mi² (170 km²), approximately. Total capacity is 133,700,000 ft³ (3,786,000 m³). 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)

Lakes and Reservoirs in South Atlantic Slope basin--Continued

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 mi² (401 km²). Total capacity 133,680,000 ft³ (3,786,000 m³). 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 mi² (31 km²), approximately. Total capacity is 107,000,000 ft³ (3,030,000 m³). 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 mi² (181.3 km²), approximately. Total capacity is 294,000,000 ft³ (8,326,000 m³). 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 mi² (272 km²). Total capacity is 869,000,000 ft³ (24,600,000 m³). Dam completed Oct. 18, 1968, and reservoir first filled Aug. 17, 1969. (See sta 02094500)

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 mi² (114 km²), approximately. Prior to October 1971 published as "Stony Creek Reservoir". Total capacity is 427,800,000 ft³ (12,120,000 m³). 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 mi² (246.0 km²), approximately. Prior to October 1971 published as "Lake Burlington". Total capacity is 64,900,000 ft³ (1,840,000 m³). 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 (2.9 km) southwest of Deep River. DRAINAGE AREA, 32 mi² (83 km²), approximately. Total capacity is 468,000,000 ft³ (13,300,000 m³). Dead storage (non-withdrawal) is minor. Total surface area, about 725 acres (293 ha). 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 mi² (159 m²). Total capacity is 220,588,000 ft³ (6,247,050 m³). 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 mi² (8,290 km²), approximately. Usable capacity is 69,700,000 ft³ (19,700,000 m³). 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 mi² (184 km²). Total capacity is 3,136,320,000 ft³ (88,820,000 m³) with a surface area of 4,150 acres (16.8 km²) at a normal elevation of 220 ft (67.06 m), National Geodetic Vertical Datum of 1929. Storage began December 1, 1980, and dam completed December 23, 1981. (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 mi² (182 km²). Total capacity is 284,100,000 ft³ (8,046,000 m³) of which 281,400,000 ft³ (7,969,000 m³) 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 mi² (20.18 km²). Total surface area, about 640 acres (359 ha). Lake reached spillway elevation September 1961.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)	Elevation (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			02080100 Roanoke Rapids Lake		
Sept. 30		280.6	-	8.75	3088	-	199.52	19184	-	127.9	2613	-
Oct. 31		282.1	+1.5	8.15	2989	-99	199.80	19428	+244	128.8	2760	+147
Nov. 30		270.9	-11.2	8.06	2974	-15	199.61	19263	-165	129.2	2826	+66
Dec. 31		232.1	-38.8	7.73	2924	-50	199.68	19324	+61	129.7	2916	+90
CAL YR 1980		-	-117.0		-	-452		-	+61		-	-128
Jan. 31		238.1	+6.0	7.55	2898	-26	199.40	19079	-245	129.8	2935	+19
Feb. 28		326.5	+88.4	10.02	3296	+398	199.40	19079	0	129.3	2844	-91
Mar. 31		345.8	+19.3	10.58	3383	+87	199.59	19245	+166	129.5	2879	+35
Apr. 30		323.1	-22.7	10.44	3361	-22	199.27	18966	-279	130.1	2990	+111
May 31		314.6	-8.5	10.37	3350	-11	199.65	19298	+332	131.5	3252	+262
June 30		280.1	-34.5	9.95	3285	-65	199.23	18931	-367	127.3	2513	-739
July 31		231.3	-48.8	10.23	3329	+44	199.55	19210	+279	127.7	2580	+67
Aug. 31		200.1	-31.2	10.09	3306	-23	199.44	19114	-96	127.2	2496	-84
Sept. 30		238.8	+38.7	10.11	3310	+4	199.64	19289	+175	127.8	2597	+101
WTR YR 1981		-	-41.8		-	-66		-	+105		-	-16

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)	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			02122844 Badin Lake		
Sept. 30	1027.80	1644	-	646.63	6389	-	594.46	1696	-	538.57	9914	-
Oct. 31	1026.60	1579	-65	642.51	4678	-1711	593.20	1576	-120	539.00	10007	+93
Nov. 30	1026.85	1590	+11	643.94	5211	+533	593.47	1602	+26	538.78	9961	-46
Dec. 31	1024.50	1455	-135	640.33	3928	-1283	594.28	1679	+77	535.55	9245	-716
CAL YR 1980		-	-331		-	-1574		-	-125		-	-786
Jan. 31	1020.05	1215	-240	637.66	3123	-805	593.35	1590	-89	535.27	9180	-65
Feb. 28	1027.25	1612	+397	642.01	4495	+1372	594.70	1718	+128	539.50	10124	+944
Mar. 31	1030.00	1786	+174	645.69	5978	+1483	594.05	1657	-61	536.07	9353	-771
Apr. 30	1029.65	1760	-26	649.81	7987	+2009	593.58	1612	-45	538.60	9914	+561
May 31	1030.50	1830	+70	653.30	10001	+2014	593.70	1623	+11	539.59	10147	+233
June 30	1028.15	1668	-162	651.54	8925	-1076	595.10	1759	+136	539.28	10077	-70
July 31	1023.35	1395	-273	652.33	9396	+471	595.10	1759	0	539.88	10217	+140
Aug. 31	1020.05	1215	-180	649.42	7774	-1622	595.24	1774	+15	539.51	10124	-93
Sept. 30	1020.00	1215	0	649.69	7933	+159	595.43	1793	+19	539.39	10101	-23
WTR YR 1981		-	-429		-	+1544		-	+97		-	+187

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)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02123736 Lake Tillery			02128800 Blewett Falls Lake			02138519 Lake James			02141490 Rhodhiss Lake		
Sept. 30	238.4	5686	-	134.6	1400	-	95.6	11386	-	97.4	1339	-
Oct. 31	239.0	5815	+129	135.0	1440	+40	93.9	10941	-445	97.4	1339	0
Nov. 30	238.8	5772	-43	135.3	1470	+30	94.3	11044	+103	97.5	1353	+14
Dec. 31	239.0	5815	+43	135.5	1490	+20	93.8	10916	-128	97.7	1381	+28
CAL YR 1980		-	+86		-	-234		-	-361		-	+218
Jan. 31	238.6	5729	-86	135.9	1530	+40	89.8	9933	-983	96.4	1203	-178
Feb. 28	239.0	5815	+86	135.4	1480	-50	93.0	10713	+780	98.0	1423	+220
Mar. 31	238.5	5708	-107	135.7	1510	+30	94.0	10967	+254	98.2	1451	+28
Apr. 30	239.2	5859	+151	135.8	1520	+10	94.5	11095	+128	97.4	1339	-112
May 31	238.5	5708	-151	134.5	1390	-130	98.2	12080	+985	98.2	1451	+112
June 30	239.2	5859	+151	135.2	1460	+70	97.2	11808	-272	97.6	1367	-84
July 31	239.0	5815	-44	135.0	1440	-20	94.5	11095	-713	96.2	1176	-191
Aug. 31	237.2	5428	-387	137.4	1682	+242	93.5	10840	-255	96.0	1150	-26
Sept. 30	237.4	5471	+43	137.7	1714	+32	94.9	11198	+358	97.3	1325	+175
WTR YR 1981		-	-215		-	+314		-	-188		-	-14

	02141961 Lake Hickory			02142441 Lookout Shoals Lake			02142647 Lake Norman			02142676 Mountain Island Lake		
Sept. 30	95.9	1576	-	97.8	113	-	96.2	42420	-	95.8	307	-
Oct. 31	96.7	1708	+132	97.6	105	-8	95.4	41390	-1030	96.0	330	+23
Nov. 30	96.7	1708	0	97.9	117	+12	95.1	41010	-380	96.1	342	+12
Dec. 31	96.6	1691	-17	98.2	130	+13	94.3	40000	-1010	96.0	330	-12
CAL YR 1980		-	-202		-	+17		-	+980		-	+34
Jan. 31	96.0	1592	-99	97.5	100	-30	91.4	36500	-3500	95.9	318	-12
Feb. 28	97.3	1808	+216	98.0	121	+21	92.2	37450	+950	96.1	342	+24
Mar. 31	98.1	1944	+136	97.3	92	-29	93.5	39020	+1570	95.9	318	-24
Apr. 30	97.3	1808	-136	98.0	121	+29	96.0	42160	+3140	95.7	296	-22
May 31	97.6	1859	+51	98.3	138	+17	97.7	44420	+2260	95.6	284	-12
June 30	97.0	1758	-101	98.6	147	+9	97.6	44280	-140	95.7	296	+12
July 31	96.2	1625	-133	97.7	109	-38	96.3	42550	-1730	96.1	342	+46
Aug. 31	97.0	1758	+133	98.2	130	+21	94.8	40630	-1920	95.6	284	-58
Sept. 30	97.1	1775	+17	98.0	121	-9	95.0	40880	+250	96.0	330	+46
WTR YR 1981		-	+199		-	+8		-	-1540		-	+23

Lakes and Reservoirs in South Atlantic Slope basin--Continued

354650176311801 PHELPS LAKE AT McLEANS PIER NEAR ROPER, NC

LOCATION.--Lat 35°46'51", long 76°31'18", Washington County, Hydrologic Unit 03010205, at pier on west shore of lake, 600 ft (183 m) east of Secondary Road 1183, and 8.0 mi (12.9 km) southeast of Roper.

SURFACE AREA.--16,000 acres (25 mi², 65 km²), approximately.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (North Carolina Geodetic Survey bench mark).

REMARKS.--Lake level controlled by gates in outlet canal to Scuppernong River.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 11.52 ft (3.514 m) Apr. 28, May 26, 1980; minimum daily, 9.52 ft (2.902 m) Aug. 5, 1981.

EXTREMES FOR PERIOD.--June to September 1979: Maximum daily elevation, 11.33 ft (3.453 m) June 4, 5; minimum daily, 10.59 ft (3.228 m) Aug. 19.

Water year 1980: Maximum daily elevation, 11.52 ft (3.511 m) Apr. 28, May 26; minimum daily, 10.25 ft (3.124 m) Sept. 23.

Water year 1981: Maximum daily elevation, 10.63 ft (3.514 m) Feb 10; minimum daily, 9.52 ft (2.902 m) Aug. 5.

ELEVATION (FEET NGVD). WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									11.28	11.11	10.85	10.67
2									11.31	11.03	10.85	10.64
3									11.32	11.05	10.84	10.63
4									11.33	11.05	10.78	10.77
5									11.33	11.05	10.76	11.05
6									11.31	11.06	10.74	10.89
7									11.31	11.05	10.75	10.92
8									11.30	11.02	10.73	10.90
9									11.30	11.03	10.70	10.89
10									11.28	10.97	10.66	10.89
11									11.24	10.96	10.65	10.85
12									11.25	10.94	10.64	10.87
13									11.26	10.92	10.68	10.90
14									11.25	10.90	10.67	10.85
15									11.23	10.90	10.67	10.83
16									11.26	10.88	10.66	10.82
17									11.17	10.90	10.63	10.79
18									11.15	10.89	10.62	10.76
19									11.18	10.95	10.59	10.76
20									11.18	10.95	10.60	10.79
21									11.10	10.93	10.64	10.78
22									11.10	10.95	10.66	10.75
23									11.09	10.94	10.67	10.75
24									11.12	10.92	10.67	10.73
25									11.19	10.90	10.66	10.80
26									11.20	10.85	10.67	10.82
27									11.15	10.86	10.65	10.82
28									11.12	10.88	10.66	10.80
29									11.09	10.88	10.66	10.83
30									11.08	10.85	10.65	10.90
31									---	10.85	10.65	---
MEAN									11.22	10.95	10.69	10.82
MAX									11.33	11.11	10.85	11.05
MIN									11.08	10.85	10.59	10.63

Lakes and Reservoirs in South Atlantic Slope basin--Continued

354650176311801 PHELPS LAKE AT McLEANS PIER NEAR ROPER, NC--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.90	10.67	10.63	10.66	10.90	11.12	11.46	11.44	11.36	11.10	10.70	10.46
2	10.91	10.66	10.55	10.65	10.88	11.04	11.43	11.50	11.33	11.06	10.71	10.44
3	10.86	10.65	10.60	10.70	10.92	11.10	11.44	11.48	11.32	11.02	10.69	10.42
4	10.90	10.66	10.57	10.74	10.90	11.15	11.41	11.47	11.32	11.01	10.68	10.48
5	10.82	10.65	10.60	10.65	10.95	11.22	11.37	11.45	11.30	10.99	10.67	10.52
6	10.81	10.65	10.64	10.71	10.97	11.22	11.44	11.44	11.28	11.02	10.67	10.54
7	10.75	10.63	10.70	10.73	10.96	11.24	11.23	11.42	11.21	11.01	10.76	10.51
8	10.79	10.63	10.67	10.76	11.00	11.24	11.44	11.42	11.17	10.94	10.75	10.51
9	10.77	10.64	10.70	10.77	11.04	11.27	11.46	11.39	11.20	10.95	10.73	10.49
10	10.75	10.63	10.67	10.80	11.07	11.27	11.37	11.39	11.15	10.92	10.71	10.45
11	10.76	10.64	10.69	10.85	11.09	11.26	11.38	11.36	11.21	10.94	10.68	10.45
12	10.75	10.64	10.69	10.76	11.08	11.30	11.37	11.36	11.22	10.93	10.66	10.44
13	10.73	10.65	10.68	10.85	11.08	11.34	11.38	11.33	11.17	10.94	10.67	10.42
14	10.72	10.60	10.73	10.80	11.08	11.17	11.49	11.32	11.11	10.93	10.66	10.40
15	10.74	10.64	10.74	10.85	11.08	11.27	11.33	11.34	11.08	10.88	10.60	10.40
16	10.74	10.62	10.70	10.90	11.08	11.30	11.31	11.33	11.07	10.84	10.59	10.42
17	10.74	10.62	10.62	10.92	11.05	11.34	11.40	11.32	11.10	10.81	10.60	10.37
18	10.74	10.62	10.68	10.93	11.09	11.32	11.38	11.30	11.08	10.79	10.56	10.33
19	10.75	10.62	10.70	10.89	11.07	11.35	11.38	11.27	11.06	10.79	10.59	10.37
20	10.73	10.62	10.68	10.92	11.07	11.34	11.37	11.30	11.05	10.76	10.64	10.34
21	10.74	10.62	10.66	10.91	11.07	11.18	11.36	11.33	11.05	10.74	10.63	10.31
22	10.74	10.63	10.67	10.92	11.06	11.11	11.31	11.37	11.03	10.71	10.59	10.28
23	10.73	10.64	10.67	10.90	11.04	11.30	11.33	11.41	11.00	10.74	10.60	10.25
24	10.69	10.63	10.71	10.88	11.12	11.32	11.33	11.44	11.00	10.83	10.57	10.29
25	10.69	10.64	10.66	10.93	11.10	11.33	11.33	11.46	11.04	10.83	10.55	10.32
26	10.69	10.72	10.65	10.95	10.98	11.36	11.33	11.52	11.07	10.84	10.55	10.37
27	10.66	10.70	10.67	10.96	11.06	11.35	11.30	11.46	11.11	10.84	10.53	10.37
28	10.64	10.67	10.66	10.98	11.10	11.35	11.52	11.45	11.09	10.80	10.51	10.34
29	10.66	10.61	10.66	10.96	11.12	11.40	11.51	11.44	11.07	10.76	10.51	10.35
30	10.69	10.61	10.67	10.95	---	11.45	11.50	11.42	11.11	10.75	10.50	10.44
31	10.66	---	10.70	10.94	---	11.42	---	11.39	---	10.74	10.49	---
MEAN	10.75	10.64	10.67	10.84	11.03	11.27	11.39	11.40	11.15	10.88	10.62	10.40
MAX	10.91	10.72	10.74	10.98	11.12	11.45	11.52	11.52	11.36	11.10	10.76	10.54
MIN	10.64	10.60	10.55	10.65	10.88	11.04	11.23	11.27	11.00	10.71	10.49	10.25

WTR YR 1980 MEAN 10.92 MAX 11.52 MIN 10.25

Lakes and Reservoirs in South Atlantic Slope basin--Continued

354650176311801 PHELPS LAKE AT McLEANS PIER NEAR ROPER, NC--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.46	10.32	10.41	10.49	10.52	10.54	10.45	10.11	10.00	9.80	9.60	10.41
2	10.46	10.34	10.41	10.40	10.52	10.53	10.42	10.03	10.04	9.79	9.57	10.40
3	10.46	10.34	10.27	10.47	10.47	10.48	10.43	10.04	10.03	9.78	9.56	10.39
4	10.47	10.34	10.38	10.43	10.49	10.54	10.43	10.04	9.99	9.84	9.55	10.36
5	10.49	10.31	10.38	10.40	10.54	10.53	10.39	10.05	10.02	9.80	9.52	10.34
6	10.42	10.32	10.37	10.43	10.53	10.50	10.33	10.04	10.05	9.78	9.57	10.33
7	10.42	10.30	10.38	10.39	10.53	10.47	10.41	10.04	10.08	9.82	9.60	10.42
8	10.41	10.28	10.38	10.47	10.50	10.51	10.40	10.09	10.10	9.80	9.58	10.46
9	10.40	10.30	10.34	10.45	10.52	10.51	10.33	10.03	9.99	9.79	9.68	10.46
10	10.41	10.23	10.42	10.41	10.63	10.52	10.39	10.08	10.00	9.78	9.75	10.44
11	10.38	10.22	10.46	10.42	10.60	10.46	10.32	10.12	10.04	9.79	9.85	10.42
12	10.34	---	10.44	---	10.51	10.47	10.30	10.02	10.01	9.76	9.90	10.40
13	10.33	---	10.42	---	10.55	10.46	10.32	10.06	9.97	9.71	9.91	10.40
14	10.34	---	10.41	---	10.56	10.42	10.31	10.03	9.96	9.68	9.89	10.38
15	10.33	---	10.44	10.41	10.55	10.43	10.32	10.00	9.98	9.68	9.88	10.36
16	10.33	---	10.44	10.42	10.54	10.27	10.30	9.93	9.97	9.67	9.84	10.32
17	10.33	---	10.44	10.40	10.54	10.28	10.21	9.95	9.94	9.68	9.88	10.38
18	10.32	---	10.43	10.39	10.55	10.49	10.16	9.92	9.96	9.67	9.86	10.32
19	10.31	---	10.45	10.41	10.55	10.40	10.26	9.90	10.01	9.67	10.03	10.24
20	10.33	---	10.42	10.41	10.54	10.35	10.23	9.96	9.98	9.65	10.23	10.26
21	10.30	---	10.40	10.48	10.54	10.37	10.27	9.98	9.95	9.64	10.24	10.28
22	10.31	---	10.41	10.46	10.58	10.44	10.24	9.96	9.91	9.74	10.35	10.27
23	10.36	---	10.42	10.49	10.59	10.51	10.17	9.98	9.96	9.75	10.46	10.22
24	10.37	---	10.44	10.49	10.51	10.46	10.05	9.98	9.97	9.74	10.48	10.20
25	10.24	---	10.35	10.50	10.47	10.48	10.09	9.96	9.88	9.70	10.49	10.20
26	10.23	---	10.42	10.49	10.49	10.49	10.14	9.93	9.88	9.66	10.49	10.21
27	10.33	---	10.46	10.49	10.50	10.39	10.15	9.99	9.86	9.64	10.47	10.20
28	10.32	---	10.51	10.50	10.50	10.47	10.16	9.98	9.84	9.66	10.46	10.16
29	10.34	---	10.53	10.47	---	10.44	10.01	9.92	9.81	9.59	10.47	10.18
30	10.33	---	10.49	10.48	---	10.44	10.10	9.91	9.77	9.64	10.46	10.14
31	10.35	---	10.49	10.48	---	10.46	---	9.90	---	9.63	10.43	---
MEAN	10.36	---	10.42	---	10.53	10.46	10.27	10.00	9.97	9.72	10.00	10.32
MAX	10.49	---	10.53	---	10.63	10.54	10.45	10.12	10.10	9.84	10.49	10.46
MIN	10.23	---	10.27	---	10.47	10.27	10.01	9.90	9.77	9.59	9.52	10.14

354724076244201 PHELPS LAKE AT PETTIGREW STATE PARK NEAR CRESWELL, NC

LOCATION.--Lat 35°47'24", long 76°24'42", Washington County, Hydrologic Unit 03010205, on northeast shore of lake at pier at Pettigrew State Park, 5.5 mi (8.5 km) south of Creswell.

SURFACE AREA.--16,000 acres (25 mi², 65 km²), approximately.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (North Carolina Geodetic Survey bench mark).

REMARKS.--Lake level controlled by gates in outlet canal to Scuppernong River.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 11.56 ft (3.523 m) Apr. 15, 1980; minimum daily, 9.54 ft (2.908 m) July 31, 1981.

EXTREMES FOR PERIOD.--June to September 1979: Maximum daily elevation, 11.35 ft (3.459 m) June 4; minimum daily, 10.60 ft (3.231 m) Aug. 19, 20, Sept. 3.

Water year 1980: Maximum daily elevation, 11.56 ft (3.523 m) Apr. 15; minimum daily, 10.25 ft (3.124 m) Sept. 24.

Water year 1981: Maximum daily elevation, 10.61 ft (3.234 m) Feb. 11, 24; minimum daily, 9.54 ft (2.908 m) July 31.

ELEVATION (FEET NGVD), WATER YEAR JUNE 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									11.34	11.13	10.84	10.62
2									11.30	11.11	10.85	10.62
3									11.30	11.07	10.81	10.60
4									11.35	11.07	10.80	10.68
5									11.33	11.03	10.79	10.85
6									11.30	11.01	10.76	11.02
7									11.28	11.00	10.73	10.95
8									11.26	10.97	10.73	10.89
9									11.25	10.95	10.70	10.85
10									11.22	10.91	10.70	10.81
11									11.23	10.90	10.70	10.82
12									11.25	10.93	10.68	10.78
13									11.21	10.93	10.71	10.80
14									11.16	10.92	10.72	10.86
15									11.14	10.87	10.67	10.82
16									11.11	10.85	10.63	10.78
17									11.18	10.85	10.62	10.75
18									11.18	10.85	10.62	10.76
19									11.15	10.90	10.60	10.76
20									11.09	10.91	10.60	10.73
21									11.11	10.95	10.62	10.76
22									11.15	10.95	10.69	10.76
23									11.16	10.94	10.68	10.70
24									11.14	10.95	10.69	10.71
25									11.12	10.95	10.66	10.79
26									11.05	10.93	10.65	10.81
27									11.06	10.90	10.65	10.78
28									11.06	10.86	10.65	10.79
29									11.06	10.88	10.66	10.86
30									11.07	10.87	10.68	10.91
31									---	10.85	10.63	---
MEAN									11.19	10.94	10.69	10.79
MAX									11.35	11.13	10.85	11.02
MIN									11.05	10.85	10.60	10.60

Lakes and Reservoirs in South Atlantic Slope basin--Continued

354724076244201 PHELPS LAKE AT PETTIGREW STATE PARK NEAR CRESWELL, NC--Continued

ELEVATION (FEET NGVD). WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.95	10.59	10.69	10.67	11.00	10.90	11.41	11.51	11.43	11.07	10.76	10.47
2	10.95	10.63	10.64	10.70	10.99	10.94	11.44	11.47	11.41	11.08	10.74	10.46
3	10.98	10.65	10.63	10.69	10.96	11.20	11.42	11.47	11.38	11.09	10.73	10.45
4	10.94	10.62	10.65	10.62	10.96	11.20	11.47	11.48	11.32	11.07	10.70	10.46
5	10.98	10.64	10.63	10.77	10.95	11.20	11.45	11.48	11.28	11.04	10.69	10.52
6	10.95	10.63	10.64	10.75	10.96	11.18	11.41	11.47	11.28	11.00	10.71	10.54
7	10.95	10.64	10.73	10.75	11.05	11.20	11.39	11.45	11.31	10.97	10.76	10.53
8	10.86	10.63	10.72	10.75	11.01	11.23	11.38	11.41	11.29	10.99	10.77	10.48
9	10.89	10.63	10.70	10.75	11.01	11.22	11.41	11.38	11.20	10.97	10.76	10.48
10	10.79	10.64	10.71	10.75	11.05	11.23	11.42	11.38	11.22	10.98	10.74	10.47
11	10.73	10.63	10.71	10.81	11.07	11.26	11.37	11.39	11.15	10.97	10.74	10.43
12	10.74	10.63	10.70	10.85	11.07	11.30	11.38	11.39	11.10	10.96	10.71	10.42
13	10.70	10.67	10.72	10.76	11.06	11.35	11.38	11.37	11.08	10.91	10.66	10.40
14	10.70	10.68	10.70	10.85	11.06	11.36	11.46	11.35	11.11	10.86	10.66	10.42
15	10.71	10.68	10.70	10.90	11.06	11.31	11.56	11.27	11.12	10.86	10.68	10.39
16	10.71	10.67	10.72	10.90	11.05	11.30	11.46	11.25	11.11	10.87	10.62	10.35
17	10.72	10.67	10.71	10.90	11.05	11.35	11.36	11.23	11.05	10.85	10.55	10.39
18	10.72	10.65	10.70	10.92	11.06	11.35	11.36	11.27	11.04	10.82	10.55	10.38
19	10.71	10.65	10.70	10.94	11.03	11.30	11.35	11.28	11.05	10.80	10.63	10.32
20	10.72	10.65	10.66	10.92	11.05	11.32	11.35	11.30	11.05	10.79	10.63	10.33
21	10.74	10.65	10.66	10.91	11.07	11.53	11.32	11.41	11.01	10.77	10.60	10.34
22	10.74	10.65	10.67	10.92	11.07	11.41	11.34	11.35	10.99	10.75	10.58	10.36
23	10.75	10.65	10.67	10.96	11.10	11.31	11.32	11.38	10.99	10.76	10.55	10.34
24	10.75	10.65	10.68	11.03	11.01	11.33	11.30	11.44	10.97	10.82	10.54	10.25
25	10.70	10.63	10.76	10.96	10.97	11.37	11.30	11.48	10.92	10.82	10.53	10.33
26	10.69	10.74	10.74	10.92	11.11	11.33	11.26	11.45	11.04	10.78	10.51	10.40
27	10.66	10.75	10.70	10.91	11.10	11.31	11.33	11.47	11.13	10.74	10.52	10.33
28	10.70	10.75	10.70	10.95	11.05	11.30	11.52	11.45	11.13	10.74	10.51	10.33
29	10.65	10.73	10.70	10.95	10.98	11.40	11.54	11.44	11.15	10.78	10.50	10.30
30	10.61	10.70	10.69	10.93	---	11.41	11.52	11.44	11.11	10.77	10.48	10.33
31	10.59	---	10.65	10.97	---	11.47	---	11.44	---	10.76	10.47	---
MEAN	10.77	10.66	10.69	10.85	11.03	11.29	11.40	11.40	11.15	10.89	10.63	10.40
MAX	10.98	10.75	10.76	11.03	11.11	11.53	11.56	11.51	11.43	11.09	10.77	10.54
MIN	10.59	10.59	10.63	10.62	10.95	10.90	11.26	11.23	10.92	10.74	10.47	10.25

WTR YR 1980 MEAN 10.93 MAX 11.56 MIN 10.25

354724076244201 PHELPS LAKE AT PETTIGREW STATE PARK NEAR CRESWELL, NC--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.43	10.38	10.44	10.46	10.56	10.50	10.50	10.13	9.80	9.76	9.55	10.39
2	10.48	10.34	10.46	10.52	10.59	10.50	10.46	---	9.88	9.74	9.56	10.38
3	10.49	10.33	10.45	10.51	10.57	10.53	10.47	---	9.94	9.72	9.59	10.36
4	10.50	10.36	10.39	10.43	10.56	10.51	10.48	---	10.17	9.82	9.61	10.35
5	10.44	10.36	10.39	10.44	10.50	10.59	10.57	10.01	10.10	9.87	9.63	10.34
6	10.42	10.35	10.40	10.45	10.51	10.57	10.45	10.04	10.15	9.88	9.62	10.32
7	10.44	10.38	10.39	10.47	10.51	10.55	10.39	9.97	10.14	9.85	9.61	10.37
8	10.45	10.37	10.38	10.44	10.54	10.52	10.41	9.89	10.08	9.84	9.66	10.51
9	10.43	10.35	10.42	10.44	10.51	10.52	10.41	9.95	10.16	9.84	9.75	10.47
10	10.42	10.34	10.40	10.44	10.47	10.51	10.33	10.03	10.10	9.82	9.79	10.47
11	10.44	10.30	10.43	10.44	10.61	10.54	10.40	10.15	10.02	9.77	9.90	10.47
12	10.39	10.26	10.45	---	10.52	10.52	10.39	10.10	10.02	9.76	9.95	10.45
13	10.36	10.25	10.45	---	10.49	10.52	10.27	10.03	10.02	9.78	9.93	10.44
14	10.34	10.28	10.44	---	10.49	10.49	10.34	10.05	10.00	9.75	9.92	10.44
15	10.35	10.25	10.42	---	10.51	10.50	10.24	10.13	9.97	9.68	9.92	10.44
16	10.33	10.23	10.42	---	10.52	10.51	10.29	10.01	9.98	9.67	9.92	10.44
17	10.34	10.25	10.42	---	10.53	10.58	10.36	9.94	9.96	9.68	9.85	10.36
18	10.37	10.38	10.47	---	10.52	10.37	10.33	9.95	9.95	9.66	9.83	10.37
19	10.36	10.35	10.42	---	10.53	10.43	10.21	9.91	10.01	9.67	9.83	10.39
20	10.35	10.34	10.36	---	10.59	10.47	10.24	9.89	10.06	9.68	10.11	10.36
21	10.37	10.39	10.38	---	10.59	10.43	10.20	9.97	10.01	9.72	10.19	10.32
22	10.33	10.42	10.38	10.52	10.57	10.38	10.22	10.02	10.04	9.75	10.34	10.32
23	10.24	10.41	10.43	10.50	10.59	10.32	10.31	10.00	9.93	9.70	10.51	10.27
24	10.24	10.42	10.47	10.49	10.61	10.48	10.33	9.99	9.90	9.67	10.51	10.27
25	10.49	10.43	10.39	10.49	10.59	10.48	10.22	10.01	9.95	9.67	10.48	10.23
26	10.43	10.42	10.40	10.50	10.54	10.47	10.16	10.01	9.90	9.68	10.46	10.22
27	10.33	10.38	10.33	10.49	10.52	10.52	10.14	9.96	9.84	9.67	10.46	10.24
28	10.36	10.51	10.36	10.48	10.55	10.44	10.14	9.98	9.81	9.67	10.44	10.23
29	10.28	10.51	10.36	10.52	---	10.48	10.27	9.99	9.79	9.69	10.42	10.18
30	10.32	10.45	10.45	10.59	---	10.53	10.12	10.14	9.78	9.58	10.41	10.20
31	10.37	---	10.46	10.58	---	10.47	---	9.96	---	9.54	10.40	---
MEAN	10.38	10.36	10.41	---	10.54	10.49	10.32	---	9.98	9.73	10.00	10.35
MAX	10.50	10.51	10.47	---	10.61	10.59	10.57	---	10.17	9.88	10.51	10.51
MIN	10.24	10.23	10.33	---	10.47	10.32	10.12	---	9.78	9.54	9.55	10.18

KANAWHA RIVER BASIN

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC

LOCATION (REVISED).--Lat 36°23'35", long 81°24'26", Ashe County, Hydrologic Unit 05050001, on right bank 600 ft (183 m) upstream from bridge on State Highways 16 and 88, 0.2 mi (0.3 km) downstream from Bear Creek, and 4 mi (6.4 km) southeast of Jefferson.

DRAINAGE AREA.--205 mi² (531 km²), revised.

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).

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft (809.866 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1934, nonrecording gage on bridge 400 ft (122 m) downstream at same datum. Oct. 14, 1934 to Mar. 25, 1935, nonrecording gage at present site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--57 years, 430 ft³/s (12.18 m³/s), 28.48 in/yr (723 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,800 ft³/s (1,500 m³/s) Aug. 14, 1940, gage height, 22.50 ft (6.858 m) from rating curve extended above 5,100 ft³/s (144 m³/s) on basis of slope-area measurement of peak flow; minimum, 52 ft³/s (1.47 m³/s) Dec. 24, 1943, result of freezeup; minimum daily, 65 ft³/s (1.84 m³/s) Sept. 9, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 15, 1916 reached a stage of 18.0 ft (5.49 m), from floodmarks witnessed by local resident, discharge, 35,200 ft³/s (997 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,600 ft³/s (74 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 11	0415	3520	99.7	6.09	1.856	May 27	2030	*4520	128	*6.79	2.070

Minimum discharge, 70 ft³/s (1.98 m³/s) Dec. 25, gage height, 1.38 ft (0.421 m), result of freezeup; minimum daily, 120 ft³/s (3.40 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	471	226	235	189	190	342	521	303	642	282	204	133
2	340	208	227	175	650	330	452	293	740	305	211	138
3	240	200	221	185	517	303	398	280	911	320	225	295
4	209	198	213	156	205	296	373	275	1030	324	217	251
5	234	198	205	160	190	439	387	269	799	297	199	197
6	316	190	203	200	195	548	422	270	705	316	201	193
7	255	182	198	246	215	429	351	287	910	359	213	184
8	214	185	194	210	210	368	333	293	779	308	208	175
9	200	182	195	205	190	340	325	269	615	266	227	153
10	192	181	222	190	280	325	327	275	557	252	196	142
11	186	171	225	185	2310	308	313	659	507	259	180	136
12	180	167	200	190	910	296	299	594	473	317	172	132
13	174	167	196	190	496	290	293	392	460	321	168	128
14	173	168	189	205	424	291	292	346	512	261	167	126
15	173	178	186	210	330	281	318	420	446	244	167	135
16	171	200	182	210	303	280	308	378	393	238	170	359
17	170	208	184	200	300	321	286	331	371	274	170	313
18	176	235	178	185	373	288	353	318	356	275	171	189
19	252	229	179	190	454	282	384	349	357	240	166	161
20	268	197	178	205	769	271	552	577	366	255	160	148
21	197	184	155	215	667	263	739	806	339	232	155	140
22	182	178	142	215	496	273	476	579	322	217	151	137
23	178	185	190	215	661	305	408	460	308	208	149	135
24	179	336	205	190	744	308	425	405	301	239	145	130
25	371	428	150	196	537	356	406	370	293	264	144	127
26	535	274	175	201	454	416	355	352	291	264	142	126
27	287	261	180	208	391	410	338	1870	280	216	141	126
28	249	344	235	209	355	388	323	2230	270	204	138	123
29	238	296	241	203	---	363	310	1150	267	223	135	120
30	243	253	226	183	---	479	308	884	271	249	134	120
31	253	---	214	159	---	734	---	739	---	214	142	---
TOTAL	7506	6609	6123	6080	13816	10923	11375	17023	14871	8243	5368	4972
MEAN	242	220	198	196	493	352	379	549	496	266	173	166
MAX	535	428	241	246	2310	734	739	2230	1030	359	227	359
MIN	170	167	142	156	190	263	286	269	267	204	134	120
CFSM	1.18	1.07	.97	.96	2.41	1.72	1.85	2.68	2.42	1.30	.84	.81
IN.	1.36	1.20	1.11	1.10	2.51	1.98	2.06	3.09	2.70	1.50	.97	.90

CAL YR 1980 TOTAL 160397 MEAN 438 MAX 4100 MIN 142 CFSM 2.14 IN 29.11
WTR YR 1981 TOTAL 112909 MEAN 309 MAX 2310 MIN 120 CFSM 1.51 IN 20.49

03439000 FRENCH BROAD RIVER AT ROSMAN, NC

LOCATION.--Lat 35°08'32", long 82°49'28", Transylvania County, Hydrologic Unit 06010105, on left bank at upstream side of bridge on U.S. Highway 178 at Rosman, 1.0 mi (1.6 km) upstream from East Fork, and at mile 216.4 (348.2 km).

DRAINAGE AREA.--67.9 mi² (175.9 km²).

WATER-DISCHARGE RECORDS

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 (662.583 m) National Geodetic Vertical Datum of 1929. Prior to June 30, 1909, nonrecording gage at site 500 ft (152 m) downstream at different datum. Jan. 1, 1936, to July 6, 1937, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--47 years (1907-8, 1935-81), 241 ft³/s (6.825 m³/s), 48.20 in/yr (1,224 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s (382 m³/s) Oct. 4, 1964, gage height, 14.95 ft (4.557 m); minimum, 23 ft³/s (0.65 m³/s) Jan. 3, 1940, gage height, 1.51 ft (0.460 m), result of freezeup; minimum daily, 37 ft³/s (1.05 m³/s) Sept. 25-28, Oct. 5, 6, 25, 26, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 13.9 ft (4.24 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1600	*3930	111	*9.62	2.932

Minimum discharge, 41 ft³/s (1.16 m³/s) Jan. 12, gage height, 1.54 ft (0.469 m), result of freezeup; minimum daily, 53 ft³/s (1.50 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	99	142	79	70	173	256	108	292	114	104	68
2	121	92	130	76	303	163	215	105	287	149	120	64
3	100	87	119	74	136	154	195	103	350	135	112	83
4	91	93	114	73	127	171	184	102	300	121	100	100
5	95	86	109	75	120	219	249	100	270	122	92	106
6	91	83	105	75	110	174	206	102	247	115	93	119
7	82	82	101	75	100	162	188	132	239	108	95	116
8	78	80	98	70	91	153	178	108	216	104	87	96
9	76	78	97	70	84	147	175	101	201	99	83	79
10	75	76	106	70	294	142	167	105	188	97	79	72
11	73	74	96	68	701	137	159	374	178	115	79	69
12	71	73	92	65	298	133	153	175	209	110	81	66
13	71	73	91	70	220	130	148	146	247	99	80	65
14	71	73	87	75	186	128	144	134	204	92	78	64
15	71	94	86	83	165	123	149	168	177	121	73	70
16	69	93	86	75	153	130	135	137	164	116	74	87
17	71	101	84	75	187	122	143	130	156	93	82	69
18	82	135	82	75	416	121	141	124	150	245	76	65
19	97	97	81	76	532	118	133	151	146	123	73	63
20	80	89	80	74	360	114	136	189	140	114	73	61
21	76	85	77	79	284	113	132	158	139	105	72	60
22	73	81	80	74	245	129	125	137	128	91	70	59
23	73	104	80	70	320	137	135	127	129	87	69	58
24	76	354	80	67	251	140	154	119	123	100	69	57
25	146	188	77	66	221	141	127	113	122	281	66	56
26	95	142	80	67	204	138	122	118	118	145	65	56
27	82	418	80	70	190	133	120	1970	115	165	65	56
28	128	284	81	69	180	129	116	787	114	146	63	55
29	102	195	82	65	---	125	114	471	113	115	63	53
30	148	161	96	67	---	637	113	365	109	135	67	53
31	115	---	84	65	---	333	---	313	---	109	67	---
TOTAL	2839	3770	2883	2232	6548	5069	4712	7472	5571	3871	2470	2145
MEAN	91.6	126	93.0	72.0	234	164	157	241	186	125	79.7	71.5
MAX	160	418	142	83	701	637	256	1970	350	281	120	119
MIN	69	73	77	65	70	113	113	100	109	87	63	53
CFSM	1.35	1.86	1.37	1.06	3.45	2.42	2.31	3.55	2.74	1.84	1.17	1.05
IN.	1.56	2.07	1.58	1.22	3.59	2.78	2.58	4.09	3.05	2.12	1.35	1.18

CAL YR 1980 TOTAL 82295 MEAN 225 MAX 2010 MIN 64 CFSM 3.31 IN 45.09
WTR YR 1981 TOTAL 49582 MEAN 136 MAX 1970 MIN 53 CFSM 2.00 IN 27.16

03439000 FRENCH BROAD RIVER AT ROSMAN, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/14	11 40	0000	1.72	71	20		11.0	2.0	9.7	87.4	10K	0.8
80/11/04	11 40	0000	1.81	89	20		12.0	2.0	10.6	98.1	10K	1.0
80/12/12	12 30	0000	1.83	98	14	6.80	5.0	2.0	11.0	85.9	10K	0.4
81/01/14	14 00	0000	1.75	77	21		1.0	2.0	13.2	93.0	10K	0.3
81/02/10	12 50	0000	1.80	87	29		1.0	25.0	12.2	85.9	14	1.4
81/03/19	12 00	0000	1.94	118	25	6.80	7.0	2.0	11.6	95.1	10K	2.3
81/04/13	12 15	0000	2.06	148	24	6.80	13.0	2.0	9.5	89.6	10K	0.3
81/05/27	13 30	0000	2.59	303		6.60	17.0	45.0	9.3	95.9		1.9
81/06/11	11 00	0000	2.19	184		6.75	19.0	3.0	8.5	90.4		0.5
81/07/02	11 30	0000	2.04	143		6.70	17.0	20.0	8.5	87.6		2.2
81/08/03	11 15	0000	1.92	113	22	6.70	19.0	3.0	9.0	95.7		0.7
81/09/10	09 45	0000	1.73	73		6.50	15.0	4.0	8.6	84.3		0.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/14	11 40	0000	890	8	0.18	0.050K	0.100K	0.050K	0.050K	10K	50K	50K
80/11/04	11 40	0000	40	7								
80/12/12	12 30	0000	10K	6	0.16	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/01/14	14 00	0000		7								
81/02/10	12 50	0000	60	8								
81/03/19	12 00	0000	40	5	0.13	0.050K	0.100	0.050K	0.050K		50K	50K
81/04/13	12 15	0000	10K	6								
81/05/27	13 30	0000	1600	2								
81/06/11	11 00	0000	500	7	0.21	0.050	0.300	0.050K	0.050K	10K	50K	50K
81/07/02	11 30	0000	2600	7								
81/08/03	11 15	0000	80	8								
81/09/10	09 45	0000	60	7	0.30	0.050K	0.100K	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/14	11 40	0000	100K	40K	200	100K	50.0K	0.5K	50K
80/12/12	12 30	0000	100K	40K	100	100K	50.0K	0.5K	50K
81/03/19	12 00	0000	100K	40K	100	100K	50.0K	0.5K	50K
81/06/11	11 00	0000	100K	40K	200	100K	50.0K	0.6	50K
81/09/10	09 45	0000	100K	40K	300	100K	50.0K	0.5K	50K

K Less than noted value.

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 (46 m) upstream from bridge on State Highway 280, 2.1 mi (3.4 km) downstream from Avery Creek, 3.3 mi (5.3 km) northeast of Brevard, and at mile 2.2 (3.5 km).

DRAINAGE AREA.--40.4 mi² (104.6 km²).

WATER-DISCHARGE RECORDS

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 (644.692 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to May 17, 1934, nonrecording gage, at site 50 ft (15 m) downstream at same datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--61 years, 130 ft³/s (3.682 m³/s), 43.70 in/yr (1,110 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft³/s (238 m³/s) Aug. 15, 1928, gage height, 11.8 ft (3.597 m); minimum, 13 ft³/s (0.37 m³/s) Oct. 11, 1954, gage height, 0.31 ft (0.094 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, 11.9 ft (3.63 m) June 1876 (from studies by Tennessee Valley Authority).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1615	*1440	40.8	*4.13	1.259

Minimum daily discharge, 20 ft³/s (0.57 m³/s) Sept. 29, 30; minimum gage height, 0.36 ft (0.110 m) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	58	84	45	83	103	147	62	136	50	43	43
2	82	52	76	42	220	97	123	62	130	63	63	33
3	62	48	70	41	92	91	111	60	136	58	53	42
4	53	49	66	41	80	103	104	59	122	51	46	51
5	59	46	63	40	70	128	139	58	112	54	54	50
6	53	44	60	45	65	100	113	63	103	59	59	46
7	47	43	57	45	60	93	104	76	99	47	51	57
8	44	42	55	45	56	89	99	64	92	43	45	42
9	42	41	56	43	55	85	96	59	86	40	42	34
10	41	40	68	40	169	82	91	61	80	38	38	29
11	39	38	56	35	440	80	88	218	78	37	41	28
12	36	37	54	32	187	77	85	100	84	44	43	26
13	35	37	52	35	137	75	83	84	92	46	42	26
14	35	37	50	40	112	75	83	77	77	36	41	25
15	35	56	49	45	99	71	80	104	70	36	38	26
16	35	52	49	46	91	75	76	79	67	38	37	35
17	35	61	47	43	115	70	81	74	63	36	37	28
18	37	85	46	45	277	69	79	72	62	76	37	26
19	47	57	46	45	320	67	77	86	61	47	35	25
20	37	51	44	47	228	65	93	110	58	47	36	25
21	35	49	43	49	176	64	82	92	55	39	33	25
22	35	46	43	43	150	74	76	80	52	35	32	24
23	35	56	43	45	209	82	82	74	53	33	31	23
24	36	208	44	43	161	87	90	69	50	33	31	22
25	79	105	43	36	139	89	76	65	50	55	29	21
26	46	80	45	37	125	88	73	63	51	62	28	21
27	40	230	45	40	115	84	71	685	45	69	28	21
28	74	174	48	38	108	79	69	351	46	53	27	21
29	54	117	53	35	---	77	67	213	46	44	27	20
30	100	95	56	37	---	349	65	165	44	51	28	20
31	70	---	48	38	---	197	---	142	---	44	35	---
TOTAL	1575	2134	1659	1281	4139	2965	2703	3627	2300	1464	1210	915
MEAN	50.8	71.1	53.5	41.3	148	95.6	90.1	117	76.7	47.2	39.0	30.5
MAX	117	230	84	49	440	349	147	685	136	76	63	57
MIN	35	37	43	32	55	64	65	58	44	33	27	20
CFSM	1.26	1.76	1.32	1.02	3.66	2.37	2.23	2.90	1.90	1.17	.97	.76
IN.	1.45	1.96	1.53	1.18	3.81	2.73	2.49	3.34	2.12	1.35	1.11	.84

CAL YR 1980 TOTAL 46853 MEAN 128 MAX 1230 MIN 30 CFSM 3.17 IN 43.14
WTR YR 1981 TOTAL 25972 MEAN 71.2 MAX 685 MIN 20 CFSM 1.76 IN 23.91

03441000 DAVIDSON RIVER NEAR BREVARD, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/14	10 50	0000	0.51	35	10		9.0	2.0	10.0	86.2	10K	0.6
80/11/04	10 20	0000	0.61	50	15		9.0	2.0	10.5	90.5	20	0.8
80/12/12	11 00	0000	0.63	54	14	6.80	3.0	1.0K	11.2	83.0	10K	0.3
81/01/14	11 20	0000	0.62	52	15	6.50	0.2	2.0	13.9	95.2	10K	0.3
81/02/10	11 45	0000	0.60	49	17		1.0	2.0	11.5	81.0	10K	0.3
81/03/19	10 50	0000	0.71	68	16	6.70	5.0	1.0K	12.0	93.7	10K	1.4
81/04/13	11 30	0000	0.80	84	22	6.70	13.0	10.0	9.6	90.6	10K	0.4
81/05/21	21 00	0000	0.79	82		6.90	15.0	3.0	9.6	94.1		0.7
81/06/11	10 30	0000	0.77	78		6.70	19.0	2.0	8.6	91.5		0.5
81/07/02	11 00	0000	0.61	50		6.70	17.0	3.0	8.8	90.7		0.4
81/08/03	10 30	0000	0.60	54	17	6.60	18.0	2.0	9.0	94.7		0.5
81/09/10	09 10	0000	0.45	30		6.70	15.0	1.0	8.7	85.3		0.4

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/14	10 50	0000	10K	7	0.10	0.050K	0.200	0.050K	0.050K	10K	50K	50K
80/11/04	10 20	0000	10K	4								
80/12/12	11 00	0000	90	6	0.05K	0.050K	0.100K	0.050K	0.050K	10K	50K	50K
81/01/14	11 20	0000	10K	5								
81/02/10	11 45	0000	10K	6								
81/03/19	10 50	0000	10	5	0.05K	0.050K	0.100K	0.050K	0.050K		50K	50K
81/04/13	11 30	0000	10K	5								
81/05/21	21 00	0000	10K	5	0.06	0.050	0.300	0.050K	0.050K			
81/06/11	10 30	0000	30	4	0.12	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/07/02	11 00	0000	50	5								
81/08/03	10 30	0000	20	5								
81/09/10	09 10	0000	20	5	0.20	0.050K	0.100K	0.050	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/14	10 50	0000	100K	40K	100K	100K	50.0K	0.5K	50K
80/12/12	11 00	0000	100K	40K	100K	100K	50.0K	0.5K	50K
81/03/19	10 50	0000	100K	40K	100K	100K	50.0K	0.5K	50K
81/06/11	10 30	0000	100K	40K	300	100K	50.0K	0.5K	50K
81/09/10	09 10	0000	100K	40K	100	100K	50.0K	0.5K	50K

K Less than noted value.

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 (30.5 m) upstream from High Falls, 0.2 mi (0.3 km) upstream from Grassy Creek, 1.0 mi (1.6 km) downstream from Reasonover Creek, 3.8 mi (6.1 km) northeast of Cedar Mountain, and at mile 7.8 (12.6 km).

DRAINAGE AREA.--26.8 mi² (69.4 km²).

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,513.27 ft (766.045 m) National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark).

REMARKS.--Records good except those for period of no gage-height record, Feb. 4 to Mar. 6, which are poor. E. I. du Pont de Nemours and Company plant 0.5 mi (0.8 km) above gage diverted about 1.20 ft³/s (0.034 m³/s) for industrial use. Since 1969, more than 7.82 mi² (20.25 km²) of total drainage affected by occasional filling and/or draining of recreational lakes on tributaries upstream.

AVERAGE DISCHARGE.--19 years, 109 ft³/s (3.087 m³/s), 55.23 in/yr (1,403 mm/yr) unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,600 ft³/s (159 m³/s) Oct. 4, 1964, gage height, 7.30 ft (2.225 m); minimum, 7.0 ft³/s (0.20 m³/s) Sept. 24, 1981, gage height, 1.13 ft (0.344 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 502 ft³/s (14.2 m³/s) Mar. 30, gage height, 2.74 ft (0.835 m), no peak above base of 700 ft³/s (20 m³/s); minimum 7.0 ft³/s (0.20 m³/s) Sept. 24, gage height, 1.13 ft (0.344 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	49	90	35	39	70	129	43	59	26	25	28
2	101	44	82	33	95	67	101	41	94	51	31	19
3	68	41	65	28	54	65	87	40	104	49	30	17
4	53	40	59	28	35	70	80	40	102	33	26	24
5	50	38	57	30	33	96	120	39	84	32	26	22
6	46	37	54	30	33	67	103	38	74	35	24	32
7	41	36	52	30	31	63	88	40	68	29	25	26
8	38	34	50	30	30	60	82	38	75	27	21	20
9	35	34	49	29	30	58	79	36	67	25	20	16
10	35	33	47	29	140	55	74	38	55	23	19	15
11	32	30	46	28	300	54	70	93	50	25	19	13
12	30	30	44	29	170	51	67	51	52	38	22	12
13	29	30	39	30	120	51	65	45	53	39	19	12
14	29	31	38	32	100	50	64	42	46	28	26	12
15	28	37	37	32	88	48	67	45	41	31	20	13
16	28	41	36	28	80	49	59	40	38	33	18	18
17	28	39	36	28	96	45	61	38	37	26	18	15
18	30	55	34	26	160	46	60	37	43	31	18	13
19	37	42	33	28	240	45	57	45	37	31	16	12
20	30	37	32	26	160	42	55	57	34	52	17	11
21	27	36	31	29	135	41	54	49	31	36	16	10
22	27	34	29	30	115	49	51	40	29	28	16	10
23	26	38	32	28	140	59	55	38	27	25	15	10
24	28	165	32	27	115	55	57	37	26	24	16	8.3
25	62	115	29	27	96	60	49	35	27	27	13	9.3
26	42	91	26	27	86	66	49	34	28	36	14	9.6
27	32	174	27	28	80	65	48	170	24	39	14	9.2
28	54	158	32	28	76	60	46	136	25	24	13	10
29	41	115	36	26	---	56	45	85	25	21	13	8.9
30	70	97	43	28	---	291	45	68	24	29	14	9.1
31	59	---	41	31	---	191	---	63	---	25	16	---
TOTAL	1425	1781	1338	898	2877	2145	2067	1641	1479	978	600	444.4
MEAN	46.0	59.4	43.2	29.0	103	69.2	68.9	52.9	49.3	31.5	19.4	14.8
MAX	189	174	90	35	300	291	129	170	104	52	31	32
MIN	26	30	26	26	30	41	45	34	24	21	13	8.3
CFSM	1.72	2.22	1.61	1.08	3.84	2.58	2.57	1.97	1.84	1.18	.72	.55
IN.	1.98	2.47	1.86	1.25	3.99	2.98	2.87	2.28	2.05	1.36	.83	.62

CAL YR 1980 TOTAL 34467.0 MEAN 94.2 MAX 951 MIN 20 CFSM 3.52 IN 47.84
WTR YR 1981 TOTAL 17673.4 MEAN 48.4 MAX 300 MIN 8.3 CFSM 1.81 IN 24.53

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC

LOCATION.--Lat 35°17'56", long 82°37'26" (revised), Transylvania County, Hydrologic Unit 06010105, on left bank 40 ft (12 m) upstream from bridge on Secondary Road 1503, 700 ft (213 m) east of railroad at Blantyre, 3.5 mi (5.6 km) downstream from Little River, and at mile 183.7 (295.6 km).

DRAINAGE AREA.--296 mi² (767 km²).

WATER-DISCHARGE RECORDS

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 (627.986 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to July 5, 1930, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good, except those above 2,600 ft³/s (73.6 m³/s), which are fair. Considerable diurnal fluctuation at low flow caused by powerplant about 8 mi (13 km) above station.

AVERAGE DISCHARGE.--61 years, 995 ft³/s (28.18 m³/s), 45.65 in/yr (1,160 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) Oct. 5, 1964, gage height, 25.50 ft (7.772 m), from floodmarks; minimum, 119 ft³/s (3.37 m³/s) Oct. 1, 1954, gage height, 2.36 ft (0.719 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, 27.1 ft (8.26 m) July 16, 1916, from floodmarks (from studies by Tennessee Valley Authority).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,570 ft³/s (101 m³/s) Feb. 11, gage height, 15.14 ft (4.615 m), no peak above base of 4,300 ft³/s (120 m³/s); minimum, 151 ft³/s (4.28 m³/s) Sept. 30, gage height, 3.61 ft (1.100 m); minimum daily, 155 ft³/s (4.39 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1360	585	781	415	352	737	1310	457	887	346	436	257
2	929	523	730	414	1020	704	1050	429	962	428	446	233
3	694	489	699	401	835	667	904	421	1070	615	456	276
4	582	509	667	398	550	655	833	419	1080	495	402	390
5	549	523	627	360	487	917	943	411	977	466	381	430
6	539	543	572	361	448	774	1080	391	888	485	388	359
7	489	521	554	423	441	692	882	446	847	430	385	434
8	463	461	538	371	437	651	822	447	854	398	363	437
9	446	452	528	376	415	626	788	412	759	369	302	371
10	433	434	525	360	584	605	770	404	709	350	285	334
11	420	394	494	305	3190	587	734	888	641	341	302	300
12	411	380	464	269	2060	570	655	805	623	385	339	239
13	390	371	452	323	1130	562	632	593	714	439	339	230
14	380	376	441	371	913	595	638	493	703	355	340	224
15	370	421	435	380	796	551	677	543	591	346	279	219
16	370	525	427	336	730	541	644	507	582	421	259	279
17	360	462	411	306	718	512	631	461	551	377	269	280
18	360	641	404	289	1320	496	606	446	551	427	292	237
19	460	555	401	338	2010	489	569	481	540	671	300	223
20	480	495	393	351	1680	474	589	633	498	568	286	216
21	420	470	383	361	1280	468	590	641	442	427	281	212
22	385	476	369	365	1070	513	544	501	439	383	256	207
23	369	482	393	349	1190	615	547	475	447	343	239	206
24	385	1200	392	334	1140	686	635	425	436	338	240	192
25	550	1260	385	327	967	742	554	421	430	653	230	190
26	610	851	345	325	881	716	518	400	422	605	220	188
27	520	1540	355	339	814	679	510	1510	363	519	232	187
28	520	1870	429	344	764	594	494	2860	356	522	244	184
29	579	1150	438	333	---	570	477	1880	367	404	206	159
30	675	895	466	330	---	1740	473	1140	363	460	208	155
31	721	---	461	327	---	2320	---	987	---	451	226	---
TOTAL	16219	19854	14959	10881	28222	22048	21099	21327	19092	13817	9431	7848
MEAN	523	662	483	351	1008	711	703	688	636	446	304	262
MAX	1360	1870	781	423	3190	2320	1310	2860	1080	671	456	437
MIN	360	371	345	269	352	468	473	391	356	338	206	155
CFSM	1.77	2.24	1.63	1.19	3.41	2.40	2.38	2.32	2.15	1.51	1.03	.89
IN.	2.04	2.50	1.88	1.37	3.55	2.77	2.65	2.68	2.40	1.74	1.19	.99

CAL YR 1980 TOTAL 371080 MEAN 1014 MAX 6440 MIN 268 CFSM 3.43 IN 46.64
WTR YR 1981 TOTAL 204797 MEAN 561 MAX 3190 MIN 155 CFSM 1.90 IN 25.74

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/14	13 00	0000	5.01	387	210		15.0	10.0	7.3	71.6	19	1.8
80/11/04	12 15	0000	5.62	499	200		14.0	6.0	8.9	85.6	19	2.3
80/12/12	14 45	0000	5.69	507	179	7.00	6.0	10.0K	9.8	78.4	20	1.6
81/01/14	14 50	0000	5.29	426	219		3.0	8.0	12.4	91.9	26	3.1
81/02/10	14 45	0000	5.43	432	153		2.0	10.0	11.4	82.6	19	2.1
81/03/19	13 00	0000	5.81	499	161	7.10	8.0	7.0	10.6	89.1	16	1.7
81/04/13	13 30	0000	6.51	653	146	7.10	14.0	8.0	8.2	78.8	15	1.3
81/05/21	20 40	0000	6.23	597		7.30	17.0	10.0	9.0	92.8		1.3
81/06/11	12 00	0000	6.41	640		7.00	22.0	10.0	7.1	80.7		2.5
81/07/02	12 30	0000	5.27	434		6.90	18.0	7.0	7.2	75.8		1.7
81/08/03	12 00	0000	5.46	468	170	7.20	21.0	10.0	7.4	82.2		1.6
81/09/10	10 30	0000	4.67	333		7.00	20.0	15.0	6.6	71.7		2.1

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/14	13 00	0000	90	29	0.16	0.080	0.400	0.080	0.050K	10K	50K	50K
80/11/04	12 15	0000	90	25								
80/12/12	14 45	0000	450	25	0.16	0.070	0.400	0.060	0.050K	10K	50K	50K
81/01/14	14 50	0000	50	29								
81/02/10	14 45	0000	60	24								
81/03/19	13 00	0000	30	22	0.13	0.050	0.400	0.060	0.050K		50K	50K
81/04/13	13 30	0000	180	20								
81/05/21	20 40	0000	300	19								
81/06/11	12 00	0000	400	18	0.24	0.100	0.600	0.080	0.050K	10K	50K	50K
81/07/02	12 30	0000	360	27								
81/08/03	12 00	0000	410	24								
81/09/10	10 30	0000	740	35	0.25	0.080	0.700	0.110	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/14	13 00	0000	100K	40K	400	100K	50.0K	0.5K	50K
80/12/12	14 45	0000	100K	40K	300	100K	50.0K	0.5K	50K
81/03/19	13 00	0000	100K	40K	200	100K	50.0K	0.5K	50K
81/06/11	12 00	0000	100K	40K	800	100K	60.0	2.8	50K
81/09/10	10 30	0000	100K	40K	600	100K	60.0	1.1	50K

K Less than noted value.

03446000 MILLS RIVER NEAR MILLS RIVER, NC

LOCATION (REVISED).--Lat 35°23'55", long 82°35'42", Henderson County, Hydrologic Unit 06010105, on right bank 1.5 mi (2.4 km) downstream from confluence of North and South Forks, 1.8 mi (2.9 km) northwest of Mills River, 4.2 mi (6.8 km) northwest of Horseshoe, and at mile 4.6 (7.4 km).

DRAINAGE AREA.--66.7 mi² (172.8 km²).

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 (636.566 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to Oct. 1, 1926, nonrecording gage at site 500 ft (152 m) upstream at datum 2.97 ft (0.905 m) higher.

REMARKS.--Records good. City of Hendersonville diverted an average of 6.48 ft³/s (0.18 m³/s) from North Fork and Bradley Creek for municipal water supply.

AVERAGE DISCHARGE.--50 years, 169 ft³/s (4.786 m³/s), 34.41 in/yr (874 mm/yr) unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft³/s (379 m³/s) Aug. 30, 1940, gage height, 13.62 ft (4.151 m), from rating curve extended above 6,200 ft³/s (176 m³/s) on basis of slope-area measurement of peak flow; minimum, 16 ft³/s (0.45 m³/s) Dec. 24, 1943, gage height, 1.33 ft (0.405 m), result of freezeup; minimum daily, 18 ft³/s (0.51 m³/s) Sept. 30, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since 1876 is probably that of Aug. 30, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 31	1945	*1300	36.8	*4.32	1.317

Minimum daily discharge, 28 ft³/s (0.79 m³/s) Sept. 28, 29, 30; minimum gage height, 1.43 ft (0.436 m) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	76	119	60	68	142	197	95	248	75	62	35
2	133	71	108	59	212	133	168	95	215	89	73	40
3	99	65	101	56	95	123	150	93	194	99	71	53
4	84	65	93	56	87	130	142	89	179	89	60	44
5	89	63	89	55	89	168	160	87	165	93	56	53
6	85	59	84	60	89	135	140	85	155	85	59	59
7	68	59	80	65	84	126	130	103	150	75	60	89
8	63	60	76	57	76	121	126	95	142	68	68	56
9	60	59	75	57	63	114	121	89	130	65	57	43
10	59	54	77	55	142	110	116	89	119	62	50	38
11	57	53	73	50	541	105	114	228	119	66	70	36
12	53	50	70	48	248	101	112	135	147	101	84	36
13	50	50	70	50	185	99	135	116	140	105	62	36
14	50	50	66	55	145	101	212	105	123	70	57	32
15	50	70	63	60	130	97	150	130	110	65	54	33
16	50	80	63	65	116	97	135	110	105	66	51	38
17	48	70	62	63	123	93	133	103	101	68	48	35
18	51	103	60	65	228	91	133	99	97	76	48	32
19	78	76	60	54	308	89	128	108	95	82	46	34
20	59	70	60	53	284	87	152	137	93	105	46	34
21	51	65	56	59	234	87	137	130	89	68	44	32
22	48	65	54	59	200	97	128	110	82	59	44	32
23	48	70	55	56	262	105	126	103	80	56	43	31
24	50	215	59	56	221	110	130	97	76	54	40	30
25	97	150	54	54	191	116	116	91	80	63	37	30
26	73	116	60	51	174	123	112	87	108	68	37	30
27	59	200	70	54	157	116	110	515	80	75	37	30
28	78	206	73	54	147	110	105	423	76	73	35	28
29	69	155	78	48	---	105	101	258	75	60	37	28
30	95	130	71	51	---	341	99	203	71	62	38	28
31	85	---	65	46	---	262	---	312	---	60	36	---
TOTAL	2218	2675	2244	1731	4899	3834	4018	4520	3644	2302	1610	1155
MEAN	71.5	89.2	72.4	55.8	175	124	134	146	121	74.3	51.9	38.5
MAX	179	215	119	65	541	341	212	515	248	105	84	89
MIN	48	50	54	46	63	87	99	85	71	54	35	28
CFSM	1.07	1.34	1.09	.84	2.62	1.86	2.01	2.19	1.81	1.11	.78	.58
IN.	1.24	1.49	1.25	.97	2.73	2.14	2.24	2.52	2.03	1.28	.90	.64

CAL YR 1980 TOTAL 56517 MEAN 154 MAX 1650 MIN 42 CFSM 2.31 IN 31.52
WTR YR 1981 TOTAL 34850 MEAN 95.5 MAX 541 MIN 28 CFSM 1.43 IN 19.44

03448000 FRENCH BROAD RIVER AT BENT CREEK, NC

LOCATION.--Lat 35°30'07", long 82°35'33" (revised), Buncombe County, Hydrologic Unit 06010105, on left bank 50 ft (15 m) downstream from Bent Creek, 6.2 mi (10 km) upstream from Hominy Creek, 6.7 mi (10.8 km) south of Asheville, and at mile 157.7 (253.7 km).

DRAINAGE AREA.--676 mi² (1,751 km²).

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,995.91 ft (608.353 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by powerplant about 34 mi (55 km) above station.

AVERAGE DISCHARGE.--48 years, 1,702 ft³/s (48.20 m³/s), 34.19 in/yr (868 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft³/s (867 m³/s) Oct. 5, 1964, gage height, 15.80 ft (4.816 m); minimum, 230 ft³/s (6.5 m³/s) Oct. 4, 5, 10, 11, 12, 1954, gage height, 2.05 ft (0.625 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, 27.3 ft (8.32 m) July 15, 1916 (from floodmarks and studies by Tennessee Valley Authority). Flood in August 1928 reached a stage of about 16.1 ft (4.91 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,330 ft³/s (151 m³/s) Feb. 11, gage height, 5.74 ft (1.750 m), no peak above base of 6,000 ft³/s (170 m³/s); minimum, 260 ft³/s (7.36 m³/s) Sept. 30, gage height, 2.08 ft (0.634 m); minimum daily, 266 ft³/s (7.53 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2370	1080	1450	879	646	1380	2290	820	2240	841	630	350
2	1810	950	1340	822	1400	1330	1630	791	1630	698	664	400
3	1390	884	1270	794	1560	1270	1470	762	2000	938	681	393
4	1140	864	1210	787	1100	1220	1380	753	1700	894	647	423
5	1060	897	1170	741	986	1540	1400	753	1600	841	588	588
6	1080	868	1100	684	875	1500	1510	743	1670	781	571	613
7	971	879	1060	762	855	1310	1410	791	1430	762	588	1070
8	898	831	1030	742	846	1220	1300	820	1460	681	605	743
9	866	785	1000	700	804	1180	1270	762	1280	639	545	622
10	823	765	1030	640	970	1140	1250	743	1190	596	469	520
11	793	722	998	620	4830	1110	1200	1260	1080	571	469	469
12	747	689	947	581	4060	1090	1140	1400	1030	571	613	423
13	715	669	923	680	2150	1060	1100	1070	1200	715	579	374
14	698	681	900	820	1630	1070	1250	904	1220	639	537	362
15	689	766	880	756	1530	1050	1150	938	1080	554	511	356
16	683	959	872	718	1390	1040	1100	926	949	596	438	385
17	674	900	857	682	1340	1010	1080	831	904	690	423	438
18	674	1100	829	702	1830	968	1080	820	883	588	430	393
19	814	1060	815	691	2820	950	1020	873	873	831	445	350
20	831	922	807	638	2920	941	1170	1190	852	1100	453	338
21	724	868	776	686	2210	925	1100	1250	781	791	423	331
22	683	836	743	704	1770	964	1020	1010	734	647	408	325
23	661	851	775	682	1800	1120	984	883	743	571	379	320
24	663	1570	802	651	1850	1260	1050	820	734	537	374	310
25	993	2040	776	633	1620	1400	1020	753	724	571	362	299
26	1090	1520	689	624	1590	1360	926	743	873	938	350	293
27	898	2050	723	645	1520	1290	894	2080	707	724	344	293
28	931	2940	777	665	1440	1200	873	3640	639	715	350	293
29	1030	2000	912	660	---	1120	841	3170	630	681	350	282
30	1110	1620	916	663	---	2390	831	1830	639	613	325	266
31	1260	---	948	630	---	3550	---	1790	---	656	331	---
TOTAL	29769	33566	29325	21682	48342	39958	35739	35919	33475	21970	14882	12622
MEAN	960	1119	946	699	1727	1289	1191	1159	1116	709	480	421
MAX	2370	2940	1450	879	4830	3550	2290	3640	2240	1100	681	1070
MIN	661	669	689	581	646	925	831	743	630	537	325	266
CFSM	1.42	1.66	1.40	1.03	2.56	1.91	1.76	1.71	1.65	1.05	.71	.62
IN.	1.64	1.85	1.61	1.19	2.66	2.20	1.97	1.98	1.84	1.21	.82	.69

CAL YR 1980 TOTAL 645030 MEAN 1762 MAX 10200 MIN 508 CFSM 2.61 IN 35.50
WTR YR 1981 TOTAL 357249 MEAN 979 MAX 4830 MIN 266 CFSM 1.45 IN 19.66

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 (0.8 km) downstream from Wolfe Branch, 0.8 mi (1.3 km) upstream from Beetree Reservoir dam, 3.8 mi (6.1 km) north of Swannanoa, and 4.8 mi (7.7 km) above mouth.

DRAINAGE AREA.--5.46 mi² (14.14 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1926 to September 1975, October 1979 to September 1981 (discontinued).

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 (831.613 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--51 years (water years 1927-75, 1980-81), 10.7 ft³/s (0.303 m³/s), 26.61 in/yr (676 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s (38.8 m³/s) Aug. 13, 1940, gage height, 6.20 ft (1.890 m), from rating curve extended above 240 ft³/s (6.80 m³/s) on basis of computation of peak flow over weir; minimum, 0.3 ft³/s (0.008 m³/s) Sept. 29, 30, Oct. 1, 1954, gage height, 0.26 ft (0.079 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft³/s (3.12 m³/s) May 27, gage height, 3.37 ft (1.027 m), no peak above base of 150 ft³/s (4.2 m³/s); minimum daily discharge, 1.1 ft³/s (0.031 m³/s) for part or all of several days in October, July, and September; minimum gage height, 1.53 ft (0.466 m) Aug. 31, Sept. 2, 3, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.4	3.3	2.4	3.3	7.4	39	5.9	23	3.8	1.6	1.2
2	2.2	2.2	3.1	2.2	16	6.7	29	5.7	19	3.8	2.5	1.3
3	1.6	2.0	2.8	2.2	7.1	6.3	22	5.2	20	3.8	1.7	1.3
4	1.4	2.0	2.5	2.1	6.0	7.0	17	4.7	23	3.2	1.4	1.3
5	1.9	1.9	2.4	2.2	5.5	9.8	19	4.3	23	2.9	1.3	1.3
6	1.7	1.9	2.3	2.4	5.1	9.3	15	4.5	22	3.0	2.2	3.8
7	1.3	1.9	2.2	2.2	4.3	8.5	13	5.0	25	3.5	2.0	5.0
8	1.2	1.9	2.1	2.3	4.3	7.8	11	4.2	19	3.0	1.7	4.2
9	1.2	1.9	2.2	2.2	5.9	7.6	11	3.7	15	2.7	1.5	2.8
10	1.2	1.9	3.0	2.2	12	7.3	9.1	3.7	12	2.6	1.4	2.0
11	1.1	2.2	2.4	2.1	41	7.1	8.1	15	9.6	2.4	1.4	1.7
12	1.1	2.3	2.4	2.2	22	6.8	7.3	8.0	7.9	2.4	1.4	1.4
13	1.2	1.9	2.6	2.3	14	6.8	6.8	7.0	6.9	2.1	1.3	1.2
14	1.2	1.5	2.4	2.2	12	7.0	6.4	6.4	6.2	2.0	1.4	1.1
15	1.2	3.7	2.4	2.1	6.0	6.6	6.1	7.9	5.6	2.0	1.4	1.4
16	1.2	3.2	2.4	2.1	6.1	7.6	5.7	6.5	5.0	1.8	1.4	5.3
17	1.4	2.7	2.3	2.2	8.1	6.9	6.4	6.1	4.5	2.0	1.4	3.1
18	1.9	3.4	2.2	2.2	24	7.2	6.4	6.0	4.2	1.8	1.5	2.2
19	3.3	2.9	2.2	2.1	27	6.9	6.4	6.9	4.4	1.9	1.5	1.4
20	2.1	2.7	2.1	2.7	36	6.8	13	17	4.2	1.6	1.5	1.3
21	2.0	2.6	2.0	2.5	26	7.0	12	17	3.4	1.3	1.4	1.3
22	2.0	2.4	2.0	2.5	19	9.1	10	13	3.0	1.2	1.4	1.3
23	1.9	2.5	2.2	2.3	20	8.6	12	9.9	3.5	1.1	1.4	1.3
24	2.1	6.0	2.3	2.3	15	9.7	14	7.9	2.7	1.1	1.3	1.2
25	5.0	4.5	2.2	2.5	12	12	12	6.7	2.5	3.2	1.3	1.2
26	3.2	3.8	1.9	2.7	9.5	14	9.8	6.1	2.4	1.4	1.2	1.1
27	2.8	4.5	1.9	3.2	8.3	15	8.4	57	2.3	1.2	1.3	1.1
28	4.0	4.3	2.5	3.1	7.7	16	7.4	54	2.3	1.4	1.3	1.1
29	3.1	3.7	2.8	2.8	---	16	6.9	42	2.2	1.5	1.2	1.1
30	3.1	3.5	2.8	2.9	---	53	6.3	32	2.5	1.5	1.3	1.1
31	2.8	---	2.5	2.7	---	50	---	27	---	1.4	1.2	---
TOTAL	64.4	84.3	74.4	74.1	383.2	356.8	356.5	406.3	286.3	68.7	45.8	56.1
MEAN	2.08	2.81	2.40	2.39	13.7	11.5	11.9	13.1	9.54	2.22	1.48	1.87
MAX	5.0	6.0	3.3	3.2	41	53	39	57	25	3.8	2.5	5.3
MIN	1.1	1.5	1.9	2.1	3.3	6.3	5.7	3.7	2.2	1.1	1.2	1.1
CFSM	.38	.52	.44	.44	2.51	2.11	2.18	2.40	1.75	.41	.27	.34
IN.	.44	.57	.51	.50	2.61	2.43	2.43	2.77	1.95	.47	.31	.38

CAL YR 1980 TOTAL 3687.4 MEAN 10.1 MAX 124 MIN 1.0 CFSM 1.85 IN 25.12
WTR YR 1981 TOTAL 2256.9 MEAN 6.18 MAX 57 MIN 1.1 CFSM 1.13 IN 15.37

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976-78, 1980 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to September 1981.
WATER TEMPERATURES: October 1979 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1979.

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 micromhos May 15, Aug. 2, 3, 1980; minimum, 13 micromhos Jan. 31, 1981.
WATER TEMPERATURES: Maximum, 23.5°C July 27, 28, 1981; minimum, 0.0°C Nov. 29, 30, Dec. 1-5, 17, 18, 1979, Feb. 1-5, 7, 8, 11-14, 17, 18, 19, Mar. 2, 3, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 23 micromhos Sept. 5; minimum, 13 micromhos Jan. 31.
WATER TEMPERATURES: Maximum, 23.5°C July 27, 28; 1.0°C Dec. 25-28, Jan. 4-25, 31, Feb. 1-14, Mar. 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
FEB											
10...	1600	7.0	20	7.1	.5	<5	10.5	2	4500	5	2
10...	1830	16	19	7.0	.5	<5	10.0	8	6100	5	1
10...	2000	29	18	7.0	.5	<5	10.2	--	--	5	2
10...	2200	52	21	6.9	.5	--	10.2	8	8600	--	--
11...	0045	100	21	7.0	1.5	5	10.4	12	4500	5	1
11...	0600	62	20	7.0	1.5	5	10.1	--	--	6	2
11...	1030	48	21	6.9	4.0	5	9.6	--	--	6	2
MAR											
02...	1500	6.5	17	7.2	8.5	--	--	--	--	--	--
02...	1515	6.5	--	--	--	--	--	--	--	--	--
30...	0830	25	18	--	9.5	5	--	--	--	4	--
30...	0930	70	18	7.0	8.0	--	10.0	--	--	--	--
30...	1030	80	20	7.0	8.0	10	10.0	--	--	4	0
30...	1200	72	19	--	9.5	--	--	--	--	--	--
30...	1600	75	20	--	10.5	<5	--	--	--	5	--
30...	2000	65	21	--	9.5	--	--	--	--	--	--
30...	2400	55	20	--	8.5	--	--	--	--	--	--
31...	0950	42	19	7.0	8.0	<5	9.5	--	--	5	1

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)
FEB										
10...	1.0	.5	1.1	32	.2	.5	4	0	3	1.9
10...	1.1	.6	1.1	29	.2	.5	5	0	4	.8
10...	1.0	.5	1.1	32	.2	.5	4	0	3	.6
10...	--	--	--	--	--	--	4	0	3	.8
11...	1.1	.6	1.1	29	.2	.6	5	0	4	.4
11...	1.3	.7	1.1	26	.2	.6	5	0	4	1.0
11...	1.3	.7	1.1	26	.2	.6	5	0	4	1.2
MAR										
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
30...	.9	.4	1.0	32	.2	.6	--	0	--	--
30...	--	--	--	--	--	--	4	0	3	.6
30...	1.0	.4	.9	29	.2	.6	5	0	4	.8
30...	--	--	--	--	--	--	--	--	--	--
30...	1.1	.5	1.0	28	.2	.6	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
31...	1.1	.5	.9	26	.2	.5	5	0	4	.8

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
FEB										
10...	2.4	.8	<.1	6.5	22	22	.03	.42	<.010	.30
10...	2.3	.8	<.1	7.0	19	16	.03	.82	<.010	.29
10...	2.5	.8	<.1	6.2	24	16	.03	1.8	<.010	.28
10...	--	--	--	--	--	--	--	--	<.010	.30
11...	3.4	.9	<.1	6.0	25	17	.03	6.7	<.010	.42
11...	3.3	.9	<.1	5.9	24	19	.03	4.0	<.010	.50
11...	3.1	.9	<.1	5.9	19	19	.03	2.4	<.010	.56
MAR										
02...	--	--	--	--	--	--	--	--	<.010	.26
02...	--	--	--	--	--	--	--	--	<.010	.32
30...	2.2	.7	<.1	6.4	--	13	.02	.88	<.010	.29
30...	--	--	--	--	--	--	--	--	<.010	.30
30...	2.3	.8	<.1	6.4	19	16	.03	4.1	<.010	.31
30...	--	--	--	--	--	--	--	--	<.010	.39
30...	2.7	.8	<.1	6.2	--	--	--	3.2	<.010	.44
30...	--	--	--	--	--	--	--	--	<.010	.45
30...	--	--	--	--	--	--	--	--	<.010	.43
31...	2.7	.7	<.1	6.3	12	17	.02	1.3	<.010	.38

DATE	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, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
FEB										
10...	.34	.030	--	--	--	--	<.10	--	--	--
10...	--	.020	--	--	.11	--	.13	--	--	.42
10...	.28	.030	.040	.05	.18	.11	.21	.06	.15	.49
10...	.30	.040	.040	.05	.15	.10	.19	.05	.14	.49
11...	.42	.050	.030	.04	.40	--	.45	--	<.10	.87
11...	.51	.020	.010	.01	.10	--	.12	--	<.10	.62
11...	.56	<.010	<.010	.01	--	--	.13	--	<.10	.69
MAR										
02...	.31	.050	--	--	--	--	<.10	--	--	--
02...	.32	.040	.060	.08	--	--	<.10	--	--	--
30...	.29	.040	.050	.06	.13	.08	.17	.04	.13	.46
30...	.30	.030	.020	.03	.22	--	.25	--	<.10	.55
30...	.32	.020	<.010	.01	.37	--	.39	--	<.10	.70
30...	.40	.020	.020	.03	.24	--	.26	--	<.10	.65
30...	.45	.040	.020	.03	.08	.12	.12	.00	.14	.56
30...	.45	.020	.010	.01	--	--	<.10	--	<.10	--
30...	.44	.020	.010	.01	.13	--	.15	--	<.10	.58
31...	.38	<.010	.030	.04	--	--	<.10	--	<.10	--

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
FEB										
10...	--	--	<.010	.03	--	<.010	--	--	--	--
10...	1.9	--	<.010	.03	--	<.010	--	--	--	--
10...	2.2	.43	.010	.03	.020	<.010	.020	.06	20	14
10...	2.2	.44	.020	.06	--	.010	--	--	50	39
11...	3.9	--	.030	.09	.030	.010	.040	.12	40	35
11...	2.7	--	.010	.03	.010	<.010	.040	.12	50	41
11...	3.1	--	<.010	.03	<.010	<.010	.020	.06	--	--
MAR										
02...	--	--	.090	.28	--	<.010	.050	.15	--	--
02...	--	--	.070	.21	<.010	.010	<.010	--	--	--
30...	2.0	.42	.040	.12	.020	.020	.030	.09	--	--
30...	2.4	--	.030	.09	.010	.010	<.010	--	--	--
30...	3.1	--	.030	.09	<.010	<.010	<.010	--	--	--
30...	2.9	--	.020	.06	.010	<.010	<.010	--	--	--
30...	2.5	.59	.020	.06	.020	<.010	<.010	--	--	--
30...	--	--	.010	.03	<.010	<.010	<.010	--	--	--
30...	2.6	--	.020	.06	.010	<.010	<.010	--	--	--
31...	--	--	<.010	.03	<.010	<.010	<.010	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
FEB										
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	6	3	2	1	170	160	10	12	12	0
10...	11	4	2	2	530	480	50	25	24	1
11...	5	5	4	1	1200	1200	30	10	10	0
11...	9	6	5	1	230	210	20	4	4	0
11...	--	--	--	--	--	--	--	--	--	--
MAR										
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
FEB						
10...	--	--	--	--	--	.00
10...	--	--	--	1.4	.2	.00
10...	10	--	<4	--	--	.00
10...	10	0	10	2.1	1.4	.00
11...@0045	70	--	<4	4.2	.4	.00
11...@0600	10	--	<4	--	--	.00
MAR						
02...	--	--	--	2.2	.2	--
02...	--	--	--	2.0	.2	--

TENNESSEE RIVER BASIN

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.5	11.0	8.5	7.5	5.0	5.5	3.5	3.0	1.0	10.5	8.5
2	17.5	15.0	11.0	9.0	8.5	6.0	3.5	2.0	3.5	1.0	10.0	7.0
3	15.5	14.0	11.0	9.5	6.0	4.5	4.0	1.5	1.0	1.0	8.0	4.5
4	14.0	12.0	13.0	10.5	6.0	4.0	3.0	1.0	1.0	1.0	6.0	5.0
5	12.5	11.0	11.0	9.5	6.5	4.5	1.5	1.0	1.0	1.0	8.0	6.0
6	11.5	9.5	10.0	8.0	7.5	5.0	1.5	1.0	1.5	1.0	7.0	4.0
7	11.5	9.0	10.5	8.0	8.0	6.0	2.0	1.0	1.5	1.0	6.5	3.5
8	12.5	10.5	12.5	10.0	9.0	7.0	1.5	1.0	2.5	1.0	6.0	2.5
9	14.0	12.0	13.5	11.0	9.5	8.0	1.5	1.0	1.5	1.0	7.0	3.0
10	15.0	12.5	13.0	11.0	10.0	7.5	2.0	1.0	2.5	1.0	7.0	3.5
11	15.0	13.5	11.0	9.0	7.5	5.5	1.0	1.0	5.5	1.0	7.5	4.5
12	15.5	13.0	9.5	7.5	7.0	5.0	1.0	1.0	1.0	1.0	7.5	3.5
13	15.0	13.0	10.0	7.5	8.0	5.5	1.0	1.0	1.0	1.0	8.0	4.5
14	15.5	13.5	10.5	8.5	6.5	5.0	1.5	1.0	3.0	1.0	8.0	4.5
15	15.5	13.5	11.5	10.5	5.5	4.0	1.5	1.0	5.0	2.0	7.5	3.5
16	16.0	14.0	12.0	11.0	6.5	5.5	1.5	1.0	6.0	3.5	7.5	3.5
17	16.0	14.0	10.5	9.5	6.0	4.5	1.5	1.0	6.5	5.5	7.5	2.5
18	16.0	15.0	10.5	8.0	6.0	3.5	1.5	1.0	7.5	6.5	7.0	5.0
19	15.5	14.0	8.0	6.0	6.0	5.0	1.5	1.0	8.0	7.5	5.5	2.5
20	15.0	14.0	7.5	5.5	5.0	2.5	1.0	1.0	8.0	6.5	3.5	1.0
21	14.5	13.0	7.0	5.0	3.0	1.5	1.0	1.0	8.0	5.5	5.5	2.0
22	14.0	12.0	6.5	4.5	2.0	1.0	2.5	1.0	8.0	5.5	4.5	3.0
23	13.0	11.5	7.5	6.0	4.5	2.0	2.5	1.0	8.0	6.5	5.0	3.0
24	12.0	10.5	10.0	7.5	5.5	4.0	3.0	1.0	8.0	5.5	7.0	3.0
25	11.0	10.0	9.5	7.0	4.0	1.0	3.0	1.0	8.0	5.0	8.0	3.5
26	10.0	9.0	7.0	5.5	1.5	1.0	3.5	1.5	9.0	6.0	9.0	5.0
27	9.5	8.5	7.5	6.0	2.5	1.0	4.5	3.0	8.5	5.0	9.0	6.0
28	11.0	9.0	7.5	5.0	4.0	1.0	5.5	3.0	9.5	6.5	10.5	6.5
29	11.5	10.5	6.0	4.5	5.5	3.5	5.5	2.5	---	---	9.0	8.0
30	10.5	10.0	6.5	4.5	5.5	4.0	4.5	1.5	---	---	11.0	9.0
31	11.0	9.0	---	---	5.0	3.5	4.0	1.0	---	---	12.5	8.5
MONTH	17.5	8.5	13.5	4.5	10.0	1.0	5.5	1.0	9.5	1.0	12.5	1.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	9.5	14.0	12.0	16.0	14.0	19.0	16.5	19.5	17.0	20.0	18.0
2	12.0	8.0	12.0	10.5	16.5	14.5	18.5	16.0	20.5	17.5	21.0	17.0
3	12.5	8.5	13.0	9.0	17.0	14.5	18.5	16.0	21.0	17.5	20.5	17.5
4	14.0	10.0	14.0	10.5	17.5	14.5	19.5	15.5	21.0	18.0	20.5	18.0
5	13.0	10.0	15.5	12.5	18.5	14.5	19.0	15.0	22.5	19.0	21.0	18.0
6	11.5	8.0	15.0	14.0	19.0	16.0	19.5	16.0	22.5	19.0	20.0	17.0
7	11.0	7.0	14.0	12.5	18.5	16.0	20.0	16.5	22.5	19.5	20.0	17.0
8	12.5	8.0	13.0	11.0	19.5	15.5	20.0	16.5	22.5	19.5	20.0	17.5
9	12.5	10.5	13.5	11.0	19.5	15.5	20.5	18.0	22.0	18.5	19.0	16.0
10	14.5	10.5	14.0	13.0	20.0	16.5	20.0	18.0	22.0	19.0	19.5	15.5
11	16.0	12.0	13.5	12.0	20.0	16.5	19.0	17.0	22.5	19.0	19.5	15.0
12	15.0	12.5	13.0	10.5	19.5	17.0	19.5	17.5	21.5	19.0	18.5	16.0
13	16.0	13.0	13.5	10.5	19.5	16.5	19.0	18.0	21.5	18.5	18.5	16.0
14	17.5	13.5	14.0	12.0	20.0	17.0	20.0	18.0	22.0	18.5	19.0	16.5
15	15.5	11.5	13.5	11.0	20.5	18.5	22.0	19.0	21.0	18.5	19.5	16.5
16	15.0	10.5	12.5	10.5	20.5	19.0	22.5	19.0	20.5	18.5	19.5	15.5
17	12.5	11.0	12.5	11.5	20.5	19.0	22.0	18.5	21.0	18.5	18.5	15.0
18	15.5	11.5	15.0	12.0	20.0	18.5	22.0	19.0	20.5	17.5	16.0	13.5
19	16.0	13.0	14.5	13.5	20.0	17.0	22.0	18.5	19.5	16.5	14.0	12.0
20	14.5	12.5	14.0	12.0	20.5	17.5	23.0	19.0	19.5	16.0	15.0	11.5
21	14.0	11.0	13.5	10.5	20.5	19.0	23.0	19.5	19.0	16.0	15.0	12.0
22	13.5	10.5	14.0	10.5	21.0	19.0	23.0	18.5	19.0	15.0	15.5	13.0
23	14.0	12.0	14.5	11.5	21.0	18.0	22.0	18.5	18.5	15.5	17.0	14.0
24	14.5	11.0	15.0	12.5	21.5	17.5	22.5	19.0	19.5	16.5	14.5	12.0
25	13.0	9.0	15.5	13.5	22.0	19.0	23.0	19.5	19.5	16.0	14.5	12.5
26	14.5	10.0	15.5	14.0	21.0	18.0	23.0	19.0	19.0	16.5	15.0	13.0
27	16.5	12.5	15.0	13.0	18.5	16.0	23.5	19.5	20.0	16.5	15.0	12.5
28	16.5	13.0	14.0	13.0	19.0	16.0	23.5	20.0	20.0	15.5	15.5	14.0
29	15.0	13.5	15.0	12.5	18.5	15.0	23.0	20.0	19.0	16.0	14.5	12.5
30	16.0	13.5	15.5	12.5	19.5	15.5	22.0	18.5	20.0	16.5	15.0	12.5
31	---	---	16.0	13.5	---	---	20.5	17.0	20.0	17.0	---	---
MONTH	17.5	7.0	16.0	9.0	22.0	14.0	23.5	15.0	22.5	15.0	21.0	11.5
YEAR	23.5	1.0										

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
FEB				
10...	1600	7.0	3	.06
10...	1800	12	2	.07
10...	1830	16	4	.17
10...	1930	22	4	.24
10...	2000	29	10	.78
10...	2030	35	16	1.5
10...	2200	52	25	3.5
10...	2240	68	14	2.6
10...	2330	85	25	5.7
11...	0045	100	30	8.1
11...	0215	85	3	.69
11...	0600	62	3	.50
11...	1030	48	2	.26
MAR				
30...	0930	70	27	5.1
30...	1000	75	22	4.5
30...	1030	80	74	16
31...	0950	42	2	.23

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 (30.5 m) downstream from Biltmore Avenue Bridge, 200 ft (61 m) upstream from Southern Railway bridge, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--130 mi² (337 km²).

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 (602.462 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Dec. 1, 1920, to Sept. 30, 1926, nonrecording gage at site 100 ft (30.5 m) upstream at same datum.

REMARKS.--Records good. Considerable regulation by Lake Craig 3.6 mi (5.8 km) above station from 1925 to 1950 (reservoir silted). City of Asheville diverted an average of 32.9 ft³/s (0.93 m³/s) for water supply from Burnett Lake on North Fork Swannanoa River 20 mi (32 km) above station and from Beetree Reservoir 16 mi (26 km) above station (see p. 412); an average of 33.7 ft³/s (0.95 m³/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 ft³/s (0.23 m³/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.

AVERAGE DISCHARGE.--54 years (1920-26, 1933-81) 162 ft³/s (4.588 m³/s) unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) Aug. 13, 1940, gage height, 19.00 ft (5.791 m), from rating curve extended above 9,100 ft³/s (258 m³/s) on basis of computation of peak flow over dam 3.6 mi (5.8 km) above station; minimum, 1.1 ft³/s (0.031 m³/s) Oct. 9, 14, 15, 1941; minimum daily, 1.2 ft³/s (0.034 m³/s) Oct. 14, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed, 26 ft (7.9 m), discharge, 40,000 ft³/s (1,130 m³/s) in April 1791, from studies by Tennessee Valley Authority. Flood of July 1916 reached a stage of 20.7 ft (6.31 m), discharge, 23,000 ft³/s (651 m³/s), from flood profile by Tennessee Valley Authority. Flood of Aug. 16, 1928, reached a stage of 18.74 ft (5.712 m), from floodmarks, discharge, 17,800 ft³/s (504 m³/s). High stages are subject to backwater from French Broad River.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,980 ft³/s (56.1 m³/s) May 27, gage height, 5.84 ft (1.780 m); minimum daily discharge, 10 ft³/s (0.28 m³/s) Sept. 29; minimum gage height, 1.08 ft (0.329 m) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	53	60	53	57	88	180	58	145	65	25	21
2	74	55	61	49	194	82	148	56	138	74	46	21
3	55	47	58	48	87	78	125	59	133	76	30	17
4	47	46	58	51	62	87	115	54	132	55	27	24
5	69	46	58	40	55	113	144	50	142	49	25	24
6	64	48	58	48	55	90	118	58	128	44	48	160
7	49	46	59	51	55	81	104	72	124	41	58	142
8	47	48	57	45	55	79	100	60	106	37	40	47
9	46	55	58	50	50	76	104	53	97	35	33	31
10	42	50	87	47	172	70	96	82	84	31	24	27
11	44	45	63	46	487	69	90	178	77	31	23	23
12	44	48	63	41	171	68	90	78	70	34	19	22
13	39	47	61	42	127	66	83	69	66	28	20	26
14	37	46	59	42	105	69	78	68	69	25	17	20
15	42	84	52	45	97	70	77	91	57	34	18	20
16	44	84	57	46	86	69	72	70	50	79	23	48
17	41	61	54	43	105	66	83	66	49	40	16	29
18	42	67	53	46	218	62	101	64	44	34	16	22
19	74	59	50	48	206	70	90	90	49	47	13	20
20	49	54	52	43	241	65	110	120	56	42	16	27
21	41	49	53	55	183	65	102	105	49	29	15	19
22	38	50	45	47	150	79	84	92	41	25	15	17
23	40	53	45	44	152	96	93	81	45	24	19	17
24	40	126	45	47	123	100	104	79	38	27	12	18
25	116	80	50	50	108	98	82	70	70	97	13	14
26	70	68	49	45	105	98	81	65	47	41	11	14
27	50	103	49	48	94	97	72	893	39	26	15	19
28	81	83	69	46	88	101	65	431	39	27	12	15
29	63	69	77	44	---	98	64	258	38	30	13	10
30	67	68	63	45	---	339	64	184	48	26	18	12
31	62	---	57	43	---	243	---	153	---	24	13	---
TOTAL	1723	1838	1780	1438	3688	2932	2919	3907	2270	1277	693	926
MEAN	55.6	61.3	57.4	46.4	132	94.6	97.3	126	75.7	41.2	22.4	30.9
MAX	116	126	87	55	487	339	180	893	145	97	58	160
MIN	37	45	45	40	50	62	64	50	38	24	11	10

CAL YR 1980 TOTAL 57450 MEAN 157 MAX 2020 MIN 29
WTR YR 1981 TOTAL 25391 MEAN 69.6 MAX 893 MIN 10

03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC

LOCATION (REVISED).--Lat 35°36'33", long 82°34'43", Buncombe County, Hydrologic Unit 06010105, on right bank 27 ft (8.2 m) upstream from Pearson Bridge (Secondary Road 1348) at Asheville, 1.4 mi (2.3 km) downstream from bridge on U.S. Highways 19 and 23, 3.2 mi (5.1 km) downstream from Swannanoa River, and at mile 145.8 (234.6 km).

DRAINAGE AREA.--945 mi² (2,448 km²).

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 (594.445 m) 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 (2.4 km) upstream at datum 11.52 ft (3.511 m) higher. Oct. 1, 1922, to Aug. 9, 1930, nonrecording gage at present site and datum.

REMARKS.--Records good. 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 41 ft³/s (1.16 m³/s), see sta 03451000, of which 33.7 ft³/s (0.95 m³/s) was discharged as sewage effluent 4 mi (6.4 km) below station. Slight diurnal fluctuation and occasional slight regulation at low flow caused by powerplant 46 mi (74 km) upstream and small reservoirs above station.

AVERAGE DISCHARGE.--86 years, 2,097 ft³/s (59.39 m³/s), 30.13 in/yr (765 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110,000 ft³/s (3,115 m³/s) July 16, 1916, gage height, 23.1 ft (7.04 m), present site and datum, from floodmarks, from rating curve extended above 43,000 ft³/s (1,218 m³/s); minimum, 239 ft³/s (6.77 m³/s) at times in August and September 1925, gage height, 0.16 ft (0.049 m).

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 (5.5 m), from studies by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,570 ft³/s (186 m³/s) Feb. 11, gage height, 4.55 ft (1.387 m), no peak above base of 9,000 ft³/s (250 m³/s); minimum, 287 ft³/s (8.13 m³/s) Sept. 28, gage height, 0.71 ft (0.216 m); minimum daily, 360 ft³/s (10.2 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2590	1150	1510	941	712	1490	2970	987	3020	968	687	434
2	2110	1010	1380	867	1570	1420	2160	938	2030	800	748	482
3	1470	926	1300	840	1790	1350	1840	912	2510	1020	751	462
4	1140	894	1230	825	1220	1330	1690	900	2250	1040	709	495
5	1110	917	1200	751	1020	1660	1720	887	2040	957	644	644
6	1140	900	1140	790	959	1650	1910	912	2210	891	695	865
7	1010	906	1090	800	909	1410	1710	974	1760	865	755	1500
8	930	883	1050	784	914	1310	1560	1010	1750	772	687	930
9	893	839	1040	764	858	1260	1530	920	1540	714	636	741
10	952	815	1120	743	1180	1210	1500	913	1400	650	549	624
11	821	771	1050	710	5600	1180	1440	1640	1280	603	537	571
12	777	739	998	543	4000	1150	1370	1650	1200	612	622	532
13	742	712	965	752	2450	1130	1280	1290	1350	772	616	485
14	729	709	938	938	1950	1120	1510	1100	1400	722	576	465
15	725	840	912	800	1680	1120	1350	1140	1250	614	556	465
16	725	1030	900	780	1510	1100	1300	1110	1100	750	511	509
17	722	965	887	760	1480	1080	1300	1020	1050	790	493	515
18	727	1100	862	770	2180	1030	1330	986	1010	684	501	487
19	893	1120	850	780	3110	1020	1260	1050	1000	857	504	441
20	877	962	849	770	3470	1010	1450	1450	968	1250	518	442
21	780	900	824	770	2720	993	1370	1570	883	943	498	435
22	735	875	785	767	2220	1050	1240	1250	811	721	482	427
23	716	875	824	745	2180	1210	1220	1080	835	640	467	419
24	716	1500	853	712	2260	1360	1300	1010	797	605	447	403
25	1080	2280	829	698	1950	1490	1240	925	887	736	425	393
26	1180	1670	785	686	1770	1460	1150	910	1020	967	414	390
27	982	2010	790	703	1650	1400	1110	3280	792	810	419	393
28	1010	3170	830	721	1550	1320	1070	4580	687	772	425	384
29	1090	2340	982	716	---	1220	1040	3860	672	787	429	376
30	1130	1760	975	726	---	2580	1020	2530	714	665	414	360
31	1300	---	1000	692	---	4200	---	1970	---	702	415	---
TOTAL	31742	35568	30748	23644	54862	43313	43930	44754	40216	24679	17130	16069
MEAN	1024	1186	992	763	1959	1397	1464	1444	1341	796	553	536
MAX	2590	3170	1510	941	5600	4200	2970	4580	3020	1250	755	1500
MIN	716	709	785	543	712	993	1020	887	672	603	414	360
CFSM	1.08	1.26	1.05	.81	2.07	1.48	1.55	1.53	1.42	.84	.59	.57
IN.	1.25	1.40	1.21	.93	2.16	1.71	1.73	1.76	1.58	.97	.67	.63

CAL YR 1980 TOTAL 735940 MEAN 2011 MAX 12400 MIN 576 CFSM 2.13 IN 28.97
WTR YR 1981 TOTAL 406655 MEAN 1114 MAX 5600 MIN 360 CFSM 1.18 IN 16.01

03453500 FRENCH BROAD RIVER AT MARSHALL, NC

LOCATION.--Lat 35°47'10", long 82°39'39", Madison County, Hydrologic Unit 06010105, on right bank 0.7 mi (1.1 km) upstream from Hayes Creek, 1.0 mi (1.6 km) downstream from Ivy River, 1.5 mi (2.4 km) southeast of Marshall, and at mile 126.7 (203.9 km).

DRAINAGE AREA.--1,332 mi² (3,450 km²).

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 (501.942 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Water-discharge 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 Weaverville plant of Carolina Power and Light Company 15 mi (24 km) upstream.

AVERAGE DISCHARGE.--39 years, 2,478 ft³/s (70.18 m³/s), 25.26 in/yr (642 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,000 ft³/s (1,530 m³/s) Nov. 6, 1977, gage height, 13.64 ft (4.157 m); minimum, 193 ft³/s (5.47 m³/s) Sept. 13, 14, 1954, gage height, 0.36 ft (0.110 m); minimum daily, 292 ft³/s (8.27 m³/s) Sept. 27, 28, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791, 22.0 ft (6.71 m) July 16, 1916, discharge, 115,000 ft³/s (3,257 m³/s), and flood of Aug. 30, 1940, reached a stage of 16.6 ft (5.06 m), discharge, 70,000 ft³/s (1,982 m³/s), from high-water marks, flood profiles, and studies by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,140 ft³/s (202 m³/s) Feb. 11, gage height, 4.45 ft (1.356 m), no peak above base of 10,000 ft³/s (280 m³/s); minimum, 467 ft³/s (13.2 m³/s) Sept. 30, gage height, 0.66 ft (0.201 m); minimum daily, 481 ft³/s (13.6 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2750	1340	1690	1110	859	1740	3760	1230	3560	1090	906	526
2	2420	1170	1550	1030	2030	1660	2700	1180	2650	1030	895	567
3	1730	1100	1450	995	2200	1580	2270	1130	3340	1040	907	588
4	1370	1060	1370	973	1670	1530	2040	1110	3150	1150	906	627
5	1270	1050	1330	965	1390	1890	2070	1100	2790	1040	882	750
6	1320	1050	1280	965	1210	2020	2260	1090	2880	1030	909	1060
7	1200	1040	1220	950	1110	1720	2100	1200	2450	991	1000	1680
8	1110	1040	1190	963	1110	1570	1880	1200	2230	962	1050	1240
9	1080	985	1180	941	1040	1490	1820	1130	2010	892	936	912
10	1050	966	1290	878	1310	1450	1790	1090	1780	826	861	783
11	1020	934	1230	865	5890	1400	1710	1910	1620	772	808	715
12	981	896	1150	750	4920	1370	1640	1990	1490	772	764	685
13	943	874	1110	880	3260	1330	1540	1620	1560	826	763	632
14	916	862	1090	950	2340	1330	1700	1370	1610	916	745	595
15	895	982	1060	920	1980	1310	1610	1400	1490	826	721	595
16	884	1210	1050	930	1770	1310	1530	1360	1300	916	699	723
17	878	1140	1050	920	1700	1300	1550	1260	1250	930	681	679
18	868	1200	1020	910	2640	1240	1680	1210	1200	947	659	643
19	1020	1280	1010	1020	3440	1220	1570	1260	1170	874	640	585
20	1070	1150	992	1030	4130	1200	2090	1670	1160	1300	623	556
21	1010	1070	960	1010	3360	1180	1990	2030	1110	1210	608	561
22	953	1020	943	952	2670	1210	1730	1610	1070	955	590	552
23	893	1010	942	941	2560	1410	1610	1360	1100	871	577	545
24	864	1420	974	899	2650	1580	1730	1260	1070	877	560	532
25	1150	2500	998	878	2320	1690	1610	1160	1040	981	542	518
26	1410	1960	950	867	2080	1690	1480	1120	1220	1030	530	505
27	1200	1890	930	874	1940	1630	1390	4050	1080	1080	541	494
28	1160	3370	941	907	1820	1560	1340	5710	986	966	533	493
29	1250	2680	1090	885	---	1450	1300	4730	920	1090	531	489
30	1260	1980	1170	893	---	2730	1280	3460	894	980	530	481
31	1410	---	1170	863	---	4840	---	2790	---	922	521	---
TOTAL	37335	40229	35380	28914	65399	50630	54770	56790	51180	30092	22418	20311
MEAN	1204	1341	1141	933	2336	1633	1826	1800	1706	971	723	677
MAX	2750	3370	1690	1110	5890	4840	3760	5710	3560	1300	1050	1680
MIN	864	862	930	750	859	1180	1280	1090	894	772	521	481
CFSM	.90	1.01	.86	.70	1.75	1.23	1.37	1.35	1.28	.73	.54	.51
IN.	1.04	1.12	.99	.81	1.83	1.41	1.53	1.56	1.43	.84	.63	.57

CAL YR 1980 TOTAL 846719 MEAN 2313 MAX 14300 MIN 720 CFSM 1.74 IN 23.65
WTR YR 1981 TOTAL 492448 MEAN 1349 MAX 5890 MIN 481 CFSM 1.01 IN 13.75

TENNESSEE RIVER BASIN

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued
(National stream-quality accounting network station)

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 current year.
WATER TEMPERATURES: October 1957 to September 1967, August 1973 to September 1978, March 1979 to current year.

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. Water-quality monitor since October 1980.

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 248 micromhos Aug. 28, 1981; minimum daily, 33 micromhos May 31, 1976.
WATER TEMPERATURES: Maximum, 29.5°C July 10, 1981; minimum daily, 0.0°C on several days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 248 micromhos Aug. 28; minimum, 66 micromhos Oct. 2.
WATER TEMPERATURES: Maximum, 29.5°C July 10; minimum, 0.0°C Dec. 22, 25, 26, 27, Jan. 4, 5, 6, 8, 10-20, Feb. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV											
17...	1130	1130	145	7.3	10.0	3.5	8.9	180	19000	27	2
JAN											
27...	1230	878	135	7.5	5.0	2.9	9.8	70	3600	23	0
MAR											
03...	0945	1600	85	6.7	6.5	.80	9.6	110	15000	24	5
03...	1000	1600	85	6.7	6.5	--	9.6	--	--	--	--
MAY											
18...	1215	1210	102	7.1	17.0	9.5	8.0	190	16000	23	7
JUL											
28...	1100	955	110	7.5	25.5	30	6.9	540	40000	20	0
AUG											
31...	1030	516	235	6.9	22.5	3.3	6.8	95	35000	33	10

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV											
17...	8.5	1.3	15	53	1.3	2.0	29	0	24	2.2	31
JAN											
27...	7.0	1.3	17	60	1.5	1.6	28	0	23	1.2	28
MAR											
03...	1.2	5.2	8.9	43	.8	1.3	24	0	20	7.7	14
03...	--	--	--	--	--	--	24	0	20	7.7	--
MAY											
18...	6.6	1.5	14	55	1.3	1.5	20	0	16	2.5	19
JUL											
28...	6.2	1.0	12	54	1.2	1.8	26	0	21	1.0	16
AUG											
31...	11	1.3	36	69	2.7	2.4	28	0	23	5.6	41

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (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)
NOV											
17...	6.3	.1	9.8	99	90	.13	302	.57	.58	.110	.180
JAN											
27...	8.4	<.1	9.2	93	87	.13	220	.52	.58	.370	--
MAR											
03...	4.4	<.1	9.4	65	59	.09	281	.50	.52	.180	.200
03...	--	--	--	--	--	--	--	.51	.51	.170	.190
MAY											
18...	4.1	<.1	12	64	71	.09	209	.53	.53	.090	.150
JUL											
28...	6.5	<.1	10	61	68	.08	157	.94	.95	.070	.070
AUG											
31...	9.5	.1	8.1	157	127	.21	219	.75	.79	.040	--

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	NITROGEN DISSOLVED (MG/L AS N)
NOV										
17...	.13	.23	.40	.09	.51	.24	.27	1.1	4.8	.85
JAN										
27...	.45	--	.34	--	.71	--	--	1.2	5.4	--
MAR										
03...	--	.26	.18	.21	.36	.00	.41	.86	3.8	.93
03...	--	.24	.34	.02	.51	.30	.21	1.0	4.5	.72
MAY										
18...	--	.19	.67	.55	.76	.06	.70	1.3	5.7	1.2
JUL										
28...	--	.09	.63	.36	.70	.27	.43	1.6	7.3	1.4
AUG										
31...	--	--	.48	--	.52	--	--	1.3	5.6	--

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
NOV										
17...	.130	.40	--	5	3	2	100	80	20	0
JAN										
27...	.200	.61	.580	5	0	5	100	70	30	0
MAR										
03...	.140	.43	.100	--	--	--	--	--	--	--
03...	.240	.74	.090	--	--	--	--	--	--	--
MAY										
18...	.160	.49	.120	0	0	0	<50	--	20	1
JUL										
28...	.270	.83	.160	--	--	--	--	--	--	--
AUG										
31...	.230	.71	.190	4	2	2	100	0	100	2

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	CORALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
NOV										
17...	0	3	30	10	20	0	0	0	7	5
JAN										
27...	0	3	30	0	40	3	3	0	6	1
MAR										
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
MAY										
18...	0	2	10	0	20	2	1	1	14	12
JUL										
28...	--	--	--	--	--	--	--	--	--	--
AUG										
31...	0	2	10	--	<10	2	0	2	7	4

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 17...	2	930	770	160	4	4	0	60	40	20
JAN 27...	5	350	210	140	6	2	4	40	0	40
MAR 03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
MAY 18...	2	870	670	200	34	34	0	60	40	20
JUL 28...	--	--	--	--	--	--	--	--	--	--
AUG 31...	3	570	270	300	8	5	3	70	20	50

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
NOV 17...	.1	--	<.1	7	7	0	0	0	0
JAN 27...	.2	.0	.2	12	9	3	0	0	0
MAR 03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
MAY 18...	<.1	--	<.1	19	16	3	0	0	0
JUL 28...	--	--	--	--	--	--	--	--	--
AUG 31...	<.1	--	<.1	8	2	6	<1	--	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
NOV 17...	0	0	0	30	30	5	--	6.2	.1
JAN 27...	1	--	--	30	20	7	--	2.9	.9
MAR 03...	--	--	--	--	--	--	2.7	--	--
03...	--	--	--	--	--	--	3.4	--	--
MAY 18...	0	0	0	30	--	<4	--	2.6	1.5
JUL 28...	--	--	--	--	--	--	9.8	--	--
AUG 31...	2	1	1	10	--	<10	--	4.8	.7

TENNESSEE RIVER BASIN

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 17,80 1130		MAR 3,81 0945		MAY 18,81 1215		JUL 28,81 1100		AUG 31,81 1030	
TOTAL CELLS/ML	3300		370		1900		2500		1900	
DIVERSITY: DIVISION	1.5		1.2		1.1		1.0		1.4	
.CLASS	1.5		1.2		1.1		1.0		1.4	
..ORDER	1.8		1.5		1.3		1.5		1.7	
...FAMILY	2.5		2.5		1.9		2.9		2.6	
....GENUS	2.5		2.5		1.9		3.4		3.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	170#	45	13	1	16	1	--	-
....CHODATELLA	--	-	--	-	--	-	--	-	58	3
....DICTYOSPHAERIUM	--	-	--	-	120	6	440#	18	--	-
....OOCYSTIS	--	-	--	-	13	1	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	120	5	58	3
....SCENEDESMUS	830#	25	26	7	220	12	470#	19	690#	36
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	20	1	13	3	39	2	31	1	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	13	1	--	-	29	1
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	13	3	--	-	94	4	43	2
....MELOSIRA	40	1	--	-	--	-	110	4	--	-
....STEPHANODISCUS	--	-	--	-	39	2	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	39	10	--	-	--	-	86	4
....COCCONEIS	--	-	--	-	--	-	62	3	86	4
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	43	2
...CYMBELLACEAE										
....CYMBELLA	--	-	26	7	--	-	110	4	--	-
...FRAGILARIACEAE										
....SYNEDRA	160	5	--	-	--	-	110	4	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	120	4	--	-	--	-	16	1	43	2
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	62	3	100	5
....NAVICULA	930#	25	65#	17	64	3	360	14	360#	19
....PINNULARIA	--	-	--	-	--	-	--	-	14	1
....PLEUROSIGMA	--	-	--	-	--	-	31	1	--	-
...NITZSCHIACEAE										
....NITZSCHIA	300	9	13	3	39	2	390#	16	140	7
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	47	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	61	2	13	3	--	-	16	1	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	120	6	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	910#	28	--	-	1200#	64	--	-	130	7
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	14	1
....TRACHELOMONAS	--	-	--	-	--	-	--	-	43	2

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	79	68	123	114	115	90	128	113	159	137	105	95
2	74	66	114	106	97	82	129	119	152	107	110	100
3	84	68	114	107	106	85	122	116	160	131	105	85
4	86	74	126	115	111	105	129	121	165	112	102	98
5	80	73	138	127	126	112	136	129	113	111	105	97
6	81	78	144	139	126	91	142	135	123	112	108	103
7	80	77	146	135	89	77	146	135	135	120	129	109
8	116	77	143	136	102	76	149	138	133	122	109	102
9	123	115	142	133	100	95	147	139	141	131	102	95
10	127	120	135	128	109	99	142	136	130	110	98	93
11	128	123	142	134	107	104	154	141	110	100	101	96
12	128	123	152	141	111	106	166	155	100	80	101	98
13	154	123	156	152	112	108	171	166	80	70	103	99
14	162	132	159	153	110	107	171	166	113	76	102	100
15	166	140	160	148	112	105	168	162	110	95	101	99
16	174	150	180	136	112	106	168	151	120	100	101	90
17	173	151	165	130	122	112	151	142	130	120	102	91
18	176	151	165	131	125	120	153	147	130	120	104	101
19	163	144	150	127	127	121	152	110	125	115	106	102
20	156	138	136	123	127	122	125	94	125	115	109	103
21	157	142	125	120	131	122	133	120	120	105	116	105
22	162	146	130	122	131	120	133	126	115	105	110	101
23	167	146	134	130	133	123	126	123	105	95	111	100
24	171	148	131	111	140	128	130	125	105	90	112	100
25	154	116	115	100	129	124	131	124	95	85	110	100
26	144	118	103	98	130	123	132	120	90	80	111	104
27	122	113	96	82	127	123	138	126	88	74	110	103
28	121	108	102	82	123	106	141	131	115	77	107	104
29	123	108	116	103	107	102	153	140	---	---	107	105
30	126	124	117	113	119	108	156	146	---	---	120	103
31	128	113	---	---	130	115	176	146	---	---	115	105
MONTH	176	66	180	82	140	76	176	94	165	70	129	85
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	115	105	125	115	106	91	131	120	154	137	211	206
2	120	110	120	110	121	95	135	117	153	132	241	209
3	110	100	125	115	131	121	121	111	131	118	241	229
4	115	105	120	110	122	92	132	116	134	117	237	198
5	105	95	125	115	94	87	129	103	151	131	210	186
6	100	90	130	120	85	78	108	100	152	124	203	182
7	111	77	124	117	80	75	121	104	144	126	184	122
8	214	88	119	115	122	81	130	119	154	128	128	109
9	193	113	122	115	121	113	137	126	146	138	138	114
10	115	98	120	110	121	104	153	131	148	140	155	138
11	232	83	110	84	114	102	159	144	162	138	166	153
12	87	83	99	84	114	94	151	143	182	161	176	165
13	94	86	101	79	101	96	154	149	193	183	184	175
14	114	95	89	80	97	92	165	150	191	172	184	176
15	110	100	96	90	100	89	164	152	173	169	186	175
16	115	105	104	97	102	90	164	141	178	170	194	181
17	120	110	105	101	113	97	160	133	177	163	194	180
18	120	110	100	93	118	112	161	152	179	162	202	193
19	125	115	104	95	126	114	158	131	198	180	208	201
20	130	120	107	99	127	118	145	130	201	194	209	197
21	125	115	100	90	123	117	145	98	208	200	195	181
22	120	110	95	89	122	114	123	98	210	203	188	179
23	125	115	99	92	130	114	134	114	208	193	203	189
24	120	110	107	99	141	123	130	106	197	179	207	199
25	115	105	112	107	148	136	124	113	193	170	214	203
26	110	100	115	109	148	125	139	118	212	190	225	215
27	115	105	115	76	145	131	164	135	221	203	225	218
28	120	110	121	88	134	122	152	89	248	215	225	213
29	115	105	153	122	127	121	125	97	232	224	213	204
30	120	110	174	127	141	121	136	126	240	230	224	208
31	---	---	123	77	---	---	144	135	229	212	---	---
MONTH	232	77	174	76	148	75	165	89	248	117	241	109
YEAR	248	66										

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	16.0	11.5	9.0	6.0	5.0	5.0	3.5	3.0	1.5	11.5	9.0
2	17.5	17.0	12.0	9.5	7.5	5.5	4.0	2.5	3.0	1.5	10.5	9.0
3	17.5	16.5	11.5	9.5	7.0	4.5	3.5	1.5	2.5	1.0	9.5	6.5
4	17.0	14.5	13.0	11.0	5.0	3.5	3.5	.0	2.0	.0	8.0	6.5
5	15.0	13.5	12.0	10.0	5.5	3.5	.5	.0	1.0	.5	8.0	7.0
6	14.0	12.0	10.5	8.5	5.5	4.0	.5	.0	2.0	.5	8.0	5.5
7	14.5	12.0	10.5	8.0	6.5	4.5	1.0	.5	2.0	1.0	8.0	5.0
8	16.0	12.5	12.5	10.0	7.0	5.0	1.0	.0	3.0	2.0	7.5	4.5
9	17.0	14.0	13.0	11.0	8.0	6.5	2.0	.5	3.0	1.5	8.0	4.0
10	17.5	15.0	13.5	11.5	8.5	7.5	1.0	.0	3.0	2.5	8.5	5.0
11	18.5	16.0	11.5	9.0	7.5	6.0	.5	.0	3.5	2.5	9.0	6.0
12	16.0	14.0	9.0	7.0	6.0	4.5	2.5	.0	3.5	2.5	9.0	5.5
13	15.0	12.0	9.0	6.5	6.0	4.5	.5	.0	2.5	2.0	9.5	5.5
14	14.5	11.0	10.0	8.0	6.0	4.0	.5	.0	4.0	2.0	10.0	7.0
15	15.0	12.0	11.0	10.5	4.5	3.0	.5	.0	5.0	2.0	9.5	5.5
16	15.5	12.5	12.5	11.0	5.5	4.5	1.0	.0	6.5	4.0	9.5	7.0
17	16.5	13.5	12.0	9.5	5.5	4.5	.5	.0	7.0	5.5	9.0	5.0
18	16.5	16.0	9.5	8.0	5.0	3.0	.5	.0	7.5	6.5	8.5	6.5
19	18.0	16.5	8.0	6.5	4.5	3.5	.5	.0	7.0	7.0	7.5	5.0
20	16.0	14.0	6.5	4.5	3.5	1.0	1.0	.0	7.0	7.0	6.0	3.5
21	15.0	12.5	6.0	4.5	2.0	.5	1.0	1.0	7.5	6.5	7.5	4.0
22	15.5	12.5	5.5	3.5	1.5	.0	1.5	1.0	7.5	7.0	7.5	5.5
23	14.0	12.5	6.0	5.5	3.0	1.5	3.0	1.0	8.0	7.5	6.5	4.5
24	13.5	12.0	8.0	6.0	3.0	2.5	4.0	1.0	8.0	6.5	8.0	4.0
25	12.5	10.0	8.0	7.5	2.5	.0	4.5	2.0	8.0	6.0	9.5	5.0
26	11.0	8.5	7.0	6.0	.5	.0	5.0	3.0	9.0	6.5	11.0	6.5
27	10.5	8.5	6.5	5.5	.5	.0	5.5	4.5	9.5	6.5	11.0	7.5
28	12.0	10.0	6.5	6.0	2.0	.5	6.0	4.0	9.5	7.0	13.0	8.0
29	12.0	11.5	6.5	6.0	5.0	2.0	5.0	3.0	---	---	12.0	10.0
30	11.5	11.0	6.5	5.5	5.0	4.0	5.0	3.0	---	---	12.5	11.0
31	12.5	10.5	---	---	4.5	3.5	3.5	1.0	---	---	12.0	10.5
MONTH	18.5	8.5	13.5	3.5	8.5	.0	6.0	.0	9.5	.0	13.0	3.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	11.5	18.5	16.5	17.5	17.5	23.5	22.0	22.0	21.0	24.5	23.0
2	12.0	11.5	17.0	14.0	18.0	17.5	22.5	21.5	22.5	20.5	25.0	22.5
3	12.5	11.5	18.0	13.0	18.5	18.0	21.5	20.5	25.5	21.5	25.0	24.0
4	14.0	12.0	19.5	15.0	18.5	18.0	23.0	19.5	26.0	23.0	24.5	23.5
5	14.5	14.0	21.0	17.0	19.0	18.0	24.0	21.0	28.0	24.0	25.5	23.0
6	14.0	12.0	20.5	19.0	19.0	19.0	24.0	22.5	26.5	24.0	23.5	22.0
7	13.0	11.0	19.0	16.0	19.5	19.0	25.0	22.5	26.0	23.5	23.0	21.0
8	14.0	11.0	19.0	14.5	21.5	19.0	27.0	23.0	26.5	24.0	22.5	21.0
9	14.5	12.5	19.5	15.0	22.5	20.0	28.5	24.5	26.5	22.5	22.5	19.5
10	17.0	12.5	19.0	17.0	23.0	21.0	29.5	25.5	26.0	23.5	22.5	18.5
11	19.0	15.0	17.0	15.0	24.5	21.5	27.5	26.0	26.5	23.5	23.5	20.0
12	17.5	15.5	16.5	13.0	26.0	22.5	28.5	24.5	27.5	23.5	23.0	21.0
13	19.5	15.5	19.0	13.5	25.5	23.0	28.5	25.5	27.0	23.0	23.5	20.5
14	20.5	16.5	19.0	15.5	26.5	22.5	28.0	25.0	27.0	23.0	23.5	21.5
15	19.0	15.5	18.5	15.0	27.0	22.5	28.5	24.5	26.5	22.5	23.0	22.0
16	17.5	14.5	18.0	13.5	27.5	23.0	27.0	25.0	25.5	24.0	22.0	21.0
17	16.5	14.5	17.0	16.0	27.0	24.0	28.5	24.0	26.0	23.0	21.5	19.5
18	17.5	14.0	20.5	15.5	27.0	23.0	27.0	25.0	25.0	22.5	19.5	18.0
19	18.0	15.5	21.0	18.5	26.5	24.0	26.5	24.0	23.0	21.5	18.0	16.5
20	17.0	15.0	20.0	15.5	26.0	23.5	26.5	24.5	23.5	20.0	18.5	15.5
21	16.0	13.0	18.5	14.0	27.5	23.5	27.0	23.5	23.5	21.0	19.5	16.5
22	17.0	14.0	19.5	15.0	28.0	24.0	27.0	23.5	23.5	19.0	20.0	17.0
23	16.5	15.5	20.5	15.5	27.5	24.0	27.0	23.5	23.5	20.0	21.0	18.5
24	16.0	15.0	22.0	17.5	28.5	23.5	27.0	24.5	25.5	21.0	19.0	16.5
25	16.5	12.5	23.0	18.5	29.0	25.0	27.5	24.0	26.0	22.0	18.5	16.0
26	17.5	13.0	22.0	20.0	26.5	24.5	28.5	24.5	24.5	21.0	20.0	16.5
27	20.0	15.5	20.0	16.5	26.5	22.0	28.5	25.0	25.5	21.5	20.0	17.5
28	21.0	16.5	16.5	16.0	26.0	22.5	27.5	25.0	25.5	21.5	20.5	17.5
29	20.0	17.5	16.0	15.5	26.0	21.5	26.5	24.5	24.0	21.5	19.0	16.0
30	20.0	16.5	17.0	16.0	24.5	22.5	26.5	24.0	24.5	21.5	20.0	16.0
31	---	---	17.5	16.5	---	---	24.0	22.5	24.5	22.5	---	---
MONTH	21.0	11.0	23.0	13.0	29.0	17.5	29.5	19.5	28.0	19.0	25.5	15.5
YEAR	29.5	.0										

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
17...	1130	1130	13	40	69
JAN					
27...	1230	878	9	21	54
MAR					
03...	0945	1600	15	65	92
MAY					
18...	1215	1210	23	75	96
JUL					
28...	1100	955	57	147	94
AUG					
26...	1400	548	13	19	74
31...	1030	516	8	11	85

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/30	10 30	0000	1.52	1260	118	6.90	8.0	7.0	9.0	75.6	16	2.2
80/11/06	09 10	0000	1.00	1060	140	7.20	8.0	4.0	11.0	92.4	16	2.5
80/11/17							10.0					
80/12/16	11 45	0000	1.35	1050	113		6.0	7.0	12.2	97.6	13	1.1
81/01/23	11 30	0000	1.23	920	127	6.80	2.0	7.0	12.6	91.3	17	2.7
81/02/27	11 30	0000	2.03	1950	80		8.0	7.0	11.6	97.5	13	2.0
81/03/03	09 45	0000	1.78	1600			6.5					
81/03/30	16 15	0000	2.98	3620	85	7.50	14.0	140.0	10.2	98.1	36	6.2
81/04/02	10 30	0000	2.52	2740	61		13.0	25.0	10.4	98.1	18	2.5
81/05/13	11 00	0000	1.79	1610		7.00	15.0	35.0	8.8	86.3		4.4
81/05/18	12 15	0000	1.48	1210			17.0					
81/06/19	10 45	0000	1.45	1170		7.90	25.0	15.0	7.8	92.9		1.6
81/07/07	10 50	0000	1.30	995			23.0	20.0	8.1	93.1		1.4
81/07/28	11 00	0000	1.26	955			25.5					
81/08/04	14 50	0000	1.22	912	140	7.60	25.0	20.0	8.0	95.2		1.7
81/09/11	08 00	0000	1.29	988		7.40	21.0	25.0	7.7	85.6		2.8

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/30	10 30	0000	1200	26	0.44	0.050	0.400	0.210	0.130	10K	50K	50K
80/11/06	09 10	0000	350	26								
80/11/17			180									
80/12/16	11 45	0000	30	24	0.57	0.350	0.600	0.180	0.110	10K	50K	50K
81/01/23	11 30	0000	70	29							50K	50K
81/02/27	11 30	0000	540	13	0.53	0.090	0.400	0.160	0.060			
81/03/03	09 45	0000	110									
81/03/30	16 15	0000	2600	19	0.56	0.160	1.200	0.560	0.050K		50K	50K
81/04/02	10 30	0000	820	14								
81/05/13	11 00	0000	1200	19	0.50	0.130	0.800	0.340	0.110			
81/05/18	12 15	0000	185									
81/06/19	10 45	0000	4000	26	0.71	0.500K	0.400	0.190	0.080	10K	50K	50K
81/07/07	10 50	0000	310	21	0.86	0.050K	1.100	0.170	0.110			
81/07/28	11 00	0000	540									
81/08/04	14 50	0000	180	24	0.98	0.070	0.600	0.280	0.160			
81/08/31	10 30	0000	95									
81/09/11	08 00	0000	470	31	0.79	0.050K	0.400	0.380	0.190	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/30	10 30	0000	100K	40K	600	100K	50.0K	0.5K	50K
80/12/16	11 45	0000	100K	40K	300	100K	50.0K	31.0	50K
81/01/23	11 30	0000	100K	40K	500	100K	50.0	0.5K	50K
81/03/30	16 15	0000	100K	40K	9200	100K	410.0	0.5K	60
81/06/19	10 45	0000	100K	40K	1100	100K	60.0	0.5K	50K
81/09/11	08 00	0000	100K	40K	900	100K	120.0	0.5K	50K

K Less than noted value.

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 (183 m) upstream from Big Creek, 1.1 mi (1.8 km) upstream from Lake Logan, 6.7 mi (10.8 km) southeast of Hazelwood, and at mile 9.3 (15.0 km).

DRAINAGE AREA.--27.6 mi² (71.5 km²).

PERIOD OF RECORD.--February 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,976.00 ft (907.085 m) National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--27 years, 104 ft³/s (2.945 m³/s), 51.17 in/yr (1,300 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft³/s (276 m³/s) Feb. 13, 1966, gage height, 9.5 ft (2.90 m), from floodmarks; minimum, 9.4 ft³/s (0.27 m³/s) Sept. 29, 30, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	0600	*3960	112	*6.24	1.902

Minimum discharge, 18 ft³/s (0.51 m³/s) Sept. 29, 30, gage height, 0.96 ft (0.293 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	43	55	40	46	89	107	55	150	48	33	26
2	53	39	51	39	186	80	90	55	137	43	47	28
3	38	34	47	35	65	73	82	53	131	47	39	40
4	32	40	44	33	60	87	77	51	139	41	33	53
5	38	35	42	35	55	133	162	50	121	45	31	55
6	35	31	41	35	52	95	100	61	111	43	50	44
7	30	30	39	35	50	82	86	72	110	39	41	71
8	28	30	38	35	48	76	81	56	96	35	32	39
9	26	28	43	35	45	72	84	51	87	32	29	31
10	25	28	90	35	298	69	79	56	81	30	27	27
11	24	26	51	35	519	66	74	262	78	30	26	25
12	23	25	45	35	137	63	71	83	150	59	28	24
13	22	25	43	35	118	62	68	72	103	44	28	23
14	20	24	40	35	85	61	67	66	80	32	25	23
15	20	57	39	35	78	58	67	109	71	38	23	29
16	20	39	39	40	78	64	61	71	67	40	23	73
17	20	63	37	37	180	56	72	67	63	34	25	34
18	30	82	35	34	349	57	68	66	61	36	25	29
19	76	46	35	35	244	54	64	86	59	34	24	27
20	30	40	33	35	166	51	99	122	56	31	26	25
21	25	37	35	35	118	51	80	104	55	35	24	23
22	24	34	35	32	105	54	69	82	51	27	24	22
23	23	44	33	30	204	52	82	74	68	25	23	22
24	22	182	35	30	114	52	89	68	50	25	21	20
25	88	66	38	30	101	55	71	65	47	89	20	20
26	39	53	40	29	93	57	67	78	45	56	19	19
27	32	210	50	38	87	62	64	1240	43	62	20	19
28	92	88	59	33	83	65	61	321	43	49	19	19
29	51	65	68	27	---	68	61	206	41	38	19	18
30	77	58	49	28	---	501	59	169	40	37	25	18
31	52	---	42	30	---	125	---	151	---	33	26	---
TOTAL	1206	1602	1371	1055	3764	2590	2362	4122	2434	1257	855	926
MEAN	38.9	53.4	44.2	34.0	134	83.5	78.7	133	81.1	40.5	27.6	30.9
MAX	92	210	90	40	519	501	162	1240	150	89	50	73
MIN	20	24	33	27	45	51	59	50	40	25	19	18
CFSM	1.41	1.94	1.60	1.23	4.86	3.03	2.85	4.82	2.94	1.47	1.00	1.12
IN.	1.63	2.16	1.85	1.42	5.07	3.49	3.18	5.56	3.28	1.69	1.15	1.25

CAL YR 1980 TOTAL 33894 MEAN 92.6 MAX 1080 MIN 12 CFSM 3.36 IN 45.68
WTR YR 1981 TOTAL 23544 MEAN 64.5 MAX 1240 MIN 18 CFSM 2.34 IN 31.73

03456000 WEST FORK PIGEON RIVER BELOW LAKE LOGAN, NEAR WAYNESVILLE, NC

LOCATION.--Lat 35°26'38", long 82°54'46", Haywood County, Hydrologic Unit 06010106, on right bank at downstream side of bridge on Secondary Road 1111 at Riverside Church, 2.6 mi (4.2 km) downstream from Little East Fork Pigeon River, 3.4 mi (5.5 km) downstream from Lake Logan, 3.8 mi (6.1 km) upstream from confluence with East Fork Pigeon River, and 5.3 mi (8.5 km) southeast of Waynesville.

DRAINAGE AREA.--55.3 mi² (143.2 km²).

PERIOD OF RECORD.--March 1954 to December 1980 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 2,725.08 ft (830.604 m) National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark).

REMARKS.--Records fair. Considerable regulation at times caused by Lake Logan (see p. 412).

AVERAGE DISCHARGE.--26 years, (water years 1955-80), 167 ft³/s (4.729 m³/s), 41.01 in/yr (1,042 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft³/s (314 m³/s) May 15, 1976, gage height, 10.52 ft (3.206 m), from rating curve extended above 3,300 ft³/s (93.5 m³/s); minimum, 7.6 ft³/s (0.22 m³/s) Sept. 7, 1954, minimum gage height, 0.10 ft (0.030 m) Oct. 22, 23, 1963.

EXTREMES FOR PERIOD.--October to December 1980: Maximum discharge, 468 ft³/s (13.3 m³/s) Nov. 24, gage height, 2.71 ft (0.826 m); minimum, 38 ft³/s (1.08 m³/s) Oct. 27, Nov. 12, gage height, 0.49 ft (0.149 m); minimum daily, 40 ft³/s (1.13 m³/s) Oct. 9, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	63	80									
2	53	58	75									
3	46	56	70									
4	43	55	66									
5	47	53	63									
6	45	50	61									
7	42	49	59									
8	41	48	58									
9	40	44	60									
10	40	42	114									
11	40	42	73									
12	43	42	65									
13	47	41	61									
14	45	42	58									
15	45	48	57									
16	44	64	55									
17	45	63	54									
18	50	119	53									
19	59	66	49									
20	46	57	49									
21	46	53	43									
22	46	50	45									
23	45	57	50									
24	44	200	55									
25	53	95	57									
26	44	77	60									
27	42	229	65									
28	56	133	65									
29	49	95	71									
30	72	85	56									
31	77	---	53									
TOTAL	1500	2176	1900									
MEAN	48.4	72.5	61.3									
MAX	77	229	114									
MIN	40	41	43									
(†)	+297	0	-14									
MEAN‡	58.0	72.5	60.8									
CFSM‡	1.05	1.31	1.10									
IN.‡	1.21	1.46	1.27									

CAL YR 1980 TOTAL 52180 MEAN 143 MAX 1490 MIN 40 MEAN‡ 145 CFSM‡ 2.62 IN.‡ 35.47

† Change in contents, in cfs-days, in Lake Logan.
‡ Adjusted for change in lake contents.

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 (6 m) downstream from bridge on Secondary Road 1112, 0.6 mi (1.0 km) southwest of Bethel, 1.6 mi (2.6 km) upstream from confluence with East Fork Pigeon River, and 5.6 mi (9.0 km) downstream from Lake Logan.

DRAINAGE AREA.--58.4 mi² (151.3 km²).

PERIOD OF RECORD.--January to September 1981.

GAGE.--Water-stage recorder. Datum of gage is 2,667.78 ft (813.139 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Records fair. Considerable regulation at times caused by Lake Logan (see p. 412).

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September 1981, 4,390 ft³/s (124 m³/s) May 27, gage height, 7.09 ft (2.161 m); minimum daily, 38 ft³/s (1.08 m³/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				53	62	122	176	92	232	77	49	51
2				57	83	114	147	94	218	69	57	46
3				60	68	104	131	89	202	72	60	44
4				60	97	123	123	87	208	67	49	49
5				60	68	197	219	84	189	71	47	53
6				60	54	142	155	88	169	68	57	43
7				65	52	122	133	122	170	62	63	54
8				65	48	113	124	97	150	60	49	43
9				65	44	107	124	87	136	57	46	41
10				67	132	102	119	88	127	52	43	41
11				65	531	98	110	346	121	53	42	42
12				60	221	93	107	140	164	69	42	46
13				60	159	91	105	122	169	78	46	46
14				55	130	89	104	113	123	56	50	46
15				56	115	85	104	164	108	53	46	45
16				58	110	94	94	119	104	65	47	49
17				55	164	82	107	109	98	56	47	44
18				55	406	83	111	108	96	54	47	44
19				55	327	79	102	131	92	54	47	46
20				55	234	74	149	186	87	51	47	46
21				49	167	74	141	183	86	53	46	45
22				43	148	82	119	139	81	46	46	46
23				40	275	79	125	122	105	45	46	51
24				39	171	77	148	111	77	45	46	49
25				39	147	80	117	102	75	87	50	48
26				40	136	83	111	105	73	89	55	48
27				41	126	85	108	1460	69	66	51	47
28				39	120	92	103	529	69	80	49	47
29				38	---	94	102	340	67	56	47	46
30				42	---	641	99	271	65	53	48	46
31				64	---	227	---	244	---	50	50	---
TOTAL				1660	4394	3728	3717	6072	3730	1914	1515	1392
MEAN				53.5	157	120	124	196	124	61.7	48.9	46.4
MAX				67	531	641	219	1460	232	89	63	54
MIN				38	44	74	94	84	65	45	42	41
(†)				-575	+593	0	-4	+4	-4	-9	-287	-264
MEAN‡				35.0	178	120	124	196	124	61.5	39.6	37.6
CFSM‡				0.60	3.05	2.05	2.12	3.36	2.12	1.05	0.68	0.64
IN‡				0.69	3.18	2.37	2.36	3.87	2.37	1.21	0.78	0.72

† Change in contents, in cfs-days, in Lake Logan.
‡ Adjusted for change in lake contents.

03456500 EAST FORK PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°27'42", long 82°52'13" (revised), Haywood County, Hydrologic Unit 06010106, on right bank 800 ft (244 m) upstream from bridge on U.S. Highway 276, 0.3 mi (0.5 km) downstream from Dix Creek, 1.6 mi (2.6 km) upstream from confluence with West Fork Pigeon River, and 5.2 mi (8.4 km) southwest of Canton.

DRAINAGE AREA.--51.5 mi² (133.4 km²).

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 (815.139 m) National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--27 years, 146 ft³/s (4.135 m³/s), 38.50 in/yr (978 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) May 28, 1973, gage height, 11.19 ft (3.411 m), from rating curve extended above 5,470 ft³/s (155 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 12 ft³/s (0.34 m³/s) Jan. 9, 1956, result of freezeup; minimum gage height, 0.81 ft (0.247 m) Dec. 15, 1958, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1015	*2260	64.0	*4.85	1.478

Minimum discharge, 16 ft³/s (0.45 m³/s) Jan. 17, gage height, 1.06 ft (0.323 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	55	94	54	48	127	201	93	227	61	40	32
2	90	52	87	51	201	118	164	92	209	60	57	33
3	65	50	80	50	68	109	143	87	179	66	52	40
4	56	51	75	48	65	118	130	87	171	58	41	42
5	59	49	71	44	65	156	168	83	154	57	39	49
6	57	47	68	45	60	124	136	85	142	55	43	44
7	50	46	65	45	60	112	122	105	136	52	45	66
8	47	45	63	40	55	106	115	89	124	50	39	39
9	45	45	62	40	50	102	112	81	114	47	36	32
10	43	44	74	41	165	97	108	82	106	45	34	28
11	42	42	62	45	696	93	103	260	101	55	33	27
12	40	41	61	44	235	89	100	132	103	63	32	26
13	39	40	59	45	172	86	189	116	98	64	31	25
14	38	40	57	45	135	85	222	111	92	47	30	25
15	38	51	55	40	116	80	187	142	84	45	29	25
16	37	55	55	40	106	85	156	113	80	46	28	34
17	38	55	54	38	125	77	149	107	76	45	29	29
18	40	86	52	40	322	76	141	103	74	50	29	25
19	69	56	52	40	362	73	134	111	72	48	28	24
20	44	52	50	40	276	71	172	144	69	44	29	24
21	39	50	48	40	218	69	166	137	66	42	28	23
22	38	48	49	41	186	76	145	118	63	38	27	22
23	37	51	50	40	304	75	140	109	75	37	26	21
24	38	195	49	38	218	75	144	100	61	37	26	21
25	80	102	47	38	187	77	125	96	62	45	24	20
26	53	83	50	39	165	81	117	93	74	51	23	20
27	45	220	52	40	148	86	111	1060	58	46	24	19
28	69	175	57	40	135	90	106	595	57	60	23	19
29	57	122	79	37	---	89	102	382	55	43	23	19
30	71	104	62	39	---	517	98	292	54	40	24	19
31	62	---	56	37	---	265	---	247	---	40	26	---
TOTAL	1657	2152	1895	1304	4943	3484	4206	5452	3036	1537	998	872
MEAN	53.5	71.7	61.1	42.1	177	112	140	176	101	49.6	32.2	29.1
MAX	131	220	94	54	696	517	222	1060	227	66	57	66
MIN	37	40	47	37	48	69	98	81	54	37	23	19
CFSM	1.04	1.39	1.19	.82	3.44	2.18	2.72	3.42	1.96	.96	.63	.57
IN.	1.20	1.55	1.37	.94	3.57	2.52	3.04	3.94	2.19	1.11	.72	.63

CAL YR 1980 TOTAL 45245 MEAN 124 MAX 1870 MIN 25 CFSM 2.41 IN 32.68
WTR YR 1981 TOTAL 31536 MEAN 86.4 MAX 1060 MIN 19 CFSM 1.68 IN 22.78

03457000 PIGEON RIVER AT CANTON, NC

LOCATION.--Lat 35°31'30", long 82°50'28", Haywood County, Hydrologic Unit 06010106, on left bank 100 ft (30 m) upstream from small tributary, 200 ft (61 m) downstream from Pigeon Street Bridge, 0.5 mi (0.8 km) from U.S. Highways 19 and 23 at Canton, and at mile 64.1 (103.1 km). Records include flow of small tributary.

DRAINAGE AREA.--133 mi² (344 km²) includes that of small tributary below gage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1907 to June 1909, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 853: 1929-37(M). WSP 1306: 1908(M).

GAGE.--Water-stage recorder. Datum of gage is 2,572.22 ft (784.013 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to June 1909, nonrecording gage at bridge 0.4 mi (0.6 km) downstream at different datum. Dec. 6, 1928, to Jan. 3, 1929, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good. Occasional diurnal fluctuation and considerable regulation at low flow caused by Lake Logan on West Fork Pigeon River 12 mi (19 km) upstream (see p. 412). Town of Canton diverted above station an average of 2.08 ft³/s (0.059 m³/s) for municipal water supply.

AVERAGE DISCHARGE.--54 years (1907-8, 1928-81), 323 ft³/s (9.147 m³/s), 32.98 in/yr (838 mm/yr) unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft³/s (895 m³/s) Aug. 30, 1940, gage height, 20.75 ft (6.325 m), from floodmarks in gage well; minimum, 15 ft³/s (0.42 m³/s) Jan. 8, 1956, gage height, 0.04 ft (0.012 m), result of freezeup; minimum daily, 27 ft³/s (0.76 m³/s) Sept. 7, 1954.

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 (5.58 m), discharge, 25,700 ft³/s (728 m³/s), from studies by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (110 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	0930	*5280	150	*7.80	2.377

Minimum discharge, 46 ft³/s (1.30 m³/s) Jan. 31, gage height, 0.58 ft (0.177 m), result of freezeup; minimum daily, 74 ft³/s (2.10 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	121	178	108	113	268	407	193	468	152	93	90
2	166	111	165	104	295	252	341	193	459	140	112	87
3	125	106	151	119	130	229	301	182	406	155	131	92
4	109	103	142	117	125	238	278	176	411	140	98	90
5	115	106	137	110	120	379	399	171	377	141	104	125
6	116	97	131	120	115	295	326	170	337	135	102	107
7	102	95	127	126	112	255	284	234	334	125	124	168
8	96	94	123	132	107	236	264	195	301	121	96	97
9	93	89	121	121	90	226	257	170	276	113	88	81
10	90	86	185	105	317	214	250	171	255	106	81	76
11	87	84	142	105	1280	205	233	586	243	105	80	75
12	84	84	125	105	505	193	222	284	254	136	78	79
13	89	83	119	105	364	188	297	245	316	170	77	78
14	87	84	114	105	296	186	355	226	240	111	87	77
15	86	96	111	102	257	174	307	304	213	103	81	80
16	86	123	109	97	237	190	265	241	202	121	81	90
17	85	99	107	100	268	169	265	224	190	111	82	83
18	90	211	105	105	713	168	276	220	185	107	82	76
19	134	128	101	110	728	161	251	249	179	133	81	78
20	98	110	100	95	547	152	333	337	170	105	83	78
21	89	104	92	95	412	151	340	355	165	102	80	77
22	87	99	91	87	355	168	284	280	156	91	79	76
23	85	102	100	82	576	167	282	252	198	85	79	81
24	84	368	103	77	411	162	313	232	157	84	78	78
25	131	217	106	78	355	167	259	222	149	144	77	77
26	106	165	98	78	323	172	243	216	162	163	87	77
27	92	399	110	84	296	179	232	2270	137	112	82	76
28	125	341	132	83	276	193	220	1180	138	162	79	75
29	114	227	164	76	---	191	214	750	135	111	76	74
30	132	195	123	83	---	1100	209	588	128	100	78	74
31	148	---	112	82	---	547	---	517	---	96	81	---
TOTAL	3349	4327	3824	3096	9723	7575	8507	11633	7341	3780	2717	2572
MEAN	108	144	123	99.9	347	244	284	375	245	122	87.6	85.7
MAX	218	399	185	132	1280	1100	407	2270	468	170	131	168
MIN	84	83	91	76	90	151	209	170	128	84	76	74
(†)	+364	+61.5	+50.1	-510.7	+651.6	+62.6	+57.2	+68.1	+62.7	+56.9	-223.3	-205.5
MEAN‡	120	146	125	83.4	371	246	285	377	247	124	80.4	78.9
CFSM‡	0.90	1.10	0.94	0.63	2.79	1.85	2.15	2.83	1.86	0.93	0.60	0.59
IN.‡	1.04	1.23	1.08	0.72	2.90	2.14	2.39	3.27	2.07	1.07	0.70	0.66

CAL YR 1980 TOTAL 106957 MEAN 292 MAX 3080 MIN 70 MEAN‡ 296 CFSM‡ 2.23 IN.‡ 30.29
WTR YR 1981 TOTAL 68444 MEAN 188 MAX 2270 MIN 74 MEAN‡ 189 CFSM‡ 1.42 IN.‡ 19.27

† Diversion by city of Canton, and change in contents in Lake Logan, equivalent in cfs-days. Records of diversion furnished by city of Canton.
‡ Adjusted for diversion and change in lake contents.

03457000 PIGEON RIVER AT CANTON, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/24	10 00	0000	0.85	85	21		11.0	3.0	9.0	81.1	10K	0.7
80/11/07	09 00	0000	0.89	92	20		6.0	1.0	10.8	86.4	10K	0.7
80/12/15	10 00	0000	0.98	109	22		2.0	2.0	12.8	92.8	10K	0.3
81/01/20	11 30	0000	0.91	96	15	7.00	1.0	2.0	13.0	91.5	10K	0.3
81/02/20	08 50	0000	2.29	575	21		6.0	7.0	12.4	99.2	10K	0.6
81/03/25	11 00	0000	1.25	171	19	6.60	9.0	2.0	10.1	87.1	10K	0.4
81/04/23	10 40	0000	1.58	270	25	6.90	14.0	4.0	9.3	89.4	10K	0.5
81/05/28	10 00	0000	3.30	1180		6.60	13.0	4.0	9.6	90.6		1.6
81/06/26	08 40	0000	1.24	168		7.00	22.0	9.0	7.8	88.6		0.7
81/07/16	07 20	0000	1.09	132		6.90	23.0		7.0	80.5		0.5
81/08/31	12 45	0000	0.82	80			22.0	2.0	8.5	96.6		0.9
81/09/17	11 30	0000	0.83	82		6.70	17.0	2.0	8.8	90.7		0.9

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/24	10 00	0000	90	9	0.12	0.050K	0.200	0.050	0.050K	10K	50K	50K
80/11/07	09 00	0000	30	5								
80/12/15	10 00	0000	10	7	0.21	0.050K	0.100K	0.050K	0.050K	10K	50K	50K
81/01/20	11 30	0000	50	7								
81/02/20	08 50	0000	50	3								
81/03/25	11 00	0000	10K	3	0.27	0.050K	0.100K	0.050K	0.050K		50K	50K
81/04/23	10 40	0000	120	7								
81/05/28	10 00	0000	280	5								
81/06/26	08 40	0000	470	6	0.28	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/07/16	07 20	0000	170	7								
81/08/31	12 45	0000	50	9								
81/09/17	11 30	0000	95	9	0.20	0.050K	0.200	0.050	0.050K	10	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/24	10 00	0000	100K	40K	400	100K	50.0K	0.5K	50K
80/12/15	10 00	0000	100K	40K	100	100K	50.0K	0.5K	50K
81/03/25	11 00	0000	100K	40K	100	100K	50.0K	0.5K	50K
81/06/26	08 40	0000	100K	40K	300	100	50.0K	0.5K	50K
81/09/17	11 30	0000	100K	40K	300	100K	50.0K	0.5	50K

K Less than noted value.

03459500 PIGEON RIVER NEAR HEPCO, NC

LOCATION (REVISED).--Lat 35°38'05", long 82°59'21", Haywood County, Hydrologic Unit 06010106, on left bank 95 ft (29 m) east of Interstate Highway 40, 0.8 mi (1.3 km) downstream from Jonathan Creek, 2.0 mi (3.2 km) south of Hepco, 2.4 mi (3.9 km) upstream from Fines Creek, and at mile 45.1 (72.6 km).

DRAINAGE AREA.--350 mi² (906 km²).

WATER-DISCHARGE RECORDS

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 (711.998 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Water-discharge 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 ft³/s-day (4.894 hm³) (see p. 412).

AVERAGE DISCHARGE.--54 years, 679 ft³/s (19.23 m³/s), 26.35 in/yr (669 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,700 ft³/s (926 m³/s) Aug. 30, 1940, gage height, 15.82 ft (4.822 m), from floodmark in gage house, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurements at gage heights 14.94 ft (4.554 m) and 15.82 ft (4.822 m); minimum, 81 ft³/s (2.29 m³/s) Sept. 30, 1941; minimum gage height, 0.81 ft (0.247 m) Sept. 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1876 and February 1902 reached a stage of about 18 ft (5.5 m), from flood profiles by Tennessee Valley Authority, discharge, about 42,000 ft³/s (1,190 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1330	*6220	176	*7.15	2.179

Minimum discharge, 125 ft³/s (3.54 m³/s) Aug. 29, gage height, 1.09 ft (0.332 m); minimum daily, 127 ft³/s (3.60 m³/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	484	278	348	267	305	546	869	389	790	384	185	163
2	400	253	328	252	978	530	736	380	818	303	213	185
3	295	242	307	255	436	489	651	361	780	304	274	168
4	244	242	291	259	353	522	599	347	852	294	207	219
5	292	243	282	207	309	787	870	338	761	283	187	329
6	291	228	273	295	318	667	759	331	665	312	249	351
7	238	222	265	303	291	563	629	388	689	270	257	541
8	224	220	261	258	300	522	590	377	613	253	225	272
9	214	215	273	271	263	500	585	383	558	238	194	205
10	205	207	444	240	724	481	572	383	515	221	169	177
11	200	198	351	190	2800	468	532	934	504	213	161	168
12	185	196	297	248	1100	446	509	574	481	277	165	162
13	186	197	281	233	792	435	515	486	600	327	154	163
14	190	195	269	275	653	441	678	449	480	239	156	159
15	185	276	260	247	575	408	588	548	428	214	153	157
16	185	315	259	219	531	473	521	479	401	260	149	278
17	184	266	253	190	547	427	555	438	380	260	155	207
18	196	394	244	210	1250	402	611	438	372	229	173	169
19	438	318	242	249	1260	394	529	512	358	232	162	160
20	273	262	233	232	1090	379	796	677	347	256	165	157
21	216	246	222	248	858	371	773	800	339	238	154	154
22	207	235	215	229	734	409	642	573	319	192	148	151
23	196	252	230	215	975	428	688	510	376	175	145	148
24	197	554	264	202	800	414	824	472	335	169	144	144
25	318	484	276	199	693	404	782	441	325	225	136	142
26	296	356	217	203	639	399	845	474	323	286	136	139
27	229	488	272	236	594	401	799	2950	277	234	142	137
28	341	653	276	242	558	410	688	2240	270	314	134	134
29	318	430	361	210	---	410	434	1290	265	276	127	129
30	291	373	323	215	---	2000	418	995	257	230	133	131
31	326	---	289	207	---	1220	---	891	---	199	148	---
TOTAL	8044	9038	8706	7306	20726	16746	19587	20848	14478	7907	5300	5799
MEAN	259	301	281	236	740	540	653	673	483	255	171	193
MAX	484	653	444	303	2800	2000	870	2950	852	384	274	541
MIN	184	195	215	190	263	371	418	331	257	169	127	129

CAL YR 1980 TOTAL 237904 MEAN 650 MAX 7260 MIN 172
WTR YR 1981 TOTAL 144485 MEAN 396 MAX 2950 MIN 127

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-73, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1978 to current year.
WATER TEMPERATURES: October 1978 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1978.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams. During period 1968-73, data were collected at bridge on Interstate Highway 40 and published as Pigeon River at Hepco (station 03459620).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1950 micromhos Aug. 27, 1981; minimum, 50 micromhos Mar. 4, 5, Sept. 21, 22, Nov. 2, 26, 1979.
WATER TEMPERATURES: Maximum, 31.5°C July 15, 17, 1980, June 24, 1981; minimum, 0.5°C Jan. 18, Feb. 4, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1950 micromhos Aug. 27; minimum, 109 micromhos Feb. 11.
WATER TEMPERATURES: Maximum, 31.5°C June 24; minimum, 0.5°C Jan. 18, Feb. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
JAN											
28...	1045	240	1100	7.6	6.5	100	10.5	230	200	84	5.6
FEB											
10...	1715	739	517	7.6	5.0	80	10.9	95	58	33	3.1
10...	1945	1030	608	7.4	5.5	75	10.4	96	59	34	2.8
11...	0700	3260	140	7.2	5.0	30	10.8	32	17	9.3	2.1
11...	0900	3180	140	7.5	5.0	20	10.9	33	17	9.6	2.2
12...	0800	1090	160	7.2	1.0	30	11.2	39	24	13	1.7
MAY											
20...	1120	558	500	7.4	18.0	55	10.2	82	44	30	1.8
AUG											
27...	1000	145	1870	7.4	21.5	250	7.8	380	340	140	7.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN											
28...	140	56	4.0	6.9	35	0	29	1.4	66	280	.2
FEB											
10...	62	57	2.8	5.2	45	0	37	1.3	36	110	<.1
10...	71	60	3.1	5.1	46	0	38	2.7	42	140	<.1
11...	12	43	.9	2.3	18	0	15	1.7	13	22	<.1
11...	13	44	1.0	2.0	20	0	16	.9	13	25	<.1
12...	17	47	1.2	1.6	18	0	15	1.7	13	35	<.1
MAY											
20...	84	68	4.0	3.7	46	0	38	2.9	54	110	.1
AUG											
27...	220	55	4.9	9.5	55	0	45	8.5	40	510	.2

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	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, 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)
JAN											
28...	12	742	619	1.0	481	.77	.110	.88	.93	.150	.290
FEB											
10...	10	331	280	.45	660	.77	.090	.86	1.0	.660	--
10...	8.5	400	330	.54	1110	.80	.080	.88	1.1	.550	--
11...	7.4	96	80	.13	845	.72	.020	.74	.76	.100	.200
11...	7.3	100	84	.14	859	.69	.010	.70	.78	.090	--
12...	7.6	118	101	.16	347	--	<.010	.62	.71	.120	--
MAY											
20...	9.4	332	318	.45	500	--	<.010	.49	.49	.040	.060
AUG											
27...	11	1390	1000	1.8	544	1.1	.030	1.1	1.1	.100	.110

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)
JAN										
28...	.18	.37	.43	.45	.58	.00	.74	1.5	6.5	1.7
FEB										
10...	--	--	3.3	--	4.00	2.2	1.8	4.9	22	--
10...	--	--	3.3	--	3.80	.50	3.3	4.7	21	--
11...	--	.26	1.7	.34	1.80	1.3	.54	2.5	11	1.3
11...	--	--	1.7	--	1.80	--	--	2.5	11	--
12...	--	--	1.4	--	1.50	.20	1.3	2.1	9.4	--
MAY										
20...	--	.08	2.0	.42	2.00	1.5	.48	2.5	11	.97
AUG										
27...	--	.14	1.0	.62	1.10	.37	.73	2.2	9.7	1.8

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHATE, TOTAL (MG/L AS PO4)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)
JAN										
28...	.550	1.30	1.7	--	.430	--	--	--	--	--
FEB										
10...	1.20	--	3.7	--	.310	--	--	3	0	5
10...	1.10	--	3.4	--	.150	--	--	3	0	5
11...	.520	--	1.6	.380	.100	--	--	3	0	3
11...	.470	--	1.4	--	.130	--	--	--	--	--
12...	.110	--	.34	--	.070	--	--	--	--	--
MAY										
20...	.630	--	1.9	.190	.290	.180	.55	--	--	--
AUG										
27...	.610	--	1.9	.510	.530	.460	1.4	--	--	--

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)
JAN										
28...	--	--	--	--	--	--	--	--	--	--
FEB										
10...	0	<1	50	43	7	9	9	0	22	19
10...	0	<1	50	48	2	8	8	0	20	19
11...	0	<1	40	37	3	6	1	5	18	2
11...	--	--	30	28	2	--	--	--	16	15
12...	--	--	10	2	8	--	--	--	5	4
MAY										
20...	--	--	--	--	--	--	--	--	--	--
AUG										
27...	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN										
28...	--	--	--	--	--	--	--	--	--	--
FEB										
10...	3	23000	23000	260	21	18	3	710	610	100
10...	1	20000	20000	190	27	25	2	700	610	90
11...	16	13000	13000	160	28	3	25	620	600	20
11...	1	11000	11000	80	24	22	2	--	--	--
12...	1	1200	1100	90	5	3	2	--	--	--
MAY										
20...	--	--	--	--	--	--	--	--	--	--
AUG										
27...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
JAN							
28...	--	--	--	--	--	--	--
FEB							
10...	.2	.1	.1	0	0	0	160
10...	.1	.0	.1	0	0	0	80
11...	<.1	--	<.1	0	0	0	150
11...	--	--	--	--	--	--	130
12...	--	--	--	--	--	--	90
MAY							
20...	--	--	--	--	--	--	--
AUG							
27...	--	--	--	--	--	--	--

DATE	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPO-SURE (DAYS)
JAN							
28...	--	23	1.0	.20	--	--	--
FEB							
10...	<4	14	2.0	.10	--	--	--
10...	<4	14	>8.0	.10	--	--	--
11...	<4	9.1	>8.0	.00	--	--	--
11...	<4	5.2	7.4	.00	--	--	--
12...	<4	5.0	1.3	.00	--	--	--
MAY							
20...	--	9.2	>5.0	--	7.56	5.35	28
AUG							
27...	--	5.1	2.1	.30	--	--	--

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JAN 28,81		MAY 20,81		AUG 27,81	
TIME	1045		1120		1000	
TOTAL CELLS/ML	5400		170000		3900	
DIVERSITY: DIVISION	1.1		0.1		1.5	
.CLASS	1.1		0.1		1.5	
..ORDER	1.1		0.1		1.8	
...FAMILY	1.3		0.1		2.2	
....GENUS	1.4		0.2		2.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	*	0
...OOCYSTACEAE						
....OOCYSTIS	--	-	--	-	*	0
...SCENEDESMACEAE						
....SCENEDESMUS	29	1	--	-	70	2
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	86	2	--	-	*	0
..ZYGNEMATALES						
...ZYGNEMATACEAE						
....MOUGEOTIA	--	-	--	-	1800#	46
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	*	0	*	0	*	0
....MELOSIRA	--	-	*	0	420	11
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	28	1
...CYMBELLACEAE						
....CYMBELLA	*	0	*	0	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	140	3	--	-	*	0
....SYNEDRA	1300#	25	1200	1	*	0
...NAVICULACEAE						
....NAVICULA	110	2	--	-	28	1
...NITZSCHIACEAE						
....DENTICULA	*	0	--	-	--	-
....NITZSCHIA	29	1	*	0	70	2
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	*	0	--	-	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	*	0	--	-	28	1
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	--	-	340	9
...OSCILLATORIACEAE						
....LYNGBYA	3600#	67	1200	1	960#	25
....OSCILLATORIA	--	-	160000#	98	84	2

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	678	630	981	921	669	579	830	750	1210	976	440	420
2	671	573	947	932	725	667	850	770	784	444	442	411
3	610	555	980	954	717	705	880	770	447	425	460	413
4	679	619	1010	982	723	687	900	800	650	443	465	398
5	692	686	1190	1020	759	718	880	780	740	531	441	350
6	726	699	1220	1100	786	732	900	800	737	530	389	334
7	752	721	1400	1220	786	752	910	800	632	549	466	396
8	798	758	1350	1130	744	713	920	820	668	548	511	459
9	851	810	1160	1060	740	721	930	800	644	619	531	487
10	912	862	1220	1120	710	609	940	810	617	426	492	481
11	982	918	1210	1110	683	532	950	820	401	109	510	467
12	1030	988	1110	1040	653	548	940	810	253	124	519	481
13	1080	1040	1170	1080	663	631	950	820	324	247	539	480
14	1090	1070	1280	1190	737	663	960	830	351	317	551	453
15	1110	1060	1240	1100	820	741	800	780	388	351	561	538
16	1150	1090	1100	1040	811	774	820	748	406	368	538	525
17	1180	1120	1040	953	854	752	874	837	480	409	550	476
18	1230	1190	1030	945	888	860	940	882	420	184	563	485
19	1190	1000	1000	837	883	825	1020	959	244	178	577	547
20	1000	942	877	829	888	816	948	893	230	204	543	518
21	979	931	908	870	900	839	942	896	310	223	579	509
22	1050	991	928	893	860	802	968	918	309	298	579	543
23	1060	949	944	925	830	802	953	917	306	202	565	521
24	969	914	959	866	834	669	980	938	273	207	571	511
25	953	930	808	505	820	770	1060	992	309	282	585	550
26	968	922	655	511	830	800	1100	1060	369	308	577	537
27	915	896	828	657	800	780	1120	1070	419	377	630	529
28	931	906	824	420	800	760	1110	1080	432	403	636	588
29	970	921	494	427	760	700	1060	1020	---	---	583	560
30	967	931	593	488	800	750	1080	1020	---	---	588	136
31	1010	956	---	---	810	780	1180	1070	---	---	268	151
MONTH	1230	555	1400	420	900	532	1180	748	1210	109	636	136
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	330	272	599	454	284	269	885	632	991	956	1730	1290
2	378	330	603	403	304	277	813	768	1010	934	1620	1440
3	421	378	544	385	311	292	988	783	1040	952	1600	1250
4	439	415	577	523	318	300	1010	937	1000	751	1490	932
5	423	310	639	574	346	326	1010	951	814	751	1420	947
6	388	278	700	514	359	353	1000	757	1080	814	999	672
7	400	390	616	484	371	356	914	744	1080	879	894	755
8	420	400	561	397	390	378	945	876	995	838	859	662
9	430	410	416	384	411	401	953	846	921	862	960	727
10	450	430	545	416	429	415	943	769	973	921	1030	970
11	460	440	727	223	460	441	963	888	1090	979	1190	1030
12	440	420	545	273	475	466	1160	765	1180	1090	1250	1200
13	430	410	616	542	528	434	1240	759	1230	1180	1310	1190
14	420	400	616	591	530	447	1260	674	1290	1230	1300	1130
15	400	380	706	567	553	538	1140	856	1340	1230	1210	1170
16	410	390	643	478	562	539	1140	573	1210	1090	1160	957
17	420	400	655	587	602	574	1190	835	1190	1120	1110	947
18	410	390	618	579	651	616	896	721	1260	1130	1130	1020
19	430	420	607	527	680	660	1150	908	1300	1220	1140	1030
20	390	370	596	364	700	680	1290	892	1360	1310	1310	1150
21	400	390	469	352	720	700	927	578	1440	1350	1310	1190
22	445	395	517	471	740	720	1020	888	1540	1430	1320	1190
23	480	280	587	517	800	780	1130	1030	1640	1600	1420	1340
24	380	306	620	525	1010	680	1260	1140	1630	1550	1480	1400
25	411	304	531	493	1100	562	1270	1170	1660	1610	1510	1360
26	310	265	534	468	864	769	1490	981	1730	1640	1450	1360
27	288	269	501	159	906	689	976	804	1950	1790	1590	1460
28	287	256	192	170	954	868	1090	804	1890	1610	1630	1580
29	445	257	219	203	973	921	1040	702	1810	1650	1580	1450
30	453	428	244	230	952	860	819	690	1660	1540	1500	1420
31	---	---	260	256	---	---	978	829	1790	1600	---	---
MONTH	480	256	727	159	1100	269	1490	573	1950	751	1730	662
YEAR	1950	109										

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	18.5	14.5	10.5	9.5	7.0	8.0	6.5	7.5	3.5	14.5	11.5
2	21.5	19.5	14.5	11.0	11.0	8.5	7.5	6.0	8.0	4.5	13.5	11.0
3	20.0	17.5	14.5	11.5	9.0	7.0	7.0	5.0	4.0	1.5	11.5	8.0
4	17.5	15.5	16.0	14.0	8.5	5.5	5.5	4.0	4.0	.5	10.5	9.0
5	15.5	14.5	14.0	11.5	9.0	6.5	5.0	3.5	5.0	1.5	10.5	9.0
6	17.0	13.5	12.5	10.0	9.5	7.0	5.0	4.0	7.5	3.0	10.5	7.5
7	17.0	13.5	13.5	9.5	10.5	8.0	4.5	4.0	6.5	4.0	10.0	7.0
8	18.5	14.5	16.5	12.5	11.0	8.5	5.0	4.0	8.0	5.5	10.0	6.5
9	20.0	16.0	17.0	14.0	13.0	11.0	6.0	4.0	6.5	3.0	10.5	6.0
10	21.0	17.0	15.5	13.0	13.0	10.5	5.0	4.0	6.0	5.5	9.5	7.0
11	20.5	17.5	12.5	10.0	10.5	8.0	4.5	3.5	7.0	3.5	11.0	7.5
12	17.5	15.0	10.5	8.0	9.0	6.0	4.0	3.5	4.0	1.5	11.5	7.0
13	16.0	12.5	11.0	8.0	9.0	6.5	5.0	4.0	5.5	2.0	12.0	7.5
14	16.5	12.0	13.0	10.0	8.0	6.0	6.0	4.5	7.5	4.0	12.0	8.0
15	17.0	12.5	14.5	13.0	8.0	5.0	6.0	4.5	8.5	5.0	12.0	7.0
16	17.5	13.5	15.5	14.0	8.5	8.0	5.0	2.5	9.0	7.5	11.0	8.0
17	18.0	14.5	14.5	12.5	8.5	7.0	3.0	1.5	10.5	9.0	12.0	6.0
18	19.0	17.5	13.0	11.5	8.0	5.5	3.5	.5	10.0	9.0	10.5	9.0
19	20.5	17.5	11.0	8.5	8.0	7.0	5.5	3.5	9.0	8.5	9.0	7.0
20	18.0	15.0	10.0	7.0	6.5	4.5	6.0	4.5	10.0	8.5	10.0	5.5
21	16.5	13.0	9.5	7.0	5.0	3.5	6.5	5.5	10.5	7.5	10.5	6.0
22	17.0	13.5	9.0	6.0	5.0	3.0	7.0	6.0	10.5	7.5	10.0	8.0
23	15.5	13.5	10.0	9.0	8.0	5.0	7.5	5.0	10.5	8.5	9.5	7.5
24	14.0	13.0	14.5	10.5	9.0	7.5	7.5	4.0	10.5	7.0	12.0	7.5
25	14.5	12.0	12.0	10.0	8.0	6.5	8.0	4.5	10.5	6.5	13.0	7.5
26	13.5	10.5	9.5	8.0	5.0	4.0	10.0	6.5	12.0	7.5	13.5	8.5
27	13.0	10.5	11.0	8.0	5.5	4.5	10.0	8.5	12.0	8.0	14.0	10.0
28	15.5	12.5	11.5	8.0	6.5	5.5	9.0	7.5	12.5	9.0	16.5	10.5
29	15.0	14.0	8.5	6.5	8.0	6.5	8.5	6.0	---	---	14.5	12.5
30	14.5	13.5	8.5	6.0	8.0	6.0	8.0	5.0	---	---	15.0	12.0
31	16.0	13.0	---	---	9.0	7.5	5.5	2.5	---	---	16.0	10.5
MONTH	21.5	10.5	17.0	6.0	13.0	3.0	10.0	.5	12.5	.5	16.5	5.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.5	13.5	19.5	17.0	22.5	20.0	23.0	20.5	22.0	21.0	23.0	21.0
2	17.0	11.5	20.0	15.0	22.5	20.5	22.0	20.5	22.5	20.5	25.0	21.5
3	16.0	11.5	21.0	14.0	23.0	21.0	22.0	20.0	26.0	21.5	24.5	22.0
4	19.0	13.5	22.0	15.5	23.0	20.5	23.0	20.0	25.5	22.5	23.0	21.5
5	18.0	15.5	24.0	18.0	23.5	21.0	24.5	21.0	27.0	22.5	24.5	21.5
6	18.0	15.5	22.0	20.0	24.0	22.0	24.5	21.5	25.0	23.5	22.5	21.0
7	17.5	14.5	19.5	18.0	23.0	21.5	24.0	22.0	26.0	22.5	23.0	19.5
8	17.0	15.0	21.0	15.5	25.5	21.5	26.0	21.5	24.5	23.5	22.0	21.0
9	17.0	14.5	20.5	15.5	27.5	22.0	28.0	23.0	26.0	21.5	22.0	19.0
10	17.5	15.0	20.5	18.5	27.5	23.5	28.5	23.5	25.0	22.0	22.0	17.5
11	18.0	15.0	20.5	16.5	27.5	24.0	26.5	24.0	24.5	21.5	23.0	19.0
12	18.0	14.5	20.5	15.5	28.0	24.5	27.0	23.5	25.5	21.5	22.5	19.5
13	18.5	15.5	22.0	16.5	26.5	25.0	27.5	23.0	25.5	21.5	23.5	19.5
14	19.0	16.0	21.5	18.0	28.0	24.0	28.0	23.5	25.5	21.5	23.0	20.0
15	18.0	15.5	20.5	18.0	29.5	24.5	28.0	23.5	24.5	21.5	22.0	21.0
16	18.5	16.0	20.5	15.5	30.0	25.0	25.0	24.0	23.5	21.5	21.5	19.5
17	18.5	16.0	20.0	18.0	29.5	25.0	27.5	23.5	25.0	21.0	20.5	18.0
18	18.5	16.0	23.5	17.5	30.0	24.5	24.0	23.0	24.0	21.5	18.0	16.0
19	19.0	17.0	22.0	20.0	30.0	25.0	25.5	22.0	22.0	21.0	17.5	14.5
20	19.0	16.5	21.0	17.5	29.5	24.5	27.0	23.5	23.0	20.0	18.5	14.0
21	19.5	16.5	21.0	16.5	30.0	26.0	27.0	23.5	21.5	20.5	20.0	15.5
22	20.0	16.5	22.0	16.5	30.5	26.0	27.0	22.0	22.5	18.5	20.5	16.0
23	19.5	17.5	23.0	17.5	31.0	26.5	26.0	22.0	22.5	19.0	20.5	17.5
24	18.5	16.0	24.0	19.0	31.5	25.0	27.0	22.5	24.0	20.0	18.5	15.0
25	18.5	13.0	24.5	20.5	30.0	22.5	27.0	23.0	24.5	21.0	19.5	15.0
26	20.0	15.0	23.5	21.0	26.5	22.0	27.0	23.5	23.0	20.5	20.5	16.0
27	22.0	16.5	21.0	17.0	25.0	20.5	27.5	23.5	24.0	21.0	20.5	17.0
28	22.5	17.5	18.0	16.5	25.0	21.0	27.5	24.0	24.0	20.5	20.5	17.0
29	21.0	18.0	21.0	16.5	25.0	20.5	26.5	24.0	22.0	20.0	19.0	15.0
30	21.5	17.5	22.0	18.0	24.0	21.0	25.5	23.0	23.0	20.0	20.0	15.5
31	---	---	22.5	19.5	---	---	24.0	21.5	24.0	20.5	---	---
MONTH	22.5	11.5	24.5	14.0	31.5	20.0	28.5	20.0	27.0	18.5	25.0	14.0
YEAR	31.5	.5										

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
05...	1130	247	10	6.7	85
DEC					
11...	1215	334	14	13	98
JAN					
28...	1045	240	11	7.1	84
FEB					
10...	1715	739	437	872	86
10...	1845	1030	422	1170	78
11...	0700	3260	449	3950	56
11...	0900	3180	433	3720	51
12...	0800	1090	47	138	54
MAR					
10...	1300	488	11	14	56
APR					
22...	1020	640	45	78	64
MAY					
20...	1120	558	48	72	84
JUN					
24...	1115	323	13	11	80
AUG					
27...	1000	145	13	5.1	89

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC
(HYDROLOGIC BENCH-MARK STATION)

LOCATION.--Lat 35°40'02", long 83°04'22" (revised), Haywood County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park, on left bank 20 ft (6 m) downstream from bridge on State Highway 284, 500 ft (152 m) upstream from Little Cataloochee Creek, 2 mi (3 km) north of Cataloochee and 3.7 mi (6.0 km) upstream from mouth.

DRAINAGE AREA.--49.2 mi² (127.4 km²).

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 (748.857 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Water-discharge record good. Records for Class A evaporation station 2.4 mi (3.9 km) upstream published in reports of National Climatic Center, NOAA, U.S. Department of Commerce.

AVERAGE DISCHARGE.--38 years, 110 ft³/s (3.115 m³/s), 30.36 in/yr (771 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s (144 m³/s) Mar. 6, 1963, gage height, 8.08 ft (2.463 m); minimum, 9 ft³/s (0.25 m³/s) Jan. 2, 1940, Dec. 17, 24, 1943, gage height, 1.87 ft (0.57 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 699 ft³/s (19.8 m³/s) Mar. 30, gage height, 4.22 ft (1.286 m), no peak above base of 1,000 ft³/s (28 m³/s); minimum, 16 ft³/s (0.45 m³/s) Jan. 5, gage height, 1.93 ft (0.588 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	35	52	38	40	106	177	106	101	81	41	42
2	36	34	50	36	149	102	146	107	108	50	42	34
3	32	33	48	38	60	96	129	96	102	47	40	32
4	30	36	45	35	60	133	117	90	114	45	37	44
5	48	34	44	30	58	190	236	86	103	43	41	39
6	38	32	42	30	58	180	184	85	111	59	68	78
7	32	32	41	35	55	159	161	85	138	44	48	110
8	31	31	40	35	55	139	144	78	122	41	53	62
9	30	31	50	40	50	123	141	75	113	38	43	51
10	29	30	85	35	149	113	123	73	103	36	39	45
11	28	29	54	35	394	106	112	91	98	36	37	42
12	26	29	50	40	244	98	106	73	90	39	36	39
13	26	29	49	40	242	94	102	69	84	38	35	39
14	26	29	47	45	176	94	98	65	80	33	34	37
15	26	58	46	45	103	84	93	74	75	32	32	43
16	26	42	45	45	99	101	86	64	71	63	33	108
17	26	46	44	42	101	83	114	62	68	48	43	54
18	37	74	43	40	156	80	102	63	66	95	61	47
19	99	51	42	40	148	76	96	85	63	68	40	44
20	40	46	40	38	166	73	176	110	67	57	39	42
21	35	43	40	42	148	70	161	104	62	53	38	40
22	33	41	45	40	141	73	142	84	57	40	35	38
23	31	49	40	40	159	71	181	79	62	37	34	37
24	31	82	53	40	135	68	218	75	54	36	33	35
25	49	63	40	42	125	67	186	72	54	38	31	34
26	36	56	45	43	119	66	163	75	56	35	30	34
27	33	78	50	47	112	67	145	131	49	46	32	33
28	53	66	45	39	108	66	130	117	48	48	31	32
29	40	59	43	33	---	67	131	107	46	89	30	31
30	38	55	42	35	---	324	114	102	45	52	33	32
31	37	---	39	35	---	211	---	104	---	44	34	---
TOTAL	1123	1353	1439	1198	3610	3380	4214	2687	2410	1511	1203	1378
MEAN	36.2	45.1	46.4	38.6	129	109	140	86.7	80.3	48.7	38.8	45.9
MAX	99	82	85	47	394	324	236	131	138	95	68	110
MIN	26	29	39	30	40	66	86	62	45	32	30	31
CFSM	.74	.92	.94	.79	2.62	2.22	2.85	1.76	1.63	.99	.79	.93
IN.	.85	1.02	1.09	.91	2.73	2.56	3.19	2.03	1.82	1.14	.91	1.04

CAL YR 1980 TOTAL 35563 MEAN 97.2 MAX 1290 MIN 24 CFSM 1.98 IN 26.89
WTR YR 1981 TOTAL 25506 MEAN 69.9 MAX 394 MIN 26 CFSM 1.42 IN 19.28

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued
(Hydrologic bench-mark and pesticide station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to current year.
WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Temperature recorder since October 1962. Water-quality monitor since May 1974.

REMARKS.--Miscellaneous chemical data published for 1945 water year.

COOPERATION.--Chemical and biological data shown in last table were furnished by the North Carolina Department of Natural Resources and Community Development.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 43 micromhos June 13, 1974; minimum, 10 micromhos Jan. 12, 13, Feb. 2, 8, 10, 1975, Jan. 10, 19, 1976, Feb. 8, Dec. 28, 1978, Jan. 3-8, 10, 11, 12, 1979, Dec. 18, 1980, Jan. 4, 9-15, 20, 21, 22, Feb. 1, 12, 13, 15, Mar. 7-11, 13, 1981.
WATER TEMPERATURES: Maximum, 23.5°C Aug. 5, 1977; minimum, 0.0°C on several days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 27 micromhos Sept. 2, 3; minimum, 10 micromhos Dec. 18, Jan. 4, 9-15, 20, 21, 22, Feb. 1, 12, 13, 15, Mar. 7-11, 13.
WATER TEMPERATURES: Maximum, 20.5°C July 14, 21; minimum, 0.0°C Dec. 14, 18-23, 25-28, Jan. 3-27, 31, Feb. 1-10, 12, 13.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
15...	1130	26	15	7.1	7.5	9.9	56	2	900	4	0	1.1
NOV												
18...	1300	68	--	--	9.0	--	--	3	740	--	--	--
DEC												
10...	1100	75	10	7.0	8.0	10.2	--	6	610	4	0	1.0
JAN												
26...	1150	41	--	--	1.0	--	--	2	860	--	--	--
FEB												
09...	1315	49	12	7.2	.0	11.7	--	<1	420	4	0	.8
MAR												
25...	1030	66	13	7.1	2.0	10.9	--	110	700	--	--	--
APR												
20...	1115	202	15	6.8	12.5	8.2	--	--	--	4	0	1.1
MAY												
08...	1130	79	13	6.8	10.0	9.3	--	1	890	--	--	--
JUN												
23...	1145	62	14	7.0	16.5	9.5	--	K9	4800	4	0	1.0
AUG												
04...	1330	38	14	6.6	17.5	7.6	--	12	3900	12	7	3.1
18...	1130	51	18	6.9	16.5	7.8	--	88	13000	--	--	--
31...	1230	32	18	6.6	17.0	8.8	--	19	3500	4	0	.9

K Results based on colony count outside the acceptable range (non-ideal colony count).

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CAR-BONATE FET-FLD (MG/L AS CO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT												
15...	.3	1.2	34	.3	.6	18	0	15	1.4	1.0	.6	.0
NOV												
18...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	.4	1.1	33	.2	.5	5	0	5	1.8	1.8	.8	.0
JAN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
09...	.4	1.0	34	.2	.4	6	0	5	.1	1.9	.7	<.1
MAR												
25...	--	--	--	--	--	6	0	5	.8	--	--	--
APR												
20...	.2	1.1	36	.3	.6	6	0	5	1.2	1.7	.6	<.1
MAY												
08...	--	--	--	--	--	6	0	5	1.5	--	--	--
JUN												
23...	.3	.6	22	.1	.6	6	0	5	1.0	1.1	.3	<.1
AUG												
04...	1.1	1.2	17	.2	.6	6	0	5	3.9	1.9	.6	<.1
18...	--	--	--	--	--	6	--	5	1.2	--	--	--
31...	.4	1.2	36	.3	.6	6	0	5	4.4	1.2	.5	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (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 TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
15...	9.5	17	20	.02	1.1	.02	.04	--	--	--	--	--
NOV												
18...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	7.2	19	19	.03	3.8	.18	.22	.000	.030	.00	.04	.07
JAN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
09...	6.3	22	13	.03	2.9	.19	.23	<.010	--	.01	--	--
MAR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
20...	7.7	21	16	.03	11.5	.16	.16	.030	.050	--	.06	.26
MAY												
08...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
23...	8.0	16	16	.02	2.6	.18	.17	.030	.040	--	.05	.28
AUG												
04...	1.1	23	15	.03	2.3	.20	.20	.040	.040	--	.05	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
31...	8.4	21	20	.03	1.8	.20	.24	.020	.030	--	.04	.36

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)
OCT												
15...	--	--	--	--	--	--	--	.000	.00	--	2	1
NOV												
18...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	--	.07	--	--	.25	1.1	--	.010	.03	--	--	--
JAN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
09...	--	<.10	--	.13	--	--	.36	.020	.06	--	2	1
MAR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
20...	.20	.29	.04	.25	.45	2.0	.41	.020	.06	.010	--	--
MAY												
08...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
23...	.24	.31	.03	.28	.49	2.2	.45	.020	.06	<.010	0	0
AUG												
04...	.06	<.10	--	.10	--	--	.30	.120	.37	.020	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
31...	.37	.38	.00	.40	.58	2.6	.64	.040	.12	.040	--	--

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)
OCT												
15...	1	100	90	10	0	0	--	<1	20	11	9	<3
NOV												
18...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
09...	1	<50	--	9	<1	0	0	1	30	20	10	<3
MAR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
20...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
23...	0	100	--	<2	<1	1	0	3	10	9	1	<3
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT												
15...	2	<10	210	200	9	1	--	<10	<4	10	8	2
NOV												
18...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
09...	1	<10	70	--	<3	6	6	0	6	10	--	<1
MAR												
25...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
20...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
23...	1	<10	100	90	15	5	--	<10	8	0	--	<1
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
OCT											
15...	<.1	<.1	<10	0	0	0	0	0	0	9	<6.0
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
09...	<.1	<.1	<10	0	0	0	0	0	0	6	<6.0
APR											
20...	--	--	--	--	--	--	--	--	--	--	--
JUN											
23...	<.1	<.1	<10	0	0	0	0	0	0	8	<6.0
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	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 DIS-SOLVED, EXTRAC-TION (UG/L)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
15...	10	<4	.7	<.4	1.0	<.4	1.0	<.4	.04	.14	--
DEC											
10...	--	--	--	--	--	--	--	--	--	--	3.8
FEB											
09...	30	<4	--	--	--	--	--	--	--	--	--
APR											
20...	--	--	--	--	--	--	--	--	--	--	5.3
JUN											
23...	20	<4	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	1.7
31...	--	--	--	--	--	--	--	--	--	--	1.7

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	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)
OCT 15...	--	--	--	.00	0	.00	.0	.00	.0	.00	.0
DEC 10...	--	--	--	--	--	--	--	--	--	--	--
FEB 09...	1.5	.2	<.01	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--	--
JUN 23...	1.6	.8	<.01	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--

DATE	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-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 15...	.00	.6	.00	.0	.00	.00	.0	.00	.00	.0
DEC 10...	--	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--

DATE	ETHION, TOTAL (UG/L)	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)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)
OCT 15...	.00	.00	.0	.00	.0	.00	.0	.00	.00	.0
DEC 10...	--	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--

DATE	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT 15...	.00	.00	.00	.00	.0	.00	.00	.00	.00

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	12.0	7.0	3.5	5.5	2.0	2.5	2.0	2.0	.0	10.0	9.5
2	14.5	13.0	8.0	3.0	5.0	2.5	2.0	.5	2.0	.0	10.0	8.0
3	13.0	11.0	10.0	5.5	4.5	2.0	1.5	.0	.0	.0	7.0	4.5
4	11.0	8.5	11.0	5.5	3.0	1.5	1.0	.0	.0	.0	6.0	4.5
5	11.0	8.5	8.5	5.0	4.5	2.0	.0	.0	.5	.0	5.5	4.0
6	10.5	8.0	8.0	5.5	4.0	2.0	.0	.0	.0	.0	5.5	3.5
7	10.0	6.5	8.5	5.0	5.5	2.0	.0	.0	.0	.0	5.0	2.5
8	10.0	7.5	10.0	6.0	6.5	4.0	.0	.0	.5	.0	5.0	1.5
9	11.0	9.0	11.5	6.5	9.5	6.0	.0	.0	.0	.0	5.0	1.5
10	11.0	9.5	10.0	8.0	9.5	5.5	.0	.0	1.5	.0	5.0	1.5
11	12.0	10.0	8.5	6.0	5.0	2.5	.0	.0	3.0	.5	5.5	2.0
12	10.0	5.5	6.0	4.0	3.0	1.5	.0	.0	1.0	.0	5.5	2.0
13	10.0	6.0	6.5	3.5	3.5	1.0	.0	.0	2.0	.0	6.0	2.0
14	9.5	6.0	9.0	5.5	2.5	.0	.0	.0	3.5	1.0	6.0	3.5
15	9.5	6.0	10.5	9.0	2.0	.5	.0	.0	3.0	1.0	6.0	1.5
16	10.0	6.5	11.0	10.0	3.5	1.5	.5	.0	5.0	2.0	5.5	2.5
17	12.0	6.5	10.0	9.0	2.5	1.5	.0	.0	5.5	2.5	6.0	1.0
18	13.0	10.5	10.0	6.5	3.0	.0	.0	.0	5.5	3.5	5.5	3.0
19	14.5	10.5	6.5	4.0	2.0	.0	.0	.0	6.5	4.0	4.5	1.5
20	11.5	7.5	4.5	2.0	1.5	.0	.0	.0	6.5	4.5	3.5	.5
21	9.5	4.5	4.0	2.0	.0	.0	.0	.0	6.5	2.5	5.0	1.5
22	9.5	5.5	4.0	1.5	1.0	.0	.5	.0	6.5	2.0	4.0	2.0
23	9.0	6.5	6.5	4.0	2.0	.0	.5	.0	6.0	3.5	3.0	2.0
24	10.5	8.0	9.0	6.5	4.5	2.0	.0	.0	5.5	3.5	5.5	2.0
25	10.5	6.0	8.5	6.0	3.5	.0	.5	.0	7.5	3.5	6.5	2.0
26	8.5	4.5	5.5	3.5	.0	.0	1.5	.0	9.5	6.5	6.5	2.5
27	9.0	5.0	7.5	5.0	.5	.0	2.0	.0	8.5	4.5	8.0	4.0
28	9.5	6.5	6.5	4.5	1.0	.0	2.5	1.5	10.0	5.5	9.5	5.0
29	9.5	8.0	5.0	2.5	3.0	1.0	3.5	.5	---	---	8.5	6.0
30	9.5	7.5	4.0	2.0	3.0	2.0	2.5	.5	---	---	10.0	8.0
31	9.0	5.5	---	---	3.5	1.5	.5	.0	---	---	11.5	6.5
MONTH	16.0	4.5	11.5	1.5	9.5	.0	3.5	.0	10.0	.0	11.5	.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	9.0	12.5	10.5	14.5	13.0	16.5	13.5	17.0	15.0	18.0	14.5
2	11.0	6.5	11.0	9.0	15.0	13.5	16.5	13.0	17.5	14.5	18.0	14.5
3	10.5	6.5	12.0	7.0	15.0	13.5	17.0	13.5	18.5	15.0	17.5	16.0
4	13.5	8.5	13.0	9.0	15.0	13.5	17.0	14.0	17.0	14.5	18.5	16.5
5	12.5	9.5	14.5	11.5	16.0	13.5	17.5	13.5	19.5	15.0	18.0	15.0
6	10.0	7.0	14.0	13.0	15.5	14.5	16.0	14.5	18.0	15.5	16.5	15.5
7	10.0	5.5	13.0	12.0	15.0	14.0	16.5	14.5	19.5	15.0	16.5	14.5
8	10.5	7.0	13.0	10.0	15.5	13.0	19.0	15.0	18.0	16.0	16.0	14.0
9	11.5	9.5	12.5	9.5	16.5	13.0	19.5	15.5	17.0	14.5	16.5	13.0
10	13.5	9.0	13.0	11.5	16.5	13.5	20.0	15.0	16.5	14.0	16.5	12.5
11	14.5	11.0	12.5	11.0	15.5	13.5	18.5	16.5	18.5	14.5	16.5	11.0
12	13.0	11.5	12.5	9.5	16.0	13.5	18.0	15.0	18.5	14.5	16.0	13.0
13	14.5	11.0	13.5	9.0	15.5	13.0	19.0	15.5	17.0	14.5	15.5	13.0
14	16.0	12.5	14.0	11.0	17.5	14.5	20.5	16.0	17.0	14.5	16.0	12.5
15	14.0	10.5	13.0	10.5	17.5	13.0	19.0	16.5	17.0	14.0	15.5	13.5
16	13.0	8.5	12.5	9.0	17.5	15.0	19.0	15.5	17.0	14.5	16.0	14.0
17	11.5	10.5	12.0	11.0	18.0	13.5	18.5	15.0	17.0	15.0	14.5	13.0
18	14.5	10.5	15.5	11.5	18.5	13.5	16.5	14.0	17.0	15.0	13.5	10.0
19	14.0	11.5	14.5	13.0	16.5	15.5	18.0	14.0	16.0	15.0	11.5	8.5
20	13.0	11.0	13.5	12.0	16.5	15.0	19.5	16.0	16.5	14.5	11.5	8.5
21	13.5	9.5	13.0	10.5	18.0	15.0	20.5	16.5	16.5	13.5	12.0	8.5
22	13.0	10.0	13.0	9.5	18.5	14.5	20.0	17.0	17.5	13.0	12.5	9.0
23	13.5	11.5	14.0	10.0	19.0	15.0	19.5	16.5	17.0	13.5	14.5	11.5
24	12.5	10.0	14.5	11.0	17.5	15.5	19.5	15.0	17.5	13.5	11.5	8.0
25	11.5	8.5	15.0	11.5	18.0	15.0	19.0	16.0	18.5	13.5	13.0	9.5
26	13.0	8.5	14.0	12.5	19.0	15.0	19.5	15.5	17.5	14.5	14.5	11.0
27	15.0	10.5	13.5	12.5	17.0	14.5	19.5	16.0	17.0	14.5	13.0	10.5
28	15.0	11.0	13.0	12.0	17.0	15.0	19.5	16.0	16.5	13.5	13.0	10.0
29	13.5	12.0	14.0	11.0	18.0	14.5	18.0	16.5	16.0	12.5	13.0	10.0
30	15.0	11.0	14.5	11.0	17.0	15.0	19.0	16.5	16.0	13.5	14.0	11.0
31	---	---	15.0	13.0	---	---	17.5	15.0	17.0	14.5	---	---
MONTH	16.0	5.5	15.5	7.0	19.0	13.0	20.5	13.0	19.5	12.5	18.5	8.0
YEAR	20.5	.0										

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
15...	1130	26	1	.07	75
NOV					
18...	1300	68	3	.55	44
DEC					
10...	1100	75	4	.81	50
JAN					
26...	1150	41	1	.11	25
FEB					
09...	1315	49	2	.26	17
MAR					
06...	1250	175	2	.94	60
25...	1030	66	2	.36	67
APR					
20...	1115	202	9	4.9	72
MAY					
08...	1130	79	2	.43	50
JUN					
23...	1145	62	6	1.0	58
JUL					
13...	1105	38	3	.31	38
AUG					
04...	1330	38	3	.31	30
31...	1230	32	3	.26	36

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/15	11 30	0000					7.4					
80/10/24	12 00	0000	2.12	30	7		12.0	1.0	9.6	88.9	10K	0.9
80/11/07	10 50	0000	2.14	32	17		5.0	1.0K	11.8	92.2	10K	0.5
80/11/18	13 00	0000	2.42	70			9.0					
80/12/10	11 50	0000	2.45	74			8.2					
80/12/15	12 30	0000	2.25	45	15		2.0	1.0K	13.1	94.9	10K	0.3
81/01/20	15 15	0000	2.50	39	15	7.25	0.2	2.0	13.4	91.8	10K	0.2
81/02/09	13 15	0000	2.38	50			0.2					
81/02/20	12 30	0000	2.85	170	17		6.0	1.0	12.1	96.8	10K	0.7
81/03/25	13 15	0000	2.38	64	13	6.60	7.0	1.0K	11.4	93.4	10K	0.4
81/04/23	13 00	0000	2.84	155	20	6.70	11.0	2.0	9.0	81.1	10K	0.4
81/05/08	11 00	0000	2.47	79			10.0					
81/05/28	12 00	0000	2.66	114		6.65	13.0	1.0K	9.9	93.4		0.5
81/06/23	11 45	0000	2.31	62			16.5					
81/06/26	11 40	0000	2.27	56		7.00	17.0	2.0	9.2	94.8		0.5
81/07/16	10 45	0000	2.18	37	17	6.90	18.0	2.0	8.5	89.5		0.6
81/08/04	09 30	0000	2.19	38	17	7.00	17.0	1.0K	9.0	92.8		0.5
81/08/18	11 30	0000	2.30	52			16.5					
81/08/31	12 30	0000	2.14	33								
81/09/17	09 30	0000	2.29	51		6.70	12.0	1.0K	9.2	85.2		0.5

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/15	11 30	0000	2									
80/10/24	12 00	0000	6	8	0.05K	0.050K	0.100K	0.050K	0.050K	10K	50K	50K
80/11/07	10 50	0000	6	7								
80/11/18	13 00	0000	3									
80/12/10	11 50	0000	6									
80/12/15	12 30	0000	1K	6	0.18	0.050K	0.100K	0.050K	0.050K	10K	50K	50K
81/01/20	15 15	0000	10	5								
81/02/09	13 15	0000	1K									
81/02/20	12 30	0000	3	3								
81/03/25	13 15	0000	2	4	0.12	0.050K	0.100K	0.050K	0.050K		50K	50K
81/04/23	13 00	0000	20	5	0.16	0.050K	0.100	0.050K	0.050K			
81/05/08	11 00	0000	1									
81/05/28	12 00	0000	30	4	0.16	0.050K	0.200	0.050K	0.050K			
81/06/23	11 45	0000	9									
81/06/26	11 40	0000	10	6	0.20	0.050K	0.100	0.050K	0.050K	10K	50K	50K
81/07/16	10 45	0000	82	6	0.18	0.050K	0.100	0.050K	0.050K			
81/08/04	09 30	0000	10	7	0.19	0.050K	0.100	0.050K	0.050K			
	13 45	0000	12									
81/08/18	11 30	0000	88									
81/08/31	12 30	0000	19									
81/09/17	09 30	0000	23	5	0.21	0.050K	0.100	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/24	12 00	0000	100K	40K	100K	100K	50.0K	0.5K	50K
80/12/15	12 30	0000	100K	40K	100K	100K	50.0K	0.5K	1400
81/03/25	13 15	0000	100K	40K	100	100K	50.0K	0.6	50K
81/06/26	11 40	0000	100K	40K	200	100K	50.0K	0.5K	50K
81/09/17	09 30	0000	100K	40K	100K	100K	50.0K	0.5K	50K

K Less than noted value.

03463300 SOUTH TOE RIVER NEAR CELO, NC

LOCATION.--Lat 35°49'53" (revised), long 82°11'04", Yancey County, Hydrologic Unit 06010108, on right bank on Secondary Road 1168, 800 ft (244 m) upstream from bridge on Secondary Road 1167, 0.3 mi (0.5 km) downstream from Whiteoak Creek, 1.9 mi (3.1 km) southeast of Celo, and at mile 20.1 (32.3 km).

DRAINAGE AREA.--43.3 mi² (112.1 km²), revised.

PERIOD OF RECORD.--July 1957 to current year.

REVISED RECORDS.--WSP 1910: 1958-59.

GAGE.--Water-stage recorder. Datum of gage is 2,658 ft (810.16 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--24 years, 150 ft³/s (4.248 m³/s), 47.04 in/yr (1,195 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,900 ft³/s (932 m³/s) Nov. 6, 1977, gage height, 17.41 ft (5.307 m), from outside floodmarks, from rating curve extended above 4,500 ft³/s (127 m³/s) on basis of slope-area measurement of peak flow; minimum, 14 ft³/s (0.40 m³/s) Dec. 26, 1958, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,920 ft³/s (54.4 m³/s) May 27, gage height, 3.28 ft (1.000 m), no peak above base of 2,800 ft³/s (79 m³/s); minimum, 15 ft³/s (0.42 m³/s) Aug. 27, gage height, 0.50 ft (0.152 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	62	83	72	45	150	289	76	220	60	49	25
2	60	59	81	63	227	130	221	74	228	236	75	52
3	50	55	79	63	85	120	184	72	228	118	61	45
4	45	53	70	55	100	117	170	67	250	85	48	46
5	60	49	66	55	95	189	241	66	214	69	44	34
6	65	46	63	60	70	157	176	66	187	66	77	167
7	54	45	60	55	60	129	148	100	196	61	69	106
8	48	43	58	55	56	115	137	83	163	59	50	65
9	44	42	57	48	55	106	139	69	143	53	46	49
10	40	39	79	45	164	102	134	70	129	50	43	41
11	38	37	61	45	674	93	126	270	117	55	39	36
12	34	36	55	35	202	86	116	124	111	65	37	33
13	33	35	53	40	191	85	113	101	106	50	37	31
14	32	35	50	45	128	86	107	89	100	45	35	30
15	33	50	48	44	110	79	103	109	92	44	34	30
16	32	54	47	40	103	92	94	89	86	47	34	100
17	32	66	46	40	105	80	124	82	82	73	35	48
18	32	99	44	42	243	79	131	84	84	49	35	36
19	48	61	43	40	323	76	114	95	80	52	34	32
20	35	54	42	40	500	71	209	177	76	46	35	30
21	32	50	42	40	340	70	147	165	70	42	32	27
22	30	47	50	39	280	76	120	118	66	37	29	26
23	30	55	41	39	460	88	117	102	76	36	27	24
24	32	326	44	35	290	79	130	95	64	40	26	24
25	189	132	42	35	240	88	107	86	61	47	23	23
26	81	97	40	37	190	102	99	92	58	42	22	23
27	59	141	40	43	170	127	93	1090	56	38	22	22
28	86	135	142	42	160	151	87	447	55	38	22	21
29	71	101	192	35	---	158	88	286	53	44	21	21
30	86	88	102	37	---	757	82	226	53	43	22	21
31	74	---	81	38	---	347	---	202	---	51	23	---
TOTAL	1670	2192	2001	1402	5666	4185	4146	4862	3504	1841	1186	1268
MEAN	53.9	73.1	64.5	45.2	202	135	138	157	117	59.4	38.3	42.3
MAX	189	326	192	72	674	757	289	1090	250	236	77	167
MIN	30	35	40	35	45	70	82	66	53	36	21	21
CFSM	1.25	1.69	1.49	1.04	4.67	3.12	3.19	3.63	2.70	1.37	.89	.98
IN.	1.43	1.88	1.72	1.20	4.87	3.60	3.56	4.18	3.01	1.58	1.02	1.09

CAL YR 1980 TOTAL 46912 MEAN 128 MAX 1400 MIN 29 CFSM 2.96 IN 40.30
WTR YR 1981 TOTAL 33923 MEAN 92.9 MAX 1090 MIN 21 CFSM 2.15 IN 29.14

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 (76 m) upstream from bridge on Secondary Road 1121, 300 ft (91 m) downstream from Cove Creek, 2.3 mi (3.7 km) southwest of Sugar Grove, and at mile 64.4 (103.6 km).

DRAINAGE AREA.--92.1 mi² (238.5 km²), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 2,607.84 ft (794.870 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for period Dec. 22 to Feb. 10, which are fair to poor. Sligh diurnal fluctuation at low flow caused by small mills above station.

AVERAGE DISCHARGE.--42 years, 177 ft³/s (5.013 m³/s), 26.10 in/yr (663 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,800 ft³/s (1,440 m³/s) Aug. 13, 1940, gage height, 29.6 ft (9.02 m), from profile based on floodmarks, from rating curve extended above 4,900 ft³/s (139 m³/s) on basis of slope-area measurement of peak flow; minimum, 6.5 ft³/s (0.18 m³/s) Jan. 1, 1954, gage height, 1.13 ft (0.344 m), result of freezeup; minimum daily, 13 ft³/s (0.37 m³/s) Sept. 19, 30, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 22.1 ft (6.736 m), from floodmarks on barn 0.25 mi (0.4 km) above station as witnessed by local resident, discharge, 28,000 ft³/s (793 m³/s), from rating curve extended above 4,900 ft³/s (139 m³/s) on basis of slope-area measurement at gage height 29.6 ft (9.022 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1745	*3350	94.9	*7.90	2.408

Minimum discharge, 9.2 ft³/s (0.26 m³/s) Jan. 4, gage height, 1.21 ft (0.369 m), result of freezeup; minimum daily, 19 ft³/s (0.54 m³/s) Aug. 29, Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	61	87	61	65	169	277	125	332	82	48	29
2	67	57	82	58	482	152	226	117	432	79	49	30
3	52	55	79	50	185	135	192	109	615	86	50	37
4	46	55	73	43	100	171	173	102	539	84	43	56
5	72	53	70	50	75	332	205	98	412	77	41	49
6	77	50	68	55	70	348	179	98	385	117	51	40
7	57	49	65	60	70	264	152	108	392	102	48	48
8	50	48	64	60	65	213	142	97	307	78	45	38
9	46	47	68	60	65	183	143	88	256	70	43	33
10	44	46	96	60	400	164	135	89	221	64	36	29
11	42	43	77	60	1330	150	126	424	183	68	35	28
12	38	42	71	60	449	137	121	201	165	76	33	26
13	36	43	68	60	283	128	117	155	209	68	31	25
14	36	43	65	55	201	125	118	137	202	57	29	24
15	36	55	63	55	168	113	141	154	157	52	29	29
16	36	61	64	52	153	154	114	130	144	89	31	123
17	36	59	62	55	164	137	122	118	132	86	33	58
18	43	79	59	55	229	127	144	116	125	60	31	41
19	99	61	59	54	313	120	143	152	123	65	28	35
20	53	54	55	52	561	115	570	298	119	60	28	32
21	46	52	53	59	413	110	426	410	111	55	25	30
22	44	50	55	57	299	115	283	268	103	50	24	29
23	42	53	61	54	522	128	243	210	105	46	23	27
24	41	188	62	50	424	142	256	175	95	46	23	25
25	205	130	61	71	310	172	206	153	90	58	22	24
26	123	90	60	63	246	192	180	148	88	46	20	23
27	79	133	60	61	204	191	162	1630	82	42	20	23
28	76	157	60	58	178	186	149	1180	80	41	20	21
29	68	118	69	51	---	169	144	690	77	86	19	19
30	73	97	74	51	---	391	135	478	78	58	20	19
31	67	---	66	50	---	352	---	371	---	49	23	---
TOTAL	1925	2129	2076	1740	8024	5585	5724	8629	6359	2097	1001	1050
MEAN	62.1	71.0	67.0	56.1	287	180	191	278	212	67.6	32.3	35.0
MAX	205	188	96	71	1330	391	570	1630	615	117	51	123
MIN	36	42	53	43	65	110	114	88	77	41	19	19
CFSM	.67	.77	.73	.61	3.12	1.95	2.07	3.02	2.30	.73	.35	.38
IN.	.78	.86	.84	.70	3.24	2.26	2.31	3.49	2.57	.85	.40	.42

CAL YR 1980 TOTAL 62874 MEAN 172 MAX 3240 MIN 31 CFSM 1.87 IN 25.40
WTR YR 1981 TOTAL 46339 MEAN 127 MAX 1630 MIN 19 CFSM 1.38 IN 18.72

03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/07	14 15	0000	1.67	57	70		15.0	3.0	9.9	97.1	10K	1.0
80/11/12	13 15	0000	1.55	42	62		7.0		11.0	90.2	10K	0.4
80/12/08	15 00	0000	1.70	64	68	8.10	7.0	3.0	10.5	86.1	10K	0.8
81/01/05	15 00	0000	1.70	61	77		0.5	2.0	15.0	105.6	10K	0.8
81/02/25	13 00	0000	2.73	303	54		6.0	2.0	12.0	96.0	10K	0.6
81/03/30	13 45	0000	3.70	665	47	6.80	11.0	80.0	10.4	93.7	40	2.3
81/04/30	14 30	0000	2.08	135	66	7.70	17.0	2.0	10.3	106.2	10K	1.7
81/05/14	13 00	0000	2.10	140		7.70	18.0	3.0	10.4	109.5		0.7
81/06/23	10 40	0000	1.96	110		7.40	22.0	6.0	8.7	98.9		1.0
81/07/08	09 15	0000	1.79	78	72	7.70	21.0	6.0	7.8	86.7		1.0
81/08/06	09 40	0000	1.57	46	75		22.0	20.0	7.1	80.7		1.5
81/09/08	09 30	0000	1.49	39		7.30	19.0	3.0	7.8	83.0		0.6

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/07	14 15	0000	30	24	0.53	0.050K	0.200	0.050K	0.050K	10K	50K	50K
80/11/12	13 15	0000	10	23								
80/12/08	15 00	0000	10K	21	0.64	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/01/05	15 00	0000	30	29								
81/02/25	13 00	0000	10	12	1.10	0.050K	0.200	0.050K	0.050K			
81/03/30	13 45	0000	4000	12	0.69	0.050K	0.600	0.170	0.050K		50K	50K
81/04/30	14 30	0000	60	18	0.71	0.050K	0.300	0.050K	0.050K			
81/05/14	13 00	0000		18	0.54	0.050K	0.200	0.050K	0.050K			
81/06/23	10 40	0000	90	15	0.32	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/07/08	09 15	0000	970	25	0.59	0.050K	0.200	0.050	0.050K			
81/08/06	09 40	0000	1800	26	0.33	0.050K	0.300	0.070	0.050			
81/09/08	09 30	0000	250	26	0.25	0.050K	0.200	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/07	14 15	0000	100K	40K	400	200	50.0K	0.5K	50K
80/12/08	15 00	0000	100K	60	700	100K	80.0	0.5K	50K
81/03/30	13 45	0000	100K	40K	1600	100K	120.0	0.5K	50K
81/06/23	10 40	0000	100K	40K	300	100K	50.0K	0.6	50K
81/09/08	09 30	0000	100K	40K	500	100K	70.0	0.5K	50K

K Less than noted value.

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC

LOCATION (REVISED).--Lat 35°08'59", long 83°22'47", Macon County, Hydrologic Unit 06010202, on left bank 600 ft (183 m) upstream from Owenby Branch, 0.5 mi (0.8 km) upstream from Cartoogechaye Creek, 2 mi (3 km) north of Prentiss, and at mile 119.5 (192.3 km).

DRAINAGE AREA.--140 mi² (363 km²).

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 (612.157 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Since Oct. 1, 1954, auxiliary water-stage recorder 0.5 mi (0.8 km) downstream from base gage at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--38 years, 396 ft³/s (11.21 m³/s), 38.41 in/yr (976 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s (346 m³/s) Oct. 4, 1964, gage height, 17.30 ft (5.273 m); minimum, 65 ft³/s (1.84 m³/s) Oct. 16, 17, 1954, gage height, 1.21 ft (0.369 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1898 reached a stage of about 15 ft (4.6 m), from profiles by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	2200	*1900	53.8	*5.20	1.585

Minimum discharge, 77 ft³/s (2.18 m³/s) Jan. 11, gage height, 1.28 ft (0.390m), result of freezeup; minimum daily, 80 ft³/s (2.27 m³/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	175	202	130	134	270	410	187	428	289	128	85
2	248	163	189	126	454	255	355	182	620	225	179	99
3	196	155	179	123	260	239	311	177	1040	310	166	87
4	169	154	169	127	194	259	292	172	835	235	127	199
5	163	154	164	117	172	420	391	168	736	210	119	178
6	156	143	160	136	166	321	364	168	601	209	124	297
7	146	140	157	130	155	291	313	191	517	191	127	311
8	140	140	154	119	155	272	292	175	479	180	119	186
9	136	138	159	122	146	257	286	165	423	168	115	140
10	135	134	209	118	282	238	280	168	383	161	107	120
11	134	129	175	105	1240	230	260	300	374	162	113	111
12	126	128	163	97	566	222	247	203	342	162	112	105
13	123	125	159	100	392	214	237	180	339	173	110	102
14	122	124	160	100	325	210	227	171	316	150	106	97
15	124	158	153	100	288	200	240	219	290	141	102	101
16	123	194	152	105	261	207	218	185	276	155	100	158
17	124	157	147	105	263	196	226	173	261	163	100	119
18	130	203	142	110	567	193	261	171	250	145	98	104
19	212	168	141	115	754	193	243	198	241	142	99	98
20	152	155	138	114	550	182	232	232	233	136	100	96
21	133	148	135	163	441	179	234	219	236	128	96	93
22	129	142	132	140	388	197	214	183	218	120	95	91
23	125	157	134	128	445	219	229	170	207	117	91	90
24	127	332	143	123	379	195	309	162	197	116	89	88
25	168	270	153	121	338	182	244	156	195	127	85	87
26	153	212	131	120	315	176	225	192	191	119	83	86
27	134	335	129	123	295	172	214	1470	182	141	82	85
28	228	340	131	124	280	168	203	1250	177	120	81	83
29	199	258	132	118	---	166	200	643	175	116	81	80
30	205	222	135	123	---	768	199	498	172	116	83	81
31	207	---	135	129	---	560	---	405	---	110	83	---
TOTAL	5025	5453	4762	3711	10205	7851	7956	9133	10934	5037	3300	3657
MEAN	162	182	154	120	364	253	265	295	364	162	106	122
MAX	358	340	209	163	1240	768	410	1470	1040	310	179	311
MIN	122	124	129	97	134	166	199	156	172	110	81	80
CFSM	1.16	1.30	1.10	.86	2.60	1.81	1.89	2.11	2.60	1.16	.76	.87
IN.	1.34	1.45	1.27	.99	2.71	2.09	2.11	2.43	2.91	1.34	.88	.97

CAL YR 1980 TOTAL 147910 MEAN 404 MAX 2740 MIN 101 CFSM 2.89 IN 39.30
WTR YR 1981 TOTAL 77024 MEAN 211 MAX 1470 MIN 80 CFSM 1.51 IN 20.47

03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC

LOCATION.--Lat 35°09'31", long 83°23'40" (revised), Macon County, Hydrologic Unit 06010202, on downstream side of center pier of bridge on Secondary Road 1152, 0.1 mi (0.2 km) downstream from unnamed creek, 1.8 mi (2.9 km) south of Franklin, and 1.9 mi (3.1 km) upstream from mouth.

DRAINAGE AREA.--57.1 mi² (147.9 km²).

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 (614.836 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--20 years, 147 ft³/s (4.163 m³/s), 34.96 in/yr (888 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,720 ft³/s (134 m³/s) Oct. 4, 1964, gage height, 12.96 ft (3.950 m); minimum, 23 ft³/s (0.65 m³/s) Aug. 29, Sept. 30, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1949 reached a stage of 15.6 ft (4.755 m), from studies by Tennessee Valley Authority, discharge, about 7,000 ft³/s (198 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1045	*1070	30.3	*6.28	1.914

Minimum daily discharge, 25 ft³/s (0.71 m³/s) Aug. 29; minimum gage height, 1.10 ft (0.335 m) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	64	81	57	67	98	190	90	153	65	44	28
2	90	60	75	55	184	92	154	88	146	65	62	32
3	76	57	71	54	108	88	137	85	196	70	53	31
4	68	63	66	53	84	116	127	83	208	64	43	61
5	69	58	64	55	77	187	175	81	190	65	42	57
6	64	54	63	57	71	144	149	84	160	72	62	51
7	61	52	62	58	68	126	137	94	148	62	58	82
8	58	51	60	56	70	115	129	83	139	59	50	56
9	57	51	65	53	64	107	137	78	120	54	44	45
10	55	49	122	52	265	101	129	80	111	52	40	40
11	54	47	90	50	596	97	121	107	112	52	40	37
12	51	47	81	50	248	93	117	83	103	84	40	34
13	50	45	75	52	168	91	113	78	106	70	37	34
14	49	46	70	55	136	89	110	74	96	54	36	33
15	50	103	67	54	118	85	112	91	89	50	35	35
16	50	90	66	49	107	98	103	79	85	53	34	65
17	49	72	63	51	114	89	116	76	80	58	36	40
18	54	101	61	50	195	87	125	75	77	53	34	35
19	98	81	61	49	229	84	114	106	75	60	36	33
20	60	72	60	51	198	81	119	110	73	51	36	32
21	55	65	58	73	164	80	111	92	74	47	33	31
22	53	61	57	59	144	105	107	81	70	44	33	31
23	51	71	58	54	148	112	117	76	68	42	31	31
24	51	131	71	52	127	98	133	73	65	43	31	30
25	79	101	69	50	116	92	114	70	63	43	28	29
26	61	85	60	50	109	88	109	83	62	42	26	29
27	55	166	59	62	103	87	104	654	59	48	27	28
28	131	136	59	60	99	85	99	384	58	51	26	28
29	84	106	60	54	---	84	99	221	57	44	25	28
30	81	90	60	69	---	359	96	164	57	41	28	26
31	71	---	58	67	---	241	---	143	---	37	30	---
TOTAL	2057	2275	2092	1711	4177	3499	3703	3766	3099	1695	1180	1152
MEAN	66.4	75.8	67.5	55.2	149	113	123	121	103	54.7	38.1	38.4
MAX	131	166	122	73	596	359	190	654	208	84	62	82
MIN	49	45	57	49	64	80	96	70	57	37	25	26
CFSM	1.16	1.33	1.18	.97	2.61	1.98	2.15	2.12	1.80	.96	.67	.67
IN.	1.34	1.48	1.36	1.11	2.72	2.28	2.41	2.45	2.02	1.10	.77	.75

CAL YR 1980 TOTAL 55799 MEAN 152 MAX 1570 MIN 45 CFSM 2.66 IN 36.35
WTR YR 1981 TOTAL 30406 MEAN 83.3 MAX 654 MIN 25 CFSM 1.46 IN 19.81

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC

LOCATION.--Lat 35°20'11", long 83°31'37" (revised), Swain County, Hydrologic Unit 06010202, on left bank on Secondary Road 1113, 0.8 mi (1.3 km) downstream from DeHart Creek, 0.8 mi (1.3 km) north of Needmore, 2.4 mi (3.9 km) downstream from Brush Creek, 6.3 mi (10.1 km) downstream from Tellico Creek and at mile 92.9 (149.5 km).

DRAINAGE AREA.--436 mi² (1,129 km²).

PERIOD OF RECORD.--October 1943 to December 1981 (discontinued). Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,761.19 ft (536.811 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Records good. Considerable diurnal fluctuation caused by Porters Bend powerplant at Lake Emory 20 mi (32 km) upstream.

AVERAGE DISCHARGE.--38 years, 1,073 ft³/s (30.39 m³/s), 33.42 in/yr (849 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft³/s (626 m³/s) Oct. 5, 1964, gage height, 12.87 ft (3.923 m) in gage well, 13.06 ft (3.981 m) from outside gage; minimum, 52 ft³/s (1.47 m³/s) Nov. 7, 8, 1954, gage height, 1.16 ft (0.354 m); minimum daily, 71 ft³/s (2.01 m³/s) Nov. 7, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of October 1898 and Aug. 30, 1940, reached stages of about 13 ft (4.0 m) and 11.5 ft (3.5 m), respectively, from flood profiles by Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--Water year 1981: Peak discharges above base of 5,000 ft³/s (140 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1700	*5750	163	*6.00	1.829

Minimum discharge, 135 ft³/s (3.82 m³/s) Sept. 29, gage height, 1.40 ft (0.427 m); minimum daily, 163 ft³/s (4.62 m³/s) Sept. 29.

October to December 1981: Maximum discharge during period, 3,600 ft³/s (102 m³/s) Dec. 31, gage height, 4.87 ft (1.484 m); minimum, 147 ft³/s (4.16 m³/s) Oct. 13, gage height, 1.44 ft (0.439 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	922	422	544	365	409	665	1250	566	1090	620	292	248
2	622	373	499	347	1110	651	1030	533	1160	570	362	250
3	511	417	475	370	850	624	890	524	2040	597	461	252
4	453	393	457	368	537	630	807	516	1890	606	346	427
5	431	384	444	341	770	1060	975	501	1800	508	332	483
6	430	341	414	247	309	874	1060	491	1410	535	350	500
7	400	356	414	392	484	802	897	544	1250	478	447	812
8	392	325	402	359	446	722	810	520	1150	447	365	545
9	365	319	426	352	466	659	820	474	988	437	337	400
10	368	360	588	336	675	669	841	473	921	405	311	332
11	349	312	511	299	4000	605	746	736	864	421	297	306
12	341	323	456	305	1820	609	723	699	799	417	294	278
13	335	302	436	310	1170	587	751	481	801	474	284	284
14	318	309	418	310	940	605	705	491	829	398	279	271
15	327	422	422	310	816	560	737	584	723	371	269	278
16	326	535	402	305	746	593	712	547	652	370	274	388
17	309	446	405	305	711	592	624	502	632	415	274	375
18	342	525	382	297	1230	549	734	468	615	379	276	292
19	469	510	387	381	1840	534	716	595	582	387	267	277
20	443	413	366	363	1490	526	715	720	591	376	259	271
21	340	404	368	403	1170	508	693	748	566	575	282	311
22	354	373	360	399	982	578	654	577	541	195	274	201
23	309	409	365	386	1070	661	672	519	540	249	241	259
24	318	747	383	350	927	583	835	493	483	305	239	243
25	387	772	422	344	853	564	722	469	494	397	282	264
26	434	570	364	332	778	545	659	456	504	349	193	252
27	392	801	358	372	746	523	639	3580	454	345	241	242
28	538	983	365	380	701	524	602	3890	450	341	230	239
29	571	693	373	399	---	507	643	1880	426	342	219	163
30	471	585	370	365	---	1890	552	1320	442	314	221	211
31	495	---	375	415	---	1980	---	1090	---	306	222	---
TOTAL	13062	14124	12951	10807	28046	21979	23214	25987	25687	12929	9020	9654
MEAN	421	471	418	349	1002	709	774	838	856	417	291	322
MAX	922	983	588	415	4000	1980	1250	3890	2040	620	461	812
MIN	309	302	358	247	309	507	552	456	426	195	193	163
CFSM	.97	1.08	.96	.80	2.30	1.63	1.78	1.92	1.96	.96	.67	.74
IN.	1.11	1.21	1.10	.92	2.39	1.88	1.98	2.22	2.19	1.10	.77	.82

CAL YR 1980 TOTAL 394461 MEAN 1078 MAX 10100 MIN 233 CFSM 2.47 IN 33.66
WTR YR 1981 TOTAL 207460 MEAN 568 MAX 4000 MIN 163 CFSM 1.30 IN 17.70

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249	309	1050									
2	221	316	1100									
3	211	295	692									
4	227	287	569									
5	233	321	506									
6	237	362	456									
7	226	319	424									
8	225	287	409									
9	221	279	379									
10	211	280	360									
11	263	272	355									
12	267	277	360									
13	236	266	364									
14	229	267	450									
15	224	265	636									
16	236	270	643									
17	252	316	544									
18	221	297	514									
19	267	277	455									
20	244	321	450									
21	236	404	423									
22	246	302	542									
23	260	285	809									
24	339	345	1050									
25	284	399	1470									
26	530	350	1460									
27	946	379	1010									
28	582	623	833									
29	437	478	717									
30	368	450	648									
31	329	---	1200									
TOTAL	9257	9898	20878									
MEAN	299	330	673									
MAX	946	623	1470									
MIN	211	265	355									
CFSM	.69	.76	1.54									
IN.	.79	.84	1.78									

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC

LOCATION (REVISED).--Lat 35°07'37", long 83°37'09", Macon County, Hydrologic Unit 06010202, on right bank on Nantahala Forest Service Road 437, 300 ft (91 m) upstream from Roaring Fork, 0.2 mi (0.3 km) downstream from Buck Creek, 5 mi (8 km) downstream from town of Rainbow Springs, and at mile 34.3 (55.2 km).

DRAINAGE AREA.--51.9 mi² (134.4 km²).

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 (936.641 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional slight diurnal fluctuation at low flow caused by small ponds on tributaries above station.

AVERAGE DISCHARGE.--41 years, 205 ft³/s (5.806 m³/s), 53.64 in/yr (1,362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,300 ft³/s (178 m³/s) June 16, 1949, gage height, 9.70 ft (2.957 m), from rating curve extended above 3,000 ft³/s (85.0 m³/s) on basis of slope-area measurement of peak flow; minimum, 33 ft³/s (0.93 m³/s) Nov. 18, 19, 1953, gage height, 0.60 ft (0.183 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	0745	*1960	55.5	*4.60	1.402

Minimum discharge, 41 ft³/s (1.16 m³/s) Aug. 29, gage height, 0.66 ft (0.201 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	88	115	85	92	173	235	147	336	131	83	54
2	91	84	109	82	250	162	203	142	352	125	118	51
3	77	80	101	83	119	151	185	138	405	132	90	53
4	68	95	97	79	110	196	176	135	442	113	76	94
5	67	83	94	76	105	263	274	131	387	127	76	72
6	63	78	91	85	100	203	209	141	344	126	87	173
7	60	76	89	95	100	185	191	144	324	108	77	184
8	57	75	85	90	108	173	185	128	291	101	76	92
9	57	74	154	85	106	165	209	122	261	97	67	70
10	55	71	242	85	320	159	184	123	248	94	62	61
11	54	70	142	82	588	157	173	175	247	95	63	56
12	51	69	127	80	304	149	167	130	220	99	61	53
13	49	68	118	85	229	144	160	121	210	96	60	51
14	49	68	109	90	194	141	160	118	198	88	57	51
15	51	177	104	95	173	136	162	162	184	85	55	74
16	51	113	102	95	165	151	148	125	176	90	55	159
17	51	103	96	90	216	134	181	121	169	98	57	73
18	75	161	93	90	374	134	220	118	159	91	54	63
19	146	115	92	90	374	129	183	177	157	85	56	59
20	70	104	88	90	311	121	195	162	154	81	54	56
21	63	97	86	90	263	119	177	143	155	77	53	53
22	61	89	87	87	239	136	169	129	143	71	51	51
23	59	111	85	68	256	138	208	122	138	70	49	51
24	58	176	162	74	216	131	220	117	134	69	48	49
25	103	125	115	68	200	124	185	112	137	82	46	48
26	73	114	100	68	188	121	175	127	126	88	45	47
27	67	198	95	97	179	117	169	993	120	141	45	47
28	167	149	94	83	171	112	162	538	118	95	43	47
29	100	131	93	74	---	110	164	367	114	84	43	46
30	115	121	92	93	---	467	155	299	111	91	46	46
31	97	---	88	81	---	239	---	310	---	73	49	---
TOTAL	2324	3163	3345	2615	6050	5040	5584	6017	6560	3003	1902	2084
MEAN	75.0	105	108	84.4	216	163	186	194	219	96.9	61.4	69.5
MAX	167	198	242	97	588	467	274	993	442	141	118	184
MIN	49	68	85	68	92	110	148	112	111	69	43	46
CFSM	1.45	2.02	2.08	1.63	4.16	3.14	3.58	3.74	4.22	1.87	1.18	1.34
IN.	1.67	2.27	2.40	1.87	4.34	3.61	4.00	4.31	4.70	2.15	1.36	1.49

CAL YR 1980 TOTAL 71581 MEAN 196 MAX 1660 MIN 43 CFSM 3.78 IN 51.31
WTR YR 1981 TOTAL 47687 MEAN 131 MAX 993 MIN 43 CFSM 2.52 IN 34.18

03505500 NANTAHALA RIVER AT NANTAHALA, NC

LOCATION.--Lat 35°17'55", long 83°39'21" (revised), Swain County, Hydrologic Unit 06010202, on left bank on U.S. Highway 19, 1.0 mi (1.6 km) northeast of Nantahala, 2.3 mi (3.7 km) downstream from Rowlin Creek, 2.8 mi (4.5 km) downstream from Nantahala Dam powerhouse, and at mile 10.8 (17.4 km).

DRAINAGE AREA.--144 mi² (373 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1942 to December 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,894.68 ft (577.498 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Water-discharge records good. Flow regulated by Nantahala Lake 12 mi (19 km) upstream (see p. 411) and Queens Creek Lake, capacity, about 300 ft³/s-day (734,000 m³).

AVERAGE DISCHARGE.--39 years, 498 ft³/s (14.10 m³/s), 46.96 in/yr (1,193 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,740 ft³/s (219 m³/s) Mar. 30, 1975, gage height, 8.32 ft (2.536 m); minimum, 8.5 ft³/s (0.24 m³/s) Jan. 5, 11, 1981, result of freezeup; minimum gage height, 1.19 ft (0.363 m) Nov. 9, 1953; minimum daily discharge, 17 ft³/s (0.48 m³/s) Nov. 8, 16, 1952, Oct. 25, 1953, Aug. 3, 1975.

EXTREMES FOR CURRENT PERIOD.--Water year 1981: Maximum discharge, 1,320 ft³/s (37.4 m³/s) Mar. 30, gage height, 4.07 ft (1.241 m); minimum, 8.5 ft³/s (0.24 m³/s) Jan. 5, 11, gage height, 1.25 ft (0.381 m), result of freezeup; minimum daily, 25 ft³/s (0.71 m³/s) Jan. 18.

October to December 1981: Maximum discharge during period, 987 ft³/s (28.0 m³/s) Dec. 31, gage height, 3.71 ft (1.131 m) Dec. 31; minimum, 25 ft³/s (0.71 m³/s) Oct. 5, Dec. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	463	368	375	49	57	206	217	482	427	296	375
2	64	338	459	262	560	208	209	64	507	315	154	356
3	57	434	567	220	582	195	169	62	567	258	360	390
4	46	501	417	175	546	65	82	190	637	186	399	414
5	53	487	425	355	519	180	130	218	606	175	420	292
6	54	489	172	427	418	252	229	288	498	416	381	329
7	49	483	54	400	215	283	198	215	437	412	222	309
8	48	326	176	410	46	100	196	199	503	419	188	445
9	48	171	214	416	147	342	160	56	568	395	160	414
10	47	409	521	161	234	296	282	54	509	425	374	413
11	42	404	472	38	805	59	78	473	491	333	385	336
12	40	433	345	464	631	57	74	456	510	329	429	194
13	44	390	148	440	514	55	292	459	488	453	414	148
14	42	397	170	438	240	55	248	463	343	409	418	396
15	42	230	425	431	75	52	211	343	472	382	373	395
16	44	155	440	426	247	246	199	313	459	403	169	416
17	43	450	361	353	289	280	212	56	457	417	375	398
18	48	590	191	25	114	324	86	437	372	422	424	400
19	83	635	432	413	123	360	79	485	367	191	434	198
20	51	627	592	423	117	255	323	499	441	384	335	151
21	48	401	513	402	91	54	227	455	358	416	283	415
22	47	261	493	415	82	64	205	419	440	383	188	402
23	206	44	422	397	456	253	237	256	489	390	143	390
24	444	466	362	180	326	217	277	51	508	347	372	388
25	280	513	399	32	335	54	94	249	478	249	394	386
26	250	482	386	32	328	53	85	235	435	147	417	181
27	427	243	229	322	208	52	392	568	385	397	403	148
28	465	438	34	334	58	45	351	526	244	405	378	382
29	476	364	389	333	---	45	291	507	413	405	235	199
30	536	39	328	466	---	427	246	356	423	394	258	422
31	527	---	395	44	---	205	---	101	---	394	418	---
TOTAL	4733	11663	10899	9609	8355	5190	6068	9270	13887	11078	10199	10082
MEAN	153	389	352	310	298	167	202	299	463	357	329	336
MAX	536	635	592	466	805	427	392	568	637	453	434	445
MIN	40	39	34	25	46	45	74	51	244	147	143	148
(†)	+391.2	-4596.7	-3347.2	-3948.0	+5067.4	+6511.6	+7798.4	+4493.6	+323.1	-4200.0	-5102.2	-4293.4
MEAN‡	165	236	244	183	479	377	462	444	474	222	164	193
CFSM‡	1.15	1.64	1.69	1.27	3.33	2.62	3.21	3.08	3.29	1.54	1.14	1.34
IN.‡	1.32	1.82	1.95	1.46	3.47	3.02	3.58	3.55	3.67	1.78	1.32	1.49

CAL YR 1980 TOTAL 189412 MEAN 518 MAX 3970 MIN 32 MEAN‡ 478 CFSM‡ 3.32 IN.‡ 45.17
WTR YR 1981 TOTAL 111033 MEAN 304 MAX 805 MIN 25 MEAN‡ 302 CFSM‡ 2.10 IN.‡ 28.43

† Change in contents, in cfs-days, in Nantahala and Queens Creek Lakes; furnished by Tennessee Valley Authority and Nantahala Power and Light Co.
‡ Adjusted for change in contents in Nantahala and Queens Creek Lakes.

03505500 NANTAHALA RIVER AT NANTAHALA, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	51	248									
2	418	245	379									
3	259	428	374									
4	143	414	354									
5	45	447	178									
6	84	409	73									
7	54	179	330									
8	45	33	374									
9	44	402	323									
10	45	401	410									
11	43	385	347									
12	45	393	248									
13	44	400	42									
14	44	177	429									
15	44	29	400									
16	44	315	477									
17	40	273	461									
18	61	293	515									
19	54	184	320									
20	46	349	258									
21	45	235	420									
22	41	35	455									
23	81	317	531									
24	56	289	558									
25	50	283	196									
26	132	193	171									
27	97	231	155									
28	74	245	442									
29	65	65	524									
30	61	318	526									
31	53	---	613									
TOTAL	2760	8018	11131									
MEAN	89.0	267	359									
MAX	418	447	613									
MIN	40	29	42									
(†)	+1901.1	-1945.6	+2087.9									
MEAN‡	150	201	426									
CFSM‡	1.04	1.40	2.96									
IN‡	1.20	1.56	3.41									

CAL YR 1981 TOTAL 105647 MEAN 289 MAX 805 MIN 25

† Change in contents, in cfs-days, in Nantahala and Queens Creek Lakes; furnished by Tennessee Valley Authority and Nantahala Power and Light Co.

‡ Adjusted for change in contents in Nantahala and Queens Creek Lakes.

TENNESSEE RIVER BASIN

03505500 NANTAHALA RIVER AT NANTAHALA, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/31	09 10	0000	3.22	630	9	7.20	11.0	1.0	10.2	91.9	10K	0.2
80/11/24	11 50	0000	3.32	693	12		11.0	2.0	10.2	91.9	10K	0.4
80/12/11	11 00	0000	3.25	649	13	6.50	8.0	2.0	9.7	81.5	10K	0.4
81/01/28	13 30	0000	3.22	630	28		5.0	2.0	12.0	93.7	10K	0.9
81/02/26	11 00	0000	3.25	649	16		3.0	2.0	11.2	83.0	10K	0.3
81/03/12	11 30	0000	1.73	63	24	6.90	5.0	1.0K	12.6	98.4	10K	0.9
81/04/29	14 30	0000	3.26	655	29	7.20	15.0	4.0	10.8	105.9	10K	0.9
81/05/10	10 30	0000	3.26	655		6.60	11.0	4.0	10.1	91.0		0.7
81/06/17	17 30	0000	3.25	649		7.30	12.0	2.0	10.4	96.3		0.9
81/07/15	10 30	0000	1.55	38	31		15.0	1.0	9.5	93.1		0.6
81/08/10	07 00	0000	1.48	30	36	6.90	16.0	1.0K	8.3	83.0		0.7
81/09/14	07 00	0000	1.48	30		7.00	14.0	1.0K	8.7	83.7		0.7

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/31	09 10	0000	10K	6	0.05K	0.050K	0.100	0.050K	0.050K	10K	50K	50K
80/11/24	11 50	0000	20	8								
80/12/11	11 00	0000	10K	6	0.05K	0.050K	0.100K	0.050K	0.050K	10K	50K	50K
81/01/28	13 30	0000	10K	6								
81/02/26	11 00	0000	10K	6								
81/03/12	11 30	0000	10K	10	0.05K	0.050K	0.100K	0.050K	0.050K		50K	50K
81/04/29	14 30	0000	10	10								
81/05/10	10 30	0000	60	8								
81/06/17	17 30	0000	10K	7	0.05K	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/07/15	10 30	0000	10K	5								
81/08/10	07 00	0000	20	15								
81/09/14	07 00	0000	40	16	0.05K	0.050K	0.100	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/31	09 10	0000	100K	40K	100	100K	60.0	0.5K	50K
80/12/11	11 00	0000	100K	40K	100	100K	50.0K	0.5K	50K
81/03/12	11 30	0000	100K	40K	100K	100K	50.0K	0.5K	50K
81/06/17	17 30	0000	100K	40K	100	100K	50.0K	0.5K	50K
81/09/14	07 00	0000	100K	40K	100	100K	50.0K	0.5K	50K

K Less than noted value.

03510500 TUCKASEGEE RIVER AT DILLSBORO, NC

LOCATION (REVISED).--Lat 35°22'00", long 83°15'37", Jackson County, Hydrologic Unit 06010203, on left bank on Secondary Road 1377, 0.4 mi (0.6 km) downstream from Scott Creek, 0.5 mi (0.8 km) downstream from bridge on U.S. Highway 23 at Dillsboro, and at mile 31.1 (50.0 km).

DRAINAGE AREA.--347 mi² (899 km²).

PERIOD OF RECORD.--June 1928 to December 31, 1981 (discontinued). Prior to October 1933 monthly discharge only, published in WSP 1306; figures of daily discharge published in WSP 663, 683, 698, 713, 728, 743, are unreliable.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1940(M). WSP 1306: 1929-33. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,950.15 ft (594.406 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to May 24, 1934, nonrecording gage at site below Scott Creek 0.4 mi (0.6 km) upstream at datum 7.27 ft (2.216 m) higher.

REMARKS.--Records good. Considerable diurnal fluctuation caused by Dillsboro powerplant 0.7 mi (1.1 km) above station. Flow partly regulated by Thorpe Reservoir 28 mi (45 km) upstream (see p. 411), and by Cedar Cliff Lake, Bear Creek Lake, and Tennessee Creek project lakes (see p. 413).

AVERAGE DISCHARGE.--53 years, 796 ft³/s (22.54 m³/s), 31.15 in/yr (791 mm/yr) unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,600 ft³/s (1,490 m³/s) Aug. 30, 1940, gage height, 21.96 ft (6.693 m), from floodmarks, from rating curve extended above 8,400 ft³/s (238 m³/s) on basis of slope-area measurements and computation of peak flow over dam; minimum, 35 ft³/s (0.99 m³/s) Sept. 17, 1953, gage height, 1.60 ft (0.488 m); minimum daily, 107 ft³/s (3.03 m³/s) Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1840 was approximately equal to that of Aug. 30, 1940, from studies by Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--Water year 1981: Maximum discharge, 4,060 ft³/s (115 m³/s) May 27, gage height, 6.80 ft (2.073 m), no peak above base of 4,500 ft³/s (130 m³/s); minimum, 124 ft³/s (3.51 m³/s) Aug. 27, gage height, 2.03 ft (0.619 m); minimum daily, 149 ft³/s (4.22 m³/s) Aug. 27.

October to December 1981: Maximum discharge during period, 1,670 ft³/s (47.3 m³/s) Dec. 31, gage height, 4.69 ft (1.430 m); minimum, 103 ft³/s (2.92 m³/s) Oct. 30, gage height, 1.94 ft (0.591 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	398	251	426	355	244	321	1030	306	1050	700	331	280
2	296	222	533	422	1060	480	737	298	1020	551	319	262
3	288	280	604	245	946	515	514	398	1050	518	367	212
4	361	368	567	240	565	662	372	504	1090	353	364	277
5	310	344	544	450	486	775	737	496	984	350	368	307
6	720	321	449	494	419	585	514	459	921	618	512	400
7	491	310	301	492	350	404	403	452	872	498	558	856
8	359	233	351	449	296	353	389	392	878	554	359	311
9	356	208	540	436	350	561	397	283	784	549	295	227
10	355	200	759	407	815	688	424	282	753	514	393	207
11	307	339	537	324	2020	681	617	687	789	411	441	200
12	192	409	532	460	1310	709	356	753	767	401	554	275
13	351	301	376	458	995	820	351	495	647	639	612	276
14	333	278	291	373	566	361	371	562	825	565	680	246
15	342	329	512	289	577	288	337	416	592	489	522	488
16	387	306	596	287	689	630	315	458	622	495	307	478
17	397	393	505	337	588	436	352	283	544	514	396	538
18	317	668	395	318	798	461	384	794	452	421	423	517
19	376	417	242	229	972	627	346	884	539	311	276	366
20	281	371	334	363	927	442	560	734	407	341	206	240
21	346	345	394	416	447	292	549	716	425	551	184	241
22	342	358	388	357	556	308	456	645	503	499	187	322
23	354	359	442	348	993	490	589	505	828	619	187	308
24	514	638	523	305	948	480	813	379	474	215	181	305
25	570	754	826	245	630	421	431	331	653	466	176	304
26	350	546	675	192	741	435	359	512	545	511	167	298
27	296	726	344	357	729	504	345	2480	533	528	149	215
28	485	666	216	440	348	282	329	2080	324	465	168	328
29	372	621	381	412	---	264	325	1460	387	439	160	433
30	387	402	354	471	---	1060	329	1230	414	312	166	386
31	350	---	462	289	---	1100	---	1130	---	240	281	---
TOTAL	11583	11963	14399	11260	20365	16435	14031	21404	20672	14637	10289	10103
MEAN	374	399	464	363	727	530	468	690	689	472	332	337
MAX	720	754	826	494	2020	1100	1030	2480	1090	700	680	856
MIN	192	200	216	192	244	264	315	282	324	215	149	200

CAL YR 1980 TOTAL 299948 MEAN 820 MAX 5060 MIN 192
WTR YR 1981 TOTAL 177141 MEAN 485 MAX 2480 MIN 149

TENNESSEE RIVER BASIN

03510500 TUCKASEGEE RIVER AT DILLSBORO, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	246	941									
2	304	344	579									
3	262	462	549									
4	218	324	465									
5	301	377	316									
6	311	323	241									
7	325	297	412									
8	313	198	600									
9	323	285	556									
10	308	410	457									
11	254	397	388									
12	322	384	324									
13	337	369	292									
14	310	276	497									
15	317	183	694									
16	309	253	953									
17	284	319	512									
18	208	270	514									
19	197	263	411									
20	447	344	359									
21	335	287	428									
22	415	214	570									
23	423	213	630									
24	339	404	1020									
25	208	305	985									
26	691	237	614									
27	956	491	451									
28	455	475	528									
29	361	299	907									
30	325	535	910									
31	311	---	796									
TOTAL	10734	9784	17899									
MEAN	346	326	577									
MAX	956	535	1020									
MIN	197	183	241									

CAL YR 1981 TOTAL 177613 MEAN 487 MAX 2480 MIN 149

03512000 OCONALUFTEE RIVER AT BIRDTOWN, NC

LOCATION.--Lat 35°27'41" (revised), long 83°21'13", Swain County, Hydrologic Unit 06010203, in Cherokee Indian Reservation, on left bank 200 ft (61 m) upstream from bridge on Secondary Road 1359, 0.5 mi (0.8 km) south of Birdtown, 0.6 mi (1.0 km) downstream from Adams Creek, 0.6 mi (1.0 km) upstream from Goose Creek, 2.2 mi (3.5 km) southwest of Cherokee and at mile 3.1 (5.0 km).

DRAINAGE AREA.--184 mi² (477 km²).

PERIOD OF RECORD.--July 1945 to September 1946, July 1948 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,843.30 ft (561.838 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--34 years, 519 ft³/s (14.70 m³/s), 38.30 in/yr (973 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,900 ft³/s (450 m³/s) Dec. 30, 1969, gage height, 12.46 ft (3.798 m), from floodmarks; minimum, 80 ft³/s (2.27 m³/s) Oct. 19, 1954, gage height, 0.66 ft (0.201 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Nov. 19, 1906 and Mar. 27, 1913 reached stages of 18 ft (5.5 m) and 14.5 ft (4.42 m), respectively, discharge not determined, from studies by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (110 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 30	1000	*4660	132	*5.61	1.710

Minimum discharge, 87 ft³/s (2.46 m³/s) Jan. 5, gage height, 0.79 ft (0.241 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	201	307	183	198	465	808	491	588	449	239	230
2	215	191	284	175	1000	444	700	512	862	301	239	182
3	186	182	265	169	405	401	589	458	983	305	238	168
4	168	195	246	172	340	437	536	431	993	278	213	300
5	211	182	233	135	311	731	1320	409	847	271	206	259
6	198	168	223	140	294	662	866	406	827	378	338	410
7	166	163	213	150	259	537	714	405	1030	298	307	686
8	156	161	206	160	240	485	633	369	849	292	308	440
9	150	157	275	177	232	452	631	351	658	264	276	318
10	145	152	457	175	625	425	573	344	573	253	236	267
11	140	147	305	171	2470	402	530	404	552	258	221	242
12	132	143	269	175	1050	381	488	344	480	348	207	221
13	129	142	254	180	762	366	458	324	441	269	193	209
14	128	140	239	180	609	380	439	315	440	244	183	196
15	127	288	229	183	523	344	482	372	391	245	177	203
16	125	264	228	184	478	409	434	318	371	283	177	770
17	125	259	218	180	516	351	534	306	354	425	203	369
18	186	560	206	170	1190	348	618	310	338	900	221	297
19	842	344	203	160	1120	331	553	409	325	678	180	267
20	290	285	194	154	1020	319	1210	496	330	399	188	244
21	221	255	182	191	786	317	966	474	323	336	232	227
22	195	232	181	169	702	350	742	385	303	264	185	213
23	181	266	186	160	857	334	897	354	370	235	171	202
24	171	1050	241	150	711	323	1210	333	290	222	163	190
25	276	599	190	149	576	314	894	316	292	250	156	186
26	227	431	197	152	501	312	770	316	276	209	150	180
27	193	516	191	198	466	313	681	996	263	197	151	176
28	336	460	193	205	442	324	612	1190	256	260	150	170
29	266	379	204	166	---	350	599	880	252	525	144	163
30	240	335	205	186	---	1900	542	651	248	354	150	158
31	217	---	189	167	---	954	---	646	---	268	187	---
TOTAL	6596	8847	7213	5266	18683	14461	21029	14315	15105	10258	6389	8143
MEAN	213	295	233	170	667	466	701	462	504	331	206	271
MAX	842	1050	457	205	2470	1900	1320	1190	1030	900	338	770
MIN	125	140	181	135	198	312	434	306	248	197	144	158
CFSM	1.16	1.60	1.27	.92	3.63	2.53	3.81	2.51	2.74	1.80	1.12	1.47
IN.	1.33	1.79	1.46	1.06	3.78	2.92	4.25	2.89	3.05	2.07	1.29	1.65

CAL YR 1980 TOTAL 173730 MEAN 475 MAX 5340 MIN 113 CFSM 2.58 IN 35.12
WTR YR 1981 TOTAL 136305 MEAN 373 MAX 2470 MIN 125 CFSM 2.03 IN 27.56

03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC

LOCATION.--Lat 35°25'40", long 83°26'51" (revised), Swain County, Hydrologic Unit 06010203, on left bank 400 ft (122 m) downstream from bridge on Secondary Road 1364, Everett Street, in Bryson City, 0.6 mi (1.0 km) downstream from Deep Creek, and at mile 12.6 (20.3 km).

DRAINAGE AREA.--655 mi² (1,696 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1897 to December 1981 (discontinued). 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 (522.592 m) 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 (122 m) upstream at datum 2.00 ft (0.610 m) higher. Feb. 3, 1914, to May 17, 1920, water-stage recorder at site 200 ft (61 m) upstream at datum 2.00 ft (0.610 m) higher. June 28, 1927, to Sept. 30, 1960, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Water-discharge 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. 411,413), and two small reservoirs with combined capacity of 250 ft³/s-day (612,000 m³).

AVERAGE DISCHARGE.--84 years, 1,593 ft³/s (45.11 m³/s), 33.03 in/yr (839 mm/yr) unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,600 ft³/s (1,740 m³/s) Aug. 30, 1940, gage height, 15.96 ft (4.865 m), datum then in use, from rating curve extended above 28,000 ft³/s (793 m³/s) on basis of slope-area measurement of peak flow; minimum, 27 ft³/s (0.76 m³/s) Sept. 10, 1925, minimum gage height, 0.47 ft (0.143 m) Oct. 26, 1952, datum then in use; minimum daily discharge, 31 ft³/s (0.88 m³/s) Sept. 9, 10, 1925, caused by filling reservoir on Oconaluftee River; minimum daily during normal regulation, 186 ft³/s (5.27 m³/s) Oct. 13, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1840, Mar. 6, 1867, and June 1876 reached stages of 22 ft (6.7 m), 19 ft (5.8 m), and 19 ft (5.8 m), 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.

EXTREMES FOR CURRENT PERIOD.--Water year 1981: Maximum discharge, 8,040 ft³/s (228 m³/s) Feb. 11, gage height, 6.28 ft (1.914 m), no peak above base of 9,000 ft³/s (250 m³/s); minimum, 295 ft³/s (8.35 m³/s) Jan. 5, gage height, 1.39 ft (0.424 m), result of freezeup; minimum daily, 394 ft³/s (11.2 m³/s) Aug. 28.

October to December 1981: Maximum daily discharge during period, 2,760 ft³/s (78.2 m³/s) Dec. 1; minimum daily, 436 ft³/s (12.3 m³/s) Nov. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	908	644	792	771	506	1030	2360	1030	2090	1270	600	677
2	638	514	933	575	2370	1070	2030	1040	2480	1100	560	627
3	558	497	985	636	1680	1100	1330	958	2830	990	660	458
4	628	595	967	467	1060	1300	1290	1120	2990	869	660	797
5	616	644	867	470	914	1960	2500	1090	2590	740	680	641
6	810	578	894	776	847	1610	1930	1100	2450	1110	900	1120
7	901	563	672	795	776	1220	1480	1100	2590	957	1000	1980
8	651	548	539	670	690	1100	1310	957	2270	994	650	1060
9	582	450	964	714	599	1080	1320	882	1910	904	520	735
10	577	438	1510	702	1380	1330	1270	769	1860	936	700	616
11	552	422	1040	450	5880	1300	1370	1170	1670	878	800	529
12	408	640	940	607	3200	1380	1140	1380	1590	828	1000	516
13	420	552	778	712	2270	1300	1020	919	1480	891	1100	667
14	622	487	725	700	1700	1060	1020	1180	1530	1020	1200	519
15	536	752	704	552	1300	773	984	1030	1270	861	950	763
16	539	750	998	485	1520	1110	890	974	1160	857	550	1490
17	642	613	881	515	1340	1000	1040	770	1200	1080	740	952
18	625	1500	674	507	2550	885	1280	1100	983	1510	800	942
19	1510	904	639	477	2930	1150	1090	1750	1030	1270	736	951
20	701	810	554	550	2670	938	1940	1390	1040	850	550	581
21	685	710	675	672	1800	815	2130	1580	957	1060	614	542
22	643	706	652	602	1520	803	1470	1280	819	922	489	635
23	615	729	663	579	2260	866	1860	1240	1560	1020	471	603
24	605	1840	799	547	2040	965	2750	925	960	607	449	592
25	1100	1700	1210	462	1500	880	1970	848	1190	779	440	618
26	753	1160	980	422	1570	868	1530	868	841	816	426	662
27	534	1460	824	494	1500	1020	1370	4020	1120	936	416	611
28	984	1450	505	737	1150	809	1240	4550	718	850	394	525
29	789	1210	546	658	---	734	1200	3120	678	770	402	695
30	746	991	751	722	---	3540	1140	2510	860	560	401	660
31	700	---	624	671	---	2750	---	2300	---	450	439	---
TOTAL	21578	24857	25285	18697	49522	37746	45254	44950	46716	28685	20297	22764
MEAN	696	829	816	603	1769	1218	1508	1450	1557	925	655	759
MAX	1510	1840	1510	795	5880	3540	2750	4550	2990	1510	1200	1980
MIN	408	422	505	422	506	734	890	769	678	450	394	458

CAL YR 1980 TOTAL 575495 MEAN 1572 MAX 13800 MIN 408
WTR YR 1981 TOTAL 386351 MEAN 1058 MAX 5880 MIN 394

03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	514	584	2760									
2	567	517	2150									
3	595	772	1550									
4	478	730	1300									
5	500	684	1090									
6	541	686	842									
7	551	591	833									
8	523	520	1100									
9	540	444	1060									
10	573	674	880									
11	473	664	768									
12	451	641	750									
13	625	638	686									
14	522	588	949									
15	509	463	1390									
16	517	436	1640									
17	503	697	1150									
18	450	559	1020									
19	454	535	953									
20	535	649	785									
21	638	557	826									
22	559	459	1250									
23	727	605	1930									
24	792	566	2310									
25	500	722	2240									
26	1640	567	1950									
27	2200	1070	1500									
28	1090	1580	1340									
29	911	919	1720									
30	749	1030	1730									
31	682	---	1920									
TOTAL	20909	20147	42372									
MEAN	674	672	1367									
MAX	2200	1580	2760									
MIN	450	436	686									

CAL YR 1981 TOTAL 398059 MEAN 1091 MAX 5880 MIN 394

03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/31	08 10	0000	1.90	660	22	7.50	10.0	6.0	10.1	89.4	10K	0.6
80/11/24	11 15	0000	3.76	2990	20		9.0	20.0	10.0	86.2	15	1.2
80/12/11	10 30	0000	2.27	1010	28	6.50	6.0	7.0	10.2	81.6	10K	0.6
81/01/28	10 30	0000	1.83	600	28		2.5	4.0	12.2	90.4	10K	0.9
81/02/26	10 15	0000	2.80	1610	25		5.0	4.0	11.0	85.9	10K	0.8
81/03/12	10 30	0000	2.59	1360	20	6.90	6.0	2.0	12.0	96.0	10K	0.9
81/04/16	07 30	0000	2.17	909	29	7.20	14.0	3.0	9.5	91.3	10K	0.9
81/05/10	15 30	0000	2.52	1280		7.00	15.0	8.0	9.7	95.1		1.1
81/06/17	10 00	0000	2.40	1150		7.10	19.0	6.0	8.5	90.4		1.8
81/07/15	10 00	0000	2.17	909	26		22.0	10.0	7.9	89.8		0.5
81/08/10	06 15	0000		500	25	6.90	21.0	3.0	7.9	87.8		0.8
81/09/14	06 30	0000	1.68	484		6.80	18.0	5.0	8.1	85.3		1.1

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/31	08 10	0000	190	10	0.12	0.050K	0.200	0.050K	0.050K	10K	50K	50K
80/11/24	11 15	0000	1300	2								
80/12/11	10 30	0000	160	8	0.17	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/01/28	10 30	0000	140	8								
81/02/26	10 15	0000	130	6								
81/03/12	10 30	0000	10K	6	0.16	0.050K	0.100		0.050K		50K	50K
81/04/16	07 30	0000	110	7								
81/05/10	15 30	0000	450	8								
81/06/17	10 00	0000	680	7	0.13	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/07/15	10 00	0000	2000	8								
81/08/10	06 15	0000	560	8								
81/09/14	06 30	0000	430	10	0.16	0.050K	0.200	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/31	08 10	0000	100K	40K	600	100K	50.0	0.5K	50K
80/12/11	10 30	0000	100K	40K	300	100K	50.0K	0.5K	50K
81/03/12	10 30	0000	100K	40K	300	100K	50.0K	0.5K	50K
81/06/17	10 00	0000	100K	40K	500	100K	50.0K	0.5K	50K
81/09/14	06 30	0000	100K	40K	400	100K	50.0K	0.6	50K

K Less than noted value.

03548500 HIWASSEE RIVER ABOVE MURPHY, NC

LOCATION.--Lat 35°04'49" (revised), long 84°00'10", Cherokee County, Hydrologic Unit 06020002, on right bank on U.S. Highway 64, 600 ft (183 m) upstream from Will Scott Creek, 2.0 mi (3.2 km) southeast of Murphy, and at mile 99.1 (159.5 km).

DRAINAGE AREA.--406 mi² (1,052 km²).

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 (468.853 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to Jan. 30, 1921, nonrecording gage at bridge 2.8 mi (4.5 km) downstream at datum 30.40 ft (9.266 m) lower. Jan. 30, 1921, to Nov. 8, 1926, nonrecording gage 2.8 mi (4.5 km) downstream at datum 28.40 ft (8.656 m) lower. Nov. 9, 1926, to Apr. 30, 1940, water-stage recorder 2.8 mi (4.5 km) downstream at datum 28.20 ft (8.595 m) lower.

REMARKS.--Records good. Considerable diurnal fluctuation since 1924 caused by Mission powerplant at Andrews Dam 7 mi (11 km) upstream, normal regulated storage, about 75 ft³/s-day (184,000 m³). Flow regulated since 1942 by Chatuge Lake 22 mi (35 km) upstream (see p. 412).

AVERAGE DISCHARGE.--84 years (1897-1981), 922 ft³/s (26.11 m³/s), 30.84 in/yr (783 mm/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,100 ft³/s (654 m³/s) Mar. 19, 1899, gage height, 18.4 ft (5.61 m), from graph based on gage readings, site and datum then in use, from rating curve extended above 5,000 ft³/s (142 m³/s); minimum daily, 10 ft³/s (0.28 m³/s) Dec. 3, 1924, result of freezeup and filling of Andrews Lake; minimum daily during normal regulation, 62 ft³/s (1.76 m³/s) Oct. 19, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed is that of Mar. 19, 1899.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,230 ft³/s (91.5 m³/s) Feb. 11, gage height, 5.82 ft (1.774 m); minimum, 79 ft³/s (2.24 m³/s) Aug. 10, gage height, 1.99 ft (0.607 m); minimum daily, 88 ft³/s (2.49 m³/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	783	207	349	176	204	281	516	278	816	646	139	364
2	293	187	241	172	1290	484	417	261	1130	389	336	175
3	513	331	910	166	1370	573	372	253	1160	190	245	94
4	552	599	395	227	1250	274	345	293	1600	175	480	376
5	204	606	336	842	866	547	585	348	1580	182	498	325
6	523	536	174	624	943	757	513	230	1030	214	549	286
7	929	551	161	526	698	569	459	262	598	368	341	432
8	766	348	165	771	239	323	401	271	739	369	117	255
9	1160	189	173	657	470	580	459	233	1050	374	108	165
10	897	303	526	393	1020	760	421	222	1120	560	93	130
11	544	184	914	165	2470	489	388	253	1040	479	461	163
12	186	147	631	566	1730	246	365	741	1050	185	648	453
13	399	143	269	1070	1280	241	345	995	943	401	625	129
14	714	140	230	686	620	234	548	903	515	833	690	192
15	702	317	429	489	375	221	425	1080	545	677	614	839
16	691	330	424	642	339	510	311	394	729	541	346	848
17	354	503	414	809	330	700	392	427	685	525	115	722
18	349	978	531	808	759	693	463	548	657	353	99	549
19	259	904	195	652	743	728	421	1020	575	144	94	245
20	397	706	880	1000	671	677	739	579	630	297	102	116
21	382	419	704	1050	534	424	687	535	269	499	104	373
22	374	224	812	1040	451	228	895	313	554	503	98	712
23	344	218	814	1020	751	559	626	276	787	304	93	625
24	361	297	220	716	1040	710	752	255	633	266	144	551
25	226	474	870	186	644	355	404	243	957	358	417	305
26	198	607	1030	167	817	190	378	366	850	116	338	380
27	274	603	355	404	305	185	676	1920	396	257	287	109
28	391	244	186	676	278	178	613	1430	186	543	175	307
29	659	538	181	680	---	174	470	841	345	537	301	462
30	450	217	185	711	---	1230	304	1040	536	291	88	514
31	429	---	178	453	---	966	---	518	---	173	207	---
TOTAL	15303	12050	13882	18544	22487	15086	14690	17328	23705	11749	8952	11196
MEAN	494	402	448	598	803	487	490	559	790	379	289	373
MAX	1160	978	1030	1070	2470	1230	895	1920	1600	833	690	848
MIN	186	140	161	165	204	174	304	222	186	116	88	94

CAL YR 1980 TOTAL 364468 MEAN 996 MAX 8050 MIN 108 MEAN‡ 1003 CFSM‡ 2.47 IN.‡ 33.53
WTR YR 1981 TOTAL 184972 MEAN 507 MAX 2470 MIN 88 MEAN‡ 508 CFSM‡ 1.25 IN.‡ 16.99

‡ Adjusted for change in contents in Chatuge Lake.

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, 0.2 mi (0.3 km) upstream from Rogers Creek, 4.7 mi (7.6 km) northeast of Murphy, and at mile 6.6 (10.6 km).

DRAINAGE AREA.--104 mi² (269 km²).

WATER-DISCHARGE RECORDS

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 (474.409 m) National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to May 11, 1934, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--69 years (1904-9, 1914-16, 1919-81), 256 ft³/s (7.250 m³/s), 33.43 in/yr (849 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s (510 m³/s) Nov. 19, 1906, gage height, 20.5 ft (6.25 m), from flood profile by Tennessee Valley Authority, from rating curve extended above 5,800 ft³/s (164 m³/s) on basis of slope-conveyance study; minimum, 12 ft³/s (0.34 m³/s) several times in August and September 1925, gage height, 0.52 ft (0.158 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1898 reached a stage of 21.2 ft (6.464 m), from floodmark by Tennessee Valley Authority, discharge, about 20,000 ft³/s (566 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 10	2130	*1830	51.8	*6.68	2.036

Minimum discharge, 24 ft³/s (0.68 m³/s) Jan. 18, gage height, 1.56 ft (0.475 m), result of freezeup; minimum daily, 36 ft³/s (1.02 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	66	83	75	115	164	385	181	260	99	60	74
2	76	64	80	73	494	151	304	170	496	99	72	81
3	67	61	77	72	260	141	262	159	735	99	68	57
4	62	82	74	71	184	173	234	150	899	95	59	65
5	66	74	72	62	148	308	406	143	753	100	57	58
6	64	66	70	65	134	258	338	147	510	136	63	129
7	59	63	69	70	123	223	293	172	443	104	78	123
8	57	62	68	67	132	199	262	163	385	92	67	81
9	55	60	125	65	119	182	303	138	318	85	61	69
10	54	58	242	60	607	170	274	134	278	81	53	58
11	51	55	152	56	1360	159	249	160	312	79	53	52
12	50	54	123	55	609	150	232	138	247	80	53	49
13	49	54	108	55	382	144	215	127	225	83	49	47
14	48	54	98	55	292	140	215	121	204	74	46	44
15	48	166	92	60	242	132	228	174	184	73	44	49
16	48	120	89	55	212	152	195	142	171	81	45	137
17	47	92	84	55	219	135	263	131	160	99	46	69
18	73	151	80	52	361	132	303	128	150	81	107	57
19	138	107	79	62	497	127	293	265	142	78	57	53
20	69	90	76	66	445	122	291	225	138	72	55	50
21	60	82	73	92	359	119	260	190	136	68	63	48
22	57	77	72	78	299	146	237	160	125	63	55	46
23	55	95	72	74	281	143	300	141	127	60	49	45
24	54	188	111	71	239	129	370	128	115	60	46	42
25	85	147	107	69	212	123	314	119	117	81	44	41
26	67	116	88	68	193	119	275	136	116	67	41	41
27	60	114	84	89	177	116	244	703	103	66	40	39
28	145	102	81	89	167	114	219	567	99	64	39	38
29	87	94	81	79	---	111	222	377	96	81	38	37
30	77	87	80	102	---	868	201	287	93	81	39	36
31	71	---	78	106	---	540	---	266	---	64	43	---
TOTAL	2092	2701	2868	2168	8862	5890	8187	6242	8137	2545	1690	1815
MEAN	67.5	90.0	92.5	69.9	317	190	273	201	271	82.1	54.5	60.5
MAX	145	188	242	106	1360	868	406	703	899	136	107	137
MIN	47	54	68	52	115	111	195	119	93	60	38	36
CFSM	.65	.87	.89	.67	3.05	1.83	2.63	1.93	2.61	.79	.52	.58
IN.	.75	.97	1.03	.78	3.17	2.11	2.93	2.23	2.91	.91	.60	.65

CAL YR 1980	TOTAL	103873	MEAN 284	MAX 4790	MIN 47	CFSM 2.73	IN 37.15
WTR YR 1981	TOTAL	53197	MEAN 146	MAX 1360	MIN 36	CFSM 1.40	IN 19.03

03550000 VALLEY RIVER AT TOMOTLA, NC--Continued

WATER QUALITY DATA FURNISHED BY NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY AT 25C MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD HI LEVEL MG/L	BOD 5 DAY MG/L
80/10/07	14 00	0000	1.83	57	30		18.0	3.0	8.9	93.7	10K	0.8
80/11/13	12 15	0000	1.81	52	45		10.0	2.0	10.4	92.0	10K	0.6
80/12/30	13 00	0000	1.97	79	52		5.0	3.0	12.2	95.3	10K	1.1
81/01/22	13 40	0000	1.96	77	48	7.55	4.0	2.0	13.9	106.1	10K	0.8
81/02/12	13 30	0000	3.40	560	27		2.0	6.0	10.0	72.5	10K	0.6
81/03/23	14 40	0000	2.25	139	39	7.20	9.0	3.0	12.4	106.9	10K	0.6
81/04/01	12 30	0000	3.01	402	30	6.70	13.0	5.0	10.7	100.9	10K	0.9
81/05/04	13 30	0000	2.28	147		6.75	15.0	2.0	10.4	102.0		0.5
81/06/17	13 30	0000	2.34	169		7.40	22.0	4.0	9.0	102.3		0.4
81/07/14	08 45	0000	1.93	72	52	7.20	24.0	4.0	7.4	87.1		0.7
81/08/10	10 30	0000	1.82	55	52	6.90	21.0	2.0	7.8	86.7		0.8
81/09/14	07 40	0000	1.72	42		7.20	16.0	4.0	7.9	79.0		0.8

DATE FROM TO	TIME OF DAY	DEPTH FEET	FEC COLI MFM-FCBR /100ML	T ALK CACO3 MG/L	NO2&NO3 N-TOTAL MG/L	NH3+NH4- N TOTAL MG/L	TOT KJEL N MG/L	PHOS-TOT MG/L P	PHOS-T ORTHO MG/L P	ARSENIC AS,TOT UG/L	CADMIUM CD,TOT UG/L	CHROMIUM CR,TOT UG/L
80/10/07	14 00	0000	120	24	0.20	0.050K	0.200	0.050K	0.050K	10K	50K	50K
80/11/13	12 15	0000	10	26								
80/12/30	13 00	0000	400	22	0.17	0.050K	0.200	0.050K	0.050K	10K	50K	50K
81/01/22	13 40	0000	270	18								
81/02/12	13 30	0000	20	9								
81/03/23	14 40	0000	20	14	0.20	0.050K	0.100	0.050K	0.050K		50K	50K
81/04/01	12 30	0000	110	10								
81/05/04	13 30	0000	70	15								
81/06/17	13 30	0000	240	17	0.24	0.050K	0.100	0.050K	0.050K	10K	50K	50K
81/07/14	08 45	0000	150	20								
81/08/10	10 30	0000	120	22								
81/09/14	07 40	0000	280	27	0.23	0.050K	0.200	0.050K	0.050K	10K	50K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	COBALT CO,TOTAL UG/L	COPPER CU,TOT UG/L	IRON FE,TOT UG/L	LEAD PB,TOT UG/L	MANGNESE MN UG/L	MERCURY HG,TOTAL UG/L	ZINC ZN,TOT UG/L
80/10/07	14 00	0000	100K	40K	300	100K	50.0K	0.5K	50K
80/12/30	13 00	0000	100K	40K	300	100K	50.0K		50K
81/03/23	14 40	0000	100K	40K	200	100K	50.0K	0.5K	260
81/06/17	13 30	0000	100K	40K	200	100K	50.0K	0.5K	50K
81/09/14	07 40	0000	100K	40K	700	100K	50.0K	0.5K	50K

K Less than noted value.

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 (0.2 km) downstream from Cataloochee Creek, 5.5 mi (8.8 km) southeast of Mount Sterling, and at mile 38.0 (61.1 km). DRAINAGE AREA, 455 mi² (1,178 km²). 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 (3 m) high by 24 ft (7.3 m) 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 (688.421 m), top of gates, is 12,800 ft³/s-day (31.32 hm³), of which 10,400 ft³/s-day (25.45 hm³) is controlled storage above elevation 2,175 ft (662.9 m), 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 ft³/s-day (31.32 hm³) several days each year, elevation, 2,258.6 ft (688.421 m); minimum observed, 1,030 ft³/s-day (2.520 hm³) Sept. 16, 1980, elevation, 2,141.5 ft (652.729 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 12,500 ft³/s-day (30.59 hm³) Sept. 13, elevation, 2,256.5 ft (687.781 m); minimum observed, 1,110 ft³/s-day (2.716 hm³) Oct. 17, elevation, 2,146.1 ft (654.131 m).

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 (6.8 km) southeast of Topton, 5.5 mi (8.8 km) upstream from Whiteoak Creek, and at mile 22.8 (36.7 km). DRAINAGE AREA, 91.0 mi² (235.7 km²). 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 (37.234 m) 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 (880.872 m), top of gates, is 69,200 ft³/s-day (169.3 hm³), of which 63,500 ft³/s-day (155.4 hm³) is controlled storage above 2,758.84 ft (840.894 m), 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. (See sta 03505500)

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 70,400 ft³/s-day (172.3 hm³) Apr. 12, 1957, elevation, 2,890.55 ft (881.040 m); minimum, after first filling, 6,700 ft³/s-day (16.39 hm³) Jan. 28, 1955, elevation, 2,760.11 ft (841.282 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 67,300 ft³/s-day (164.7 hm³) June 15, elevation, 2,887.60 ft (880.140 m); minimum, 40,800 ft³/s-day (99.84 hm³) Feb. 6, elevation, 2,848.62 ft (868.259 m).

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 (3.7 km) northwest of Glenville, 3.0 mi (4.8 km) upstream from Shoal Creek, and at mile 9.7 (15.6 km). DRAINAGE AREA, 36.7 mi² (95.1 km²). 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 (119.405 m) 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 (12.2 m) fuse-plug dams. Side channel spillway equipped with two taintor gates 12 ft (3.7 m) high by 25 ft (7.6 m) 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 (944.880 m), top of gates, is 35,500 ft³/s-day (86.87 hm³), of which 33,700 ft³/s-day (82.46 hm³) is controlled storage above elevation 3,023.25 ft (921.487 m), 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 ft³/s-day (87.36 hm³) Mar. 13, 1950, elevation, 3,100.01 ft (944.883 m); minimum, after first filling, 2,200 ft³/s-day (5.383 hm³) Feb. 5, 1955, Jan. 13, 1956; minimum elevation, 3,025.10 ft (922.050 m) Feb. 5, 1955.

EXTREMES FOR CURRENT YEAR: Maximum contents, 27,900 ft³/s-day (68.27 hm³) June 8, elevation, 3,089.05 ft (941.542 m); minimum, 17,900 ft³/s-day (43.80 hm³) Feb. 7, elevation, 3,072.01 ft (936.349 m).

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 (9.2 km) upstream from Twenty Mile Creek, 9.0 mi (14.5 km) north of Robbinsville, 9.6 mi (15.4 km) upstream from Cheoah Dam, and at mile 61.0 (98.1 km). DRAINAGE AREA, 1,571 mi² (4,069 km²). 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 (10.7 m) high by 35 ft (10.7 m) 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 (521.208 m), top of gates, is 727,500 ft³/s-day (1,780 hm³), of which 476,900 ft³/s-day (1,167 hm³) is controlled storage above elevation 1,580.0 ft (481.584 m), 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 ft³/s-day (1,783 hm³) May 28, 1973, elevation, 1,710.20 ft (521.269 m); minimum, after first filling, 78,300 ft³/s-day (191.6 hm³) Jan. 29, 1955, elevation, 1,472.0 ft (448.666 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 552,700 ft³/s-day (1,352 hm³) July 6, elevation, 1,673.82 ft (510.180 m); minimum, 239,500 ft³/s-day (586.1 hm³) Feb. 1, elevation, 1,574.95 ft (480.045 m).

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 (1.6 km) downstream from Santeetlah Creek, 5.5 mi (8.8 km) northwest of Robbinsville, and at mile 9.3 (15.0km). DRAINAGE AREA, 176 mi² (456 km²). 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 (37.466 m) 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 (3.7 m) high by 25 ft (7.6 m) 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 (553.822 m), top of gates, is 78,800 ft³/s-day (192.8 hm³), of which 66,600 ft³/s-day (163.0 hm³) is controlled storage above 1,740.08 ft (530.377 m), 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.

Lakes and Reservoirs in Ohio River basin--Continued

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 81,100 ft^3/s-day (198.5 hm^3) Sept. 3, 1928, elevation, 1,817.90 ft (554.096 m); minimum, after first filling, 13,100 ft^3/s-day (32.06 hm^3) Feb. 6, 1940, elevation, 1,741.39 ft (530.776 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 74,600 ft^3/s-day (182.5 hm^3) June 8, elevation, 1,813.93 ft (552.886 m); minimum, 36,100 ft^3/s-day (88.34 hm^3) Jan. 24, elevation, 1,779.05 ft (542.254 m).

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 (3.2 km) upstream from Hyatt Mill Creek, 2.5 mi (4.0 km) downstream from Georgia-North Carolina State line, 2.4 mi (3.9 km) southeast of Hayesville, and at mile 121.0 (194.7 km). DRAINAGE AREA, 189 mi^2 (490 km^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 (587.654 m), top of flashboards, is 121,200 ft^3/s-day (296.6 hm^3), of which 61,700 ft^3/s-day (151.0 hm^3) is controlled storage above elevation 1,905.0 ft (580.644 m), 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 (303.9 hm^3) Apr. 20, 1943, elevation, 1,927.80 ft (587.593 m); minimum, after first filling, 9,400 ft^3/s-day (23.0 hm^3) Sept. 5, 1947, Jan. 27, 1956; minimum elevation, 1,860.11 ft (566.962 m) Sept. 5, 1947.

EXTREMES FOR CURRENT YEAR: Maximum contents, 94,200 ft^3/s-day (230.5 hm^3) June 9, elevation, 1,919.59 ft (585.091 m); minimum, 66,400 ft^3/s-day (162.5 hm^3) Feb. 7, elevation, 1,908.41 ft (581.683 m).

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 (0.5 km) northwest of village of Hiwassee Dam, 3.9 mi (6.3 km) upstream from Shoal Creek, and at mile 75.8 (122.0 km). DRAINAGE AREA, 968 mi^2 (2,507 km^2). PERIOD OF RECORD, September 1939 to current year. GAGE, water-stage recorder. Datum of gage is 0.63 ft (0.192 m) below National Geodetic Vertical Datum of 1929.

Reservoir is formed by gravity overflow concrete dam with seven taintor gates 23 ft (7.0 m) high by 32 ft (9.8 m) 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 (465.277 m), top of gates, is 218,800 ft^3/s-day (535.4 hm^3) of which 154,300 ft^3/s-day (377.6 hm^3) is controlled storage above elevation 1,450.0 ft (441.960 m), 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 (546.7 hm^3) May 28, 1973, elevation, 1,528.02 ft (465.740 m); minimum, after first filling, 35,800 ft^3/s-day (87.60 hm^3) Jan. 28, 1948, elevation, 1,413.41 ft (430.807 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 167,300 ft^3/s-day (409.4 hm^3) June 26, elevation, 1,508.59 ft (459.818 m); minimum, 83,800 ft^3/s-day (205.1 hm^3) Feb. 9, elevation, 1,465.90 ft (446.806 m).

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 (0.2 km) upstream from North Carolina-Tennessee State line, 1.5 mi (2.4 km) northeast of Farner, Tenn., 9.8 mi (15.8 km) downstream from Hiwassee Dam, and at mile 66.0 (106.2 km). DRAINAGE AREA, 1,018 mi^2 (2,637 km^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 (390.144 m), top of gates, is 29,100 ft^3/s-day (71.21 hm^3), of which 4,400 ft^3/s-day (10.77 hm^3) is controlled storage above elevation 1,272.00 ft (387.706 m), 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 (74.14 hm^3) June 13, 1952, elevation, 1,281.40 ft (390.571 m); minimum, after first filling, 15,300 ft^3/s-day (37.44 hm^3) Apr. 25, 1971, elevation, 1,251.00 ft (381.305 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 29,000 ft^3/s-day (70.96 hm^3) June 4, elevation, 1,279.80 ft (390.083 m); minimum, 18,000 ft^3/s-day (44.05 hm^3) Nov. 1, elevation, 1,257.60 ft (383.316 m).

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 (12.38 km^2). Total capacity is 4,540 ft^3/s-day (11.11 hm^3), of which 2,120 ft^3/s-day (5.188 hm^3) is controlled storage. Storage began Mar. 27, 1963, and lake reached spillway elevation of 2,160 ft (658.4 m) 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 (56.7 km^2). Total capacity is 11,600 ft^3/s-day (28.39 hm^3), crest of spillway, of which 8,900 ft^3/s-day (21.78 hm^3) 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 (19.74 km^2). Total capacity is 844 ft^3/s-day (2.065 hm^3), of which 823 ft^3/s-day (2.014 hm^3) 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)

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 (11.3 km). DRAINAGE AREA, 33.3 mi^2 (86.2 km^2). Total capacity is 1,040 ft^3/s-day (2.545 hm^3), top of flashboards, all of which is usable. Storage began November 1931. (See sta 03456000)

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 (3.9 km). DRAINAGE AREA, 63.6 mi^2 (164.7 km^2). Total surface area, about 195 acres (789,000 m^2). Lake reached spillway elevation in the spring of 1913.

Lakes and Reservoirs in Ohio River basin--Continued

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 (29.6 km). DRAINAGE AREA, 14.4 mi² (37.3 km²). Total capacity is 233 ft³/s-day (570,000 m³), spillway crest, of which approximately 116 ft³/s-day (284,000 m³) 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 mi² (64.5 km²) 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 mi² (39.4 km²) on Wolf Creek near Tuckasegee, is at lat 35°13'18", long 83°00'00". Total capacity of East Fork Lake is 671 ft³/s-day (1.642 hm³), of which 625 ft³/s-day (1.529 hm³) is controlled storage. Storage began Apr. 18, 1955. Total capacity of Wolf Creek Lake is 5,070 ft³/s-day (12.41 hm³), of which 3,850 ft³/s-day (9.421 hm³) is controlled storage. Storage began Mar. 22, 1955. (See sta 03510500)

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 mi² (193.7 km²). Total capacity is 17,500 ft³/s-day (42.82 hm³), of which 2,290 ft³/s-day (5.604 hm³) is controlled storage. Storage began Oct. 9, 1953. (See sta 03510500)

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 (83.5 km). DRAINAGE AREA, 80.3 mi² (208.0 km²). Total capacity is 3,200 ft³/s-day (7.830 hm³) of which 350 ft³/s-day (856,000 m³) is controlled storage. Storage began Apr. 26, 1952. (See sta 03510500)

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 (82.7 km). DRAINAGE AREA, 1,608 mi² (4,165 km²). Total capacity is 17,700 ft³/s-day (43.31 hm³), of which 920 ft³/s-day (2.251 hm³) is controlled storage. Storage began Dec. 8, 1918.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 to SEPTEMBER 1981

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Gage height (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Gage height (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03460242 Waterville Lake			03504500 Nantahala Lake			03507500 Thorpe Reservoir			03514500 Fontana Lake		
Sept. 30	2182.8	3030	-	2868.02	53000	-	3082.61	23800	-	1648.07	447900	-
Oct. 31	2217.0	6680	+3650	2868.57	53400	+400	3079.57	22000	-1800	1629.77	387400	-60500
Nov. 30	2230.3	8460	+1780	2861.59	48800	-4600	3080.57	22600	+600	1617.05	347000	-40400
Dec. 31	2211.1	5980	-2480	2856.47	45500	-3300	3076.95	20500	-2100	1605.65	314200	-32800
CAL YR 1980	-	-	-1670	-	-	-14400	-	-	-6500	-	-	-91900
Jan. 31	2218.0	6810	+830	2849.93	41600	-3900	3072.53	18100	-2400	1575.30	240300	-73900
Feb. 28	2226.1	7870	+1060	2858.28	46700	+5100	3075.50	19700	+1600	1603.47	308200	+67900
Mar. 31	2234.3	9050	+1180	2868.33	53200	+6500	3079.26	21800	+2100	1618.23	350600	+42400
Apr. 30	2242.4	10280	+1230	2879.47	61000	+7800	3083.35	24200	+2400	1642.34	428300	+77700
May 31	2243.4	10430	+150	2885.17	65400	+4400	3087.86	27100	+2900	1659.50	493600	+65300
June 30	2237.0	9460	-970	2885.45	65700	+300	3087.82	27100	0	1672.55	547300	+53700
July 31	2234.7	9110	-350	2880.03	61500	-4200	3084.98	25300	-1800	1667.00	524100	-23200
Aug. 31	2251.8	11740	+2630	2872.89	56400	-5100	3082.69	23800	-1500	1656.56	481600	-42500
Sept. 30	2247.4	11050	-690	2866.65	52100	-4300	3080.26	22400	-1400	1649.66	454000	-27600
WTR YR 1981	-	-	+8020	-	-	-900	-	-	-1400	-	-	+6100

Date	Gage height (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03516500 Santeetlah Lake			03546500 Chatuge Lake			03554500 Hiwassee Lake			03555500 Appalachia Lake		
Sept. 30	1791.69	47900	-	1915.25	82600	-	1487.15	119000	-	1277.00	27400	-
Oct. 31	1784.83	41200	-6700	1913.55	78200	-4400	1495.48	136000	+17000	1257.97	18100	-9300
Nov. 30	1780.18	37100	-4100	1913.55	78200	0	1486.14	117200	-18800	1276.00	26800	+8700
Dec. 31	1781.27	38000	+900	1912.81	76300	-1900	1476.21	99800	-17400	1277.10	27500	+700
CAL YR 1980	-	-	-9600	-	-	+1600	-	-	+11600	-	-	+700
Jan. 31	1780.02	37000	-1000	1909.27	68200	-8100	1470.14	90000	-9800	1276.10	26900	-600
Feb. 28	1791.94	48200	+11200	1911.26	72600	+4400	1470.57	90600	+600	1276.08	26900	0
Mar. 31	1801.20	58300	+10100	1912.64	75900	+3300	1475.00	97800	+7200	1278.10	28000	+1100
Apr. 30	1812.51	72600	+14300	1915.56	83400	+7500	1491.05	126600	+28800	1276.60	27200	-800
May 31	1813.40	73900	+1300	1918.23	90400	+7000	1500.34	147000	+20400	1277.10	27500	+300
June 30	1809.42	68400	-5500	1918.66	91600	+1200	1507.90	165500	+18500	1277.70	27800	+300
July 31	1801.96	59200	-9200	1917.74	89200	-2400	1502.62	152400	-13100	1277.13	27500	-300
Aug. 31	1795.79	52200	-7000	1916.42	85700	-3500	1495.25	135500	-16900	1277.57	27700	+200
Sept. 30	1789.93	46100	-6100	1915.43	83100	-2600	1491.07	126700	-8800	1277.24	27600	-100
WTR YR 1981	-	-	-1800	-	-	+500	-	-	+7700	-	-	+200

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 these events. Those measurements and others collected for some special reasons are called measurements at miscellaneous sites.

Crest-stage partial-record station

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The data of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Pamlico River basin					
02084148	Chicod Creek at Secondary Road 1565 near Grimesland, NC	Lat 35°31'57", long 77°11'13", Pitt County, at bridge on Secondary Road 1565, 2.0 miles upstream from Cow Swamp, and 2.2 miles south of Grimesland.	a19	1976-81	6-7-81	26.33	640
02084158	Cow Swamp near Grimesland, NC	Lat 35°32'00", long 77°13'30", Pitt County, at bridge on Secondary Road 1756, 1 mile upstream from mouth.	a17	1976-81	6-7-81	22.67	910
		Pee Dee River basin					
02112247	Elkin River at Elkin, NC	Lat 36°15'12", long 80°51'45", Surry County, at bridge on Stage Highway 268, 1 mile upstream from mouth, and 1 mile west of Elkin.	b35.5	1971-81	9-5-81	15.66	7,100
		Santee River basin					
02152500	First Broad River near Lawndale, NC	Lat 35°22'50", long 81°32'40", Cleveland County, on right bank at village of Double Shoals, 0.4 mile downstream from Shoal Rock Creek, 500 ft downstream from bridge on Secondary Road 1809, and 2.5 miles southeast of Lawndale.	b200	‡1940-71, 1972-81	5-27-81	4.73	1,940

‡ Operated as a continuous-record gaging station.
a Approximately.
b Revised.

MEASUREMENTS AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Roanoke River basin				
02068015 Dan River	Roanoke River	Lat 36°31'33", long 80°22'16", Stokes County, at bridge on Secondary Road 1432, 2.4 miles downstream from Little Dan River, and 2.8 miles east of Asbury.	a110	1970, 1973-74, 1976-80	11- 5-80 12-16-80	95.7 93.0
02068856 Town Fork Creek	Dan River	Lat 36°16'24", long 80°16'27" (revised), Stokes County, at bridge on Secondary Road 1961, 0.9 mile above Forsyth County line, 2.7 miles east of Poplar Springs.	b20.1	1959, 1963	9- 3-81	6.48
c02068892 Neatmans Creek	Town Fork Creek	Lat 36°16'58", long 80°15'26", Stokes County, at bridge on Secondary Road 1961, 2 miles northwest of Germantown, and 3 miles above mouth.	b17.0	1959, 1963	9- 3-81	2.78
02068911 Old Field Creek	Town Fork Creek	Lat 36°16'37", long 80°10'05", Stokes County, at bridge on State Highway 65, 0.5 mile above mouth, and 2.2 miles southwest of Walnut Cove.	16	1959, 1963	9- 3-81	3.83
02068988 Lick Creek	Town Fork Creek	Lat 36°17'10", long 80°08'13", Stokes County, at bridge on State Highway 65, 0.8 mile above mouth, and 1 mile south of Walnut Cove.	b13.5	1959, 1963	9- 3-81	1.97
02069000 Dan River	Roanoke River	Lat 36°19'09", long 80°03'01", Stokes County, at bridge on Secondary Road 2023, at Pine Hall, 1.5 miles upstream from Belews Creek.	b501	†1923-26, 1975-80	11- 5-80 1-22-81 3- 3-81 4- 8-81 6-16-81 7-15-81 7-23-81 7-24-81 8-21-81 8-27-81 9-22-81	348 313 246 392 169 150 105 118 89.1 56.3 179
02069222 Dan River	Roanoke River	Lat 36°22'20", long 80°59'38", Rockingham County, at bridge on Secondary Road 1138, and 1.8 miles southwest of Madison.	a600	1970, 1974, 1976-80	11- 5-80	473
02070500 Mayo River	Roanoke River	Lat 36°32'05", long 79°59'30", Rockingham County, on right bank 300 ft downstream from Anglins Bridge on Secondary Road 1358, 0.5 mile downstream from confluence of North and South Mayo Rivers, 0.8 mile downstream from Virginia-North Carolina state line, and 4 miles west of Price.	261	†1930-71	8-27-81	44
02071033 Buffalo Creek	Dan River	Lat 36°29'26", long 79°51'17", Rockingham County, at bridge on Secondary Road 1516, 4.5 miles above mouth, and 5 miles west of Eden.	b7.41	1959, 1963	9- 4-81	*3.44
02071063 Buffalo Creek Branch	Buffalo Creek	Lat 36°29'06", long 79°52'18", Rockingham County, at bridge on Secondary Road 1515, 1.5 miles above mouth, and 2.5 miles northeast of Stoneville.	b3.11	1963	9- 4-81	*3.31
020711130 Buffalo Creek	Dan River	Lat 36°38'21", long 79°48'26", Rockingham County, at bridge on Secondary Road 2138, 1 mile above mouth, and 5.5 miles east of Stoneville.	b21.3	1954, 1959, 1963	9- 4-81	*5.69
02074056 Town Creek	Dan River	Lat 36°28'44", long 79°42'12", Rockingham County, at bridge on Secondary Road 1974, 1 mile above mouth, and 3 miles southeast of Eden.	b12.3	1954, 1959, 1963	9- 4-81	*1.79
02074062 Machine Creek	Town Creek	Lat 36°28'38", long 79°42'02", Rockingham County, at bridge on Secondary Road 1974, 0.2 mile above mouth, and 4 miles southeast of Eden.	b2.28	1954, 1959, 1963	9- 4-81	*0.42

† Operated as a continuous-record gaging station.
a Approximately.
b Revised.
c Previously published as 02068871.
* Base flow.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Roanoke River basin (Continued)				
02074282 Wolf Island Creek	Dan River	Lat 36°23'30", long 79°40'08", Rockingham County, at bridge on Secondary Road 1998, 1.5 miles northwest of Reidsville, and 9 miles upstream from Quagna Creek.	a3.8	1970, 1974, 1976-80	10-30-80 1-22-81	5.24 1.54
02074360 Wolf Island Creek	Dan River	Lat 36°31'54", long 79°30'07", Caswell County, at bridge on State Highway 700, 0.5 mile upstream from mouth, and 2.5 miles northwest of Pelham.	b68.7	1954, 1956-64, 1966, 1968, 1970, 1974-79	10-30-80 2-24-81 5-12-81 6-17-81 7-15-81 7-24-81	36.9 49.5 25.4 11.7 9.29 9.02
0207520780 Country Line Creek	Dan River	Lat 36°18'47", long 79°30'39", Caswell County, at bridge on Secondary Road 1146, and 1.2 miles south-southwest of Ashland.	b6.58	1974-80	2-11-81 3-19-81 6- 9-81 7-27-81 9- 3-81	26.0 2.74 1.60 1.11 1.35
0207527050 Country Line Creek	Dan River	Lat 36°32'16", long 79°12'04", Caswell County, at bridge on State Highway 57, 0.4 mile east-southeast of Milton, and 0.8 mile upstream from mouth.	b138	1974-80	2- 9-81 4-28-81 7-21-81 9- 1-81	29.5 34.3 13.9 19.6
0207718130 Hyco Creek	Hyco River	Lat 36°17'15", long 79°15'43", Caswell County, at Secondary Road 1767, 2.8 miles northeast of Baynes, and 3.2 miles upstream from confluence of Lynch Creek.	b5.0	1974-80	2-11-81 3-19-81 4-28-81 7-21-81	42.2 0.84 1.30 0.51
02077227 South Hyco Creek	Hyco River	Lat 35°16'00", long 79°08'50", Person County, at bridge on State Highway 49, 1.5 miles southwest of Gordonton, and 2.5 miles upstream from confluence of Sugar Tree Creek.	b10.50	1968, 1976, 1978-80	2-11-81 3-19-81 4-27-81 7-20-81 8-31-81	77 2.51 2.18 0.21 1.15
02077348 Marlowe Creek	Dan River	Lat 36°29'03", long 78°58'47", Person County at bridge on Secondary Road 1322, downstream from Fishing Branch, and 1.2 miles west of Woodsdale.	b17.80	1970, 1974, 1976, 1978, 1980	2- 9-81 3-18-81 4-27-81 7-20-81 8-31-81	6.71 7.89 7.63 3.31 4.27
02079101 Grassy Creek	Roanoke River	Lat 36°29'22", long 78°37'08", Granville County, at bridge on Secondary Road 1436, 0.7 mile downstream Little Grassy Creek, and 2.8 miles east-northeast of Cornwall.	61.2		‡2-12-81 7-21-81 9- 4-81	76.8 0.76 0.74
0207920940 Island Creek	Roanoke River	Lat 36°26'10", long 78°32'37", Granville County, at bridge on Secondary Road 1430, 0.3 mile downstream from Howlett Creek, and 1.7 miles southeast of Stovall.	b13.80	1974-76, 1978-80	2-12-81 7-21-81 9- 4-81	7.34 0.02 0.04
02079264 Nutbush Creek	Roanoke River	Lat 36°22'10", long 78°24'31", Vance County, at bridge on Secondary Road 1317, 0.1 mile upstream from Buggs Island Reservoir, and 3 miles north of Henderson.	b6.0	1970, 1974, 1976, 1978-80	2-13-81 7-21-81 9- 4-81	5.52 2.26 2.71
02079717 Smith Creek	Roanoke River	Lat 36°32'27", long 78°11'43", Warren County, at bridge on U.S. Highway 1, 0.3 mile downstream from Blue Mud Creek, and 2.1 miles west of Paschall.	b52	1954, 1961-63, 1966, 1976, 1979-80	2-13-81 7-21-81 9- 4-81	34.1 6.21 2.97
02081096 Cashie River	Roanoke River	Lat 36°08'43", long 77°09'54", Bertie County, at bridge on State Highway 11, 1.5 miles northeast of Lewiston, and 2.5 miles upstream from Wahton Swamp.	b19.20	1961, 1974-76	2-19-81 8- 6-81	5.49 0
		Pamlico River basin				
02081933 Tar River	Pamlico River	Lat 35°55'48", long 78°08'54", Nash County, at bridge on U.S. Highway 64, 0.5 mile downstream from Turkey Creek, and 2.3 miles southwest of Spring Hope.	a660	1969, 1974, 1976, 1978, 1980	2-23-81 5-18-81	713 120
02082823 Tar River	Pamlico River	Lat 35°55'40", long 77°33'00", Edgecomb County, at bridge on State Highway 44, 2 miles northwest of Tarboro, and 3.2 miles upstream from Fishing Creek.	a1280	1970, 1973-74, 1976, 1980	2-20-81 5-15-81 6-17-81 7-28-81	884 756 197 169

‡ Not previously published.
a Approximately.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Pamlico River basin (Continued)				
02083390 Fishing Creek	Tar River	Lat 35°58'25", long 77°32'29", Edgecombe County, at bridge on Secondary Road 1500, 2.5 miles southeast of Leggett, and 3.5 miles upstream from Deep Creek.	a760	1961-69, 1974, 1978, 1980	2-20-81 5-14-81 7-29-81	459 211 36.5
02083432 Deep Creek	Fishing Creek	Lat 35°57'20", long 77°30'10", Edgecombe County, at bridge on U.S. Highway 258, 1 mile upstream from mouth, and 4 miles northeast of Tarboro.	a94	1954, 1974, 1978, 1979, 1980	2-20-81 5-15-81 7-29-81 9- 3-81	83.7 3.47 0.22 3.78
02084148 Chicod Creek	Tar River	Lat 35°31'57", long 77°11'13", Pitt County, at bridge on Secondary Road 1565, 2 miles upstream from Cow Swamp, and 2.2 miles south of Grimesland.	a19	1975-80	10-16-80 11-18-80 1-13-81 5-13-81 9- 1-81	0.62 1.05 4.31 21.1 2.54
02084158 Cow Swamp	Tar River	Lat 35°31'57", long 77°11'13", Pitt County, at bridge on Secondary Road 1756, 1 mile upstream from mouth, and 3 miles southwest of Grimesland.	a17	1975-79	10-16-80 11-18-80 1-13-81 5-13-81 9- 1-81	0.91 3.03 6.78 3.53 2.94
		Neuse River basin				
02085302 South Flat River	Flat River	Lat 36°17'40", long 79°03'54", Person County, at bridge on Secondary Road 1112, 1.3 miles upstream from confluence of Bushy Fork Creek, and 1.8 miles northwest of Hurdle Mills.	b6.22	1974-76, 1978-80	2- 4-81 4-27-81 7-20-81 8-31-81	1.67 0.60 0.10 0.44
02086624 Knap of Reeds Creek	Neuse River	Lat 36°07'40", long 78°48'55", Granville County, at SEO, 2.3 miles west of Butner, and 2.5 miles upstream from mouth.	42.1	1972, 1974, 1976, 1978, 1980	2-12-81 7-21-81 9-4-81	18.4 3.66 3.44
02086849 Ellerbe Creek	Neuse River	Lat 36°03'33", long 78°49'58", Durham County, at bridge on Secondary Road 1636, 1.6 miles northwest of Gorman, and 3 miles upstream from mouth.	b21.9	1972-73, 1976, 1978, 1980	2-23-81 4-30-81 6-12-81 7-24-81 9- 4-81	19.8 6.04 6.35 6.66 8.89
02088030 Middle Creek	Swift Creek	Lat 35°30'27", long 78°24'07", Johnston County, at bridge on State Highway 210, 2.3 miles upstream from mouth, and 3 miles west of Smithfield.	b129	1949-55, 1958, 1974, 1976, 1978, 1980	2-19-81 4-30-81 7-22-81	87.1 17.2 37.6
02088270 Mill Creek	Neuse River	Lat 35°20'31", long 78°12'51", Johnston County, at bridge on Secondary Road 1200, 0.1 mile upstream from Mill Branch, and 0.5 mile north of Cox Mill.	b127	1974, 1976, 1978	5- 2-79 5-30-80 2-20-81 4-27-81 7-21-81	58.1 28.7 184 12.1 2.27
02088332 Neuse River	Atlantic Ocean	Lat 35°21'28", long 78°08'09", Wayne County, downstream from bridge on Secondary Road 1224, downstream from Thoroughfare Swamp, and 1.3 miles north of Stevens Mill.	a2010	1963, 1978, 1980	2- 4-81 3-25-81 4-27-81 7-21-81	995 944 512 173
02088632 Little River	Neuse River	Lat 35°23'35", long 78°01'35", Wayne County, at bridge on State Highway 581, 0.2 mile northeast of Asylum, and 1.1 miles upstream from mouth.	312	1974, 1976, 1978, 1980	2- 4-81	217
02090634 Contentnea Creek	Neuse River	Lat 35°35'10", long 77°48'43", Wilson County, at bridge on State Highway 58, 0.6 mile upstream from Toisnot Swamp, and 1.5 miles southeast of Stantonsburg.	b389	1969-70, 1972-74, 1978, 1980	2-11-81 3-23-81	254 120
02091814 Neuse River	Atlantic Ocean	Lat 35°18'40", long 77°18'20", Craven County, at bridge on Secondary Road 1470, 1.5 miles upstream from Core Creek, and 2 miles east of Fort Barnwell.	a3900	1970, 1972-73, 1976, 1978, 1980	2- 5-81 3-26-81 6-18-81 8- 4-81	2450 1220 873 559

a Approximately.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Neuse River basin (Continued)				
0209218190 Trent River	Neuse River	Lat 35°06'23", long 77°43'15", Lenoir County, at bridge on State Highway 11, 2.5 miles south-southwest of Deep Run, and 5.9 miles upstream from mouth.	a3.2	1974-76, 1980	3-17-81 6-17-81 7-31-81 9- 9-81	1.55 0.79 1.66 1.70
		New River basin				
02093000 New River	Atlantic Ocean	Lat 34°50'56", long 77°31'11", Onslow County, at bridge on Secondary Road 1314, 0.7 mile downstream from Jenkins Swamp, and 2 miles southwest of Gum Branch.	b94	†1949-73, 1978	2-13-81 6-17-81 7-29-81	332 48.2 9.3
		Cape Fear River basin				
02093248 Haw River	Cape Fear River	Lat 36°11'52", long 79°59'08", Guilford County, at bridge on State Highway 68, 1.6 miles north of Oak Ridge, and 1.8 miles upstream from Rocky Branch.	b7.93	1962, 1966, 1971, 1973-80	10-29-80 1-27-81 3- 5-81 4-16-81 5-28-81 7-13-81 7-23-81	3.08 4.16 11.3 3.12 3.29 0.62 0.48
02095091 South Buffalo Creek	Buffalo Creek	Lat 36°06'45", long 79°40'19", Guilford County, at bridge on Secondary Road 2821, 0.8 mile northwest of McLeansville, and 1.4 miles upstream from mouth.	b43.50	1969-70, 1973, 1976-80	10-30-80 1-23-81 3- 5-81 4-16-81 6-19-81	220 28.1 130 25.4 31
02095554 Buffalo Creek	Reedy Fork	Lat 36°08'34", long 79°38'54", Guilford County, at bridge on Secondary Road 2795, 1.2 miles upstream from Blackwood Creek, and 2.6 miles north of McLeansville.	b91.9	1969-71, 1973, 1976-80	10-30-80 1-23-81 3- 5-81 4-16-81 6-19-81 7-22-81	547 64.9 289 52.8 54.2 45
02095681 Reedy Fork	Haw River	Lat 36°10'23", long 79°30'38", Alamance County, at bridge on State Highway 87, at Ossipee, and 0.5 mile upstream from mouth.	b256	1969-70, 1973, 1976-80	10-30-80 3- 5-81 3-12-81 9-24-81	90.3 689 95.5 69
0209659814 Little Alamance Creek	Big Alamance Creek	Lat 35°55'52", long 79°40'34", Guilford County, at culvert on Secondary Road 3549 (Old U.S. Highway 421), 0.1 mile downstream from unnamed tributary, and 2 miles north-northwest of Julian.	a2.0	1974, 1976-77, 1979-80	10-31-80	0.24
02096788 Big Alamance Creek	Haw River	Lat 36°01'01", long 79°24'50", Alamance County, at bridge on Secondary Road 2309, 0.5 mile downstream from Stinking Quarter Creek, and 1.8 miles east of Bellemont.	b242	1974-77, 1979-80	10-31-80 1-27-81 3- 5-81 5-13-81 6-22-81 7-22-81 8-20-81	69 41.9 369 41.5 40.9 71.8 594
02096879 Haw River	Cape Fear River	Lat 35°53'43", long 79°15'31", Alamance County, at bridge on Secondary Road 1005, 0.7 mile upstream from Cane Creek, and 5.8 miles north of Terrells.	b1083	1974-75, 1979-80	3- 5-81 1-23-81	1030 174
02097189 Robeson Creek	Haw River	Lat 35°42'10", long 79°05'41", Chatham County, at bridge on Secondary Road 1939, 0.5 mile upstream from mouth, and 4.5 miles southwest of Seaforth.	a27	1954, 1966, 1970-71, 1973-74, 1976, 1978, 1980	2-24-81 3-20-81 4-21-81 7-28-81	11.5 3.52 1.99 2.03
02097203 New Hope Creek	New Hope River	Lat 35°59'31", long 79°02'45", Orange County, at bridge on Secondary Road 1730, 0.5 mile downstream from Old Field Creek, and 1.5 miles east of Blackwood.	b22.4	1962, 1966, 1968, 1971, 1973, 1976, 1978, 1979-80	2-23-81 4-30-81 7-27-81 9- 3-81	13.1 2.0 5.06 2.04

† Operated as a continuous-record gaging station.
a Approximately.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Cape Fear River basin (Continued)				
02097299 Third Fork Creek	New Hope River	Lat 35°54'38", long 78°57'39", Durham County, at bridge on State Highway 751, 0.9 mile upstream from mouth, and 1.6 miles north of Bland.	16.5	1970-71, 1974, 1976, 1978, 1980	2-24-81 5- 1-81 7-24-81 9- 4-81	12.0 4.97 3.51 3.88
02097314 New Hope Creek	Haw River	Lat 35°53'05", long 78°57'58", Durham County, at bridge on Secondary Road 1107, 0.5 mile southwest of Bland, and 2 miles below Third Fork Creek.	76.3		‡2-24-81 6-11-81 7-24-81 9- 4-81	41.6 24.9 14.9 30
02097360 Bolin Creek	Little Creek	Lat 35°55'40", long 79°02'08", Orange County, at bridge on U.S. Highway 15A, 1.0 mile above Booker Creek, and 1.5 miles northeast of Chapel Hill.	b10.7	1973, 1974-76, 1978, 1980	2-23-81 4-30-81 7-27-81 9- 3-81	6.82 1.88 2.32 1.21
02097440 Northeast Creek	New Hope River	Lat 35°51'19", long 78°56'26", Chatham County, at bridge on Secondary Road 1731, 0.5 mile downstream from Kit Long Branch, and 0.8 mile south of O'Kellys Church.	35.0	1963-67, 1970, 1976, 1978, 1980	2-24-81 4-24-81 7-28-81	15.2 3.31 2.67
02097521 Morgan Creek	New Hope River	Lat 35°51'48", long 79°00'35", Chatham County, at bridge on Secondary Road 1726, 2 miles upstream from Cub Creek, and 4 miles north of Farrington.	45.6	1970, 1973, 1976, 1978, 1980	2-24-81 4-24-81 7-28-81	22.7 9.96 16.5
02099484 Richland Creek	Deep River	Lat 35°56'26", long 79°54'08", Guilford County, at bridge on Secondary Road 1147, 0.2 mile upstream from mouth, and 4 miles southwest of Groomtown.	b16.2	1971, 1973-76, 1978-80	10-30-80 1-26-81 3-12-81 5-13-81 5-28-81 6-25-81 7-21-81	127 14.9 22.5 19.0 17.2 14.3 24.6
02101686 North Prong Rocky River	Rocky River	Lat 35°51'51", long 79°32'34", Randolph County, at bridge on State Highway 49, 1.5 miles northeast of Liberty, and 6.3 miles upstream from mouth.	a2.6	1974, 1976-80	10-31-80 1-27-81	0.57 0.84
02103000 Little River	Cape Fear River	Lat 35°11'38", long 78°59'14", Cumberland County, at bridge on State Highway 87, at Manchester, and 0.3 mile upstream from Tank Creek.	b347	†1939-50, 1978, 1980	2-19-81 6-22-81 7-22-81	378 119 126
02104279 Rockfish Creek	Cape Fear River	Lat 34°58'10", long 79°06'40", Hoke County, at bridge on Secondary Road 1432, 0.2 mile downstream from Puppy Creek, and 1.2 miles northeast of Arabia.	a150	1973-74, 1978, 1980	2-18-81 7-22-81 9- 1-81	166 76.3 105
02104380 Beaver Creek	Little Rockfish Creek	Lat 35°00'09", long 78°58'45", Cumberland County, at bridge on Secondary Road 1141 at Cumberland, and 1 mile upstream from mouth.	b32.6	1961-65, 1968, 1973-75, 1979-80	2-18-81 6-23-81 7-22-81 9- 1-81	27.0 12.2 10.8 19.1
0210450005 Rockfish Creek	Cape Fear River	Lat 34°57'57", long 78°55'00", Cumberland County, at bridge on U.S. Highway 301, 0.1 mile downstream from Little Rockfish Creek, and 1.7 miles east of Hope Mills.	286	1974-76, 1979-80	2- 5-81 6-23-81 7-22-81	311 119 133
02106648 Black River	South River	Lat 35°20'52", long 78°37'28", Harnett County, at bridge on Secondary Road 1722, and 3 miles north-northwest of Dunn.	b37.3	1977-80	1-20-81 3-16-81 8-12-81	24.1 17.2 617
02106681 Black River	South River	Lat 35°16'58", long 78°38'16", Harnett County, at bridge on Secondary Road 1780, 1.5 miles downstream from Pope's Pond, and 2.2 miles southwest of Dunn.	b48.3	1973, 1977-80	1-20-81 3-16-81 6-24-81 7-24-81 8-12-81 8-14-81 8-15-81	24.6 19.3 0.44 0.81 479 244 140
02106760 Mingo Swamp	South River	Lat 35°16'18", long 78°35'11", Harnett County, at bridge on U.S. Highway 421, 1 mile downstream from Stony Run, and 2.7 miles southeast of Dunn.	b50.4	1955, 1957-64, 1973, 1976, 1979-80	2-19-81 3-16-81 7-24-81	46.9 21.7 1.62

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‡ Not previously published.
a Approximately.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Waccamaw River basin				
02109821 Grissett Swamp	Seven Creeks	Lat 34°08'55", long 78°46'57", Columbus County, at bridge on Secondary Road 1005, 1 mile north of Iron Hill, and 2.8 miles upstream from Toms Fork.	b21.8	1959, 1971-72, 1975-76, 1980	2-11-81	17.3
		Pee Dee River basin				
02111203 Beaver Creek	Yadkin River	Lat 36°06', long 81°21', Wilkes County, at bridge on State Highway 268, 0.5 mile above mouth, and 1.2 miles east of Ferguson.	a14	1963	9- 1-81	*9.27
02111242 Wildcat Creek	Stony Fork	Lat 36°09', long 81°29', Wilkes County, at bridge on Secondary Road 1155, 1.0 mile west of Mt. Zion, and 1.5 miles above mouth.	a1.6	1963	9- 1-81	*3.64
02111252 Stony Creek	Yadkin River	Lat 36°09', long 81°27', Wilkes County, at bridge on Secondary Road 1155, at Mt. Zion, and 8.5 miles above mouth.	a15	1963	9- 1-81	*4.96
02111260 Stony Fork	Yadkin River	Lat 36°06'38", long 81°21'36", Wilkes County, at bridge on Secondary Road 1135, 1.0 mile above mouth, and 1.5 miles north of Ferguson.	b33.7	1954-58, 1963	9- 1-81	*14.3
02111320 North Prong Lewis Fork Creek	Lewis Fork Creek	Lat 36°08'52", long 81°18'00", Wilkes County, at bridge on Secondary Road 1311, 0.2 mile above South Prong, and 1 mile east of Champion.	b34.8	1954-58, 1963	9- 1-81	*20.3
02111340 South Prong Lewis Fork Creek	Lewis Fork Creek	Lat 36°11'23", long 81°24'40", Wilkes County, at culvert on U.S. Highway 421, 10 miles upstream from North Prong, and 15 miles west of North Wilkesboro.	a11	1955-69	9- 1-81	*6.58
02111370 South Prong Lewis Fork Creek	Lewis Fork Creek	Lat 36°08'51", long 81°18'13", Wilkes County, at bridge on Secondary Road 1307, 0.2 mile above North Prong, and 0.5 mile east of Champion.	b36.4	1954-58, 1963	9- 1-81	*17.0
02111403 Moravian Creek	Yadkin River	Lat 36°05'17", long 81°12'04", Wilkes County, at bridge on State Highway 18, 1.0 mile southwest of Moravian Falls, and 5.0 miles above mouth.	b18.3	1963	9- 1-81	*6.98
02111410 Moravian Creek	Yadkin River	Lat 36°08'29", long 81°10'33", at Wilkes County, at bridge on State Highway 268, 0.5 mile above mouth, and 1.5 mile west of Wilkesboro.	b24.7	1955-56, 1960-64	9- 1-81	11.5
02112310 Mitchell River	Yadkin River	Lat 36°25'11", long 80°51'40", Surry County, at bridge on Secondary Road 1330, 1.2 mile below North Fork, and 3.0 miles north of Mountain Park.	b30.1	1951-56, 1963	9- 3-81	37.3
02112372 Little Creek	Mitchell River	Lat 36°22', long 80°48', Surry County, at bridge on Secondary Road 1122, 0.8 mile east of Zephyr, and 3.5 miles above mouth.	a1.3	1955-56, 1963	9- 3-81	*0.62
02112399 Fisher River	Yadkin River	Lat 36°30', long 80°51', Surry County, at bridge on Secondary Road 1338, at Ladonia, and 0.5 mile below Camp Branch.	a21	1963	9- 2-81	19.4
02113313 Yadkin River tributary	Yadkin River	Lat 36°14'16", long 80°38'02", Yadkin County, at bridge on Secondary Road 1525, 1.0 mile southwest of Richmond Hill, and 1.8 miles above mouth.	b3.62	1963	9- 1-81	*0.28
02113524 Hagan Creek	Yadkin River	Lat 36°17', long 80°34', Surry County, at bridge on Secondary Road 2082, at Siloam, and 0.5 mile above mouth.	a8.0	1955-56, 1963	9- 2-81	2.19
02113576 Ararat River	Yadkin River	Lat 36°33'13", long 80°34'09", Surry County, at bridge on State Highway 104, 2.1 miles northeast of Salem, and 2.2 miles upstream from Johnsons Creek.	36.2	1970-77, 1979-80	10-29-80 1-20-81	22.5 19.4

a Approximately.
b Revised.
* Base flow.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Pee Dee River basin (Continued)				
02113620 Ararat River	Yadkin River	Lat 36°30'08", long 80°36'02", Surry County, at bridge on State Highway 103, at Mt. Airy, and 1.7 miles below Champ Creek.	b65.7	1925, 1947, 1952-58, 1963, 1970	9- 3-81	16.1
02113641 Ararat River	Yadkin River	Lat 36°29', long 80°36', Surry County, at bridge on U.S. Highway 52A, 1.0 mile southeast of Mt. Airy, and 1.5 miles above Lovills Creek.	a69	1952, 1963	9- 3-81	*16.1
02113661 Lovills Creek	Ararat River	Lat 36°29'42", long 80°37'08", Surry County, at bridge on State Highway 89, at Mt. Airy, and 2.6 miles above mouth.	33.9	1970	9- 3-81	*5.97
02113681 Lovills Creek	Ararat River	Lat 36°29'06", long 80°36'49", Surry County, at bridge on U.S. Highway 601, at Mt. Airy, and 1.8 miles above mouth.	35.1	1955, 1963, 1970	9- 3-81	*7.15
02113721 Pauls Creek	Stewart Creek	Lat 36°30'15", long 80°40'00", Surry County, at bridge on Secondary Road 1621, at mouth, and 3.2 miles west of Mt. Airy.	b28.7	1955-56, 1963	9- 3-81	*21
02113824 Rutledge Creek	Ararat River	Lat 36°28'00", long 80°34'07", Surry County, at bridge on U.S. Highway 52, 1.2 miles above mouth, and 4.0 miles southeast of Mt. Airy.	b7.40	1955-56, 1963	9- 1-81	*0.56
02113848 Flat Shoal Creek	Ararat River	Lat 36°25'09", long 80°32'27", Surry County, at bridge on Secondary Road 2018, 1.5 miles northeast of Ararat, and 2.0 miles above mouth.	b7.00	1955, 1963	9- 2-81	2.03
02113868 Toms Creek	Ararat River	Lat 36°26'03", long 80°29'11", Surry County, at bridge on Secondary Road 1812, 2.9 miles above Chinquapin Creek, and 3.6 miles southwest of Westfield.	14.0	1963	9- 3-81	*4.13
02113890 Toms Creek	Ararat River	Lat 36°23'56", long 80°29'23", Surry County, at bridge on U.S. Highway 52 Bus., 1.4 miles northwest of Pilot Mountain, and 1.5 miles below Chinquapin Creek.	b29.2	1952-59, 1963-64	9- 2-81	7.39
02113962 Toms Creek	Ararat River	Lat 36°23'08", long 80°31'50", Surry County, at bridge on Secondary Road 2024, 1.0 mile above mouth, and 2.0 miles southeast of Ararat.	b37.7	1953	9- 2-81	12.0
02113978 Bull Run Creek	Ararat River	Lat 36°22'23", long 80°34'11", Surry County, at bridge on Secondary Road 2038, 1.5 miles south of Ash Hill, and 2.0 miles above mouth.	b11.5	1963	9- 2-81	6.05
02114000 Ararat River	Yadkin River	Lat 36°22'00", long 80°32'33", Surry County, at bridge on State Highway 268, 0.2 mile below Bull Run Creek, and 4.5 miles southwest of Pilot Mountain.	287	†1921-22	9- 3-81	*84
02114101 Ararat River	Yadkin River	Lat 36°18'08", long 80°31'55", Surry County, at bridge on Secondary Road 2080, 2.2 miles northeast of Siloam, and 2.2 miles upstream from mouth.	b311	1974-80	10-29-80 1-20-81	192 186
02114117 Yadkin River tributary	Yadkin River	Lat 36°14'32", long 80°31'37", Yadkin County, at bridge on Secondary Road 1538, 1.2 miles above mouth, and 1.8 miles north of East Bend.	b3.55	1963	9- 1-81	*0.29
02114133 Grassy Creek	Yadkin River	Lat 36°16'28", long 80°28'06", Surry County, at bridge on Secondary Road 2072, 1.0 mile above mouth, and 2.5 miles east of Shoals.	b14.5	1963	9- 2-81	*1.75
02114201 West Prong Little Yadkin River	Little Yadkin River	Lat 36°19'50", long 80°24'35", Stokes County, at bridge on Secondary Road 1160, 1.0 mile above mouth, and 1.4 miles east of Pinnacle.	b15.80	1957, 1961-62	9- 3-81	*1.13
02114492 Crooked Run Creek	Little Yadkin River	Lat 36°15'56", long 80°25'50", Stokes County, at bridge on Secondary Road 1103, 0.8 mile above mouth, and 2.6 miles north of Donnaha.	b7.73	1962-63	9- 3-81	*2.49

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DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Pee Dee River basin (Continued)				
02115500 Forbush Creek	Yadkin River	Lat 36°08'13", long 80°33'09", Yadkin County, 3 miles above Logan Creek, and 6 miles east of Yadkinville.	b22.1	†1941-71	9- 1-81	*1.53
02115530 Logan Creek	Forbush Creek	Lat 36°07'27", long 80°30'15", Yadkin County, at bridge on Secondary Road 1571, 0.2 mile upstream from mouth, and 2.2 miles southwest of Enon.	b26.4	1956, 1963-69	9- 1-81	*2.68
02115553 South Deep Creek	Yadkin River	Lat 36°05'56", long 80°42'24", Yadkin County, at bridge on Secondary Road 1166, 2.5 miles below Cranberry Creek, and 2.5 miles north of Footsville.	b35.4	1963	9- 1-81	*4.99
02115567 South Deep Creek tributary	South Deep Creek	Lat 36°06', long 80°43', Yadkin County, at bridge on Secondary Road 1166, 1.0 mile above mouth, and 2.5 miles south of Footsville.	a9.2	1963	9- 1-81	*1.84
02115590 South Deep Creek	Yadkin River	Lat 36°06'23", long 80°35'17", Yadkin County, at bridge on Secondary Road 1710, 0.8 mile south of Shacktown, and 1.0 mile above Harmon Creek.	b63	1963	9- 1-81	*6.98
02115594 North Deep Creek	Deep Creek	Lat 36°10'35", long 80°41'01", Yadkin County, at bridge on U.S. Highway 601, above North Deep Creek tributary, and 2.8 miles northeast of Center.	b7.87	1963	9- 1-81	*0.70
02115604 North Deep Creek tributary	Deep Creek	Lat 36°11'03", long 80°40'48", Yadkin County, at bridge on Secondary Road 1503, 0.8 mile above mouth, and 2.8 miles southwest of Nebo.	b13.6	1963	9- 1-81	*0.98
02115610 North Deep Creek	Deep Creek	Lat 36°08'09", long 80°37'49", Yadkin County, at bridge on Secondary Road 1605, 1.5 miles east of Yadkinville, and 1.8 miles above Town Branch.	b35.8	1954, 1956-63	9- 1-81	*1.94
02115651 Deep Creek	Yadkin River	Lat 36°06'50", long 80°32'50", Yadkin County at bridge on Secondary Road 1711, 0.5 mile below North Deep Creek, and 2.2 miles east of Shacktown.	b118	1963-64	9- 1-81	*10.3
02115860 Muddy Creek	Yadkin River	Lat 36°00'01", long 80°20'25", Forsyth County, 100 ft above bridge on Secondary Road 2995, 0.2 mile below Salem Creek, and 1.8 miles east of Muddy Creek.	b186	†1964-79	4-28-81	129
0211668555 Dutchmans Creek	Yadkin River	Lat 36°01'13", long 80°39'13", Davie County, at bridge on Secondary Road 1002, 0.6 mile upstream from confluence of Steelman Creek, and 3.5 miles northwest of Stanleys Store.	b13.2	1974-77, 1979	11- 7-80 1-20-81	6.53 6.91
02117022 Dutchmans Creek	Yadkin River	Lat 35°51'07", long 80°28'33", Davie County, at bridge on State Highway 801, 1.2 miles upstream from mouth, and 2.8 miles southwest of Fork.	b124	1970-77, 1978	3-12-81 6-30-81 7-16-81	47 19.3 18.1
02120640 Third Creek	South Yadkin River	Lat 35°47'26", long 80°34'17", Rowan County, at bridge on State Highway 801, 1 mile south of Cooleemee, and 3 miles upstream from mouth.	b185	1952-53, 1963-69, 1978-80	5- 5-81 6- 4-81 6-30-81 7-23-81	95.2 1140 84.2 66.9
02121360 Swearing Creek	Yadkin River	Lat 35°45'19", long 80°18'22", Davidson County, at bridge on Secondary Road 1130, 0.5 mile east of Linwood, and 2 miles upstream from mouth.	b35.0	1948-57, 1961-63, 1970-71, 1973, 1975-80	11- 7-80 3-11-81 3-27-81 5-29-81 6-16-81 6-30-81 7-23-81	14.4 16.5 26.7 12.1 16.2 6.97 8.59
02121383 Town Creek	Yadkin River	Lat 35°40'43", long 80°24'58", Rowan County, at bridge on Secondary Road 1915, 1.4 miles southeast of Spencer, and 2.8 miles upstream from Crane Creek.	b16.3	1970-71, 1973-74	5- 5-81 6- 4-81 6-30-81	3.57 16.9 2.43
0212139700 Town Creek	Crane Creek	Lat 35°41'10", long 80°24'18", Rowan County, at culvert at Interstate 85, 1.2 miles above Crane Creek, and 2 miles east of Spencer.	17.8	1958, 1970-74, 1978	3-27-81	13.6

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DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Pee Dee River basin (Continued)				
0212147355 Rich Fork Creek	Abbotts Creek	Lat 35°55'36", long 80°07'31", Davidson County, at bridge on Secondary Road 1800, 1.4 miles downstream from High Point sewage disposal plant, and 3.9 miles northwest of Thomasville.	b26.6	1970-75	3-11-81 5-13-81 7-22-81	13.9 7.2 8.03
02121500 Abbotts Creek	Yadkin River	Lat 35°48'23", long 80°14'05", Davidson County, above bridge on Secondary Road 1243, 1.5 miles southeast of Lexington, and 4.9 miles downstream from Rich Fork.	b176	†1940-57, 1970-80	2- 9-81 3-11-81 6-30-81	85.3 62.5 9.41
02123113 Uwharrie River	Pee Dee River	Lat 35°48'25", long 79°59'50", Randolph County, at bridge on Secondary Road 1549, 4.5 miles upstream from Little Uwharrie River, and 7.5 miles southwest of Glenola.	b32.1	1961-62, 1974-80	10-31-80	10.6
02123500 Uwharrie River	Pee Dee River	Lat 35°25'47", long 80°01'05", Montgomery County, at State Highway 109, 1 mile above McLeans Creek, and 3 miles south of Eldorado.	342	†1938-71	4-14-81	111
02123881 Rocky River	Pee Dee River	Lat 35°28'29", long 80°46'48", Mecklenburg County, at bridge on Secondary Road 1608, 1.3 miles upstream from West Branch, and 4.2 miles southeast of Davidson.	13.4	1970-80	3-12-81 9- 2-81	10.9 6.1
02124160 Mallard Creek	Rocky River	Lat 35°20'01", long 80°40'06", Cabarrus County, at bridge on Secondary Road 1300, 0.2 mile upstream from mouth, and 1.3 miles northwest of Harrisburg.	b41.1	1955-65, 1971, 1973, 1975-80	10-24-80	3.78
02124374 Irish Buffalo Creek	Rocky River	Lat 35°20'50", long 80°32'52", Cabarrus County, at bridge on Secondary Road 1132, 1 mile south of Faggarts Crossroads, and 1 mile upstream from mouth.	b45.4	1974-80	10-24-80 3- 5-81 5-26-81 6-12-81 7- 2-81	8.03 28.8 7.4 1410 62.9
02124401 Rocky River	Pee Dee River	Lat 35°19'26", long 80°30'59", Cabarrus County, at bridge on U.S. Highway 601, 1 mile upstream from Hamby Branch, and 3 miles southeast of Faggarts Crossroads.	b392	1970-71, 1973-80	10-24-80 4-16-81	68 127
02124823 Long Creek	Rocky River	Lat 35°28'21", long 80°17'37", Stanly County, at bridge on Secondary Road 1454, 1.9 miles west of Richfield, and 15.2 miles upstream from mouth.	b5.29	1974-80	10-24-80 3- 2-81 4-14-81 8- 3-81	0 1.45 0.63 0.29
02125126 Long Creek	Rocky River	Lat 35°13'05", long 80°15'28", Stanly County, at bridge on Secondary Road 1917, 1 mile upstream from mouth, and 4 miles east of Oakboro.	198	1970-71, 1973-80	3- 4-81	51.4
02125482 Richardson Creek	Rocky River	Lat 35°04'16", long 80°24'25", Union County, at bridge on Secondary Road 1649, 1.2 miles below Watson Creek, and 1.5 miles northwest of Fairfield.	b153		‡9-22-61 10-10-61 3-11-81 4-22-81 5-28-81 7- 9-81 8-12-81	1.51 1.33 22.6 8.45 12.6 7.05 27.6
02125588 Richardson Creek	Rocky River	Lat 35°09'11", long 80°14'50", Anson County, at bridge on Secondary Road 1606, 1.8 miles above mouth, and 5.8 miles north of Kikers.	b233	1967, 1974-75	3- 4-81 7- 2-81	55.3 5.74
02127560 Little River	Pee Dee River	Lat 35°37'22", long 79°51'18", Randolph County, at bridge on Secondary Road 1142, 1.8 miles southwest of Ulah, and 1.9 miles upstream from confluence of Big Branch.	a5.3	1974-76, 1978-80	10-29-80 1-26-81	0.30 0.96
02128038 White Oak Creek	Cedar Creek	Lat 35°20'46", long 79°47'58", Montgomery County, at culvert on Secondary Road 1556, 1.5 miles southwest of Biscoe, and 1.9 miles upstream from mouth.	b1.21	1970, 1979-80	10-29-80	0.14
02129341 Hitchcock Creek	Pee Dee River	Lat 34°55'05", long 79°47'50", Richmond County, downstream from dam at Cordova, and 1.2 miles upstream from mouth.	b134	1970-71, 1974, 1979-80	10-29-80 3- 4-81 5-27-81 6-30-81	62.9 120 30.5 16.3
02129514 Bailey Creek	North Fork Jones Creek	Lat 34°55'21", long 80°01'27", Anson County, at bridge on Secondary Road 1811, 0.5 mile upstream from mouth, and 4.5 miles southeast of Wadesboro.	b13.0	1980	10-29-80 10-30-80	4.78 37.6

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DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Pee Dee River basin (Continued)				
0212955844 Marks Creek	Pee Dee River	Lat 34°51'45", long 79°43'09", Richmond County, at bridge on Secondary Road 1812, 1.3 miles downstream from City Lake spillway, and 2.4 miles southwest of Hamlet.	b12.9	1970-71, 1979-80	12-16-80 1-23-81 3- 4-81 5-27-81 6-30-81	11.8 6.0 8.08 4.72 2.26
02132172 Gum Swamp	Little Pee Dee River	Lat 34°47'58", long 79°31'56", Scotland County, at bridge on U.S. Highway 74, 2.8 miles upstream from Lower Beaverdam Creek, and 3.9 miles southeast of Old Hundred.	b55.4	1973-75, 1979-80	12-17-80 1-23-81 3- 4-81 5-28-81 7- 1-81 8- 4-81	60.7 63.0 52.1 54.1 30.3 44.4
02132269 Leith Creek	Little Pee Dee River	Lat 34°44'37", long 79°25'13", Scotland County, at bridge on Secondary Road 1609, 4 miles west of Maxton, and 5.4 miles upstream from mouth.	b21.8	1973-75, 1979-80	10-30-80 1-22-81 5-28-81	12.0 13.0 25.7
02132394 Mitchell Swamp	Hayes Swamp	Lat 34°31'10", long 79°18'43", Robeson County, at culvert on Secondary Road 1139, 1 mile upstream from state line, and 1.5 miles southwest of Rowland.	b7.06	1973, 1975	2-11-81 7-23-81	10.6 0.63
02132910 Drowning Creek	Lumber River	Lat 35°11'16", long 79°38'55", Moore County, at bridge on State Highway 73, 2 miles southwest of Jackson Springs, and 3 miles upstream from Jackson Creek.	b31.9	1949-54, 1957-59, 1962, 1968-69, 1973-75, 1979-80	10-29-80	19.8
02133581 Drowning Creek	Lumber River	Lat 35°01'24", long 79°26'36", Richmond County, at bridge on U.S. Highway 15, 1.3 miles upstream from Quewhiffle Creek, and 5.8 miles east of Hoffman.	247	1959, 1962, 1974, 1976-77, 1979-80	10-30-79 1-24-80 7-29-80 12-16-80 4-15-81 6-30-81	228 726 122 291 163 51.6
02133624 Lumber River	Little Pee Dee River	Lat 34°46'22", long 79°19'55", Robeson County, at bridge on State Highway 71, 2.6 miles north of Maxton, and 7.5 miles upstream from Gum Swamp.	b365	1974, 1980	2-10-81 7-23-81	360 120
02133691 Lumber River	Little Pee Dee River	Lat 34°38'30", long 79°10'49", Robeson County, at bridge on Secondary Road 1003, 2.2 miles southwest of Moss Neck, and 6.2 miles downstream from Gum Swamp.	b432	1974-75, 1980	2-10-81 7-23-81	395 178
02134297 Big Marsh Swamp	Big Swamp	Lat 34°46'55", long 78°55'22", Robeson County, at bridge on Secondary Road 1924, 2.8 miles upstream from mouth, and 5.5 miles southeast of Oakland.	b60.2	1973-75, 1978, 1980	2-11-81 6-23-81 7-23-81	31.5 26.3 11.2
02134495 Bryant Swamp	Big Swamp	Lat 34°32'20", long 78°49'22", Bladen County, at bridge on Secondary Road 1178, 0.4 mile upstream from Reedy Branch, and 2.3 miles southeast of Butters.	b15.6	1966-67, 1973, 1975, 1978, 1980	2-10-81 2-27-81 8-24-81	2.41 1.55 35.1
		Santee River basin				
02136500 Catawba River	Santee River	Lat 35°37'14", long 82°10'43", McDowell County, at bridge on Secondary Road 1103, 0.5 mile upstream from Mill Creek, and 0.5 mile south of Old Fort.	14.1	1907, 1949-54, 1956, 1963-64, 1970-75, 1978-80	12-17-80	10.3
02137513 Catawba River	Santee River	Lat 35°38'23", long 82°07'38", McDowell County, at bridge on Interstate 40, 0.3 mile downstream from Brevard Creek, and 3.2 miles east of Old Fort.	57.9	1970, 1972-73, 1975	7-19-74 3-26-81 7- 9-81 7-27-81 8-28-81	106 121 39.4 29.4 22.1
02138288 Linville River	Catawba River	Lat 36°04'22", long 81°52'14", Avery County, at culvert on State Highway 105, at Linville, and 1.8 miles upstream from Grandmother Creek.	b5.73	1970-77, 1979-80	12-17-80 9- 3-81	5.14 11.5
02139282 Catawba River	Santee River	Lat 35°44'58", long 81°42'20", Burke County, 0.8 mile downstream from Silver Creek, and 1 mile northwest of Morganton.	b586	1968, 1970-77, 1979-80	10-28-80	340

b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Santee River basin (Continued)				
02140304 Wilson Creek	Johns River	Lat 37°05'49", long 81°48'28", Avery County, at bridge on U.S. Highway 221, 0.8 mile upstream from Linn Core Branch, and 2.7 miles northwest of Gragg.	b.72	1964, 1969-70, 1978-80	3- 9-81 9- 3-81	0.90 2.06
02140991 Johns River	Catawba River	Lat 35°50'01", long 81°42'43", Burke County, at bridge on Secondary Road 1438, 0.2 mile downstream from Sims Branch, and 0.8 mile northeast of Arneys Store.	b201	1974-80	10-28-80 3-26-81 7- 9-81 8-28-81	170 384 106 70.7
02141148 Lower Creek	Catawba River	Lat 35°54'26", long 81°31'46", Caldwell County, at bridge on U.S. Highway 321A, 0.1 mile upstream from Zacks Fork Creek, and 0.8 mile southeast of Courthouse at Lenoir.	b14	1975-77, 1980	10-28-80	12.2
02141245 Lower Creek	Catawba River	Lat 35°49'31", long 81°38'10", Burke County, at bridge on Secondary Road 1501, 0.8 mile downstream from Husband Creek, and 7 miles northeast of Morganton.	b89.5	1949-50, 1964-69, 1972-73, 1975-80	10-28-80 3-26-81	78.7 126
02142660 McDowell Creek	Catawba River	Lat 35°23'22", long 80°55'16", Mecklenburg County, at bridge on Beatty Ford Road, 2.1 miles downstream from Terrence Creek, and 11.2 miles north of Charlotte.	26.3	1955, 1957, 1959-67, 1969-71, 1980	10-24-80 3-12-81 9- 2-81	4.95 10.6 2.12
02142916 Long Creek	Catawba River	Lat 35°17'53", long 80°58'45", Mecklenburg County, at bridge on State Highway 27, 2.3 miles downstream from Gum Branch, and 3 miles northwest of Thrift.	b31.8	1969-73, 1975-79	3-12-81 9- 2-81	9.80 2.76
02143069 South Fork Catawba River	Catawba River	Lat 35°37'58", long 81°18'20", Catawba County, at bridge on State Highway 10, 1 mile downstream from Henry Fork, and 2.2 miles west of Startown.	210	1974-77, 1979-80	10-28-80 2-26-81 6-17-81 6-26-81 7-10-81 8-27-81	210 230 144 125 115 85.8
02143260 Clark Creek	South Fork Catawba River	Lat 35°28'30", long 81°16'00", Lincoln County, at bridge on Secondary Road 1008, at Lincolnton, and 0.2 mile upstream from mouth.	b91.2	1947, 1949-57, 1962-64, 1970-72, 1975, 1978-80	2-26-81 4- 1-81 4-23-81 6-17-81 7-15-81	81.1 149 56.5 46.7 34.9
021450 South Fork Catawba River	Catawba River	Lat 35°17'08", long 81°06'04", Gaston County, on right bank 50 ft north of private mill road, 120 ft downstream from Housers Creek, 1.0 mile north of Lowell, 2.5 miles upstream from bridge on Interstate 85, and 3.0 miles downstream from Long Creek.	628	†1942-70	6-11-81 8-26-81	370 163
02145640 Crowders Creek	Catawba River	Lat 35°08'15", long 81°08'15", York County, SC, at bridge on Ridge Road, 3.4 miles upstream from Beaver Dam Creek, and 3.2 miles east-southeast of Bowling Green, SC.	b89	1970-77, 1979-80	4-22-81 6-26-81 8-26-81	50.1 45.9 18.4
02146398 Sugar Creek	Catawba River	Lat 35°04'30", long 80°54'20", Mecklenburg County, at railroad bridge on NC-SC state line, 1 mile upstream from Little Sugar Creek, and 1 mile southwest of Pineville.	a69	1964-80	3-13-81 9- 1-81	39.9 27.4
02146421 Little Sugar Creek	Sugar Creek	Lat 35°10'21", long 80°50'49", Mecklenburg County, at bridge on Secondary Road 3814, at Charlotte, and 1.3 miles upstream from Briar Creek.	a16	1969-75, 1978-80	10-23-80	1.81
02146538 Little Sugar Creek	Sugar Creek	Lat 35°04'40", long 80°53'10", Mecklenburg County, at bridge on U.S. Highway 521, 0.5 mile southeast of Pineville, and 3.5 miles upstream from mouth.	b49.5	1969-80	3-13-81 9- 1-81	24.6 20.4
02146760 McAlpine Creek	Sugar Creek	Lat 35°03'43", long 80°52'39", Mecklenburg County, at bridge on U.S. Highway 521, 1 mile downstream from McMullen Creek, and 2 miles south of Pineville.	b93.6	1949-57, 1962-67, 1969-80	10-23-80	29.3

† Operated as a continuous-record gaging station.
a Approximately.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Santee River basin (Continued)				
02146800 Sugar Creek	Catawba River	Lat 35°00'21", long 80°54'09", York County, at bridge on State Highway 160, 0.7 mile downstream from Clems Branch, and 2.6 miles east of Mill, SC.	262	1969, †1974-78	2-10-81 3-27-81 4-28-81 5-26-81 6-24-81 7-23-81 8-20-81 9-23-81	161 161 107 90.6 89.4 90.9 283 106
02146858 Six Mile Creek	Catawba River	Lat 35°00'40", long 80°49'40", Mecklenburg County, at bridge on Secondary Road 3635, 2 miles downstream from Flat Branch, and 6.2 miles southeast of Pineville.	b20.3	1974-80	10-23-80	0.83
02147126 Waxhaw Creek	Catawba River	Lat 34°50'12", long 80°47'31", Union County, at bridge on Secondary Road 1103, 6 miles upstream from mouth, and 6.5 miles south of Waxhaw.	a37	1957, 1961-62, 1974-77	3-13-81	11.4
02148751 Broad River	Santee River	Lat 35°25'27", long 82°09'56", Rutherford County, at bridge on U.S. Highway 74, 0.2 mile west of Uree, and 2.8 miles downstream from Cane Creek.	b99.7	1970-71, 1973-75, 1979-80	7-28-81	152
0215027770 Broad River	Santee River	Lat 35°12'57", long 81°47'20", Rutherford County, at bridge on U.S. Highway 221A, 1.2 miles upstream from confluence of Second Broad River, and 1.5 miles southwest of Cliffside.	b627	1974-76, 1979-80	7-28-81	280
02152546 Brushy Creek	First Broad River	Lat 35°19'15", long 81°35'40", Cleveland County, at bridge on Secondary Road 1342, 0.8 mile downstream from Little Creek, and 2 miles east of Washburn.	b20.0	1970-77, 1979-80	10-22-80 7-27-81	18.6 9.96
02152596 First Broad River	Broad River	Lat 35°13'03", long 81°36'28", Cleveland County, at bridge on Secondary Road 1140, 3 miles upstream from mouth, and 4.8 miles northwest of Earl.	b296	1968-77, 1980	7-28-81	181
02153456 Buffalo Creek	Broad River	Lat 35°10'20", long 81°31'02", Cleveland County, at bridge on State Highway 198, 0.1 mile upstream from NC-SC state line, and 4 miles west of Grover.	b161	1968-77, 1979-80	7-27-81	46.4
02154020 North Pacolet River	Pacolet River	Lat 35°12'58", long 82°10'52", Polk County, at bridge on Secondary Road 1517, 1.2 miles downstream from Horse Creek, and 5.6 miles southwest of Sandy Plains.	45.7	1968-77, 1979-80	7-28-81	35.7
		Savannah River basin				
02176908 Chattooga River	Tugaloo Creek	Lat 35°04'26", long 83°06'27", Jackson County, at bridge on Secondary Road 1107, 0.8 mile upstream from Fowler Creek, and 2.3 miles south of Cashiers.	7.69	1969-73 1977-78	9-25-81	7.85

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981, IN OHIO RIVER BASIN

		Kanawha River basin				
03160271 South Fork New River	New River	Lat 36°13'14", long 81°38'25", Watauga County, at bridge on U.S. Highway 421, and 2 miles east of Boone.	b34.8	1925, 1955-56, 1960, 1962, 1974-80	12-17-80 3-10-81 9- 3-81	27.5 71.6 29.6
03161361 South Fork New River	New River	Lat 36°28'26", long 81°20'13", Ashe County, downstream from Cranberry Creek, 1.2 miles downstream from Nathans Creek, and 2 miles southwest of Scottville.	b298	1974-75, 1977, 1980	3-10-81 7-22-81	458 261
03161880 North Fork New River	New River	Lat 36°25'48", long 81°37'15", Ashe County, at bridge on Secondary Road 1100, at Creston, and downstream from Three Top Creek.	b61.7	1949-56, 1960, 1962, 1974-75, 1977, 1980	3-10-81	109

† Operated as a continuous-record gaging station.
a Approximately.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Kanawha River basin (Continued)				
03162500 North Fork New River	New River	Lat 36°30'14", long 81°23'25", Ashe County, 0.2 mile downstream from bridge on State Highway 16 at Crumpler, and 6 miles upstream from South Fork.	277	†1930-58 1977, 1980	3-10-81 7-21-81 7-21-81	379 152 154
03162850 New River	Kanawha River	Lat 36°33'08", long 81°11'00", Alleghany County, at bridge on Secondary Road 1345, 0.8 mile downstream from Rock Creek, and 1.3 miles northnortheast of Amelia.	820	1968-69, 1971-75, 1979-80	10-23-80 7-21-81	617 608
03162852 Little River	New River	Lat 36°27'35", long 81°10'04", Alleghany County, at bridge on Secondary Road 1140, 0.6 mile downstream from confluence of Cheek Branch, and 1 mile southwest of Whitehead.	4.8	1974-75, 1978-80	10-23-80	4.46
03162951 Little River	New River	Lat 36°32'35", long 81°01'17", Alleghany County, at bridge on State Highway 18, 1 mile downstream from Brush Creek, and 0.5 mile west of Blevins Crossroads.	b99.2	1974-75, 1978-80	10-23-80 7-21-81	80.3 83.4
		Tennessee River basin				
03438879 West Fork French Broad River	French Broad River	Lat 35°08'20", long 82°51'05", Transylvania County, at bridge on U.S. Highway 64, 1.2 miles upstream from North Fork, and 1.7 miles west of Rosman.	27.2	1968-74, 1977, 1979-80	9-25-81	17.5
03438981 West Fork French Broad River	French Broad River	Lat 35°08'28", long 82°50'20", Transylvania County, at bridge on Secondary Road 1135, 0.1 mile upstream from North Fork, and 1 mile west of Rosman.	29.4	1944, 1953-55, 1963, 1966, 1968-73, 1977, 1979-80	9-25-81	23.2
03439471 Galloway Creek	French Broad River	Lat 35°09'06", long 82°48'40", Transylvania County, at culvert on entrance road to American Thread Company from U.S. Highway 64, 0.5 mile upstream from mouth, and 0.5 mile south of Calvert.	.56	1968-75, 1979-80	9-25-81	0.48
03440272 King Creek	French Broad River	Lat 35°14'22", long 82°43'49", Transylvania County, at culvert on U.S. Highway 64, at Brevard, and 1.3 miles upstream from mouth.	.37	1968-69, 1971-75, 1977, 1979-80	9-25-81	1.35
03440293 French Broad River	Tennessee River	Lat 35°15'03", long 82°41'58", Transylvania County, at bridge on Secondary Road 1540, at Dunns Rock, and 0.3 mile upstream from Davidson River, and at mile 192.1.	b173	1968-70, 1973-74, 1976-80	3-20-81	300
03441141 Davidson River	French Broad River	Lat 35°15'18", long 82°41'53", Transylvania County, at bridge on Secondary Road 1533, 0.2 mile northeast of Pisgah Forest.	47.2	1968-77, 1980	3-20-81	51.0
03444500 South Fork Mills River	Mills River	Lat 35°21'58", long 82°44'22", Transylvania County, at The Pink Beds in Pisgah Forest, 0.1 mile downstream from Thompson Creek, and 9 miles north of Brevard.	9.99	†1925-49, 1950, 1953-55, 1960, 1962-64, †1965-73, 1979	9-25-81	4.41
0344600989 Mills River	French Broad River	Lat 35°23'29", long 82°34'06", Henderson County, at bridge on State Highway 191 and 280, 2.4 miles upstream from mouth, and 0.2 mile north of Mills River.	70.5	1974-78, 1980	3-20-81	101
03446363 Mud Creek	French Broad	Lat 35°20'30", long 82°28'05", Henderson County, at bridge on Secondary Road 1508, 0.4 mile southeast of Balfour, and 0.6 mile upstream from Clear Creek.	53.1	1968-74, 1977-78	9-24-81	18.9
0344745449 Pinner Creek tributary	Pinner Creek	Lat 35°26'58", long 83°30'00", Buncombe County, 250 feet upstream from mouth, and 0.6 mile southeast of Oak Park.	a0.4	1974-80	3-20-81	0.46
0344745950 Pinner Creek	Cane Creek	Lat 35°26'22", long 82°29'31", Henderson County, 0.2 mile upstream from mouth, and 1 mile northeast of Fletcher.	a20	1974-80	3-20-81	1.49

† Operated as a continuous-record gaging station.
a Approximately.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Tennessee River basin (Continued)				
03451644 Lee Creek	French Broad River	Lat 35°36'52", long 82°37'41", Buncombe County, at culvert on Secondary Road 1369, 4.1 miles upstream from mouth, and 4.6 miles northeast of Enka.	.84	1970-75, 1978	9-24-81	0.24
03457124 Pigeon River	French Broad River	Lat 35°32'05", long 82°54'41", Haywood County, at bridge on Secondary Road 1818, at Clyde, and 0.2 mile downstream from Chambers Branch.	162	1969-78, 1980	7-31-81	88.0
03457138 Pigeon River	French Broad River	Lat 35°32'56", long 82°56'23", Haywood County, at bridge on road connecting Secondary Roads 1513 and 1519, 0.5 mile upstream from Richlands Creek, 2 miles east of Junaluska Dam, and at mile 55.5.	168	1969-80	7-31-81	91.2
03458121 Richland Creek	Pigeon River	Lat 35°30'30", long 82°58'19", Haywood County, at bridge on Secondary Road 1184, 0.8 mile upstream of Raccoon Creek, and 1.5 miles northeast of Waynesville.	48.0		‡3-13-81 3-24-81 6- 9-81 7-31-81	74.4 78.5 90.1 28.1
03458421 Richland Creek	Pigeon River	Lat 35°32'51", long 82°56'44", Haywood County, at bridge on Secondary Road 1519, 0.2 mile upstream from mouth, and 2.2 miles northwest of Clyde.	68.4	1969-73, 1975-76, 1978-80	7-31-81	40.1
03458441 Pigeon River	French Broad River	Lat 35°33'41", long 82°57'14", Haywood County, at bridge on Secondary Road 1625, 0.5 mile downstream from Yates Cover, and 3 miles northwest of Clyde.	238	1968-80	7-31-81	146
03458620 Crabtree Creek	Pigeon River	Lat 35°36'00", long 82°56'56", Haywood County, 0.2 mile upstream from mouth, and 0.6 mile west of Crabtree.	25.8	1944, 1953-54, 1962-66, 1968-69, 1976, 1980	7-30-81	952
03458638 Pigeon River	French Broad River	Lat 35°36'52", long 82°58'01", Haywood County, at bridge on Secondary Road 1363, 0.1 mile downstream from Dotson Branch, and 1.8 mile northwest of Crabtree.	278	1969-80	11-13-80 7-30-81	154 200
03460766 Pigeon River	French Broad River	Lat 35°46'32", long 83°06'01", Haywood County, at Carolina Power and Light power plant, downstream from Big Creek, and at Waterville.	536	1968-71, 1973-78, 1980	11-13-80 7-30-81	28.3 179
03461976 North Toe River	Nolichucky River	Lat 35°58'51", long 82°00'59", Avery County, at bridge on U.S. Highway 19E, 0.1 mile downstream from Jones Creek, 0.7 mile north of Ingalls, and at mile 50.9.	74.1	1969-71, 1973-74, 1976-80	1-29-81 3-27-81 7-15-81	51.9 164 74.1
03463021 North Toe River	Nolichucky River	Lat 35°55'46", long 82°06'57", Mitchell County, at bridge on Secondary Road 1162, at Penland, 0.4 mile downstream from Bear Creek, and at mile 27.6.	145	1969-70, 1972-75, 1978	1-29-81 3-27-81 7-15-81	93.5 283 99.2
03463786 North Toe River	Nolichucky River	Lat 36°01'32", long 82°19'15", Mitchell County, at bridge on State Highway 26, at Huntdale, and 0.5 mile upstream from Cane River.	442	1968-78, 1980	1-29-81	283
03463801 Cane River	Nolichucky River	Lat 35°54'14", long 82°19'56", Yancey County, upstream from Pine Swamp Branch, and 2.1 miles southwest of Burnsville.	54.4	1969-73, 1975-80	3-27-81	108
03464000 Cane River	Nolichucky River	Lat 36°00'52", long 82°19'40", Yancey County, 1.3 miles upstream from North Toe River, and 1.5 miles east of Sioux.	157	†1933-71, 1974-78, 1980	7-29-81	130
03464500 Nolichucky River	French Broad River	Lat 36°04'28", long 82°20'42", Mitchell County, at Poplar, and 0.7 mile upstream from Hollow Poplar Creek.	608	†1922-45, 1962-63, 1968-72, 1974-78, 1980	7-29-81	618
03478720 Watauga River	South Fork Holston River	Lat 36°09'23", long 81°46'14", Watauga County, at bridge on Secondary Road 1559, at Foscoe, and 0.1 mile downstream from Moody Mill Creek.	b10.9	1955, 1960-67, 1969, 1974-80	12-17-80 3- 9-81 9- 3-81	8.99 29.0 8.80

† Operated as a continuous-record gaging station.
‡ Not previously published.
b Revised.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Tennessee River basin (Continued)				
03478910 Cove Creek	Watauga River	Lat 36°15'50", long 81°47'03", Watauga County, at bridge on Secondary Road 1214, 0.3 mile downstream from Isaac Hollow, and 0.5 mile southwest of Sherwood.	b23.4	1940, 1955-69	9- 3-81	5.76
03502000 Little Tennessee River	Tennessee River	Lat 35°13'59", long 83°23'32", Macon County, 0.2 mile upstream from State Highway 28, at Iotla, and 0.2 mile upstream from Iotla Creek.	323	†1929-45, 1972-79	7-30-81	258
03508000 Tuckasegee River	Little Tennessee River	Lat 35°16'55", long 83°07'37", Jackson County, on right bank 0.9 mile north of Tuckasegee, 1.1 miles downstream from bridge on State Highway 107 and West Fork Tuckasegee River, 10.8 miles downstream from Thorpe Dam, and at mile 48.5	143	†1935-76	7-18-80	267
03515633 Cheoah River	Little Tennessee River	Lat 35°20'04", long 83°48'21", Graham County, 0.1 mile upstream from Mountain Creek, and 0.9 mile north of Robbinsville.	55.3	1968-71, 1973-80	7-30-81	29.2

† Operated as a continuous-record gaging station.
b Revised.

BEAUFORT COUNTY

351932076480001. Local number, NC-13.
LOCATION.--Lat 35°19'32", long 76°48'00", Hydrologic Unit 03020104, near Aurora. Owner: North Carolina Phosphate Company.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 167 ft (50.9 m), drilled to 186 ft (56.7 m), cased to 186 ft (56.7 m).
DATUM.--Altitude of land-surface datum is 10 ft (3 m). Measuring point: Top of casing, 0.13 ft (0.04 m) above land-surface datum.
REMARKS.--Since 1965 water levels affected by nearby pumping associated with mining operations.
PERIOD OF RECORD.--June 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.38 ft (0.42 m) below land-surface datum, Apr. 9, 1965; lowest measured, 83.92 ft (25.58 m) below land-surface datum, Apr. 21, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	76.06	76.63	77.10	78.86	74.51	78.44	82.48	78.08	80.20	78.13	79.34	79.09
10	76.71	77.61	76.66	81.15	75.21	80.65	82.56	81.38	79.83	78.14	78.14	78.91
15	76.95	77.41	76.00	81.80	---	80.44	---	81.08	79.08	77.79	79.48	79.09
20	77.71	77.19	77.52	80.63	76.87	81.18	---	80.68	78.39	77.54	78.66	79.15
25	76.66	77.13	78.44	80.33	77.99	82.93	82.57	80.84	78.75	79.67	78.01	79.31
EOM	77.08	77.03	77.93	75.48	79.92	83.54	79.40	80.55	78.85	79.85	78.83	78.48

WTR YR 1981 MEAN 78.87 HIGH 74.34 FEB 4 LOW 83.87 APR 21

353314077041001. Local number, NC-14.
LOCATION.--Lat 35°33'14", long 77°04'10", Hydrologic Unit 03020104, at Washington. Owner: National Spinning Company.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 111 ft (33.8 m), drilled to 158 ft (48.2 m), gravel walled to 90 ft (27.4 m).
DATUM.--Land-surface datum is 9.42 ft (2.871 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, at land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--May 1948 to November 1961, February 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.02 ft (0.31 m) above land-surface datum, Apr. 10, 1964; lowest, 25.37 ft (7.73 m) below land-surface datum, July 22, 1972.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.21	17.14	12.77	12.36	11.35	17.96	17.55	18.73	10.29	14.16	18.65
2	---	10.38	18.14	11.80	16.63	13.59	18.30	16.03	20.25	10.29	10.16	18.69
3	---	13.43	18.47	11.04	17.71	17.23	18.37	15.48	20.66	10.03	16.58	18.70
4	---	18.37	18.64	10.66	18.05	17.65	15.99	18.46	20.78	9.81	19.32	18.65
5	---	18.39	17.63	12.65	18.13	17.78	12.08	19.94	20.87	9.77	18.90	18.44
6	---	18.43	16.38	17.45	15.78	17.95	16.46	20.26	15.18	14.18	18.25	12.89
7	---	18.33	13.24	17.67	11.85	15.64	17.75	20.55	11.42	18.21	18.56	11.63
8	---	18.89	16.04	18.11	11.24	13.12	18.14	20.53	18.14	18.72	17.33	15.39
9	---	13.62	17.78	18.28	13.54	16.27	18.26	15.47	19.63	18.43	10.93	---
10	---	17.62	18.19	16.45	17.17	17.59	18.45	12.15	20.06	18.57	17.89	---
11	---	18.51	18.51	11.73	17.64	17.91	17.65	18.56	20.21	16.12	19.63	---
12	---	18.63	18.48	13.10	17.96	18.03	13.04	19.88	19.35	18.65	18.98	---
13	---	18.54	14.71	15.53	17.62	18.07	17.21	20.08	16.30	18.38	19.27	---
14	---	18.49	12.14	18.10	13.36	18.15	17.87	20.48	14.61	18.30	18.95	---
15	18.47	18.89	16.27	18.28	10.69	13.50	18.29	20.50	17.78	18.14	19.56	---
16	18.66	18.89	17.92	18.36	12.75	16.81	18.32	16.15	19.77	17.94	12.62	---
17	18.65	18.75	18.30	15.52	17.19	17.91	18.41	12.47	20.40	17.29	15.84	---
18	13.68	18.61	18.50	12.00	17.80	17.88	17.03	18.67	20.11	18.51	17.18	---
19	11.91	18.82	15.76	14.52	17.97	18.01	12.41	20.24	19.40	15.12	17.73	---
20	15.16	18.74	12.95	17.92	17.77	18.15	12.14	20.50	19.86	16.79	19.34	---
21	18.87	18.68	12.16	18.09	13.85	18.16	17.08	19.76	15.30	17.76	19.31	---
22	19.01	18.66	12.16	18.19	12.47	13.68	18.01	13.03	17.42	18.99	19.27	---
23	18.79	13.50	11.78	18.33	13.95	16.63	18.31	10.16	18.54	19.16	16.39	---
24	18.62	16.67	11.15	16.14	17.13	17.32	18.24	9.82	19.04	17.16	17.60	---
25	18.65	18.08	11.86	12.11	17.66	17.63	18.28	17.63	19.39	12.30	18.86	---
26	13.32	18.13	11.80	16.66	17.90	17.88	13.73	19.60	19.62	10.53	18.99	---
27	17.40	18.02	11.21	17.77	17.45	17.90	16.71	19.97	18.75	17.15	18.98	---
28	18.68	17.34	11.28	17.96	13.34	17.94	16.85	20.02	11.90	19.31	18.77	---
29	18.81	13.15	14.86	18.07	---	16.23	18.18	20.71	11.02	19.01	18.46	---
30	18.63	12.23	17.12	18.13	---	17.48	18.54	16.88	10.61	19.00	18.53	---
31	17.11	---	17.66	17.14	---	17.88	---	12.31	---	19.56	18.34	---
MEAN	17.32	17.07	15.43	15.82	15.61	16.82	16.94	17.54	17.84	16.24	17.57	16.63

WTR YR 1981 MEAN 16.72 HIGH 9.77 LOW 20.87

BEAUFORT COUNTY--Continued

353227076374001. Local number, NC-15.
LOCATION.--Lat 35°32'27", long 76°37'30" (revised), Hydrologic Unit 03020104, Belhaven. Owner: City of Belhaven.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 246 ft (75.0 m), drilled to 260 ft (79.2 m), cased to 260 ft (79.2 m).
DATUM.--Land-surface datum is 3.50 ft (1.067 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 5.00 ft (1.52 m) above land-surface datum.
PERIOD OF RECORD.--February 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.25 ft (0.08 m) below land-surface datum, July 24, 1965; lowest, 14.87 ft (4.53 m) below land-surface datum, Oct. 4, 1968.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 15	13.50	Jan. 9	13.25	Apr. 1	12.86	June 18	13.43	July 30	13.59	Sept. 9	13.04
Nov. 20	13.51	Feb. 10	13.18	May 12	13.24						

353343076371801. Local number, NC-75.
LOCATION.--Lat 35°33'43", long 76°37'18", Hydrologic Unit 03020104, near Belhaven. Owner: J. W. Younce.
AQUIFER.--Yorktown Formation of late Miocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (0.05 m), depth 146 ft (44.5 m) (revised), cased to 120 ft (36.6 m).
DATUM.--Altitude of land-surface datum is 3.8 ft (1.2 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby municipal supply wells.
PERIOD OF RECORD.--September 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.39 ft (0.42 m) below land-surface datum, Jan. 14-15, 1968; lowest, 14.65 ft (4.47 m) below land-surface datum, Mar. 23, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.21	11.81	9.81	13.28	9.01	9.51	9.84	10.41	9.91	10.74	11.86	---
10	11.20	10.85	11.08	9.91	9.31	8.59	---	10.55	9.46	11.15	11.40	9.47
15	10.94	10.88	9.35	9.93	9.12	8.43	---	10.11	9.67	11.20	10.98	9.63
20	10.39	10.87	9.78	9.94	8.81	8.38	10.16	10.44	9.75	11.53	10.76	10.12
25	11.51	11.38	10.46	8.84	8.83	9.32	10.21	9.94	10.39	11.80	---	10.54
EOM	13.15	10.29	12.64	8.84	8.41	8.86	10.10	9.97	10.78	11.96	---	10.67

WTR YR 1981 MEAN 10.22 HIGH 7.92 MAR 16 LOW 13.57 JAN 3

352615077083401. Local number, NC-137.
LOCATION.--Lat 35°26'15", long 77°08'34", Hydrologic Unit 03020202, near Wilmar. Owner: N.C. Department of Transportation.
AQUIFER.--Limestone of Castle Hayne Formation of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 142 ft (43.3 m), cased to 72 ft (21.9 m).
DATUM.--Measuring point: Top of casing, 57.64 ft (17.569 m) National Geodetic Vertical Datum of 1929.
PERIOD OF RECORD.--January 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.94 ft (11.26 m) NGVD, Feb. 3, 1972; lowest, 30.63 ft (9.34 m) NGVD, Nov. 26, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.17	32.02	32.76	33.72	34.38	35.13	34.72	33.75	34.27	34.67	33.50	33.90
10	31.33	32.15	33.03	33.99	34.50	34.92	34.57	33.65	34.52	34.49	33.32	34.04
15	31.41	32.25	33.07	34.21	34.60	34.92	34.42	33.62	34.62	34.36	33.24	34.07
20	31.62	32.30	33.10	34.27	34.93	34.95	34.39	33.67	34.76	34.20	33.40	34.00
25	31.83	32.55	33.30	34.36	34.93	34.85	34.20	33.79	34.76	33.97	33.43	33.82
EOM	31.85	32.63	33.66	34.34	34.94	34.79	34.02	34.02	34.66	33.70	33.70	33.70

WTR YR 1981 MEAN 33.74 MAX 35.13 MAR 5 MIN 31.17 OCT 5

BEAUFORT COUNTY--Continued

352615077083402. Local number, NC-138.
LOCATION.--Lat 35°26'15", long 77°08'34", Hydrologic Unit, 03020202, near Wilmar. Owner: N.C. Department of Transportation.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in (0.10 m), depth 12 ft (3.7 m), cased to 7 ft (2.1 m).
DATUM.--Measuring point: Top of casing, 58.14 ft (17.721 m) National Geodetic Vertical Datum of 1929.
PERIOD OF RECORD.--August 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 57.56 ft (17.54 m) NGVD, Apr. 26-27, 1979; lowest, 51.11 ft (15.58 m) NGVD, Nov. 24-27, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.43	54.04	55.05	56.51	56.76	56.86	56.38	54.14	---	55.71	53.31	55.48
10	53.33	53.87	55.21	56.55	56.72	56.70	56.24	---	---	54.71	53.69	55.60
15	53.15	53.78	55.68	56.47	56.90	56.57	55.77	---	---	54.21	55.14	54.87
20	53.06	54.00	55.76	56.69	56.90	56.57	55.40	---	---	54.11	56.43	54.48
25	53.34	55.04	56.14	56.62	56.75	56.62	54.99	---	55.47	53.69	56.68	53.99
EOM	53.95	55.24	56.60	56.83	56.70	56.54	54.54	---	54.70	53.68	56.14	53.61

WTR YR 1981 MEAN 55.30 MAX 56.94 FEB 12 MIN 52.85 OCT 1

BERTIE COUNTY

355930076570001. Local number, NC-32.
LOCATION.--Lat 35°59'30", long 76°57'00", Hydrologic Unit 03010107, at Windsor. Owner: Town of Windsor.
AQUIFER.--Sand of Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 334 ft (101.8 m) (revised), drilled to 360 ft (109.7 m), gravel walled.
DATUM.--Land-surface datum is 28.38 ft (8.650 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 1.25 ft (0.38 m) above land-surface datum. Measuring point changed from 1.4 ft (0.43 m) above land-surface datum, May 22, 1979.
PERIOD OF RECORD.--June 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.22 ft (4.94 m) below land-surface datum, Aug. 14, 1958; lowest, 36.78 ft (11.21 m) below land-surface datum, Aug. 24, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SE
5	29.45	29.56	29.32	29.49	29.65	29.11	29.25		30.80	31.51	32.11	31.2
10	29.30	29.62	29.28	29.82	29.61	29.24	29.35		30.74	31.58	31.93	30.7
15	29.58	29.75	29.19	30.67	29.58	29.23	---		30.69	31.86	32.08	30.6
20	29.50	29.57	29.26	30.20	29.23	29.48	---		30.46	31.81	31.92	30.6
25	29.40	29.24	29.34	29.87	29.24	29.39	---		30.73	31.91	31.86	31.5
EOM	29.56	29.35	29.41	29.71	29.38	29.26	---		31.63	32.14	31.95	32.8

WTR YR 1981 MEAN 30.23 HIGH 29.10 DEC 16 LOW 32.96 SEP 30

BRUNSWICK COUNTY

335535078011001. Local number, NC-22.
LOCATION.--Lat 33°55'35", long 78°01'10", Hydrologic Unit 03030005, at Southport. Owner: Town of Southport.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 10 in (0.25 m), depth 161 ft (49.1 m) (revised), cased to 60 ft (18.3 m).
DATUM.--Land-surface datum is 20.5 ft (6.25 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 5.27 ft (1.61 m) above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby municipal wells.
PERIOD OF RECORD.--February 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.14 ft (4.61 m) below land-surface datum, Mar. 29, 1965; lowest, 31.90 ft (9.72 m) below land-surface datum, Apr. 16, 1976.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.89	20.59	20.16	20.79	20.55	19.98	20.25	21.76	21.39	20.17	21.16	20.65
10	20.84	20.77	20.06	20.72	20.45	20.08	20.70	20.42	20.35	19.98	21.11	20.78
15	21.15	20.77	20.16	20.91	20.20	20.54	21.30	20.96	20.36	20.52	21.27	21.08
20	21.05	20.45	20.32	20.56	19.84	20.14	21.36	21.50	20.45	20.46	20.77	20.69
25	20.75	20.43	20.93	20.57	19.95	20.10	21.46	21.53	20.59	21.15	20.39	20.80
EOM	20.90	20.47	20.47	20.75	20.19	19.83	22.11	21.30	20.30	21.64	20.35	20.89

WTR YR 1981 MEAN 20.68 HIGH 19.52 JUL 8 LOW 22.23 JUL 29

CARTERET COUNTY

344323076451301. Local number, NC-139.
LOCATION.--Lat 34°43'23", long 76°45'13", Hydrologic Unit 03020106, Morehead City. Owner: North Carolina Department of Natural and Economic Resources.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 192 ft (58.5 m), cased to 180 ft (54.9 m).
DATUM.--Land-surface datum is 8.72 ft (2.658 m) National Geodetic Vertical Datum of 1929 (levels by N.C. Department of Natural and Economic Resources). Measuring point: Top of casing, 1.73 ft (0.53 m) above land-surface datum.
PERIOD OF RECORD.--January 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.23 ft (1.29 m) below land-surface datum, Dec. 7, 1976; lowest, 9.55 ft (2.91 m) below land-surface datum, Aug. 11, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.02	7.45	7.33	7.53	7.40	6.22	6.83	7.39	7.95	8.66	8.95	7.93
10	7.78	7.58	7.12	7.27	7.20	6.66	7.08	7.19	7.84	8.80	8.96	7.85
15	7.89	7.42	7.20	7.31	7.21	6.64	7.11	7.10	8.21	8.64	8.81	8.11
20	7.71	7.38	7.07	7.16	6.63	6.61	7.18	7.35	8.29	8.66	8.16	8.02
25	7.27	7.19	7.48	7.12	6.77	6.79	7.32	7.51	8.77	8.79	8.22	8.15
EOM	7.61	7.41	6.96	7.23	6.72	6.94	7.57	7.57	8.73	8.86	8.05	8.19

WTR YR 1981 MEAN 7.61 HIGH 6.22 MAR 5 LOW 9.01 AUG 11

CHOWAN COUNTY

361842076364001. Local number, NC-31.
LOCATION.--Lat 36°18'42", long 76°36'40", Hydrologic Unit 03010203, near Gliden. Owner: U.S. Geological Survey.
AQUIFER.--Beaufort Formation of Paleocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (0.05 m), depth 240 ft (73.2 m) (revised), cased to 232 ft (70.7 m), screened from 232 ft (70.7 m) to 242 ft (73.8 m).
DATUM.--Land-surface datum is 37.50 (11.430 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.05 ft (0.62 m) above land-surface datum.
PERIOD OF RECORD.--October 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.12 ft (4.61 m) below land-surface datum, Feb. 25, 1965; lowest measured, 19.11 ft (5.82 m) below land-surface datum, Aug. 5, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	19.01	Jan. 7	18.74	Feb. 17	18.83	Apr. 1	18.80	June 5	18.94	Aug. 5	19.11
Nov. 17	18.92										

361427076393001. Local number, NC-58.
LOCATION.--Lat 36°14'27", long 76°39'30", Hydrologic Unit 03010203, Chowan County High School, near Icaria. Owner: Chowan County Board of Education.
AQUIFER.--Sands of Paleocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 310 ft (94.5 m) (revised), reported cased to 320 ft (97.5 m).
DATUM.--Land-surface datum is 26.58 ft (8.102 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.90 ft (0.27 m) above land-surface datum.
PERIOD OF RECORD.--June 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.91 ft (2.41 m) below land-surface datum, Mar. 13, 1957; lowest measured, 13.69 ft (4.17 m) below land-surface datum, Feb. 17, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	12.65	Jan. 7	12.60	Feb. 17	13.69	Apr. 1	12.49	June 5	12.66	Aug. 5	12.84
Nov. 17	12.72										

CHOWAN COUNTY--Continued

361350076392701. Local number, NC-78.
LOCATION.--Lat 36°13'50", long 76°39'27", Hydrologic Unit 03010203, near Tyner. Owner: R. H. Hollowell.
AQUIFER.--Sand of post-Miocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (0.91 m), depth 14 ft (4.3 m), dug to 16 ft (4.9 m), lined with concrete.
DATUM.--Altitude of land-surface datum is 30 ft (9 m). Measuring point: Top of instrument shelf, 2.35 ft (0.72 m) above land-surface datum.
PERIOD OF RECORD.--June 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.01 ft (0.003 m) above land-surface datum, Mar. 18, 1980; lowest, 7.24 ft (2.21 m) below land-surface datum, Sept. 29, 30, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.70	5.57	5.03	4.83	3.95		4.19	4.99	3.16	1.81	4.16	3.69
10	6.74	5.85	4.90	5.09	---		4.34	5.30	3.85	4.26	3.73	3.61
15	6.92	6.19	4.31	5.39	---		4.72	5.45	4.66	4.87	1.49	4.34
20	6.90	6.40	4.73	5.66	---		4.37	5.72	2.08	2.34	.48	4.76
25	3.81	2.01	5.01	5.67	---		3.96	5.70	4.33	3.27	1.07	5.22
EOM	5.02	4.31	4.70	5.85	---		4.61	5.80	5.01	4.51	2.37	5.61

WTR YR 1981 MEAN 4.55 HIGH .48 AUG 20 LOW 7.10 OCT 1

CRAVEN COUNTY

352309077102901. Local number, NC-16.
LOCATION.--Lat 35°23'09", long 77°10'29", Hydrologic Unit 03020202, near Wilmar. Owner: U.S. Geological Survey (formerly W. L. Elks).
AQUIFER.--Pee Dee Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (0.05 m), depth 322 ft (98.1 m), cased to 300 ft (91.4 m), screened 300 to 320 ft (91.4 to 97.5 m).
DATUM.--Altitude of land-surface datum is 49 ft (15 m). Measuring point: Top of casing, 0.30 ft (0.09 m) above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.01 ft (4.58 m) below land-surface datum, Aug. 23, 1966; lowest measured, 25.39 ft (7.74 m) below land-surface datum, Sept. 3, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 14	24.46	Jan. 8	24.67	Mar. 31	24.78	June 23	24.92	Aug. 6	25.14	Sept. 3	25.03
Nov. 18	24.51	Feb. 6	24.73								

351049077175501. Local number, NC-44.
LOCATION.--Lat 35°10'49", long 77°17'55", Hydrologic Unit 03020202, Cove City. Owner: City of New Bern.
AQUIFER.--Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (0.05 m), depth 854 ft (260.3 m), multi-screened. Screened intervals: 705-715 ft (214.9-217.9 m), 781-786 ft (238.0-239.6 m), 828-833 ft (252.4-253.9 m).
DATUM.--Land-surface datum is 36.73 ft (11.195 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 2.06 ft (0.63 m) above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--March 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.01 ft (1.83 m) below land-surface datum, Aug. 25, 26, 1965; lowest measured, 90.68 ft (27.64 m) below land-surface datum, Aug. 7, 8, 1979.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	82.88	81.42	81.44	81.40	81.90	82.01	81.01	81.92	82.10	82.00	82.87	80.44
10	82.90	82.07	80.97	81.84	81.99	80.92	82.39	81.21	81.91	82.93	82.70	83.03
15	82.64	82.04	80.83	82.70	81.49	81.02	81.97	81.95	82.27	83.18	80.69	82.79
20	82.15	82.23	81.27	81.94	81.38	82.06	82.04	81.90	82.54	81.94	82.12	83.06
25	81.47	81.77	81.43	82.15	81.15	80.99	82.16	81.41	82.23	82.83	80.99	80.78
EOM	81.60	81.06	81.36	81.81	81.29	81.03	83.01	81.72	82.84	83.15	80.02	80.80

WTR YR 1981 MEAN 81.86 HIGH 80.00 SEP 8 LOW 84.33 AUG 11

CRAVEN COUNTY--Continued

350904077130601. Local number, NC-48.
LOCATION.--Lat 35°09'04", long 77°13'06", Hydrologic Unit 03020202, Tuscarora. Owner: International Paper Company.
AQUIFER.--Sand of Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (0.05 m), depth 310 ft (94.5 m), drilled to 887 ft (270.4 m), cased to 440 ft (134.1 m).
DATUM.--Altitude of land-surface datum is 38 ft (12 m). Measuring point: Top of casing, 2.60 ft (0.79 m) above land-surface datum.
PERIOD OF RECORD.--November 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.55 ft (0.17 m) above land-surface datum, June 24, 1963; lowest, 9.41 ft (2.87 m) below land-surface datum, Sept. 10, 1981, possibly lower during period of lost record in September 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.93	8.82	8.92	8.91	8.94	8.80	9.11	---	---			
10	8.90	8.86	8.87	8.87	8.95	9.03	---	---	9.07			
15	8.99	8.92	8.88	8.84	9.02	9.03	9.20	---	---			
20	8.91	8.96	8.94	8.87	8.80	8.93	9.18	---	9.05			
25	8.81	8.83	8.90	8.86	8.91	9.04	9.16	9.14	---			
EOM	8.87	8.87	8.73	8.93	8.97	9.05	9.21	9.11	---			

WTR YR 1981 MEAN 8.96 HIGH 8.66 DEC 29 LOW 9.27 APR 16 AND OTHERS

CUMBERLAND COUNTY

345803078564901. Local number, NC-84.
LOCATION.--Lat 34°58'03", long 78°56'49" (revised), Hydrologic Unit 03030004, Hope Mills. Owner: Robert Deaver.
AQUIFER.--Slate of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 410 ft (125.0 m), drilled to 509 ft (155.1 m), cased to 238 ft (72.5 m).
DATUM.--Altitude of land-surface datum is 110 ft (34 m). Measuring point: Top of instrument shelf, 1.15 ft (0.35 m) above land-surface datum. Measuring point changed from 1.80 ft (0.55 m) above land-surface datum, July 12, 1974.
PERIOD OF RECORD.--April 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.38 ft (9.56 m) below land-surface datum, Apr. 3, 1975; lowest, 92.03 ft (28.05 m) below land-surface datum, June 3, 1967.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.38	35.38	35.84	35.32	35.32	34.89	35.06	35.23	35.27	35.46	35.73	35.83
10	35.36	35.42	35.73	35.26	35.26	35.10	35.15	35.13	35.28	35.52	35.79	35.81
15	35.49	35.48	35.39	35.20	35.28	35.03	35.22	35.11	35.40	35.48	35.79	35.85
20	35.42	35.48	---	35.23	34.97	34.97	35.10	35.18	35.41	35.56	35.69	35.92
25	35.39	35.43	---	35.24	35.08	35.07	35.11	35.22	35.57	35.65	35.72	36.06
EOM	35.46	35.45	35.18	35.40	35.10	35.04	35.15	35.20	35.66	35.72	35.75	36.08

WTR YR 1981 MEAN 35.40 HIGH 34.89 MAR 5 LOW 36.08 SEP 29 AND OTHERS

DAVIE COUNTY

355339080332601. Local number, NC-110.
LOCATION.--Lat 35°53'39", long 80°33'26", Hydrologic Unit 03040102, near Mocksville. Owner: H. S. Larew.
AQUIFER.--Weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (0.91 m), depth 28 ft (8.5 m), dug to 32 ft (9.8 m), lined with rock.
DATUM.--Altitude of land-surface datum is 830 ft (253 m). Measuring point: Top of wooden platform, 3.60 ft (1.10 m) above land-surface datum.
PERIOD OF RECORD.--January 1932 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 12.47 ft (3.80 m) below land-surface datum, Apr. 1, 1973; lowest measured, 28.66 ft (8.74 m) below land-surface datum, Feb. 15, 1942.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 4	18.42	Dec. 14	21.27	Feb. 23	21.34	Apr. 27	20.87	June 24	20.87	Aug. 8	22.20
Oct. 10	18.42	Dec. 28	21.49	Feb. 28	21.28	May 3	21.02	June 28	21.10	Aug. 13	21.88
Oct. 18	18.44	Jan. 3	21.54	Mar. 8	21.20	May 8	21.12	June 29	21.13	Aug. 15	22.28
Oct. 26	18.52	Jan. 11	21.62	Mar. 14	21.19	May 10	21.14	July 5	20.76	Aug. 23	22.62
Nov. 2	18.46	Jan. 18	21.72	Mar. 28	21.10	May 16	21.30	July 12	21.47	Aug. 30	21.02
Nov. 9	18.45	Jan. 24	21.73	Apr. 4	20.82	May 22	20.82	July 14	21.55	Sept. 5	17.76
Nov. 16	20.44	Jan. 30	22.02	Apr. 6	20.82	May 25	21.34	July 19	21.74	Sept. 8	21.73
Nov. 23	21.31	Feb. 9	22.14	Apr. 12	20.76	May 30	21.44	July 25	20.16	Sept. 12	21.95
Nov. 30	21.16	Feb. 14	21.80	Apr. 19	20.72	June 6	20.66	July 28	21.77	Sept. 20	22.20
Dec. 6	21.20	Feb. 21	21.33	Apr. 25	20.81	June 14	20.74	Aug. 1	22.02	Sept. 26	22.50

DUPLIN COUNTY

350030078060001. Local number, NC-69.
LOCATION.--Lat 35°00'30", long 78°06'00", Hydrologic Unit 03030006, at Warsaw. Owner: City of Warsaw.
AQUIFER.--Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (0.25 m), depth 102 ft (31.1 m), believed cased to 102 ft (31.1 m).
DATUM.--Altitude of land-surface datum is 145 ft (44 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
REMARKS.--Water levels affected by intermittent pumping from nearby municipal wells.
PERIOD OF RECORD.--January 1963 to October 1964, January 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.69 ft (13.32 m) below land-surface datum, Feb. 23, 1967; lowest, 49.89 ft (15.21 m) below land-surface datum, Aug. 23, 1968.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.86	47.81	47.75	47.64	47.43	47.12	47.05	47.52	47.63	47.84	47.87	47.48
2	47.84	47.85	47.73	47.64	47.36	47.08	47.06	47.55	47.56	47.90	47.87	47.48
3	47.86	47.86	47.75	47.62	47.39	47.08	47.12	47.61	47.54	47.86	47.85	47.48
4	47.88	47.79	47.79	47.62	47.41	47.08	47.14	47.65	47.50	47.64	47.81	47.46
5	47.93	47.73	47.79	47.65	47.42	46.97	47.15	47.64	47.45	47.65	47.83	47.50
6	47.93	47.75	47.81	47.62	47.41	47.00	47.16	47.64	47.22	47.65	47.85	47.49
7	47.95	47.77	47.77	47.56	47.38	47.02	47.21	47.64	47.14	47.66	48.01	47.48
8	47.95	47.76	47.78	47.59	47.34	47.06	47.20	47.56	47.15	47.69	48.44	47.45
9	47.97	47.76	47.79	47.61	47.39	47.07	47.20	47.37	47.38	47.70	48.15	47.43
10	47.99	47.74	47.75	47.60	47.39	47.03	47.21	47.46	47.44	47.72	48.06	47.46
11	47.99	47.76	47.73	47.59	47.29	47.03	47.23	47.48	47.52	47.74	47.99	47.51
12	48.02	47.75	47.72	47.59	47.35	47.03	47.21	47.49	47.58	47.77	47.80	47.50
13	48.06	47.76	47.69	47.57	47.38	47.02	47.25	47.55	47.59	47.77	47.77	47.52
14	48.08	47.77	47.69	47.56	47.37	47.02	47.25	47.59	47.61	47.77	47.79	47.50
15	48.09	47.75	47.69	47.58	47.36	47.03	47.28	47.62	47.62	47.80	47.82	47.51
16	48.09	47.74	47.64	47.58	47.35	46.98	47.29	47.68	47.64	47.82	47.82	47.55
17	48.08	47.74	47.66	47.58	47.31	47.01	47.27	47.70	47.66	47.81	47.77	47.65
18	48.09	47.68	47.69	47.59	47.28	46.97	47.24	47.71	47.68	47.83	47.73	47.90
19	48.07	47.74	47.71	47.56	47.24	46.97	47.27	47.66	47.57	47.86	47.69	48.03
20	48.06	47.72	47.76	47.56	47.15	47.00	47.27	47.65	47.49	47.86	47.52	47.79
21	48.07	47.69	47.79	47.49	47.14	47.05	47.31	47.52	47.52	47.86	47.59	47.66
22	48.07	47.74	47.80	47.48	47.17	47.09	47.34	47.52	47.53	47.84	47.56	47.60
23	48.09	47.77	47.74	47.45	47.15	47.02	47.34	47.53	47.54	47.86	47.57	47.55
24	48.10	47.74	47.71	47.46	47.12	47.01	47.30	47.59	47.60	47.88	47.56	47.58
25	47.96	47.73	47.79	47.48	47.14	47.02	47.33	47.65	47.59	47.90	47.58	47.61
26	48.00	47.75	47.86	47.47	47.16	47.05	47.39	47.70	47.62	47.89	47.60	47.60
27	47.94	47.70	47.80	47.44	47.17	47.06	47.40	47.72	47.67	47.91	47.60	47.61
28	47.70	47.68	47.71	47.43	47.16	47.12	47.42	47.62	47.71	47.90	47.58	47.59
29	47.86	47.70	47.64	47.43	---	47.12	47.44	47.62	47.73	47.90	47.57	47.61
30	47.87	47.74	47.64	47.44	---	47.08	47.49	47.64	47.75	47.89	47.51	47.62
31	47.82	---	47.64	47.44	---	47.07	---	47.65	---	47.88	47.51	---
MEAN	47.98	47.75	47.74	47.55	47.29	47.04	47.26	47.60	47.54	47.81	47.76	47.57

WTR YR 1981 MEAN 47.58 HIGH 46.97 LOW 48.44

EDGECOMBE COUNTY

355845077264501. Local number, NC-72.
LOCATION.--Lat 35°58'45", long 77°26'45", Hydrologic Unit 03020102, Speed. Owner: Melvin Howell.
AQUIFER.--Sands of Tuscaloosa Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diamter 4 in (0.10 m), depth 94 ft (28.7 m), drilled to 100 ft (30.5 m), cased to 95 ft (29.0 m).
DATUM.--Land-surface datum is 54.51 (16.615 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.90 ft (0.58 m) above land-surface datum. Measuring point changed from 0.70 ft (0.21 m) above land-surface datum, Feb. 3, 1972.
PERIOD OF RECORD.--March 1946 to May 1965, April 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.17 ft (0.05 m) below land-surface datum, Sept. 27, 1955; lowest measured, 12.16 ft (3.71 m) below land-surface datum, June 11, 1953.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.01	10.08	10.01	9.87	9.31	8.42	9.36	---	9.15	10.49	11.61	10.41
10	9.99	10.17	9.99	9.69	9.21	8.42	8.71	---	9.32	10.87	11.56	---
15	10.17	10.18	9.90	9.71	9.07	---	---	8.99	9.55	11.03	11.40	---
20	10.25	10.15	9.75	9.76	8.76	---	---	9.09	9.90	10.99	11.10	---
25	10.07	10.11	9.96	9.56	8.66	---	---	9.08	10.17	---	10.60	---
EOM	10.05	10.14	9.91	9.50	8.64	8.23	---	9.27	10.56	11.57	10.44	---

WTR YR 1981 MEAN 9.91 HIGH 8.23 MAR 31 LOW 11.72 AUG 6

GATES COUNTY

362044076362301. Local number, NC-30.
LOCATION.--Lat 36°20'44", long 76°36'23", Hydrologic Unit 03010203, Hobbsville. Owner: Mrs. T. W. Blanchard.
AQUIFER.--Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 460 ft (140.2 m), (revised), believed cased to 494 ft (150.6 m).
DATUM--Land-surface datum is 38.16 ft (11.631 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--November 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.40 ft (5.61 m) below land-surface datum, Mar. 8, 1962; lowest measured, 26.22 ft (7.99 m) below land-surface datum, Aug. 22, 1979.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	23.89	Jan. 7	23.70	Feb. 17	23.82	Apr. 1	23.78	June 5	23.86	Aug. 5	24.12
Nov. 17	23.85										

362751076484701. Local number, NC-54.
LOCATION.--Lat 36°27'51", long 76°48'47", Hydrologic Unit 03010203, Roduco. Owner: James Wright.
AQUIFER.--Beaufort Formation of Paleocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 231 ft (70.4 m), cased to 217 ft (66.1 m).
DATUM.--Land-surface datum is 37.35 ft (11.384 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 1.28 ft (0.39 m) above land-surface datum. Measuring point changed from 1.80 ft (0.55 m) above land-surface datum, Mar. 26, 1979.
PERIOD OF RECORD.--November 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.84 ft (3.91 m) below land-surface datum, Mar. 5, 1966; lowest, 19.22 ft (5.86 m) below land-surface datum, Feb. 1, 2, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.81	17.00	16.87	17.39	17.60	17.17	17.39	17.61	17.47	17.54	17.97	17.96
10	17.67	16.97	16.87	17.66	17.62	17.33	17.57	17.49	17.69	17.61	17.99	18.02
15	17.61	17.00	16.83	17.51	17.63	17.31	17.55	17.36	17.72	17.68	17.94	18.14
20	17.38	16.97	16.97	17.35	17.37	17.33	17.63	17.28	17.79	17.80	17.95	18.10
25	17.07	16.84	17.67	17.32	17.34	17.33	17.37	17.31	17.88	17.92	17.89	18.09
EOM	17.03	16.83	17.42	17.39	17.32	17.25	17.38	17.30	17.87	17.98	17.93	18.19

WTR YR 1981 MEAN 17.51 HIGH 16.78 NOV 29 LOW 18.19 SEP 29 AND OTHERS

HARNETT COUNTY

352052078372801. Local number, HR-52.
LOCATION.--Lat 35°20'52", long 78°37'28", Hydrologic Unit 03030006, at SR 1722 near Dunn. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 8.4 ft (2.56 m), cased to 8.4 ft (2.56 m).
DATUM.--Measuring point: File cut on top of casing, 178.83 ft (54.507 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 177.29 ft (54.04 m) NGVD, Aug. 12, 1981; lowest measured, 170.45 ft (51.95 m) NGVD, Sept. 8, 1977.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	174.94	Jan. 20	175.74	Mar. 16	174.75	May 28	174.86	Aug. 12	177.29	Aug. 14	176.12
Oct. 6	174.93	Feb. 11	175.65	May 21	171.78	July 24	172.21	Aug. 13	176.75	Aug. 15	175.58
Dec. 2	175.20	Feb. 12	175.71								

HARNETT COUNTY--Continued

352052078372802. Local number, HR-53.
LOCATION.--Lat 35°20'52", long 78°37'28", Hydrologic Unit 03030006, at SR 1722 near Dunn. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 8.4 ft (2.56 m), cased to 8.4 ft (2.56 m).
DATUM.--Measuring point: File cut on top of casing, 179.04 ft (54.571 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 177.01 ft (53.95 m) NGVD, Aug. 12, 1981; lowest measured, 170.44 ft (51.95 m) NGVD, Aug. 1, 1977.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	174.53	Jan. 20	175.17	Mar. 16	174.90	May 28	175.89	Aug. 12	177.01	Aug. 14	176.07
Oct. 6	174.74	Feb. 11	175.70	May 21	172.13	July 24	171.85	Aug. 13	176.60	Aug. 15	175.63
Dec. 2	175.15	Feb. 12	175.64								

352052078372201. Local number, HR-54.
LOCATION.--Lat 35°20'52", long 78°37'22", Hydrologic Unit 03030006, at SR 1722 near Dunn. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 7.5 ft (2.29 m), cased to 7.5 ft (2.29 m).
DATUM.--Measuring point: File cut on top of casing, 178.08 ft (54.279 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 177.42 ft (54.08 m) NGVD, Aug. 12, 1981; lowest measured, 172.80 ft (52.67 m) NGVD, Sept. 24, 1980.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	175.42	Jan. 20	174.51	Mar. 16	175.69	May 28	176.07	Aug. 12	177.42	Aug. 14	176.24
Oct. 6	175.46	Feb. 11	176.32	May 21	174.16	July 24	173.76	Aug. 13	176.85	Aug. 15	175.96
Dec. 2	175.65	Feb. 12	176.03								

351659078381501. Local number, HR-55.
LOCATION.--Lat 35°16'59", long 78°38'15", Hydrologic Unit 03030006, at SR 1780 near Dunn. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 8.0 ft (2.44 m), cased to 8.0 ft (2.44 m).
DATUM.--Measuring point: File cut on top of casing, 155.76 ft (47.476 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 152.85 ft (46.59 m) NGVD, Apr. 29, 1978; lowest, 146.95 ft (44.79 m) NGVD, Sept. 3, 1980.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	147.97	147.91	147.92	148.03	148.04	148.07	147.95	---	147.96	149.20	147.71	148.02
10	147.88	147.86	148.19	147.99	148.03	148.04	147.93	---	147.84	147.92	148.60	148.60
15	147.74	---	147.94	---	148.20	148.00	147.91	147.88	147.72	147.75	149.94	148.00
20	147.74	---	147.91	147.98	150.12	147.99	147.90	147.84	147.63	147.69	150.33	147.91
25	147.78	---	147.95	148.00	148.22	148.00	147.87	147.81	147.47	147.77	149.88	147.83
EOM	147.86	---	148.62	148.00	148.07	147.98	---	148.07	147.29	147.78	148.91	147.82

WTR YR 1981 MEAN 148.11 MAX 150.33 AUG 20 MIN 147.29 JUN 30

HARNETT COUNTY--Continued

351659078381502. Local number, HR-56.
LOCATION.--Lat 35°16'59", long 78°38'15", Hydrologic Unit 03030006, at SR 1780 near Dunn. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 10.8 ft (3.29 m), cased to 10.8 ft (3.29 m).
DATUM.--Measuring point: File cut on top of casing, 156.61 ft (47.735 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 152.24 ft (46.40 m) NGVD, Apr. 27, 1978; lowest measured, 146.76 ft (44.73 m) NGVD, Sept. 24, 1980.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	148.56	Jan. 20	148.94	Mar. 16	149.17	May 28	149.74	Aug. 12	151.16	Aug. 14	150.28
Oct. 6	148.09	Feb. 11	149.85	May 21	148.19	July 24	147.56	Aug. 13	151.39	Aug. 15	149.68
Dec. 2	148.52	Feb. 12	150.07								

351657078381001. Local number, HR-57.
LOCATION.--Lat 35°16'57", long 78°38'10", Hydrologic Unit 03030006, at SR 1780 near Dunn. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 6.8 ft (2.07 m), cased to 6.8 ft (2.07 m).
DATUM.--Measuring point: File cut on top of casing, 159.32 ft (48.561 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).
PERIOD OF RECORD.--July 1977 to September 1981 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 158.24 ft (48.23 m) NGVD, Aug. 12, 1981; lowest measured, 156.59 ft (47.73 m) NGVD, Aug. 21, 1979.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	157.47	Jan. 20	157.09	Mar. 16	157.71	May 28	157.82	Aug. 12	158.24	Aug. 14	158.11
Oct. 6	157.54	Feb. 11	157.98	May 21	157.67	July 24	157.43	Aug. 13	158.15	Aug. 15	158.06
Dec. 2	157.24	Feb. 12	157.78								

HAYWOOD COUNTY

352315082484401. Local number, NC-40.
LOCATION.--Lat 35°23'15", long 82°48'44", Hydrologic Unit 06010106, near Cruso. Owner: Champion Paper and Fiber Company.
AQUIFER.--Phyllitic rock of the Snowbird Group of Precambrian age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 12 in (0.30 m), depth 19 ft (5.8 m), cased to 19 ft (5.8 m).
DATUM.--Land-surface datum is 3,148.26 ft (959.590 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--December 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.24 ft (0.38 m) below land-surface datum, Mar. 12, 1977; lowest, 6.52 ft (1.99 m) below land-surface datum, Sept. 30, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.21	5.59	5.53	5.79	5.54	5.12	5.06	5.13	4.84	5.26	5.76	6.09
10	5.44	5.67	5.66	5.83	5.57	5.24	5.19	5.08	5.03	5.38	5.89	6.11
15	5.57	5.73	5.73	5.90	5.22	5.33	4.95	4.90	5.09	5.45	5.98	6.26
20	5.61	5.59	5.79	5.95	4.67	5.37	5.00	4.92	5.17	5.51	6.05	6.34
25	5.61	5.26	5.83	5.94	4.89	5.28	5.02	4.97	5.23	5.62	6.11	6.43
EOM	5.49	5.15	5.72	5.94	5.14	4.65	5.07	4.50	5.25	5.70	6.24	6.51

WTR YR 1981 MEAN 5.47 HIGH 3.74 MAY 27 LOW 6.51 SEP 30

HERTFORD COUNTY

362845077005501. Local number, NC-55.
LOCATION.--Lat 36°28'45", long 77°00'55", Hydrologic Unit 03010203, Como. Owner: Charles DeLoatch.
AQUIFER.--Sands of Tuscaloosa Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (0.05 m), depth 340 ft (103.6 m), cased to 340 ft (103.6 m).
DATUM.--Land-surface datum is 28.40 ft (8.656 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.79 ft (0.85 m) above land-surface datum.
PERIOD OF RECORD.--December 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.36 ft (14.74 m) below land-surface datum, May 30, 31, 1966; lowest measured, 94.43 ft (28.78 m) below land-surface datum, Aug. 5, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	92.92	Jan. 6	92.92	Feb. 18	93.05	Mar. 30	93.18	June 4	93.69	Aug. 5	94.43
Nov. 18	92.78										

362642077051501. Local number, NC-81.
LOCATION.--Lat 36°26'42", long 77°05'15", Hydrologic Unit 03010204, Murfreesboro. Owner: Town of Murfreesboro.
AQUIFER.--Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled public-supply (standby) artesian well, diameter 3 in (0.08 m), depth 215 ft (65.5 m), cased to 215 ft (65.5 m).
DATUM.--Land-surface datum is 13.09 ft (3.990 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.89 ft (1.49 m) above land-surface datum.
PERIOD OF RECORD.--February 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.26 ft (1.91 m) above land-surface datum, Apr. 8, 1964; lowest, 4.00 ft (1.22 m) below land-surface datum, Aug. 5, 1981.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	-2.61	Jan. 6	-3.05	Feb. 18	-3.54	Mar. 30	-3.27	June 4	-3.44	Aug. 5	-4.00
Nov. 18	-2.55										

362351076555401. Local number, NC-82.
LOCATION.--Lat 36°23'51", long 76°55'54", Hydrologic Unit 03010203, Winton. Owner: Town of Winton.
AQUIFER.--Sand of Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 283 ft (86.3 m), drilled to 309 ft (94.2 m), cased to 237 ft (72.2 m).
DATUM.--Land-surface datum is 41.70 ft (12.710 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 0.70 ft (0.21 m) above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.58 ft (8.41 m) below land-surface datum, Sept. 17, 1967; lowest, 30.35 ft (9.25 m) below land-surface datum, Mar. 18, 1973.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	29.53	Jan. 6	29.65	Feb. 17	29.67	Apr. 1	29.67	June 4	29.77	Aug. 5	29.91
Nov. 17	29.58										

HOKE COUNTY

350340079212501. Local number, NC-35.
LOCATION.--Lat 35°03'40", long 79°21'25", Hydrologic Unit 03040203, McCain. Owner: North Carolina Tuberculosis Sanitarium.
AQUIFER.--Tuscaloosa Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 24 in (0.61 m), depth 76 ft (23.2 m), drilled to 309 ft (94.2 m), cased to 309 ft (94.2 m), gravel walled.
DATUM.--Altitude of land-surface datum is 355 ft (108 m). Measuring point: Top of casing, 1.40 ft (0.43 m) above land-surface datum.
PERIOD OF RECORD.--April 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.60 ft (0.49 m) below land-surface datum, May 7, 1973; lowest, 8.27 ft (2.52 m) below land-surface datum, Oct. 14, 1968.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	5.66	Dec. 16	5.95	Mar. 3	6.14	May 27	7.08	Aug. 4	7.61	Sept. 15	7.84
Nov. 5	5.86	Jan. 22	6.10	Apr. 15	6.58	June 30	7.37				

JONES COUNTY

350103077150601. Local number, NC-73.
LOCATION.--Lat 35°01'03", long 77°15'06", Hydrologic Unit 03020204, near Pollocksville. **Owners: Oak Grove Marine** Air Station.
AQUIFER.--Castle Hayne Limestone Formation of middle and late Eocene age.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 8 in (0.20 m), depth 18 ft (5.5 m), cased to 18 ft (5.5 m).
DATUM.--Land-surface datum is 11.31 ft (3.447 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf 3.28 ft (1.00 m) above land-surface datum. Measuring point changed from 3.40 ft (1.04 m) above land-surface datum, May 7, 1979.
PERIOD OF RECORD.--May 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.40 ft (1.34 m) below land-surface datum, Nov. 5, 1971; lowest, 10.12 ft (3.08 m) below land-surface datum, Jan. 19-20, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.04	9.23	9.37	7.93	8.51	8.69	9.05	9.44	8.05	7.18	7.88	6.02
10	8.95	9.37	9.46	7.87	8.56	8.71	9.15	9.24	7.73	7.32	8.04	6.28
15	9.01	9.48	9.51	7.98	8.51	8.77	9.22	9.13	7.83	7.48	8.17	6.59
20	9.11	9.42	9.50	8.16	8.49	8.87	9.28	9.20	7.24	7.50	7.80	6.87
25	9.05	9.32	9.44	8.29	8.60	8.84	9.33	9.04	6.90	7.64	6.51	7.16
EOM	9.14	9.25	8.49	8.44	8.65	8.95	9.41	9.00	7.06	7.81	5.79	7.41

WTR YR 1981 MEAN 8.40 HIGH 5.78 AUG 30 LOW 9.51 DEC 15 AND OTHERS

LENOIR COUNTY

350306077444201. Local number, NC-51.
LOCATION.--Lat 35°03'06", long 77°44'42", Hydrologic Unit 03020204, Pink Hill School, Pink Hill. Owner: Lenoir County Board of Education.
AQUIFER.--Pee Dee Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 151 ft (46.0 m), drilled to 195 ft (59.4 m), cased to 125 ft (38.1 m).
DATUM.--Altitude of land-surface datum is 134 ft (41 m). Measuring point: Top of instrument shelf, 1.45 ft (0.44 m) above land-surface datum.
PERIOD OF RECORD.--April 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.03 ft (15.86 m) below land-surface datum, Apr. 8, 1973; lowest, 60.55 ft (18.46 m) below land-surface datum, Oct. 6, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	60.55	Dec. 31	55.85	Mar. 17	55.80	June 17	56.41	July 31	60.04	Sept. 9	57.48
Nov. 13	56.78	Feb. 4	55.80	May 6	58.23						

351600077381001. Local number, NC-128.
LOCATION.--Lat 35°16'00", long 77°38'10", Hydrologic Unit 03020202, Kinston. Owner: City of Kinston.
AQUIFER.--Sands of Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 10 in (0.25 in), depth 300 ft (91.4 m), cased to 160 ft (48.8 m).
DATUM.--Land-surface datum is 33.5 ft (10.21 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.10 ft (0.64 m) above land-surface datum.
PERIOD OF RECORD.--September 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.83 ft (10.62 m) below land-surface datum, Dec. 30, 1968; lowest, 74.65 ft (22.75 m) below land-surface datum, July 31, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	72.47	72.78	73.51	72.54	74.19	72.83	72.49	73.28	---	---	74.28	74.22
10	73.32	72.12	73.00	73.69	73.33	72.72	---	72.74	---	---	73.12	73.69
15	72.86	73.28	72.27	73.93	72.94	72.54	---	72.19	---	---	73.33	73.70
20	72.27	73.40	73.73	73.48	73.27	73.53	---	---	72.33	---	73.76	73.25
25	73.16	72.79	72.98	73.05	72.64	73.64	---	---	72.61	---	73.08	74.52
EOM	73.15	72.37	72.37	73.80	72.67	72.81	---	---	72.62	74.47	72.89	74.18

WTR YR 1981 MEAN 73.09 HIGH 71.47 DEC 29 LOW 74.52 SEP 25

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

355734077180001. Local number, NC-43.
LOCATION.--Lat 35°57'34", long 77°18'00", Hydrologic Unit 03010107, at West Martin School, Oak City. Owner: Martin County Board of Education.
AQUIFER.--Black Creek Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 4 in (0.10 m), depth 87 ft (26.5 m) (revised), cased to 88 ft (26.8 m).
DATUM.--Land-surface datum is 81.75 ft (24.917 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.26 ft (0.38 m) above land-surface datum. Measuring point changed from 1.13 ft (0.34 m) above land-surface datum, Feb. 22, 1971. Measuring point changed from 1.73 ft (0.53 m) above land-surface datum, Sept. 19, 1978.
PERIOD OF RECORD.--February 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.67 ft (3.56 m) below land-surface datum, June 8, 1961; lowest, 19.32 ft (5.89 m) below land-surface datum, Nov. 8, 9, 1968.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.01	18.97	18.69	18.21	17.46	15.33	15.41	15.81	15.83	15.99	17.07	14.26
10	19.01	18.96	18.66	18.08	17.24	15.32	15.43	15.94	15.67	15.91	17.23	14.27
15	19.14	19.03	18.54	18.06	16.83	15.25	15.48	16.02	15.69	16.01	16.71	14.45
20	19.20	19.07	18.47	18.08	16.27	15.24	15.50	16.08	15.68	16.19	16.10	14.70
25	19.17	18.95	18.41	17.88	15.84	15.31	15.56	16.10	15.76	16.46	15.17	15.01
EOM	19.07	18.76	18.27	17.66	15.63	15.36	15.67	16.00	15.93	16.81	14.43	15.29

WTR YR 1981 MEAN 16.75 HIGH 14.24 SEP 8 LOW 19.30 OCT 24

MOORE COUNTY

350636079283601. Local number, NC-122.
LOCATION.--Lat 35°06'36", long 79°28'36", Hydrologic Unit 03040203, Pinebluff. Owner: H. A. Keith.
AQUIFER.--Sands of Tuscaloosa Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 24 in (0.61 m), depth 47 ft (14.3 m), cribbed with brick.
DATUM.--Altitude of land-surface datum is 412 ft (126 m). Measuring point: Top of wooden platform, 3.95 ft (1.20 m) (revised), above land-surface datum. Measuring point changed from 3.55 ft (1.08 m) above land-surface datum, Nov. 2, 1977.
PERIOD OF RECORD.--April 1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.71 ft (8.75 m) below land-surface datum, Oct. 8, 1971; lowest measured, dry several times 1951-52, 1977-79, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	40.57	Dec. 16	42.36	Mar. 3	32.94	May 27	44.36	Aug. 4	(f)	Sept. 15	(f)
Nov. 5	42.20	Jan. 22	33.78	Apr. 15	38.42	June 30	(f)				

f Dry

NEW HANOVER COUNTY

341000077524201. Local number, NC-20.
LOCATION.--Lat 34°10'00", long 77°52'42", Hydrologic Unit 03030001, near Wilmington. Owner: Walter J. Hodder.
AQUIFER.--Pee Dee Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 3 in (0.08 m), depth 169 ft (51.5 m), drilled to 173 ft (52.7 m), cased to 173 ft (52.7 m).
DATUM.--Land-surface datum is 21.30 ft (6.492 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 1.85 ft (0.56 m) (revised), above land-surface datum. Measuring point changed from 0.06 ft (0.02 m) above land-surface datum, Mar. 11, 1976.
PERIOD OF RECORD.--November 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.42 ft (2.87 m) below land-surface datum, June 10, 1966; lowest, 22.40 ft (6.83 m) below land-surface datum, June 16, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 7	17.08	Oct. 20	17.85	Nov. 5	17.10	Nov. 18	16.97	May 7	20.37	July 28	20.18
Oct. 10	17.27	Oct. 25	17.10	Nov. 10	17.62	Feb. 12	15.14	June 16	22.40	Aug. 25	13.32
Oct. 15	17.87	Oct. 31	17.09	Nov. 15	17.38	Mar. 24	14.88				

NEW HANOVER COUNTY--Continued

342205077515401. Local number, NC-61.
LOCATION.--Lat 34°22'05", long 77°51'54", Hydrologic Unit 03030007, near Wilmington. Owner: Martin Marietta.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Bored observation artesian well, diameter 2 in (0.05 m), depth 31 ft (9.4 m), bored to 85 ft (25.9 m), cased to 43 ft (13.1 m).
DATUM.--Land-surface datum is 15.93 ft (4.855 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--September 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.86 ft (0.57 m) below land-surface datum, Sept. 4, 1968; lowest, 25.21 ft (7.68 m) below land-surface datum, Dec. 23, 24, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.62	22.96	---	---	---	---	23.21	23.27	23.13	23.23	23.29	19.16
10	22.67	23.03	---	23.35	---	---	23.22	23.24	23.14	23.30	23.09	19.47
15	22.74	23.14	---	23.34	23.37	---	23.22	23.21	23.15	23.32	22.81	19.66
20	22.78	---	23.35	23.29	23.36	---	23.23	23.12	23.12	23.37	---	19.83
25	22.79	---	23.35	23.29	23.36	23.22	23.24	23.14	23.17	23.39	---	20.02
EOM	22.88	---	---	---	23.35	23.21	23.26	23.14	23.22	23.39	18.77	20.14

WTR YR 1981 MEAN 22.69 HIGH 18.39 AUG 26 LOW 23.41 JUL 28 AND OTHERS

NORTHAMPTON COUNTY

361608077162601. Local number, NC-27.
LOCATION.--Lat 36°16'08", long 77°16'26", Hydrologic Unit 03010204, at Rich Square. Owner: Boomer Ice Company.
AQUIFER.--Sand of Tuscaloosa Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 57 ft (17.4 m), drilled to 88 ft (26.8 m), cased to 78 ft (23.8 m).
DATUM.--Land-surface datum is 74.44 ft (22.689 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 1.70 ft (0.52 m) above land-surface datum.
PERIOD OF RECORD.--January 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.86 ft (1.48 m) below land-surface datum, Feb. 25, 1960; lowest, 14.99 ft (4.57 m) below land-surface datum, Sept. 29, 30, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.20	13.54	13.77	13.82	13.89	13.25	13.21		13.57	13.97	14.29	13.79
10	13.27	13.58	13.79	13.84	13.84	13.35	---		13.48	13.99	14.25	13.78
15	13.36	13.66	13.74	13.88	13.58	13.30	---		13.58	14.04	14.09	13.79
20	13.48	13.70	13.83	13.89	13.40	13.33	---		13.70	14.10	14.13	13.84
25	13.40	13.68	13.81	13.87	13.39	13.30	---		13.71	14.08	13.73	13.96
EOM	13.51	13.69	13.78	13.90	13.34	13.23	---		14.01	14.22	13.75	14.03

WTR YR 1981 MEAN 13.70 HIGH 13.14 OCT 1 LOW 14.29 AUG 5 AND OTHERS

ONSLOW COUNTY

344425077272501. Local number, NC-52.
LOCATION.--Lat 34°44'25", long 77°27'25", Hydrologic Unit 03030001, at Camp Geiger, near Jacksonville. Owner: U.S. Marine Corps.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 18 in (0.46 m), depth 68 ft (20.7 m), drilled to 70 ft (21.3 m), cased to 23 ft (7.0 m).
DATUM.--Land-surface datum is 24.45 ft (7.452 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 1.90 ft (0.58 m) above land-surface datum.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.97 ft (0.60 m) below land-surface datum, Jan. 26, 1978; lowest, 10.44 ft (3.18 m) below land-surface surface datum, Jan. 3, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.72	8.17	7.95	5.51	---	---	6.42	7.48	3.45	5.43	6.81	4.97
10	7.84	8.35	8.01	5.77	---	---	6.74	6.85	3.82	5.76	6.70	4.59
15	8.06	8.39	8.13	6.13	5.23	---	6.99	6.10	4.67	6.11	6.72	5.08
20	8.22	8.62	8.51	6.35	---	---	6.95	6.37	5.08	6.34	4.37	5.45
25	8.16	8.19	8.50	6.18	---	6.16	7.18	5.62	5.58	6.69	3.93	5.85
EOM	8.18	8.04	5.08	6.18	---	6.40	7.34	5.23	5.96	6.76	4.24	6.09

WTR YR 1981 MEAN 6.49 HIGH 3.21 JUN 4 LOW 8.67 NOV 19

ONSLOW COUNTY--Continued

344525077254501. Local number, NC-85.
LOCATION.--Lat 34°45'25", long 77°25'45", Hydrologic Unit 03030001, at Jacksonville. Owner: Carolina Power and Light Company.
AQUIFER.--Castle Hayne Limestone of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 103 ft (31.4 m) (revised), cased to 106 ft (32.3 m).
DATUM.--Altitude of land-surface datum is 20 ft (6 m). Measuring point: Top of instrument shelf, 3.20 ft (0.98 m) above land-surface datum.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.86 ft (2.09 m) below land-surface datum, June 10, 1964; lowest, 21.76 ft (6.63 m) below land-surface datum, June 21, 1970.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.58	14.28	15.13	16.51	17.48	15.43	15.26	15.65	16.08	16.19	16.70	15.67
10	15.15	14.12	15.03	17.00	17.31	15.90	14.95	16.18	16.52	16.66	16.67	15.11
15	15.06	14.27	14.99	17.03	17.14	15.73	15.03	16.21	16.72	16.68	16.50	15.32
20	14.72	14.58	15.21	17.61	16.00	15.87	14.92	16.34	16.91	16.90	15.86	15.12
25	14.17	14.51	16.01	17.29	15.99	16.22	15.04	16.12	17.28	16.84	15.73	14.27
EOM	14.70	14.90	15.82	17.55	15.95	15.69	15.03	15.91	16.97	16.84	15.50	14.07

WTR YR 1981 MEAN 15.84 HIGH 14.03 SEP 27 LOW 17.62 JAN 18

ORANGE COUNTY

355522079043001. Local number, NC-126.
LOCATION.--Lat 35°55'22", long 79°04'30", Hydrologic Unit 03030002, Chapel Hill. Owner: Chi Psi Fraternity.
AQUIFER.--Weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (0.91 m), depth 48 ft (14.6 m), lined with rock.
DATUM.--Land-surface datum is 511.50 ft (155.905 m) National Geodetic Vertical Datum of 1929. Measuring point: gage pointer, 3.27 ft (1.0 m) above land-surface datum. Measuring point changed from 3.15 ft (0.96 m) above land-surface datum, July 21, 1981.
PERIOD OF RECORD.--August 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.43 ft (11.10 m) below land-surface datum, May 9, 1960; lowest measured, dry, Oct. 11 to Dec. 31, 1940.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 13	40.81	Dec. 3	42.21	Feb. 19	43.20	Apr. 8	43.67	June 24	44.10	Aug. 24	44.53
Oct. 23	41.25	Dec. 16	42.37	Feb. 25	43.40	May 12	43.85	July 16	44.20	Sept. 3	44.83
Nov. 13	41.75	Jan. 28	43.15	Mar. 4	43.45	May 26	43.93	July 21	44.28	Sept. 28	45.08
Nov. 21	41.95	Feb. 12	43.20	Mar. 26	43.60	June 16	44.00				

PASQUOTANK COUNTY

361833076173001. Local number, NC-86.
LOCATION.--Lat 36°18'33", long 76°17'30", Hydrologic Unit 03010205, Elizabeth City. Owner: C. T. Winslow.
AQUIFER.--Sands of post-Miocene age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 18 in (0.46 m), depth 7 ft (2.1 m) (revised), lined with tile.
DATUM.--Land-surface datum is 12.53 ft (3.819 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 3.14 ft (0.96 m) above land-surface datum. Measuring point changed from 2.13 ft (0.65 m) above land-surface datum, July 12, 1978.
PERIOD OF RECORD.--June 1935 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.70 ft (0.52 m) above land-surface datum, Feb. 28, 1968; lowest, 8.00 ft (2.44 m) below land-surface datum, Dec. 21, 1943.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.38	5.49	5.66	5.68	5.48	3.96	3.93	4.18	3.39	4.15	4.27	1.77
10	5.42	5.54	5.67	5.70	5.40	4.08	3.97	4.25	3.58	4.22	4.39	2.26
15	5.48	5.59	5.65	5.72	4.69	4.08	4.02	4.27	3.78	4.30	4.01	2.70
20	5.50	5.62	5.67	5.75	4.57	4.08	3.99	4.36	3.87	4.28	.14	3.12
25	5.46	5.62	5.66	5.61	4.04	3.98	4.00	4.43	3.98	3.89	.24	3.46
EOM	5.47	5.62	5.65	5.58	4.03	3.94	4.09	4.44	4.09	4.15	1.19	3.63

WTR YR 1981 MEAN 4.40 HIGH -0.68 AUG 23 LOW 5.75 JAN 20 AND OTHERS

PASQUOTANK COUNTY--Continued

361556076102402. Local number, NC-141.
LOCATION.--Lat 36°15'56", long 76°10'24", Hydrologic Unit 03010205, U.S. Coast Guard Air Base, near Elizabeth City. Owner: U.S. Coast Guard.
AQUIFER.--Yorktown Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 3 in (0.08 m), depth 63 ft (19.2 m) (revised).
DATUM.--Land-surface datum is 8.59 ft (2.618 m) National Geodetic Vertical Datum of 1929. Measuring Point: Top of instrument shelf, 0.93 ft (0.28 m) above land-surface datum. Measuring point changed from 1.50 ft (0.46 m) below land-surface datum, Mar. 13, 1979.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.24 ft (1.60 m) below land-surface datum, Mar. 7-8, 1979; lowest recorded, 8.56 ft (2.61 m), below land-surface datum, Nov. 12, 13, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.91	8.09	8.10	8.02	7.70	7.32	7.05	7.94	7.63	7.88	7.93	7.09
10	7.97	8.08	7.95	8.19	7.66	7.41	7.35	7.81	7.57	8.00	7.86	6.95
15	8.09	8.34	7.87	8.03	7.74	7.38	7.52	7.54	7.70	8.03	7.80	7.11
20	8.10	8.31	8.02	8.04	7.52	7.48	7.51	7.73	7.73	7.88	7.34	7.44
25	7.94	7.85	8.20	7.71	7.38	7.40	7.58	7.77	7.77	7.82	6.02	7.74
EOM	8.07	7.71	7.90	7.93	7.47	7.04	7.55	7.65	8.22	8.02	6.68	7.77

WTR YR 1981 MEAN 7.71 HIGH 5.86 AUG 24 LOW 8.55 NOV 12 AND OTHERS

PENDER COUNTY

342500077553001. Local number, NC-26.
LOCATION.--Lat 34°25'00", long 77°55'30", Hydrologic Unit 03030007, Rocky Point. Owner: Arvida Farms.
AQUIFER.--Pee Dee Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (0.15 m), depth 139 ft (42.4 m) (revised), cased to 141 ft (43.0 m).
DATUM.--Altitude of land-surface datum is 20 ft (6 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--December 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.97 ft (0.30 m) below land-surface datum, May 14, 15, 1966, Jan. 16, 1975; lowest, 6.25 ft (1.90 m) below land-surface datum, May 5, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.60	2.20	2.07	1.49	1.67	1.70	1.89	2.38	2.18	2.49	1.63	1.60
10	1.69	2.24	2.11	1.59	1.70	1.58	1.97	2.08	2.00	2.59	1.55	1.75
15	1.92	2.33	2.15	1.73	1.65	1.72	2.06	1.88	2.12	2.34	1.46	1.80
20	2.09	2.38	2.19	1.84	1.62	1.83	2.14	2.05	2.06	2.37	1.22	1.72
25	2.22	2.12	2.16	1.75	1.55	1.88	2.19	2.03	2.06	2.54	1.06	1.79
EOM	2.27	2.02	1.54	1.71	1.66	1.93	2.28	2.09	2.29	2.33	1.32	1.95

WTR YR 1981 MEAN 1.94 HIGH 1.05 AUG 24 LOW 2.64 JUL 29

PITT COUNTY

353352077150101. Local number, PI-527.
LOCATION.--Lat 35°33'52", long 77°15'01", Hydrologic Unit 03020103, at Galloway Crossroads. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 6 in (0.15 m), depth 14.6 ft (4.45 m), cased to 9.6 ft (2.93 m), screen from 9.6 ft (2.93 m) to 14.6 ft (4.45 m).
DATUM.--Measuring point: Top of casing, 28.43 ft (8.665 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).
REMARKS.--During most summers, water levels affected for short periods by nearby pumping used for irrigation of row crops.
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.54 ft (7.78 m) NGVD, May 5, 1978; lowest, 18.73 ft (5.71 m) NGVD, July 22, 1980.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.16	22.42	22.43	22.61	22.60	22.67	22.42	21.80	22.79	22.60	21.71	22.43
10	21.99	22.31	22.49	22.58	22.55	22.53	22.40	22.14	22.97	22.30	21.80	22.39
15	21.90	22.31	22.45	22.54	22.72	22.46	22.31	22.02	22.55	22.08	22.21	22.15
20	22.08	22.31	22.42	22.50	22.72	22.50	22.24	22.37	23.20	22.18	23.62	22.05
25	22.27	22.50	22.45	22.52	22.64	22.50	22.16	22.26	22.70	21.98	23.03	21.90
EOM	22.33	22.46	22.76	22.48	22.59	22.47	22.00	22.56	22.37	21.76	22.59	21.78

WTR YR 1981 MEAN 22.39 MAX 23.67 JUN 7 MIN 21.68 AUG 6

PITT COUNTY--Continued

353350077150101. Local number, PI-528.
LOCATION.--Lat 35°33'50", long 77°15'01", Hydrologic Unit 03020103, at Galloway Crossroads. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 6 in (0.15 m), depth 14.2 ft (4.33 m), cased to 9.2 ft (2.80 m), screen from 9.2 ft (2.80 m) to 14.2 ft (4.33 m).
DATUM.--Measuring point: Top of casing, 35.96 ft (10.961 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).
REMARKS.--During most summers, water levels affected for short periods by nearby pumping used for irrigation of row crops.
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 31.82 ft (9.70 m) NGVD, Nov. 6-7, 1977; lowest, 25.91 ft (7.90 m) NGVD, Aug.15-17, 1977.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.18	27.51	27.55	27.79	27.80	27.89	27.36	26.62	27.94	28.28	27.29	27.93
10	27.18	27.40	27.56	27.75	27.73	27.69	27.28	26.51	28.45	27.98	27.19	27.77
15	27.10	27.38	27.54	27.66	28.07	27.60	27.18	26.43	28.13	27.78	27.47	27.61
20	27.10	27.34	27.45	27.57	28.05	27.49	27.20	26.51	29.52	27.75	29.65	27.42
25	27.23	27.65	27.45	27.62	27.89	27.46	27.08	26.93	28.60	27.59	28.94	27.25
EOM	27.41	27.57	28.07	27.54	27.84	27.37	27.05	27.58	28.16	27.38	28.19	27.14

WTR YR 1981 MEAN 27.60 MAX 29.68 AUG 23 MIN 26.40 MAY 16 AND OTHERS

353304077151401. Local number, PI-529.
LOCATION.--Lat 35°33'04", long 77°15'14", Hydrologic Unit 03020103, at Galloway Crossroads. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 6 in (0.15 m), depth 14.4 ft (4.39 m), cased to 9.4 ft (2.87 m), screen from 9.4 ft (2.87 m) to 14.4 ft (4.39 m).
DATUM.--Measuring point: Top of casing, 49.93 ft (15.219 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.57 ft (14.50 m) NGVD, Jan. 26, 1978 and Mar. 8, 1980; lowest, 41.34 ft (12.60 m) NGVD, Nov. 6-7, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	44.20	44.09	44.99	45.19	45.41	44.52	43.35	46.49		---	45.52
10	---	43.94	44.09	44.89	45.06	45.14	44.35	43.46	46.60		44.14	45.27
15	---	43.75	44.21	44.77	45.61	44.97	44.14	43.55	46.02		45.18	45.01
20	43.23	43.53	44.13	44.59	45.73	44.83	44.02	44.60	47.11		46.54	44.71
25	43.87	44.32	44.24	44.78	45.48	44.77	43.78	44.91	---		46.66	44.36
EOM	44.31	44.24	45.27	44.63	45.33	44.65	43.59	45.90	---		45.89	44.09

WTR YR 1981 MEAN 44.77 MAX 47.14 AUG 23 MIN 43.07 OCT 23 AND OTHERS

353255077150601. Local number, PI-530.
Location.--Lat 35°32'55", long 77°15'06", Hydrologic Unit 03020103, at Galloway Crossroads. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 21.1 ft (6.43 m), cased to 16.1 ft (4.91 m), screen from 16.1 ft (4.91 m) to 21.1 ft (6.43 m).
DATUM.--Measuring point: Top of casing, 51.92 ft (15.825 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service). Top of casing raised from 51.12 ft (15.581 m) NGVD, July 11, 1979.
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.75 ft (15.47 m) NGVD, Mar. 24, 1977; lowest measured, 43.00 ft (13.11 m) NGVD, Nov. 15, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 16	45.10	Jan. 13	47.02	Mar. 17	48.02	June 24	49.16	Aug. 10	46.35	Sept. 3	48.58
Nov. 19	45.18	Feb. 10	47.59	May 14	47.02						

PITT COUNTY--Continued

353232077154301. Local number, PI-531.
LOCATION.--Lat 35°32'32", long 77°15'43", Hydrologic Unit 03020103, at Galloway Crossroads. Owner; U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 20.4 ft (6.22 m) cased to 15.4 ft (4.69 m), screen from 15.4 ft (4.69 m) to 20.4 ft (6.22 m).
DATUM.--Measuring point: Top of casing, 57.69 ft (17.584 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.87 ft (17.03 m) NGVD, May 2, 1978; lowest measured, 48.96 ft (14.92 m) NGVD, Nov. 15, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 16	50.49	Jan. 14	52.43	Mar. 17	54.19	June 24	54.72	Aug. 10	53.55	Sept. 3	54.22
Nov. 19	50.66	Feb. 10	53.29	May 14	53.46						

353219077153801. Local number, PI-532.
LOCATION.--Lat 35°32'19", long 77°15'38", Hydrologic Unit 03020103, at Galloway Crossroads. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 6 in (0.15 m), depth 10.9 ft (3.32 m), cased to 5.9 ft (1.80 m), screen from 5.9 ft (1.80 m) to 10.9 ft (3.32 m).
DATUM.--Measuring point: Top of casing, 57.31 ft (17.468 m) National Geodetic Vertical Datum of 1929, (levels by Soil Conservation Service).
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.11 ft (16.80 m) NGVD, May 4, 1978; lowest, 47.43 ft (14.46 m) NGVD, Nov. 6-8, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.76	51.37	51.47	52.84	52.98	52.78	51.60	50.39	53.55	52.26	49.54	52.23
10	50.26	51.13	51.42	52.64	52.73	52.46	51.42	50.98	53.37	51.57	49.18	51.87
15	49.80	50.85	51.66	52.36	53.31	52.15	51.19	51.15	52.52	51.05	51.22	51.44
20	49.64	50.59	51.52	52.11	53.35	51.94	51.10	52.36	53.49	51.16	53.98	51.07
25	50.28	51.71	51.67	52.49	53.06	51.92	50.81	52.66	52.80	50.62	53.64	50.64
EOM	50.95	51.67	53.21	52.25	52.81	51.73	50.61	53.28	51.99	50.00	52.82	50.28

WTR YR 1981 MEAN 51.74 MAX 54.23 JUN 7 MIN 49.18 AUG 10

353208077153801. Local number, PI-533.
LOCATION.--Lat 35°32'08", long 77°15'38", Hydrologic Unit 03020103, at Galloway Crossroads. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 6 in (0.15 m), depth 9.3 ft (2.83 m), cased to 4.3 ft (1.31 m), screen from 4.3 ft (1.31 m) to 9.3 ft (2.83 m).
DATUM.--Measuring point: Top of casing, 53.61 ft (16.340 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.03 ft (15.86 m) NGVD, Feb. 25, 1979; lowest, 45.93 ft (14.00 m) NGVD, Nov. 6, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	49.01	49.38	49.04	49.80	49.66	49.55	48.84	48.15	50.27	49.32	47.31	49.37
10	48.45	48.97	49.18	49.53	49.45	49.23	48.76	48.48	50.28	48.83	47.04	49.11
15	48.02	48.71	49.07	49.28	49.98	49.09	48.64	48.83	49.61	48.52	48.45	48.88
20	47.87	48.56	48.99	49.11	49.86	48.98	48.62	49.58	50.08	48.68	50.77	48.59
25	48.70	49.36	49.04	49.27	49.66	48.96	48.50	49.83	49.59	48.16	50.58	48.26
EOM	48.98	49.26	50.32	49.16	49.49	48.91	48.32	50.08	49.10	47.66	49.82	47.97

WTR YR 1981 MEAN 49.06 MAX 51.02 AUG 23 MIN 47.04 AUG 10

PITT COUNTY--Continued

353043077150001. Local number, PI-534.
LOCATION.--Lat 35°30'43", long 77°15'00", Hydrologic Unit 03020103, at Blackjack. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 6 in (0.15 m), depth 9.6 ft (2.93 m), cased to 4.6 ft (1.40 m), screen from 4.6 ft (1.40 m) to 9.6 ft (2.93 m).
DATUM.--Measuring point: Top of casing, 35.84 ft (10.924 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service). Top of casing raised from 34.01 ft (10.366 m) NGVD, Mar. 19, 1979.
PERIOD OF RECORD.--January 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 34.02 ft (10.37 m) NGVD, June 11, 1979; lowest, 27.79 ft (8.47 m) NGVD, Sept. 3, 1980.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.48	32.20	31.00	31.41	31.80	32.46	30.68	29.13	---	30.88	---	---
10	30.51	31.04	31.62	31.57	31.55	31.25	30.53	29.73	---	---	28.39	---
15	29.93	30.96	31.46	31.37	31.80	30.77	30.09	30.17	---	---	29.25	---
20	30.74	31.32	31.46	31.13	32.35	30.94	29.81	31.24	---	---	31.92	29.28
25	31.87	32.33	32.00	31.79	31.71	31.75	29.58	30.54	30.46	---	31.42	29.01
EOM	32.18	31.58	32.17	31.76	31.18	31.75	29.34	31.04	29.75	---	30.22	28.81

WTR YR 1981 MEAN 30.95 MAX 32.46 MAR 5 MIN 28.39 AUG 10

SAMPSON COUNTY

350030078194001. Local number, NC-24.
LOCATION.--Lat 35°00'30", long 78°19'40", Hydrologic Unit 03030006, at Clinton. Owner: City of Clinton.
AQUIFER.--Tuscaloosa Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 314 ft (95.7 m), multi-screened, top of screens 257 and 307 ft (78.3 and 93.6 m). Originally drilled to 385 ft (117.3 m).
DATUM.--Land-surface datum is 157.5 ft (48.01 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.
PERIOD OF RECORD.--May 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.83 ft (5.43 m) below land-surface datum, Oct. 13, 1964; lowest, 29.91 ft (9.12 m) below land-surface datum, June 26, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.92	25.99	26.23	26.09	26.03	25.93	27.69	28.31	28.18	28.37	28.59	26.26
10	26.01	26.08	26.22	26.12	26.02	25.91	27.66	28.14	28.32	28.54	28.67	26.29
15	26.14	---	26.25	26.14	25.83	25.92	27.70	28.30	28.56	28.75	28.23	26.42
20	26.13	26.17	26.32	26.17	25.90	26.50	27.81	28.40	28.40	28.83	26.71	26.28
25	26.05	26.15	26.22	26.17	26.04	27.10	28.04	28.40	28.80	28.63	26.20	26.44
EOM	26.03	26.20	26.04	26.11	26.10	27.80	28.15	28.66	28.77	28.56	26.17	26.57

WTR YR 1981 MEAN 27.04 HIGH 25.83 FEB 15 AND OTHERS LOW 29.24 JUN 26

TRANSYLVANIA COUNTY

351808082374301. Local number, NC-127.
LOCATION.--Lat 35°18'08", long 82°37'43", Hydrologic Unit 06010105, Blantyre. Owner: Neal Hawkins.
AQUIFER.--Granite of Paleozoic age.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 5 ft (1.5 m), depth 48 ft (14.6 m), lined with rock.
DATUM.--Land-surface datum is 2,146.39 ft (654.220 m) National Geodetic Vertical Datum of 1929. Measuring point: Nail in 4" x 4" stringer, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--July 1932 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.90 ft (7.59 m) below land-surface datum, May 19, 1980; lowest, 41.32 ft (12.59 m) below land-surface datum, Jan. 2, 1945, Dec. 25-27, 1954, Jan. 2, 3, 7, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 5	30.40	Dec. 9	31.11	Feb. 8	32.65	Apr. 6	31.50	June 8	31.40	Aug. 2	33.10
Oct. 7	30.68	Dec. 10	32.00	Feb. 15	32.55	Apr. 12	31.40	June 15	31.50	Aug. 8	33.30
Oct. 12	30.60	Dec. 15	31.00	Feb. 22	32.62	Apr. 20	31.60	June 21	31.55	Aug. 17	33.50
Oct. 19	30.90	Dec. 21	32.25	Mar. 2	32.60	Apr. 27	31.50	June 22	31.63	Aug. 18	33.52
Oct. 26	31.20	Dec. 30	32.10	Mar. 8	32.40	May 4	30.95	June 28	31.80	Aug. 26	33.75
Oct. 29	31.29	Jan. 4	32.15	Mar. 9	32.37	May 10	30.90	July 6	32.10	Aug. 30	33.90
Nov. 3	31.40	Jan. 12	32.25	Mar. 16	32.40	May 14	30.94	July 12	32.20	Sept. 8	34.10
Nov. 12	31.60	Jan. 19	32.35	Mar. 22	32.10	May 18	31.00	July 16	32.42	Sept. 12	34.30
Nov. 16	31.70	Jan. 25	32.45	Mar. 30	31.30	May 25	31.10	July 19	32.50	Sept. 21	34.55
Nov. 23	31.70	Feb. 1	32.55	Apr. 5	31.60	May 30	31.20	July 27	32.70	Sept. 29	34.80
Nov. 30	31.90										

WASHINGTON COUNTY

354834076255001. Local number, NC-65.
LOCATION.--Lat 35°48'34", long 76°25'50", Hydrologic Unit 03010205, near Creswell. Owner: M. V. Cahoon.
AQUIFER.--Castle Hayne Limestone Formation of middle and late Eocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (0.05 m), depth 228 ft (69.5 m), drilled to 249 ft (75.9 m), cased to 249 ft (75.9 m).
DATUM.--Altitude of land-surface datum is 6 ft (2 m). Measuring point: Top of instrument shelf, 2.80 ft (0.85 m) above land-surface datum.
PERIOD OF RECORD.--March 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.29 ft (0.09 m) above land-surface datum, May 3, 1972; lowest measured, 3.76 ft (1.15 m) below land-surface datum, Sept. 2, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	3.52	Dec. 1	3.51	Feb. 2	3.24	Apr. 1	3.38	June 4	3.50	Aug. 6	3.72
Nov. 3	3.64	Jan. 7	3.24	Mar. 2	3.31	May 5	3.57	July 6	3.58	Sept. 1	3.51

354324076420202. Local number, WS-89.
LOCATION.--Lat 35°43'24", long 76°42'02", Hydrologic Unit 03020104, near Wenona. Owner: U.S. Geological Survey.
AQUIFER.--Marine sands and clays of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 3 in (0.08 m), depth 14.0 ft (4.27 m), cased to 10 ft (3.05 m), screen from 10 ft (3.05 m) to 14 ft (4.27 m).
DATUM.--Altitude of gage is 18 ft (5.5 m), from topographic map. Measuring point: Mark at top of casing, 20.40 ft (6.22 m). Top of casing is 2.4 ft (0.73 m) above land surface.
REMARKS.--Also known as McMullen Farm Well on No. 8 Canal near Wenona.
PERIOD OF RECORD.--October 1978 to November 1980 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.15 ft (4.62 m) approximate NGVD, Mar. 9, 10, 1980; lowest, 4.34 ft (1.32 m) approximate NGVD, Oct. 24, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.14	11.44										
10	11.21	11.35										
15	11.06	11.23										
20	11.03	11.18										
25	11.09	---										
EOM	11.30	---										

WTR YR 1981 MEAN 11.19 MAX 11.44 NOV 5 MIN 10.87 OCT 1

354410076464901. Local number, WS-90.
LOCATION.--Lat 35°44'10", long 76°46'49", Hydrologic Unit 03020104, near Hoke. Owner: U.S. Geological Survey.
AQUIFER.--Marine sands and clays of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 3 in (0.08 m), depth 15.0 ft (4.57 m), cased to 11 ft (3.35 m), screen from 11 ft (3.35 m) to 15 ft (4.57 m).
DATUM.--Altitude of gage is 35 ft (10.7 m), from topographic map. Measuring point: Mark at top of casing, 37.30 ft (11.37 m). Top of casing is 2.30 ft (0.70 m) above land surface.
REMARKS.--Also known as Vernon Howell Well near Hoke.
PERIOD OF RECORD.--November 1978 to November 1980 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.50 ft (10.21 m) approximate NGVD, May 26-27, 1979; lowest, 27.38 ft (8.34 m) approximate NGVD, Nov. 12-23, 1978.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.51	27.62										
10	27.50	27.66										
15	27.43	27.67										
20	27.47	27.70										
25	27.49	---										
EOM	27.54	---										

WTR YR 1981 MEAN 27.54 MAX 27.70 NOV 18 AND OTHERS MIN 27.43 OCT 15 AND OTHERS

WAYNE COUNTY

352002077581001. Local number, NC-25.
LOCATION.--Lat 35°20'02", long 77°58'10", Hydrologic Unit 03020202, Seymour Johnson AFB, Goldsboro. Owner: U.S. Air Force.
AQUIFER.--Tuscaloosa Formation of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 87 ft (26.5 m), cased to 31 ft (9.4 m).
DATUM.--Altitude of land-surface datum is 70 ft (21 m). Measuring point: Top of casing, 0.50 ft (0.15 m) above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--August 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.24 ft (0.07 m) above land-surface datum, Jan. 29, 1978; lowest measured, 22.57 ft (6.88 m) below land-surface datum, Nov. 21, 1973.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.56	10.83	10.94	---	10.15	9.36	10.27	10.83	10.76	11.74	11.92	9.70
10	12.25	10.75	10.63	10.09	9.97	9.53	10.34	10.60	10.96	11.35	11.91	9.57
15	12.94	11.10	10.59	10.07	9.67	9.68	10.29	10.70	10.80	11.67	11.30	9.81
20	12.56	10.95	10.58	10.03	9.13	9.76	10.32	11.26	11.29	11.56	10.65	9.93
25	11.77	10.78	---	10.32	9.17	9.96	10.65	11.13	11.65	11.89	9.39	10.16
EOM	11.88	10.82	---	10.34	9.33	10.12	11.07	11.19	12.06	12.20	9.11	10.01

WTR YR 1981 MEAN 10.70 HIGH 9.08 AUG 26 LOW 12.94 OCT 15

351849078163901. Local number, WA-154.
LOCATION.--Lat 35°18'49", long 78°16'39", Hydrologic Unit 03020201, near Grantham. Owner: U.S. Geological Survey.
AQUIFER.--Fluvial deposits of sand and clay of Pleistocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 3 in (0.08 m), depth 10.4 ft (3.17 m), cased to 10.4 ft (3.17 m).
DATUM.--Altitude of land-surface datum is 190 ft (58 m). Measuring point: File cut on top of casing, 1.80 ft (0.55 m) above land-surface datum.
PERIOD OF RECORD.--February 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.43 ft (0.13 m) below land-surface datum, March 7, 8, 1980; lowest, 7.68 ft (2.34 m) below land-surface datum, Aug. 6, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.52	3.49	---	1.62	1.45	1.74	---	4.54	5.42	6.96	7.67	1.32
10	4.99	3.37	---	1.54	1.66	1.96	---	4.68	5.66	6.94	---	1.66
15	5.15	3.56	---	1.75	1.17	2.17	---	4.89	6.01	7.05	---	2.18
20	5.28	3.17	---	1.91	1.14	2.27	---	5.17	6.27	7.21	---	2.56
25	5.11	---	---	1.69	1.49	2.31	3.67	4.84	6.56	7.36	---	3.00
EOM	3.89	---	1.21	1.88	1.73	---	4.10	5.27	6.85	7.58	.54	3.41

WTR YR 1981 MEAN 3.83 HIGH .54 AUG 31 LOW 7.68 AUG 6

APPENDIX

PARAMETER CODE	FIRST LINE - NEW TERMINOLOGY SECOND LINE - OLD TERMINOLOGY
39332	ALDRIN, SUSPENDED TOTAL (UG/L)
39332	ALDRIN, SUSPENDED (UG/L)
01505	ALPHA, SUSPENDED TOTAL (PCI/L)
01505	ALPHA, SUSPENDED (PCI/L)
01506	ALPHA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
01506	ALPHA, SUSPENDED, COUNTING ERROR (PCI/L)
01105	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
01105	ALUMINUM, TOTAL (UG/L AS AL)
01107	ALUMINUM, SUSPENDED RECOVERABLE (UG/L AS AL)
01107	ALUMINUM, SUSPENDED (UG/L AS AL)
01108	ALUMINUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AL)
01108	ALUMINUM, TOTAL IN BOTTOM MATERIAL (UG/G AS AL)
01096	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)
01096	ANTIMONY, SUSPENDED (UG/L AS SB)
39502	AROCLOR, SUSPENDED TOTAL, 1248 PCB SERIES (UG/L)
39502	AROCLOR, SUSPENDED, 1248 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED TOTAL, 1254 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED, 1254 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED TOTAL, 1260 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED, 1260 PCB SERIES (UG/L)
01001	ARSENIC, SUSPENDED TOTAL (UG/L AS AS)
01001	ARSENIC, SUSPENDED (UG/L AS AS)
01006	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
01006	BARIUM, SUSPENDED (UG/L AS BA)
01007	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
01007	BARIUM, TOTAL (UG/L AS BA)
01008	BARIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BA)
01008	BARIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BA)
01011	BERYLLIUM, SUSPENDED RECOVERABLE (UG/L AS BE)
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)
01012	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
01012	BERYLLIUM, TOTAL (UG/L AS BE)
01013	BERYLLIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BE)
01013	BERYLLIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BE)
03505	BETA, SUSPENDED TOTAL (PCI/L)
03505	BETA, SUSPENDED (PCI/L)
03506	BETA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
03506	BETA, SUSPENDED, COUNTING ERROR (PCI/L)
01016	BISMUTH, SUSPENDED TOTAL (UG/L AS BI)
01016	BISMUTH, SUSPENDED (UG/L AS BI)
01021	BORON, SUSPENDED RECOVERABLE (UG/L AS B)
01021	BORON, SUSPENDED (UG/L AS B)
01022	BORON, TOTAL RECOVERABLE (UG/L AS B)
01022	BORON, TOTAL (UG/L AS B)
01023	BORON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS B)
01023	BORON, TOTAL IN BOTTOM MATERIAL (UG/G AS B)
01026	CADMIUM, SUSPENDED RECOVERABLE (UG/L AS CD)
01026	CADMIUM, SUSPENDED (UG/L AS CD)
01027	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)
01027	CADMIUM, TOTAL (UG/L AS CD)
01028	CADMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CD)
01028	CADMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CD)
00916	CALCIUM, TOTAL RECOVERABLE (MG/L AS CA)
00916	CALCIUM, TOTAL (MG/L AS CA)
07052	CALCIUM 45, SUSPENDED TOTAL (PCI/L)
07052	CALCIUM 45, SUSPENDED (PCI/L)

PARAMETER CODE	FIRST LINE - NEW TERMINOLOGY SECOND LINE - OLD TERMINOLOGY
07053	CALCIUM 45, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07053	CALCIUM 45, SUSPENDED, COUNTING ERROR (PCI/L)
00683	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00683	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED TOTAL (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED (MG/L AS C)
01116	CESIUM, SUSPENDED TOTAL (UG/L AS CS)
01116	CESIUM, SUSPENDED (UG/L AS CS)
28404	CESIUM 137, SUSPENDED TOTAL (PCI/L)
28404	CESIUM 137, SUSPENDED (PCI/L)
28405	CESIUM 137,SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28405	CESIUM 137,SUSPENDED, COUNTING ERROR (PCI/L)
28412	CESIUM 134, SUSPENDED TOTAL (PCI/L)
28412	CESIUM 134, SUSPENDED (PCI/L)
28413	CESIUM 134, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28413	CESIUM 134, SUSPENDED, COUNTING ERROR (PCI/L)
39353	CHLORDANE, SUSPENDED TOTAL (UG/L)
39353	CHLORDANE, SUSPENDED (UG/L)
01029	CHROMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CR)
01029	CHROMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CR)
01031	CHROMIUM, SUSPENDED RECOVERABLE (UG/L AS CR)
01031	CHROMIUM, SUSPENDED (UG/L AS CR)
01034	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
01034	CHROMIUM, TOTAL (UG/L AS CR)
01036	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)
01036	COBALT, SUSPENDED (UG/L AS CO)
01037	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
01037	COBALT, TOTAL (UG/L AS CO)
01038	COBALT, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CO)
01038	COBALT, TOTAL IN BOTTOM MATERIAL (UG/G AS CO)
01041	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
01041	COPPER, SUSPENDED (UG/L AS CU)
01042	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
01042	COPPER, TOTAL (UG/L AS CU)
01043	COPPER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CU)
01043	COPPER, TOTAL IN BOTTOM MATERIAL (UG/G AS CU)
39362	DDD, SUSPENDED TOTAL (UG/L)
39362	DDD, SUSPENDED (UG/L)
39367	DDE, SUSPENDED TOTAL (UG/L)
39367	DDE, SUSPENDED (UG/L)
39372	DDT, SUSPENDED TOTAL (UG/L)
39372	DDT, SUSPENDED (UG/L)
39573	DIAZINON, SUSPENDED TOTAL (UG/L)
39573	DIAZINON, SUSPENDED (UG/L)
39382	DIELDRIN, SUSPENDED TOTAL (UG/L)
39382	DIELDRIN, SUSPENDED (UG/L)
39392	ENDRIN, SUSPENDED TOTAL (UG/L)
39392	ENDRIN, SUSPENDED (UG/L)
01121	GALLIUM, SUSPENDED TOTAL (UG/L AS GA)
01121	GALLIUM, SUSPENDED (UG/L AS GA)
01126	GERMANIUM, SUSPENDED TOTAL (UG/L AS GE)
01126	GERMANIUM, SUSPENDED (UG/L AS GE)

APPENDIX

PARAMETER CODE	FIRST LINE - NEW TERMINOLOGY SECOND LINE - OLD TERMINOLOGY
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS U NATURAL)
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/L AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/G AS U NATURAL)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/L AS U NATURAL)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/L AS U NATURAL)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS SR/YT-90)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS SR/YT-90)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS CS-137)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS CS-137)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS SR/YT-90)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS SR/YT-90)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS CS-137)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS CS-137)
39412	HEPTACHLOR, SUSPENDED TOTAL (UG/L)
39412	HEPTACHLOR, SUSPENDED (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED TOTAL (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED (UG/L)
01044	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
01044	IRON, SUSPENDED (UG/L AS FE)
01045	IRON, TOTAL RECOVERABLE (UG/L AS FE)
01045	IRON, TOTAL (UG/L AS FE)
01170	IRON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS FE)
01170	IRON, TOTAL IN BOTTOM MATERIAL (UG/G AS FE)
07062	IRON 59, SUSPENDED TOTAL (PCI/L)
07062	IRON 59, SUSPENDED (PCI/L)
07063	IRON 59, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07063	IRON 59, SUSPENDED, COUNTING ERROR (PCI/L)
39432	ISODRIN, SUSPENDED TOTAL (UG/L)
39432	ISODRIN, SUSPENDED (UG/L)
01050	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)
01050	LEAD, SUSPENDED (UG/L AS PB)
01051	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
01051	LEAD, TOTAL (UG/L AS PB)
01052	LEAD, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS PB)
01052	LEAD, TOTAL IN BOTTOM MATERIAL (UG/G AS PB)
39342	LINDANE, SUSPENDED TOTAL (UG/L)
39342	LINDANE, SUSPENDED (UG/L)
01131	LITHIUM, SUSPENDED RECOVERABLE (UG/L AS LI)
01131	LITHIUM, SUSPENDED (UG/L AS LI)
01132	LITHIUM, TOTAL RECOVERABLE (UG/L AS LI)
01132	LITHIUM, TOTAL (UG/L AS LI)
00926	MAGNESIUM, SUSPENDED RECOVERABLE (MG/L AS MG)
00926	MAGNESIUM, SUSPENDED (MG/L AS MG)

APPENDIX

PARAMETER CODE	FIRST LINE - NEW TERMINOLOGY SECOND LINE - OLD TERMINOLOGY
00927	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)
00927	MAGNESIUM, TOTAL (MG/L AS MG)
39533	MALATHION, SUSPENDED TOTAL (UG/L)
39533	MALATHION, SUSPENDED (UG/L)
01053	MANGANESE, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MN)
01053	MANGANESE, TOTAL IN BOTTOM MATERIAL (UG/G AS MN)
01054	MANGANESE, SUSPENDED RECOVERABLE (UG/L AS MN)
01054	MANGANESE, SUSPENDED (UG/L AS MN)
01055	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
01055	MANGANESE, TOTAL (UG/L AS MN)
71895	MERCURY, SUSPENDED RECOVERABLE (UG/L AS HG)
71895	MERCURY, SUSPENDED (UG/L AS HG)
71900	MERCURY, TOTAL RECOVERABLE (UG/L AS HG)
71900	MERCURY, TOTAL (UG/L AS HG)
71921	MERCURY, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS HG)
71921	MERCURY, TOTAL IN BOTTOM MATERIAL (UG/G AS HG)
39603	METHYL PARATHION, SUSPENDED TOTAL (UG/L)
39603	METHYL PARATHION, SUSPENDED (UG/L)
39757	MIREX, SUSPENDED TOTAL (UG/L)
39757	MIREX, SUSPENDED (UG/L)
01061	MOLYBDENUM, SUSPENDED RECOVERABLE (UG/L AS MO)
01061	MOLYBDENUM, SUSPENDED (UG/L AS MO)
01062	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
01062	MOLYBDENUM, TOTAL (UG/L AS MO)
01063	MOLYBDENUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MO)
01063	MOLYBDENUM, TOTAL IN BOTTOM MATERIAL (UG/G AS MO)
01066	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
01066	NICKEL, SUSPENDED (UG/L AS NI)
01067	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
01067	NICKEL, TOTAL (UG/L AS NI)
01068	NICKEL, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS NI)
01068	NICKEL, TOTAL IN BOTTOM MATERIAL (UG/G AS NI)
00623	NITROGEN, AMMONIA PLUS ORGANIC, DISSOLVED (MG/L AS N)
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)
00624	NITROGEN, AMMONIA PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS N)
00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)
00625	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL (MG/L AS N)
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)
00626	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00626	NITROGEN, KJELDAHL, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
39543	PARATHION, SUSPENDED TOTAL (UG/L)
39543	PARATHION, SUSPENDED (UG/L)
39518	PCB, SUSPENDED TOTAL (UG/L)
39518	PCB, SUSPENDED (UG/L)
09505	RADIUM 226, SUSPENDED TOTAL (PCI/L)
09505	RADIUM 226, SUSPENDED (PCI/L)
07082	RHODAMINE WT, SUSPENDED TOTAL (UG/L)
07082	RHODAMINE WT, SUSPENDED (UG/L)
01136	RUBIDIUM, SUSPENDED TOTAL (UG/L AS RB)
01136	RUBIDIUM, SUSPENDED (UG/L AS RB)
29633	SCANDIUM 46, SUSPENDED TOTAL (PCI/L)
29633	SCANDIUM 46, SUSPENDED (PCI/L)
29634	SCANDIUM 46, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
29634	SCANDIUM 46, SUSPENDED, COUNTING ERROR (PCI/L)
01146	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)
01146	SELENIUM, SUSPENDED (UG/L AS SE)
07102	SELENIUM 75, SUSPENDED TOTAL (PCI/L)
07102	SELENIUM 75, SUSPENDED (PCI/L)

APPENDIX

PARA-METER CODE	FIRST LINE - NEW TERMINOLOGY SECOND LINE - OLD TERMINOLOGY
07103	SELENIUM 75, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07103	SELENIUM 75, SUSPENDED, COUNTING ERROR (PCI/L)
01075	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
01076	SILVER, SUSPENDED (UG/L AS AG)
01077	SILVER, TOTAL RECOVERABLE (UG/L AS AG)
01077	SILVER, TOTAL (UG/L AS AG)
01078	SILVER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AG)
01078	SILVER, TOTAL IN BOTTOM MATERIAL (UG/G AS AG)
07122	SILVER 110, SUSPENDED TOTAL (PCI/L)
07122	SILVER 110, SUSPENDED (PCI/L)
07123	SILVER 110, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07123	SILVER 110, SUSPENDED, COUNTING ERROR (PCI/L)
39763	SILVEX, SUSPENDED TOTAL (UG/L)
39763	SILVEX, SUSPENDED (UG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED TOTAL (MG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED (MG/L)
01081	STRONTIUM, SUSPENDED RECOVERABLE (UG/L AS SR)
01081	STRONTIUM, SUSPENDED (UG/L AS SR)
01082	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)
01082	STRONTIUM, TOTAL (UG/L AS SR)
01083	STRONTIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS SR)
01083	STRONTIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS SR)
13505	STRONTIUM 90, SUSPENDED TOTAL (PCI/L)
13505	STRONTIUM 90, SUSPENDED (PCI/L)
13506	STRONTIUM 90, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
13506	STRONTIUM 90, SUSPENDED, COUNTING ERROR (PCI/L)
07142	SULFUR 35, SUSPENDED TOTAL (PCI/L)
07142	SULFUR 35, SUSPENDED (PCI/L)
07143	SULFUR 35, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07143	SULFUR 35, SUSPENDED, COUNTING ERROR (PCI/L)

APPENDIX

PARAMETER CODE	FIRST LINE - NEW TERMINOLOGY SECOND LINE - OLD TERMINOLOGY
01101	TIN, SUSPENDED RECOVERABLE (UG/L AS SN)
01101	TIN, SUSPENDED (UG/L AS SN)
01102	TIN, TOTAL RECOVERABLE (UG/L AS SN)
01102	TIN, TOTAL (UG/L AS SN)
01151	TITANIUM, SUSPENDED TOTAL (UG/L AS TI)
01151	TITANIUM, SUSPENDED (UG/L AS TI)
39402	TOXAPHENE, SUSPENDED TOTAL (UG/L)
39402	TOXAPHENE, SUSPENDED (UG/L)
07010	TRITIUM, SUSPENDED TOTAL (PCI/L)
07010	TRITIUM, SUSPENDED (PCI/L)
07011	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07011	TRITIUM, SUSPENDED, COUNTING ERROR (PCI/L)
07014	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (TRITIUM UNITS)
07014	TRITIUM, SUSPENDED, COUNTING ERROR (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED TOTAL (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED (TRITIUM UNITS)
22705	URANIUM, NATURAL, SUSPENDED TOTAL (UG/L AS U NATURAL)
22705	URANIUM, NATURAL, SUSPENDED (UG/L AS U NATURAL)
01086	VANADIUM, SUSPENDED TOTAL (UG/L AS V)
01086	VANADIUM, SUSPENDED (UG/L AS V)
01091	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)
01091	ZINC, SUSPENDED (UG/L AS ZN)
01092	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
01092	ZINC, TOTAL (UG/L AS ZN)
01093	ZINC, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS ZN)
01093	ZINC, TOTAL IN BOTTOM MATERIAL (UG/G AS ZN)
01161	ZIRCONIUM, SUSPENDED TOTAL (UG/L AS ZR)
01161	ZIRCONIUM, SUSPENDED (UG/L AS ZR)
39733	2,4-D, SUSPENDED TOTAL (UG/L)
39733	2,4-D, SUSPENDED (UG/L)
39743	2,4,5-T, SUSPENDED TOTAL (UG/L)
39743	2,4,5-T, SUSPENDED (UG/L)

	Page
Abbotts Creek, at Lexington	423
Acknowledgment	2
Acre-foot, definition of	6
Ahoskie, Ahoskie Creek at	22
Ahoskie Creek at Ahoskie	22
Algae, definition of	6
All Healing Springs, Lower Little River near	301
Amelia, New River at	427
Appalachia Lake, change in contents in	412,413
Appendix	451-457
Aquifer, definition of	6
Arabia, Rockfish Creek near	419
Ararat, Ararat River at	255
Flat Shoal Creek at Secondary Road 2018 near	421
Toms Creek near	421
Ararat River, at Ararat	255
at State Highway 103 at Mount Airy	421
at U.S. Highway 52-A near Mount Airy	421
near Pilot Mountain	421
near Salem	420
near Siloam	421
Arneys Store, Johns River at	425
Artesian, definition of	6
Asbury, Dan River below SEO near	415
Ash Hill, Bull Run Creek near	421
Ash mass, definition of	6
Asheville, French Broad River at	357
Ashland, Country Line Creek at Secondary Road 1146 near	416
Asylum, Little River at State Highway 581 at	417
Atwood, Salem Creek near	259
Bacteria, definition of	6
Badin Lake, change in contents in	329,332
Bahama, Flat River at	101
Bailey Creek, near Wadesboro	423
Balfour, Mud Creek near	427
Barber, Second Creek near	272
Baynes, Hyco Creek at Secondary Road 1767 near	416
Bear Creek Lake	413
Bear Creek near Parkstown	119
Beaufort County, ground-water records in	430-432
Beaver Creek (Cape Fear River basin), at Cumberland	419
Beaver Creek (Pee Dee River basin), near Ferguson	420
Beaverdam Creek near Grantham	114
Bed material, definition of	6
Beetree Creek near Swannanoa	349-355
Beetree Reservoir	412
Bellemont, Big Alamance Creek near	418
Bent Creek, French Broad River at	348
Bertie County, ground-water records in	432
Bessemer City, Long Creek near	307
Bethel, Conetoe Creek near	75
Bethel Hill, Mayo Creek near	41,330
Bethel, West Fork Pigeon River at	369,412
Bethesda, Leonard Creek near	274-275
Big Alamance Creek, near Bellemont	418
Big Bear Creek near Richfield	276
Big Marsh Swamp, near Oakland	424
Biltmore, Swannanoa River at	356,412
Biochemical oxygen demand, definition of	6
Biomass, definition of	6
Birdtown, Oconaluftee River at	404
Biscoe, White Oak Creek near	423
Black River (tributary to Cape Fear River), near Tomahawk	231
Black River (tributary to South River), at Secondary Road 1722 near Dunn	232-233,419
near Dunn	236,419
near Erwin	234-235
Blackwood, New Hope Creek near	418
Bland, New Hope Creek at Secondary Road 1107 near	419
Third Fork Creek near	419
Blantyre, French Broad River at	345-346
Blevins Crossroads, Little River near	427
Blewett Falls Lake, change in contents in	329,332
Boardman, Lumber River at	295-296
Boiling Springs, Broad River near	317-325
Sugar Branch near	327
Bolin Creek, near Chapel Hill	419
Boone, South Fork New River at U.S. Highway 421 near	426
Bottom material, definition of	7
Bowling Green, SC, Crowders Creek near	425
Brevard, Davidson River near	342-343
King Creek at	427
South Fork Mills River near	427
Broad River, at Uree	426
at U.S. Highway 221A near Cliffside	426
near Boiling Springs	317-325
Brunswick County, ground-water records in	432
Brushy Creek, near Washburn	426
Bryant Swamp, near Butters	424
Bryson City, Tuckasegee River at	405-407,411,413
Buckhorn, Cane Creek 0.1 mile upstream from Secondary Road 1126 near	170-177
Buckhorn Creek near Corinth	202,331
Buckhorn Reservoir (Cape Fear River basin)	331
Buckhorn Reservoir (Neuse River basin)	331
Buffalo Creek Branch, near Stoneville	415
Buffalo Creek (Roanoke River basin), near Eden	415
near Stoneville	415
Buffalo Creek (tributary to Broad River), near Grover	426
Buffalo Creek (tributary to Reedy Fork), near McLeansville	418
Bull Run Creek, near Ash Hill	421
Burnett Lake	412
Burnsville, Cane River at	428
Butner, Knap of Reeds Creek near	417
Butters, Bryant Swamp near	424
Bynum, Haw River near	178-179
Calvert, Galloway Creek above SEO near	427
Cane Creek 0.1 mile upstream from Secondary Road 1126 near Buckhorn	170-177
Cane River, at Burnsville	428
near Sioux	428
Canton, East Fork Pigeon River near	370
Pigeon River at	371-372,412
Cape Fear River, at Lillington	203-204
at Lock 1 near Kelly	218-229
at William O. Huske Lock near Tarheel	206-207
Cape Fear River basin, gaging-station records in	164-242
lakes and reservoirs in	328-331
measurements at miscellaneous sites in	418-419
Carteret County, ground-water records in	433
Cartoogechaye Creek near Franklin	395
Casar, First Broad River near	326
Cashie River, at State Highway 11 near Lewiston	416
Cashiers, Chattooga River near	426
Cataloochee, Cataloochee Creek near	381-390
Cataloochee Creek near Cataloochee	381-390
Catawba River, at Interstate 40 near Old Fort	424
at Morganton	424
at Old Fort	424
near Marion	298
near Pleasant Gardens	297
South Fork, near Lowell	425
South Fork, near Startown	425
Cedar Cliff Lake	413
Cedar Mountain, Little River above High Falls near	344
Cells/volume, definition of	7
Celo, South Toe River near	391
Center, North Deep Creek near	422
Cfs-day, definition of	7
Champion, Lewis Fork Creek, North Prong near	420
Lewis Fork Creek, South Prong near	420
Chapel Hill, Bolin Creek near	419
Charlotte, Irwin Creek near	308
Little Sugar Creek at Archdale Drive at	309
Little Sugar Creek at Secondary Road 3814 at	425
McAlpine Creek at Sardis Road near	310
McDowell Creek near	425
McMullen Creek at Sharon View Road near	311
Chattooga River, near Cashiers	426
Chatuge Lake, change in contents in	412,413
Chemical oxygen demand, definition of	7
Cheoah Lake	413
Cheoah River, near Robbinsville	429
Chicod Creek, at Secondary Road 1565 near Grimesland	76-79,414,417
at Secondary Road 1760 near Simpson	83-92
Chinquapin, Northeast Cape Fear River near	238-239
Chlorophyll, definition of	7

	Page
Chowan County, ground-water records in	433-434
Chowan River basin, gaging-station records in	21-22
Clark Creek, at Lincolnton	425
Clayton, Middle Creek near	113
Neuse River near	110-111
Cliffside, Broad River at U.S. Highway 221A near	426
Second Broad River at	315-316
Clyde, Pigeon River at	428
Pigeon River near	428
Richland Creek near	428
Color unit, definition of	7
Conetoe Creek near Bethel	75
Contentnea Creek, at Hookerton	137-145
near Lucama	132,331
near Stantonsburg	417
Contents, definition of	7
Control, definition of	7
Cooleemee, Third Creek at	422
Cooperation, record of	1
Copeland, Fisher River near	253
Cordova, Hitchcock Creek at	423
Corinth, Buckhorn Creek near	202,331
Cornwall, Grassy Creek near	416
Country Line Creek, at Secondary Road 1146 near Ashland	416
at State Highway 57 at Milton	416
Cove Creek (Santee River basin), near Lake Lure	314
Cove Creek (tributary to Watauga River), near Sherwood	429
Cow Swamp near Grimesland	80-82,414,417
Cox Mill, Mill Creek at	417
Crabtree, Crabtree Creek near	428
Pigeon River near	428
Crabtree Creek, near Crabtree	428
Craven County, ground-water records in	434-435
Creeping Swamp near Vanceboro	148-150
Creston, North Fork New River at	426
Creswell, Phelps Lake at Pettigrew State Park near	336-338
Crooked Run Creek, near Donnaha	421
Crowders Creek, near Bowling Green, SC	425
Crumpler, North Fork New River at	427
Cubic foot per second, definition of	7
Cubic feet per second per square mile, definition of	7
Cumberland, Beaver Creek at	419
Cumberland County, ground-water records in	435
Daileys Creek near Liddell	118
Dalton, Little Yadkin River at	256
Dan River, at Madison Industrial Site	415
at Pine Hall	415
below SEO near Asbury	415
near Francisco	23,328
near Mayfield	26-33,328
near Wentworth	24,328
Data, accuracy of	13
collected by other agencies	14
ground-water level records, collection of	15
other available	14
surface-water records, collection and computation of	12
water quality, collection and examination of	14
Davidson River, at Pisgah Forest	427
near Brevard	342-343
Davidson, Rocky River near	423
Davie County, ground-water records in	435
Deep Creek (Pamlico River basin), near Tarboro	417
Deep Creek (Yadkin River basin), near Shacktown	422
North, near Center	422
North, near Yadkinville	422
South, near Footsville	422
South, near Shacktown	422
tributary, North, near Nebo	422
tributary, South, near Footsville	422
Deep River, at Moncure	200-201
at Ramseur	190-198,331
East Fork near High Point	187
near Randleman	188-189,331
Deep Run, Trent River at State Highway 11 near	418
Definition of terms	6
Dillsboro, Tuckasegee River at	402-403,411,413
Discharge, definition of	7
Dissolved, definition of	7
Donnaha, Crooked Run Creek near	421
Double Creek near Roseville	37
Downstream order and station number explanation of	10
Drainage area, definition of	7
Drainage basin, definition of	7
Drowning Creek, at U.S. Highway 15 near Hoffman	424
near Hoffman	294
near Jackson Springs	424
Dry mass, definition of	6
Dunn, Black River at Secondary Road 1722 near	232-233,419
Black River near	236,419
Mingo Swamp near	419
Dunns Rock, French Broad River at	427
Duplin County, ground-water records in	436
Durham Creek at Edward	97
Durham, Eno River near	99
Dutchmans Creek, at Secondary Road 1002 near Stanleys Store	422
at State Highway 801 near Fork	422
Earl, First Broad River near	426
East Bend, Yadkin River tributary near	421
East Fork Lake	413
Eden, Buffalo Creek near	415
Machine Creek near	415
Smith River at	25
Town Creek near	415
Edgecombe County, ground-water records in	436
Edward, Durham Creek at	97
Eldorado, Uwharrie River near	423
Elk Creek at Elkville	246
Elkin, Elkin River at	414
Yadkin River at	250-251,328
Elkin River at Elkin	414
Elkville, Elk Creek at	246
Ellerbe Creek, near Gorman	417
Ellis Creek tributary at Secondary Road 1325 near White Oak	208-217
Enfield, Fishing Creek near	60
Enka, Lee Creek near	428
Eno River, near Durham	99
Enon, Logan Creek near	422
Yadkin River at	257-258,328
Erwin, Black River near	234-235
Eureka, Turner Swamp near	134-135
Faggarts Crossroads, Irish Buffalo Creek near	423
Rocky River near	423
Fairfield, Richardson Creek near	423
Falls Lake	102,328
Falls, Neuse River near	102-109,328,330
Farmville, Little Contentnea Creek near	146
Farrington, Morgan Creek near	419
Fecal coliform bacteria, definition of	6
Fecal streptococcal bacteria, definition of	6
Ferguson, Beaver Creek near	420
Stony Fork near	420
First Broad River, near Casar	326
near Earl	426
near Lawndale	414
Fisher River, at Ladonia	420
near Copeland	253
Fishing Creek, near Enfield	60
near Leggett	417
Flat Creek near Inverness	205
Flat River at Bahama	101
Flat Shoal Creek, at Secondary Road 2018 near Ararat	421
Fletcher, Pinner Creek near	427
Fontana Lake, change in contents in	411,413
Footsville, South Deep Creek near	422
South Deep Creek tributary near	422
Forbush Creek, near Yadkinville	422
Fork, Dutchmans Creek at State Highway 801 near	422
Humpy Creek near	269
Fort Barnwell, Neuse River near	417
Fort Mill, SC, Sugar Creek near	426
Foscoe, Watauga River at	428
Franklin, Cartoogechaye Creek near	395
Francisco, Dan River near	23,328
Freeland, Waccamaw River at	243-244
French Broad River at Asheville	357
at Bent Creek	348
at Blantyre	345-346
at Dunns Rock	427
at Marshall	358-366
at Rosman	340-341
West Fork, at Rosman	427
West Fork, near Rosman	427

Page

Gage height, definition of..... 7
Gaging station, definition of..... 7
Galloway Creek, above SEO near Calvert..... 427
Gates County, ground-water records in..... 437
Germantown, Neatmans Creek near..... 415
Gibsonville, Reedy Fork near..... 165-166,331
Glenola, Uwharrie River near..... 423
Goldsboro, Neuse River near..... 117
Gordonton, South Hyco Creek near..... 416
Gorman, Ellerbe Creek near..... 417
Gourdvine Creek at Secondary Road 1715 near Olive Branch..... 277
Gragg, Wilson Creek near..... 425
Grantham, Beaverdam Creek near..... 114
Grassy Creek (Roanoke River basin), near Cornwall..... 416
Grassy Creek (Yadkin River basin), near Shoals..... 421
Greensboro, North Buffalo Creek near..... 167-168
Grimesland, Chicod Creek at Secondary Road 1565 near..... 76-79,414,417
Cow Swamp near..... 80-82,414,417
Grissett Swamp, near Iron Hill..... 420
Groomtown, Richland Creek near..... 419
Ground-water level records, explanation of..... 15
Ground-water records..... 430-450
Grover, Buffalo Creek near..... 426
Gum Branch, New River near..... 418
Gum Swamp, near Old Hundred..... 424

Hagan Creek, at Secondary Road 2082 at Siloam..... 420
Hamlet, Marks Creek at Secondary Road 1812 near..... 424
Hardness, definition of..... 7
Harmony, Hunting Creek near..... 271
Harnett County, ground-water records in..... 437-439
Harrisburg, Mallard Creek at..... 423
Haw River, at Haw River..... 169,331
below B. Everett Jordan Dam near Moncure..... 180-186,328
near Bynum..... 178-179
near Oak Ridge..... 418
near Terrells..... 418
Haywood County, ground-water records in..... 439
Hazelwood, West Fork Pigeon River above Lake Logan near..... 367
Henderson, Nutbush Creek below SEO near..... 416
Henry Fork near Henry River..... 303
Henry River, Henry Fork near..... 303
Hepco, Pigeon River near..... 373-380,412
Hertford County, ground-water records in..... 440
Hewletts Creek at Secondary Road 1102 near Wilmington..... 163
High Point, East Fork Deep River near..... 187
Municipal Lake..... 331
High Rock Lake, change in contents in..... 328,332
Hilliardston, Swift Creek at..... 58
Hitchcock Creek, at Cordova..... 423
Hiwassee Lake, change in contents in..... 412,413
Hiwassee River above Murphy..... 408,412
Hoffman, Drowning Creek at U.S. Highway 15 near..... 424
Drowning Creek near..... 294
Hoke County, ground-water records in..... 440
Hoke, Van Swamp near..... 98
Hominy Swamp at Phillips Street at Wilson..... 133
Hookerton, Contentnea Creek at..... 137-145
Hope Mills, Rockfish Creek at U.S. Highway 301 near..... 419
Humpy Creek near Fork..... 269
Huntdale, North Toe River at..... 428
Hunting Creek near Harmony..... 271
Hurdle Mills, South Flat River at Secondary Road 1112 near..... 417
Hyco Creek, at Secondary Road 1767 near Baynes..... 416
near Leasburg..... 34-36
Hyco Lake, change in contents in..... 328,331
Hyco River, below Afterbay Dam near McGehees Mill..... 38-40,330
Hydrologic bench-mark station, definition of..... 11
Hydrologic conditions, summary of..... 2
Hydrologic unit, definition of..... 7

Indian Creek near Laboratory..... 306
Ingalls, North Toe River near..... 428
Instantaneous discharge, definition of..... 7
Introduction..... 1
Inverness, Flat Creek near..... 205

Page

Iotla, Little Tennessee River at..... 429
Irish Buffalo Creek, near Faggarts Crossroads..... 423
Iron Hill, Grissett Swamp near..... 420
Irwin Creek, near Charlotte..... 308
Island Creek at Secondary Road 1430 near Stovall..... 416

Jackson Springs, Drowning Creek near..... 424
Jacob Fork at Ramsey..... 304-305
Jefferson, South Fork New River near..... 339
Johns River, at Arneys Store..... 425
Jones County, ground-water records in..... 441
Jordan, B. Everett, Lake..... 180,328
Julian, Little Alamance Creek near..... 418
Juniper Branch near Simpson..... 93-96

Kanawha River basin, gaging-station records in..... 339
measurements at miscellaneous sites in..... 426-427
Kelly, Cape Fear River at Lock 1 near..... 218-229
Kenly, Little River near..... 115
Kerr, John H., Reservoir..... 42
Kikers, Richardson Creek near..... 423
King Creek, at Brevard..... 427
Kinston, Neuse River at..... 120-131
Knap of Reeds Creek, near Butner..... 417

Laboratory, Indian Creek near..... 306
Ladonia, Fisher River near..... 420
Lakes and reservoirs:
Ohio River basin..... 411-413
Appalachia Lake, change in contents in..... 412,413
Bear Creek Lake..... 413
Beetree Reservoir..... 412
Burnett Lake..... 412
Cedar Cliff Lake..... 413
Chatuge Lake, change in contents in..... 412,413
Cheoah Lake..... 413
East Fork Lake..... 413
Fontana Lake, change in contents in..... 411,413
Hiwassee Lake, change in contents in..... 412,413
Julian, Lake..... 412
Junaluska, Lake..... 412
Logan, Lake..... 412
Nantahala Lake, change in contents in..... 411,413
Queens Creek Lake..... 399
Santeetlah Lake, change in contents in..... 411,412,413
Sequoyah Lake..... 413
Tennessee Creek Project lakes..... 413
Thorpe Reservoir, change in contents in..... 411,413
Waterville Lake, change in contents in..... 411,413
Wolf Creek Lake..... 413
South Atlantic Slope basins..... 328-338
Badin Lake, change in contents in..... 329,332
Benson, Lake..... 330
Blewett Falls Lake, change in contents in..... 329,332
Brandt, Lake..... 331
Buckhorn Reservoir (Cape Fear River basin)..... 331
Buckhorn Reservoir (Neuse River basin)..... 331
Burlington, Lake..... 331
Falls Lake..... 102,328
Gaston, Lake, change in contents in..... 328,331
Hickory, Lake, change in contents in..... 329,332
Higgins, Lake..... 331
High Point Municipal Lake..... 331
High Rock Lake, change in contents in..... 328,332
Hyco Lake, change in contents in..... 328,331
James, Lake, change in contents in..... 329,332
Johnson, Lake..... 330
Jordan, B. Everett, Lake..... 180,328
Kerr, John H., Reservoir..... 42
Lexington-Thomasville Reservoir..... 331
Lookout Shoals Lake, change in contents in..... 330,332
Mayo Lake..... 41,330
Michie, Lake..... 330
Mountain Island Lake, change in contents in..... 330,332
Norman, Lake, change in contents in..... 330,332
Oak Hollow Reservoir..... 331
Phelps Lake, at McLeans Pier near Roper... 333-335
at Pettigrew State Park near Creswell... 336-338
Philpott Reservoir..... 25
Raleigh, Lake..... 330
Rhodhiss Lake, change in contents in..... 329,332
Roanoke Rapids Lake, change in contents in..... 328,331

	Page
Roxboro, Lake	330
Roxboro Steam-Electric Generating Plant Afterbay Reservoir	330
Scott, W. Kerr, Reservoir, change in contents in	328,332
Shearon Harris Main Reservoir	202,331
Stony Creek Reservoir	331
Talbott Reservoir, change in contents in	328,331
Tillery, Lake, change in contents in	329,332
Townes Reservoir, change in contents in	328,331
Townsend, Lake	331
Toxaway, Lake	331
Tuckertown Reservoir, change in contents in	329,332
Wheeler, Lake	330
Lake Benson	330
Lake Brandt	331
Lake Burlington	331
Lake Gaston, change in contents in	328,331
Lake Hickory, change in contents in	329,332
Lake Higgins	331
Lake James, change in contents in	329,332
Lake Johnson	330
Lake Julian	412
Lake Junaluska	412
Pigeon River near	428
Lake Logan	412
Lake Lure, Cove Creek near	314
Lake Michie	330
Lake Norman, change in contents in	330,332
Lake Raleigh	330
Lake Roxboro	330
Lake Tillery, change in contents in	329,332
Lake Townsend	331
Lake Toxaway	331
Lake Wheeler	330
Lane Creek at Secondary Road 2115 near Trinity	278
Lawndale, First Broad River near	414
Leasburg, Hyco Creek near	34-36
Lee Creek, near Enka	428
Leggett, Fishing Creek near	417
Leith Creek, near Maxton	424
Lenoir County, ground-water records in	441
Lenoir, Lower Creek at U.S. Highway 321A at	425
Leonard Creek near Bethesda	274-275
Lewis Fork Creek, North Prong near Champion	420
South Prong near Champion	420
South Prong near North Wilkesboro	420
Lewiston, Cashie River at State Highway 11 near	416
Lexington, Abbotts Creek at	423
Lexington-Thomasville Reservoir	331
Liberty, North Prong Rocky River near	419
Lick Creek, near Walnut Cove	415
Liddell, Daileys Creek near	118
Lillington, Cape Fear River at	203-204
Lincolnton, Clark Creek at	425
Linville, Linville River at State Highway 105 at	424
Linville River, at State Highway 105 at Linville	424
near Nebo	299-300
Linwood, North Potts Creek at	273
Swearing Creek at	422
Little Alamance Creek, near Julian	418
Little Coharie Creek near Roseboro	230
Little Contentnea Creek, near Farmville	146
Little Creek, at Secondary Road 1122 near Zephyr	420
Little Fishing Creek near White Oak	59
Little River (Kanawha River basin), at Secondary Road 1140 at Whitehead	427
near Blevins Crossroads	427
Little River (tributary to Cape Fear River), at Manchester	419
Little River (tributary to Eno River), near Orange Factory	100
Little River (tributary to French Broad River), above High Falls near Cedar Mountain	344
Little River (tributary to Neuse River), at State Highway 581 at Asylum	417
near Kenly	115
near Princeton	116
Little River (tributary to Pee Dee River), at Secondary Road 1142 near Ulah	423
near Star	282
Little Rockfish Creek at Wallace	242
Little Sugar Creek, at Archdale Drive at Charlotte	309
at Secondary Road 3814 at Charlotte	425
near Pineville	425
Little Tennessee River, at Iotla	429
at Needmore	396-397
near Prentiss	394
Little Yadkin River at Dalton	256
West Prong, near Pinnacle	421
Logan Creek, near Enon	422
Long Creek (tributary to Catawba River), near Paw Creek	302
Long Creek (tributary to Rocky River), at Secondary Road 1454 near Richfield	423
near Oakboro	423
Long Creek (tributary to South Fork Catawba River), near Bessemer City	307
(tributary to Catawba River), near Thrift	425
Lookout Shoals Lake, change in contents in	330,332
Louisburg, Tar River at U.S. Highway 401 at	55
Lovills Creek, at State Highway 89 at Mount Airy	421
at U.S. Highway 601 at Mount Airy	421
Lowell, South Fork Catawba River near	425
Lower Creek, at Secondary Road 1501 near Morganton	425
at U.S. Highway 321A at Lenoir	425
Lower Little River near All Healing Springs	301
Lucama, Contentnea Creek near	132,331
Lumber River, at Boardman	295-296
near Maxton	424
near Moss Neck	424
Machine Creek, near Eden	415
Madison Industrial Site, Dan River at	415
Mallard Creek, at Harrisburg	423
Manchester, Little River at	419
Map showing location of continuous gaging stations	17
Map showing location of observation well sites	19
Map showing location of water-quality stations	19
Marion, Catawba River near	298
Marks Creek, at Secondary Road 1812 near Hamlet	424
Marlowe Creek, near Woodsdale	416
Marshall, French Broad River at	358-366
Martin County, ground-water records in	442
Maxton, Leith Creek near	424
Lumber River near	424
Mayfield, Dan River near	26-33,328
Mayo Creek near Bethel Hill	41,330
Mayo Lake	41,330
Mayo River, near Price	415
McAlpine Creek, at Sardis Road near Charlotte	310
below McMullen Creek near Pineville	312
near Pineville	425
McDowell Creek, near Charlotte	425
McGehees Mill, Hyco River below Afterbay Dam near	38-40,330
McLeansville, Buffalo Creek (tributary to Reedy Fork) near	418
South Buffalo Creek at	418
McMullen Creek at Sharon View Road near Charlotte	311
Mean concentration, definition of	9
Mean discharge, definition of	7
Methylene blue active substance	8
Micrograms per liter, definition of	8
Middle Creek, near Clayton	113
near Smithfield	417
Mill Creek, at Cox Mill	417
Milligrams per liter, definition of	8
Mills River, at State Highway 191 and 280 at Mills River	427
near Mills River	347
South Fork, near Brevard	427
Milton, Country Line Creek at State Highway 57 at	416
Mingo Swamp, near Dunn	419
Mitchell River, at Secondary Road 1330 near Mountain Park	420
near State Road	252
Mitchell Swamp, near Rowland	424
Mocksville, South Yadkin River near	270
Moncure, Deep River at	200-201
Haw River below B. Everett Jordan Dam near	180-186,328

Page

Moore County, ground-water records in..... 442
Moravian Creek, at State Highway 18 near Moravian Falls..... 420
at State Highway 268 near Wilkesboro..... 420
Moravian Falls, Moravian Creek at State Highway 18 near..... 420
Morgan Creek, near Farrington..... 419
Morganton, Catawba River at..... 424
Lower Creek at Secondary Road 1501 near..... 425
Moss Neck, Lumber River near..... 424
Mount Airy, Ararat River at State Highway 103 at..... 421
Ararat River at U.S. Highway 52-A near..... 421
Lovills Creek at State Highway 89 at..... 421
Lovills Creek at U.S. Highway 601 at..... 421
Pauls Creek at Secondary Road 1621 near..... 421
Rutledge Creek at U.S. Highway 52 near..... 421
Mount Vernon Springs, Tick Creek near..... 199
Mount Zion, Stony Creek near..... 420
Wildcat Creek near..... 420
Mountain Island Lake, change in contents in... 330,332
Mountain Park, Mitchell River at Secondary Road 1330 near..... 420
Mud Creek, near Balfour..... 427
Muddy Creek, near Muddy Creek..... 422
Murphy, Hiwassee River above..... 408,412

Nahunta Swamp near Shine..... 136
Nantahala Lake, change in contents in..... 411,413
Nantahala, Nantahala River at..... 399-401,411
Nantahala River, at Nantahala..... 399-401,411
near Rainbow Springs..... 398
National Geodetic Vertical Datum of 1929, definition of..... 8
National stream-quality accounting network, definition of..... 11
Neatmans Creek, near Germantown..... 415
Nebo, Linville River near..... 299-300
North Deep Creek tributary near..... 422
Needmore, Little Tennessee River at..... 396-397
Neuse River, at Kinston..... 120-131
at Smithfield..... 112
at Streets Ferry near Vanceboro..... 147
near Clayton..... 110-111
near Falls..... 102-109,328,330
near Fort Barnwell..... 417
near Goldsboro..... 117
near Stevens Mill..... 417
Neuse River basin, gaging station records in.. 99-162
lakes and reservoirs in..... 328,330
measurements at miscellaneous sites in..... 417-418
New Hanover County, ground-water records in... 442-443
New Hope Creek, at Secondary Road 1107 near Bland..... 419
near Blackwood..... 418
New River (Kanawha River basin), at Amelia.... 427
North Fork, at Creston..... 426
North Fork, at Crumpler..... 427
South Fork, at Scottville..... 426
South Fork, at U.S. Highway 421 near Boone..... 426
South Fork, near Jefferson..... 339
New River (New River basin), near Gum Branch.. 418
Nolichucky River, at Poplar..... 428
North Buffalo Creek near Greensboro..... 167-168
North Pacolet River, near Sandy Plains..... 426
North Potts Creek at Linwood..... 273
North Toe River, at Huntdale..... 428
near Ingalls..... 428
near Penland..... 428
North Wilkesboro, Lewis Fork Creek, South Prong near..... 420
Reddies River at..... 247
Northampton County, ground-water records in... 443
Northeast Cape Fear River, near Chinquapin.... 238-239
Northeast Creek, near O'Kellys Church..... 419
Norwood, Rocky River near..... 280-281
Numbering system for wells..... 11
Nutbush Creek, below SEO near Henderson..... 416

Oak Hollow Reservoir..... 331
Oak Park, Unnamed tributary to Pinner Creek near..... 427
Oak Ridge, Haw River near..... 418
Reedy Fork near..... 164
Oakboro, Long Creek near..... 423
Oakland, Big Marsh Swamp near..... 424
Oconaluftee River at Birdtown..... 404
Ohio River basin, gaging-station records in... 339-410
lakes and reservoirs in..... 411-413
measurements at miscellaneous sites in..... 426-429
O'Kellys Church, Northeast Creek near..... 419

Page

Old Field Creek, near Walnut Cove..... 415
Old Fort, Catawba River at..... 424
Catawba River at Interstate 40 near..... 424
Old Hundred, Gum Swamp near..... 424
Olive Branch, Gourdvine Creek at Secondary Road 1715 near..... 277
Onslow County, ground-water records in..... 443-444
Orange County, ground-water records in..... 444
Orange Factory, Little River near..... 100
Organic mass, definition of..... 7
Organism count/area, definition of..... 8
Organism count/volume, definition of..... 8
Organism, definition of..... 8
Ossipee, Reedy Fork at..... 418

Pamlico River basin, crest-stage partial-record station in..... 414
gaging-station records in..... 53-98
measurements at miscellaneous sites in..... 416-417
Parkersburg, South River near..... 237
Parkstown, Bear Creek near..... 119
Partial-record station, definition of..... 8
Particle-size classification, definition of... 8
Particle-size, definition of..... 8
Paschall, Smith Creek near..... 416
Pasquotank County, ground-water records in.... 444-445
Patterson, Yadkin River at..... 245
Pauls Creek at Secondary Road 1621 near Mount Airy..... 421
Paw Creek, Long Creek near..... 302
Pee Dee River basin, crest-stage partial-record stations in..... 414
gaging-station records in..... 245-296
lakes and reservoirs in..... 328,329,332
measurements at miscellaneous sites in..... 420-424
Pee Dee River near Rockingham..... 283-293,329
Pelham, Wolf Island Creek near..... 416
Pender County, ground-water records in..... 445
Penland, North Toe River near..... 428
Percent composition, definition of..... 8
Periphyton, definition of..... 8
Pesticide program..... 11
Pesticides, definition of..... 8
Phelps Lake, at McLeans Pier near Roper..... 333-335
at Pettigrew State Park near Creswell..... 336-338
Philpott Reservoir..... 25
Phytoplankton, definition of..... 8
Picocurie, definition of..... 8
Pigeon River, at Canton..... 371-372,412
at Clyde..... 428
at Waterville..... 428
near Clyde..... 428
near Crabtree..... 428
near Hepco..... 373-380,412
near Lake Junaluska..... 428
East Fork, near Canton..... 370
West Fork, above Lake Logan near Hazelwood..... 367
West Fork, at Bethel..... 369,412
West Fork, below Lake Logan near Waynesville..... 368,412
Pilot Mountain, Ararat River near..... 421
Toms Creek near..... 421
Pine Hall, Dan River at..... 415
Pineville, Little Sugar Creek near..... 425
McAlpine Creek below McMullen Creek near.... 312
McAlpine Creek near..... 425
Six Mile Creek near..... 426
Sugar Creek at State Line near..... 425
Pinnacle, Little Yadkin River, West Prong near..... 421
Pinner Creek, near Fletcher..... 427
Unnamed tributary to, near Oak Park..... 427
Pisgah Forest, Davidson River at..... 427
Pitt County, ground-water records in..... 445-448
Plankton, definition of..... 8
Pleasant Gardens, Catawba River near..... 297
Poplar, Nolichucky River at..... 428
Poplar Springs, Town Fork Creek near..... 415
Potecasi Creek near Union..... 21
Prentiss, Little Tennessee River near..... 394
Price, Mayo River near..... 415
Princeton, Little River near..... 116
Publications on Techniques of Water-resources Investigations..... 15-16

Queens Creek Lake..... 399

Radiochemical program, definition of..... 11
Rainbow Springs, Nantahala River near..... 398
Ramseur, Deep River at..... 190-198,331
Ramsey, Jacob Fork at..... 304-305

Page
Randleman, Deep River near..... 188-189,331
Reddies River at North Wilkesboro..... 247
Reedy Fork, at Ossipee..... 418
near Gibsonville..... 165-166,331
near Oak Ridge..... 164
Reidsville, Wolf Island Creek at..... 416
Reservoir. See lakes and reservoirs.
Rhodhiss Lake, change in contents in..... 329,332
Rich Fork Creek, near Thomasville..... 423
Richardson Creek, near Fairfield..... 423
near Kikers..... 423
Richfield, Big Bear Creek near..... 276
Long Creek at Secondary Road 1454 near..... 423
Richland Creek (tributary to Deep River), near Groomtown..... 419
Richland Creek (tributary to Pigeon River), near Clyde..... 428
near Waynesville..... 428
Richmond Hill, Yadkin River tributary at Secondary Road 1525 near..... 420
Roanoke Rapids Lake, change in contents in.... 328,331
Roanoke Rapids, Roanoke River at..... 42-52,328
Roanoke River, at Roanoke Rapids..... 42-52,328
Roanoke River basin, gaging-station records in..... 23-52
lakes and reservoirs in..... 328,330,331
measurements at miscellaneous sites in..... 415-416
Roaring River near Roaring River..... 249
Robbinsville, Cheoah River near..... 429
Robeson Creek, near Seaforth..... 418
Rockfish Creek (tributary to Cape Fear River), at U.S. Highway 301 near Hope Mills..... 419
near Arabia..... 419
Rockfish Creek (tributary to Northeast Cape Fear River), near Wallace..... 240-241
Rockingham, Pee Dee River near..... 283-293,329
Rocky Mount, Tar River at N.C. 97 at..... 57
Tar River below Tar River Reservoir near.... 56
Rocky River (Cape Fear River basin), North Prong, near Liberty..... 419
Rocky River (tributary to Pee Dee River), near Davidson..... 423
near Faggarts Crossroads..... 423
near Norwood..... 280-281
Roper, Phelps Lake at McLeans Pier near..... 333-335
Roseboro, Little Coharie Creek near..... 230
Roseville, Double Creek near..... 37
Rosman, French Broad River at..... 340-341
West Fork French Broad River at..... 427
West Fork French Broad River near..... 427
Rowland, Mitchell Swamp near..... 424
Roxboro Steam-Electric Generating Plant Afterbay Reservoir..... 330
Runoff in inches, definition of..... 9
Rutledge Creek at U.S. Highway 52 near Mount Airy..... 421

Salem, Ararat River near..... 420
Salem Creek near Atwood..... 259
Sampson County, ground-water records in..... 448
Sandy Plains, North Pacolet River near..... 426
Santee River basin, crest-stage partial-record stations in..... 414
gaging-station records in. 297-327
lakes and reservoirs in..... 329,330,332
measurements at miscellaneous sites in..... 424-426
Santeetlah Lake, change in contents in..... 411,412,413
Scott, W. Kerr, Reservoir, change in contents in..... 328,332
Scottville, South Fork New River at..... 426
Seaforth, Robeson Creek near..... 418
Second Broad River, at Cliffside..... 315-316
Second Creek near Barber..... 272
Sediment, definition of..... 9
Sediment, explanation of..... 15
Sequoyah Lake..... 413
Shacktown, Deep Creek near..... 422
South Deep Creek near..... 422
Shearon Harris Main Reservoir..... 202,331
Sherwood, Cove Creek near..... 429
Shine, Nahunta Swamp near..... 136
Shoals, Grassy Creek near..... 421
Siloam, Ararat River near..... 421
Hagan Creek at Secondary Road 2082 at..... 420
Yadkin River at..... 254,328
Simpson, Chicod Creek at Secondary Road 1760 near..... 83-92
Juniper Branch near..... 93-96
Sioux, Cane River near..... 428
Six Mile Creek, near Pineville..... 426
Smith Creek, near Paschall..... 416
Smith River at Eden..... 25
Smithfield, Middle Creek near..... 417
Neuse River at..... 112
Solute, definition of..... 9
South Atlantic Slope basins, crest-stage partial-record stations in..... 414
gaging-station records in..... 21-327
lakes and reservoirs in..... 328-338
measurements at miscellaneous sites in..... 415-426
South Buffalo Creek, at McLeansville..... 418
South Flat River at Secondary Road 1112 near Hurdle Mills..... 417
South Hyco Creek, near Gordonton..... 416
South River near Parkersburg..... 237
South Toe River near Celo..... 391
South Yadkin River, near Mocksville..... 270
Special networks and programs..... 11
Specific conductance, definition of..... 9
Spencer, Town Creek at Interstate 85 near..... 422
Town Creek at Secondary Road 1915 near..... 422
Spring Hope, Tar River near..... 416
Stage and water-discharge records, explanation of..... 11
Stage-discharge relation..... 9
Stanleys Store, Dutchmans Creek at Secondary Road 1002 near..... 422
Stantonsburg, Contentnea Creek near..... 417
Star, Little River near..... 282
Startown, South Fork Catawba River near..... 425
State Road, Mitchell River near..... 252
Stevens Mill, Neuse River near..... 417
Stoneville, Buffalo Creek Branch near..... 415
Buffalo Creek near..... 415
Stony Creek, near Mount Zion..... 420
Stony Creek Reservoir..... 331
Stony Fork, near Ferguson..... 420
Stovall, Island Creek at Secondary Road 1430 near..... 416
Streamflow, definition of..... 9
Sugar Branch near Boiling Springs..... 327
Sugar Creek, at State Line near Pineville..... 425
near Fort Mill, SC..... 426
Sugar Grove, Watauga River near..... 392-393
Summary of hydrologic conditions..... 2
Suspended, recoverable, definition of..... 9
Suspended-sediment concentration, definition of..... 9
Suspended sediment, definition of..... 9
Suspended-sediment discharge, definition of... 9
Suspended-sediment load, definition of..... 9
Suspended, total, definition of..... 9
Swannanoa, Beetree Creek near..... 349-355
Swannanoa River, at Biltmore..... 356,412
Swearing Creek, at Linwood..... 422
Swift Creek near Vanceboro..... 151
Swift Creek (tributary to Tar River), at Hilliardston..... 58

Talbott Reservoir, change in contents in..... 328,331
Tar River, at N.C. 97 at Rocky Mount..... 57
at Tarboro..... 61-74
at U.S. Highway 401 at Louisburg..... 55
below Tar River Reservoir near Rocky Mount..... 56
near Spring Hope..... 416
near Tar River..... 53-54
near Tarboro..... 416
Tarboro, Deep Creek near..... 417
Tar River at..... 61-74
Tar River near..... 416
Tarheel, Cape Fear River at William O. Huske Lock near..... 206-207
Taxonomy, definition of..... 9
Tennessee Creek Project lakes..... 413
Tennessee River basin, gaging-station records in..... 340-410
lakes and reservoirs in..... 411-413
measurements at miscellaneous sites in..... 427-429
Terms, definition of..... 6
Terrells, Haw River near..... 418
Third Creek, at Cooleemee..... 422
Third Fork Creek, near Bland..... 419
Thomasville, Rich Fork Creek near..... 423
Thorpe Reservoir, change in contents in..... 411,413
Thrift, Long Creek near..... 425
Tick Creek near Mount Vernon Springs..... 199
Tomahawk, Black River near..... 231
Tomotla, Valley River at..... 409-410
Toms Creek, near Ararat..... 421
near Pilot Mountain..... 421
near Westfield..... 421

	Page
Tons per acre-foot, definition of	10
Tons per day, definition of	10
Total coliform bacteria, definition of	6
Total, definition of	10
in bottom material, definition of	10
load, definition of	10
recoverable, definition of	10
recoverable from bottom material, definition of	10
Total organism count, definition of	8
Town Creek (Pee Dee River basin), at Interstate 85 near Spencer	422
at Secondary Road 1915 near Spencer	422
Town Creek (Roanoke River basin), near Eden	415
Town Fork Creek, near Poplar Springs	415
Townes Reservoir, change in contents in	328,331
Transylvania County, ground-water records in	448
Trent River, at State Highway 11 near Deep Run	418
near Trenton	152-162
Trenton, Trent River near	152-162
Trinity, Lane Creek at Secondary Road 2115 near	278
Wicker Branch at Secondary Road 1940 near	279
Tritium network, definition of	11
Tuckasegee River, at Bryson City	405-407,411,413
at Dillsboro	402-403,411,413
near Tuckasegee	429
Tuckasegee, Tuckasegee River near	429
Tuckertown Reservoir, change in contents in	329,332
Turner Swamp near Eureka	134-135
Twelve Mile Creek near Waxhaw	313
Ulah, Little River at Secondary Road 1142 near	423
Union, Potecasi Creek near	21
Uree, Broad River at	426
Uwharrie River, near Eldorado	423
near Glenola	423
Valley River, at Tomotla	409-410
Van Swamp near Hoke	98
Vanceboro, Creeping Swamp near	148-150
Neuse River at Streets Ferry near	147
Swift Creek near	151
Waccamaw River, at Freeland	243-244
Waccamaw River basin, gaging-station records in	243-244
measurements at miscellaneous sites in	420
Wadesboro, Bailey Creek near	423
Wallace, Little Rockfish Creek at	242
Rockfish Creek near	240-241
Walnut Cove, Lick Creek near	415
Old Field Creek near	415
Washburn, Brushy Creek near	426
Washington County, ground-water records in	449
Watauga River, at Foscoe	428
near Sugar Grove	392-393
Water analysis, explanation of	14
Water-quality records, explanation of	14
Water temperature, explanation of	15
Water year, definition of	10
Waterville Lake	411,413
Waterville, Pigeon River at	428
Waxhaw Creek, near Waxhaw	426
Waxhaw, Twelve Mile Creek near	313
Waxhaw Creek near	426
Wayne County, ground-water records in	450
Waynesville, Richland Creek near	428
West Fork Pigeon River below Lake Logan near	368,412
Wentworth, Dan River near	24,328
Westfield, Toms Creek near	421
Wet mass, definition of	7
White Oak Creek, near Biscoe	423
White Oak, Ellis Creek tributary at Secondary Road 1325 near	208-217
White Oak, Little Fishing Creek near	59
Whitehead, Little River at Secondary Road 1140 at	427
Wicker Branch at Secondary Road 1940 near Trinity	279
Wildcat Creek, near Mount Zion	420
Wilkesboro, Moravian Creek at State Highway 268 near	420
Yadkin River at	248,328
Wilmington, Hewletts Creek at Secondary Road 1102 near	163
Wilson Creek, near Gragg	425
Wilson, Hominy Swamp at Phillips Street at	133
Wolf Creek Lake	413
Wolf Island Creek, at Reidsville	416
near Pelham	416
Woodsdale, Marlowe Creek near	416
WRD, definition of	10
WSP, definition of	10
Yadkin College, Yadkin River at	260-268,328
Yadkin River, at Elkin	250-251,328
at Enon	257-258,328
at Patterson	245
at Siloam	254,328
at Wilkesboro	248,328
at Yadkin College	260-268,328
tributary at Secondary Road 1525 near Richmond Hill	420
tributary, near East Bend	421
Yadkinville, Forbush Creek near	422
North Deep Creek near	422
Zephyr, Little Creek at Secondary Road 1122 near	420
Zooplankton, definition of	9

*U.S. GOVERNMENT PRINTING OFFICE: 1982--541-466/NP

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). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

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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