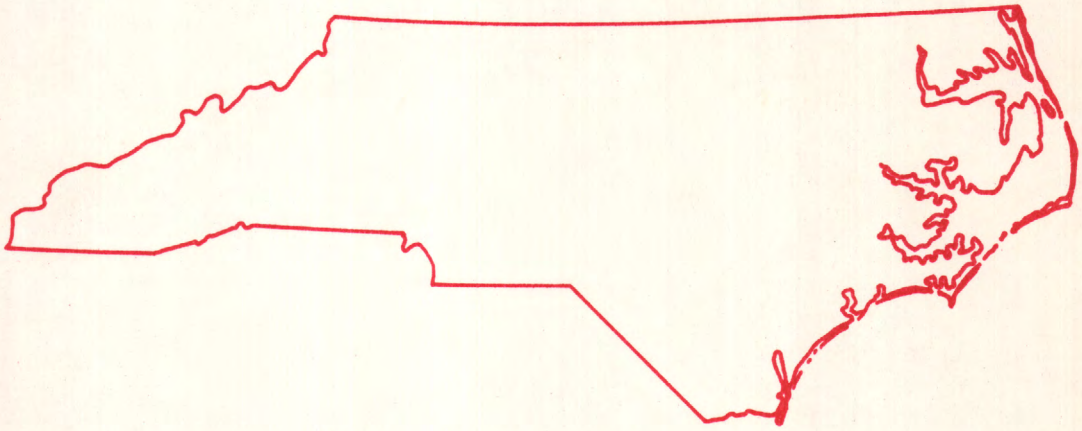
200)
a3
ORTH CAROLINA
182

Water Resources Data North Carolina Water Year 1982

U.S. GEOLOGICAL SURVEY
JUL 27 1983
LIBRARY



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-82-1
Prepared in cooperation with the North Carolina Department of Natural Resources and Community Development, and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1982

1981

OCTOBER

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

NOVEMBER

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

DECEMBER

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

1982

JANUARY

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

FEBRUARY

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

MARCH

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

APRIL

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

MAY

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

JUNE

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

JULY

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

AUGUST

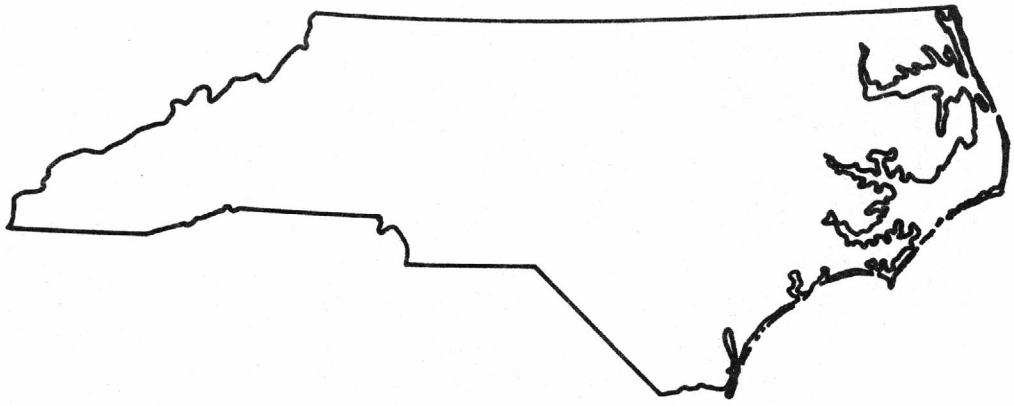
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER

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

Water Resources Data North Carolina Water Year 1982

by H.C. Gunter, C.L. Hill, and T.E. Dillard



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-82-1
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

1982

PREFACE

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

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

N. Macon Jackson, Jr.
Clyde E. Simmons
William H. Eddins
Rufus J. Allen
Russell G. Barker
Willie Blount
Pam Breton
Lloyd A. Edwards
Isaac J. Forehand
Ronald G. Garrett
Edwin D. George
Kay E. Hedrick
Phyllis M. Joyner
Ruth C. Linder
Robert M. Mason, Jr.
Donald P. McGeary
Bobby C. Ragland
Clarence M. Ray, Jr.
Joseph S. Riggsbee
Jerry F. Rinehardt
Timothy C. Stamey
Sharon A. Watkins
James M. West
Fern S. Wilcox
Ernst G. Wollin, Jr.

Kay E. Hedrick typed the text of the report.

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

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-83/029	2.	3. Recipient's Accession No.

4. Title and Subtitle
Water Resources Data, North Carolina, Water Year 1982

5. Report Date
March 1983

6.

7. Author(s)
H.C. Gunter, C.L. Hill, and T.E. Dillard

8. Performing Organization Rept. No.
USGS-WDR-NC-82-1

9. Performing Organization Name and Address
U.S. Geological Survey, Water Resources Division
436 Century Station Post Office Building
300 Fayetteville Street
Raleigh, North Carolina 27602

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
U.S. Geological Survey, Water Resources Division
436 Century Station Post Office Building
300 Fayetteville Street
Raleigh, North Carolina 27602

13. Type of Report & Period Covered
Annual-Oct. 1, 1981 to Sept. 30, 1982

14.

15. Supplementary Notes
Prepared in cooperation with the State of North Carolina and with other agencies.

16. Abstract (Limit: 200 words)

Water Resources data for the 1982 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 143 gaging stations and stage and contents for 25 lakes and reservoirs; water quality for 86 gaging stations and 3 miscellaneous sites; and water levels for 56 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.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement: No restriction on distributions. This report may be purchased from: National Technical Information Service Springfield, VA 22161	19. Security Class (This Report) Unclassified	21. No. of Pages 481
	20. Security Class (This Page) Unclassified	22. Price

(See ANSI-Z39.18)

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

CONTENTS

	Page
Preface	III
List of gaging stations, in downstream order, for which records are published	VI
Introduction	1
Cooperation	1
Summary of hydrologic conditions	2
Definition of terms	6
Downstream order and station numbers	11
Numbering system for wells and miscellaneous sites	12
Special networks and programs	12
Explanation of stage and water-discharge records	13
Collection and computation of data	13
Accuracy of field data and computed results	15
Other data available	15
Records of discharge collected by agencies other than the Geological Survey	15
Explanation of water-quality records	15
Collection and examination of data	15
Water analysis	16
Water temperatures	16
Sediment	16
Explanation of ground-water level records	16
Collection of the data	16
Publication on techniques of water-resources investigations	17
Gaging station records	23
Discharge at partial-record stations and miscellaneous sites	441
Crest-stage partial-record stations	441
Miscellaneous sites	442
Ground-water level records	455
Index	475

ILLUSTRATIONS

Figure 1.	Comparison of discharge at four long-term index stations during the 1982 water year with median discharge for the period 1941-70	3
2.	Comparison of water levels at three long-term wells during the 1982 water year with monthend high, low, and average levels in previous years	4
3.	Comparison of specific conductance at three long-term stations during the 1982 water year with mean values for the period 1975-82	5
4.	Comparison of total yearly suspended-sediment loads and mean water discharges at Yadkin River at Yadkin College, NC, 1979-82	6
5.	System for numbering wells and miscellaneous sites	12
6.	Map of eastern part of North Carolina showing location of gaging stations	18
7.	Map of western part of North Carolina showing location of gaging stations	19
8.	Map of eastern part of North Carolina showing location of water-quality stations and observation well sites	20
9.	Map of western part of North Carolina showing location of water-quality stations and observation well sites	21

TABLES

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,c,b) 23
Wiccacon River:
Ahoskie Creek at Ahoskie (d,c,b) 25

ROANOKE RIVER BASIN
Roanoke River:
Dan River near Francisco (d,c,b) 27
Dan River near Wentworth (d,c,b) 29
Smith River at Eden (d,c,b) 31
Dan River near Mayfield (d,c,b,m,t,s) 33
Hyco Creek (head of Hyco River) near Leasburg (d,t) 42
South Hyco Creek:
Double Creek near Roseville (d) 45
Hyco River below Afterbay Dam near McGehees Mill (d,c,b,m,t,s) 47
Mayo Creek near Bethel Hill (d) 59
Roanoke River at Roanoke Rapids (d,c,b,m,t,s) 60

PAMLICO RIVER BASIN
Tar River (head of Pamlico River) near Tar River (d,c,b) 69
Tar River at U.S. 401 at Louisburg (d,c,b) 71
Tar River below Tar River Reservoir near Rocky Mount (d,c,b,) 73
Tar River at N.C. 97 at Rocky Mount (d,c,b) 75
Swift Creek at Hilliardston (d,c,b) 77
Fishing Creek:
Little Fishing Creek near White Oak (d,c,b) 79
Fishing Creek near Enfield (d,c,b) 81
Tar River at Tarboro (d,c,b,t,s) 83
Conetoe Creek near Bethel (d) 92
Green Mill Run at Arlington Boulevard at Greenville (d) 93
Chicod Creek at Secondary Road 1565 near Grimesland (c,b,s) 95
Cow Swamp near Grimesland (c,b,s) 98
Chicod Creek at Secondary Road 1760 near Simpson (d,c,b,t,s) 101
Juniper Branch near Simpson (d,c,b,s) 109
Pamlico River:
Tranters Creek:
Horsepen Creek:
Black Swamp near Batts Crossroads (d,c,b,m,t,s) 113
Durham Creek at Edward (d) 120
Pungo River:
Pantego Creek:
Cucholds Creek:
Intercepting Canal:
Albemarle Canal:
Van Swamp near Hoke (d) 121

NEUSE RIVER BASIN
Eno River (head of Neuse River) near Durham (d,c,b) 122
Little River near Orange Factory (d) 124
Flat River at Bahama (d) 125
Neuse River near Falls (d,c,b,m,t,s) 126
Neuse River near Clayton (d,c,b) 135
Neuse River at Smithfield (d,c,b) 137
Swift Creek:
Middle Creek near Clayton (d,c,b) 139
Buck Swamp:
Beaverdam Creek near Grantham (d) 141
Little River near Kenly (d,c,b) 143
Little River near Princeton (d,c,b) 145
Big Ditch at Retha Street at Goldsboro (d) 147
Neuse River near Goldsboro (d,c,b) 149
Bear Creek near Parkston (d) 151
Neuse River at Kinston (d,c,b,m,t,s) 153
Contentnea Creek near Lucama (d,c,b) 164
Hominy Swamp at Phillips Street at Wilson (d,c,b) 166
Turner Swamp near Eureka (d,c,b) 168
Nahunta Swamp near Shine (d,c,b) 170
Contentnea Creek at Hookerton (d,c,b,m,t,s) 172
Little Contentnea Creek near Farmville (d,c,b) 182
Neuse River at Streets Ferry near Vanceboro (c) 184
Swift Creek:
Clayroot Swamp:
Creeping Swamp near Vanceboro (d,c,b,s) 185
Swift Creek near Vanceboro (d,c,b) 188
Trent River near Trenton (d,c,b) 190

HEWLETTS CREEK BASIN
Hewletts Creek at Secondary Road 1102 near Wilmington (d) 192

CAPE FEAR RIVER BASIN
Haw River (head of Cape Fear River):
Reedy Fork near Oak Ridge (d,c,b) 193
Reedy Fork near Gibsonville (d,c,b) 195
Buffalo Creek:
North Buffalo Creek near Greensboro (d,c,b) 197
Haw River at Haw River (d,c,b) 199
Haw River near Bynum (d,c,b,m,t,s) 201

SOUTH ATLANTIC SLOPE BASIN--Continued Page
CAPE FEAR RIVER BASIN--Continued
Haw River (head of Cape Fear River) below B. Everett Jordan Dam near Moncure (d,c,b,m,t,s)... 212
West Fork Deep River:
East Fork Deep River near High Point (d)... 222
Deep River near Randleman (d,c,b)... 223
Deep River at Ramseur (d,c,b)... 225
Deep River at Moncure (d,c,b,m,t,s)... 227
Cape Fear River:
Buckhorn Creek near Corinth (d,c,b)... 238
Cape Fear River at Lillington (d,c,b)... 240
Little River:
Flat Creek near Inverness (d,c,b)... 242
Cape Fear River at William O. Huske Lock near Tarheel (d,c,b)... 244
Cape Fear River at Lock 1 near Kelly (d,c,b,m,t,s)... 246
Great Coharie Creek (head of Black River):
Little Coharie Creek near Roseboro (d,c,b)... 256
Black River near Tomahawk (d,c,b)... 258
South River near Parkersburg (d,c,b)... 260
Northeast Cape Fear River near Chinquapin (d,c,b)... 262
Rockfish Creek:
Little Rockfish Creek at Wallace (d)... 264
WACCAMAW RIVER BASIN
Waccamaw River at Freeland (d,c,b)... 265
PEE DEE RIVER BASIN
Yadkin River (head of Pee Dee River) at Patterson (d)... 267
Elk Creek at Elkville (d)... 268
Reddies River at North Wilkesboro (d)... 269
Yadkin River at Wilkesboro (d)... 270
Roaring River near Roaring River (d,c,b)... 271
Yadkin River at Elkin (d,c,b)... 273
Mitchell River near State Road (d)... 275
Fisher River near Copeland (d)... 276
Yadkin River at Siloam (d,c,b)... 277
Ararat River at Ararat (d,c,b)... 279
Little Yadkin River at Dalton (d)... 281
Yadkin River at Enon (d,c,b)... 282
Muddy Creek:
Salem Creek near Atwood (d)... 284
Yadkin River at Yadkin College (d,c,b,t,s)... 285
Dutchmans Creek:
Humpy Creek near Fork (d,c,b)... 293
South Yadkin River near Mocksville (d,c,b)... 295
Hunting Creek near Harmony (d,c,b)... 297
Second Creek near Barber (d)... 299
North Potts Creek at Linwood (d)... 300
Uwharrie River:
Dutchmans Creek near Uwharrie (d,c,m,t,s)... 301
Pee Dee River:
Rocky River:
Long Creek:
Big Bear Creek near Richfield (d)... 309
Richardson Creek:
Gourdvine Creek at Secondary Road 1715 near Olive Branch (d)... 310
Lane Creek at Secondary Road 1940 near Trinity (d)... 312
Wicker Branch at Secondary Road 1940 near Trinity (d)... 314
Rocky River near Norwood (d,c,b)... 316
Little River near Star (d,c,b)... 318
Pee Dee River near Rockingham (d,c,b,m,t,s)... 320
Little Pee Dee River:
Drowning Creek (head of Lumber River) near Hoffman (d,c,b)... 331
Lumber River at Boardman (d,c,b)... 333
SANTEE RIVER BASIN
Catawba River (head of Santee River) near Pleasant Gardens (d,c,b)... 335
Linville River near Nebo (d,c,b)... 337
Lower Little River near All Healing Springs (d)... 339
Long Creek near Paw Creek (d)... 340
Henry Fork (head of South Fork Catawba River) near Henry River (d,c,b)... 341
Jacob Fork at Ramsey (d,c,b)... 343
South Fork Catawba River:
Indian Creek near Laboratory (d,c,b)... 345
Long Creek near Bessemer City (d,c,b)... 347
Irwin Creek (head of Sugar Creek) near Charlotte (d,c,b)... 349
Sugar Creek:
Little Sugar Creek at Archdale Drive at Charlotte (d,c,b)... 351
McAlpine Creek at Sardis Road near Charlotte (d,c,b)... 353
McMullen Creek at Sharon View Road near Charlotte (d)... 355
McAlpine Creek below McMullen Creek near Pineville (d,c,b)... 356
Twelve Mile Creek near Waxhaw (d,c,b)... 358
Wateree River:
Broad River (head of Congaree River):
Cove Creek near Lake Lure (d)... 360
Second Broad River at Cliffside (d,c,b)... 361
Broad River near Boiling Springs (d)... 363
First Broad River near Casar (d,c,b)... 364
Beaverdam Creek:
Sugar Branch near Boiling Springs (d)... 366
Lakes and reservoirs in South Atlantic slope basins... 367

OHIO RIVER BASIN — Page
KANAWHA RIVER BASIN
South Fork New River (head of Kanawha River) near Jefferson (d,c,b) 373
TENNESSEE RIVER BASIN
French Broad River (head of Tennessee River) at Rosman (d,c,b) 375
Davidson River near Brevard (d,c,b) 377
Little River above High Falls near Cedar Mountain (d) 379
French Broad River at Blantyre (d,c,b) 380
Mills River near Mills River (d,c,b) 382
French Broad River at Bent Creek (d) 384
Swannanoa River at Biltmore (d) 385
French Broad River at Asheville (d,c,b) 386
French Broad River at Marshall (d,c,b,t,s) 388
West Fork Pigeon River above Lake Logan, near Hazelwood (d) 396
West Fork Pigeon River at Bethel (d) 397
East Fork Pigeon River near Canton (d) 398
Pigeon River at Canton (d,c,b) 399
Pigeon River near Hepco (d,c,m,t,s) 401
Cataloochee Creek near Cataloochee (d,c,b,t,s) 412
North Toe River (head of Nolichucky River):
South Toe River near Celo (d,c,b) 423
South Fork Holston River:
Watauga River near Sugar Grove (d,c,b) 425
Little Tennessee River near Prentiss (d,c,b) 427
Cartoogechaye Creek near Franklin (d) 429
Nantahala River near Rainbow Springs (d,c,b) 430
Oconaluftee River at Birdtown (d) 432
Hiwassee River above Murphy (d,c,b) 433
Valley River at Tomotla (d,c,b) 435
Lakes and reservoirs in Ohio River basin 436

Discharge at partial-record stations and miscellaneous sites 441

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

BEAUFORT
North Carolina Phosphate Company No. 1 (NC-13) 455
City of Washington (NC-14) 455
City of Belhaven (NC-15) 456
Younce Farm (NC-75) 456
N.C. Department of Transportation (NC-137) 456
N.C. Department of Transportation (NC-138) 457
BERTIE
Town of Windsor (NC-32) 457
BRUNSWICK
Town of Southport (NC-22) 457
CARTERET
N.C. Department of Natural and Economic Resources (NC-139) 458
CHOWAN
U.S. Geological Survey (NC-31) 458
Chowan County High School (NC-58) 458
R. H. Hollowell (NC-78) 459
CRAVEN
U.S. Geological Survey (NC-16) 459
City of New Bern (NC-44) 459
International Paper Company (NC-48) 460
CUMBERLAND
Robert Deaver (NC-84) 460
DAVIE
H. S. Larew (NC-110) 460
U.S. Geological Survey (NC-142) 461
DUPLIN
Old City Well (NC-69) 461
EDGECOMBE
Melvin Howell (NC-72) 462
GATES
Mrs. T. W. Blanchard (NC-30) 462
Town of Ruduco (NC-54) 462
HAYWOOD
Champion Paper and Fiber Company No. 1 (NC-40) 463
HERTFORD
Charles DeLoatch (NC-55) 463
Town of Murfreesboro (NC-81) 463
Town of Winton (NC-82) 463
HOKE
North Carolina Tuberculosis Sanitarium (NC-35) 464
JONES
Oak Grove Marine Air Station (NC-73) 464
LENOIR
Pink Hill School (NC-51) 464
City of Kinston (NC-128) 465
MARTIN
Martin County Board of Education (NC-43) 465
MOORE
H. A. Keith (NC-122) 465

Page

NEW HANOVER
Walter J. Hodder (NC-20) 466
Martin Marietta (NC-61) 466
NORTHAMPTON
Boomer Ice Company (NC-27) 466
ONSLOW
Camp Geiger, U.S. Marine Corps (NC-52) 467
Carolina Power and Light Company (NC-85) 467
ORANGE
McCauley Chi Psi Fraternity (NC-126) 467
PASQUOTANK
C. T. Winslow (NC-86) 468
U.S. Coast Guard (NC-141) 468
U.S. Geological Survey (NC-143) 468
PENDER
Arvida Farms (NC-26) 469
PITT
U.S. Geological Survey (PI-527) 469
U.S. Geological Survey (PI-528) 469
U.S. Geological Survey (PI-529) 470
U.S. Geological Survey (PI-530) 470
U.S. Geological Survey (PI-531) 470
U.S. Geological Survey (PI-532) 471
U.S. Geological Survey (PI-533) 471
U.S. Geological Survey (PI-534) 471
SAMPSON
City of Clinton (NC-24) 472
TRANSYLVANIA
Neal Hawkins (NC-127) 472
U.S. Geological Survey (NC-144) 472
WASHINGTON
M. V. Cahoon Farm (NC-65) 473
WAYNE
U.S. Air Force (NC-25) 473
U.S. Geological Survey (WA-154) 473

WATER RESOURCES DATA FOR NORTH CAROLINA, 1982

INTRODUCTION

Water resources data for the 1982 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 143 gaging stations and stage and contents for 25 lakes and reservoirs; water quality for 86 gaging stations and 3 miscellaneous sites; and water levels for 56 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-82-1." 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,
Joseph W. Grimsley, Secretary, through the following:
Division of Environmental Management,
Robert T. Helms, 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, city manager.

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.

SUMMARY OF HYDROLOGIC CONDITIONS

The 1982 water year began with a continuation of below-normal flows which characterized most of 1981. Runoff conditions improved significantly in January and remained generally near or slightly above normal through September. As compared to long-term records, annual mean flows were about 30 percent below normal in the Mountain and foothills province and near normal elsewhere.

Monthly mean flows for October through December were deficient (lower 25 percent of long-term record) in most Coastal Plain streams and below normal elsewhere. Continuation of the prolonged drought, which began in early 1981, adversely affected many public water supplies, especially in the Mountain province, and water usage was restricted in several Mountain towns until late November. The effects of this drought on streamflow during the first quarter of the water year are illustrated by a comparison of monthly and yearly mean discharges for selected index stations located across the State (fig. 1). Heavy rains during January caused sharp rises on most streams and above-normal flow conditions for the first time in seven months. Above-normal flows continued through February permitting storage in supply reservoirs to reach near capacity levels.

Flows declined in most areas during March and April, and were only about 50 percent of normal in the Mountain and Coastal Plain provinces. Flows again increased to near-normal conditions during May when widespread, heavy rains caused rises across the State. The May rains also produced localized flooding in Buncombe and several counties in the northeastern foothills. Sporadic, heavy rainfall continued into June causing above-normal flows on most streams and localized minor flooding in several Piedmont cities including Charlotte, Concord, Durham, and Raleigh.

Flows during July, August, and September generally remained near normal. Locally-heavy rains during August caused minor urban flooding in Goldsboro and several central Coastal Plain towns. As a result of predominately dry weather, combined with large evapotransporation losses, flows during September decreased and were mostly 30-60 percent below normal.

Water levels in the shallow water table generally remained below average through January (fig. 2). Recharge from heavy rains during January and February caused monthly mean levels to rise during February to near-average levels for the first time in almost a year. For the rest of the year, water levels were 1 to 3 feet above long-term averages and were from 2 to 6 feet above levels for the same period last year. Water levels declined to record lows in many network artesian wells, most of which are screened in formations of Cretaceous age and are affected by withdrawals for municipal or industrial usage. Minimum levels occurred in wells NC-31, Chowan County; NC-16 and NC-48, Craven County; NC-30, Gates County; NC-55, NC-81, and NC-82, Hertford County; NC-24, Sampson County; and NC-65, Washington County.

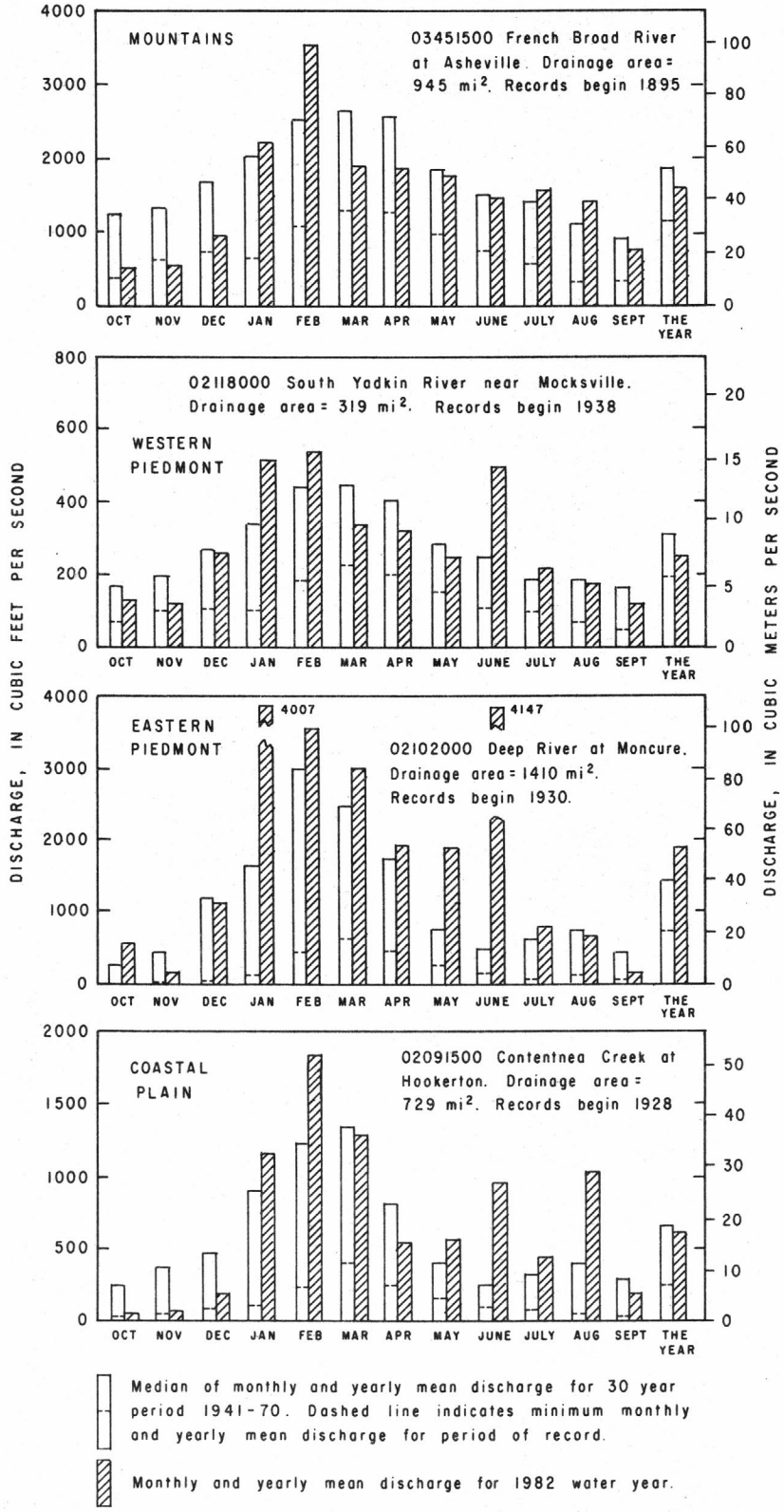


Figure 1.--Comparison of discharge at four long-term index stations during the 1982 water year with median discharge for the period 1941-70.

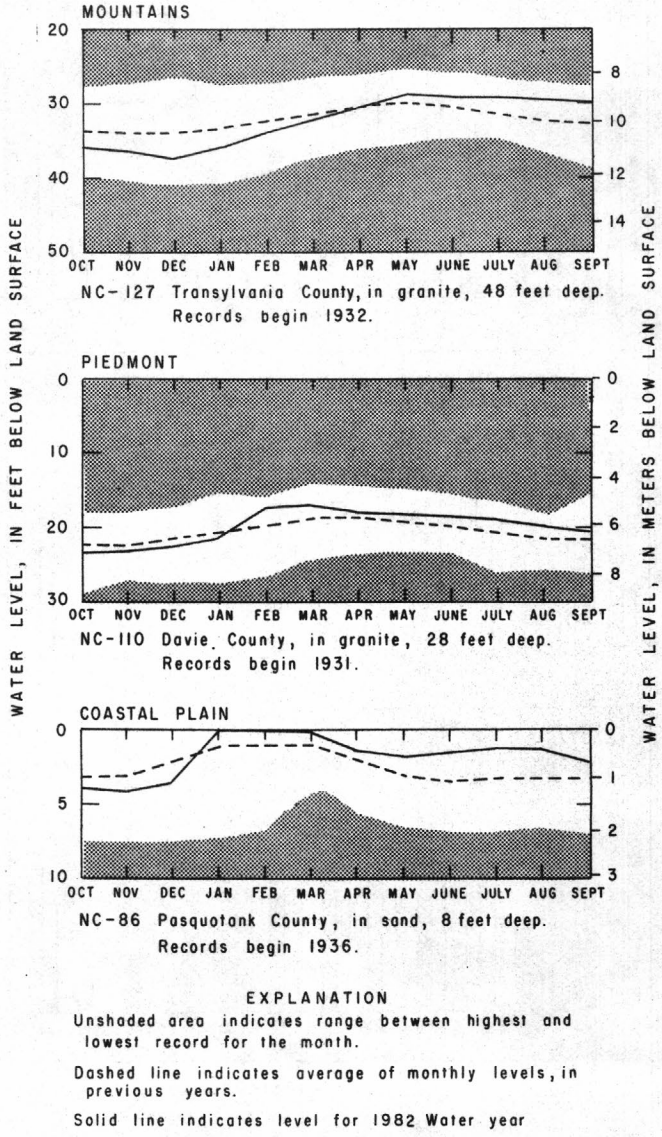


Figure 2.--Comparison of water levels at three long-term wells during the 1982 water year with monthend high, low, and average levels in previous years.

The chemical quality of selected streams showed significant improvement over last year, as indicated by decreases in mean concentrations of most major dissolved constituents. Concentrations of these constituents often vary inversely with stream discharge. Consequently, near record-high concentrations of several major constituents, such as calcium, sodium, sulfate, and bicarbonate, were observed during the first quarter of the 1982 water year because of drought conditions; however, concentrations decreased significantly as the diluting effects of storm flows during January and February caused levels to return to normal. Specific conductance, which is indicative of the concentration of dissolved constituents, is measured at about 20 network sites across the State. Graphs of monthly and annual mean specific conductance for the 1982 water year and the 1975-82 reference period are shown in fig. 3 for selected sites in the Mountain, Piedmont, and Coastal Plain provinces. These data indicate higher than average concentrations of specific conductance during October through January but near-average concentrations for the remainder of the year.

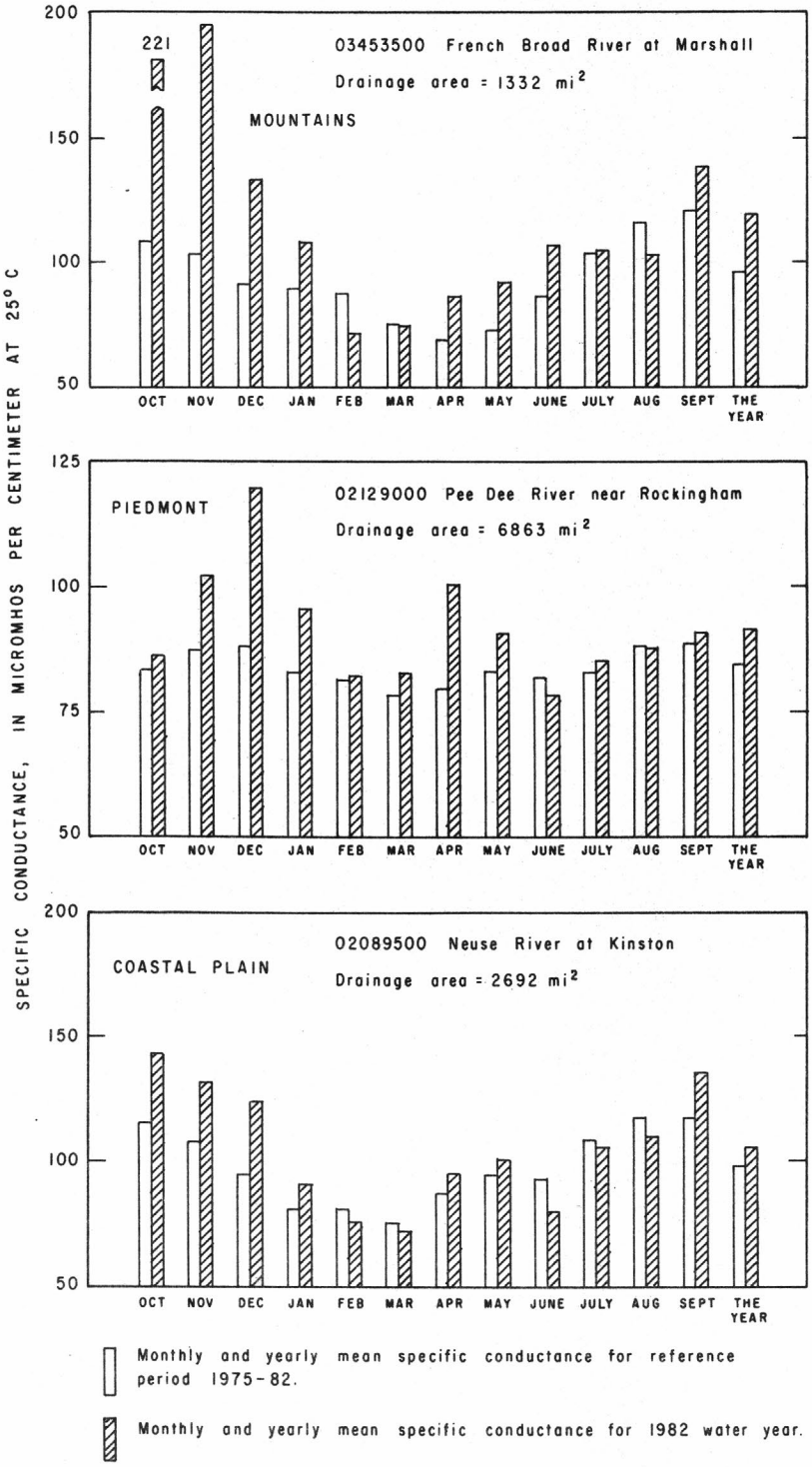


Figure 3.--Comparison of specific conductance at three long-term stations during the 1982 water year with mean values for the period 1975-82.

Concentrations of minor elements, such as arsenic, lead, and mercury, did not exceed recommended criteria for domestic water supplies. Elevated levels of manganese occurred in several low-flow samples obtained at stations immediately downstream of the new Falls and B. Everett Jordan Lakes. These high values were probably caused by decay of vegetation which was inundated by the initial filling of the new reservoirs. As compared to concentrations of minor elements during previous years, no significant differences were observed at network sampling stations.

Concentrations of suspended sediment are determined on a daily basis at Yadkin River at Yadkin College (02116500), a long-term sediment-index station. Records from this station are used to define historical trends and characteristics of sediment transport. Because suspended-sediment concentrations vary directly with water discharge, the amount of sediment transported during the first quarter of the 1982 water year reflected drought conditions and was well below average; however, heavy rains and above-average runoff during the remainder of the year resulted in near-average transport conditions for the year (fig. 4).

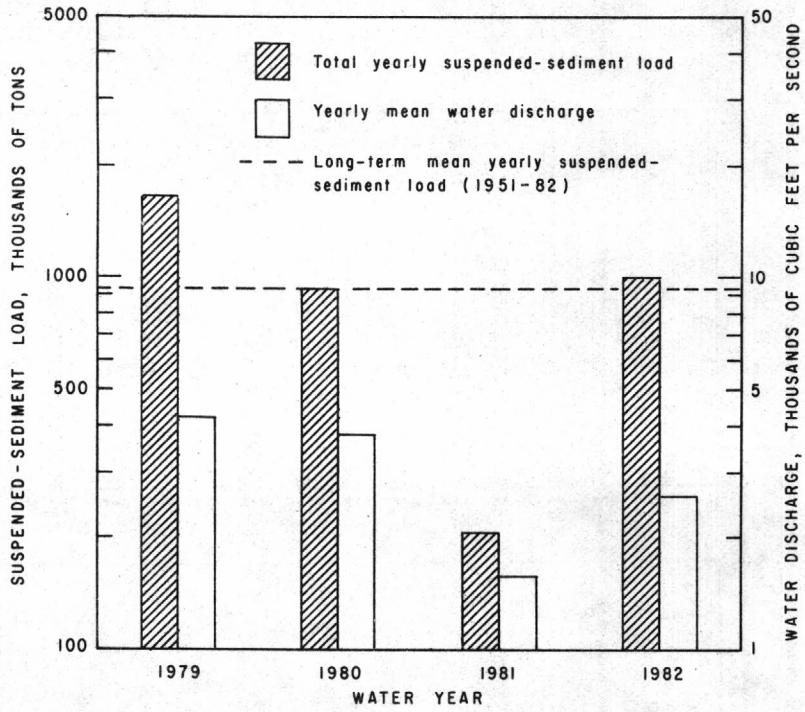


Figure 4.--Comparison of total yearly suspended-sediment loads and mean water discharges at Yadkin River at Yadkin College, NC, 1979-82.

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 5 below.

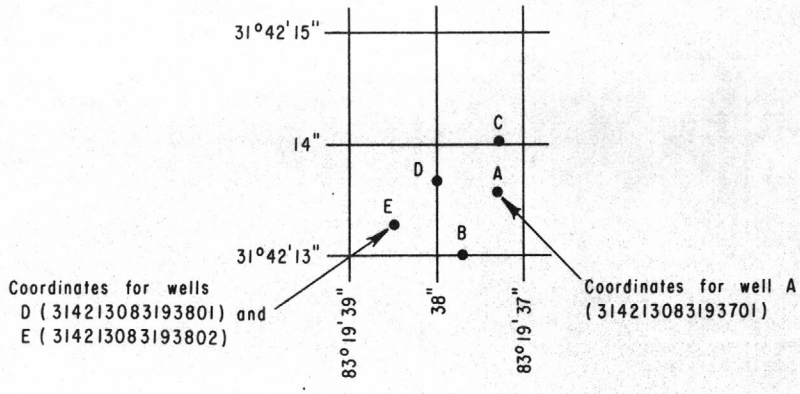


Figure 5.--System for numbering wells (latitude and longitude).

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 mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily 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 5.

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).

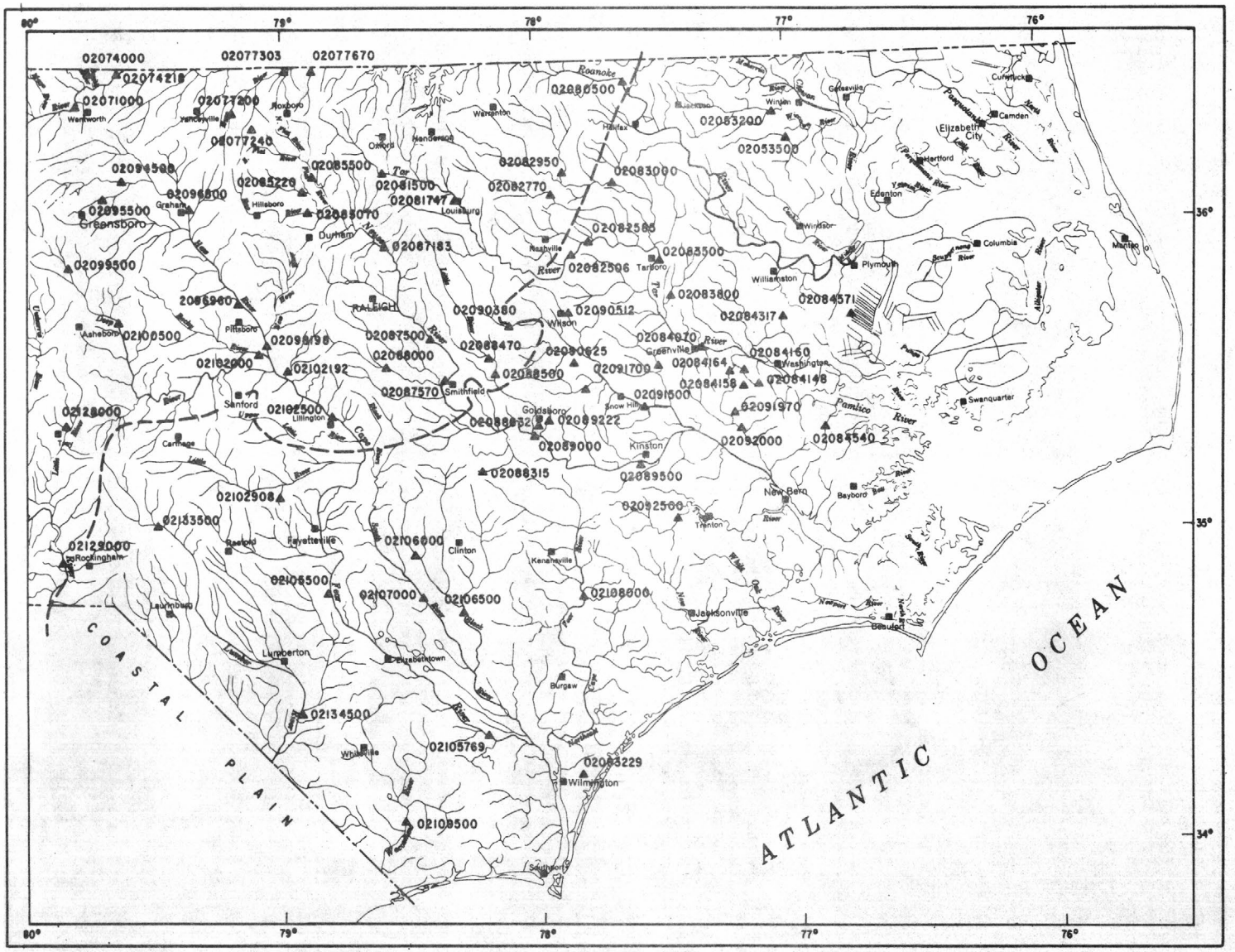
Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, most measurements are reported to a hundredth of a foot.

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.


80°
79°
78°
77°
76°
36°
35°
34°
02074000
02077303
02077670
02074218
02071000
02077200
02077240
02094500
02096800
02095500
Greensboro
02099500
02085500
02085229
02085070
02081500
02081747
02087183
02082950
02082770
02082585
02082506
02083000
02083500
02083200
02083600
02084571
02084317
02084970
02084160
02084164
02084158
02084148
02091970
02092000
02084540
02091500
02091700
02090925
02090512
02090380
02088470
02088500
02087500
02088000
02087570
02088832
02089222
02089000
02088315
02089500
02092500
02102908
02133500
02129000
02106000
02105500
02107000
02106500
02108600
02134500
02105769
02083229
02109500
02102000
02102192
02102500
02098196
02100500
02128000
02085960
02086500
02083500
02085500
Roanoke
Tar
Neuse
Cape Fear
Pamlico
Chowan
Pasquotank
Alligator
Pungo
Lake Mattamuskeet
Albemarle Sound
Pamlico Sound
Pamlico River
Neuse River
Cape Fear River
Roanoke River
Tar River
Chowan River
Pasquotank River
Alligator River
Pungo River

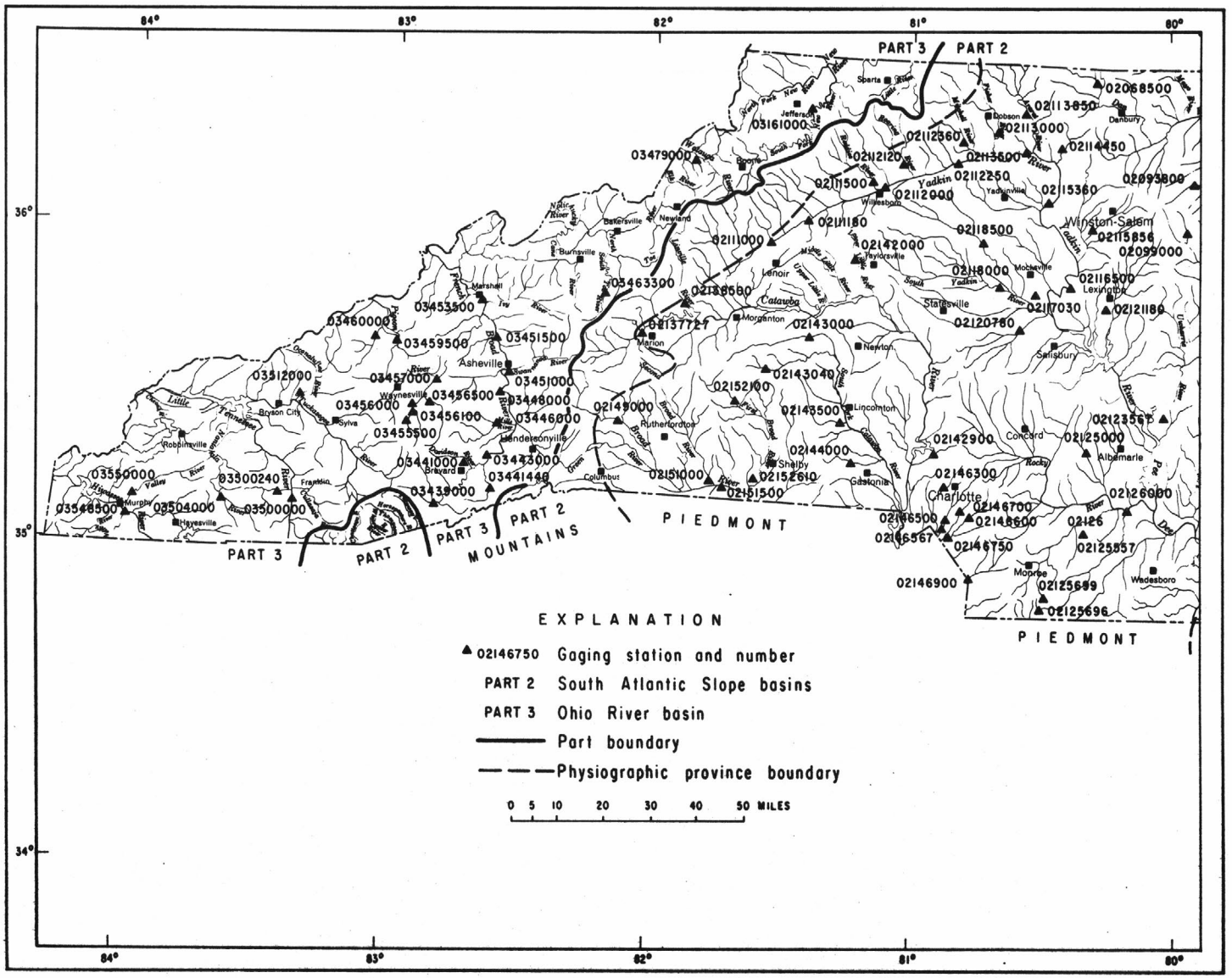


Figure 7.--Map of western part of North Carolina showing location of gaging stations.

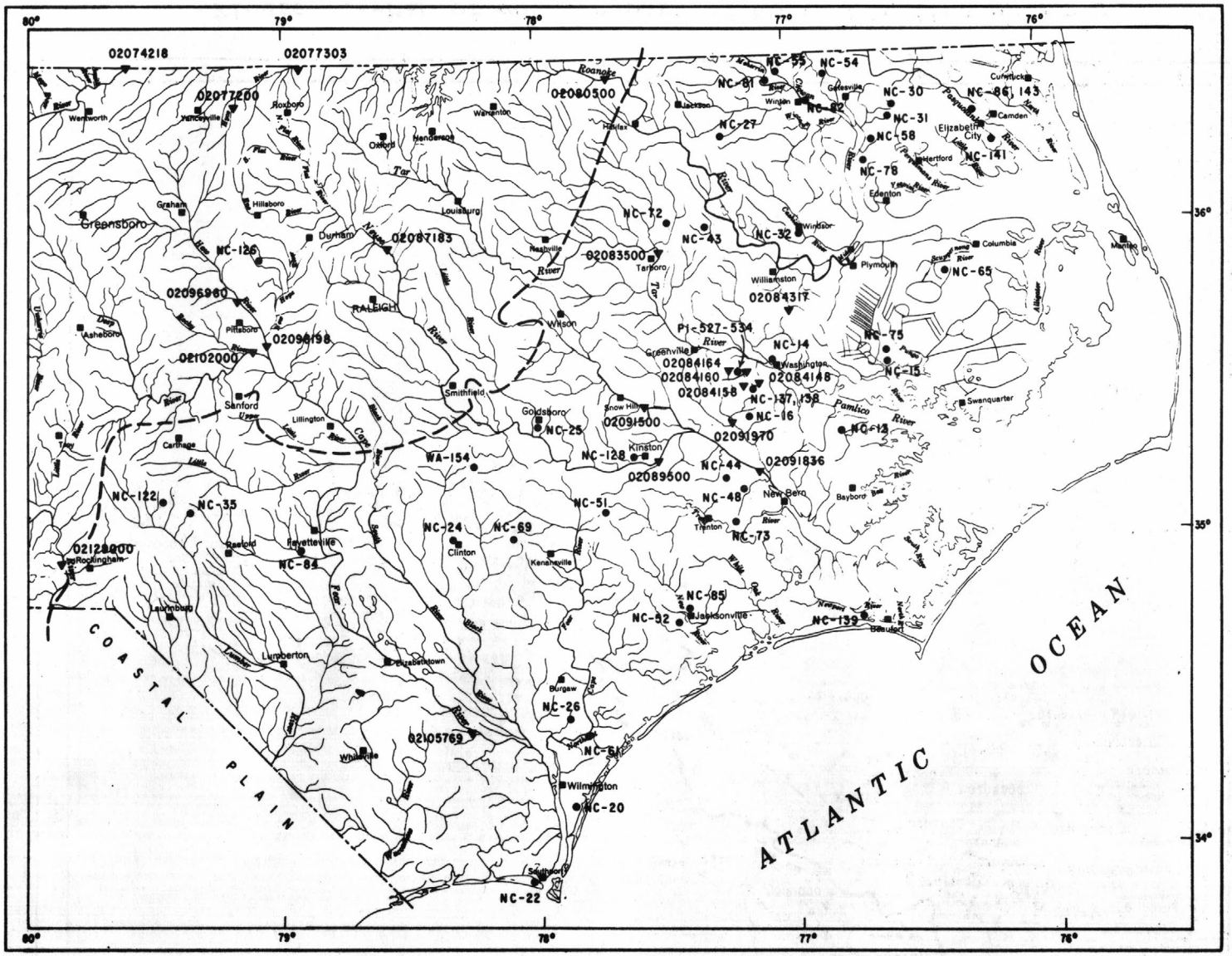


Figure 8.--Map of eastern part of North Carolina showing location of water-quality stations and observation well sites.

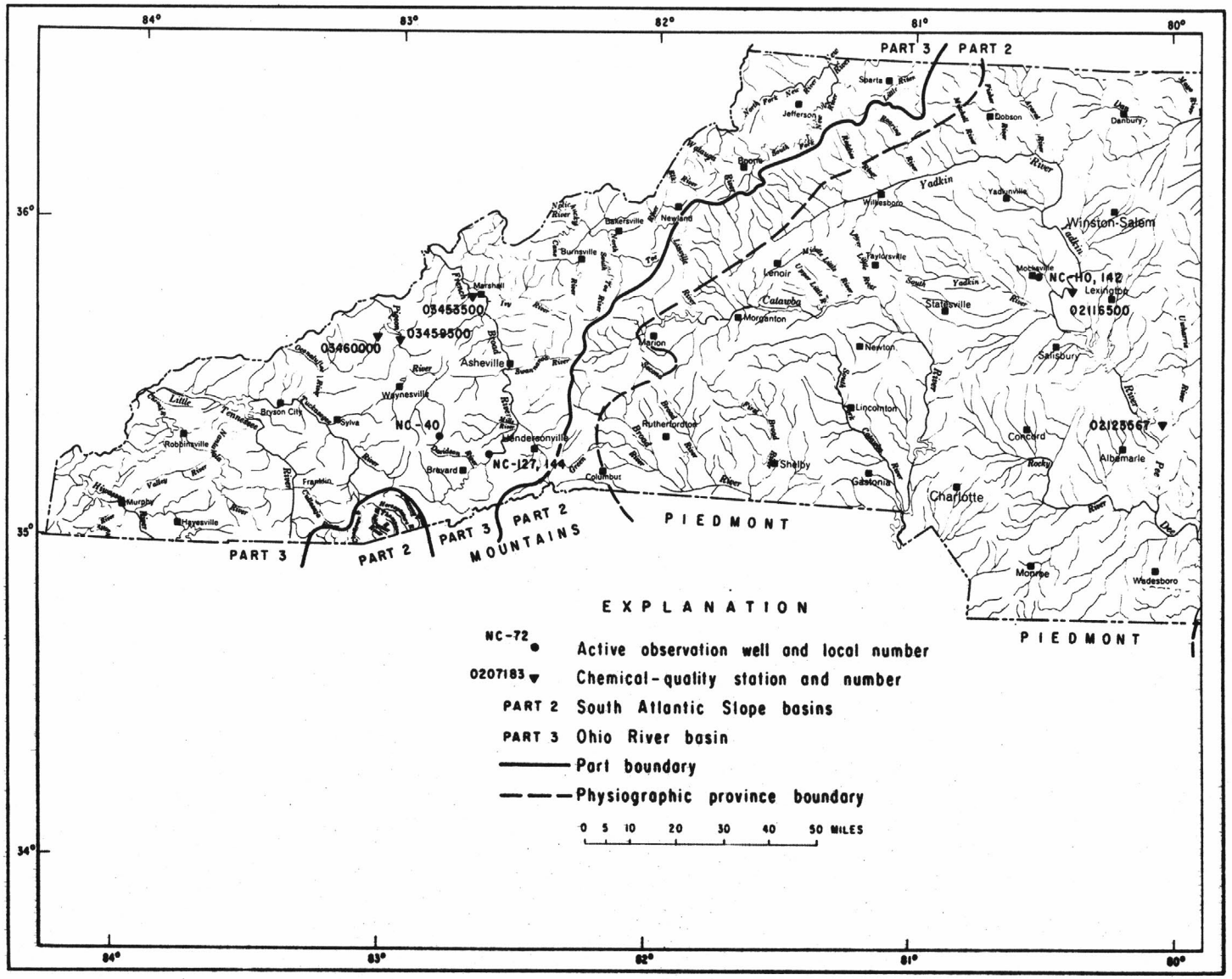


Figure 9.--Map of western part of North Carolina showing location of water-quality stations and observation well sites.

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).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good above 10 ft³/s (0.28 m³/s) and fair below.

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

AVERAGE DISCHARGE.--24 years, 234 ft³/s (6.627 m³/s), 14.12 in/yr (359 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, 1,280 ft³/s (36.2 m³/s) Jan. 6, gage height, 11.30 ft (3.444 m); minimum, 1.1 ft³/s (0.031 m³/s) Oct. 5; minimum gage height, 1.52 ft (0.463 m) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	8.0	8.9	439	319	900	121	112	27	8.0	18	3.9
2	1.4	7.0	14	664	319	883	107	129	34	6.0	14	3.6
3	1.4	6.4	15	539	307	884	95	124	46	8.0	11	3.7
4	1.2	6.0	13	681	352	827	85	105	35	14	8.8	3.5
5	1.4	5.6	14	1140	357	702	76	80	59	30	7.2	3.0
6	1.4	6.5	13	1260	591	587	70	60	177	54	6.2	2.7
7	1.4	5.4	13	1130	682	646	66	48	229	30	5.4	2.5
8	1.4	4.7	11	954	583	777	62	39	394	15	8.9	2.4
9	1.4	4.9	9.3	775	511	862	73	34	373	25	15	2.5
10	1.4	4.4	8.2	595	478	987	88	29	265	180	10	2.4
11	1.4	4.8	8.4	450	452	1010	83	24	167	120	34	2.6
12	1.3	4.9	10	300	389	886	74	21	101	70	453	2.4
13	1.3	4.6	11	220	494	705	71	19	62	30	484	2.2
14	1.3	4.5	13	180	895	545	68	17	64	12	295	2.2
15	2.0	4.6	32	150	886	432	65	14	50	28	317	2.1
16	1.6	4.7	170	130	849	439	61	12	36	20	291	2.1
17	1.5	4.6	204	160	906	499	56	12	30	18	218	1.9
18	1.4	4.5	100	140	1100	486	54	11	70	11	162	1.5
19	1.4	5.2	82	170	1070	464	51	10	117	8.0	102	5.1
20	1.3	5.8	85	200	986	467	48	9.5	65	12	54	29
21	1.3	5.6	71	327	883	506	46	9.2	39	30	38	114
22	1.3	5.2	73	548	769	486	45	8.9	30	60	29	48
23	1.3	5.2	74	599	638	454	43	8.7	26	100	21	22
24	8.1	6.2	74	937	531	414	40	17	22	180	16	14
25	16	6.7	107	1100	439	370	37	68	18	300	12	9.2
26	20	6.1	361	1030	362	323	39	68	16	200	8.5	20
27	16	6.4	358	891	332	271	55	47	13	110	6.3	253
28	14	6.8	263	740	702	222	85	60	11	105	5.3	311
29	11	6.9	240	609	---	184	90	80	15	62	5.3	165
30	10	6.9	223	475	---	156	94	44	11	35	4.3	181
31	9.0	---	197	371	---	137	---	33	---	23	4.1	---
TOTAL	136.6	169.1	2875.8	17904	17182	17511	2048	1353.3	2602	1904.0	2664.3	1218.5
MEAN	4.41	5.64	92.8	578	614	565	68.3	43.7	86.7	61.4	85.9	40.6
MAX	20	8.0	361	1260	1100	1010	121	129	394	300	484	311
MIN	1.2	4.4	8.2	130	307	137	37	8.7	11	6.0	4.1	1.5
CFSM	.02	.03	.41	2.57	2.73	2.51	.30	.19	.39	.27	.38	.18
IN.	.02	.03	.48	2.96	2.84	2.90	.34	.22	.43	.31	.44	.20

CAL YR 1981 TOTAL 27341.3 MEAN 74.9 MAX 826 MIN 1.2 CFSM .33 IN 4.52
WTR YR 1982 TOTAL 67568.6 MEAN 185 MAX 1260 MIN 1.2 CFSM .82 IN 11.17

02053200 POTECASI CREEK NEAR UNION, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR NACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCAR /100ML
81/10/06	12 50	0000	1.77	1	72	7.70	15.4		4.0	39.0		
81/10/20	12 55	0000	2.06	1	120	7.00	11.8	7.0	3.1	29.0	19.0	10K
81/11/03	12 50	0000	2.58	6	132	7.10	14.7		1.2	12.0		
81/11/17	12 42	0000	2.35	5	82	6.30	6.2		2.0	16.0		10K
81/12/01	12 55	0000	2.57	10	114	6.10	5.5		7.0	56.0		
81/12/14	15 20	0000	2.61	12	88	7.10	1.0		11.0	80.0		
81/12/15	14 00	0000	3.16	32	68	7.10	1.0		11.0	80.0		70
81/12/28	13 40	0000	5.78	253	78	5.30	4.1		10.6	81.0		
82/01/12	10 20	0000	6.15	300	31	5.10	0.4		9.2	63.0		
82/01/26	10 15	0000	10.39	1040	53	5.10	1.3	50.0	11.4	80.0	24.0	20
82/02/09	10 06	0000	7.61	515	51	5.60	2.5		10.0	74.0		
82/02/23	11 15	0000	9.56	643		5.90	4.2		8.4	64.0		80
82/03/09	10 10	0000	9.54	648	41	5.80	3.8		9.8	75.0		
82/03/23	17 35	0000	7.13	446	53	5.50	12.8		8.5	80.0		10K
82/04/06	10 00	0000	3.30	70	70	6.30	11.0		7.6	70.0		
82/04/22	10 20	0000	2.00	45	62	6.40	14.7	15.0	7.8	77.0	55.0	70
82/05/04	09 30	0000	3.96	107	70	6.00	14.9		7.4	73.0		
82/05/18	10 50	0000	1.88	11	104	6.40	19.2		4.2	45.0		
82/06/03	11 00	0000	3.05	69	76	6.40	21.0		5.1	57.0		
82/06/15	10 35	0000	3.17	52	55	5.90	19.2		6.3	69.0		210
82/06/29	16 00	0000	2.67	15	80	6.10	23.6		4.5	53.0		
82/07/14	11 35	0000	1.85	9	95	6.00	23.0	100.0	3.5	41.0	33.0	10
82/07/28	13 35	0000	4.05	114	100		24.5		5.3	63.0		
82/08/11	12 30	0000	1.81	9	140	6.00	24.9		3.6	44.0		
82/08/24	12 20	0000	2.30	16	78	5.90	23.1		4.5	52.0		40
82/09/08	15 58	0000	1.63	2	119	6.20	19.9		4.1	45.0		
82/09/22	11 15	0000	3.17	45	104	6.40	19.3		4.6	49.0		100

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT PG/L	RESIDUE TOTAL 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
81/10/06	12 50	0000		8	117	0.06	0.050K	0.300	0.050	0.010		
81/10/20	12 55	0000		3	127	0.05K	0.050K	0.300	0.050K	0.050K	10K	50K
81/11/03	12 50	0000		17	160	0.05K	0.050K	0.600	0.100	0.010		
81/11/17	12 42	0000		7	141	0.05K	0.050K	0.300	0.070	0.010		
81/12/01	12 55	0000		20	190	0.05K	0.050	0.600	0.060	0.010		
81/12/14	15 20	0000		5	102	0.05K	0.050K	0.300	0.050K	0.010K		
81/12/15	14 00	0000		5	102							
81/12/28	13 40	0000		15	127	0.23	0.050K	0.500	0.060	0.010K		
82/01/04	12 30					0.18	0.050K	0.500	0.110	0.050K		
	12 49					0.12	0.050K	0.500	0.120	0.050K		
82/01/12	10 20	0000		2	113	0.05K	0.050K	0.400	0.060	0.010K		
82/01/26	10 15	0000		9	95	0.30	0.050K	0.600	0.060	0.050K	10K	50K
82/02/09	10 06	0000		9	120	0.10	0.050K	0.300	0.050	0.010K		
82/02/23	11 15	0000		5	94	0.09	0.050K	0.600	0.050	0.010		
82/03/09	10 10	0000		13	99	0.17	0.050K	0.500	0.080	0.010		
82/03/23	17 35	0000		12	95	0.05K	0.080	0.600	0.060	0.010		
82/04/06	10 00	0000		14	133	0.07	0.050K	0.600	0.100	0.010		
82/04/22	10 20	0000		13	109	0.50K	0.500K	0.700	0.080	0.050K	10K	50K
82/05/04	09 30	0000		12	152	0.08	0.050K	0.800	0.110	0.050K		
82/05/18	10 50	0000		7	143	0.17	0.120	0.700	0.120	0.010		
82/06/03	11 00	0000		17	105	0.24	0.090	0.800	0.140	0.010		
82/06/15	10 35	0000		18	136	0.18	0.060	0.800	0.130	0.050K		
82/06/29	16 00	0000		12	133	0.25	0.070	0.600	0.140	0.030		
82/07/14	11 35	0000		6	163	0.39	0.080	0.500	0.150	0.050K	10K	50K
82/07/28	13 35	0000		11	133	0.08	0.050K	0.600	0.100	0.050K		
82/08/11	12 30	0000		3	119	0.12	0.050K	0.600	0.090	0.010K		
82/08/24	12 20	0000		3	121	0.12	0.050K	0.900	0.110	0.010		
82/09/08	15 58	0000		1	105	0.10	0.050K	0.500	0.080	0.010		
82/09/22	11 15	0000		16	178	0.37	0.060	0.600	0.160	0.050		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/20	12 55	0000	50K	40K	100K	0.5K	100K	50K
82/01/26	10 15	0000		40K	100K	0.6	100K	80
82/04/22	10 20	0000	50K	40K	100K	0.2K	100K	50K
82/07/14	11 35	0000	50K	40K	100K	0.5	100K	50K

K Less than noted value.

02053500 AHOSKIE CREEK AT AHOSKIE, NC

LOCATION.--Lat 36°16'48", long 77°00'00", Hertford County, Hydrologic Unit 03010203, on right bank 10 ft (3 m) downstream from bridge on State Highways 11 and 42, 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 mi^2 (164 km^2).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 17.46 ft (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.--Water-discharge records good. Entire basin above station canalized since July 1964. Excavation began downstream in July 1962 and reached the station in December 1962.

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

AVERAGE DISCHARGE.--32 years, 63.4 ft^3/s (1.795 m^3/s), 13.60 in/yr (345 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft^3/s (73.1 m^3/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 ft^3/s (0.031 m^3/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, 519 ft^3/s (14.7 m^3/s) Jan. 4, gage height, 7.39 ft (2.252 m), no peak above base of 720 ft^3/s (20.4 m^3/s); minimum, 1.7 ft^3/s (0.048 m^3/s) Oct. 20, 24, gage height, 1.02 ft (0.311 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.8	4.6	297	50	307	23	26	7.1	4.2	6.8	5.5
2	2.9	3.0	5.6	156	52	189	21	21	12	4.0	5.4	6.0
3	2.8	2.9	7.1	133	86	131	21	18	9.1	3.9	4.7	5.8
4	2.7	2.8	4.8	387	90	96	20	16	9.9	3.9	4.2	5.3
5	2.7	3.2	4.1	400	139	81	19	11	111	25	4.1	4.5
6	2.7	3.7	3.8	192	419	121	18	9.2	68	46	4.0	4.2
7	2.5	2.9	3.7	124	245	253	18	8.5	26	13	3.9	4.0
8	2.4	2.9	3.7	91	157	259	17	8.1	14	6.4	4.6	4.0
9	2.4	4.8	3.5	68	113	173	31	7.7	9.8	21	6.7	3.9
10	2.5	2.7	3.5	54	127	124	41	7.2	7.6	139	4.7	3.9
11	2.5	2.8	3.6	38	103	96	32	6.8	6.7	99	67	3.7
12	2.5	2.9	3.6	28	79	78	28	6.8	6.1	30	398	3.6
13	2.4	3.3	3.3	28	366	66	25	6.7	5.9	13	299	3.5
14	2.4	3.0	4.2	54	402	57	21	6.5	6.2	8.7	166	3.5
15	2.4	3.0	57	52	223	73	18	5.8	5.7	12	88	3.4
16	2.4	3.1	90	48	171	165	17	5.6	7.6	11	83	3.4
17	2.3	3.1	30	52	276	140	16	5.4	7.2	6.4	59	3.3
18	2.3	3.2	18	40	272	102	16	5.2	40	5.8	37	3.2
19	2.1	3.3	19	65	196	77	15	5.2	50	4.8	25	19
20	1.8	3.2	13	111	163	165	14	5.1	24	4.4	19	42
21	1.9	3.1	9.9	179	123	183	14	7.8	12	4.0	14	49
22	1.9	3.2	11	209	104	143	13	9.5	8.0	3.7	11	23
23	1.9	3.2	12	223	88	98	13	19	6.6	45	9.9	12
24	2.0	3.5	10	437	71	71	12	37	5.9	104	13	6.4
25	23	3.6	84	242	58	58	12	47	5.9	100	11	5.4
26	15	3.5	143	149	46	50	23	18	5.0	31	8.7	59
27	5.8	3.4	76	94	117	41	58	10	4.7	11	7.5	188
28	3.8	3.4	58	64	474	34	58	42	4.5	6.7	7.0	114
29	3.1	3.4	46	51	---	29	50	19	12	5.3	6.6	52
30	3.7	3.5	36	42	---	27	35	10	5.2	7.5	6.6	32
31	2.6	---	38	37	---	25	---	7.2	---	9.5	5.8	---
TOTAL	114.3	96.4	810.0	4145	4810	3512	719	418.3	503.7	789.2	1391.2	676.5
MEAN	3.69	3.21	26.1	134	172	113	24.0	13.5	16.8	25.5	44.9	22.6
MAX	23	4.8	143	437	474	307	58	47	111	139	398	188
MIN	1.8	2.7	3.3	28	46	25	12	5.1	4.5	3.7	3.9	3.2
CFSM	.06	.05	.41	2.12	2.72	1.79	.38	.21	.27	.40	.71	.36
IN.	.07	.06	.48	2.44	2.83	2.06	.42	.25	.30	.46	.82	.40

CAL YR 1981 TOTAL 5702.0 MEAN 15.6 MAX 427 MIN 1.7 CFSM .25 IN 3.35
WTR YR 1982 TOTAL 17985.6 MEAN 49.3 MAX 474 MIN 1.8 CFSM .78 IN 10.57

02053500 AHOSKIE CREEK AT AHOSKIE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVT FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI AFM-FCBR /100ML
81/10/20	13	25 0000	1.01	2	140	7.50	10.7	7.0	9.0	81.0	17.0	20
81/11/17	12	55 0000	1.13	3	99	6.30	7.9		7.8	65.0		20
81/12/15	11	55 0000	1.32	8	65	7.00	5.4		11.5	90.0		40
82/01/26	09	35 0000	3.40	155	63	5.10	3.8	55.0	10.8	82.0	36.0	200
82/02/23	10	00 0000	2.51	91		6.10	4.2		9.5	73.0		110
82/03/23	17	20 0000	2.41	92	65	5.80	12.8		9.8	92.0		10K
82/04/22	09	28 0000	1.38	14	72	6.60	13.9	8.0	9.1	87.0	23.0	90
82/06/15	09	20 0000	1.15	6	120	6.70	19.6		8.3	91.0		30
82/07/14	10	15 0000	1.30	7	110	6.10	23.0	50.0	6.2	71.0	36.0	260
82/08/24	13	25 0000	1.44	13	125	6.30	23.8		7.1	83.0		170
82/09/22	10	10 0000	1.67	24	125	6.00	19.2		5.7	61.0		80

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/20	13	25 0000	37	4	144	0.40	0.050K	0.400	0.160	0.050K	10K	50K
81/11/17	12	55 0000		6	144							
81/12/15	11	55 0000		12	131							
82/01/26	09	35 0000		23	128	0.94	0.060	0.600	0.080	0.050K	10K	50K
82/02/23	10	00 0000		11	118							
82/03/23	17	20 0000		32	115							
82/04/22	09	28 0000		6	114	0.48	0.120	0.500	0.140	0.050K	10K	50K
82/06/15	09	20 0000		8	140							
82/07/14	10	15 0000		17	162	0.75	0.140	0.600	0.330	0.070	10K	50K
82/08/24	13	25 0000		4	163							
82/09/22	10	10 0000		26	203							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/20	13	25 0000	50K	40K	100K	0.5K	100K	50K
82/01/26	09	35 0000		40K	100	0.2K	100K	60
82/04/22	09	28 0000	50K	40K	100K	0.2K	100K	50K
82/07/14	10	15 0000	50K	40K	100K	0.7	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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. 367).

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

AVERAGE DISCHARGE.--58 years, 190 ft³/s (5.381 m³/s), 20.00 in/yr (508 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.--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)
Oct. 27	0530	2400	68.0	4.95	1.509	May 28	0530	3320	94.0	5.86	1.786
Feb. 3	1330	2240	63.4	4.79	1.460	June 13	0630	*6370	180	*8.43	2.569
Apr. 27	2100	2890	81.8	5.44	1.658						

Minimum discharge, 37 ft³/s (1.05 m³/s) Oct. 9, gage height, 1.02 ft (0.311 m); minimum daily, 44 ft³/s (1.25 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	82	99	278	225	227	149	353	247	191	119	115
2	112	79	107	160	161	276	148	315	229	136	107	112
3	50	85	67	176	1160	232	204	305	408	132	114	162
4	47	83	67	627	653	255	228	244	528	129	115	112
5	47	89	71	361	314	214	193	197	479	130	143	91
6	52	85	64	216	337	155	250	180	338	176	159	90
7	78	80	60	171	235	217	240	205	286	160	149	89
8	45	73	66	145	197	230	175	212	252	157	129	89
9	44	69	63	175	241	241	204	181	234	218	454	89
10	48	93	97	185	250	264	145	160	380	215	167	90
11	46	96	113	238	214	230	134	165	231	157	167	90
12	48	74	79	183	160	225	131	134	376	170	133	89
13	47	97	77	148	159	220	129	157	2220	169	117	88
14	48	90	67	140	152	216	149	188	632	153	112	94
15	48	55	196	135	169	217	206	195	436	165	109	103
16	48	55	206	138	252	214	176	142	394	223	106	128
17	45	78	143	112	270	187	163	126	384	201	114	108
18	47	74	105	136	270	181	192	215	372	197	104	85
19	47	71	112	144	225	173	139	179	335	142	109	84
20	50	70	134	124	182	203	181	125	316	172	101	91
21	66	71	136	150	172	217	167	164	313	156	107	89
22	57	88	145	150	162	172	162	149	214	162	97	120
23	55	73	94	136	156	176	157	178	158	141	97	93
24	63	103	106	123	161	153	154	215	188	226	99	89
25	54	108	129	127	189	155	155	143	171	151	136	89
26	106	63	120	122	194	195	373	163	236	132	135	104
27	910	59	108	141	234	160	876	166	210	181	100	110
28	226	56	101	157	194	153	1060	966	243	184	101	95
29	124	54	107	159	---	158	467	581	282	164	95	91
30	97	54	101	130	---	151	389	467	221	112	93	91
31	68	---	122	113	---	149	---	287	---	116	103	---
TOTAL	2890	2307	3262	5504	7288	6216	7496	7457	11313	5118	3991	2970
MEAN	93.2	76.9	105	178	260	201	250	241	377	165	129	99.0
MAX	910	108	206	627	1160	276	1060	966	2220	226	454	162
MIN	44	54	60	112	152	149	129	125	158	112	93	84
(†)	+11	-7	+8	+24	+2	-8	+11	-4	-5	-6	+4	-7

CAL YR 1981 TOTAL 35749 MEAN 97.9 MAX 910 MIN 27 MEAN‡ 98.9 CFSM‡ .77 IN‡ 10.45
WTR YR 1982 TOTAL 65812 MEAN 180 MAX 2220 MIN 44 MEAN‡ 182 CFSM‡ 1.41 IN‡ 19.14

† Change in contents, equivalent in cubic feet per second, in Talbott and Townes Reservoirs; furnished by city of Danville, Va.
‡ Adjusted for change in contents.

02068500 DAN RIVER NEAR FRANCISCO, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCAR /100ML
81/10/08	16 00	0000	1.05	43	48	7.10	16.0	7.0	9.3	93.0	10.0K	120
81/11/12	11 30	0000	1.50	106	38	6.50	7.0		11.3	93.0		50
81/12/28	13 35	0000	1.48	101	35	6.50	6.0		11.7	94.0		10
82/01/21	13 35	0000	1.68	144	27	6.10	1.0	5.0	11.2	79.0	10.0K	10
82/02/18	10 55	0000	2.08	268	43	5.90	5.0		11.5	90.0		7000
82/03/11	10 25	0000	1.98	235	40	6.30	8.0		11.2	94.0		40
82/04/27	11 00	0000	2.30	353	35	6.20	15.0	20.0	10.0	99.0	11.0	440
82/05/06	10 25	0000	1.76	173	36	6.50	17.0		9.2	94.0		150
82/06/03	14 15	0000	1.70	160	37	7.20	22.0		8.8	100.0		220
82/07/21	10 10	0000	1.80	184	40	7.20	23.0	20.0	8.7	100.0	13.0	230
82/08/10	10 40	0000	1.65	146	35	6.30	22.0		8.2	93.0		5000
82/09/13	11 52	0000	1.36	88	33	6.60	21.0		9.2	102.0		30

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/08	16 00	0000	20	17	56	0.05K	0.050	0.200	0.050K	0.050K	10K	50K
81/11/12	11 30	0000	17	2	70							
81/12/28	13 35	0000	13	2	43							
82/01/21	13 35	0000	11	1K	46	0.39	0.050K	0.200	0.050K	0.050K	10K	50K
82/02/18	10 55	0000	11	11	200							
82/03/11	10 25	0000	12	1K	17							
82/04/27	11 00	0000	10	29	87	0.33	0.050K	0.400	0.070	0.050K	10K	50K
82/05/06	10 25	0000	19	13	45							
82/06/03	14 15	0000	15	25	75							
82/07/21	10 10	0000	18	37	84	0.36	0.050K	0.200	0.050	0.050K	10K	50K
82/08/10	10 40	0000	12	53	99							
82/09/13	11 52	0000	15	6	53							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/08	16 00	0000	50K	40K	100K	0.5K		50K
82/01/21	13 35	0000	50K	40K	100K	0.2K	100K	50K
82/04/27	11 00	0000	50K	40K	100	0.2K	100K	50K
82/07/21	10 10	0000	50K	40K	100K	0.2	100K	50K

K Less than noted value.

02071000 DAN RIVER NEAR WENTWORTH, NC

LOCATION.--Lat 36°24'45", long 79°49'35", Rockingham County, Hydrologic Unit 03010103, on right bank 600 ft (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).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 512.98 ft (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.--Water-discharge records good. Diurnal fluctuation and regulation at low flow caused by Talbott and Townes reservoirs. (See p. 367).

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

AVERAGE DISCHARGE.--43 years, 1,212 ft³/s (34.32 m³/s), 15.63 in/yr (397 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.--Peak discharges above base of 12,000 ft³/s (340 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. 4	0400	12400	351	15.86	4.834	June 14	0030	*12700	360	*16.13	4.916

Minimum discharge, 234 ft³/s (6.63 m³/s) Oct. 9, 10, gage height, 1.01 ft (0.308 m); minimum daily, 237 ft³/s (6.71 m³/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	261	482	373	3000	1190	1790	801	1390	3590	981	678	374
2	265	454	469	2410	1240	2440	769	1230	1510	791	580	429
3	306	436	519	2050	4370	2890	775	1190	1080	687	482	405
4	279	428	451	6930	8340	2140	947	1070	4230	679	453	442
5	256	424	460	6060	2970	1710	876	945	6050	670	432	360
6	259	494	442	2140	1910	1490	893	869	2490	658	541	328
7	257	494	414	1520	1570	2370	993	819	1500	685	551	322
8	266	420	405	1220	1150	3670	831	819	1120	671	469	316
9	255	403	395	918	1060	2090	883	819	1050	644	1930	311
10	237	397	379	805	1120	1650	922	756	2960	820	1680	310
11	246	408	379	479	1020	1450	811	707	6160	773	824	313
12	254	408	396	693	930	1210	778	698	1920	668	741	319
13	253	389	366	750	935	1110	792	649	5130	738	640	318
14	249	396	415	677	1020	1050	768	653	6390	780	536	341
15	247	400	1270	665	910	1000	895	663	2340	725	496	346
16	253	376	3800	699	1210	1390	899	655	1620	681	473	358
17	252	370	1560	655	3100	1040	819	609	1600	703	468	351
18	249	362	959	579	4060	910	831	613	3350	643	576	317
19	257	377	718	656	2460	885	844	712	1850	616	507	294
20	254	375	538	694	1720	951	887	681	1310	615	443	307
21	247	370	465	991	1330	1430	951	644	1150	595	414	323
22	267	365	623	1230	1140	1330	781	826	1080	548	400	392
23	290	373	728	1000	1020	1000	731	726	947	618	382	543
24	340	387	669	987	939	931	703	2220	838	671	376	390
25	376	468	1380	908	895	876	692	1710	830	700	378	340
26	400	451	2260	830	861	983	860	1060	801	568	442	369
27	3530	392	1590	653	972	1060	2580	1880	1190	513	421	543
28	2310	380	1230	658	1440	879	7000	1600	1120	532	379	523
29	931	371	1030	713	---	832	2910	2600	1120	886	371	416
30	628	362	879	676	---	816	1740	3590	1160	664	347	371
31	530	---	764	735	---	808	---	1950	---	578	340	---
TOTAL	15004	12232	26326	42983	50882	44181	35962	35353	67486	21101	17750	11071
MEAN	484	408	849	1387	1817	1425	1199	1140	2250	681	573	369
MAX	3530	494	3800	6930	8340	3670	7000	3590	6390	981	1930	543
MIN	237	362	366	479	861	808	692	609	801	513	340	294
CFSM	.46	.39	.81	1.32	1.73	1.35	1.14	1.08	2.14	.65	.54	.35
IN.	.53	.43	.93	1.52	1.80	1.56	1.27	1.25	2.38	.75	.63	.39

CAL YR 1981 TOTAL 213057 MEAN 584 MAX 4200 MIN 109 CFSM .56 IN 7.53
WTR YR 1982 TOTAL 380331 MEAN 1042 MAX 8340 MIN 237 CFSM .99 IN 13.44

02071000 DAN RIVER NEAR WENTWORTH, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCRM /100ML
81/10/08	12 50	0000	1.06	254	82	6.80	17.0	7.0	9.1	93.0	10.0K	51[illegible]
81/11/17	10 00	0000	1.33	369	54	6.40	8.0		11.0	92.0		108[illegible]
81/12/17	13 30	0000	3.57	1400	45	6.50	3.0		11.2	83.0		61[illegible]
82/01/21	11 30	0000	2.24	739	46	6.30	1.0	30.0	11.7	82.0	10.0K	21[illegible]
82/02/18	12 50	0000	7.16	4080	44	6.40	5.0		11.0	86.0		120[illegible]
82/03/11	12 00	0000	3.40	1440	61	6.40	10.0		10.4	92.0		5[illegible]
82/04/27	13 10	0000	5.10	2570	52	7.10	18.0	30.0	9.9	104.0	11.0	11[illegible]
82/05/06	12 40	0000	2.33	760	70	6.90	18.0		8.6	90.0		149[illegible]
82/06/03	12 10	0000	2.70	1040	56	6.90	21.0		8.2	91.0		35[illegible]
82/07/28	08 24	0000	1.74	570	170	6.90	26.0	30.0	7.2	88.0	13.0	1[illegible]
82/08/10	13 00	0000	3.45	1470	58	6.80	25.0		7.3	87.0		230[illegible]
82/09/13	13 29	0000	1.24	330	61	7.40	23.0		8.1	85.0		28[illegible]

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/08	12 50	0000	25	5	81	0.05K	0.060	0.300	0.120	0.090	10K	5[illegible]
81/11/17	10 00	0000	32	6	81							
81/12/17	13 30	0000	14	41	138							
82/01/21	11 30	0000	18	80	142	0.38	0.050K	0.300	0.050	0.050K	10K	5[illegible]
82/02/18	12 50	0000	16	130	240							
82/03/11	12 00	0000	14	17	87							
82/04/27	13 10	0000	30	149	228	0.11	0.050K	0.400	0.100	0.050K	10K	5[illegible]
82/05/06	12 40	0000	21	24	115							
82/06/03	12 10	0000	22	43	107							
82/07/28	08 24	0000	34	26	126	0.45	0.050K	0.400	0.190	0.130	10K	5[illegible]
82/08/10	13 00	0000	28	317	335							
82/09/13	13 29	0000	30	12	98							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/08	12 50	0000	50K	40K	100K	0.5K		50K
82/01/21	11 30	0000	50K	40K	100	0.2K	100K	50K
82/04/27	13 10	0000	50K	40K	100K	0.2K	100K	50K
82/07/28	08 24	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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.

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

AVERAGE DISCHARGE.--43 years, 617 ft³/s (17.47 m³/s), 15.57 in/yr (395 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, 5,330 ft³/s (151 m³/s) May 28, gage height, 7.10 ft (2.164 m); minimum, 65 ft³/s (1.84 m³/s) Oct. 12, Sept. 19, gage height, 1.35 ft (0.411 m); minimum daily, 80 ft³/s (2.27 m³/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	326	138	234	983	475	408	253	444	1020	404	143	236
2	315	176	288	606	411	577	263	226	1810	386	120	233
3	319	244	270	760	1400	1030	284	383	1790	399	376	221
4	108	238	267	2410	1610	723	295	753	1770	183	375	250
5	102	257	269	1250	721	547	313	753	1520	127	374	114
6	275	295	115	657	464	473	414	755	466	466	508	94
7	253	200	194	474	356	979	364	738	400	415	442	296
8	267	138	254	416	324	1310	377	669	940	423	118	307
9	247	180	246	240	337	656	407	200	920	446	557	326
10	253	241	237	216	333	484	355	268	988	411	515	315
11	100	190	233	329	294	421	240	500	1120	180	790	364
12	153	286	231	357	274	379	250	508	952	205	560	114
13	445	242	91	340	263	322	397	512	1510	471	457	88
14	429	231	229	284	224	271	382	495	1290	516	470	306
15	440	117	792	290	247	299	398	418	1160	447	150	316
16	438	149	1230	247	305	318	385	183	1050	436	117	313
17	377	238	573	207	634	307	336	186	1200	466	247	307
18	122	242	432	231	1150	296	240	299	1580	144	740	354
19	102	240	309	331	638	293	278	337	1130	138	326	80
20	421	244	169	337	457	320	378	342	1010	419	271	114
21	408	181	341	376	342	310	340	358	294	411	276	362
22	402	135	359	522	340	302	381	385	927	400	134	390
23	402	172	332	395	321	296	367	220	927	406	117	352
24	429	264	290	313	304	284	311	455	904	455	222	325
25	131	272	569	312	280	264	206	1220	885	148	266	327
26	161	195	456	293	269	384	450	703	895	127	258	157
27	1430	300	353	262	243	290	920	858	153	383	232	372
28	764	190	442	317	325	220	612	2390	241	378	268	445
29	517	144	360	272	---	243	636	697	398	376	133	363
30	284	190	327	242	---	263	561	985	409	390	95	1080
31	255	---	451	211	---	266	---	794	---	443	223	---
TOTAL	10695	6329	13913	14480	13341	13535	11593	18226	29659	10999	9880	8921
MEAN	345	211	352	467	476	437	386	588	989	355	319	297
MAX	1430	300	1230	2410	1610	1310	920	2390	1810	516	790	1080
MIN	100	117	91	207	224	220	206	183	153	127	95	80
(†)	-104	-55	+20	+172	+279	+205	+100	+60	-104	-73	-54	-135

CAL YR 1981 TOTAL 112453 MEAN 308 MAX 1430 MIN 57 MEAN‡ 265 CFSM‡ .49 IN‡ 6.65
WTR YR 1982 TOTAL 156571 MEAN 434 MAX 2410 MIN 80 MEAN‡ 459 CFSM‡ .85 IN‡ 11.54

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

02074000 SMITH RIVER AT EDEN, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB NRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCAP /100ML
81/10/08	13	45 0000	1.72	138	407	7.20	16.0	5.0	9.7	97.0	10.0	160
81/11/17	10	28 0000	2.52	526	322	7.10	10.0		11.1	98.0		30
81/12/17	13	00 0000	2.01	264	102	6.50	4.0		13.0	84.0		760
82/01/28	13	45 0000	1.82	190	207	6.50	1.0	15.0	11.6	82.0	10.0K	20
82/02/24	13	10 0000	1.74	163	248	7.00	10.0		9.7	86.0		20
82/03/16	13	50 0000	1.83	194	139	6.90	9.0		10.7	92.0		70
82/04/22	13	25 0000	1.74	163	228	6.90	11.0	8.0	9.6	86.0	13.0	70
82/05/11	10	30 0000	2.08	293	139	6.70	17.0		8.4	86.0		20
82/06/29	12	25 0000	2.16	327	320	7.50	24.0		8.8	103.0		140
82/07/28	08	55 0000	2.88	816	150	7.10	26.0	7.0	7.2	88.0	10.0K	40
82/08/23	10	00 0000	1.50	95	157	6.90	22.0		6.9	78.0		660
82/09/21	13	33 0000	2.11	307	363	7.20	19.0		7.6	81.0		80

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/08	13	45 0000	43	8	264	0.37	0.230	0.600	0.590	0.540	10K	50K
81/11/17	10	28 0000	43	1	239							
81/12/17	13	00 0000	18	16	98							
82/01/28	13	45 0000	38	15	170	0.27	0.560	0.800	0.370	0.310	10K	50K
82/02/24	13	10 0000	36	6	68							
82/03/16	13	50 0000	33								10K	
82/04/22	13	25 0000	45	5	144	0.32	0.120	0.400	0.320	0.250	10K	50K
82/05/11	10	30 0000	36	12	124							
82/06/29	12	25 0000	40	12	199							
82/07/28	08	55 0000	34	35	131	0.37	0.050K	0.300	0.250	0.190	10K	50K
82/08/23	10	00 0000	33	242	364							
82/09/21	13	33 0000	36	15	245							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/08	13	45 0000	50K	40K	100K	0.5K		50K
82/01/28	13	45 0000	50K	40K	200	0.2K	100K	50K
82/04/22	13	25 0000	50K	40K	100K	0.3	100K	50K
82/07/28	08	55 0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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

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

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 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. 367) and Philpott Lake on Smith River (see sta 02074000). Duke Power Company gage-height and temperature telemeter at station.

AVERAGE DISCHARGE.--6 years, 2,077 ft³/s (58.82 m³/s), 15.86 in/yr (403 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.--Peak discharges above base of 13,000 ft³/s (370 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)
Jan. 5	0100	*14700	416	*17.10	5.212	June 14	0530	13500	382	16.33	4.977
Feb. 4	0830	13900	394	16.55	5.044						

Minimum discharge, 351 ft³/s (9.94 m³/s) Oct. 13, gage height, 1.94 ft (0.591 m); minimum daily, 377 ft³/s (10.7 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	629	745	629	4010	1710	2600	1210	2260	4950	1710	955	667
2	633	698	746	4170	2170	2800	1160	1750	3600	1430	960	737
3	649	750	897	3270	5430	4200	1160	1700	3050	1300	957	728
4	537	749	844	9500	11700	3700	1220	2040	4910	986	962	738
5	415	756	826	10600	4720	2900	1370	1900	8360	1170	925	564
6	526	823	740	4060	2980	2300	1440	1780	4340	1210	1050	525
7	574	890	662	2690	2310	3500	1510	1670	2290	1290	1180	590
8	564	673	759	2160	1830	5200	1370	1710	2340	1240	768	685
9	558	637	730	1670	1660	4300	1390	1130	2160	1210	1820	684
10	535	675	696	1310	1660	2500	1490	1110	3160	1290	3060	688
11	377	698	686	990	1580	2000	1170	1280	9000	1200	1970	716
12	402	680	741	910	1420	1800	1130	1280	3600	1120	1790	523
13	638	741	556	1240	1370	1600	1310	1220	4290	1260	1370	511
14	743	693	611	1160	1430	1550	1300	1190	10000	1560	1180	583
15	709	636	1600	1050	1320	1500	1350	1210	4260	1390	815	723
16	727	568	5870	1160	1650	2000	1490	898	3050	1270	760	723
17	724	627	3090	1020	4040	1700	1390	863	2630	1330	756	710
18	452	658	1820	877	6170	1420	1090	933	5160	953	1280	707
19	423	672	1430	1130	3900	1360	1250	1100	3590	930	1170	523
20	635	665	881	1240	2760	1480	1360	1080	2590	1050	880	441
21	694	651	851	1390	2080	1750	1480	1040	1730	1150	843	655
22	666	551	1060	2310	1760	2010	1340	1170	2170	1070	617	750
23	726	564	1300	1910	1630	1640	1210	1020	2070	1120	668	928
24	801	655	1220	1670	1480	1430	1200	2010	1900	1380	646	829
25	582	777	1860	1610	1370	1340	938	3240	1850	1000	699	740
26	668	788	3650	1490	1310	1370	1060	2330	1820	920	766	598
27	3190	733	2590	1200	1350	1650	3050	2300	1410	962	765	987
28	5200	733	2020	1030	1500	1300	7710	3830	1580	1020	763	1060
29	1930	573	1770	1170	---	1180	4820	3380	1650	1300	588	863
30	1220	590	1530	1180	---	1250	2810	4820	1870	1360	587	1190
31	1010	---	1360	1080	---	1200	---	3070	---	1150	578	---
TOTAL	28137	20649	44025	70257	74290	66530	51778	56314	105380	37331	32128	21366
MEAN	908	688	1420	2266	2653	2146	1726	1817	3513	1204	1036	712
MAX	5200	890	5870	10600	11700	5200	7710	4820	10000	1710	3060	1190
MIN	377	551	556	877	1310	1180	938	863	1410	920	578	441
(†)	-104	-55	+20	+172	+279	+205	+100	+60	-104	-73	-54	-135

CAL YR 1981 TOTAL 368767 MEAN 1010 MAX 5870 MIN 271 MEAN‡ 967 CFSM‡ .54 IN‡ 7.33
WTR YR 1982 TOTAL 608185 MEAN 1666 MAX 11700 MIN 377 MEAN‡ 1691 CFSM‡ .95 IN‡ 12.90

† 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 September 1982.
WATER TEMPERATURES: October 1976 to current year.

INSTRUMENTATION.--Temperature recorder since October 1977. Water-quality monitor January 1981 to September 1982 (discontinued).

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.

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, 282 micromhos Oct. 11, 1981; minimum daily, 37 micromhos Oct. 10, 1976.
WATER TEMPERATURES: Maximum, 33.5°C June 16, 1981; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 282 micromhos Oct. 11; minimum daily, 55 micromhos June 14.
WATER TEMPERATURES: Maximum, 31.5°C July 19; minimum, 0.0°C Dec. 21, Jan. 10, 11, 17, 18, 22.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
DEC												
16...	1145	6800	80	7.2	4.0	120	12.5	17	1	4.1	1.6	6.4
JAN												
01...	0830	3720	80	7.2	2.5	80	--	18	2	4.5	1.7	5.8
02...	0130	5530	85	7.1	3.5	80	--	24	8	5.8	2.3	7.0
02...	1625	3470	80	7.2	4.5	75	--	18	0	4.6	1.7	4.9
04...	0825	5970	90	7.2	4.5	140	--	22	4	5.5	1.9	5.0
04...	1100	10400	70	7.2	4.5	160	--	16	1	3.8	1.5	3.7
05...	0200	14700	--	--	5.2	250	--	15	--	3.6	1.4	3.2
05...	1230	10200	65	7.4	5.5	200	--	18	5	4.5	1.7	4.3
06...	0830	4360	--	7.4	5.0	110	--	21	5	5.4	1.8	5.7
MAR												
16...	1300	1530	87	7.0	10.0	20	10.8	22	4	5.4	2.1	11
APR												
28...	0600	6650	70	6.9	15.0	200	--	14	1	3.3	1.3	4.5
28...	0940	7680	65	6.4	15.0	250	--	14	3	3.4	1.4	5.0
28...	1730	9880	50	6.2	15.0	210	--	14	7	3.3	1.4	3.5
29...	0530	5900	60	6.1	14.5	200	--	16	3	3.8	1.5	5.5
29...	1245	4240	65	6.2	15.0	190	--	16	5	3.9	1.6	6.3
JUN												
14...	1030	12600	52	6.2	18.0	360	8.6	13	5	3.1	1.2	2.4
SEP												
08...	1040	710	220	7.8	21.0	20	8.4	27	0	6.7	2.5	35

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
DEC												
16...	42	.7	2.1	20	0	16	2.0	9.4	7.7	<.1	9.4	66
JAN												
01...	38	.6	1.7	20	0	16	2.2	8.8	6.0	<.1	12	66
02...	37	.7	1.7	20	0	16	3.1	8.9	6.2	<.1	12	57
02...	34	.5	1.7	22	0	18	1.8	9.6	5.0	<.1	12	56
04...	31	.5	2.0	22	0	18	1.8	12	4.8	<.1	11	58
04...	31	.4	1.8	18	0	15	2.2	10	4.0	<.1	9.1	46
05...	29	.4	2.0	--	--	--	--	9.4	3.0	<.1	10	--
05...	31	.5	2.2	16	0	13	.9	11	3.7	<.1	12	68
06...	34	.6	2.1	20	0	16	1.3	14	6.0	<.1	10	53
MAR												
16...	50	1.1	1.5	22	0	18	4.7	7.7	9.7	<.1	15	69
APR												
28...	39	.6	1.6	16	0	13	2.9	7.0	5.0	<.1	9.4	50
28...	40	.6	1.8	13	0	11	9.3	7.0	4.6	.1	9.7	44
28...	32	.4	1.6	9	0	7	12	10	3.2	<.1	9.8	37
29...	40	.7	1.7	16	0	13	19	9.0	5.5	<.1	10	--
29...	43	.7	1.7	14	0	11	16	9.0	6.4	<.1	10	50
JUN												
14...	25	.3	2.2	10	0	8	11	8.0	2.1	<.1	8.2	50
SEP												
08...	72	3.2	2.0	56	0	46	1.0	15	40	.1	14	140

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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
DEC												
16...	52	.09	1210	.30	.030	.33	.29	.100	.070	.09	--	.60
JAN												
01...	51	.09	663	.28	.080	.36	.43	.080	.050	.06	.54	.52
02...	56	.08	851	.27	.020	.29	.27	.050	.030	.04	.62	.39
02...	49	.08	525	.28	.010	.29	.25	.040	<.010	.01	.35	--
04...	51	.08	935	.39	.070	.46	.37	.170	.090	.12	1.3	.38
04...	45	.06	1290	.33	.110	.44	.32	.240	.060	.08	.86	.62
05...	38	--	--	.30	.100	.40	.27	.190	.080	.10	.57	.36
05...	47	.09	1870	.33	.070	.40	.27	.140	.060	.08	.53	.58
06...	55	.07	624	.31	.030	.34	--	.090	.070	.09	.91	.53
MAR												
16...	67	.09	285	--	<.010	.26	.26	.030	.030	.04	.48	.07
APR												
28...	39	.07	898	.35	.100	.45	--	--	--	--	--	--
28...	40	.06	912	.31	.090	.40	--	--	--	--	--	--
28...	39	.05	987	.32	.090	.41	--	--	--	--	--	--
29...	44	--	--	.30	.050	.35	--	--	--	--	--	--
29...	47	.07	572	.29	.050	.34	--	--	--	--	--	--
JUN												
14...	33	.07	1700	.41	.190	.60	.26	.400	.030	.04	1.5	.27
SEP												
08...	135	.19	268	.66	.040	.70	.64	.100	.070	.09	4.0	.83

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	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)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
DEC												
16...	--	--	.67	--	--	.96	.270	.83	.020	.040	<.010	--
JAN												
01...	.62	.05	.57	.98	4.3	1.0	.230	.71	.060	.070	.040	.12
02...	.67	.25	.42	.96	4.3	.69	.170	.52	.020	.060	.030	.09
02...	.39	.14	.25	.68	3.0	.50	.050	.15	<.010	.030	.010	.03
04...	1.50	1.0	.47	2.0	8.7	.84	.430	1.3	.050	.140	.040	.12
04...	1.10	.42	.68	1.5	6.8	1.0	.620	1.9	.040	.200	.030	.09
05...	.76	.32	.44	1.2	5.1	.71	.190	.58	.020	.130	.020	.06
05...	.67	.03	.64	1.1	4.7	.91	.400	1.2	.020	.100	<.010	--
06...	1.00	.40	.60	1.3	5.9	--	.180	.55	.050	.070	.050	.15
MAR												
16...	.51	.41	.10	.77	3.4	.36	.100	.31	.070	.070	.060	.18
APR												
28...	2.20	--	--	2.7	12	--	.630	1.9	--	.140	--	--
28...	.70	--	--	1.1	4.9	--	.320	.98	--	.120	--	--
28...	1.30	--	--	1.7	7.6	--	.610	1.9	--	.130	--	--
29...	.88	--	--	1.2	5.4	--	.210	.64	--	.070	--	--
29...	1.10	--	--	1.4	6.4	--	.390	1.2	--	.070	--	--
JUN												
14...	1.90	1.6	.30	2.5	11	.56	.640	2.0	.030	.310	.020	.06
SEP												
08...	4.10	3.2	.90	4.8	21	1.5	.270	.83	.300	.280	.290	.89

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
DEC											
16...	1	0	1	<1	--	2	--	--	--	--	--
JAN											
01...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
05...	1	0	1	1	0	1	40	<1	17	<1	39
05...	1	1	0	1	0	3	20	<1	12	<1	21
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
16...	1	--	<1	<1	--	<1	--	--	--	--	--
APR											
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
14...	1	0	1	1	--	<1	10	<1	15	<1	44
SEP											
08...	1	0	1	1	0	1	--	--	--	--	--

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
DEC											
16...	--	--	--	--	--	17	--	<1	--	--	--
JAN											
01...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
05...	32	7	30000	29000	720	24	--	<1	900	840	63
05...	12	9	18000	17000	790	22	--	<1	500	430	75
06...	--	--	--	--	--	--	--	--	--	--	--
MAR											
16...	--	--	--	--	--	2	--	<1	--	--	--
APR											
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
14...	39	5	44000	44000	420	26	23	3	800	790	12
SEP											
08...	--	--	--	--	--	4	2	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)	SELE-NIUM, 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)
DEC											
16...	.1	.0	.1	<1	<1	--	--	--	4.3	1.7	.00
JAN											
05...	.2	.0	.2	1	<1	80	70	10	--	--	--
05...	.2	.0	.2	1	<1	50	30	18	--	--	--
MAR											
16...	.2	.0	.2	<1	<1	--	--	--	1.7	.2	--
JUN											
14...	.2	.0	.2	<1	<1	90	80	10	15	>7.0	--
SEP											
08...	<.1	--	<.1	<1	<1	--	--	--	2.4	.1	--

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
DEC					
16...	1145	6800	591	10900	49
JUN					
14...	1030	12600	1840	62600	51
SEP					
08...	1040	710	52	100	--

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	DEC 16,81
TIME	1145
TOTAL CELLS/ML	3800
DIVERSITY: DIVISION	0.2
.CLASS	0.2
..ORDER	1.9
...FAMILY	2.3
....GENUS	2.8

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..BACILLARIALES		
...NITZSCHIACEAE		
....NITZSCHIA	1000#	26
..EUPODISCALES		
...COSCINODISCACEAE		
....CYCLOTELLA	87	2
....MELOSIRA	300	8
..FRAGILARIALES		
...FRAGILARIACEAE		
....DIATOMA	43	1
....SYNEDRA	560	15
..NAVICULALES		
...CYMBELLACEAE		
....CYMBELLA	300	8
...GOMPHONEMACEAE		
....GOMPHONEMA	87	2
...NAVICULACEAE		
....GYROSIGMA	87	2
....NAVICULA	1100#	30
....PINNULARIA	130	3
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	87	2

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	110	120	98	108	105	90	90	70	70	106	240
2	192	108	106	71	104	89	121	80	80	92	99	192
3	180	146	159	85	98	90	102	80	88	112	118	175
4	180	148	135	68	62	82	114	110	82	91	140	188
5	172	160	139	57	66	91	145	110	91	60	140	92
6	135	155	130	75	76	89	154	122	79	102	142	132
7	175	150	165	86	74	68	94	123	82	78	115	105
8	210	130	130	82	98	92	112	107	129	78	158	198
9	190	180	118	87	74	75	108	90	80	86	142	140
10	245	170	131	74	87	87	145	83	145	78	81	182
11	282	140	170	85	95	91	83	141	74	66	155	162
12	142	150	170	200	102	112	125	185	86	70	70	185
13	268	233	121	105	102	93	98	130	65	95	98	118
14	172	150	120	118	95	92	90	135	55	100	115	105
15	155	165	235	120	117	100	89	130	69	108	120	165
16	168	195	71	125	100	105	117	103	90	103	102	168
17	160	138	74	100	87	126	116	130	125	100	245	162
18	158	168	109	88	82	101	78	141	65	100	190	160
19	140	180	100	108	80	114	100	142	102	100	155	185
20	125	180	82	100	87	100	106	115	120	225	172	195
21	155	180	109	106	80	83	116	138	80	140	152	106
22	158	160	175	120	88	98	100	109	145	130	125	108
23	195	130	108	100	106	120	142	104	68	120	102	107
24	142	140	95	85	92	90	133	85	99	120	205	108
25	148	140	88	82	100	83	127	142	111	100	178	135
26	100	140	78	115	115	95	124	88	58	81	172	138
27	125	125	75	98	105	111	105	78	58	150	160	102
28	60	175	79	112	108	118	56	85	71	126	180	105
29	71	102	88	122	---	87	67	73	170	140	148	122
30	80	132	95	109	---	96	80	70	82	104	105	155
31	110	---	101	103	---	115	---	80	---	143	165	---
MEAN	160	153	119	99	92	97	108	110	91	105	140	148

WTR YR 1982 MEAN 119 MAX 282 MIN 55

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.0	5.5	5.5	3.5	4.5	14.5	12.0	13.0	16.0	14.0	15.0
2	5.5	4.0	4.5	7.0	5.0	6.0	15.5	13.0	14.0	16.5	15.5	16.0
3	4.0	3.5	4.0	7.5	7.0	7.0	16.0	15.0	15.5	18.0	16.0	17.0
4	6.0	4.0	5.0	7.0	6.0	6.5	15.5	13.5	14.5	18.0	16.5	17.5
5	6.5	6.0	6.5	8.0	6.0	6.5	---	---	13.5	18.0	16.0	17.0
6	6.5	6.0	6.5	8.0	8.0	8.0	---	---	12.0	18.5	16.5	17.5
7	6.0	5.0	5.5	8.0	6.5	7.5	---	---	11.0	19.0	17.5	18.5
8	5.5	4.0	5.0	6.5	5.5	6.0	11.0	9.0	10.0	19.0	18.0	18.5
9	5.5	5.0	5.0	7.5	5.5	6.5	10.0	8.0	9.0	20.0	17.0	18.0
10	5.5	5.0	5.0	8.5	7.0	7.5	11.0	8.5	9.5	21.0	17.5	19.0
11	5.0	5.0	5.0	10.0	8.0	9.0	12.0	9.5	10.5	21.0	18.5	20.0
12	6.0	5.0	5.5	11.5	9.5	10.5	14.0	11.0	12.0	22.0	19.0	20.5
13	6.0	5.0	5.5	12.0	11.5	11.5	15.0	13.5	14.0	22.5	20.5	21.5
14	6.0	4.5	5.0	12.0	11.0	11.5	16.0	14.0	15.0	23.0	21.5	22.5
15	6.5	5.5	6.0	12.0	11.0	11.5	17.0	15.5	16.0	24.0	22.0	23.0
16	8.0	6.5	7.0	11.0	10.0	10.0	17.0	15.5	16.5	25.0	22.5	23.5
17	9.0	8.0	8.5	13.0	9.0	11.0	18.0	17.0	17.5	26.5	21.0	25.0
18	8.5	7.0	7.5	14.0	12.0	13.0	19.0	16.5	18.0	26.5	24.0	25.5
19	7.0	6.0	6.5	13.5	13.0	13.5	17.5	16.0	17.0	26.5	24.0	24.5
20	7.5	6.0	6.5	13.0	12.0	12.5	16.0	15.0	15.5	24.5	23.5	24.0
21	8.5	7.5	8.0	12.0	11.5	12.0	15.0	15.0	15.0	24.5	21.0	23.5
22	9.0	7.5	8.5	13.0	11.5	12.0	15.0	13.0	14.0	24.0	22.0	23.0
23	9.0	7.0	8.0	13.5	12.0	12.5	14.0	11.5	12.5	24.0	22.5	23.0
24	10.0	8.0	9.0	12.5	12.0	12.5	15.5	12.0	13.5	24.0	22.5	23.0
25	10.5	9.5	10.0	13.5	11.0	12.0	15.0	13.0	14.0	24.0	22.5	23.0
26	9.5	7.5	8.5	13.5	12.0	13.0	17.5	14.5	15.5	23.5	22.5	22.5
27	7.5	3.5	5.0	12.0	10.5	11.5	17.0	15.5	16.5	22.5	21.5	22.0
28	4.0	2.5	3.5	10.5	9.0	9.5	16.5	14.5	15.5	22.0	17.0	20.5
29	---	---	---	10.5	8.0	9.0	15.5	14.5	15.0	21.0	20.5	21.0
30	---	---	---	12.0	9.0	10.5	15.5	14.0	15.0	21.0	20.0	20.5
31	---	---	---	13.0	11.5	12.5	---	---	---	24.0	21.0	22.5
MONTH	10.5	2.5	6.5	14.0	3.5	10.0	19.0	8.0	14.0	26.5	14.0	21.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	22.0	23.0	26.0	24.5	25.5	26.0	23.0	24.5	23.0	22.0	22.5
2	22.5	20.0	21.0	26.0	24.0	25.0	28.5	25.0	26.0	26.5	22.5	24.0
3	20.0	18.0	18.5	26.0	25.0	25.5	28.5	27.5	28.0	28.0	26.0	27.0
4	19.5	16.5	18.0	27.0	25.0	26.0	28.5	26.5	27.5	27.5	25.0	26.5
5	20.0	19.0	19.5	27.0	24.5	25.5	29.0	27.5	28.0	25.0	22.0	23.0
6	20.5	20.0	20.0	26.5	25.5	26.0	27.5	26.0	26.5	24.0	20.5	22.0
7	21.5	19.0	20.0	27.5	26.0	27.0	26.5	25.5	26.0	24.0	20.5	22.5
8	22.5	21.0	21.5	27.5	25.5	26.5	28.0	25.5	26.5	23.0	21.0	22.0
9	22.5	20.5	21.5	27.0	26.0	26.5	28.0	25.5	27.0	23.0	21.0	22.0
10	22.0	21.0	21.5	27.0	26.0	26.5	26.0	24.5	25.0	22.5	21.0	21.5
11	21.0	19.5	20.0	27.0	26.5	26.5	26.0	24.0	25.0	21.5	20.0	21.0
12	20.0	19.5	19.5	29.0	25.5	27.0	24.5	23.5	24.0	23.0	19.5	21.0
13	20.5	19.5	20.0	29.0	27.5	28.0	24.5	23.0	23.5	24.5	21.5	22.5
14	20.0	19.5	19.5	27.5	26.0	26.5	24.0	22.5	23.5	25.0	24.5	25.0
15	21.0	20.0	20.5	27.0	26.0	26.5	26.0	22.5	24.0	26.0	24.5	25.0
16	22.0	20.5	21.0	27.5	26.0	27.0	27.5	24.5	26.0	27.0	25.0	25.5
17	22.0	21.5	22.0	27.5	26.0	27.0	27.5	26.5	27.0	26.0	25.0	25.5
18	22.0	19.5	20.5	30.0	26.5	28.0	27.0	24.5	25.5	25.0	23.0	24.0
19	21.0	19.5	20.5	31.5	28.5	29.5	26.0	23.5	24.5	23.0	22.0	22.5
20	22.0	20.5	21.5	31.0	29.0	29.5	27.0	24.5	26.0	23.0	22.0	22.5
21	25.0	22.0	23.0	30.0	27.5	29.0	27.0	25.0	26.0	22.5	20.5	21.0
22	25.0	22.5	23.5	30.0	27.5	28.5	25.5	23.0	24.5	20.5	19.5	20.0
23	22.5	20.5	21.5	28.0	27.5	28.0	27.0	23.5	25.0	19.5	17.5	18.5
24	22.0	20.5	21.0	27.5	26.0	26.5	28.0	26.5	27.0	18.5	16.5	17.5
25	21.0	20.0	20.5	28.0	25.5	26.5	29.5	28.0	28.5	18.5	16.5	17.5
26	22.0	20.5	21.0	31.0	27.0	28.5	29.0	26.0	27.0	18.0	17.0	17.5
27	24.5	21.5	23.0	31.0	29.0	29.5	27.0	25.0	26.0	18.0	16.5	17.0
28	25.5	23.5	24.5	30.0	28.0	29.0	26.0	24.5	25.5	19.0	17.5	18.0
29	26.0	24.5	25.5	30.0	27.0	28.5	26.0	23.0	24.0	19.0	18.0	18.5
30	26.5	25.0	26.0	27.0	26.0	26.5	23.5	21.0	22.0	18.5	17.0	18.0
31	---	---	---	26.5	24.0	25.5	23.5	22.0	22.5	---	---	---
MONTH	26.5	16.5	21.5	31.5	24.0	27.0	29.5	21.0	25.5	28.0	16.5	21.5
YEAR	31.5	.0	15.0									

02074218 DAN RIVER NEAR MAYFIELD, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/28	10 50	0000	9.22	5070	118	6.10	13.0	400.0	8.4	79.0	54.0	6100
81/11/17	11 00	0000	2.86	704	98	7.20	10.0	5.0	11.2	99.0	10.0K	30
81/12/17	12 30	0000	6.62	2880	60	6.70	4.0	70.0	10.9	83.0	25.0	780
82/01/28	13 05	0000	3.65	1040	102	6.70	2.0	20.0	11.5	83.0	10.0K	180
82/02/24	12 30	0000	4.51	1490	79	7.00	10.0	20.0	9.9	88.0	10.0K	20
82/03/16	13 00	0000	4.58	1530	91	6.90	10.0	15.0	10.6	94.0	10.0K	400
82/04/22	12 40	0000	4.42	1440	111	6.90	12.0	10.0	9.6	89.0	10.0	20
82/05/11	11 00	0000	4.53	1480	97	7.20	18.0	15.0	8.7	91.0	10.0K	30
82/06/29	11 55	0000	4.76	1730	161	7.20	25.0	80.0	7.1	85.0	10.0K	350
82/07/28	09 22	0000	3.18	800	169	6.80	28.0	30.0	6.7	85.0	10.0K	70
82/08/23	10 40	0000	2.81	768	151	7.20	24.0	25.0	7.5	88.0	10.0K	200
82/09/21	13 00	0000	2.80	712	101	7.30	20.0	8.0	8.2	89.0	10.0K	100

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/28	10 50	0000	16	523	639	0.14	0.050K	1.300	0.580	0.050K	10K	50K
81/11/17	11 00	0000	34	3	97	0.23	0.130	0.300	0.140	0.090		
81/12/17	12 30	0000	15	75	180	0.12	0.050K	0.400	0.060	0.050K		
82/01/28	13 05	0000	26	7	87	0.35	0.180	0.500	0.120	0.080	10K	50K
82/02/24	12 30	0000	19	16	84	0.31	0.050K	0.400	0.110	0.050K		
82/03/16	13 00	0000	23	12	107	0.29	0.070	0.300	0.120	0.050K		
82/04/22	12 40	0000	25	10	89	0.24	0.050K	0.200	0.130	0.070	10K	50K
82/05/11	11 00	0000	23	19	101	0.20	0.050K	0.300	0.140	0.070		
82/06/29	11 55	0000	30	111	224	0.35	0.050K	0.300	0.230	0.090		
82/07/28	09 22	0000	29	39	154	0.47	0.050K	0.300	0.220	0.170	10K	50K
82/08/23	10 40	0000	31	27	164	0.52	0.050K	0.300	0.190	0.130		
82/09/21	13 00	0000	33	14	96	0.40	0.050K	0.400	0.170	0.100		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/28	10 50	0000	50K	40K	100K	0.5K	100K	50K
82/01/28	13 05	0000	50K	40K	100	0.2K	100K	50K
82/04/22	12 40	0000	50K	40K	100K	0.2K	100K	50K
82/07/28	09 22	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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 records good except those for periods of no gage-height record, Feb. 2 to Mar. 11 and Apr. 20 to June 8 and those below 5 ft³/s (0.14 m³/s), which are fair.

AVERAGE DISCHARGE.--18 years, 44.3 ft³/s (1.255 m³/s), 13.11 in/yr (333 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)
June 11	0430	*1380	39.1	*34.34	10.47	Aug. 11	2400	945	26.8	33.50	10.21

No flow Oct. 16-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	11	5.1	346	89	100	24	14	14	21	24	3.8
2	.36	8.7	6.7	129	60	72	23	12	50	15	12	4.2
3	.27	7.9	7.4	162	240	60	22	17	180	10	6.7	5.0
4	.23	7.2	6.6	444	600	45	23	14	300	11	4.2	4.7
5	.23	6.4	7.8	349	210	35	20	11	110	33	3.5	3.3
6	.20	6.2	6.8	92	56	60	21	11	40	17	3.1	3.3
7	.18	6.7	5.7	62	36	180	22	9.4	20	12	3.1	3.3
8	.16	6.7	5.4	47	28	380	19	9.3	35	7.6	6.6	3.3
9	.14	6.4	5.4	37	33	190	25	9.0	70	27	86	2.9
10	.12	6.7	5.1	29	36	94	26	8.4	198	5.0	73	2.9
11	.10	6.4	5.0	25	28	72	22	7.4	984	6.5	248	2.9
12	.08	6.4	4.6	22	25	59	20	6.4	159	12	667	2.8
13	.06	6.2	4.6	21	28	52	20	6.0	83	65	92	2.5
14	.04	5.4	5.1	23	30	47	18	5.6	112	42	44	2.4
15	.02	5.9	56	22	40	42	21	5.3	64	16	28	2.8
16	.00	6.1	174	24	60	40	23	5.0	43	9.0	21	2.8
17	.00	6.2	71	21	150	38	25	6.0	34	6.3	17	3.1
18	.00	6.4	40	18	450	35	27	23	370	4.6	15	3.9
19	.00	6.6	26	25	140	32	25	15	148	3.8	12	4.0
20	.00	6.1	18	35	70	36	21	11	62	2.9	9.4	4.1
21	.00	6.1	16	78	40	69	19	9.5	40	2.8	8.1	4.4
22	.00	6.1	16	124	35	63	17	8.8	29	4.3	7.2	2.8
23	.00	5.0	22	90	30	46	16	8.0	26	3.4	6.4	1.9
24	.00	6.4	30	130	25	39	15	22	21	11	5.9	1.5
25	.00	9.9	181	106	23	35	14	17	18	6.1	5.6	1.4
26	.31	8.2	279	73	21	33	16	15	16	3.5	4.4	2.1
27	235	6.8	108	46	70	29	18	13	14	2.8	3.6	6.4
28	403	6.3	64	44	350	27	20	11	13	35	6.3	3.9
29	53	5.7	43	48	---	25	18	9.5	12	95	4.5	2.8
30	20	5.0	31	49	---	25	16	8.3	11	17	3.1	1.9
31	14	---	51	65	---	24	---	12	---	12	3.0	---
TOTAL	727.82	201.1	1307.3	2786	3003	2084	616	339.9	3276	519.6	1433.7	97.1
MEAN	23.5	6.70	42.2	89.9	107	67.2	20.5	11.0	109	16.8	46.2	3.24
MAX	403	11	279	444	600	380	27	23	984	95	667	6.4
MIN	.00	5.0	4.6	18	21	24	14	5.0	11	2.8	3.0	1.4
CFSM	.51	.15	.92	1.96	2.33	1.46	.45	.24	2.38	.37	1.01	.07
IN.	.59	.16	1.06	2.26	2.43	1.69	.50	.28	2.66	.42	1.16	.08

CAL YR 1981 TOTAL 7165.49 MEAN 19.6 MAX 684 MIN .00 CFSM .43 IN 5.81
WTR YR 1982 TOTAL 16391.52 MEAN 44.9 MAX 984 MIN .00 CFSM .98 IN 13.28

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. Zero flow Oct. 16-25.

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, 26.0°C July 8-11; minimum recorded, 0.5°C Dec. 12.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	11.5	17.0	14.5	25.0	21.5	24.5	22.0	23.5	22.0	21.0	20.5
2	14.5	12.0	18.0	16.5	22.0	21.0	23.5	20.0	23.5	21.5	23.5	20.5
3	15.5	14.5	19.0	16.5	22.0	20.5	23.0	20.5	23.5	22.0	25.0	23.0
4	15.0	13.0	19.0	16.5	21.0	19.5	23.5	21.5	23.5	22.0	24.0	22.0
5	14.5	12.0	19.0	16.5	19.5	19.0	23.0	21.0	23.5	23.0	23.5	20.0
6	13.0	11.0	19.5	16.5	19.0	18.5	22.0	20.0	24.0	23.0	21.0	19.0
7	11.5	9.0	20.5	18.5	18.5	17.0	23.5	21.0	24.0	23.5	20.5	19.0
8	10.0	8.5	20.5	20.0	21.0	18.5	26.0	22.0	24.5	23.5	20.5	19.5
9	10.0	8.0	20.0	18.0	21.0	20.5	26.0	23.5	24.5	23.0	20.5	19.0
10	10.5	8.5	20.0	16.5	21.5	20.5	26.0	24.5	23.0	22.0	20.5	19.0
11	11.0	9.5	19.5	16.5	20.5	20.0	26.0	25.0	22.0	21.5	20.0	19.0
12	13.5	10.5	20.0	17.0	20.0	19.5	25.5	24.0	21.5	21.0	20.5	19.0
13	16.0	13.5	21.0	18.5	19.5	19.5	25.0	23.0	21.0	20.0	20.5	19.5
14	16.0	14.0	22.0	19.5	20.0	19.5	23.0	22.0	21.0	20.0	21.5	20.5
15	18.5	15.0	23.0	20.0	20.0	19.5	23.5	22.0	21.5	20.5	22.0	21.5
16	18.5	15.5	23.5	21.0	22.0	20.0	24.5	23.0	23.0	21.0	23.0	22.0
17	19.0	18.0	23.5	14.5	23.0	21.5	25.0	23.5	23.0	21.5	23.0	22.0
18	19.0	17.0	21.5	19.0	21.5	20.0	25.5	24.0	23.0	21.0	23.0	21.0
19	18.0	15.5	21.5	20.5	20.5	20.0	25.5	23.5	23.0	21.0	21.5	21.0
20	15.0	15.0	22.0	20.0	21.0	20.5	25.5	24.5	23.5	21.5	21.5	21.5
21	15.5	15.0	22.0	20.5	21.5	21.0	25.5	24.0	23.5	22.0	21.5	20.5
22	15.5	13.0	22.0	20.0	21.5	20.5	25.0	23.5	23.5	21.0	20.5	19.5
23	13.5	10.5	23.0	21.0	20.5	19.0	24.5	24.0	23.0	21.0	19.5	17.0
24	14.0	11.0	23.0	21.0	20.5	19.5	24.0	23.5	23.5	21.5	18.0	16.0
25	14.5	13.0	23.0	21.5	20.5	20.0	24.5	23.0	25.5	23.5	16.5	16.0
26	15.5	14.5	23.0	21.5	21.5	19.5	25.0	23.5	25.5	23.0	16.5	16.0
27	18.0	15.5	21.5	21.0	23.0	20.5	25.0	24.0	24.0	22.0	16.5	15.5
28	18.0	16.5	22.0	21.0	23.0	21.5	25.5	24.5	23.5	23.0	17.0	16.0
29	16.5	14.5	22.0	21.0	23.5	22.0	25.5	21.5	23.5	21.0	17.0	16.5
30	16.5	14.0	24.5	21.5	24.5	22.0	22.0	21.5	22.0	20.0	17.0	16.5
31	---	---	25.0	23.0	---	---	22.0	22.0	21.0	20.5	---	---
MONTH	19.0	8.0	25.0	14.5	25.0	17.0	26.0	20.0	25.5	20.0	25.0	15.5
YEAR	26.0	.5										

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 December 1982 (discontinued).

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 except those for period of no gage-height record, July 9 to Aug. 25, which are poor. Recording rain gage at station.

AVERAGE DISCHARGE.--16 years (water years 1965-75, 1978-82), 7.53 ft³/s (0.213 m³/s), 13.69 in/yr (348 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.--October 1981 to December 1982: 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)
Dec. 31, 1981	2230	190	5.38	3.78	1.152	June 10, 1982	2015	574	16.3	5.46	1.664
Jan. 4, 1982	1000	180	5.10	3.72	1.134	June 17, 1982	2115	647	18.3	5.65	1.722
Feb. 3, 1982	1130	306	8.67	4.38	1.335	Aug. 12, 1982	Unknown	*887	25.1	a*6.22	1.896
June 3, 1982	2215	482	13.6	5.10	1.554	Oct. 25, 1982	1030	372	10.5	4.66	1.420
June 8, 1982	2400	175	4.96	3.69	1.125	Dec. 16, 1982	0800	274	7.76	4.23	1.289

a From floodmark in well.

Minimum discharge (water year 1982), 0.19 ft³/s (0.005 m³/s) Oct. 8, 9; minimum gage height, 1.45 ft (0.442 m) Sept. 26.

October to December 1982: Minimum, 1.1 ft³/s (0.031 m³/s) Oct. 3, 7, 8; minimum gage height, 1.46 ft (0.445 m) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	1.5	1.2	36	10	24	4.4	2.7	5.4	8.0	8.0	2.0
2	.48	1.4	1.4	8.9	8.4	18	4.1	2.7	2.4	6.0	5.0	1.9
3	.58	1.4	1.2	33	94	13	4.4	2.7	47	4.0	4.2	2.1
4	.40	1.3	1.6	50	25	10	3.8	2.4	46	5.0	3.4	1.5
5	.43	1.2	1.2	7.7	15	9.6	3.7	2.2	17	10	2.6	1.3
6	.37	1.2	1.0	2.6	11	9.8	4.2	2.1	9.0	8.0	2.2	1.5
7	.28	1.1	.98	2.4	8.9	46	3.6	2.1	5.5	5.0	1.8	1.5
8	.22	1.1	.96	2.6	7.6	22	3.8	2.0	8.6	3.0	2.0	1.4
9	.21	1.1	.94	2.8	8.2	14	5.3	1.9	26	5.0	5.0	1.5
10	.27	1.1	.92	2.5	9.8	11	4.3	1.8	94	2.0	60	1.4
11	.39	1.1	.90	2.4	7.6	9.2	4.0	1.7	59	3.0	50	1.4
12	.42	1.1	.88	2.2	6.8	8.3	3.9	1.7	15	5.0	300	1.3
13	.38	1.1	1.4	2.0	11	7.7	3.6	1.6	12	12	40	1.2
14	.34	1.1	2.4	2.4	9.6	7.0	3.4	1.6	9.2	8.0	20	1.3
15	.36	1.2	17	2.6	8.0	6.8	3.6	1.6	6.4	6.0	10	1.5
16	.41	1.2	14	2.4	18	6.7	3.4	1.6	5.7	4.0	8.0	2.4
17	.36	1.6	7.7	2.2	53	6.5	3.6	2.1	96	3.0	7.0	1.5
18	.34	1.5	6.1	2.0	25	5.6	4.8	1.7	96	2.4	6.0	1.1
19	.38	1.2	5.8	2.4	16	5.7	3.4	1.7	26	2.0	5.0	1.1
20	.40	1.3	4.0	4.0	12	6.8	3.7	1.9	18	1.8	4.0	1.6
21	.41	1.2	3.9	16	10	11	3.8	2.1	16	1.6	3.4	1.6
22	.46	1.2	3.9	10	8.3	8.1	3.4	1.7	15	2.4	3.0	1.7
23	.69	1.2	4.0	9.9	7.3	6.8	3.2	1.6	14	2.0	2.6	1.3
24	1.1	2.4	4.7	11	6.8	6.2	3.2	4.6	12	5.0	2.4	1.1
25	1.5	2.3	33	6.8	6.2	5.9	3.0	2.2	10	3.0	2.2	1.1
26	3.4	1.8	13	5.7	5.7	5.5	4.1	1.8	9.0	2.0	1.9	4.1
27	37	1.6	6.4	4.6	17	5.0	4.2	2.1	8.0	1.9	2.5	3.6
28	8.0	1.4	5.4	4.8	35	4.7	3.7	1.9	7.0	3.0	5.7	2.3
29	3.9	1.2	5.4	5.4	---	4.7	3.2	1.7	6.0	20	2.3	1.6
30	2.6	1.0	5.4	6.9	---	4.7	3.0	1.9	5.6	10	1.9	1.5
31	1.7	---	32	11	---	4.7	---	4.0	---	3.4	2.0	---
TOTAL	68.86	40.1	188.68	265.2	461.2	315.0	113.0	65.4	706.8	157.4	574.1	50.4
MEAN	2.20	1.34	6.09	8.55	16.5	10.2	3.77	2.11	23.6	5.08	18.5	1.68
MAX	37	2.4	33	50	94	46	5.3	4.6	96	20	300	4.1
MIN	.21	1.0	.88	2.0	5.7	4.7	3.0	1.6	2.4	1.6	1.8	1.1
CFSM	.30	.18	.82	1.15	2.21	1.37	.51	.28	3.16	.68	2.48	.23
IN.	.34	.20	.94	1.32	2.30	1.57	.56	.33	3.52	.78	2.86	.25

CAL YR 1981 TOTAL 936.60 MEAN 2.57 MAX 64 MIN .05 CFSM .34 IN 4.66
WTR YR 1982 TOTAL 3005.34 MEAN 8.23 MAX 300 MIN .21 CFSM 1.10 IN 14.96

02077240 DOUBLE CREEK NEAR ROSEVILLE, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	5.5	5.1									
2	1.3	4.8	4.6									
3	1.2	4.0	4.3									
4	1.3	6.8	4.4									
5	1.2	6.7	4.1									
6	1.2	4.9	5.5									
7	1.2	4.4	4.2									
8	1.4	3.9	3.7									
9	1.8	3.7	3.6									
10	1.8	3.6	3.4									
11	1.4	3.3	5.2									
12	1.2	3.5	55									
13	11	4.3	21									
14	15	3.5	13									
15	5.5	6.5	11									
16	2.9	4.6	75									
17	1.8	4.1	24									
18	1.6	3.8	17									
19	1.6	3.7	12									
20	1.5	3.6	9.4									
21	1.6	3.4	7.1									
22	1.3	3.3	6.0									
23	1.2	3.1	5.4									
24	2.0	2.8	5.1									
25	142	2.2	4.8									
26	41	2.2	4.7									
27	19	2.8	4.4									
28	12	3.2	4.4									
29	8.2	7.4	5.1									
30	6.7	5.3	4.5									
31	6.1	---	8.7									
TOTAL	298.4	124.9	345.7									
MEAN	9.63	4.16	11.2									
MAX	142	7.4	75									
MIN	1.2	2.2	3.4									
CFSM	1.29	.56	1.50									
IN.	1.49	.62	1.72									

CAL YR 1982 TOTAL 3477.5 MEAN 9.53 MAX 300 MIN 1.1 CFSM 1.28 IN 17.32

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR McGEHEES MILL, NC

LOCATION.--Lat 36°31'24", long 78°59'48", Person County, Hydrologic Unit 03010104, on 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).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 342.98 ft (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 records fair above 5 ft³/s (0.14 m³/s), and poor below. Flow regulated by Roxboro Steam-Electric Generating Plant afterbay Reservoir (see p. 369).

AVERAGE DISCHARGE.--9 years, 193 ft³/s (5.466 m³/s), 12.98 in/yr (330 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, 3,740 ft³/s (106 m³/s) Aug. 12, gage height, 16.30 ft (4.968 m); minimum, 5.5 ft³/s (0.16 m³/s) Sept. 8, 9, 10, 11, 12, 13, 15; minimum gage height, 2.18 ft (0.664 m) Sept. 13; minimum daily, 5.5 ft³/s (0.16 m³/s) Sept. 9, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	8.6	585	244	892	116	31	34	25	314	29
2	14	25	8.4	860	211	1340	115	31	33	25	142	26
3	15	16	8.4	862	976	1020	116	33	33	25	141	21
4	15	9.5	8.3	1610	2740	752	118	31	34	40	141	17
5	14	9.4	7.9	2100	2190	394	119	32	234	122	140	9.8
6	14	9.4	7.9	1320	1100	135	118	32	698	87	99	10
7	15	9.5	7.9	971	553	182	118	33	628	78	13	10
8	14	9.5	7.8	714	327	857	118	33	1030	75	14	9.3
9	8.1	10	7.9	138	319	1200	116	33	1300	54	15	5.5
10	7.9	9.1	7.9	136	318	872	116	33	742	42	34	5.6
11	7.5	9.1	7.9	134	198	150	115	34	1680	41	27	5.5
12	7.6	9.2	7.9	133	126	146	114	34	2420	41	2030	5.7
13	8.4	9.1	7.9	132	127	145	114	30	880	42	2740	5.8
14	8.6	9.1	9.7	131	128	143	89	22	459	43	1420	6.1
15	10	8.9	18	129	128	145	42	22	285	42	144	6.8
16	12	8.8	37	128	135	279	36	22	199	41	139	10
17	9.4	8.6	10	128	796	281	27	21	157	41	141	9.9
18	9.9	8.4	9.1	127	1560	130	27	21	433	40	143	9.7
19	11	8.5	9.1	127	1390	128	27	26	854	39	139	10
20	11	8.5	20	127	630	127	27	31	830	39	137	9.8
21	11	8.6	61	130	269	127	28	31	285	38	135	9.6
22	11	9.1	95	133	488	234	28	31	71	37	134	9.4
23	11	9.1	110	136	451	327	28	31	70	37	132	9.1
24	11	9.4	115	303	311	242	29	32	70	35	132	9.1
25	11	9.0	320	855	244	121	29	32	61	35	134	8.5
26	12	8.8	893	632	148	121	30	31	42	34	138	9.3
27	134	8.5	962	297	130	120	30	32	42	33	96	8.2
28	60	8.5	654	291	144	119	31	32	35	33	27	8.1
29	15	8.5	422	289	---	118	31	32	24	134	28	7.8
30	15	8.5	354	287	---	117	31	33	25	379	28	7.4
31	14	---	327	285	---	117	---	33	---	434	29	---
TOTAL	530.4	297.6	4530.6	14230	16381	11081	2083	935	13688	2211	9126	309.0
MEAN	17.1	9.92	146	459	585	357	69.4	30.2	456	71.3	294	10.3
MAX	134	25	962	2100	2740	1340	119	34	2420	434	2740	29
MIN	7.5	8.4	7.8	127	126	117	27	21	24	25	13	5.5

CAL YR 1981 TOTAL 9372.1 MEAN 25.7 MAX 962 MIN 3.1
WTR YR 1982 TOTAL 75402.6 MEAN 207 MAX 2740 MIN 5.5

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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to September 1982.
WATER TEMPERATURES: June 1974 to current year.

INSTRUMENTATION.--Temperature recorder since June 1974. Water-quality monitor since October 1981.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams.

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.--
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.--
SPECIFIC CONDUCTANCE: Maximum, 197 micromhos Dec. 6; minimum, 126 micromhos Aug. 12.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 12; minimum, 3.0°C Jan. 17, 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1100	14	180	7.7	20.0	<1	8.8	67	22	16	6.5	9.0
NOV												
24...	1115	10	190	6.4	10.0	3	11.8	58	12	15	5.1	9.7
JAN												
07...	1330	962	182	7.8	9.5	8	13.1	60	18	16	4.9	9.1
FEB												
03...	1500	1560	139	--	--	5	--	58	--	15	4.9	8.6
03...	1600	1660	141	--	--	7	--	58	--	15	4.9	8.5
03...	1900	1840	146	--	--	4	--	58	--	15	4.9	8.1
03...	2200	1970	146	--	--	5	--	58	--	15	4.9	8.0
MAR												
09...	1200	1200	140	7.5	9.5	55	12.6	43	0	11	3.8	7.9
APR												
12...	1505	114	139	7.2	14.0	40	13.6	39	12	9.7	3.6	7.3
JUN												
08...	1500	1400	138	6.4	22.5	2	10.0	42	15	11	3.5	5.4
09...	1315	1410	125	6.7	23.5	--	10.6	--	--	--	--	--
10...	1230	855	138	6.9	23.0	2	9.6	43	16	11	3.8	6.5
JUL												
12...	1500	19	130	6.8	26.0	20	8.4	39	--	10	3.5	6.0
SEP												
30...	0930	7.3	135	6.6	21.5	16	8.8	40	9	10	3.6	5.5

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	22	.5	3.2	55	0	45	1.6	26	8.1	.4	8.6	105
NOV												
24...	25	.6	3.3	56	0	46	30	31	8.1	.4	9.5	121
JAN												
07...	24	.5	3.3	51	0	42	1.3	36	8.5	.4	11	115
FEB												
03...	23	.5	3.3	--	--	--	--	34	7.7	.4	10	108
03...	23	.5	3.2	--	--	--	--	34	8.2	.4	10	106
03...	22	.5	3.3	--	--	--	--	32	7.6	.4	10	106
03...	22	.5	3.2	--	--	--	--	33	7.6	.4	10	108
MAR												
09...	27	.6	2.6	64	0	52	1.6	26	6.9	.2	10	98
APR												
12...	27	.6	2.3	33	0	27	3.1	24	6.2	.3	10	91
JUN												
08...	21	.4	2.3	33	0	27	22	24	6.0	.2	8.4	163
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	23	.5	2.5	33	0	27	6.6	23	6.2	.2	8.7	87
JUL												
12...	24	.5	1.9	--	0	--	--	20	5.6	.2	10	98
SEP												
30...	22	.4	3.0	38	0	31	11	17	5.5	.3	11	116

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, 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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
06...	103	.14	4.0	--	<.010	.04	.03	3.6	.050	.070	.09	1.1
NOV												
24...	106	.16	3.3	--	<.010	.09	--	--	.050	--	--	.50
JAN												
07...	115	.16	299	--	<.010	.14	.16	--	<.010	.020	.03	--
FEB												
03...	101	.15	455	--	--	.20	.20	--	.070	--	--	1.1
03...	101	.14	475	--	--	.29	.17	--	.120	.090	.12	1.4
03...	98	.14	527	--	--	.20	.20	--	.080	.070	.09	1.8
03...	100	.15	574	--	--	.17	.19	--	.070	.100	.13	1.1
MAR												
09...	84	.13	318	.16	.020	.18	.17	--	.060	.020	.03	.29
APR												
12...	78	.12	28.0	.13	.030	.16	.18	--	.100	.060	.08	.44
JUN												
08...	78	.22	616	--	<.010	<.10	<.10	--	.160	.010	.01	.04
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	78	.12	201	--	--	--	--	--	--	--	--	--
JUL												
12...	74	.13	5.0	--	<.010	<.10	<.10	--	.120	.130	.17	.38
SEP												
30...	70	.16	2.3	--	.010	<.10	<.10	--	.090	.090	.12	.51

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, TOT IN BOTTOM MATERIAL (MG/KG AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT												
06...	.34	1.10	.69	.41	1170	1.1	5.0	1170	.44	.010	.03	<.010
NOV												
24...	--	.55	--	--	--	.64	2.8	--	--	<.010	--	.020
JAN												
07...	.39	.38	.00	.41	--	.52	2.3	--	.57	.010	.03	<.010
FEB												
03...	--	1.20	--	--	--	1.4	6.2	--	--	.040	.12	.040
03...	.45	1.50	.96	.54	--	1.8	7.9	--	.71	.060	.18	.020
03...	.44	1.90	1.4	.51	--	2.1	9.3	--	.71	.070	.21	.020
03...	.36	1.20	.74	.46	--	1.4	6.1	--	.65	.030	.09	.010
MAR												
09...	--	.35	--	--	--	.53	2.3	--	--	.030	.09	.020
APR												
12...	--	.54	--	--	--	.70	3.1	--	--	.030	.09	.020
JUN												
08...	--	.20	--	--	--	--	--	--	--	.020	.06	.020
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	--	.50	--	--	--	--	--	--	--	.020	.06	.020
SEP												
30...	.31	.60	.20	.40	--	--	--	--	--	.020	.06	<.010

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 (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)
OCT												
06...	<.010	<.010	--	100	3	1	2	0	1	--	<1	<1
NOV												
24...	<.010	.030	.09	--	3	0	3	--	<1	--	<1	--
JAN												
07...	<.010	<.010	--	--	4	0	4	--	<1	--	<1	--
FEB												
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
09...	.030	<.010	--	--	3	1	2	--	<1	--	<1	--
APR												
12...	.030	.010	.03	--	4	1	3	--	<1	--	1	--
JUN												
08...	<.010	<.010	--	--	6	1	5	--	<1	--	1	--
09...	--	--	--	--	4	0	4	--	1	0	1	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
30...	<.010	<.010	--	--	4	--	--	--	1	--	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	22	.5	3.2	55	0	45	1.6	26	8.1	.4	8.6	105
NOV												
24...	25	.6	3.3	56	0	46	30	31	8.1	.4	9.5	121
JAN												
07...	24	.5	3.3	51	0	42	1.3	36	8.5	.4	11	115
FEB												
03...	23	.5	3.3	--	--	--	--	34	7.7	.4	10	108
03...	23	.5	3.2	--	--	--	--	34	8.2	.4	10	106
03...	22	.5	3.3	--	--	--	--	32	7.6	.4	10	106
03...	22	.5	3.2	--	--	--	--	33	7.6	.4	10	108
MAR												
09...	27	.6	2.6	64	0	52	1.6	26	6.9	.2	10	98
APR												
12...	27	.6	2.3	33	0	27	3.1	24	6.2	.3	10	91
JUN												
08...	21	.4	2.3	33	0	27	22	24	6.0	.2	8.4	163
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	23	.5	2.5	33	0	27	6.6	23	6.2	.2	8.7	87
JUL												
12...	24	.5	1.9	--	0	--	--	20	5.6	.2	10	98
SEP												
30...	22	.4	3.0	38	0	31	11	17	5.5	.3	11	116

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, 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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
06...	103	.14	4.0	--	<.010	.04	.03	3.6	.050	.070	.09	1.1
NOV												
24...	106	.16	3.3	--	<.010	.09	--	--	.050	--	--	.50
JAN												
07...	115	.16	299	--	<.010	.14	.16	--	<.010	.020	.03	--
FEB												
03...	101	.15	455	--	--	.20	.20	--	.070	--	--	1.1
03...	101	.14	475	--	--	.29	.17	--	.120	.090	.12	1.4
03...	98	.14	527	--	--	.20	.20	--	.080	.070	.09	1.8
03...	100	.15	574	--	--	.17	.19	--	.070	.100	.13	1.1
MAR												
09...	84	.13	318	.16	.020	.18	.17	--	.060	.020	.03	.29
APR												
12...	78	.12	28.0	.13	.030	.16	.18	--	.100	.060	.08	.44
JUN												
08...	78	.22	616	--	<.010	<.10	<.10	--	.160	.010	.01	.04
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	78	.12	201	--	--	--	--	--	--	--	--	--
JUL												
12...	74	.13	5.0	--	<.010	<.10	<.10	--	.120	.130	.17	.38
SEP												
30...	70	.16	2.3	--	.010	<.10	<.10	--	.090	.090	.12	.51

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, TOT IN BOTTOM MATERIAL (MG/KG AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT												
06...	.34	1.10	.69	.41	1170	1.1	5.0	1170	.44	.010	.03	<.010
NOV												
24...	--	.55	--	--	--	.64	2.8	--	--	<.010	--	.020
JAN												
07...	.39	.38	.00	.41	--	.52	2.3	--	.57	.010	.03	<.010
FEB												
03...	--	1.20	--	--	--	1.4	6.2	--	--	.040	.12	.040
03...	.45	1.50	.96	.54	--	1.8	7.9	--	.71	.060	.18	.020
03...	.44	1.90	1.4	.51	--	2.1	9.3	--	.71	.070	.21	.020
03...	.36	1.20	.74	.46	--	1.4	6.1	--	.65	.030	.09	.010
MAR												
09...	--	.35	--	--	--	.53	2.3	--	--	.030	.09	.020
APR												
12...	--	.54	--	--	--	.70	3.1	--	--	.030	.09	.020
JUN												
08...	--	.20	--	--	--	--	--	--	--	.020	.06	.020
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	--	.50	--	--	--	--	--	--	--	.020	.06	.020
SEP												
30...	.31	.60	.20	.40	--	--	--	--	--	.020	.06	<.010

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 (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)
OCT												
06...	<.010	<.010	--	100	3	1	2	0	1	--	<1	<1
NOV												
24...	<.010	.030	.09	--	3	0	3	--	<1	--	<1	--
JAN												
07...	<.010	<.010	--	--	4	0	4	--	<1	--	<1	--
FEB												
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
09...	.030	<.010	--	--	3	1	2	--	<1	--	<1	--
APR												
12...	.030	.010	.03	--	4	1	3	--	<1	--	1	--
JUN												
08...	<.010	<.010	--	--	6	1	5	--	<1	--	1	--
09...	--	--	--	--	4	0	4	--	1	0	1	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
30...	<.010	<.010	--	--	4	--	--	--	1	--	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	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, 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...	20	--	<1	2	1	0	2	<10	8	5	3	6
NOV												
24...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
07...	10	8	2	--	2	--	<1	--	13	7	6	--
FEB												
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
08...	10	--	--	--	<1	--	2	--	6	1	5	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
30...	--	--	--	--	--	--	--	--	--	--	--	--

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...	230	210	21	850	2	--	<1	<10	140	120	16
NOV											
24...	--	--	--	--	3	--	<1	--	--	--	--
JAN											
07...	140	110	35	--	3	1	2	--	40	40	2
FEB											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	3	1	2	--	--	--	--
APR											
12...	--	--	--	--	1	0	1	--	--	--	--
JUN											
08...	410	250	160	--	5	--	<1	--	150	90	61
09...	--	--	--	--	3	1	2	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
30...	--	--	--	--	4	--	--	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	120	.1	.0	.2	<.01	4	0	4	1	40
NOV										
24...	--	<.1	--	<.1	--	7	0	7	--	--
JAN										
07...	--	.2	.0	.2	--	1	0	1	--	10
MAR										
09...	--	<.1	--	<.1	--	10	2	8	--	--
APR										
12...	--	.1	.0	.1	--	7	0	7	--	--
JUN										
08...	--	<.1	--	<.1	--	7	0	7	--	10
09...	--	<.1	--	<.1	--	6	0	6	--	--
10...	--	--	--	--	--	6	--	--	--	--
JUL										
12...	--	--	--	--	--	4	--	<1	--	--
SEP										
30...	--	.2	--	--	--	5	--	--	--	--

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, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT									
06...	--	<4	3	6.2	3.0	<.1	1.0	--	.00
NOV									
24...	--	--	--	4.7	.4	--	--	--	--
JAN									
07...	5	5	--	4.9	.4	--	--	--	.00
MAR									
09...	--	--	--	4.8	.4	--	--	--	<.10
APR									
12...	--	--	--	4.0	.7	--	--	--	--
JUN									
08...	--	<4	--	--	--	--	--	--	.03
09...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
JUL									
12...	--	--	--	--	--	--	--	--	.03
SEP									
30...	--	--	--	5.5	.4	--	--	<.01	.04

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

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	OCT 6,81	SEP 30,82
TIME	1100	0930
TOTAL CELLS/ML	3100	14000
DIVERSITY: DIVISION	0.6	0.2
.CLASS	0.6	0.2
..ORDER	0.7	0.6
...FAMILY	0.7	0.6
....GENUS	0.7	0.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)				
.BACILLARIOPHYCEAE				
..BACILLARIALES				
...NITZSCHIACEAE				
....NITZSCHIA	82	3	--	-
..EUPODISCALES				
...COSCINODISCACEAE				
....MELOSIRA	--	-	330	2
..NAVICULALES				
...NAVICULACEAE				
....NAVICULA	210	7	--	-
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS	--	-	*	0
....SELENASTRUM	68	2	*	0
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	--	-	*	0
..ZYGNEMATALES				
...DESMIDIACEAE				
....COSMARIUM	--	-	*	0
CHRYSOPHYTA				
.CHRYSOPHYCEAE				
..OCHROMONADALES				
...OCHROMONADACEAE				
....OCHROMONAS	--	-	*	0
CRYPTOPHYTA (CRYPTOMONADS)				
.CRYPTOPHYCEAE				
..CRYPTOMONADALES				
...CRYPTOMONADACEAE				
....CRYPTOMONAS	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)				
.CYANOPHYCEAE				
..CHROOCOCCALES				
...CHROOCOCCACEAE				
....ANACYSTIS	--	-	13000#	91
..NOSTOCALES				
...NOSTOCACEAE				
....ANABAENA	--	-	690	5
..OSCILLATORIALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	2700#	88	*	0

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

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	181	180	177	178	195	193	194	181	176	178
2	---	---	181	180	176	178	194	191	192	181	180	181
3	---	---	181	180	178	179	194	191	193	182	179	181
4	---	---	181	182	179	180	194	192	193	181	172	179
5	---	---	181	182	179	180	194	192	193	182	180	180
6	---	---	181	187	179	182	197	190	193	183	179	181
7	---	---	181	186	183	185	194	191	193	184	180	181
8	---	---	181	187	181	184	194	190	192	188	181	184
9	---	---	184	190	182	187	194	191	192	185	182	184
10	---	---	184	192	186	189	194	191	192	184	182	183
11	---	---	184	191	186	189	193	191	192	184	181	183
12	---	---	184	190	186	189	194	192	193	185	182	184
13	---	---	183	191	188	189	193	191	192	185	183	184
14	---	---	183	190	188	190	193	190	192	185	183	184
15	175	171	173	190	187	189	192	184	187	185	182	184
16	174	170	173	190	188	189	191	186	189	186	183	184
17	176	173	174	191	187	189	191	188	190	185	182	183
18	176	172	174	195	189	190	190	187	189	185	181	183
19	177	175	176	191	189	190	191	189	190	185	183	184
20	179	175	177	191	188	189	191	188	189	185	184	185
21	179	177	178	191	189	190	189	187	189	186	180	183
22	179	178	179	192	190	191	185	180	183	---	---	175
23	179	177	178	193	190	191	182	173	176	---	---	173
24	181	179	179	196	190	193	182	178	181	---	---	171
25	181	178	179	195	193	195	181	179	180	---	---	168
26	179	172	177	196	194	194	181	180	180	---	---	169
27	177	152	165	196	193	194	182	179	180	---	---	171
28	180	175	177	196	192	194	182	181	181	---	---	171
29	179	176	177	196	193	194	184	181	183	172	170	171
30	180	177	178	195	193	194	185	183	183	172	171	172
31	179	176	177	---	---	---	184	181	183	174	172	173
MONTH	181	152	179	196	176	188	197	173	188	188	170	179

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	174	172	172	155	140	150	141	133	135	139	136	137
2	172	171	172	150	144	146	135	132	134	139	133	136
3	173	163	169	149	143	145	137	133	135	140	134	136
4	168	164	167	148	135	143	135	132	134	138	132	136
5	166	162	164	150	140	144	135	134	135	137	133	136
6	163	163	163	153	142	146	135	133	134	139	131	136
7	164	163	164	148	143	145	135	134	135	139	131	137
8	165	165	165	146	140	144	136	133	134	138	133	135
9	169	160	165	143	135	140	140	133	135	143	136	138
10	171	156	164	141	135	137	139	134	136	139	136	137
11	174	160	167	143	135	139	---	---	133	140	136	137
12	173	160	167	145	135	138	139	134	136	139	130	135
13	172	160	165	140	135	137	141	131	135	140	133	136
14	172	159	166	142	133	137	140	132	135	141	134	137
15	175	162	167	142	135	137	140	132	135	139	132	136
16	172	163	167	138	134	137	138	133	136	139	131	136
17	170	155	162	140	133	136	136	129	133	138	134	137
18	166	156	160	139	133	136	137	131	134	139	135	137
19	164	148	155	137	133	136	137	132	135	139	133	137
20	158	145	152	136	134	135	139	134	136	---	---	137
21	157	148	152	136	133	135	139	133	137	---	---	137
22	157	145	150	136	130	134	141	135	138	---	---	137
23	157	147	151	134	131	133	139	136	137	---	---	137
24	160	147	152	135	131	133	140	133	136	---	---	136
25	156	145	150	136	133	134	139	134	136	---	---	136
26	156	148	152	135	132	133	139	133	136	---	---	137
27	158	149	153	136	130	133	139	134	137	---	---	136
28	156	146	152	135	132	133	140	132	137	---	---	136
29	---	---	---	135	133	134	140	135	137	---	---	136
30	---	---	---	136	133	135	140	135	137	---	---	137
31	---	---	---	136	133	134	---	---	---	---	---	137
MONTH	175	145	161	155	130	138	141	129	135	143	130	136

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	137	133	132	133	131	128	129	131	130	131
2	---	---	137	133	132	133	131	129	130	133	130	131
3	---	---	137	133	131	132	131	130	131	133	131	132
4	---	---	136	134	131	132	131	129	130	136	131	132
5	---	---	132	132	129	131	132	130	131	136	131	134
6	---	---	130	132	130	131	132	129	131	145	132	136
7	---	---	130	131	130	131	133	131	132	143	133	136
8	139	138	138	132	130	131	133	130	132	142	133	137
9	139	138	138	134	130	131	134	129	132	143	137	141
10	141	136	139	135	130	131	133	131	132	138	131	134
11	141	137	139	132	130	131	134	131	132	133	131	132
12	138	135	136	133	129	131	131	126	127	133	131	132
13	135	134	135	135	129	131	128	127	127	135	133	134
14	135	135	135	133	129	130	129	127	128	137	133	135
15	135	134	134	132	129	130	130	129	129	140	134	137
16	135	134	134	131	130	130	130	129	130	142	133	137
17	134	133	134	131	130	131	131	127	130	145	135	140
18	134	133	133	131	130	131	131	128	130	137	133	136
19	132	130	131	131	130	131	130	129	130	136	133	134
20	132	130	130	131	130	130	130	129	130	137	134	135
21	136	131	133	131	130	131	131	130	130	138	135	137
22	133	132	133	131	130	131	130	130	130	138	134	135
23	134	133	133	131	130	131	131	129	130	137	131	133
24	133	132	133	132	130	131	131	129	130	133	131	132
25	133	132	132	132	131	131	131	129	130	135	132	133
26	133	132	133	131	131	131	131	130	130	135	130	133
27	133	132	132	132	131	131	143	129	132	134	132	133
28	133	132	133	133	130	131	137	130	133	136	134	135
29	133	132	133	132	130	131	134	132	133	137	134	136
30	133	128	133	129	128	128	134	132	132	138	136	137
31	---	---	---	128	128	128	132	131	131	---	---	---
MONTH	141	128	134	135	128	131	143	126	130	145	130	135
YEAR	197	126	153									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	21.0	21.5	15.0	14.5	14.5	9.5	9.5	9.5	7.0	6.5	7.0
2	21.5	20.0	21.0	16.0	14.5	15.0	10.5	9.5	10.0	7.0	7.0	7.0
3	20.5	19.5	20.0	16.0	14.5	15.0	10.0	9.5	9.5	7.0	7.0	7.0
4	20.0	19.0	19.5	16.0	14.5	15.0	9.5	9.5	9.5	7.5	7.0	7.5
5	20.0	19.5	19.5	16.0	14.5	15.5	9.5	8.5	9.0	8.5	7.5	8.0
6	20.5	19.5	20.0	16.5	15.0	15.5	9.0	8.0	8.0	9.0	8.5	8.5
7	20.5	19.5	20.0	15.0	14.0	14.5	8.5	7.5	8.0	9.5	9.0	9.5
8	20.5	19.0	20.0	14.5	13.0	13.5	9.5	8.0	8.5	10.5	8.5	9.0
9	19.5	18.5	19.0	14.5	13.0	14.0	8.0	7.0	7.5	8.5	7.5	8.0
10	18.5	18.0	18.0	14.5	14.5	14.5	7.0	6.5	7.0	7.5	6.0	7.0
11	18.5	18.0	18.0	15.5	14.0	14.5	7.0	6.5	6.5	6.0	5.0	5.5
12	19.0	17.0	18.0	14.5	13.0	13.5	7.0	6.0	6.5	5.0	5.0	5.0
13	18.5	16.5	17.5	13.5	12.0	13.0	6.5	5.5	6.0	5.0	5.0	5.0
14	18.5	16.0	17.0	13.0	11.5	12.5	6.5	6.0	6.5	5.0	4.5	4.5
15	18.0	17.0	17.5	13.0	12.0	12.5	6.5	6.5	6.5	4.5	4.0	4.0
16	18.0	16.0	17.0	13.0	11.5	12.5	6.5	5.5	6.0	4.5	4.0	4.5
17	18.0	16.5	17.0	13.5	13.0	13.0	6.5	5.0	6.0	4.0	3.0	3.5
18	17.5	16.0	17.0	13.0	12.5	13.0	6.5	5.0	6.0	4.0	3.0	3.5
19	17.0	15.5	16.5	13.0	11.5	12.5	5.0	4.5	5.0	4.0	4.0	4.0
20	16.5	14.5	15.5	14.0	12.0	13.0	4.5	4.0	4.5	4.0	3.5	4.0
21	16.5	14.5	15.5	14.5	11.0	11.5	5.0	4.5	4.5	4.0	3.5	3.5
22	17.0	14.5	15.5	11.5	10.0	10.5	5.0	4.5	5.0	4.5	4.0	4.5
23	17.0	16.0	16.5	10.5	9.5	10.0	6.0	5.0	5.5	4.5	4.5	4.5
24	16.5	14.5	15.5	10.0	10.0	10.0	6.0	5.5	5.5	4.5	4.5	4.5
25	14.5	14.5	14.5	11.0	9.5	10.0	6.0	5.5	6.0	4.5	4.5	4.5
26	14.5	14.5	14.5	10.5	9.5	10.0	5.5	5.5	5.5	4.5	4.0	4.5
27	15.5	14.5	15.0	11.5	10.0	11.0	6.0	5.5	5.5	4.0	3.5	4.0
28	16.5	14.5	15.0	11.5	10.0	11.0	7.0	6.0	6.5	4.0	3.5	3.5
29	15.0	14.5	14.5	11.0	9.5	10.0	7.5	6.5	7.5	4.5	4.0	4.0
30	14.5	14.5	14.5	10.0	9.5	9.5	7.5	7.0	7.0	4.5	4.0	4.0
31	15.0	14.5	14.5	---	---	---	7.0	7.0	7.0	5.0	4.0	4.5
MONTH	22.0	14.5	17.0	16.5	9.5	12.5	10.5	4.0	7.0	10.5	3.0	5.5

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	15.5	16.0	24.5	24.0	24.5	29.0	27.0	28.5	26.5	25.5	26.0
2	16.5	14.5	15.5	25.0	24.0	24.5	28.0	27.0	27.5	27.0	25.5	26.0
3	15.5	14.0	15.0	26.0	24.5	25.5	28.0	27.0	27.5	26.5	25.5	26.0
4	15.5	15.0	15.5	25.5	25.0	25.5	28.5	27.0	27.5	26.0	24.5	25.5
5	23.5	15.0	18.5	25.0	25.0	25.0	28.5	27.0	28.0	25.0	24.0	24.5
6	24.0	23.5	24.0	25.5	25.0	25.0	29.0	27.0	28.0	25.0	23.5	24.5
7	24.0	23.0	23.5	26.0	25.0	25.5	27.5	26.0	26.5	25.5	24.0	24.5
8	23.0	22.5	22.5	26.0	25.5	25.5	27.5	26.0	27.0	25.0	24.0	24.5
9	23.0	22.5	23.0	26.0	25.0	25.5	28.0	26.5	27.0	25.5	24.0	24.5
10	23.5	21.5	23.0	26.0	25.0	25.5	27.5	26.5	27.0	25.0	24.0	24.5
11	24.0	21.5	22.5	26.0	25.0	25.5	27.0	26.0	26.5	24.5	23.5	24.0
12	24.5	24.0	24.0	27.0	25.0	25.5	30.0	27.5	29.0	25.5	24.0	24.5
13	24.0	23.5	24.0	26.5	25.0	25.5	29.5	29.0	29.0	25.5	24.0	24.5
14	24.5	23.5	24.0	26.5	24.5	25.5	29.5	28.0	28.5	25.5	24.5	25.0
15	25.0	24.0	24.5	26.5	25.5	26.0	28.5	27.5	28.0	26.0	24.5	25.0
16	25.5	24.5	25.0	26.5	25.0	26.0	29.0	27.0	28.0	26.0	24.5	25.0
17	25.0	24.5	25.0	27.0	25.5	26.0	28.5	27.5	28.0	25.5	24.0	25.0
18	25.0	24.5	24.5	27.0	25.5	26.0	28.0	27.5	28.0	25.5	23.5	24.5
19	26.0	25.0	25.5	26.5	25.5	26.0	28.5	27.5	28.0	25.0	24.5	24.5
20	28.0	25.5	25.5	27.0	25.5	26.0	29.0	27.5	28.0	25.0	24.5	24.5
21	26.0	24.5	25.5	26.5	25.0	26.0	29.0	28.0	28.5	24.5	23.5	24.0
22	24.5	24.5	24.5	27.0	25.0	26.0	28.0	28.0	28.0	24.5	23.5	24.0
23	25.5	24.5	24.5	27.0	25.5	26.0	28.5	27.0	28.0	24.0	22.5	23.0
24	24.5	24.5	24.5	26.0	25.5	26.0	28.5	28.0	28.0	23.5	22.0	22.5
25	25.0	24.5	24.5	26.5	25.5	26.0	29.5	28.0	28.5	23.5	22.0	22.5
26	25.0	24.5	25.0	26.5	25.5	26.0	28.5	27.5	28.0	22.5	22.0	22.5
27	25.5	24.5	25.0	26.5	25.5	26.0	28.0	27.0	27.5	23.0	21.5	22.0
28	25.0	24.5	25.0	27.5	26.0	26.5	27.0	26.5	26.5	23.0	21.5	22.0
29	25.0	24.5	25.0	27.5	25.5	26.0	26.0	25.0	25.5	22.5	21.5	22.0
30	25.0	24.5	25.0	29.5	28.0	29.0	26.0	24.5	25.5	23.0	21.5	22.0
31	---	---	---	29.0	28.5	29.0	26.0	25.5	26.0	---	---	---
MONTH	28.0	14.0	23.0	29.5	24.0	26.0	30.0	24.5	27.5	27.0	21.5	24.0
YEAR	30.0	3.0	16.0									

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1100	14	4	.15	--
NOV					
24...	1115	10	2	.05	88
JAN					
07...	1330	962	8	21	--
MAR					
09...	1200	1200	7	23	90
APR					
12...	1505	114	9	2.8	97
JUN					
09...	1315	1410	6	23	89
10...	1230	855	6	14	83
JUL					
12...	1500	19	9	.46	93
SEP					
30...	0930	7.3	6	.12	55

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/11/19	12 40	0000	2.24	9	221	7.30	10.0	2.0	10.1	89.0	33.0	10K
81/12/16	11 35	0000	2.68	35	117	6.74	2.0		10.8	78.0		10K
82/01/21	12 12	0000	3.66	128	165	6.38	0.0		13.5	92.0		10K
82/02/09	13 35	0000	5.04	309	220	7.06	10.0	25.0	10.5	93.0	22.0	10
82/03/24	11 20	0000	5.00	322	140	6.83	11.5		11.3	105.0		10
82/04/19	10 35	0000	2.38	27	136	7.20	13.0		10.2	96.0		10K
82/05/19	10 45	0000	2.28	26	130	6.80	16.0	15.0	8.7	87.0	13.0	10
82/06/28	10 45	0000	3.35	42	133	7.08	24.0		7.3	86.0		10K
82/07/22	10 40	0000	2.91	36	135	6.90	25.0		7.3	87.0		10K
82/08/18	13 10	0000	4.20	143		7.10	27.0	6.0	7.9	98.0	12.0	10
82/09/16	11 00	0000	2.27	7	140	7.10	25.0		7.5	89.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/11/19	12 40	0000	41	6	181	0.09	0.080	0.400	0.050K	0.050K	40	50K
81/12/16	11 35	0000	18	23	163						10K	
82/01/21	12 12	0000	36	26	158							
82/02/09	13 35	0000	34	6	157	0.19	0.050K	0.300	0.050K	0.050K	10K	50K
82/03/24	11 20	0000	25	8	130							
82/04/19	10 35	0000	27	26	130							
82/05/19	10 45	0000	26	13	133	0.21	0.050K	0.700	0.050K	0.050K	10K	50K
82/06/28	10 45	0000	30	11	134							
82/07/22	10 40	0000	34	13	135							
82/08/18	13 10	0000	30	4	105	0.05K	0.070	0.400	0.050K	0.050K	10K	50K
82/09/16	11 00	0000	32	1	139							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/19	12 40	0000	50K	40	100	0.5K	100K	310
82/02/09	13 35	0000	50K	40K	100K	0.2K	100K	50K
82/05/19	10 45	0000	50K	40K	100K	0.2K	100K	50K
82/08/18	13 10	0000	50K	40K	100K	0.3	100K	50K

K Less than noted value.

02077670 MAYO CREEK NEAR BETHEL HILL, NC

LOCATION.--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).

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

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

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

REMARKS.--Records good. Construction of Mayo Steam Electric Generating Plant Dam completed and gates closed Aug. 1, 1980 (see p. 369).

AVERAGE DISCHARGE.--5 years, 40.34 ft³/s (1.141 m³/s), 10.40 in/yr (264 mm/yr).

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 and 1982 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, 120 ft³/s (3.40 m³/s) July 5, gage height, 3.19 ft (0.972 m); no flow many days during year due to regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.26	.00	3.8	.91	1.9	.33	.23	.42	.42	.16	.19
2	.00	.19	.00	.53	.53	1.1	.30	.22	.18	.22	.13	.20
3	.00	.15	.00	3.6	7.3	.75	.33	.18	.12	.22	.14	.24
4	.00	.31	.00	4.6	1.5	.60	.24	.18	.42	.28	.11	.19
5	.00	.20	.00	.92	.73	.53	.20	.16	.73	7.7	.12	.19
6	.00	.11	.00	.54	.60	.77	.46	.14	.39	.49	.11	.19
7	.00	.06	.00	.45	.57	5.0	.76	.07	.19	.31	.10	.19
8	.00	.01	.00	.39	.53	1.5	.73	.07	.96	.25	.24	.20
9	.00	.00	.00	.36	.62	.76	.34	.06	1.1	.25	8.1	.20
10	.00	.00	.00	.30	.50	.60	.12	.06	2.4	.30	1.0	.19
11	.00	.00	.00	.22	.43	.53	.12	.06	1.7	.58	.49	.20
12	.00	.00	.00	.24	.40	.46	.11	.06	.50	.86	.78	.20
13	.00	.00	.00	.30	.75	.43	.15	.05	1.2	.83	.53	.20
14	.00	.00	.06	.34	.59	.38	.09	.06	.64	.56	.45	.20
15	.00	.00	3.7	.35	.50	.37	.08	.05	.33	.50	.47	.19
16	.00	.00	1.1	.35	4.0	.37	.08	1.6	.28	.54	.82	.19
17	.00	.00	.30	.37	5.2	.35	.10	1.1	.74	.50	1.1	.20
18	.00	.00	.16	.34	2.0	.29	.17	.67	.94	.48	.90	.21
19	.00	.00	.09	.63	1.0	.30	.18	.62	.39	.50	.31	.21
20	.00	.00	.05	.85	.74	.75	.24	2.5	.29	.56	.27	.22
21	.00	.00	.04	2.7	.60	.76	.21	.56	.25	.59	.24	.22
22	.00	.00	.17	1.1	.48	.39	.18	.13	.25	.50	.22	.22
23	.00	.00	.23	1.6	.42	.30	.15	1.0	.23	.67	.21	.20
24	.00	.00	.16	1.6	.40	.26	.13	1.9	.21	.88	.22	.20
25	.01	.00	5.9	.83	.37	.22	.13	.35	.21	.65	.22	.20
26	.24	.00	1.0	.56	.33	.19	.22	.16	.21	.15	.18	.40
27	6.1	.00	1.4	.39	2.4	.16	.20	.07	.20	.14	.21	.29
28	.86	.00	1.6	.41	4.9	.12	.15	.27	.20	2.7	.25	.27
29	.58	.00	1.3	.51	---	.12	.13	.34	.22	.59	.25	.27
30	.43	.00	1.1	.56	---	.13	.19	.97	1.0	.19	.19	.29
31	.33	---	5.2	1.1	---	.32	---	.54	---	.17	.19	---
TOTAL	8.55	1.29	23.56	30.84	39.30	20.71	6.82	14.43	16.90	23.58	18.71	6.56
MEAN	.28	.043	.76	.99	1.40	.67	.23	.47	.56	.76	.60	.22
MAX	6.1	.31	5.9	4.6	7.3	5.0	.76	2.5	2.4	7.7	8.1	.40
MIN	.00	.00	.00	.22	.33	.12	.08	.05	.12	.14	.10	.19

CAL YR 1981 TOTAL 73.65 MEAN .20 MAX 6.1 MIN .00
WTR YR 1982 TOTAL 211.25 MEAN .58 MAX 8.1 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).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 712: 1930. WSP 822: 1936. WSP 1032: 1912, 1928(M), 1930(M), 1932-33(M). WSP 1433: 1912-23, 1925-28, 1930, 1932-33, 1935, 1937-39. WSP 1904: 1958, 1960. WDR NC-81-1: Drainage area.

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 records 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. 367); since September 1962 by Leesville Lake, since October 1962 by Lake Gaston (see p. 367); and since September 1963 by Smith Mountain Lake.

AVERAGE DISCHARGE.--70 years (1912-82) 8,065 ft³/s (228.4 m³/s) adjusted for storage, 13.06 in/yr (332 mm/yr). The figures published in the 1981 report were in error; the correct figures are 69 years (water years 1912-81), 8,079 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, 18,300 ft³/s (518 m³/s) June 13, 16, gage height, 8.30 ft (2.530 m); minimum, 1,070 ft³/s (30.3 m³/s) Dec. 12, Mar. 27, gage height, 2.02 ft (0.616 m); minimum daily, 1,130 ft³/s (32.0 m³/s) Dec. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2210	1300	2590	5140	6210	15500	2150	7100	8650	2820	2350	3470
2	1950	1300	4860	5550	8340	15500	2750	6260	8830	2860	2570	6640
3	2550	1240	6780	2150	8090	14000	2260	9740	9010	3530	2360	7130
4	2220	2710	4450	10000	5490	15700	2270	8650	11200	2500	2380	2320
5	2640	1570	1160	17400	11100	15600	6650	11100	9850	9190	9560	2310
6	2350	1780	1160	17800	12200	9070	10600	10600	10500	9160	2280	2350
7	1960	2770	4070	17400	10700	6720	12600	11600	11500	11100	2430	2700
8	2460	3400	2050	17700	13200	13100	5750	6290	13800	13400	2510	2880
9	3150	9210	12000	17800	16300	14000	2300	6320	13900	5010	2390	6240
10	1710	6410	5110	17800	16600	17200	2290	6350	15300	5470	2400	2340
11	1690	1590	4010	17500	14300	12600	2290	6200	18100	2780	2330	2350
12	1700	1210	1130	17900	17200	17500	2330	7530	18100	9850	6590	2320
13	4000	1370	1130	17800	13700	9310	4900	10200	18200	8200	5490	8090
14	3600	1180	1680	17800	4290	12400	3500	6110	18100	8850	3320	4030
15	2560	1180	1380	17800	9380	12500	2310	6030	18100	9480	2450	3610
16	1690	1170	3900	17700	12400	17100	2350	6030	18100	15100	5330	2420
17	1690	2260	2150	6200	13300	13900	2340	8570	18100	10400	8800	2440
18	1710	5510	2910	9310	17600	13700	2320	7330	18200	2350	8400	2450
19	1720	4420	2990	6000	17400	4700	2560	5980	18100	10700	11300	2390
20	2310	2700	1310	14300	15300	4760	2280	6010	18000	9600	9520	2590
21	1690	3240	3510	13200	9380	3480	2270	5990	18000	3490	3660	2410
22	1730	1160	1620	16900	13900	2020	2300	6050	18000	9840	3200	4470
23	1720	3940	1580	11000	14400	2240	2300	6030	18100	4480	8240	2930
24	1730	1260	1380	5770	17200	6750	2300	6020	18200	2860	11300	2670
25	1700	1980	1310	13200	16800	6770	2310	6360	17500	2390	10900	2460
26	2480	1170	1470	12200	11800	2120	4680	5940	13700	8420	4590	2480
27	1700	1330	1260	12600	5830	1530	6200	6010	14300	5140	3270	3930
28	1710	1180	5570	4460	7010	1970	6200	6600	14300	2620	2330	2350
29	4540	3350	7970	4240	---	3660	6240	6400	18200	2380	2350	2690
30	1820	2400	7580	1640	---	1520	7840	6050	14000	2490	2540	2510
31	1700	---	6790	1210	---	1160	---	6050	---	2400	5150	---
TOTAL	68390	75290	106860	367470	339420	288080	119440	221500	457940	198860	152290	99970
MEAN	2206	2510	3447	11850	12120	9293	3981	7145	15260	6415	4913	3332
MAX	4540	9210	12000	17900	17600	17500	12600	11600	18200	15100	11300	8090
MIN	1690	1160	1130	1210	4290	1160	2150	5940	8650	2350	2280	2310
(†)	+800	-734	+2550	-947	+3158	+1750	+1408	-469	-1650	-584	-731	-1677

CAL YR 1981 TOTAL 1129550 MEAN 3095 MAX 15600 MIN 1130 MEAN‡ 3314 CFSM‡ 0.40 IN‡ 5.43
WTR YR 1982 TOTAL 2495510 MEAN 6837 MAX 18200 MIN 1130 MEAN‡ 7060 CFSM‡ 0.84 IN‡ 11.40

† Change in contents, equivalent in cubic feet per second, in Leesville and Smith Mountain Lakes, furnished by Appalachain 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.--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, 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, 148 micromhos Dec. 4; minimum daily, 91 micromhos Mar. 29.
WATER TEMPERATURES: Maximum daily, 28.5°C Aug. 9, 11, 12; minimum daily, 2.0°C Jan. 28-31.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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)
OCT												
07...	1300	1970	117	7.3	20.5	1.7	8.2	K6	K14	30	0	6.8
NOV												
18...	1330	8360	125	7.1	12.5	2.6	10.2	K1	K3	29	0	6.9
JAN												
12...	1230	17800	110	7.1	3.0	7.1	13.6	--	K7	31	0	7.1
MAR												
01...	1200	17100	95	7.0	5.0	31	12.6	K130	60	26	2	6.2
MAY												
03...	1030	13800	95	7.1	16.0	14	9.8	8	44	27	6	6.5
JUL												
07...	1030	10000	109	6.6	23.0	10	5.8	K2	K130	29	1	7.0
SEP												
07...	1300	2310	93	6.4	25.0	1.8	--	--	--	31	1	7.2

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												
07...	3.2	12	44	1.0	2.2	43	0	35	3.3	6.1	9.6	.2
NOV												
18...	2.9	9.7	40	.9	2.1	46	0	38	5.0	8.3	11	.1
JAN												
12...	3.1	13	46	1.1	2.3	44	0	36	4.8	10	12	.1
MAR												
01...	2.5	7.7	37	.7	2.3	29	0	24	3.9	9.5	7.3	<.1
MAY												
03...	2.7	6.5	32	.6	2.1	26	0	21	3.6	11	6.9	<.1
JUL												
07...	2.8	6.6	32	.6	1.6	34	0	28	14	10	6.7	.1
SEP												
07...	3.1	6.6	30	.6	1.9	36	0	30	23	9.0	6.2	.2

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 1981 TO SEPTEMBER 1982

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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT												
07...	6.6	66	67	.09	351	.01	<.01	.020	<.010	.01	.28	.30
NOV												
18...	6.1	75	70	.10	1690	--	.09	--	<.010	.01	--	.20
JAN												
12...	7.9	79	74	.11	3800	--	.23	--	<.010	.01	--	.41
MAR												
01...	9.2	73	57	.10	3370	--	.32	--	.060	.08	--	.48
MAY												
03...	5.8	66	56	.09	2460	--	.23	--	.090	.12	--	.65
JUL												
07...	8.5	69	60	.09	1860	--	.19	--	.100	.13	--	.40
SEP												
07...	8.1	74	61	.10	462	--	.24	--	.050	.06	--	.20

DATE	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)	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, 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)
OCT												
07...	.00	.31	.31	1.4	.010	.03	.010	--	--	--	--	--
NOV												
18...	--	--	--	--	<.010	--	.010	<.010	--	1	0	1
JAN												
12...	--	--	--	--	.020	.06	<.010	<.010	--	1	--	<1
MAR												
01...	--	--	--	--	.080	.25	.020	.010	.03	--	--	--
MAY												
03...	--	--	--	--	.030	.09	.020	<.010	--	2	1	1
JUL												
07...	--	--	--	--	.030	.09	.020	.010	.03	--	--	--
SEP												
07...	--	--	--	--	.060	.18	.030	<.010	--	1	0	1

DATE	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)	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, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT											
07...	--	--	--	--	--	--	--	--	--	--	--
NOV											
18...	<100	--	24	<1	1	30	10	20	<1	<1	14
JAN											
12...	100	50	53	<1	<1	10	--	<10	<1	<1	8
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	<100	--	28	<1	<1	10	--	<10	1	<1	26
JUL											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP											
07...	<100	--	21	1	<1	10	0	10	1	<1	4

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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											
07...	--	--	--	--	--	--	--	--	--	--	--
NOV											
18...	5	9	160	150	6	2	--	<1	80	80	2
JAN											
12...	3	5	330	260	75	<1	--	<1	40	30	11
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	22	4	250	100	150	3	--	<1	20	20	5
JUL											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP											
07...	2	2	1300	--	<3	9	7	2	80	--	<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)	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, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)
NOV												
18...	<.1	--	<.1	3	2	1	<1	<1	<1	<1	40	--
JAN												
12...	.1	.0	.1	5	0	5	<1	<1	<1	<1	50	30
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
03...	<.1	--	<.1	4	0	4	<1	<1	<1	<1	40	30
SEP												
07...	<.1	--	<.1	4	0	4	<1	<1	<1	<1	<10	--

DATE	ZINC, DIS-SOLVED (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)
NOV												
18...	<4	--	2	--	<1.0	--	<.1	--	.0	--	.6	--
JAN												
12...	21	--	--	--	--	--	--	--	--	--	--	--
MAR												
01...	--	<.10	--	<.10	--	<.01	--	<.10	--	<.01	--	<.01
MAY												
03...	14	<.10	32	<.10	<1.0	<.01	<.1	<.10	<1.0	<.01	2.0	<.01
SEP												
07...	6	--	--	--	--	--	--	--	--	--	--	--

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)
NOV 18...	.8	--	1.1	--	--	<.1	--	<.1	--	<.1	--	--
JAN 12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	--	<.01	--	.01	<.01	--	<.01	--	<.01	--	<.01	<.01
MAY 03...	1.8	<.01	6.7	<.01	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01
SEP 07...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 18...	<.1	--	<.1	--	<.1	--	--	<.1	--	--	--	<.1
JAN 12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 01...	--	<.01	--	<.01	--	<.01	<.01	--	<.01	<.01	<.01	--
MAY 03...	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1	<.01	<.01	<.01	<.1
SEP 07...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)
NOV 18...	--	--	<.10	--	<1.0	--	--	--	--	--
MAR 01...	<.01	<.01	--	<.10	--	<.01	<.01	<.01	<.01	<.01
MAY 03...	<.01	<.10	<1.00	<1	<10	<.01	<.01	<.01	<.01	<.01

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

PHYTOPLANKTON ANALYSES, SEPTEMBER 1981

DATE	SEP 16,81
TIME	1230
TOTAL CELLS/ML	8100
DIVERSITY: DIVISION	1.9
.CLASS	1.9
..ORDER	2.6
...FAMILY	3.1
....GENUS	3.9

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..ACHNANTHALES		
...ACHNANTHACEAE		
....COCCONEIS	110	1
..EUPODISCALES		
...COSCINODISCACEAE		
....CYCLOTELLA	400	5
....MELOSIRA	830	10
..FRAGILARIALES		
...FRAGILARIACEAE		
....FRAGILARIA	140	2
....SYNEDRA	720	9
....TABELLARIA	540	7
..NAVICULALES		
...NAVICULACEAE		
....NAVICULA	*	0
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...CHLOROCOCCACEAE		
....TETRAEDRON	510	6
...COCCOMYXACEAE		
....ELAKATOTHRIX	72	1
...MICRACTINIACEAE		
....GOLENKINIA	110	1
...OOCYSTACEAE		
....ANKISTRODESMUS	430	5
....KIRCHNERIELLA	360	4
...SCENEDESMACEAE		
....CRUCIGENIA	140	2
....GLOEOACTINIUM	140	2
....SCENEDESMUS	430	5
..ZYGNEMATALES		
...DESMIDIACEAE		
....COSMARIUM	140	2
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..NOSTOCALES		
...NOSTOCACEAE		
....CYLINDROSPERMUM	330	4
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....LYNGBYA	1400#	18
....OSCILLATORIA	760	9
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	330	4
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..DINOKONTAE		
...PERIDINIACEAE		
....PERIDINIUM	140	2

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 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	128	121	128	104	92	100	109	100	112	128	98
2	131	124	122	122	104	100	102	114	99	112	118	117
3	125	135	142	121	100	100	100	105	99	102	104	112
4	127	125	148	131	101	96	102	118	100	111	117	113
5	120	126	143	122	101	100	97	115	103	107	112	122
6	120	128	138	123	100	119	103	108	100	107	102	97
7	125	128	143	121	101	123	102	110	102	102	110	117
8	133	126	136	138	102	97	99	109	100	122	102	98
9	118	124	119	125	101	102	98	110	102	117	112	117
10	118	131	119	125	102	94	98	118	103	112	112	102
11	117	126	119	122	100	99	102	121	103	112	120	97
12	124	124	120	124	118	103	100	113	102	107	122	102
13	127	124	120	126	101	100	102	118	102	112	112	100
14	130	126	117	122	102	114	97	120	102	102	102	104
15	115	120	123	122	102	112	104	110	103	112	102	112
16	142	127	138	136	98	115	96	114	102	106	112	122
17	128	127	120	121	96	97	100	114	103	112	112	122
18	129	120	121	120	96	100	99	116	102	107	120	122
19	127	119	119	116	97	98	108	114	106	107	112	122
20	112	123	119	121	97	98	103	114	110	107	114	117
21	127	124	120	118	98	100	102	112	108	112	123	128
22	134	123	121	124	96	98	103	118	110	102	122	112
23	134	125	121	137	96	104	102	115	110	104	102	113
24	128	124	122	137	96	115	97	98	108	112	102	117
25	128	120	121	129	96	102	95	117	106	112	99	113
26	125	125	119	119	97	94	104	109	104	107	117	112
27	117	118	121	124	96	105	100	102	107	102	107	98
28	125	125	119	124	97	100	112	116	107	102	102	112
29	123	117	120	123	---	91	94	110	108	107	125	114
30	123	128	120	123	---	108	106	113	108	100	102	112
31	124	---	120	127	---	93	---	107	---	104	107	---
MEAN	125	125	125	125	100	102	101	112	104	108	111	111

WTR YR 1982 MEAN 113 MAX 148 MIN 91

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

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

WTR YR 1982 MEAN 15.5 MAX 28.5 MIN 2.0

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	1970	2	11	75
NOV					
18...	1330	8360	4	90	81
JAN					
12...	1230	17800	9	433	79
MAR					
01...	1200	17100	12	554	85
MAY					
03...	1030	13800	6	224	100
JUL					
07...	1030	10000	13	351	79
SEP					
07...	1300	2310	5	31	83

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	11 10	0000	2.57	1720	134	7.24	19.0		9.0	96.0		1000
81/11/05	11 00	0000	2.10	1150	132	6.44		4.0	8.7	95.0	21.0	260
81/12/29	10 45	0000	8.08	17400	120	6.69	5.0		12.8	99.0		260
82/01/25	11 15	0000	8.10	17500	108	7.06	0.0		14.1			520
82/02/25	12 51	0000	8.10	17500	94	6.95	8.0	40.0	12.7	106.0	10.0	20
82/03/23	14 40	0000	2.13	1180	104	7.02	10.0		11.1	98.0		20
82/04/26	12 00	0000	4.70	5750	108	6.81	15.0		10.6	104.0		140
82/05/24	13 00	0000	4.70	5750	101	6.94	22.0	4.0	7.3	83.0	10.0K	70
82/06/23	12 00	0000	8.25	18200	106	6.80	22.0		6.5	74.0		10K
82/07/27	12 05	0000	3.09	2460	103	6.83	28.0		6.3	80.0		10
82/08/19	12 30	0000	8.08	17400	110	6.90	25.0	5.0	5.2	62.0	10.0K	110
82/09/03	12 30	0000	6.25	10400	138	6.70	26.0		6.4	78.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	11 10	0000	26	30	92							
81/11/05	11 00	0000	27	5	110	0.22	0.110	0.400	0.050	0.050K	11	50K
81/12/29	10 45	0000	39	25	108						10K	
82/01/25	11 15	0000	22	6	105							
82/02/25	12 51	0000	19	19	102	0.31	0.050K	0.300	0.080	0.050K	10K	50K
82/03/23	14 40	0000	21	23	124							
82/04/26	12 00	0000	22	67	180							
82/05/24	13 00	0000	26	4	71	0.14	0.050K	0.300	0.050K	0.050K	10K	50K
82/06/23	12 00	0000	29	19	83							
82/07/27	12 05	0000	28	1K	75							
82/08/19	12 30	0000	21	4	83	0.05K	0.050K	0.400	0.050K	0.050K	10K	50K
82/09/03	12 30	0000	28	4	85							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/05	11 00	0000	50K	40K	100K	0.5K	100K	50K
82/02/25	12 51	0000	50K	40K	100K	2.4	100K	50K
82/05/24	13 00	0000	50K	40K	100K	0.2K	100K	50K
82/08/19	12 30	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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, June 10 to Sept. 1, which are poor. Town of Oxford had no diversion for municipal water supply during the water year. Occasional intermittent diversion for irrigation.

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

AVERAGE DISCHARGE.--43 years, 154 ft³/s (4.361 m³/s), 12.52 in/yr (318 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.--Peak discharges above base of 2,000 ft³/s (56.6 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)
Jan. 1	1630	2620	74.2	8.18	2.493	June 11	Unknown	*4910	139	*11.14	3.395
Feb. 28	1000	2070	58.6	7.32	2.231	June 18	Unknown	2290	64.9	7.68	2.341
Mar. 8	0600	2670	75.6	8.26	2.518	July 13	Unknown	2100	59.5	7.38	2.249
June 5	0900	2140	60.6	7.43	2.265	Aug. 12	Unknown	2410	68.3	7.87	2.399

Minimum discharge, 1.8 ft³/s (0.051 m³/s) Oct. 7, gage height, 1.26 ft (0.384 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	40	15	2120	290	1150	74	67	394	43	40	12
2	3.5	33	15	914	230	503	71	59	407	41	33	11
3	3.2	28	16	645	955	323	68	57	161	40	28	10
4	3.0	24	17	1450	1470	235	72	56	1530	60	25	9.4
5	2.6	23	16	1080	457	200	66	52	1930	300	22	8.8
6	2.2	25	15	352	304	216	62	41	765	180	19	8.9
7	2.0	21	15	230	224	839	59	38	221	100	17	8.0
8	2.0	19	15	178	167	1980	55	36	123	70	15	7.2
9	2.2	17	14	139	149	519	75	34	210	42	250	6.8
10	2.1	17	13	117	319	295	102	31	500	35	860	6.6
11	2.5	17	13	87	255	224	87	29	3000	32	760	6.3
12	2.9	16	12	81	171	188	73	26	500	400	1700	6.0
13	3.0	15	12	77	370	160	64	24	200	800	880	5.6
14	2.6	15	14	91	506	137	59	23	150	400	300	5.0
15	2.5	14	203	98	273	123	56	22	110	100	170	4.7
16	3.7	14	950	94	218	125	52	21	100	50	100	4.0
17	3.5	14	316	102	896	139	56	27	200	38	80	3.6
18	3.2	14	138	102	1230	131	85	27	1800	32	90	3.6
19	2.8	14	91	140	494	112	88	31	1000	28	60	3.6
20	4.3	13	68	404	342	175	72	40	500	25	45	4.0
21	4.6	13	51	615	255	375	79	44	270	24	36	4.4
22	5.0	12	52	937	195	283	86	69	130	22	31	4.0
23	4.5	11	77	580	150	170	72	640	90	19	27	4.0
24	4.8	12	120	949	130	125	60	1220	74	30	24	4.0
25	6.6	14	571	561	119	110	53	636	58	25	20	3.6
26	9.6	17	1140	343	104	102	68	254	50	23	18	4.4
27	565	18	435	227	338	90	317	125	47	20	15	6.3
28	697	17	280	164	1780	81	180	406	43	18	25	6.0
29	151	16	222	169	---	76	107	168	41	160	16	5.6
30	82	15	161	174	---	74	80	93	40	90	14	5.3
31	54	---	169	180	---	74	---	102	---	50	13	---
TOTAL	1641.2	538	5246	13400	12391	9334	2498	4498	14644	3297	5653	182.7
MEAN	52.9	17.9	169	432	443	301	83.3	145	488	106	182	6.09
MAX	697	40	1140	2120	1780	1980	317	1220	3000	800	1700	12
MIN	2.0	11	12	77	104	74	52	21	40	18	13	3.6
CFSM	.32	.11	1.01	2.59	2.65	1.80	.50	.87	2.92	.64	1.09	.04
IN.	.37	.12	1.17	2.98	2.76	2.08	.56	1.00	3.26	.73	1.26	.04

CAL YR 1981 TOTAL 24750.4 MEAN 67.8 MAX 1280 MIN 2.0 CFSM .41 IN 5.51
WTR YR 1982 TOTAL 73322.9 MEAN 201 MAX 3000 MIN 2.0 CFSM 1.20 IN 16.33

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/20	12 25	0000	1.34	4	96	7.11	15.0		5.8	57.0		10K
81/11/30	14 10	0000	1.62	14	65	6.24	10.0	7.0	12.3	109.0	11.0	20
81/12/07	16 20	0000	1.62	15	91	7.08	10.0		11.5	102.0		20
82/01/26	14 45	0000	3.38	331	69	6.52			13.7			
82/02/18	10 50	0000	5.98	1340	69	6.08	8.0	100.0	12.3	103.0	36.0	460
82/03/09	09 35	0000	4.01	528	55	6.31	5.7		11.2	90.0		370
82/04/08	11 25	0000	2.36	51	95	7.00	9.0		10.6	91.0		10K
82/05/04	09 45	0000	2.40	57	85	6.60	16.0	10.0	7.7	77.0	20.0	20
82/06/14	10 30	0000	3.00	200	67	6.80	19.0		7.3	78.0		110
82/07/19	09 15	0000	1.90	28	78	6.69	26.0		4.6	56.0		90
82/08/24	10 15	0000	1.76	20	82	6.70	25.0	20.0	6.0	72.0	21.0	40
82/09/13	08 50	0000	1.40	6	85	6.50	20.0		6.3	69.0		270

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/20	12 25	0000	35	1	90							
81/11/30	14 10	0000	28	11	96	0.13	0.050K	0.200	0.050K	0.050K	10K	50K
81/12/07	16 20	0000	41	0	112							
82/01/26	14 45	0000	15	16	90							
82/02/18	10 50	0000	43	67	200	0.14	0.050K	0.400	0.120	0.050K	10K	50K
82/03/09	09 35	0000	10	47	167							
82/04/08	11 25	0000	32	14	96							
82/05/04	09 45	0000	27	8	89	0.49	0.080	0.500	0.070	0.050K	10K	50K
82/06/14	10 30	0000	19	41	147							
82/07/19	09 15	0000	26	35	167							
82/08/24	10 15	0000	24	11	88	0.20	0.050K	0.400	0.060	0.050K	10K	50K
82/09/13	08 50	0000	29	7	86							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/30	14 10	0000	50K	40K	100K	0.5K	100K	50K
82/02/18	10 50	0000	50K	40K	100K	0.2K	100K	50K
82/05/04	09 45	0000	50K	40K	100K	0.2K	100K	50K
82/08/24	10 15	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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

LOCATION.--Lat 36°05'34", long 78°17'48", Franklin County, Hydrologic Unit 03020101, on left bank 0.1 mi (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).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 176.71 ft (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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--9 years, 422 ft³/s (11.95 m³/s), 13.42 in/yr (341 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.--Peak discharges above base of 4,000 ft³/s (113 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	1700	4920	139	18.12	5.523	June 12	1430	*6020	170	*19.57	5.965

Minimum discharge, 9.6 ft³/s (0.27 m³/s) Oct. 9, 10, 11, gage height, 3.69 ft (1.125 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	112	56	1530	503	3560	261	250	423	190	241	73
2	15	93	75	3120	657	2850	250	221	771	164	172	71
3	15	82	76	2230	1130	1010	245	225	558	153	122	70
4	15	74	68	2200	2740	697	252	216	1250	137	103	66
5	17	74	63	2940	3160	567	242	189	3410	144	127	59
6	16	83	59	1950	1140	537	231	170	4740	495	108	55
7	14	86	57	703	713	895	220	159	3430	356	89	52
8	12	77	56	528	542	2660	212	149	706	227	83	51
9	11	65	54	438	456	3620	267	141	500	161	84	50
10	9.6	60	51	354	512	1410	316	132	730	139	299	49
11	10	59	49	235	692	754	301	125	3990	128	574	49
12	11	59	48	244	498	638	261	117	5840	123	1460	49
13	11	57	47	239	563	559	237	112	4480	185	2250	46
14	12	56	53	242	1220	494	224	108	1440	1120	530	43
15	11	56	154	282	876	452	210	102	698	717	249	43
16	12	54	1240	300	608	448	199	97	520	431	184	48
17	12	54	1200	291	774	444	203	113	443	235	151	44
18	12	54	463	333	2190	437	339	130	1340	178	136	41
19	13	53	291	338	2210	390	321	121	3050	145	135	141
20	14	55	195	678	974	456	277	150	2120	135	118	111
21	13	53	137	971	712	740	291	224	638	115	107	82
22	11	49	153	2020	562	864	285	244	448	115	106	91
23	12	47	160	1810	451	607	261	877	377	109	99	77
24	14	52	206	1980	384	467	227	1380	320	148	96	64
25	33	63	345	2100	345	405	205	2230	275	142	86	56
26	70	69	1760	1100	302	370	242	1470	242	108	79	75
27	184	68	1610	739	384	328	539	588	215	97	75	128
28	1220	65	663	549	2170	294	618	1140	198	99	105	110
29	755	61	486	494	---	274	430	1230	189	304	137	76
30	253	57	434	479	---	265	309	499	184	280	94	63
31	150	---	341	472	---	263	---	362	---	178	78	---
TOTAL	2971.6	1947	10650	31889	27468	27755	8475	13271	43525	7258	8277	2033
MEAN	95.9	64.9	344	1029	981	895	283	428	1451	234	267	67.8
MAX	1220	112	1760	3120	3160	3620	618	2230	5840	1120	2250	141
MIN	9.6	47	47	235	302	263	199	97	184	97	75	41
CFSM	.23	.15	.81	2.41	2.30	2.10	.66	1.00	3.40	.55	.63	.16
IN.	.26	.17	.93	2.78	2.39	2.42	.74	1.16	3.79	.63	.72	.18

CAL YR 1981 TOTAL 56435.6 MEAN 155 MAX 1760 MIN 9.6 CFSM .36 IN 4.92
WTR YR 1982 TOTAL 185519.6 MEAN 508 MAX 5840 MIN 9.6 CFSM 1.19 IN 16.16

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/26	13 10	0000	4.58	74	99	7.08	20.0		7.7	84.0		180
81/11/20	10 45	0000	3.37	56	77	7.74	10.0	15.0	9.4	83.0	22.0	80
81/12/14	15 10	0000	4.40	54	84	7.21	5.0		10.1	79.0		70
82/01/26	10 57	0000	9.40	1080	74	7.22	1.0		14.8	104.0		
82/02/23	10 30	0000	6.98	456	94	6.80	7.0	30.0	12.2	100.0	14.0	100
82/03/10	10 00	0000	10.00	1250	68	6.26	7.1		10.6	87.0		350
82/04/15	09 00	0000	5.50	206	95	7.10	14.0		8.9	86.0		20
82/05/10	10 30	0000	4.93	131	99	6.70	17.0	20.0	7.2	74.0	16.0	50
82/06/03	10 05	0000	7.32	573	74	6.86	22.0		6.0	68.0		830
82/07/20	10 45	0000	5.19	146	90	6.88	25.0		6.0	72.0		2100
82/08/10	10 12	0000	5.32	158	130	6.67	25.0	30.0	6.6	79.0	15.0	
82/09/09	08 30	0000	4.36	51	95	6.70	20.0		7.4	81.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/26	13 10	0000	37	15	134							
81/11/20	10 45	0000	43	10	109	0.18	0.050K	0.300	0.090	0.050K	10K	50K
81/12/14	15 10	0000	36	4	77							
82/01/26	10 57	0000	10	37	137							
82/02/23	10 30	0000	26	30	120	0.28	0.050K	0.300	0.080	0.050K	10K	50K
82/03/10	10 00	0000	21	38	155							
82/04/15	09 00	0000	30	31	106							
82/05/10	10 30	0000	32	10	91	0.15	0.050K	0.400	0.090	0.050K	10K	50K
82/06/03	10 05	0000	23	381	467							
82/07/20	10 45	0000	34	46	161							
82/08/10	10 12	0000	27	17	109	0.21	0.050K	0.300	0.080	0.050K	10K	50K
82/09/09	08 30	0000	33	17	109							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/20	10 45	0000	50K	40K	100K	0.5K	100K	460
82/02/23	10 30	0000	50K	40K	100K	0.9	100K	50K
82/05/10	10 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/10	10 12	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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

LOCATION.--Lat 35°53'58", long 77°51'57", Nash County, Hydrologic Unit 03020101, near center of span on downstream side of bridge on Secondary Road 1544, 1.8 mi (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 mi^2 (2,012 km^2).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for period of no gage-height record, June 12-18, which are fair. The city of Rocky Mount diverted an average of 12.0 ft^3/s (0.34 m^3/s) for municipal water supply, most of which was returned as sewage below station. National Weather Service gage height telemeter at station.

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

AVERAGE DISCHARGE.--10 years, 811 ft^3/s (22.97 m^3/s), 14.17 in/yr (360 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s (326 m^3/s) Apr. 30, 1978, gage height, 21.62 ft (6.590 m); minimum, 35 ft^3/s (0.99 m^3/s) Oct. 19, 20, 1981, gage height, 3.17 ft (0.966 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,540 ft^3/s (185 m^3/s) June 15, gage height, 15.46 ft (4.712 m) from floodmark; minimum, 35 ft^3/s (0.99 m^3/s) Oct. 19, 20, gage height, 3.17 ft (0.966 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	168	90	1080	845	2950	517	808	445	1220	522	160
2	84	177	103	1940	872	3760	572	606	287	1030	603	102
3	86	130	104	3140	1430	3680	576	517	886	764	569	112
4	86	86	117	3910	2180	2020	468	470	949	533	291	117
5	81	90	123	3520	3190	1310	426	441	1760	437	148	122
6	67	100	118	3660	3970	1140	453	402	3150	448	253	120
7	66	106	110	2900	2770	1610	403	368	3900	716	327	109
8	68	109	105	1630	1720	2590	389	345	4300	754	301	82
9	70	111	97	1070	1280	3450	494	315	2180	588	286	84
10	70	97	89	834	1070	3930	615	291	985	477	250	86
11	69	86	85	663	1060	2800	680	267	2700	403	295	88
12	70	80	82	476	1160	1490	626	251	4500	239	1180	91
13	71	74	81	479	1360	1190	551	240	5800	102	1920	95
14	71	70	82	552	1520	1020	456	234	6400	250	2430	99
15	70	66	115	515	1950	992	347	228	6800	1400	1270	101
16	71	64	305	573	1660	1130	227	213	2000	1000	541	102
17	70	64	1160	631	1450	1080	349	204	1100	700	380	96
18	67	66	1390	547	1730	1010	408	206	900	500	325	79
19	39	67	782	684	2610	899	540	234	1620	400	297	78
20	41	76	522	861	2690	937	598	239	2790	350	309	79
21	59	70	416	1270	1750	1430	592	261	2600	300	295	82
22	55	68	334	1800	1300	1760	575	383	1200	350	275	90
23	68	68	325	2560	1050	1730	551	495	806	600	301	112
24	72	68	322	2970	878	1310	499	1070	606	506	106	135
25	74	70	461	2830	759	995	429	2060	486	375	131	137
26	71	72	760	2780	699	842	438	2660	495	349	144	147
27	71	80	1790	1910	846	743	571	2240	451	313	153	177
28	71	81	1930	1280	1790	650	1250	1260	409	333	148	221
29	77	87	1130	961	---	587	1450	1610	409	234	156	239
30	84	89	791	841	---	548	1130	1750	1020	232	193	159
31	109	---	701	807	---	533	---	1020	---	574	201	---
TOTAL	2218	2640	14620	49674	45589	50116	17180	21688	61934	16477	14600	3501
MEAN	71.5	88.0	472	1602	1628	1617	573	700	2064	532	471	117
MAX	109	177	1930	3910	3970	3930	1450	2660	6800	1400	2430	239
MIN	39	64	81	476	699	533	227	204	287	102	106	78
CFSM	.09	.11	.61	2.06	2.10	2.08	.74	.90	2.66	.69	.61	.15
IN.	.11	.13	.70	2.38	2.18	2.40	.82	1.04	2.97	.79	.70	.17

CAL YR 1981 TOTAL 88536 MEAN 243 MAX 1930 MIN 39 CFSM .31 IN 4.24
WTR YR 1982 TOTAL 300237 MEAN 823 MAX 6800 MIN 39 CFSM 1.06 IN 14.37

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	09 10 0000		3.49	70	104	6.80	17.0		7.3	75.0	10.0	
81/11/05	09 10 0000		3.70	89	88	6.66	20.0	15.0	8.4	92.0	39.0	20
81/12/14	11 45 0000		3.67	79	56	7.38	5.0		7.1	55.0		10
82/01/11	10 30 0000		5.42	665	60	6.98			13.8			50
82/02/24	10 35 0000		5.97	877	78	6.57	10.0	45.0	11.8	104.0	27.0	110
82/03/15	10 15 0000		6.10	947	64	6.42	11.2		10.5	95.0		60
82/04/13	09 35 0000		5.23	565	87	7.10	13.0		9.6	91.0		10K
82/05/05	09 45 0000		4.95	445	79	6.70	17.0	7.0	8.2	84.0	23.0	10K
82/06/15	09 35 0000		15.20	6350	54	6.59	21.0		8.1	90.0		130
82/07/21	09 25 0000		4.62	359	67	6.96	27.0		6.2	77.0		10
82/08/30	09 30 0000		4.03	188	65	6.80	23.0	15.0	7.0	81.0	29.0	40
82/09/20	11 00 0000		3.49	83	83	6.80	24.0		6.6	77.0		70

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	09 10 0000		28	10	45							
81/11/05	09 10 0000		26	10	103	0.14	0.130	0.700	0.070	0.050K	37	50K
81/12/14	11 45 0000		21	13	100						10K	
82/01/11	10 30 0000		31	21	103							
82/02/24	10 35 0000		16	23	97	0.31		0.400	0.090	0.050K	10K	50K
82/03/15	10 15 0000		12	37	120							
82/04/13	09 35 0000		21	13	93							
82/05/05	09 45 0000		22	14	102	0.17	0.050K	0.500	0.090	0.050K	10K	50K
82/06/15	09 35 0000		14	63	174							
82/07/21	09 25 0000		22	14	122							
82/08/30	09 30 0000		20	7	90	0.05K	0.050K	0.500	0.070	0.050K	10K	50K
82/09/20	11 00 0000		26	8	96							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/05	09 10 0000		50K	40	100K	0.5K	100K	0.5K
82/02/24	10 35 0000		50K	40K	100K	0.2K	100K	50K
82/05/05	09 45 0000		50K	40K	100K	0.2K	100K	50K
82/08/30	09 30 0000		50K	40K	100	0.2K	100K	50K

K Less than noted value.

02082585 TAR RIVER AT NC 97 AT ROCKY MOUNT, NC

LOCATION.--Lat 35°57'15", long 77°47'15", Edgecombe County, Hydrologic Unit 03020101, on left bank 20 ft (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).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 53.88 ft (16.423 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except below 10 ft³/s (0.28 m³/s) which are fair. Some regulation at low flow by mill above station. 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.

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

AVERAGE DISCHARGE.--6 years, 860 ft³/s (24.36 m³/s), 12.63 in/yr (321 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, 9.0 ft³/s (0.25 m³/s) Oct. 19-21, 1981, gage height, 2.98 ft (0.908 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,850 ft³/s (194 m³/s) June 15, gage height, 16.84 ft (5.133 m); minimum, 9.0 ft³/s (0.25 m³/s) Oct. 19-21, gage height, 2.98 ft (0.908 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	199	110	1270	1030	3320	664	971	698	1220	572	205
2	87	224	178	1940	993	4240	657	714	417	1120	640	139
3	75	196	138	3400	1600	4270	709	649	1230	897	670	134
4	48	117	115	4630	2330	2510	601	537	1630	592	432	141
5	139	109	158	4390	3560	1470	542	532	1850	459	129	145
6	22	118	155	4330	4600	1270	564	494	3240	551	243	139
7	77	108	147	3760	3650	1900	517	463	4130	682	340	130
8	44	135	166	1960	2130	3180	499	443	4570	793	317	92
9	103	148	126	1210	1540	3990	638	416	2870	526	326	88
10	20	145	57	959	1250	4460	764	364	1110	467	272	93
11	66	143	100	765	1180	3600	816	329	2610	554	422	98
12	115	116	119	559	1270	1740	754	337	4640	451	1340	100
13	17	77	90	563	1710	1340	699	345	6060	371	1710	101
14	113	130	103	652	1800	1180	542	337	6650	739	2410	105
15	23	74	250	632	2220	1180	511	216	6750	1600	1330	106
16	100	154	406	680	1970	1360	280	289	3440	1500	575	106
17	28	81	1150	753	1750	1320	468	325	1250	994	306	104
18	71	80	1590	650	1920	1210	525	291	976	646	341	87
19	123	78	950	827	2850	1090	613	309	1430	483	250	185
20	9.0	13	632	1040	3150	1330	681	355	2660	367	280	95
21	20	118	463	1420	2040	1960	686	345	2810	323	287	110
22	28	36	380	1950	1440	2230	661	472	1290	391	283	117
23	32	72	334	2860	1190	2200	642	573	845	589	307	133
24	71	131	349	3600	1030	1630	592	960	675	810	115	159
25	175	32	585	3330	889	1210	524	2030	490	434	150	171
26	148	83	831	3340	814	1030	540	2740	523	356	147	241
27	91	110	1680	2280	1070	920	744	2510	476	341	154	243
28	92	80	2020	1430	2130	814	1510	1370	461	311	191	267
29	91	107	1220	1090	---	739	1620	1560	445	331	248	291
30	109	111	850	966	---	698	1270	1910	917	182	213	224
31	73	---	802	920	---	668	---	1170	---	591	237	---
TOTAL	2297.0	3325	16254	58156	53106	60059	20833	24356	67143	19671	15237	4349
MEAN	74.1	111	524	1876	1897	1937	694	786	2238	635	492	145
MAX	175	224	2020	4630	4600	4460	1620	2740	6750	1600	2410	291
MIN	9.0	13	57	559	814	668	280	216	417	182	115	87
CFSM	.08	.12	.57	2.03	2.05	2.09	.75	.85	2.42	.69	.53	.16
IN.	.09	.13	.65	2.34	2.14	2.42	.84	.98	2.70	.79	.61	.17

CAL YR 1981 TOTAL 108648.0 MEAN 298 MAX 2020 MIN 9.0 CFSM .32 IN 4.37
WTR YR 1982 TOTAL 344786.0 MEAN 945 MAX 6750 MIN 9.0 CFSM 1.02 IN 13.87

02082585 TAR RIVER AT NC 97 AT ROCKY MOUNT, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	09 35	0000	3.69	171	81	6.34	17.0		7.1	73.0		210
81/11/05	09 45	0000	3.75	187	50	6.27	20.0	8.0	7.9	86.0	32.0	100
81/12/14	12 25	0000	3.36	86	91	7.17	5.0		7.9	62.0		20
82/01/11	11 10	0000	5.35	782	75	7.18			14.2			130
82/02/24	10 55	0000	5.96	1020	65	7.02	12.1	40.0	10.0	93.0	26.0	70
82/03/15	11 55	0000	6.17	1070	64	6.34	11.0		11.1	100.0		30
82/04/13	10 15	0000	5.06	619	91	7.10	14.0		10.0	96.0		40
82/05/05	10 40	0000	4.73	498	79	6.60	19.0	9.0	8.7	93.0	29.0	160
82/06/15	10 30	0000	16.82	6630	54	6.57	21.0		8.2	91.0		90
82/07/21	10 10	0000	4.36	417	75	6.93	27.0		7.1	88.0		100
82/08/30	10 30	0000	3.74	204	70	6.90	24.0	20.0	7.7	90.0	26.0	380
82/09/20	11 30	0000	3.32	86	84	6.80	24.0		7.5	88.0		1500

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	09 35	0000	13	11	42							
81/11/05	09 45	0000	22	7	103	0.12	0.050K	0.500	0.080	0.050K	18	50K
81/12/14	12 25	0000	22	5	89						10K	
82/01/11	11 10	0000	38	26	132							
82/02/24	10 55	0000	18	22	96	0.38		0.400	0.100	0.050K	10K	50K
82/03/15	11 55	0000	12	45	130							
82/04/13	10 15	0000	22	31	111							
82/05/05	10 40	0000	22	11	86	0.20	0.050	0.400	0.110	0.050K	10K	50K
82/06/15	10 30	0000	16	67	175							
82/07/21	10 10	0000	25	15	132							
82/08/30	10 30	0000	16	18	100	0.37	0.070	0.600	0.120	0.050K	10K	50K
82/09/20	11 30	0000	28	16	102							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/05	09 45	0000	50K	40K	100K	0.5K	100K	50K
82/02/24	10 55	0000	50K	40K	100K	0.3	100K	50K
82/05/05	10 40	0000	50K	40K	100K	0.2K	100K	50K
82/08/30	10 30	0000	50K	40K	100	0.2K	100K	50K

K Less than noted value.

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 mi² (430 km²).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good except those for period of no gage-height record, May 21 to June 14, which are fair. Withdrawals from Sandy Creek tributary for municipal water supply ended Feb. 21, 1978.

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

AVERAGE DISCHARGE.--19 years, 146 ft³/s (4.135 m³/s), 11.94 in/yr (303 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,030 ft³/s (171 m³/s) June 5, 1979, gage height, 14.27 ft (4.349 m); minimum, 0.60 ft³/s (0.017 m³/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, 883 ft³/s (25.0 m³/s) June 14, gage height, 7.35 ft (2.240 m) from floodmark, no peak above base of 1,000 ft³/s (28.3 m³/s); minimum, 4.0 ft³/s (0.11 m³/s) Oct. 13, 14; minimum gage height, 2.06 ft (0.628 m) Oct. 1, 2, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	37	30	367	134	544	109	117	180	101	180	52
2	5.0	28	33	344	132	518	107	104	140	130	79	46
3	5.0	25	40	387	387	430	103	100	110	99	65	44
4	5.0	23	48	583	555	259	100	103	200	82	57	42
5	5.6	21	42	534	517	207	100	97	340	101	48	40
6	6.3	24	37	408	699	264	100	87	580	155	56	37
7	7.4	30	34	293	435	460	93	83	370	159	63	32
8	7.2	33	32	181	261	663	91	81	240	138	64	29
9	6.0	29	31	145	206	556	112	78	150	177	99	27
10	5.6	26	30	129	215	481	131	75	380	141	59	26
11	5.1	24	29	110	199	317	119	71	640	115	56	27
12	5.4	23	28	96	176	233	108	68	400	93	298	27
13	4.8	23	27	90	333	202	98	64	220	112	302	27
14	4.3	23	29	96	364	182	92	64	780	466	130	29
15	5.5	23	58	102	278	178	90	62	368	356	91	24
16	5.6	23	186	110	243	208	88	61	219	297	73	22
17	6.4	27	197	120	303	185	86	59	176	169	96	22
18	6.6	27	170	125	392	169	106	61	159	124	98	25
19	8.4	27	113	143	355	155	141	62	215	103	90	81
20	7.7	27	86	226	338	157	120	66	321	97	66	63
21	8.8	26	76	309	255	252	111	80	227	93	56	86
22	9.7	26	64	401	204	254	114	95	149	78	51	84
23	10	26	67	417	171	201	107	110	132	68	49	70
24	15	27	69	631	152	166	97	200	122	64	45	55
25	18	29	93	462	140	147	90	330	110	67	45	45
26	25	33	189	369	128	138	91	250	101	68	41	49
27	27	39	186	262	213	130	131	170	92	60	38	69
28	43	38	175	181	630	119	261	250	87	52	73	79
29	97	34	122	152	---	113	249	380	84	51	84	63
30	115	32	101	137	---	110	148	300	87	65	88	51
31	62	---	98	132	---	109	---	240	---	65	68	---
TOTAL	548.4	833	2520	8042	8415	8107	3493	3968	7379	3946	2708	1373
MEAN	17.7	27.8	81.3	259	301	262	116	128	246	127	87.4	45.8
MAX	115	39	197	631	699	663	261	380	780	466	302	86
MIN	4.3	21	27	90	128	109	86	59	84	51	38	22
CFSM	.11	.17	.49	1.56	1.81	1.58	.70	.77	1.48	.77	.53	.28
IN.	.12	.19	.56	1.80	1.89	1.82	.78	.89	1.65	.88	.61	.31

CAL YR 1981 TOTAL 18254.8 MEAN 50.0 MAX 200 MIN 1.0 CFSM .30 IN 4.09
WTR YR 1982 TOTAL 51332.4 MEAN 141 MAX 780 MIN 4.3 CFSM .85 IN 11.50

02082770 SWIFT CREEK AT HILLIARDSTON, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/26	13 55	0000	2.31	29	81	6.55	17.0		8.2	84.0		310
81/11/20	11 40	0000	2.26	26	65	7.83	10.0	5.0	10.6	94.0	14.0	90
81/12/14	14 15	0000	2.27	33	63	7.02	5.0		10.2	80.0		160
82/01/25	13 20	0000	4.73	439	73	7.12	2.0		13.4	97.0		230
82/02/24	12 35	0000	2.88	174	78	6.86	10.0	15.0	12.1	107.0	11.0	80
82/03/10	11 00	0000	4.79	485	54	6.47	7.1		11.1	91.0		320
82/04/15	10 50	0000	2.68	100	76	7.10	14.0		9.1	87.0		80
82/05/10	12 25	0000	2.67	77	79	6.70	17.0	5.0	7.5	77.0	14.0	90
82/06/03	11 45	0000	2.80	95	80	6.82	22.0		6.2	70.0		50
82/07/20	12 10	0000	2.64	78	73	6.91	24.0		6.5	76.0		60
82/08/10	13 11	0000	2.48	55	116	5.85	25.0	25.0	8.0	95.0	21.0	
82/09/09	10 10	0000	2.29	39	70	7.10	19.0		7.4	79.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/26	13 55	0000	18	4	92							
81/11/20	11 40	0000	33	1K	93	0.05K	0.050K	0.200	0.050K	0.050K	10K	50
81/12/14	14 15	0000	16	7	68							
82/01/25	13 20	0000	27	32	113							
82/02/24	12 35	0000	20	11	70	0.31		0.300	0.080	0.050K	10K	50
82/03/10	11 00	0000	11	54	159							
82/04/15	10 50	0000	33	8	91							
82/05/10	12 25	0000	26	5	83	0.66	0.050K	0.500	0.060	0.050K	10K	50
82/06/03	11 45	0000	24	20	111							
82/07/20	12 10	0000	26	11	118							
82/08/10	13 11	0000	7	12	92	0.32	0.050K	0.400	0.090	0.050K	10K	50
82/09/09	10 10	0000	26	4	90							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/20	11 40	0000	50K	40K	100K	0.5K	100K	650
82/02/24	12 35	0000	50K	40K	100K	0.2K	100K	50K
82/05/10	12 25	0000	50K	40K	100K	0.2K	100K	50K
82/08/10	13 11	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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 mi² (458 km²).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 116.44 ft (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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--23 years, 161 ft³/s (4.560 m³/s), 12.35 in/yr (314 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s (510 m³/s) Oct. 7, 1972, gage height, 24.80 ft (7.559 m) from floodmarks, from rating curve extended above 3,400 ft³/s (96.3 m³/s) on basis of slope-conveyance study of peak flow; minimum, 0.72 ft³/s (0.020 m³/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.--Peak discharge 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)
July 6	1200	*1340	37.9	*10.19	3.106

Minimum discharge, 1.4 ft³/s (0.040 m³/s) Oct. 2, gage height, 1.29 ft (0.393 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	11	17	460	118	918	117	94	103	58	36	16
2	1.6	8.7	20	448	114	510	110	85	85	65	38	15
3	1.8	7.6	31	264	411	263	106	93	64	49	32	14
4	1.6	7.3	34	459	676	200	108	92	65	40	28	14
5	1.6	7.3	31	529	565	170	102	78	324	217	31	14
6	1.8	9.6	28	304	461	288	99	70	478	1110	26	13
7	1.8	14	25	163	267	547	100	66	185	408	28	10
8	1.7	19	24	137	184	955	92	65	103	154	29	9.5
9	1.6	15	22	106	150	913	111	64	90	89	34	9.1
10	1.7	12	21	86	174	370	140	60	102	73	30	8.9
11	1.7	10	20	69	167	251	118	55	471	154	33	8.4
12	1.8	9.7	20	66	134	220	104	51	299	88	74	8.4
13	2.8	9.3	19	59	339	196	98	49	159	73	69	8.3
14	3.9	9.1	21	74	436	175	95	47	227	304	45	8.1
15	4.6	9.2	50	83	287	165	92	45	162	785	34	7.7
16	5.3	9.3	233	85	217	198	87	42	105	340	31	7.2
17	5.7	9.8	165	99	362	215	86	42	96	161	32	6.8
18	5.7	10	85	101	597	191	145	43	110	118	43	6.9
19	5.2	21	65	98	516	159	164	51	287	76	29	63
20	6.0	15	52	176	305	222	115	51	300	65	25	36
21	6.6	13	40	259	225	524	110	50	137	59	26	41
22	5.0	12	41	437	179	374	111	55	96	54	33	32
23	4.9	11	48	396	145	240	98	60	84	46	29	23
24	5.1	12	52	643	127	192	88	90	78	42	26	19
25	9.8	15	74	517	117	169	83	246	67	50	22	16
26	14	20	257	296	105	156	88	192	59	47	19	20
27	19	22	196	173	176	140	174	103	53	40	17	39
28	20	21	113	133	866	126	201	167	49	35	22	43
29	23	19	85	132	---	118	160	237	46	33	24	31
30	20	17	77	112	---	116	113	186	49	33	20	22
31	15	---	78	111	---	116	---	118	---	32	19	---
TOTAL	201.9	385.9	2044	7075	8420	9397	3415	2747	4533	4898	984	570.3
MEAN	6.51	12.9	65.9	228	301	303	114	88.6	151	158	31.7	19.0
MAX	23	22	257	643	866	955	201	246	478	1110	74	63
MIN	1.6	7.3	17	59	105	116	83	42	46	32	17	6.8
CFSM	.04	.07	.37	1.29	1.70	1.71	.64	.50	.85	.89	.18	.11
IN.	.04	.08	.43	1.49	1.77	1.97	.72	.58	.95	1.03	.21	.12

CAL YR 1981 TOTAL 17162.6 MEAN 47.0 MAX 470 MIN 1.6 CFSM .27 IN 3.61
WTR YR 1982 TOTAL 44671.1 MEAN 122 MAX 1110 MIN 1.6 CFSM .69 IN 9.39

02082950 LITTLE FISHING CREEK NEAR WHITE OAK, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/26	14 35	0000	1.93	14	93	6.52	17.0		6.9	71.0		150
81/11/20	12 10	0000	1.98	15	64	7.23	11.0	5.0	10.1	91.0	12.0	90
81/12/14	13 45	0000	1.94	22	42	6.32	5.0		10.2	80.0		40
82/01/25	12 40	0000	5.96	527	66	6.95	1.0		14.3	104.0		100
82/02/24	12 10	0000	3.24	126	79	7.10	9.0	15.0	10.2	88.0	15.0	40
82/03/10	11 30	0000	4.77	357	60	6.35	8.0		11.0	92.0		150
82/04/15	11 40	0000	2.79	93	72	7.10	14.0		9.2	88.0		10
82/05/10	13 15	0000	2.38	60	84	6.80	17.0	6.0	8.1	83.0	16.0	10
82/06/03	12 20	0000	2.38	63	91	6.88	22.0		6.8	76.0		140
82/07/10	12 20	0000	2.59	71								
82/07/20	12 20	0000	2.53	60	71	6.90	24.0		6.4	75.0		30
82/08/19	08 50	0000	2.03	30	80	6.90	22.0	15.0	6.8	77.0	13.0	110
82/09/09	10 50	0000	1.56	10	82	7.00	19.0		7.0	75.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/26	14 35	0000	22	36	137							
81/11/20	12 10	0000	43	1K	92	0.05K	0.050K	0.200	0.050K	0.050K	10K	50K
81/12/14	13 45	0000	0	4	65							
82/01/25	12 40	0000	18	39	133							
82/02/24	12 10	0000	24	12	70	0.14		0.200	0.050	0.050K	10K	50K
82/03/10	11 30	0000	21	24	125							
82/04/15	11 40	0000	30	10	105							
82/05/10	13 15	0000	30	5	88		0.060	0.800	0.070	0.050K	10K	50K
82/06/03	12 20	0000	29	31	134	0.44	0.090	0.800	0.130	0.050K		
82/07/20	12 20	0000	27	12	122							
82/08/19	08 50	0000	21	7	104	0.16	0.050K	0.300	0.050	0.050K	10K	50K
82/09/09	10 50	0000	33	1	89							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/20	12 10	0000	50K	40K	100K	0.5K	100K	700
82/02/24	12 10	0000	50K	40K	100K	0.2K	100K	50K
82/05/10	13 15	0000	50K	40K	100	0.2K	100K	50K
82/08/19	08 50	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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 mi² (1,362 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to current year. Figures of daily discharge below 250 ft³/s (7.08 m³/s) Oct 1, 1923, to July 3, 1924, below 350 ft³/s (9.91 m³/s) May 30, 1925, to May 31, 1926, below 150 ft³/s (4.25 m³/s) June 1 to Nov. 16, 1926, and below 100 ft³/s (2.83 m³/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 1333: 1928(M), 1932-33, 1935. WDR NC-81-1: Drainage area. See also PERIOD OF RECORD.

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

REMARKS.--Water-discharge records good. Slight diurnal fluctuation and some regulation at low flow caused by mills above station.

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

AVERAGE DISCHARGE.--59 years, 487 ft³/s (13.79 m³/s), 12.57 in/yr (319 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) Dec. 2, 1934, Aug. 18, 1940; maximum gage height, 17.72 ft (5.401 m) Aug. 18, 1940; minimum daily discharge, 6.9 ft³/s (0.20 m³/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 ft³/s (575 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,250 ft³/s (63.7 m³/s) Mar. 9, gage height, 11.48 ft (3.499 m); minimum, 12 ft³/s (0.34 m³/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	96	66	562	365	2130	318	340	467	156	215	103
2	23	71	67	1120	379	2060	312	290	550	188	193	95
3	22	61	71	1070	675	1440	301	273	450	177	153	89
4	20	55	87	1120	1530	818	292	285	400	142	120	82
5	19	52	102	1510	1670	613	288	272	900	164	117	76
6	18	50	91	1360	1780	587	282	240	1400	1120	114	72
7	18	53	82	822	1250	1200	272	219	1100	1350	105	69
8	17	55	76	546	816	2040	264	211	900	614	153	66
9	17	59	71	437	607	2220	288	204	700	321	141	62
10	17	63	67	374	579	1840	364	199	600	225	130	60
11	17	57	64	310	610	1080	378	188	900	215	124	58
12	16	52	62	200	546	710	327	174	1100	265	228	55
13	15	50	60	230	801	603	296	164	1600	194	336	51
14	15	49	60	250	1300	536	280	157	1200	240	235	49
15	15	48	78	219	1140	500	270	152	806	967	164	48
16	14	48	270	242	824	583	261	145	473	1120	135	46
17	14	47	560	261	921	612	253	139	348	496	120	45
18	14	48	429	318	1370	571	272	137	329	350	126	43
19	14	50	286	320	1500	492	409	151	478	244	153	50
20	14	53	219	425	1220	452	383	163	792	194	123	103
21	14	56	163	634	880	774	314	166	593	172	113	134
22	20	56	133	1030	689	992	311	187	370	155	116	142
23	15	53	146	1140	571	728	305	197	281	145	112	128
24	15	52	165	1550	497	547	277	453	251	133	106	101
25	30	54	185	1630	456	467	255	750	227	132	101	87
26	23	57	355	1240	414	429	253	983	201	169	95	88
27	30	68	621	754	444	394	324	868	181	142	88	138
28	37	81	493	484	1720	357	552	748	166	121	102	167
29	46	77	302	392	---	331	611	878	154	111	98	142
30	87	70	271	392	---	319	460	894	148	107	100	118
31	131	---	248	353	---	318	---	674	---	108	117	---
TOTAL	790	1741	5950	21295	25554	26743	9772	10901	18065	10237	4333	2567
MEAN	25.5	58.0	192	687	913	863	326	352	602	330	140	85.6
MAX	131	96	621	1630	1780	2220	611	983	1600	1350	336	167
MIN	14	47	60	200	365	318	253	137	148	107	88	43
CFSM	.05	.11	.37	1.31	1.74	1.64	.62	.67	1.14	.63	.27	.16
IN.	.06	.12	.42	1.51	1.81	1.89	.69	.77	1.28	.72	.31	.18

CAL YR 1981 TOTAL 52963 MEAN 145 MAX 773 MIN 14 CFSM .28 IN 3.75
WTR YR 1982 TOTAL 137948 MEAN 378 MAX 2220 MIN 14 CFSM .72 IN 9.76

02083000 FISHING CREEK NEAR ENFIELD, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACh FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	10 25	0000	0.03	17	91	7.72	18.0		7.8	82.0		30
81/11/05	10 15	0000	0.32	52	83	6.26	20.0	15.0	7.7	84.0	32.0	30
81/12/14	13 15	0000	0.48	59	56	6.51	5.0		9.8	77.0		10K
82/01/25	12 10	0000	9.42	1640	60	6.98			13.7			200
82/02/24	11 35	0000	3.74	495	65	7.05	9.0	20.0	11.2	97.0	17.0	10
82/03/23	10 15	0000	5.31	761	76	6.47	11.8		10.1	94.0		270
82/04/15	12 25	0000	2.31	285	82	7.10	15.0		9.8	97.0		10K
82/05/24	10 40	0000	3.56	483	85	7.05	22.0	30.0	6.4	72.0	20.0	360
82/06/23	10 00	0000	2.54	285	69	6.72	22.0		6.3	71.0		30
82/07/27	10 10	0000	1.23	138	83	7.02	26.0		5.9	72.0		30
82/08/19	10 00	0000	1.41	154	83	6.80	23.0	10.0	6.4	74.0	13.0	730
82/09/09	11 25	0000	0.40	65	85	7.00	21.0		6.7	75.0		50

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	10 25	0000	32	8	47							
81/11/05	10 15	0000	20	7	139	0.05K	0.050K	0.300	0.060	0.050K	10K	50K
81/12/14	13 15	0000	7	1	68							
82/01/25	12 10	0000	41	37	123							
82/02/24	11 35	0000	22	13	73	0.21		0.300	0.060	0.050K	10K	50K
82/03/23	10 15	0000	17	26	113							
82/04/15	12 25	0000	28	12	91							
82/05/24	10 40	0000	31	64	149	0.92	0.260	0.900	0.190	0.050K	10K	50K
82/06/23	10 00	0000	24	22	108							
82/07/27	10 10	0000	36	10	118							
82/08/19	10 00	0000	21	7	106	0.23	0.050K	0.400	0.050	0.050K	10K	50K
82/09/09	11 25	0000	32	4	91							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/05	10 15	0000	50K	40K	100K	0.5K	100K	50K
82/02/24	11 35	0000	50K	40K	100K	0.2K	100K	50K
82/05/24	10 40	0000	50K	40K	100K	0.2K	100K	50K
82/08/19	10 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 10.37 ft (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 records good. Some diurnal fluctuation at low flow caused by mills above station. Town of Tarboro diverted 3.7 ft³/s (0.10 m³/s) for municipal water supply.

AVERAGE DISCHARGE.--55 years, 2,213 ft³/s (62.67 m³/s), 13.77 in/yr (350 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, 7,790 ft³/s (221 m³/s) Mar. 12, gage height, 15.98 ft (4.871 m); minimum, 63 ft³/s (1.78 m³/s) Oct. 22, 23, gage height, 1.10 ft (0.335 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	183	232	1720	2390	4830	1670	2670	2620	1520	1020	592
2	152	307	254	2340	2410	5640	1620	2160	2040	1650	1040	578
3	133	359	308	3420	2480	6550	1570	1820	1640	1510	1120	523
4	145	332	261	4880	3210	7270	1540	1600	2410	1310	1110	474
5	115	261	248	5750	4450	7110	1420	1370	3510	1100	934	440
6	151	243	272	6530	5940	5340	1340	1260	4680	1140	673	413
7	126	230	279	6900	6790	4440	1310	1130	5520	1240	612	388
8	92	222	292	6980	7380	4590	1250	1030	6150	1870	686	368
9	113	221	280	5430	6810	5640	1300	950	6460	1960	657	335
10	111	238	271	3560	5240	6540	1500	881	5660	1600	683	310
11	113	238	210	2520	4030	7330	1600	813	3630	1420	673	304
12	80	248	208	1970	3420	7710	1650	732	3910	1490	2080	302
13	125	228	236	1550	3550	6260	1580	702	4980	1240	3050	295
14	139	206	222	1440	4450	5010	1470	666	5950	1620	3110	290
15	119	225	285	1500	4880	3580	1340	646	6730	1920	3290	286
16	140	186	421	1440	5240	3420	1240	555	7310	2470	2430	284
17	113	229	539	1500	5300	3560	1040	560	7260	2800	1830	281
18	137	199	1400	1480	5180	3400	1150	581	4600	2240	1370	274
19	97	173	1910	1520	5190	3110	1190	539	3180	1690	1180	311
20	143	179	1410	1910	5640	3100	1270	545	3050	1370	940	413
21	137	165	1050	2280	6080	3690	1410	601	3770	1110	834	326
22	86	161	857	3000	5740	4370	1400	672	3900	932	890	366
23	84	166	731	3830	4490	4670	1320	774	2370	935	920	416
24	90	159	644	5230	3450	4650	1300	1260	1800	1750	843	420
25	143	219	712	5960	2890	4070	1230	2410	1520	1850	647	427
26	249	182	1020	6400	2430	3280	1200	3360	1270	1270	574	464
27	249	160	1310	6550	2240	2730	1380	3890	1160	994	522	640
28	184	212	2360	6050	3620	2360	2340	3830	1030	879	588	633
29	178	178	2590	4380	---	2080	3160	3080	1110	788	711	615
30	168	209	1960	3110	---	1880	3190	3080	1310	765	716	613
31	174	---	1510	2620	---	1760	---	3250	---	621	625	---
TOTAL	4220	6518	24282	113750	124920	139970	45980	47417	110530	45054	36358	12381
MEAN	136	217	783	3669	4461	4515	1533	1530	3684	1453	1173	413
MAX	249	359	2590	6980	7380	7710	3190	3890	7310	2800	3290	640
MIN	80	159	208	1440	2240	1760	1040	539	1030	621	522	274
CFSM	.06	.10	.36	1.68	2.04	2.07	.70	.70	1.69	.67	.54	.19
IN.	.07	.11	.41	1.94	2.13	2.39	.78	.81	1.88	.77	.62	.21

CAL YR 1981 TOTAL 224144 MEAN 614 MAX 3250 MIN 80 CFSM .28 IN 3.82
WTR YR 1982 TOTAL 711380 MEAN 1949 MAX 7710 MIN 80 CFSM .89 IN 12.12

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.

INSTRUMENTATION.--Water-quality monitor since October 1981.

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, Jan. 18, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 221 micromhos Oct. 27; minimum, 44 micromhos Apr. 26.
WATER TEMPERATURES: Maximum, 29.5°C July 23, Aug. 8-11; minimum, 0.0°C Jan. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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)
OCT												
07...	1045	127	149	6.7	19.0	2.4	8.4	K36	80	26	0	6.4
NOV												
18...	1045	172	110	6.6	10.0	3.9	9.7	84	K56	25	0	6.1
JAN												
12...	1500	1880	88	6.0	1.5	32	13.2	--	92	22	14	5.4
MAR												
01...	1530	4770	74	6.2	7.0	26	11.5	270	1400	19	9	4.8
MAY												
03...	1400	1790	80	6.5	21.0	9.4	7.7	K52	2200	25	4	6.5
JUL												
07...	1245	1200	90	6.4	25.0	20	6.7	270	490	28	4	7.1
SEP												
14...	0900	393	128	7.0	23.0	4.5	7.0	K44	250	30	4	7.8

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												
07...	2.4	19	58	1.8	3.3	34	0	28	11	13	15	.1
NOV												
18...	2.3	11	45	1.0	3.4	34	0	28	14	10	11	.2
JAN												
12...	2.0	7.7	41	.8	2.2	10	0	8	14	14	7.3	<.1
MAR												
01...	1.7	5.6	36	.6	2.1	12	0	10	12	9.9	6.6	<.1
MAY												
03...	2.1	7.7	38	.7	2.3	25	0	21	12	7.0	7.8	<.1
JUL												
07...	2.5	6.8	33	.6	2.0	29	0	24	17	9.0	6.5	.1
SEP												
14...	2.6	14	48	1.2	2.7	32	0	26	7.4	13	9.7	.3

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

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT												
07...	10	99	89	.13	33.9	.61	.58	.010	<.010	.01	.72	.73
NOV												
18...	11	93	75	.13	43.2	--	.51	--	.020	.03	--	.30
JAN												
12...	14	92	57	.13	467	--	.36	--	.070	.09	--	.68
MAR												
01...	9.5	70	46	.10	902	--	.49	--	.080	.10	--	.53
MAY												
03...	11	86	58	.12	416	--	.41	--	.080	.10	--	.57
JUL												
07...	16	87	63	.12	282	--	.73	--	.100	.13	--	.50
SEP												
14...	14	--	88	--	--	--	.75	--	.050	.06	--	.80

DATE	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)	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												
07...	.03	.70	1.3	5.9	1.3	.280	.86	.250	--	--	--	--
NOV												
18...	--	--	--	--	--	.200	.61	.180	.150	.46	1	0
JAN												
12...	--	--	--	--	--	.090	.28	.050	.030	.09	1	1
MAR												
01...	--	--	--	--	--	.100	.31	.060	.040	.12	--	--
MAY												
03...	--	--	--	--	--	.100	.31	.070	.050	.15	2	1
JUL												
07...	--	--	--	--	--	.200	.61	.120	.110	.34	--	--
SEP												
14...	--	--	--	--	--	.170	.52	.160	.110	.34	2	1

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)	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, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT												
07...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
18...	1	<100	--	24	<1	2	20	10	10	<1	1	45
JAN												
12...	0	100	40	56	<1	2	10	--	<10	<1	<1	13
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
03...	1	<100	--	52	1	<1	10	--	<10	1	<1	34
JUL												
07...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
14...	1	100	60	37	1	<1	10	--	<10	5	<1	3

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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											
07...	--	--	--	--	--	--	--	--	--	--	--
NOV											
18...	41	4	670	280	390	2	1	1	80	20	59
JAN											
12...	3	10	1000	640	360	<1	--	<1	80	20	63
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	30	4	800	0	940	4	3	1	60	5	55
JUL											
07...	--	--	--	--	--	--	--	--	--	--	--
SEP											
14...	1	2	800	200	600	3	0	3	70	20	48

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)
NOV							
18...	<.1	--	<.1	4	2	2	<1
JAN							
12...	.1	.0	.1	4	0	4	<1
MAY							
03...	<.1	--	<.1	4	0	4	<1
SEP							
14...	<.1	--	.1	2	0	2	<1

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV						
18...	<1	<1	<1	40	30	6
JAN						
12...	<1	<1	<1	60	30	30
MAY						
03...	<1	<1	<1	20	--	--
SEP						
14...	<1	<1	<1	30	20	6

02083500 TAR RIVER AT TARBORO, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	112	146	128	138			130	---	---	83
2	---	---	133	137	121	130			126	---	---	78
3	---	---	122	134	111	124			122	---	---	71
4	---	---	122	109	101	103			126	---	---	66
5	---	---	158	107	100	102			128	---	---	63
6	---	---	117	116	107	111			125	67	63	65
7	---	---	155	132	108	119			124	72	64	66
8	---	---	130	133	121	126			122	70	67	68
9	---	---	141	134	124	128			124	82	72	78
10	---	---	119	153	135	142			125	85	80	82
11	---	---	142	---	---	130			133	83	80	81
12	---	---	174	---	---	128			132	92	83	87
13	---	---	138	---	---	132			129	104	92	98
14	---	---	153	---	---	136			130	115	104	109
15	---	---	155	---	---	132			124	126	115	121
16	---	---	152	---	---	140			114	136	126	132
17	---	---	133	---	---	132			106	140	134	137
18	---	---	148	125	114	119			86	154	140	146
19	---	---	158	125	112	119			81	167	154	162
20	---	---	137	111	100	105			86	168	152	162
21	---	---	174	134	105	121			92	151	137	146
22	166	152	158	146	118	135			96	142	132	137
23	171	158	166	140	119	130			100	158	141	149
24	157	134	143	159	141	151			103	157	104	127
25	137	63	107	---	---	132			100	102	96	98
26	216	109	136	---	---	136			93	100	96	98
27	221	149	196	---	---	140			88	102	97	99
28	145	111	121	---	---	132			78	102	64	76
29	119	112	117	---	---	137			76	65	62	63
30	121	113	116	---	---	132			81	65	61	62
31	144	123	135	---	---	---			86	75	65	69
MONTH	221	63	141	159	100	128			109	168	61	99

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	88	77	82	78	74	74	94	91	93	79	65	71
2	94	84	90	94	72	77	94	90	92	90	78	84
3	96	92	94	---	---	62	91	89	90	93	79	86
4	93	91	92	---	---	60	90	88	89	80	78	79
5	92	87	89	---	---	60	87	86	86	86	77	82
6	98	93	95	---	---	64	86	84	85	84	81	83
7	95	89	93	---	---	67	88	83	86	87	80	84
8	89	80	83	---	---	66	85	83	84	91	82	86
9	84	79	81	---	---	63	111	81	89	93	90	91
10	88	84	86	---	---	61	83	80	82	94	91	93
11	93	90	91	---	---	60	78	77	78	93	90	92
12	94	82	86	---	---	59	75	72	74	94	91	92
13	82	77	80	---	---	62	72	70	71	99	94	96
14	77	72	74	---	---	66	72	69	71	103	95	100
15	76	73	75	---	---	70	73	69	71	112	98	105
16	76	72	73	---	---	71	75	69	72	101	95	99
17	79	76	78	---	---	75	74	69	72	116	95	105
18	81	79	80	86	85	86	97	70	80	109	101	106
19	84	80	82	87	86	86	73	68	71	112	100	106
20	82	79	81	92	86	89	68	64	66	114	103	109
21	80	74	77	90	84	87	66	61	64	118	93	111
22	74	71	72	84	79	80	66	60	63	113	87	105
23	72	72	72	79	79	79	62	58	60	110	99	101
24	76	73	75	80	79	79	59	56	58	100	47	87
25	79	76	77	81	80	81	58	54	56	74	62	70
26	80	79	79	84	82	83	83	44	58	79	74	76
27	84	81	82	86	84	85	62	50	54	80	75	78
28	85	77	82	87	86	87	59	45	53	75	71	73
29	---	---	---	88	87	88	75	48	59	72	70	71
30	---	---	---	89	87	88	66	49	57	72	69	71
31	---	---	---	91	89	91	---	---	---	70	68	70
MONTH	98	71	82	94	72	74	111	44	73	118	47	89

02083500 TAR RIVER AT TARBORO, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	72	70	71	94	82	89	118	82	98	97	94	95
2	72	71	72	86	82	84	90	86	88	102	89	96
3	80	72	74	88	84	86	89	86	87	100	97	98
4	83	69	77	88	86	87	89	86	88	100	92	97
5	72	65	69	91	86	88	90	87	89	108	98	105
6	70	68	68	87	80	84	91	87	89	112	107	109
7	71	68	70	93	79	88	104	90	96	111	107	109
8	68	60	64	80	64	72	121	104	111	111	109	110
9	60	59	60	68	61	65	103	99	101	109	104	107
10	69	61	65	76	61	70	100	97	99	107	104	106
11	74	69	71	81	70	75	99	87	96	112	104	108
12	72	67	69	76	74	75	96	68	78	123	113	119
13	67	62	66	79	76	77	70	66	68	127	123	125
14	61	55	58	89	71	78	75	71	72	128	123	126
15	55	54	54	77	72	74	75	73	74	125	122	123
16	57	54	55	77	73	76	74	72	74	128	122	124
17	66	58	62	77	70	73	73	70	71	131	125	128
18	71	67	69	71	69	70	78	71	75	136	127	131
19	76	71	73	76	72	74	85	78	83	141	104	127
20	75	71	73	77	74	76	89	84	85	143	119	132
21	72	70	71	84	77	81	92	89	91	149	111	122
22	73	71	72	94	83	86	92	90	91	115	111	113
23	77	73	75	96	72	88	90	85	87	113	109	111
24	80	77	78	81	74	78	86	83	84	112	110	111
25	81	80	81	76	71	72	89	85	87	114	110	112
26	87	82	85	78	73	76	97	87	92	123	86	107
27	88	86	87	85	78	83	112	98	108	116	105	109
28	91	85	88	92	84	88	108	103	106	103	96	99
29	89	84	87	98	92	94	103	99	100	106	99	102
30	93	86	90	101	98	100	103	96	100	111	106	110
31	---	---	---	105	101	103	102	94	97	---	---	---
MONTH	93	54	72	105	61	81	121	66	89	149	86	112
YEAR	221	44	96									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02083500 TAR RIVER AT TARBORO, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	5.5	6.0	7.0	6.5	7.0	15.5	13.5	14.5	19.5	18.0	18.5
2	6.5	6.5	6.5	7.0	6.5	6.5	16.0	14.5	15.5	20.0	18.5	19.5
3	6.5	6.0	6.5	7.5	6.5	7.0	16.5	15.5	16.0	21.0	19.5	20.5
4	7.0	6.5	7.0	7.5	7.0	7.0	16.5	15.5	16.0	22.0	20.0	21.0
5	7.5	7.0	7.0	9.0	7.5	8.0	16.0	14.5	15.0	21.5	20.0	21.0
6	7.5	7.0	7.5	10.0	9.0	9.5	15.0	13.5	14.5	22.0	20.0	21.0
7	7.5	7.0	7.5	10.0	8.5	9.5	13.5	12.0	13.0	22.5	20.5	21.5
8	7.5	7.0	7.0	8.5	8.0	8.0	12.5	11.5	12.0	22.5	21.0	22.0
9	7.5	7.0	7.0	8.5	7.0	7.5	12.0	10.5	11.5	23.0	20.5	21.5
10	7.5	7.5	7.5	9.0	7.5	8.0	12.5	10.5	11.5	22.0	20.0	21.0
11	7.5	7.0	7.5	10.0	8.5	9.0	13.5	12.0	12.5	22.5	19.0	20.5
12	7.0	6.5	7.0	12.0	10.0	11.0	14.5	12.0	13.0	23.0	19.0	21.0
13	7.0	6.5	7.0	14.0	12.0	13.0	16.0	13.5	14.5	23.0	20.0	22.0
14	6.5	6.0	6.5	15.0	14.0	14.5	17.0	15.0	16.0	25.5	21.5	23.0
15	7.0	6.0	6.5	15.0	13.5	14.5	18.0	16.0	17.0	25.5	22.0	23.5
16	9.0	7.0	7.5	13.0	12.0	12.5	19.0	17.0	18.0	25.0	22.0	23.5
17	9.5	9.0	9.5	13.0	11.5	12.5	20.5	18.5	19.5	26.0	22.5	24.0
18	9.5	8.5	9.5	14.0	13.0	13.5	21.5	19.5	20.5	25.5	23.0	24.0
19	8.5	7.5	8.0	13.5	13.0	13.5	20.5	19.0	20.0	26.0	23.0	24.0
20	8.5	7.5	8.0	13.5	13.0	13.0	19.5	19.0	19.0	26.0	23.0	24.5
21	10.0	8.5	9.0	13.0	12.5	12.5	19.5	18.5	19.0	25.5	23.5	24.5
22	9.5	9.5	9.5	14.0	12.5	13.0	19.5	18.0	19.0	26.0	23.5	24.5
23	9.5	8.5	9.0	14.5	13.5	14.0	18.5	16.5	17.5	27.0	23.5	25.0
24	10.5	8.5	9.5	13.5	13.0	13.5	18.5	16.5	17.5	25.0	22.0	23.5
25	11.5	10.0	10.5	14.0	12.5	13.5	19.5	17.0	18.0	23.5	22.0	22.5
26	10.5	8.5	9.5	15.0	13.5	14.0	20.5	19.0	19.5	23.5	23.0	23.0
27	8.0	7.0	7.5	14.0	12.5	13.5	20.5	19.0	20.0	23.0	22.5	22.5
28	7.0	6.5	6.5	12.5	11.5	12.0	20.5	19.0	19.5	23.0	22.0	22.5
29	---	---	---	12.0	10.0	11.0	19.0	18.0	18.5	23.5	22.5	23.0
30	---	---	---	12.5	10.5	11.5	19.0	17.5	18.0	25.5	23.5	24.0
31	---	---	---	14.0	12.0	13.0	---	---	---	26.0	23.5	24.5
MONTH	11.5	5.5	8.0	15.0	6.5	11.0	21.5	10.5	16.5	27.0	18.0	22.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	24.5	25.0	26.5	24.5	25.5	27.5	25.5	26.5	23.5	22.0	22.5
2	25.5	24.0	25.0	26.0	24.0	25.0	28.0	26.0	27.0	25.0	22.5	23.5
3	25.0	23.5	24.0	25.5	23.0	24.5	27.5	26.5	27.0	27.0	23.5	25.0
4	25.5	23.5	24.5	26.5	24.5	25.5	28.0	26.0	27.0	26.5	24.0	25.5
5	23.5	22.5	23.0	26.0	24.5	25.0	28.0	26.0	27.0	25.0	22.5	23.5
6	23.0	22.5	22.5	24.5	22.0	23.5	28.0	26.0	27.0	25.0	21.5	23.0
7	23.0	22.0	22.5	26.0	23.0	24.0	28.0	26.0	27.5	24.5	21.5	23.0
8	22.0	21.5	21.5	25.0	23.5	24.5	29.5	27.0	28.0	24.5	22.0	23.0
9	21.5	21.0	21.0	26.0	23.5	24.5	29.5	27.0	28.5	24.5	21.5	23.0
10	21.5	21.0	21.0	26.5	25.0	26.0	29.5	27.5	28.5	23.0	21.5	22.0
11	21.5	20.5	21.0	27.0	25.0	26.0	29.5	26.5	28.0	24.0	20.5	22.0
12	21.5	21.0	21.5	27.0	25.5	26.5	26.5	24.0	25.5	26.0	21.5	23.5
13	21.5	21.0	21.5	27.0	26.0	26.5	24.0	23.5	24.0	26.5	22.5	24.5
14	21.0	20.5	21.0	26.0	25.0	25.5	25.5	23.5	24.5	26.5	23.0	24.5
15	21.0	20.5	20.5	25.0	24.0	24.5	25.0	24.0	24.5	26.5	22.5	24.5
16	21.5	20.5	21.0	26.5	23.5	25.5	25.0	23.5	24.0	28.0	23.0	25.0
17	22.0	21.0	21.5	26.0	25.5	26.0	24.5	23.5	24.0	26.5	23.5	25.0
18	22.0	21.5	21.5	26.5	25.0	26.0	24.5	23.0	23.5	27.0	22.5	24.5
19	22.5	21.5	22.0	27.0	26.0	26.5	26.0	23.0	24.5	24.5	22.5	23.5
20	23.0	22.0	22.5	28.0	26.5	27.0	27.0	23.5	25.0	24.0	22.0	23.0
21	23.5	22.5	23.0	28.5	26.5	27.5	26.0	24.5	25.0	23.0	21.0	22.0
22	23.5	22.5	23.0	28.5	26.5	27.5	26.0	23.5	24.5	22.0	20.5	21.5
23	23.0	22.0	22.5	29.5	27.0	27.5	25.5	23.5	24.0	22.0	19.5	20.5
24	22.5	22.0	22.0	27.0	25.5	26.5	27.0	23.5	25.0	21.0	18.0	19.5
25	23.0	21.5	22.0	27.0	25.0	26.0	27.5	25.0	26.5	20.5	18.0	19.0
26	23.5	21.5	22.5	27.5	25.0	26.5	27.5	24.0	26.0	19.5	18.5	19.0
27	25.0	22.5	23.5	28.5	26.5	27.5	26.5	23.5	25.5	20.0	18.0	19.0
28	25.5	23.0	24.5	29.0	27.0	28.0	27.0	24.0	25.5	20.5	18.5	19.5
29	26.5	24.5	25.5	28.5	27.0	27.5	25.0	23.0	23.5	20.0	18.5	19.5
30	26.0	24.0	25.0	27.5	26.5	27.0	23.0	21.0	22.0	19.0	18.5	19.0
31	---	---	---	27.0	26.5	26.5	23.0	21.0	22.0	---	---	---
MONTH	26.5	20.5	22.5	29.5	22.0	26.0	29.5	21.0	25.5	28.0	18.0	22.5
YEAR	29.5	.0	16.0									

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1045	127	5	1.7	81
NOV					
18...	1045	172	5	2.3	80
JAN					
12...	1500	1880	24	122	95
MAR					
01...	1530	4770	43	554	61
MAY					
03...	1400	1790	22	106	90
JUL					
07...	1245	1200	31	100	88
SEP					
14...	0900	393	7	7.4	83

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	12 45	0000	1.20	77	154	7.79	20.0	4.0	13.6	148.0	26.0	10
81/11/05	13 25	0000	1.87	217	99	6.27	20.0	4.0	8.6	94.0	36.0	50
81/12/29	13 35	0000	7.59	2600	56	6.81	5.0	20.0	12.1	95.0	27.0	50
82/01/11	14 25	0000	7.42	2540	65	6.74		55.0	13.7		38.0	
82/02/25	10 50	0000	8.17	2910	91	6.38	10.0	20.0	11.1	98.0	45.0	30
82/03/15	13 00	0000	9.15	3480	85	6.12	11.0	30.0	8.6	77.0	24.0	60
82/04/13	13 40	0000	5.33	1580	88	7.00	14.0	15.0	8.3	80.0	31.0	50
82/05/05	12 30	0000	4.85	1370	94	6.50	19.0	8.0	6.9	74.0	42.0	10
82/06/15	11 45	0000	14.44	6720	54	6.30	21.0	25.0	5.9	66.0	44.0	190
82/07/21	11 40	0000	4.15	1130	86	6.90	26.0	15.0	5.9	72.0	30.0	60
82/08/30	11 45	0000	3.29	749	105	6.90	22.0	20.0	6.9	78.0	28.0	120
82/09/20	12 20	0000	2.49	457	149	6.80	24.0	4.0	6.5	76.0	25.0	40

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	12 45	0000	19	5	97	0.69	0.080	0.800	0.350	0.230		
81/11/05	13 25	0000	23	35	127	0.55	0.050K	0.600	0.320	0.120	10K	50K
81/12/29	13 35	0000	27	25	124	0.34	0.120	0.600	0.120	0.050K		
82/01/11	14 25	0000	41	60	131	0.34	0.080	0.600	0.170	0.050K		
82/02/25	10 50	0000	12	15	92	1.40	0.050K	0.400	0.090	0.050K	10K	50K
82/03/15	13 00	0000	13	49	150	0.39	0.050K	0.600	0.100	0.050K		
82/04/13	13 40	0000	24	255	594	0.36	0.070	1.200	0.670	0.050K		
82/05/05	12 30	0000	24	35	134	0.42	0.060	0.600	0.170	0.050K	10K	50K
82/06/15	11 45	0000	12	76	160	0.26	0.070	0.800	0.240	0.060		
82/07/21	11 40	0000	26	20	122	0.46	0.050K	0.600	0.190	0.050		
82/08/30	11 45	0000	20	21	124	0.67	0.060	0.700	0.200	0.080	10K	50K
82/09/20	12 20	0000	27	9	119	0.79	0.060	0.700	0.240	0.160		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/05	13 25	0000	50K	40K	100	0.5K	100K	50K
82/02/25	10 50	0000	50K	40K	100K	0.3	100K	50K
82/05/05	12 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/30	11 45	0000	50K	40K	100K	0.2K	100K	50K

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.--25 years, (1957-82) 82.7 ft³/s (2.342 m³/s), 14.38 in/yr (365 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.--Peak discharges above base of 470 ft³/s (13.3 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. 6	1300	541	15.3	8.63	2.630	June 6	0900	*691	19.6	*10.16	3.097
Mar. 21	1530	482	13.7	7.96	2.426	Aug. 12	1200	518	14.7	8.37	2.551

Minimum discharge, 2.3 ft³/s (0.065 m³/s), gage height, 0.13 ft (0.040 m) Oct. 1, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.8	3.2	34	60	226	71	110	26	23	126	44
2	3.4	3.8	3.8	33	57	177	65	88	24	21	99	46
3	3.4	3.8	3.8	85	95	148	63	73	21	20	60	75
4	3.5	3.8	3.9	208	98	126	62	63	25	19	44	50
5	3.6	3.8	3.6	126	102	115	57	53	561	20	34	37
6	3.5	4.1	3.5	70	481	128	57	47	658	20	27	31
7	3.2	3.8	3.4	54	292	215	51	42	319	18	25	27
8	3.0	3.8	3.4	57	184	224	48	38	161	17	24	24
9	3.0	3.7	3.2	51	154	171	58	35	114	16	22	22
10	3.1	3.8	3.2	42	173	142	68	31	90	24	21	21
11	3.0	3.9	3.0	31	148	126	60	29	80	20	34	20
12	2.9	3.7	3.0	27	127	116	54	27	65	17	436	18
13	2.8	3.6	3.0	27	302	105	50	25	59	61	229	17
14	3.0	3.5	3.6	44	331	96	46	24	149	109	127	16
15	2.8	3.4	8.5	41	208	110	42	22	85	91	88	15
16	2.7	3.4	16	37	183	208	38	21	64	52	179	15
17	2.7	3.4	7.2	41	234	177	37	20	70	112	161	14
18	2.7	3.4	5.7	33	242	145	39	19	76	62	146	13
19	3.0	3.3	5.7	40	204	124	37	19	90	44	105	29
20	3.0	3.2	5.4	65	194	244	35	19	74	34	74	25
21	3.0	3.0	5.2	84	164	430	36	18	58	27	60	39
22	3.0	3.0	5.7	117	141	340	36	18	49	23	123	41
23	3.4	3.0	5.7	111	124	218	34	17	46	37	94	35
24	3.1	3.3	5.4	252	114	169	31	43	40	183	70	28
25	5.4	3.6	11	142	103	143	30	260	37	87	55	24
26	9.3	3.6	27	102	90	126	34	88	34	56	42	53
27	7.4	3.6	20	75	106	108	79	58	31	41	50	236
28	5.4	3.5	16	62	276	94	265	45	27	33	48	147
29	4.7	3.3	15	55	---	85	221	41	27	29	66	96
30	4.4	3.2	13	49	---	79	144	38	25	28	64	72
31	4.0	---	12	47	---	76	---	29	---	26	55	---
TOTAL	114.6	106.1	232.1	2242	4987	4991	1948	1460	3185	1370	2788	1330
MEAN	3.70	3.54	7.49	72.3	178	161	64.9	47.1	106	44.2	89.9	44.3
MAX	9.3	4.1	27	252	481	430	265	260	658	183	436	236
MIN	2.7	3.0	3.0	27	57	76	30	17	21	16	21	13
CFSM	.05	.05	.10	.93	2.28	2.06	.83	.60	1.36	.57	1.15	.57
IN.	.05	.05	.11	1.07	2.38	2.38	.93	.70	1.52	.65	1.33	.63

CAL YR 1981 TOTAL 4299.2 MEAN 11.8 MAX 157 MIN 2.7 CFSM .15 IN 2.05
WTR YR 1982 TOTAL 24753.8 MEAN 67.8 MAX 658 MIN 2.7 CFSM .87 IN 11.79

02084070 GREEN MILL RUN AT ARLINGTON BOULEVARD AT GREENVILLE, NC

LOCATION.--Lat 35°35'28", long 78°22'17", Pitt County, Hydrologic Unit 03020103, on right bank on downstream side of culvert on Arlington Boulevard, 0.1 mi (0.2 km) west of Evans Street, 0.2 mi (0.3 km) east of Seaboard Coast Line Railroad, 1.0 mi (1.6 km) north of U.S. Highway 64 Bypass, and 3.6 mi (5.8 km) upstream from mouth.

DRAINAGE AREA.--9.1 mi² (23.6 km²).

PERIOD OF RECORD.--March 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 35 ft (11 m) from topographic map.

REMARKS.--Records good above 1.0 ft³/s (0.03 m³/s) and fair below. Recording rain gage at station.

EXTREMES FOR PERIOD.--March 1980 to October 1982: Peak discharges 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)
Mar. 6, 1980	2130	166	4.70	6.15	1.875	Aug. 20, 1981	0530	296	8.38	7.31	2.228
Mar. 18, 1980	0830	338	9.57	7.63	2.326	Aug. 22, 1981	1700	260	7.36	7.03	2.143
Mar. 29, 1980	0745	195	5.52	6.45	1.966	Jan. 3, 1982	1630	127	3.60	5.68	1.731
Apr. 14, 1980	2045	136	3.85	5.81	1.771	Apr. 28, 1982	0400	532	15.1	8.91	2.716
June 26, 1980	2315	209	5.92	6.58	2.006	May 22, 1982	Unknown	a184	5.21	6.34	1.932
July 23, 1980	0300	111	3.14	5.44	1.658	June 5, 1982	0530	230	6.51	6.77	2.063
Oct. 25, 1980	0515	144	4.08	5.91	1.801	July 14, 1982	Unknown	a264	7.48	7.06	2.152
June 6, 1981	2230	414	11.7	8.18	2.493	July 23, 1982	1645	114	3.23	5.46	1.664
June 18, 1981	0730	152	4.30	6.00	1.829	Aug. 1, 1982	0245	669	18.9	9.65	2.941
July 4, 1981	0500	101	2.86	5.24	1.597	Aug. 12, 1982	0400	392	11.1	8.05	2.454
Aug. 12, 1981	0300	*864	24.5	*10.56	3.219	Sept 26, 1982	1215	134	3.79	5.78	1.762

a From floodmark.

Minimum discharge, 0.72 ft³/s (0.020 m³/s) Sept. 23, 24, 1980, gage height, 2.38 ft (0.725 m); 0.82 ft³/s (0.023 m³/s) Aug. 1, 2, 3, 1981, gage height, 2.26 ft (0.689 m); 1.2 ft³/s (0.034 m³/s) Oct. 7, 8, 9, 13, 14, 17, 18, 1981, gage height, 2.30 ft (0.701 m).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						10	30	11	3.9	2.0	4.8	1.0
2						9.8	20	9.4	3.6	1.9	5.5	1.0
3						9.4	16	8.4	3.0	2.2	1.3	1.3
4						18	14	7.7	2.8	2.0	1.7	1.6
5						35	12	7.1	2.6	1.9	1.3	1.3
6						115	9.8	6.6	2.6	1.8	1.1	1.0
7						88	9.1	6.2	2.4	1.7	4.6	1.2
8						62	8.8	6.2	2.3	1.6	13	1.5
9						43	8.5	6.1	2.0	1.6	1.6	1.8
10						27	8.0	5.9	2.0	6.2	1.2	1.9
11						19	7.4	5.8	6.3	5.2	1.0	1.4
12						15	7.1	5.7	2.5	2.0	9.0	1.3
13						54	18	5.5	2.1	1.8	2.4	1.2
14						36	66	5.6	2.0	1.6	1.2	1.2
15						19	48	5.3	1.9	1.4	1.0	1.1
16						14	19	5.1	1.8	1.4	.97	1.1
17						12	13	5.1	4.7	1.4	.88	1.3
18						185	11	7.3	2.7	1.3	.96	1.1
19						46	9.5	6.1	1.9	1.3	5.1	1.1
20						27	8.4	14	1.5	1.2	1.6	1.0
21						27	7.6	11	1.5	1.1	1.2	.97
22						18	6.9	5.7	1.4	1.4	1.1	1.5
23						13	6.4	10	1.4	30	1.0	1.0
24						13	5.9	6.0	1.4	1.9	.97	1.5
25						13	5.7	8.1	2.7	1.4	.96	6.5
26						10	5.4	8.9	60	1.1	1.0	3.7
27						9.1	9.8	5.6	41	1.4	1.2	.90
28						9.9	42	5.1	3.6	32	1.2	.78
29						124	16	4.7	2.6	3.1	1.9	2.1
30						73	19	4.4	2.2	1.5	1.4	16
31						76	---	4.3	---	1.2	1.1	---
TOTAL						1230.2	468.3	213.9	172.4	117.6	73.24	60.35
MEAN						39.7	15.6	6.90	5.75	3.79	2.36	2.01
MAX						185	66	14	60	32	13	16
MIN						9.1	5.4	4.3	1.4	1.1	.88	.78
CFSM						4.36	1.71	.76	.63	.42	.26	.22
IN.						5.03	1.91	.87	.70	.48	.30	.25

02084070 GREEN MILL RUN AT ARLINGTON BOULEVARD AT GREENVILLE, NC--Continued

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	26	6.4	4.8	7.6	6.1	6.0	5.5	1.7	3.9	1.6	.90	5.1
2	15	4.7	4.7	6.8	19	6.0	4.6	1.6	22	1.8	.90	4.4
3	19	3.8	4.4	6.1	11	5.9	3.6	1.7	17	7.7	2.2	3.8
4	13	21	3.7	5.6	8.2	6.8	3.3	1.6	11	36	1.6	3.9
5	5.7	21	3.4	5.0	7.3	12	3.8	1.6	9.4	6.3	.98	3.7
6	4.5	8.6	3.5	4.9	6.7	7.4	5.9	1.6	121	3.5	1.2	3.4
7	3.1	6.7	3.5	7.7	6.6	6.8	3.2	2.9	126	2.7	1.2	21
8	2.6	5.7	3.5	5.9	6.8	6.3	3.0	2.6	21	2.1	4.0	9.4
9	2.3	5.1	3.5	5.3	6.1	6.2	3.1	2.4	13	1.8	6.4	12
10	2.1	4.6	14	5.0	5.7	6.0	3.0	22	10	1.7	2.0	5.8
11	2.0	4.1	8.7	4.7	41	5.8	2.8	9.1	6.9	1.6	38	4.8
12	1.7	3.9	5.8	4.4	20	5.7	2.7	3.9	5.5	1.4	367	4.4
13	1.5	3.7	5.2	4.8	12	5.6	2.5	2.8	4.7	1.3	18	4.0
14	1.5	3.3	4.6	4.3	9.2	5.5	2.5	2.4	4.0	1.2	9.9	3.7
15	1.3	4.4	4.3	4.1	7.7	5.2	2.3	1.8	3.3	1.1	7.1	3.5
16	1.3	4.4	5.5	3.8	7.1	6.1	2.2	1.5	2.8	8.9	5.8	3.3
17	1.3	3.5	5.8	3.7	6.9	5.7	2.2	1.4	2.6	4.2	6.7	3.1
18	2.7	8.2	4.3	3.6	6.7	5.1	2.2	1.4	71	2.1	3.8	3.0
19	16	4.2	4.0	3.9	11	5.2	1.9	1.8	17	1.7	45	2.7
20	5.1	3.5	3.4	3.9	15	4.8	2.2	11	12	1.6	180	2.6
21	2.7	17	3.2	13	11	4.7	2.1	9.8	7.1	5.7	37	2.4
22	2.4	8.3	3.5	9.6	8.7	4.9	2.2	3.0	5.7	3.4	143	2.4
23	2.1	6.0	8.0	7.5	8.1	8.6	2.2	1.9	8.1	1.7	78	2.2
24	4.1	6.8	5.5	6.5	7.5	5.5	2.2	1.5	5.5	1.4	29	2.1
25	62	15	4.4	5.9	7.0	4.8	1.9	1.3	3.5	1.4	20	1.9
26	10	8.2	3.6	5.6	6.5	4.6	1.8	1.3	3.2	1.3	15	1.9
27	6.6	7.7	11	5.4	6.1	4.6	1.9	1.3	2.6	1.2	13	1.9
28	5.7	7.2	15	6.2	5.9	4.3	1.8	24	2.1	1.1	12	1.9
29	4.7	6.0	19	5.6	---	4.3	1.7	5.4	1.8	1.4	9.3	1.7
30	14	5.2	12	5.5	---	6.3	1.7	2.4	1.7	.98	7.4	1.7
31	9.0	---	9.3	6.0	---	5.0	---	1.7	---	.98	6.0	---
TOTAL	251.0	218.2	195.1	177.9	280.9	181.7	82.0	130.4	525.4	110.86	1072.38	127.7
MEAN	8.10	7.27	6.29	5.74	10.0	5.86	2.73	4.21	17.5	3.58	34.6	4.26
MAX	62	21	19	13	41	12	5.9	24	126	36	367	21
MIN	1.3	3.3	3.2	3.6	5.7	4.3	1.7	1.3	1.7	.98	.90	1.7
CFSM	.89	.80	.69	.63	1.10	.64	.30	.46	1.92	.39	3.80	.47
IN.	1.03	.89	.80	.73	1.15	.74	.34	.53	2.15	.45	4.38	.52

WTR YR 1981 TOTAL 3353.54 MEAN 9.19 MAX 367 MIN .90 CFSM 1.01 IN 13.71

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.2	2.1	14	14	14	5.8	12	3.2	3.5	298	3.0
2	3.9	2.2	15	7.3	15	12	5.2	9.1	2.7	3.2	35	2.8
3	1.7	2.2	3.3	65	19	10	5.2	7.6	2.4	2.7	21	2.7
4	1.5	2.2	2.5	46	15	8.9	4.5	6.0	30	2.5	14	10
5	1.5	2.3	2.2	19	15	8.4	4.5	5.0	96	3.3	10	2.9
6	1.4	2.9	1.8	14	21	27	5.2	4.4	12	6.0	7.2	2.5
7	1.3	2.2	1.8	13	15	24	4.5	3.8	7.7	3.6	5.5	2.4
8	1.2	2.1	1.8	16	12	19	5.0	3.4	6.1	2.4	5.0	2.4
9	1.3	2.7	1.7	14	13	14	10	2.9	6.8	2.0	4.7	2.3
10	1.3	2.8	1.6	11	16	12	5.4	2.6	5.9	1.8	4.1	2.3
11	1.4	2.5	1.6	7.9	12	11	4.9	2.4	12	2.1	21	2.3
12	1.4	2.4	1.6	7.0	13	9.6	4.6	2.2	5.4	2.3	191	2.2
13	1.3	2.3	1.6	11	52	9.3	4.4	2.0	13	2.1	33	2.0
14	1.3	2.2	7.3	14	23	8.8	4.1	1.9	37	200	29	1.8
15	1.3	2.1	21	13	18	32	4.0	1.7	8.3	100	18	1.8
16	1.6	2.2	6.3	12	19	26	4.4	1.6	11	50	12	1.8
17	1.3	2.7	3.1	11	56	18	4.1	1.5	18	20	8.9	1.7
18	1.3	2.5	7.1	9.0	26	14	5.5	1.4	12	8.8	7.0	1.7
19	2.1	2.5	3.6	13	22	13	3.4	1.4	42	5.4	5.8	7.2
20	1.3	2.5	2.6	13	18	16	3.9	1.3	13	3.6	5.0	32
21	1.3	2.3	2.3	19	15	41	6.1	1.3	9.6	2.7	4.7	15
22	1.4	2.2	3.4	14	13	20	3.6	70	8.5	2.3	4.6	7.4
23	1.7	2.2	2.6	30	11	15	3.0	25	7.4	26	4.0	4.1
24	1.5	4.9	2.5	46	9.8	13	2.8	16	7.0	29	3.6	2.9
25	20	2.7	44	19	8.6	11	2.9	13	6.0	6.1	4.2	2.4
26	4.4	1.9	13	15	7.7	9.7	28	12	5.2	3.7	3.3	67
27	4.8	1.8	8.2	11	18	8.0	21	10	4.7	2.8	3.0	34
28	3.1	2.3	6.3	9.9	19	7.0	229	70	4.5	2.5	9.3	15
29	2.3	1.9	6.2	9.2	---	6.7	26	5.5	4.5	27	8.0	9.7
30	2.2	1.8	4.6	8.5	---	6.5	16	4.5	4.3	62	3.5	7.5
31	2.1	---	10	11	---	6.3	---	3.6	---	75	3.1	---
TOTAL	75.9	71.7	192.7	522.8	516.1	451.2	437.0	305.1	406.2	664.4	786.5	252.8
MEAN	2.45	2.39	6.22	16.9	18.4	14.6	14.6	9.84	13.5	21.4	25.4	8.43
MAX	20	4.9	44	65	56	41	229	70	96	200	298	67
MIN	1.2	1.8	1.6	7.0	7.7	6.3	2.8	1.3	2.4	1.8	3.0	1.7
CFSM	.27	.26	.68	1.86	2.02	1.60	1.60	1.08	1.48	2.35	2.79	.93
IN.	.31	.29	.79	2.14	2.11	1.84	1.79	1.25	1.66	2.72	3.21	1.03

CAL YR 1981 TOTAL 3029.54 MEAN 8.30 MAX 367 MIN .90 CFSM .91 IN 12.38
WTR YR 1982 TOTAL 4682.40 MEAN 12.8 MAX 298 MIN 1.2 CFSM 1.41 IN 19.14

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 1981 TO SEPTEMBER 1982

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)
JAN											
04...	1450	125	78	--	10.0	170	7.3	820	K28000	22	--
05...	1455	60	92	5.8	9.5	100	--	100	1600	25	20
FEB											
24...	1300	10	80	5.6	11.5	21	9.9	K16	K70	21	17
APR											
19...	1530	1.3	175	6.8	18.5	45	9.4	180	K16000	29	0
JUN											
01...	1430	.01	165	6.6	26.5	110	.5	K48	420	22	0
AUG											
12...	1355	108	50	6.5	23.5	85	4.9	<10	K69000	14	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)
JAN											
04...	5.2	2.1	4.6	27	.5	3.8	--	--	--	--	12
05...	6.2	2.4	6.5	32	.6	3.3	6	0	5	15	14
FEB											
24...	5.0	2.0	5.8	35	.6	1.9	5	0	4	15	9.5
APR											
19...	7.6	2.4	15	45	1.3	8.9	59	0	48	12	9.0
JUN											
01...	5.8	1.9	9.8	39	1.0	8.8	64	0	52	1.5	8.0
AUG											
12...	3.8	1.1	2.8	25	.3	3.4	17	0	14	6.2	6.0

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, 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)
JAN											
04...	12	.2	5.3	86	48	.12	29.0	--	--	1.5	--
05...	9.6	.2	7.0	74	52	.10	12.0	2.0	.010	2.0	1.9
FEB											
24...	9.3	<.1	6.6	69	42	.09	1.9	1.3	.010	1.3	1.3
APR											
19...	13	.1	9.1	99	88	.13	.35	1.3	.100	1.4	1.4
JUN											
01...	13	.2	5.9	111	55	.15	.00	.43	.070	.50	.41
AUG											
12...	4.6	<.1	5.3	48	33	.07	14.0	.50	.070	.57	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, 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)
JAN											
04...	.470	--	--	.83	--	1.30	--	--	2.8	12	--
05...	--	--	--	--	--	1.60	.63	.97	3.6	16	2.9
FEB											
24...	--	--	--	--	--	.90	--	--	2.2	9.7	--
APR											
19...	6.60	6.60	8.5	1.9	1.9	8.50	.00	8.5	9.9	44	9.9
JUN											
01...	7.10	7.00	9.0	3.9	1.0	11.0	3.0	8.0	12	51	8.4
AUG											
12...	.700	.700	.90	1.0	--	1.70	--	--	2.3	10	--

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	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)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
JAN											
04...	.220	.67	--	--	--	--	1	--	--	<1	--
05...	.120	.37	.100	--	--	--	--	--	--	--	--
FEB											
24...	.070	.21	.060	--	--	--	1	0	1	--	--
APR											
19...	.260	.80	.130	.210	.110	.34	2	1	1	<1	<3
JUN											
01...	.390	1.2	.160	.300	.140	.43	2	1	1	1	<1
AUG											
12...	.380	1.2	.290	.370	.260	.80	3	0	3	--	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	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)
JAN										
04...	6	5	--	--	2000	--	--	<1	--	--
05...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	4	--	<1	140	60	85	3	--	<1
APR										
19...	--	--	--	--	--	--	--	11	9	2
JUN										
01...	--	--	--	--	--	--	--	6	3	3
AUG										
12...	--	6	3	3	2700	2400	320	5	4	1

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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)
JAN										
04...	<.1	--	--	--	--	20	--	--	--	--
FEB										
24...	.4	.0	.4	--	--	30	10	19	7.1	.4
APR										
19...	<.1	--	.1	<1	<1	--	--	<3	12	.2
JUN										
01...	<.1	--	<.1	<1	<1	--	--	--	16	9.2
AUG										
12...	.2	--	<.1	--	--	30	20	8	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JAN				
04...	1450	125	60	20
05...	1455	60	27	4.4
FEB				
24...	1300	10	4	.11
APR				
19...	1530	1.3	26	.09
JUN				
01...	1430	.01	25	.00
JUL				
14...	1616	37	51	5.1
AUG				
12...	1355	108	80	23
12...	1515	106	71	20
12...	1631	105	63	18
25...	1600	1.1	12	.04

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 1981 TO SEPTEMBER 1982

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)
JAN											
04...	1430	63	185	--	11.0	120	6.4	K1800	>2000	51	--
05...	1430	20	220	6.5	9.5	80	--	K1700	>2000	65	35
FEB											
24...	1245	8.3	195	6.9	11.0	20	9.4	2000	K23000	59	29
APR											
19...	1315	2.6	220	7.0	17.5	8	6.9	K48	180	92	21
JUN											
01...	1630	.54	223	7.0	27.5	15	3.3	140	310	96	6
AUG											
12...	1330	328	55	6.4	23.0	85	5.4	<10	K40000	19	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)
JAN											
04...	15	3.2	6.9	20	.4	8.0	--	--	--	--	29
05...	20	3.6	8.4	20	.5	7.6	36	0	30	17	36
FEB											
24...	19	2.8	8.2	22	.5	3.3	37	0	30	5.7	25
APR											
19...	32	2.9	10	18	.5	3.5	87	0	71	13	22
JUN											
01...	34	2.7	9.5	17	.4	2.7	110	0	90	16	14
AUG											
12...	5.6	1.1	1.9	15	.2	3.9	16	0	13	10	8.0

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, 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)
JAN											
04...	23	.3	6.4	142	105	.19	24.2	--	--	2.9	--
05...	15	.3	8.7	153	116	.21	8.3	4.0	.100	4.1	3.9
FEB											
24...	11	.1	8.9	124	92	.17	2.8	1.8	.030	1.8	1.8
APR											
19...	11	.2	9.6	144	131	.20	1.0	1.1	.090	1.2	1.2
JUN											
01...	10	.3	8.9	175	133	.24	.26	1.0	.100	1.1	1.1
AUG											
12...	3.7	.2	4.2	62	37	.08	54.9	.50	.050	.55	.57

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 1981 TO SEPTEMBER 1982

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, 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)
JAN											
04...	2.60	--	--	1.6	--	4.20	--	--	7.1	31	--
05...	--	--	--	--	--	3.50	.00	3.6	7.6	34	7.5
FEB											
24...	--	--	--	--	--	1.40	.00	1.5	3.2	14	3.3
APR											
19...	.650	.650	.84	.45	.00	1.10	.86	.24	2.3	10	1.4
JUN											
01...	.660	.660	.85	.74	.44	1.40	.30	1.1	2.5	11	2.2
AUG											
12...	.210	.120	.15	.69	--	.90	--	--	1.5	6.4	--

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	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)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
JAN											
04...	.680	2.1	--	--	--	--	1	--	--	<1	--
05...	.620	1.9	.410	--	--	--	--	--	--	--	--
FEB											
24...	.380	1.2	.310	--	--	--	4	1	3	--	--
APR											
19...	.520	1.6	.400	.510	.410	1.3	2	1	1	<1	<3
JUN											
01...	.740	2.3	.590	.710	.600	1.8	2	1	1	<1	<1
AUG											
12...	.460	1.4	.280	.410	.270	.83	2	0	2	--	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	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)
JAN										
04...	4	6	--	--	1400	--	--	<1	--	--
05...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	6	--	<1	380	220	160	3	--	<1
APR										
19...	--	--	--	--	--	--	--	1	0	1
JUN										
01...	--	--	--	--	--	--	--	10	9	1
AUG										
12...	--	6	4	2	1700	1400	290	7	6	1

02084158 COW SWAMP NEAR GRIMESLAND, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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)
JAN										
04...	.2	--	--	--	--	10	--	--	--	--
FEB										
24...	.2	.0	.2	--	--	30	20	8	6.1	.5
APR										
19...	.2	.0	.2	<1	<1	--	--	<3	5.7	.2
JUN										
01...	.1	.0	.1	<1	<1	--	--	--	6.2	.2
AUG										
12...	.3	.1	.2	--	--	20	10	8	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV				
30...	1350	.77	2	.00
JAN				
04...	1430	63	61	10
05...	1430	20	64	3.5
FEB				
24...	1245	8.3	10	.22
APR				
19...	1315	2.6	6	.04
JUN				
01...	1630	.54	9	.01
JUL				
14...	1557	37	53	5.3
AUG				
12...	1330	328	68	60
12...	1506	245	55	36
12...	1623	200	48	26
25...	1514	1.3	2	.01

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 bench mark). Prior to July 25, 1977, at datum 4.92 ft (1.500 m) higher.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--7 years, 47.5 ft³/s (1.345 m³/s), 14.33 in/yr (364 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)
July 14	0030	596	16.9	8.85	2.697	Aug. 12	1330	691	19.6	9.07	2.765
Aug. 1	1000	*713	20.2	*9.12	2.780						

No flow Oct. 15-18, 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	3.0	.36	19	30	89	15	30	.32	6.8	527	3.3
2	.65	3.3	.81	21	33	72	14	19	.25	2.7	192	3.0
3	.54	2.6	.94	50	69	57	13	21	.09	1.3	67	2.7
4	.45	1.2	.74	227	103	45	11	15	.13	.62	36	13
5	.45	.95	.59	215	86	38	9.6	10	2.8	12	19	15
6	.30	1.8	.82	109	70	46	9.3	7.4	3.0	19	11	6.2
7	.15	1.5	.92	69	58	100	7.3	6.1	3.2	4.1	7.8	4.4
8	.10	1.0	.98	62	46	133	7.0	5.0	1.4	2.2	7.0	3.7
9	.15	1.3	1.2	56	41	99	11	4.1	.39	1.4	27	3.2
10	.07	1.2	1.4	46	69	69	11	5.2	.16	.86	11	3.0
11	.07	.91	1.5	34	71	54	8.2	3.8	1.9	5.1	9.1	2.9
12	.07	.50	1.3	35	56	45	8.7	3.3	3.0	2.8	456	2.6
13	.03	.22	1.3	35	136	37	7.6	3.0	.67	143	237	2.3
14	.02	.26	1.0	30	211	32	6.2	2.7	5.2	353	96	2.2
15	.00	.51	2.2	26	127	48	7.0	2.3	3.8	93	51	2.0
16	.00	.67	2.9	24	93	123	6.5	1.7	1.8	39	35	1.8
17	.00	1.1	1.6	22	144	120	6.3	1.7	.85	20	25	1.6
18	.00	1.5	1.8	20	193	89	5.4	2.1	1.6	12	13	1.8
19	.02	1.5	2.5	19	129	68	5.3	2.5	17	8.4	10	10
20	.02	2.0	1.9	28	105	66	4.8	2.1	18	6.5	8.3	14
21	.00	2.9	1.5	37	86	95	5.3	1.7	9.6	5.6	6.7	8.7
22	.00	2.9	1.5	56	68	107	4.6	1.6	5.0	4.7	5.6	42
23	.19	1.6	1.5	61	55	81	4.4	1.8	3.7	4.2	4.9	35
24	.65	.19	1.6	137	45	60	3.3	1.8	3.3	4.0	4.3	18
25	1.1	.43	16	149	38	51	3.1	2.4	4.4	3.7	3.8	10
26	2.1	.29	31	86	29	42	5.8	1.8	2.8	3.2	3.4	29
27	3.4	.39	21	59	32	34	20	1.6	1.6	2.6	3.1	131
28	3.5	.51	13	44	70	27	129	1.5	1.4	2.1	3.5	103
29	2.9	.44	11	36	---	23	99	1.2	2.6	2.5	6.1	61
30	2.1	.30	8.8	31	---	20	49	.83	26	3.1	5.0	35
31	2.0	---	8.1	27	---	18	---	.63	---	20	3.9	---
TOTAL	21.68	36.97	141.76	1870	2293	1988	497.7	164.86	125.96	789.48	1895.5	571.4
MEAN	.70	1.23	4.57	60.3	81.9	64.1	16.6	5.32	4.20	25.5	61.1	19.0
MAX	3.5	3.3	31	227	211	133	129	30	26	353	527	131
MIN	.00	.19	.36	19	29	18	3.1	.63	.09	.62	3.1	1.6
CFSM	.02	.03	.10	1.34	1.82	1.42	.37	.12	.09	.57	1.36	.42
IN.	.02	.03	.12	1.55	1.90	1.64	.41	.14	.10	.65	1.57	.47

CAL YR 1981 TOTAL 9277.03 MEAN 25.4 MAX 854 MIN .00 CFSM .56 IN 7.67
WTR YR 1982 TOTAL 10396.31 MEAN 28.5 MAX 527 MIN .00 CFSM .63 IN 8.59

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.--Zero flow Oct. 15-18, 21, 22. 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 recorded, 400 micromhos Dec. 20; minimum, 63 micromhos Aug. 1, 12.
WATER TEMPERATURES: Maximum, 30.5°C Aug. 8, 11; minimum, 0.5°C Dec. 21.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 205 mg/L July 13; minimum daily mean, 0 mg/L during periods of zero flow.
SEDIMENT LOADS: Maximum daily, 177 tons (161 tonnes) Aug. 1; minimum daily, 0.0 tons (0.0 tonnes) during periods of zero flow.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
OCT											
13...	1515	.03	--	6.9	13.5	19	--	K20	--	78	11
DEC											
01...	1450	.30	265	7.1	7.0	17	9.3	196	--	98	--
JAN											
04...	1310	266	134	--	10.0	190	7.6	K3400	>2000	38	--
05...	1345	213	118	6.1	9.5	150	--	410	K20000	34	23
18...	1445	22	170	6.7	1.0	15	12.6	K180	280000	49	21
FEB											
24...	1145	45	125	6.8	9.5	22	9.5	K380	8200	37	21
APR											
20...	1130	4.3	180	7.1	16.5	18	6.5	120	K1100	64	4
JUN											
02...	1430	.30	190	7.1	25.5	17	3.1	--	--	71	3
AUG											
12...	1415	682	70	6.5	23.0	80	5.4	<10	K150000	23	6
23...	1330	5.0	145	6.8	24.5	40	6.6	390	2000	50	18

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											
13...	26	3.1	8.0	17	.4	5.3	82	0	67	17	17
DEC											
01...	34	3.1	8.1	14	.4	6.6	--	0	--	--	20
JAN											
04...	11	2.5	5.8	21	.4	6.7	--	--	--	--	21
05...	9.9	2.3	5.7	23	.5	5.1	13	0	11	12	19
18...	15	2.8	6.2	20	.4	4.5	34	0	28	11	24
FEB											
24...	11	2.3	6.6	26	.5	3.0	19	0	16	3.1	17
APR											
20...	21	2.8	8.9	22	.5	4.9	73	0	60	7.3	15
JUN											
02...	24	2.8	8.0	18	.4	4.8	83	0	68	10	11
AUG											
12...	7.3	1.1	2.4	15	.2	4.8	21	0	17	9.9	8.0
23...	16	2.4	6.6	21	.4	2.9	39	0	32	9.9	15

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 1981 TO SEPTEMBER 1982

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, 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)
OCT											
13...	13	.2	1.9	139	115	.19	.01	--	<.010	.02	.03
DEC											
01...	14	.2	4.5	152	139	.21	.12	.62	.020	.64	.62
JAN											
04...	9.6	.2	6.2	112	73	.15	80.4	--	--	1.8	--
05...	9.6	.2	7.7	111	64	.15	63.8	2.1	.070	2.2	2.1
18...	14	.2	9.0	113	101	.15	6.7	2.0	.030	2.0	2.0
FEB											
24...	9.9	.1	7.3	99	63	.13	12.0	1.6	.020	1.6	1.6
APR											
20...	12	.2	5.7	128	99	.17	1.5	2.0	.140	2.1	2.1
JUN											
02...	9.3	.2	5.3	149	104	.20	.12	.78	.020	.80	.77
AUG											
12...	4.5	.2	4.4	74	43	.10	136	.70	.070	.77	--
23...	9.5	.2	9.9	106	82	.14	1.4	1.1	.060	1.2	1.2

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, 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											
13...	--	--	--	--	--	.40	.00	.40	.42	1.9	.43
DEC											
01...	--	--	--	--	--	<.10	--	<.10	--	--	--
JAN											
04...	1.40	--	--	1.1	--	2.50	--	--	4.3	19	--
05...	--	--	--	--	--	1.40	.20	1.2	3.6	16	3.3
18...	--	--	--	--	--	2.40	.10	2.3	4.4	19	4.3
FEB											
24...	--	--	--	--	--	1.20	.28	.92	2.8	12	2.5
APR											
20...	.350	.370	.48	.85	--	1.20	--	--	3.3	15	--
JUN											
02...	.100	.110	.14	.60	.59	.70	.00	.70	1.5	6.6	1.5
AUG											
12...	.600	.630	.81	1.2	--	1.80	--	--	2.6	11	--
23...	--	--	--	--	--	.30	--	--	1.5	6.6	--

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	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)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
OCT											
13...	.200	.61	.160	--	--	--	2	0	3	--	--
DEC											
01...	.160	.49	.130	--	--	--	1	0	1	--	--
JAN											
04...	.550	1.7	--	--	--	--	1	--	--	<1	--
05...	.320	.98	.180	--	--	--	--	--	--	--	--
18...	.340	1.0	.250	--	--	--	1	1	0	--	--
FEB											
24...	.200	.61	.160	--	--	--	1	0	1	--	--
APR											
20...	.340	1.0	.280	.330	.290	.89	2	1	1	1	<1
JUN											
02...	.470	1.4	.400	.440	.390	1.2	2	0	2	<1	<1
AUG											
12...	.680	2.1	.500	.590	.470	1.4	2	0	2	--	--
23...	.340	1.0	.290	--	--	--	1	0	1	--	--

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	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)
OCT										
13...	--	10	3	7	430	310	120	7	--	<1
DEC										
01...	--	7	3	4	280	190	94	2	1	1
JAN										
04...	4	8	--	--	2300	--	--	<1	--	--
05...	--	--	--	--	--	--	--	--	--	--
18...	--	7	4	3	340	210	130	<1	--	<1
FEB										
24...	--	7	--	<1	250	140	110	2	--	<1
APR										
20...	--	--	--	--	--	--	--	14	12	2
JUN										
02...	--	--	--	--	--	--	--	4	3	1
AUG										
12...	--	6	0	7	1800	1500	280	6	4	2
23...	--	7	6	1	680	350	330	3	1	2

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
OCT										
13...	.2	.0	.2	--	--	140	120	20	5.8	.7
DEC										
01...	<.1	--	<.1	--	--	40	20	17	5.7	--
JAN										
04...	<.1	--	--	--	--	20	--	--	--	--
18...	<.1	--	<.1	--	--	50	--	<4	5.2	.6
FEB										
24...	.6	.0	.8	--	--	40	20	18	7.0	.5
APR										
20...	.2	.0	.2	<1	<1	--	--	--	8.3	.1
JUN										
02...	<.1	--	.2	<1	<1	--	--	--	7.1	.2
AUG										
12...	<.1	--	.2	--	--	40	30	10	--	--
23...	.2	.0	.2	--	--	30	20	6	6.7	.2

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	221	218	220	264	259	261	270	266	269	353	248	299
2	223	220	221	263	254	258	271	259	265	353	224	278
3	224	220	222	261	255	257	287	263	273	225	151	199
4	223	220	222	266	259	261	283	263	275	172	128	146
5	223	220	222	267	259	262	263	260	261	130	125	127
6	224	220	222	273	260	265	265	260	263	143	128	137
7	226	222	224	267	259	262	269	264	266	151	144	148
8	227	224	226	264	260	261	271	266	269	165	147	158
9	229	226	227	270	263	267	273	268	270	159	150	152
10	229	226	228	274	265	269	277	267	271	154	150	152
11	229	227	229	283	272	279	278	271	275	162	155	159
12	231	228	230	289	278	282	278	277	278	171	160	165
13	232	230	231	289	281	283	281	275	278	169	165	167
14	232	231	232	286	283	284	284	263	279	179	170	175
15	---	---	---	290	281	284	290	249	261	179	169	175
16	---	---	---	290	275	282	330	292	306	178	168	173
17	---	---	---	280	275	278	307	291	298	175	171	173
18	---	---	---	284	266	270	315	305	309	182	167	175
19	238	230	233	276	261	266	353	311	340	188	172	178
20	239	234	236	265	253	262	400	353	370	199	186	193
21	---	---	---	265	256	259	---	---	344	194	167	178
22	---	---	---	273	256	259	---	---	384	189	155	167
23	236	232	234	267	256	259	---	---	318	168	152	157
24	242	236	240	268	256	259	---	---	313	163	129	147
25	242	227	234	260	257	258	---	---	364	128	124	126
26	232	225	228	268	253	259	---	---	344	129	127	128
27	248	230	238	287	263	278	---	---	264	131	128	129
28	255	244	250	284	278	280	276	259	269	139	131	135
29	256	245	250	292	273	277	264	248	255	143	139	142
30	266	251	254	282	267	271	263	256	259	151	144	146
31	274	256	262	---	---	---	261	245	254	154	151	153
MONTH	274	218	233	292	253	268	400	245	292	353	124	166

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	170	155	164	130	118	122	132	129	131	125	120	122
2	185	153	165	123	116	119	137	131	133	135	126	129
3	192	152	172	124	120	122	140	137	139	158	136	149
4	151	134	139	122	119	120	144	141	143	161	154	157
5	137	133	135	159	123	143	147	144	146	162	151	157
6	150	137	147	152	129	137	148	145	147	155	151	153
7	147	143	145	151	123	133	160	143	151	152	149	150
8	144	142	143	124	120	123	170	153	162	156	152	153
9	157	144	146	120	115	117	167	155	161	160	156	159
10	162	141	152	119	116	117	174	167	171	162	148	154
11	140	132	134	122	118	121	186	167	179	161	155	158
12	135	131	133	123	121	122	179	154	162	164	162	163
13	144	124	136	128	122	124	161	152	155	170	165	167
14	121	109	113	129	126	128	177	164	172	175	171	173
15	118	115	116	147	124	132	175	156	163	186	177	181
16	132	118	127	147	119	132	164	161	163	195	186	191
17	129	114	122	118	111	114	376	161	279	200	196	198
18	116	113	115	111	108	109	331	204	239	206	201	203
19	120	115	117	111	107	109	206	183	194	207	191	201
20	120	119	120	122	111	117	185	179	183	194	189	192
21	119	119	119	130	116	123	190	182	185	190	189	190
22	124	119	121	115	111	113	201	188	193	197	190	193
23	124	118	121	110	107	108	205	192	198	209	196	203
24	125	123	124	110	107	108	217	204	211	213	205	211
25	128	125	126	116	110	113	224	210	220	213	205	210
26	127	122	124	116	114	115	224	195	207	214	213	214
27	148	127	132	118	115	116	256	205	223	217	213	215
28	159	131	149	124	117	120	207	119	140	218	214	217
29	---	---	---	125	120	122	123	118	121	218	177	188
30	---	---	---	128	124	126	122	116	119	190	184	186
31	---	---	---	130	128	129	---	---	---	191	185	188
MONTH	192	109	134	159	107	121	376	116	173	218	120	178

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	186	181	182	190	179	183	85	63	72	222	203	210
2	190	182	186	190	182	186	97	77	88	203	197	200
3	193	184	188	189	178	183	102	97	100	196	191	194
4	191	186	188	192	178	184	105	101	103	203	125	180
5	191	125	174	209	154	183	109	102	105	146	122	135
6	290	137	221	234	174	194	116	109	112	153	135	141
7	367	276	325	249	237	244	129	117	126	153	141	148
8	258	178	194	310	235	265	133	125	130	140	131	134
9	180	162	169	325	282	307	160	107	140	145	135	140
10	160	155	158	296	270	279	129	125	127	156	143	150
11	175	157	164	279	173	218	131	100	128	167	155	163
12	185	177	183	237	210	222	82	63	69	173	167	170
13	181	174	177	264	146	202	86	70	79	184	169	179
14	209	163	181	146	79	99	93	86	88	195	183	191
15	189	161	172	125	107	118	103	93	98	200	194	197
16	160	145	151	136	126	131	106	101	104	202	199	200
17	158	146	153	136	133	134	111	106	108	208	202	204
18	152	146	148	136	133	134	116	111	113	209	205	207
19	364	132	211	150	136	144	128	116	122	245	172	200
20	241	149	168	152	150	151	136	128	134	182	145	153
21	155	139	146	153	149	151	136	132	135	211	166	183
22	138	125	130	164	153	159	142	134	137	366	149	213
23	140	134	137	207	167	200	147	141	144	148	126	136
24	154	133	139	205	183	195	156	147	152	129	124	126
25	155	136	146	182	175	177	160	155	157	130	124	128
26	136	126	129	180	177	178	162	159	160	166	130	141
27	136	132	135	185	180	183	168	161	164	143	104	112
28	146	136	143	191	186	189	176	165	170	104	102	103
29	145	106	141	194	191	192	180	154	163	107	104	105
30	187	101	152	198	187	195	201	160	185	113	107	110
31	---	---	---	211	73	172	230	202	219	---	---	---
MONTH	367	101	170	325	73	186	230	63	127	366	102	162
YEAR	400	63	184									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.5	11.5	13.0	8.5	6.5	7.5	19.0	15.0	17.0	16.0	13.5	15.0
2	11.5	8.5	9.5	11.5	6.5	9.0	19.0	14.5	16.5	17.0	15.0	16.0
3	13.0	8.5	10.5	13.0	10.0	11.0	19.0	15.5	17.0	18.0	16.5	17.0
4	14.0	12.5	13.0	12.0	9.0	10.5	17.5	15.0	16.5	18.5	16.5	17.5
5	12.5	11.0	11.5	14.5	11.0	13.0	16.0	13.5	14.5	18.0	16.0	17.0
6	12.5	11.0	11.5	14.5	10.5	12.5	15.0	12.0	13.5	18.0	16.0	17.0
7	11.5	9.0	10.0	11.0	10.0	10.5	12.5	9.0	11.0	19.5	16.5	18.0
8	9.5	7.0	8.5	11.5	8.5	10.0	10.5	9.0	10.0	19.5	18.5	19.0
9	10.5	8.0	9.0	12.0	7.5	9.5	12.5	9.0	11.0	19.5	18.0	18.5
10	11.0	9.5	10.5	13.5	9.0	11.0	13.5	10.0	11.5	18.5	16.0	17.5
11	9.0	7.5	8.5	15.5	12.0	13.5	13.5	11.0	12.5	17.5	15.5	16.5
12	9.0	6.0	7.5	17.5	14.0	15.5	15.5	11.0	13.0	18.0	15.5	16.5
13	8.0	7.0	7.5	19.5	15.0	17.0	17.5	14.0	15.5	19.5	17.5	18.5
14	8.5	5.5	7.0	18.5	16.0	17.0	18.0	15.5	16.5	21.0	19.0	20.0
15	11.0	7.0	9.0	16.5	12.0	14.0	19.0	15.0	16.5	20.5	19.5	20.0
16	13.5	11.0	12.5	12.0	11.5	11.5	20.0	16.5	18.0	20.0	18.5	19.5
17	13.5	12.5	13.5	16.5	12.0	14.0	20.5	18.0	19.5	20.5	19.5	20.0
18	12.0	9.5	11.0	16.5	13.5	15.0	20.0	18.5	19.5	21.5	19.5	20.0
19	10.0	8.5	9.5	15.5	13.0	14.0	18.0	15.5	17.0	21.5	20.0	21.0
20	11.5	8.0	10.0	14.5	12.5	13.5	17.0	15.5	16.5	21.5	20.5	21.0
21	13.0	10.0	11.5	15.0	12.0	13.5	17.0	16.5	16.5	21.5	20.5	21.0
22	11.5	8.5	10.0	17.5	14.5	15.5	17.0	14.5	16.0	22.0	21.5	21.5
23	10.5	7.0	9.0	15.0	13.0	14.0	15.0	12.5	14.0	23.0	21.0	21.5
24	13.5	8.5	11.0	13.5	12.0	13.0	15.0	12.5	14.0	22.5	21.5	22.0
25	13.0	9.5	11.5	15.5	12.5	14.0	15.5	13.5	14.5	22.5	21.5	21.5
26	9.0	7.0	8.0	16.5	13.5	14.5	16.5	15.5	16.0	22.0	21.5	22.0
27	7.0	6.0	6.5	14.0	11.0	12.5	18.5	16.5	17.0	22.5	21.5	22.0
28	8.0	7.0	7.5	12.5	9.0	10.5	17.0	15.0	16.0	23.5	22.0	22.5
29	---	---	---	13.0	8.0	11.0	15.5	13.5	14.5	24.5	24.0	24.0
30	---	---	---	15.0	10.5	13.0	15.5	12.5	14.0	25.5	24.5	25.0
31	---	---	---	16.5	13.5	15.0	---	---	---	27.5	25.5	26.5
MONTH	14.0	5.5	10.0	19.5	6.5	13.0	20.5	9.0	15.0	27.5	13.5	20.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	26.5	27.0	25.0	23.0	24.0	26.0	24.5	25.0	23.5	21.0	22.0
2	26.5	24.5	25.5	24.0	21.0	22.5	26.5	24.5	26.0	26.0	23.0	24.0
3	24.5	23.5	24.0	23.5	21.0	22.0	26.5	24.5	26.0	26.5	24.5	25.0
4	24.5	23.5	23.5	24.0	23.5	23.5	27.0	24.5	26.0	26.5	23.5	25.0
5	25.5	23.0	24.0	24.5	22.0	23.0	28.0	25.0	26.5	23.0	21.0	22.0
6	24.5	21.5	22.5	23.0	21.0	22.0	29.0	26.0	27.5	22.5	20.0	21.5
7	22.0	19.5	20.0	25.0	21.5	23.0	29.5	26.5	28.0	22.0	19.0	20.5
8	21.0	19.0	19.5	26.5	24.0	25.0	30.5	27.0	28.5	22.0	20.0	21.0
9	21.0	20.5	20.5	27.0	25.5	26.0	29.5	26.0	27.5	22.0	19.5	21.0
10	21.0	20.0	20.5	27.5	26.5	27.0	29.5	26.5	28.0	21.5	20.0	20.5
11	22.5	19.5	20.5	26.5	25.0	26.0	30.5	26.0	28.5	21.0	19.5	20.0
12	21.0	19.0	20.0	27.5	25.5	26.5	25.0	24.0	24.0	22.0	20.5	21.5
13	20.5	19.0	19.5	27.5	23.5	25.0	24.0	22.5	23.5	23.0	22.0	22.0
14	22.0	19.5	20.5	24.5	23.5	24.0	24.5	22.5	23.5	23.0	22.0	22.5
15	22.0	19.5	20.5	24.0	23.5	23.5	25.0	22.5	24.0	22.5	21.0	22.0
16	23.5	21.0	22.0	26.0	23.5	24.5	25.5	23.5	24.5	22.5	22.0	22.5
17	23.5	23.0	23.5	27.5	24.5	26.0	26.5	24.0	25.0	23.0	22.5	23.0
18	23.0	22.5	22.5	29.0	25.0	27.0	26.5	24.0	25.5	22.5	22.0	22.0
19	23.5	21.0	22.0	30.0	26.0	28.0	27.0	24.5	25.5	23.0	22.0	22.5
20	23.5	22.0	23.0	30.0	27.0	28.5	28.0	24.5	26.0	23.5	22.0	22.5
21	24.5	22.0	23.0	29.5	26.5	28.0	27.0	26.5	26.5	22.5	20.5	22.0
22	23.5	21.5	22.5	30.0	26.0	28.0	26.5	23.0	25.0	21.0	20.5	20.5
23	23.5	20.5	22.0	30.0	27.5	28.5	26.5	23.5	25.0	20.5	19.0	19.5
24	23.0	20.5	21.5	28.0	26.0	27.0	28.5	25.5	27.0	18.5	16.5	17.5
25	21.5	19.5	20.5	29.0	26.0	27.0	30.0	27.0	28.5	18.5	16.5	17.5
26	22.5	20.0	21.0	29.0	25.5	27.0	28.5	25.0	26.5	20.0	18.5	19.0
27	23.5	21.0	22.0	29.5	27.0	28.0	26.0	22.0	24.0	20.0	19.0	19.5
28	24.0	22.5	23.0	29.5	28.0	28.5	27.0	24.5	26.0	20.0	18.5	19.5
29	25.5	23.5	24.5	29.5	27.0	28.0	26.0	21.0	22.5	20.0	18.5	19.5
30	25.5	23.5	24.5	28.0	26.5	27.0	20.5	18.5	19.5	19.5	19.0	19.0
31	---	---	---	27.5	24.5	26.5	22.0	20.0	21.0	---	---	---
MONTH	27.5	19.0	22.0	30.0	21.0	26.0	30.5	18.5	25.5	26.5	16.5	21.0
YEAR	30.5	.5	16.0									

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

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	3	.00	3	.02	4	.00	17	.87	10	.81	14	3.4
2	7	.01	3	.03	4	.00	11	.62	13	1.2	6	1.2
3	4	.00	3	.02	6	.02	56	13	36	6.7	5	.77
4	3	.00	3	.00	4	.00	129	79	40	11	6	.73
5	2	.00	2	.00	3	.00	52	30	25	5.8	14	1.4
6	3	.00	4	.02	2	.00	23	6.8	13	2.5	20	2.5
7	4	.00	4	.02	3	.00	10	1.9	11	1.7	23	6.2
8	3	.00	3	.00	2	.00	7	1.2	9	1.1	20	7.2
9	5	.00	4	.01	3	.00	7	1.1	30	3.3	11	2.9
10	4	.00	5	.02	4	.02	8	.99	35	6.5	9	1.7
11	4	.00	2	.00	3	.01	10	.92	17	3.3	8	1.2
12	5	.00	2	.00	2	.00	8	.76	12	1.8	8	.97
13	5	.00	2	.00	2	.00	9	.85	46	19	7	.70
14	3	.00	2	.00	2	.00	9	.73	20	11	9	.78
15	0	.00	2	.00	4	.02	7	.49	12	4.1	27	4.2
16	0	.00	3	.00	4	.03	7	.45	11	2.8	20	6.6
17	0	.00	2	.00	4	.02	6	.36	38	15	8	2.6
18	0	.00	1	.00	4	.02	7	.38	23	12	8	1.9
19	3	.00	1	.00	5	.03	7	.36	12	4.2	19	3.5
20	3	.00	1	.00	7	.04	12	.91	12	3.4	24	4.3
21	0	.00	2	.02	8	.03	11	1.1	10	2.3	28	7.2
22	0	.00	1	.00	8	.03	10	1.5	10	1.8	15	4.3
23	2	.00	2	.00	8	.03	15	2.5	9	1.3	10	2.2
24	6	.01	2	.00	7	.03	49	18	9	1.1	7	1.1
25	14	.04	1	.00	27	1.6	23	9.3	8	.82	8	1.1
26	13	.07	1	.00	32	2.7	11	2.6	7	.55	9	1.0
27	4	.04	2	.00	16	.91	9	1.4	16	1.4	9	.83
28	4	.04	7	.00	13	.46	8	.95	20	3.8	7	.51
29	4	.03	8	.00	8	.24	7	.68	---	---	6	.37
30	4	.02	3	.00	7	.17	6	.50	---	---	5	.27
31	5	.03	---	---	6	.13	10	.73	---	---	6	.29
TOTAL	---	0.29	---	0.16	---	6.54	---	180.95	---	130.28	---	73.92
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8	.32	13	1.1	5	.00	56	1.0	136	177	4	.04
2	7	.26	14	.72	4	.00	37	.27	36	20	5	.04
3	8	.28	20	1.1	5	.00	25	.09	19	3.4	4	.03
4	16	.48	16	.65	6	.00	22	.04	15	1.5	12	.69
5	16	.41	14	.38	17	.16	91	4.7	15	.77	11	.45
6	15	.38	9	.18	25	.20	49	3.0	16	.48	15	.25
7	10	.20	7	.12	41	.35	32	.35	19	.40	10	.12
8	11	.21	12	.16	45	.17	23	.14	28	.57	6	.06
9	11	.33	14	.15	44	.05	20	.08	54	4.3	10	.09
10	8	.24	20	.28	32	.01	26	.06	16	.48	17	.14
11	7	.15	18	.18	26	.13	72	1.1	15	.42	11	.09
12	6	.14	10	.09	27	.22	50	.38	141	131	7	.05
13	5	.10	10	.08	16	.03	205	103	30	19	5	.03
14	5	.08	11	.08	92	1.8	80	84	15	3.9	4	.02
15	6	.11	8	.05	50	.55	36	9.0	9	1.2	3	.02
16	5	.09	6	.03	35	.17	30	3.2	13	1.2	4	.02
17	11	.19	8	.04	25	.06	20	1.1	31	2.1	8	.03
18	6	.09	8	.05	22	.10	13	.42	12	.42	4	.02
19	15	.21	8	.05	153	7.4	15	.34	10	.27	25	1.1
20	7	.09	9	.05	91	4.4	11	.19	6	.13	15	.70
21	8	.11	8	.04	36	.93	12	.18	8	.14	8	.19
22	9	.11	7	.03	27	.36	11	.14	6	.09	27	3.1
23	6	.07	8	.04	24	.24	11	.12	4	.05	17	1.6
24	6	.05	12	.06	21	.19	10	.11	10	.12	12	.58
25	9	.08	9	.06	40	.48	7	.07	5	.05	8	.22
26	10	.16	8	.04	31	.23	6	.05	4	.04	31	3.9
27	15	.81	6	.03	30	.13	5	.04	3	.03	30	10
28	164	58	6	.02	20	.08	6	.03	15	.14	12	3.3
29	54	14	6	.02	19	.15	9	.06	8	.13	11	1.8
30	16	2.1	5	.01	154	11	10	.08	7	.09	13	1.2
31	---	---	5	.00	---	---	88	6.6	6	.06	---	---
TOTAL	---	79.85	---	5.89	---	29.59	---	219.94	---	369.48	---	29.88

TOTAL LOAD FOR YEAR: 1126.77 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 records good. Channel improvement, beginning Aug. 10, 1979, extends upstream from a point 0.5 mi (0.8 km) upstream from gage.

AVERAGE DISCHARGE.--7 years, 7.31 ft³/s (0.207 m³/s), 13.24 in/yr (336 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)
Jan. 3	1945	100	2.83	14.55	4.435	Apr. 28	0430	95	2.69	14.50	4.420
Jan. 24	0130	30	0.85	13.56	4.133	July 13	1730	369	10.5	15.93	4.855
Feb. 13	0500	35	0.99	13.66	4.164	Aug. 1	0430	*557	15.8	*16.33	4.977
Feb. 17	0345	32	0.91	13.60	4.145	Aug. 12	0530	204	5.78	15.23	4.642
Mar. 21	0500	30	0.85	13.54	4.127						

Minimum discharge, 0.50 ft³/s (0.014 m³/s) July 4, 5; minimum gage height, 12.75 ft (3.886 m) Oct. 13, 17, July 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.91	1.2	4.2	6.0	9.9	5.7	6.1	.87	.78	197	1.9
2	.80	.92	1.2	2.9	7.6	9.1	5.2	5.2	.94	.69	22	1.8
3	.78	.92	1.0	30	11	7.7	5.0	5.8	.95	.63	14	1.7
4	.75	.92	.94	27	10	7.0	4.3	4.3	1.1	.53	10	3.1
5	.76	.97	.93	14	9.4	6.8	4.0	3.6	6.7	5.3	7.4	2.2
6	.75	1.0	.88	10	11	12	4.0	3.2	1.7	2.6	5.8	1.8
7	.72	.99	.84	8.7	8.9	15	3.4	2.8	1.6	1.2	4.7	1.7
8	.75	.98	.84	11	7.7	12	3.4	2.6	1.4	.95	4.0	1.6
9	.81	.92	.82	8.5	8.5	9.7	5.0	2.2	1.1	.75	3.4	1.6
10	.87	.92	.73	6.5	11	8.9	3.9	1.9	1.1	.68	3.0	1.5
11	.91	.92	.68	5.7	8.8	8.6	3.5	1.8	1.4	.72	4.0	1.6
12	.68	.93	.67	5.7	8.2	8.1	3.3	1.7	1.1	.61	76	1.5
13	.64	.95	.66	5.8	27	7.3	3.1	1.5	1.1	129	18	1.4
14	.61	1.0	.85	6.4	15	6.9	3.0	1.3	3.6	29	13	1.4
15	.62	1.0	1.7	5.5	12	17	2.8	1.2	1.3	9.3	15	1.3
16	.66	1.0	1.4	5.3	11	18	2.7	1.2	1.1	6.9	11	1.2
17	.63	1.1	1.1	4.8	27	15	2.6	1.1	1.4	4.5	8.7	1.2
18	.61	1.1	1.4	4.4	17	12	2.8	1.1	1.7	3.2	6.9	1.2
19	.80	1.1	1.2	5.4	14	11	2.3	1.1	6.9	2.5	5.8	5.1
20	.61	1.1	1.0	6.3	12	13	2.4	1.0	2.2	2.0	4.8	4.4
21	.69	1.2	.92	9.0	11	22	3.0	.97	3.3	2.0	4.1	3.8
22	.71	1.1	1.0	8.4	9.8	15	2.6	1.6	2.2	1.6	3.6	4.1
23	.74	1.2	1.0	13	8.5	12	2.3	2.2	1.8	1.5	3.3	3.3
24	.80	1.4	.97	20	8.1	11	2.1	1.7	1.5	1.7	3.1	2.6
25	1.5	1.4	6.8	12	6.9	10	2.0	1.6	1.3	1.5	2.6	2.2
26	1.3	1.1	4.2	9.8	6.1	9.3	4.6	1.4	1.0	1.4	2.2	13
27	1.0	1.1	2.8	8.2	9.6	8.1	5.8	1.2	.91	1.3	2.0	18
28	1.0	1.1	2.1	6.7	12	7.3	34	1.2	.91	1.0	2.6	11
29	.92	1.1	2.0	6.0	---	6.8	11	1.1	.94	2.0	3.7	8.0
30	.92	1.1	1.7	5.6	---	6.7	7.8	.97	.97	8.5	2.6	6.1
31	.91	---	2.3	5.5	---	6.4	---	.86	---	13	2.1	---
TOTAL	24.97	31.45	45.83	282.3	315.1	329.6	147.6	65.50	54.09	237.34	466.4	111.3
MEAN	.81	1.05	1.48	9.11	11.3	10.6	4.92	2.11	1.80	7.66	15.0	3.71
MAX	1.5	1.4	6.8	30	27	22	34	6.1	6.9	129	197	18
MIN	.61	.91	.66	2.9	6.0	6.4	2.0	.86	.87	.53	2.0	1.2
CFSM	.11	.14	.20	1.22	1.51	1.41	.66	.28	.24	1.02	2.00	.50
IN.	.12	.16	.23	1.40	1.56	1.63	.73	.32	.27	1.18	2.31	.55

CAL YR 1981 TOTAL 1903.64 MEAN 5.22 MAX 147 MIN .61 CFSM .70 IN 9.44
WTR YR 1982 TOTAL 2111.48 MEAN 5.78 MAX 197 MIN .53 CFSM .77 IN 10.47

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 1981 TO SEPTEMBER 1982

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)
JAN											
04...	1350	24	205	--	11.0	50	8.3	K1500	K7900	68	--
05...	1415	13	209	6.1	9.5	25	--	450	1200	68	58
FEB											
24...	1230	8.2	220	6.8	10.5	6	9.5	K4200	K46000	60	35
APR											
20...	1430	2.7	160	7.1	16.5	4	8.9	80	3400	61	25
JUN											
02...	1545	1.0	158	7.3	26.0	4	7.1	--	--	62	24
AUG											
12...	1245	48	104	6.9	23.5	55	5.5	<10	K62000	37	13

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)
JAN											
04...	20	4.4	8.0	19	.4	4.6	--	--	--	--	40
05...	20	4.4	8.8	21	.5	4.1	12	0	10	23	40
FEB											
24...	18	3.7	8.2	21	.5	4.3	31	0	25	6.2	28
APR											
20...	20	2.6	7.3	20	.4	2.3	44	0	36	4.7	24
JUN											
02...	21	2.2	5.6	16	.3	1.5	46	0	38	3.8	20
AUG											
12...	11	2.2	4.4	19	.3	4.1	29	0	24	2.7	21

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, 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)
JAN											
04...	16	.3	7.4	147	105	.20	9.5	--	--	5.5	--
05...	15	.3	8.6	130	110	.18	4.6	5.8	.030	5.8	5.7
FEB											
24...	11	.1	8.2	130	94	.18	2.9	4.0	.040	4.0	3.9
APR											
20...	11	.1	8.7	115	94	.16	.84	2.2	.050	2.2	2.1
JUN											
02...	10	.2	7.8	106	92	.14	.29	1.4	.020	1.4	1.3
AUG											
12...	7.5	.1	6.4	100	63	.14	13.0	1.5	.040	1.5	1.6

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

02084164 JUNIPER BRANCH NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, 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)
JAN											
04...	.270	--	--	.93	--	1.20	--	--	6.7	30	--
05...	--	--	--	--	--	1.20	.10	1.1	7.0	31	6.8
FEB											
24...	--	--	--	--	--	2.50	.10	2.4	6.5	29	6.3
APR											
20...	.070	.110	.14	.60	--	.67	--	--	2.9	13	--
JUN											
02...	.050	.070	.09	.35	.33	.40	.00	.40	1.8	8.0	1.7
AUG											
12...	.240	.230	.30	1.4	--	1.60	--	--	3.1	14	--

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	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)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JAN										
04...	.250	.77	--	--	--	--	1	--	--	<1
05...	.170	.52	.080	--	--	--	--	--	--	--
FEB										
24...	.550	1.7	.460	--	--	--	3	0	4	--
APR										
20...	.230	.71	.200	.230	.200	.61	1	0	1	1
JUN										
02...	.210	.64	.150	.180	.150	.46	2	0	2	<1
AUG										
12...	.280	.86	.190	.230	.160	.49	--	--	--	--

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, 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)
JAN										
04...	--	4	5	--	770	--	--	<1	--	--
05...	--	--	--	--	--	--	--	--	--	--
FEB										
24...	--	--	5	<1	240	150	86	3	--	<1
APR										
20...	<1	--	--	--	--	--	--	5	3	2
JUN										
02...	<1	--	--	--	--	--	--	2	--	<1
AUG										
12...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
JAN										
04...	<.1	--	--	--	--	10	--	--	--	--
FEB										
24...	.1	--	<.1	--	--	40	7	33	4.9	.9
APR										
20...	.1	.0	.1	<1	<1	--	--	--	3.8	.2
JUN										
02...	<.1	--	<.1	<1	<1	--	--	--	3.8	.2

02084164 JUNIPER BRANCH NEAR SIMPSON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC				
01...	1030	2.0	3	.02
JAN				
04...	1350	24	35	2.3
05...	1415	13	13	.46
FEB				
24...	1230	8.2	6	.13
APR				
20...	1430	2.7	2	.01
JUN				
02...	1545	1.0	3	.01
JUL				
14...	1533	16	23	.99
AUG				
12...	1245	48	31	4.0
12...	1455	40	27	2.9
12...	1612	36	23	2.2
26...	1505	2.2	1	.01

02084317 BLACK SWAMP NEAR BATTS CROSSROADS, NC

LOCATION.--Lat 35°42'32", long 77°05'53", Beaufort County, Hydrologic Unit 03020104, on left bank at upstream side of culvert on Secondary Road 1420, 1.8 mi (2.90 km) upstream from mouth, and 1.8 mi (2.90 km) northwest of Batts Crossroads.

DRAINAGE AREA.--1.02 mi² (2.65 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1981 to December 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 55 ft (17 m) from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR CURRENT PERIOD.--December 1981 to September 1982: Maximum discharge during period, 6.2 ft³/s (0.18 m³/s) Mar. 21, gage height, 3.56 ft (1.085 m); no flow many days during period.

October to December 1982: Maximum discharge during period, 7.2 ft³/s (0.20 m³/s) Dec. 12; no flow many days during period.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR DECEMBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				.00	.49	1.7	.23	.21	.00	.00	.60	.00
2				.00	.55	1.3	.16	.12	.00	.00	.11	.00
3				.52	1.0	.97	.12	.08	.00	.00	.04	.00
4				.77	1.0	.77	.09	.04	.00	.00	.01	.00
5				.65	1.0	.66	.05	.02	.00	.00	.01	.00
6				.48	2.4	1.1	.04	.01	.00	.00	.00	.00
7				.38	1.8	2.2	.03	.00	.00	.00	.00	.00
8				.48	1.3	2.2	.02	.00	.00	.00	.00	.00
9				.41	1.1	1.7	.08	.00	.00	.00	.00	.00
10				.32	1.3	1.2	.09	.00	.00	.00	.00	.00
11				.24	1.1	.93	.08	.00	.14	.00	.08	.00
12				.19	.97	.72	.06	.00	.01	.00	1.2	.00
13				.19	4.7	.55	.04	.00	.00	.11	.34	.00
14				.32	3.7	.45	.02	.00	.00	.02	.18	.00
15				.30	2.5	1.2	.02	.00	.00	.00	.10	.00
16				.28	1.9	2.7	.01	.00	.00	.00	.04	.00
17				.25	2.9	2.1	.01	.00	.00	.00	.02	.00
18				.21	2.5	1.4	.01	.00	.00	.00	.01	.00
19				.32	2.1	.98	.00	.00	.65	.00	.01	.00
20				.37	1.9	3.5	.00	.00	.09	.00	.00	.00
21				.55	1.5	6.0	.00	.00	.03	.00	.00	.00
22				.61	1.7	4.0	.00	.00	.01	.00	.00	.00
23				1.3	1.4	2.5	.00	.00	.01	.00	.00	.00
24				3.1	1.1	1.7	.00	.00	.00	.19	.00	.00
25				2.0	.82	1.2	.00	.00	.00	.02	.00	.00
26				1.3	.66	.86	.00	.00	.00	.00	.00	.23
27				.92	.96	.63	.01	.00	.00	.00	.00	.07
28				.76	1.9	.50	.67	.00	.00	.00	.00	.01
29				.65	---	.42	.54	.00	.00	.00	.00	.00
30				.55	---	.36	.34	.00	.00	.00	.00	.00
31				.49	---	.29	---	.00	---	.01	.00	---
TOTAL			.00	18.91	46.25	46.79	2.72	.48	.94	.35	2.75	.31
MEAN			.000	.61	1.65	1.51	.091	.015	.031	.011	.089	.010
MAX			.00	3.1	4.7	6.0	.67	.21	.65	.19	1.2	.23
MIN			.00	.00	.49	.29	.00	.00	.00	.00	.00	.00
CFSM			.000	.60	1.62	1.48	.09	.02	.03	.01	.09	.01
IN.			.00	.69	1.69	1.70	.10	.02	.03	.01	.10	.01

02084317 BLACK SWAMP NEAR BATTS CROSSROADS, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.03									
2	.00	.01	.03									
3	.00	.01	.03									
4	.00	.31	.02									
5	.00	1.0	.02									
6	.00	.56	.05									
7	.00	.40	.07									
8	.00	.30	.05									
9	.00	.23	.04									
10	.00	.15	.03									
11	.00	.11	.07									
12	.00	.08	4.0									
13	.00	1.0	4.5									
14	.00	.92	2.6									
15	.00	1.1	1.8									
16	.00	.97	3.4									
17	.00	.68	3.9									
18	.00	.50	2.4									
19	.00	.40	1.6									
20	.00	.32	1.4									
21	.00	.27	.98									
22	.00	.22	.75									
23	.00	.17	.61									
24	.00	.13	.51									
25	.96	.09	.40									
26	.38	.06	.33									
27	.18	.05	.27									
28	.11	.04	.23									
29	.07	.07	.25									
30	.04	.05	.43									
31	.02	---	2.0									
TOTAL	1.76	10.21	32.80									
MEAN	.057	.34	1.06									
MAX	.96	1.1	4.5									
MIN	.00	.01	.02									
CFSM	.06	.33	1.04									
IN.	.06	.37	1.20									

CAL YR 1982 TOTAL 164.27 MEAN .45 MAX 6.0 MIN .00 CFSM .44 IN 5.99

02084317 BLACK SWAMP NEAR BATTS CROSSROADS, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1981 to September 1982.

REMARKS.--Zero flow Dec. 1-31, 1981; Jan. 1, 2, Apr. 19-26, May 7-31, June 1-10, 13-18, 24-30, July 1-12, 15-23, 26-30, Aug. 6-10, 20-31, Sept. 1-25, 29, 30. Basin above station is 98% percent forested. Station is part of district's Natural Quality Network for determining the quality of streams relatively unaffected by man.

WATER QUALITY DATA, DECEMBER 1981 TO SEPTEMBER 1982

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)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)
JAN												
04...	1245	.69	48	4.4	10.5	80	--	84	K2400	10	.2	10
05...	1410	.65	51	4.2	8.5	60	--	--	--	10	.3	15
19...	1115	.35	49	4.5	3.0	20	9.3	K10	K56	8	--	--
FEB												
13...	0900	4.9	42	--	--	28	--	--	--	5	--	--
13...	1000	5.1	43	--	--	--	--	--	--	--	--	--
13...	1200	5.2	44	--	--	28	--	--	--	5	--	--
13...	1600	5.2	44	--	--	22	--	--	--	5	--	--
13...	2000	5.0	46	--	--	25	--	--	--	5	--	--
24...	1000	1.1	48	4.2	7.5	13	8.6	K4	K10	4	.4	20
MAR												
07...	1600	2.3	43	--	--	23	--	--	--	5	--	--
08...	0400	2.2	40	--	--	15	--	--	--	5	--	--
09...	1200	1.7	46	4.2	7.5	15	9.1	<1	K8	5	.1	5.0
18...	1800	1.1	41	--	--	30	--	--	--	7	--	--
19...	0400	.98	40	--	--	22	--	--	--	4	--	--
19...	1000	.98	40	--	--	20	--	--	--	4	--	--
23...	1145	2.5	48	3.8	11.0	17	8.0	K2	K4	5	.4	20
APR												
16...	1330	.01	40	5.1	15.0	7	7.8	--	--	5	--	--
JUL												
13...	1745	.23	50	5.0	23.5	70	1.9	--	--	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)	CAR-BONATE FET-FLD (MG/L AS CO3)	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)
JAN												
04...	1.9	1.3	3.5	38	.5	1.8	0	10	5.9	.2	5.8	50
05...	1.9	1.2	5.3	50	.8	1.5	0	9.3	5.5	<.1	6.3	49
19...	1.5	1.0	2.7	41	.5	.6	0	7.1	5.8	.1	5.0	39
FEB												
13...	1.0	.7	3.2	53	.7	.7	--	7.6	5.4	<.1	--	53
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	1.0	.7	3.5	57	.8	.5	--	6.8	5.4	<.1	4.8	56
13...	.9	.7	3.4	57	.7	.5	--	5.3	5.2	<.1	5.0	53
13...	.9	.7	3.2	55	.7	.4	--	6.0	5.5	<.1	5.0	46
24...	.7	.6	3.2	59	.8	.3	0	5.8	5.3	<.1	5.3	44
MAR												
07...	.8	.8	3.5	57	.8	.4	--	6.9	4.7	<.1	4.6	30
08...	.8	.8	3.4	58	.8	.2	--	7.2	5.4	<.1	4.7	32
09...	.7	.7	3.3	59	.8	.3	0	6.9	5.3	<.1	5.0	38
18...	1.1	1.0	3.0	45	.6	1.1	--	6.7	5.5	<.1	4.1	37
19...	.8	.6	3.2	60	.8	.4	--	5.4	4.9	<.1	4.3	34
19...	.7	.6	3.0	58	.7	.3	--	5.9	5.0	<.1	4.4	33
23...	.7	.7	3.1	58	.7	.2	0	7.0	4.7	<.1	5.0	33
APR												
16...	.9	.7	4.1	62	.9	.2	0	5.0	5.0	<.1	2.8	36
JUL												
13...	1.9	1.5	1.6	19	.2	2.9	0	11	3.5	<.1	3.0	61

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

02084317 BLACK SWAMP NEAR BATTS CROSSROADS, NC--Continued

WATER QUALITY DATA, DECEMBER 1981 TO SEPTEMBER 1982

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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
JAN												
04...	32	.07	.09	.48	.020	.50	--	.030	.050	.06	.91	.62
05...	32	.07	.09	.23	.010	.24	.26	.010	.030	.04	.44	.41
19...	25	.05	.04	--	<.010	.07	.16	.010	.040	.05	1.5	.23
FEB												
13...	--	.07	.70	--	--	.31	--	.070	--	--	1.4	--
13...	--	--	--	--	--	.13	.15	.060	.070	.09	.49	--
13...	23	.08	.79	--	--	.17	.13	.080	.030	.04	.23	--
13...	--	.07	.74	--	--	.12	.15	.050	.050	.06	.43	.33
13...	--	.06	.62	--	--	--	--	--	--	--	--	--
24...	--	.06	.13	--	<.010	.09	.08	.040	.030	.04	.59	.29
MAR												
07...	--	.04	.19	--	<.010	.07	.06	.030	.030	.04	.57	.60
08...	--	--	.19	--	<.010	.04	.03	.030	.020	.03	.55	.34
09...	23	.05	.17	.05	.020	.07	.09	.020	.060	.08	.30	.27
18...	--	.05	.11	--	<.010	.09	.08	.050	.060	.08	--	--
19...	--	.05	.09	--	<.010	.13	.11	.050	.040	.05	.28	--
19...	--	--	.09	--	<.010	.06	.08	.040	.040	.05	.32	.24
23...	22	.04	.22	--	<.010	.11	.12	.030	.020	.03	.29	.26
APR												
16...	19	.05	.00	--	<.010	<.10	<.10	.060	.030	.04	.28	.19
JUL												
13...	27	.08	.04	.41	.040	.45	<.10	.110	.050	.06	.69	--

DATE	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)	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)
JAN												
04...	.94	.27	.67	1.4	6.4	--	.040	.12	--	.020	.020	.0
05...	.45	.01	.44	.69	3.1	.70	.020	.06	.010	<.010	<.010	-
19...	1.50	1.2	.27	1.6	7.0	.43	.010	.03	.010	<.010	<.010	-
FEB												
13...	1.50	.40	--	1.8	8.0	--	.010	.03	.040	--	--	-
13...	.55	.00	--	.68	3.0	--	.090	.28	.050	--	--	-
13...	.31	.00	--	.48	2.1	--	.080	.25	<.010	--	--	-
13...	.48	.10	.38	.60	2.7	.53	.050	.15	.020	--	--	-
13...	--	--	--	--	--	--	--	--	--	--	--	-
24...	.63	.31	.32	.72	3.2	.40	.010	.03	.030	.020	<.010	-
MAR												
07...	.60	.00	.63	.67	3.0	.69	.020	.06	.010	<.010	<.010	-
08...	.58	.22	.36	.62	2.7	.39	.030	.09	.020	<.010	<.010	-
09...	.32	.00	.33	.39	1.7	.42	<.010	--	<.010	<.010	<.010	-
18...	--	--	--	--	--	--	.020	.06	.030	<.010	<.010	-
19...	.33	--	--	.46	2.0	--	.020	.06	.010	<.010	<.010	-
19...	.36	.08	.28	.42	1.9	.36	.020	.06	<.010	<.010	<.010	-
23...	.32	.04	.28	.43	1.9	.40	.010	.03	<.010	.010	<.010	-
APR												
16...	.34	.12	.22	--	--	--	.010	.03	<.010	.010	<.010	-
JUL												
13...	.80	--	--	1.3	5.5	--	.080	.25	.030	.070	.030	.0

02084317 BLACK SWAMP NEAR BATTS CROSSROADS, NC--Continued

WATER QUALITY DATA, DECEMBER 1981 TO SEPTEMBER 1982

DATE	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)	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, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JAN											
04...	1	1	0	<1	<1	<10	--	<1	2	<1	8
05...	1	1	0	<1	<1	20	18	2	1	<1	5
19...	--	--	--	--	--	--	--	--	--	--	--
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
24...	1	--	<1	<1	<1	--	--	--	--	--	--
MAR											
07...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
23...	2	0	2	<1	<1	--	--	--	--	--	--
APR											
16...	5	0	5	1	<3	--	--	--	--	--	--
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--

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)
JAN											
04...	6	2	710	450	260	5	1	4	10	0	16
05...	0	5	510	300	210	<1	--	<1	30	10	17
19...	--	--	--	--	--	--	--	--	--	--	--
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	<1	--	<1	--	--	--
MAR											
07...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	3	--	<1	--	--	--
APR											
16...	--	--	--	--	--	3	1	2	--	--	--
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--

02084317 BLACK SWAMP NEAR BATTS CROSSROADS, NC--Continued

WATER QUALITY DATA, DECEMBER 1981 TO SEPTEMBER 1982

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, 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)	CYANIDE TOTAL (MG/L AS CN)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
JAN												
04...	.1	.0	.2	<1	<1	10	0	17	--	--	--	.00
05...	.1	.0	.1	<1	<1	40	6	34	--	--	--	.00
19...	--	--	--	--	--	--	--	--	4.5	.1	--	.00
FEB												
24...	.1	.0	.1	<1	<1	--	--	--	6.1	1.5	<.01	<.10
MAR												
09...	--	--	--	--	--	--	--	--	5.2	.1	--	<.10
23...	.1	.0	.2	<1	<1	--	--	--	7.2	.1	--	.00
APR												
16...	<.1	--	<.1	<1	<1	--	--	--	7.0	.6	<.01	<.01
JUL												
13...	--	--	--	--	--	--	--	--	14	.2	--	.05

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JAN				
04...	1245	.69	17	.03
05...	1410	.65	6	.01
19...	1115	.35	5	.00
FEB				
24...	1000	1.1	4	.01
MAR				
09...	1200	1.7	2	.01
23...	1145	2.5	2	.01
APR				
16...	1330	.01	5	.00
JUL				
13...	1745	.23	35	.02

02084317 BLACK SWAMP NEAR BATTS CROSSROADS, NC--Continued

PHYTOPLANKTON ANALYSES, DECEMBER 1981 TO SEPTEMBER 1982

DATE	MAR 9,82
TIME	1200
TOTAL CELLS/ML	42
DIVERSITY: DIVISION	1.6
.CLASS	1.6
..ORDER	1.6
...FAMILY	1.6
....GENUS	1.6

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..EUNOTIALES		
...EUNOTIACEAE		
....EUNOTIA	14#	33
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	14#	33
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	14#	33

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

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.--17 years, 37.7 ft³/s (1.068 m³/s), 19.69 in/yr (500 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, 221 ft³/s (6.26 m³/s) Sept. 28, gage height, 8.08 ft (2.463 m). No flow Oct. 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	.10	.55	12	34	89	23	22	1.4	27	40	8.4
2	1.4	.14	.88	12	38	83	21	20	2.0	24	51	7.4
3	1.3	.14	1.4	20	66	73	20	19	2.9	19	42	6.6
4	1.1	.17	1.5	98	90	64	19	17	3.4	15	31	10
5	.95	.18	1.3	163	91	59	17	15	8.8	17	22	12
6	.79	.18	1.2	134	82	69	16	13	10	30	17	11
7	.70	.17	1.0	103	72	131	15	11	8.4	70	14	9.1
8	.62	.14	.97	83	62	157	14	9.9	7.2	67	33	7.6
9	.52	.14	.89	70	55	136	15	9.0	6.4	49	79	6.6
10	.48	.13	.80	60	58	111	15	8.1	5.7	36	109	6.0
11	.42	.12	.79	50	58	92	14	7.2	5.5	31	87	5.6
12	.36	.12	.76	42	52	79	13	6.4	4.7	27	61	5.0
13	.32	.13	.74	40	84	68	12	5.8	3.9	28	92	4.5
14	.30	.13	.73	43	112	59	11	5.2	3.4	29	136	4.0
15	.26	.13	1.7	47	102	58	11	4.5	2.8	39	107	3.6
16	.25	.13	3.0	47	92	79	10	3.9	2.9	65	80	3.3
17	.22	.16	3.0	44	117	79	9.7	3.4	5.0	72	71	3.0
18	.19	.20	3.1	40	129	71	11	3.2	8.2	64	108	2.7
19	.16	.23	3.5	30	116	61	13	2.8	86	45	97	2.5
20	.12	.26	3.2	34	102	53	14	2.4	107	33	76	3.3
21	.08	.28	2.9	40	89	79	13	2.1	88	28	57	5.3
22	.05	.29	2.8	44	79	93	12	3.1	66	24	42	9.3
23	.03	.30	2.8	48	69	77	12	2.7	50	21	33	9.6
24	.01	.31	2.9	64	60	62	12	2.1	38	20	30	8.1
25	.00	.40	6.2	67	53	52	11	2.9	29	17	25	6.7
26	.00	.48	10	60	46	45	13	7.2	24	15	21	19
27	.00	.53	11	52	47	38	18	5.4	19	12	18	147
28	.00	.54	10	45	78	32	24	3.9	17	10	16	205
29	.00	.56	9.4	40	---	29	27	3.5	16	9.6	13	146
30	.00	.53	8.7	36	---	26	25	2.6	24	10	11	107
31	.02	---	8.7	34	---	24	---	1.9	---	12	9.6	---
TOTAL	12.25	7.32	106.41	1702	2133	2228	460.7	226.2	656.6	965.6	1628.6	785.2
MEAN	.40	.24	3.43	54.9	76.2	71.9	15.4	7.30	21.9	31.1	52.5	26.2
MAX	1.6	.56	11	163	129	157	27	22	107	72	136	205
MIN	.00	.10	.55	12	34	24	9.7	1.9	1.4	9.6	9.6	2.5

CAL YR 1981 TOTAL 7635.65 MEAN 20.9 MAX 516 MIN .00
WTR YR 1982 TOTAL 10911.88 MEAN 29.9 MAX 205 MIN .00

02084557 VAN SWAMP NEAR HOKE, NC

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

AVERAGE DISCHARGE.--5 years, 27.0 ft³/s (0.765 m³/s), 14.67 in/yr (373 mm/yr).

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 discharges 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)
Jan. 4	2000	*118	3.34	*3.04	0.927	Mar. 21	2000	116	3.29	2.99	0.911

Minimum discharge, 0.03 ft³/s (<0.001 m³/s) July 24; minimum gage height, 0.13 ft (0.040 m) Dec. 12, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.30	.25	9.3	29	58	27	22	1.9	.49	3.7	.41
2	.57	.34	.35	9.5	31	53	24	18	1.6	.33	3.2	.45
3	.66	.34	.34	19	52	47	22	17	1.2	.28	2.1	.53
4	.57	.34	.34	99	58	40	19	14	1.8	.33	1.4	.76
5	.48	.34	.34	109	55	36	18	12	3.0	.28	.89	.72
6	.42	.35	.28	92	59	42	16	10	2.5	.24	.60	.66
7	.35	.34	.28	75	56	73	15	8.9	1.9	.20	.33	.63
8	.29	.27	.28	65	49	82	14	8.2	1.4	.14	.23	.56
9	.28	.22	.28	57	45	73	14	7.0	1.1	.11	.22	.48
10	.28	.26	.28	48	53	63	14	5.8	.85	.08	.33	.48
11	.28	.28	.28	39	51	54	13	4.8	.71	.27	.24	.48
12	.23	.21	.28	33	47	47	12	4.0	.48	.25	3.7	.40
13	.22	.14	.22	29	81	41	11	3.2	.41	.31	3.2	.34
14	.22	.17	.28	30	97	35	9.9	2.9	.41	.52	3.5	.34
15	.22	.22	.66	30	86	36	9.6	2.4	.38	.91	2.1	.31
16	.22	.22	.98	28	73	58	9.1	1.9	.34	.70	1.6	.32
17	.22	.24	.76	26	71	60	8.6	1.6	.46	.42	1.5	.32
18	.25	.25	.76	23	70	54	8.3	1.5	.85	.31	3.8	.26
19	.34	.28	1.0	22	66	47	7.6	1.4	12	.20	7.9	.26
20	.34	.29	.90	22	64	73	6.9	1.2	11	.13	4.5	.45
21	.34	.28	.60	26	58	104	6.8	1.1	6.9	.09	2.5	1.4
22	.34	.28	.70	33	52	112	6.6	.98	5.0	.07	1.6	2.2
23	.38	.30	.76	38	46	100	6.2	.86	3.9	.04	1.1	1.7
24	.43	.34	.65	82	40	87	5.6	.86	3.0	.17	.55	1.1
25	.60	.28	4.1	81	35	75	5.0	1.6	2.4	.24	.71	.77
26	.66	.28	8.9	68	30	65	5.4	1.8	1.9	.11	.69	2.4
27	.45	.28	7.4	57	30	55	7.7	1.5	1.4	.06	.57	7.7
28	.37	.28	6.7	48	55	47	23	2.2	.97	.04	.57	5.6
29	.34	.26	6.0	41	---	40	28	3.4	.76	.21	.54	3.7
30	.31	.22	5.3	35	---	35	25	3.0	.63	.47	.48	2.9
31	.28	---	4.9	31	---	31	---	2.4	---	.43	.44	---
TOTAL	11.28	8.20	55.15	1404.8	1539	1823	398.3	167.50	71.15	8.43	54.79	38.63
MEAN	.36	.27	1.78	45.3	55.0	58.8	13.3	5.40	2.37	.27	1.77	1.29
MAX	.66	.35	8.9	109	97	112	28	22	12	.91	7.9	7.7
MIN	.22	.14	.22	9.3	29	31	5.0	.86	.34	.04	.22	.26
CFSM	.02	.01	.08	1.97	2.39	2.56	.58	.24	.10	.01	.08	.06
IN.	.02	.01	.09	2.27	2.49	2.95	.64	.27	.12	.01	.09	.06

CAL YR 1981 TOTAL 2842.54 MEAN 7.79 MAX 216 MIN .02 CFSM .34 IN 4.60
WTR YR 1982 TOTAL 5580.23 MEAN 15.3 MAX 112 MIN .04 CFSM .67 IN 9.03

02085070 ENO RIVER NEAR DURHAM, NC

LOCATION.--Lat 36°04'20", long 78°54'30", Durham County, Hydrologic Unit 03020201, on right bank 275 ft (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).

WATER-DISCHARGE RECORDS

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

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

AVERAGE DISCHARGE.--19 years, 125 ft³/s (3.540 m³/s), 12.04 in/yr (306 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)
June 5	0830	3220	91.2	10.76	3.280	Aug. 12	0030	2750	77.9	9.58	2.920
June 11	0230	*7290	206	*17.30	5.273						

Minimum discharge, 1.1 ft³/s (0.031 m³/s) due to regulation, Sept. 11, gage height, 0.88 ft (0.268 m); minimum unregulated, 4.9 ft³/s (0.14 m³/s) Oct. 21, gage height, 1.19 ft (0.363 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	74	29	1220	171	695	92	98	72	283	84	19
2	75	66	32	361	151	453	90	85	70	123	96	20
3	67	57	37	651	815	299	89	81	148	74	84	24
4	63	44	35	955	846	226	95	78	1030	59	76	21
5	60	41	32	561	356	195	85	69	1740	156	52	18
6	58	41	29	283	253	213	81	62	412	124	49	15
7	54	40	29	201	199	775	80	59	184	87	47	13
8	45	39	29	152	165	727	76	56	118	71	83	9.7
9	40	35	28	130	151	345	129	53	117	69	107	9.1
10	27	35	27	108	247	248	146	49	2140	77	146	8.4
11	15	33	26	83	203	210	107	46	3060	74	425	8.0
12	9.5	30	26	76	162	189	94	42	515	84	1360	7.8
13	8.5	31	24	76	252	168	84	40	278	163	328	8.2
14	7.7	32	31	88	281	150	80	39	243	246	141	7.6
15	7.0	29	376	95	204	139	101	37	178	99	88	7.7
16	6.7	29	410	85	179	142	125	35	136	76	64	9.5
17	7.3	32	172	90	413	137	105	56	136	59	182	11
18	6.8	33	104	93	653	127	127	52	518	51	65	9.1
19	6.8	32	76	105	328	113	106	49	272	46	55	11
20	5.9	32	59	178	243	131	91	88	161	43	45	7.7
21	5.3	30	50	379	203	613	112	63	114	40	39	24
22	6.3	29	51	479	174	332	105	60	93	37	36	23
23	8.8	29	58	444	144	213	87	52	88	57	33	17
24	9.4	31	67	653	131	170	78	72	77	67	31	14
25	27	38	331	377	120	148	70	158	70	54	29	12
26	70	40	507	259	104	133	164	77	63	51	26	19
27	988	36	245	184	390	113	239	83	58	41	24	24
28	468	34	169	146	882	101	351	391	56	41	22	31
29	166	32	157	133	---	96	195	102	57	80	19	28
30	107	30	124	121	---	93	126	74	126	58	18	21
31	86	---	246	123	---	92	---	74	---	48	20	---
TOTAL	2594.0	1114	3616	8889	8420	7786	3510	2380	12330	2638	3874	457.8
MEAN	83.7	37.1	117	287	301	251	117	76.8	411	85.1	125	15.3
MAX	988	74	507	1220	882	775	351	391	3060	283	1360	31
MIN	5.3	29	24	76	104	92	70	35	56	37	18	7.6
CFSM	.59	.26	.83	2.04	2.14	1.78	.83	.55	2.92	.60	.89	.11
IN.	.68	.29	.95	2.35	2.22	2.05	.93	.63	3.25	.70	1.02	.12

CAL YR 1981 TOTAL 30619.6 MEAN 83.9 MAX 3870 MIN 4.2 CFSM .60 IN 8.08
WTR YR 1982 TOTAL 57608.8 MEAN 158 MAX 3060 MIN 5.3 CFSM 1.12 IN 15.20

02085070 ENO RIVER NEAR DURHAM, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/22	11 15	0000	1.26	6	102	7.41	15.0		8.9	87.0		80
81/11/16	13 45	0000	1.69	29	136	8.29	12.0	4.0	8.7	81.0	10.0	20
81/12/08	13 55	0000	1.68	29	94	7.34	10.0		10.2	90.0		40
82/01/28	10 45	0000	2.48	137	91	7.72			14.2			1600
82/02/18	12 40	0000	4.18	635	83	5.87	8.0	110.0	12.4	104.0	26.0	1200
82/03/04	12 35	0000	2.76	227	67	6.78	8.0		12.1	102.0		60
82/04/22	10 45	0000	2.28	103		7.10	14.0		9.7	93.0		240
82/05/18	11 45	0000	1.95	54	103	6.99	21.0	4.0	7.8	87.0	10.0	20
82/06/11	10 30	0000	9.28	2590	53	6.49	20.0		7.8	85.0		15600
82/07/12	12 05	0000	2.02	67	92	7.02	25.0		6.9	82.0		590
82/08/11	09 06	0000	2.09	75	113	6.94	24.0	10.0	7.7	91.0	12.0	1100
82/09/15	10 00	0000	1.29	8	115	6.80	23.0		7.6	87.0		50

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/22	11 15	0000	32	2	81	0.05K	0.050K	0.300	0.050K	0.050K		
81/11/16	13 45	0000	14	2	73	0.51	0.060	0.400	0.100	0.050K	10K	50K
81/12/08	13 55	0000	65	1K	85	0.18	0.050K	0.200	0.110	0.080		
82/01/28	10 45	0000	34	6	85	0.55	0.220	0.700	0.100	0.050		
82/02/18	12 40	0000	39	67	170	0.29	0.050K	0.400	0.150	0.050K	10K	50K
82/03/04	12 35	0000	14	21	240	0.35		0.300	0.070	0.050K		
82/04/22	10 45	0000	27	1	75	0.37	0.050K	0.500	0.070	0.050K		
82/05/18	11 45	0000	28	6	79	0.28	0.050K	0.400	0.060	0.050K	10K	50K
82/06/11	10 30	0000	12	314	498	0.46	0.170	1.200	0.400	0.050K		
82/07/12	12 05	0000	31	81	135	0.39	0.050K	0.500	0.100	0.050K		
82/08/11	09 06	0000	27	13	98	0.56	0.050K	0.400	0.080	0.050K	10K	50K
82/09/15	10 00	0000	35	1	155	0.15	0.050	0.300	0.050	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/16	13 45	0000	50K	40K	100K	0.5K	100K	50K
82/02/18	12 40	0000	50K	40K	100K		100K	50K
82/05/18	11 45	0000	50K	40K	100K	0.2K	100K	50K
82/08/11	09 06	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

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

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

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.--21 years, 71.4 ft³/s (2.022 m³/s), 12.06 in/yr (306 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 1	0230	1620	45.9	4.80	1.463	Aug. 11	2030	3790	107	7.66	2.335
June 10	2400	*4390	124	*8.32	2.536						

Minimum discharge, 4.2 ft³/s (0.12 m³/s) Oct. 21, 22, gage height, 0.74 ft (0.226 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	16	14	869	131	341	50	46	30	167	26	16
2	7.3	15	12	166	92	202	47	44	27	52	26	16
3	7.3	15	12	374	575	143	51	64	90	37	20	15
4	8.5	14	12	582	416	110	56	53	401	34	19	14
5	4.8	13	12	252	166	99	49	43	537	230	17	13
6	5.1	11	11	127	132	100	51	36	138	60	16	13
7	5.1	11	11	97	103	371	47	32	68	39	14	12
8	5.3	12	10	85	83	316	45	31	50	31	15	12
9	5.5	10	10	71	82	149	72	31	85	30	19	12
10	5.4	9.2	10	55	148	114	74	30	716	28	41	12
11	5.2	8.7	9.2	93	106	98	58	28	2220	26	774	12
12	5.0	8.6	9.6	128	81	89	51	28	216	28	1080	11
13	4.9	8.9	9.8	139	146	81	47	29	120	147	117	11
14	5.1	8.4	10	115	156	75	45	27	97	170	68	11
15	5.7	8.4	156	113	107	71	59	26	75	46	44	11
16	5.3	8.4	234	44	97	71	60	26	61	34	33	11
17	5.6	10	90	85	338	72	52	30	61	30	239	11
18	5.4	9.4	47	107	360	65	55	33	399	27	80	11
19	5.4	9.4	30	70	168	61	51	33	165	24	35	18
20	5.2	9.4	24	125	130	80	47	41	89	23	26	11
21	4.7	9.4	34	241	107	256	59	43	61	21	23	11
22	4.5	8.9	22	239	87	143	57	39	52	18	21	11
23	5.7	9.2	32	226	74	99	47	33	48	25	21	10
24	6.1	10	48	312	69	80	41	72	45	25	19	9.3
25	9.5	14	283	185	62	71	38	79	43	21	19	8.8
26	20	13	262	136	48	67	97	46	39	19	17	11
27	527	12	134	100	220	61	106	77	38	19	16	15
28	258	12	96	83	519	56	97	110	37	41	15	14
29	69	12	77	83	---	53	68	42	37	97	15	12
30	26	12	57	82	---	51	53	34	50	28	15	11
31	19	---	167	87	---	49	---	31	---	25	15	---
TOTAL	1063.1	328.3	1945.6	5471	4803	3694	1730	1317	6095	1602	2905	366.1
MEAN	34.3	10.9	62.8	176	172	119	57.7	42.5	203	51.7	93.7	12.2
MAX	527	16	283	869	575	371	106	110	2220	230	1080	18
MIN	4.5	8.4	9.2	44	48	49	38	26	27	18	14	8.8
CFSM	.43	.14	.78	2.19	2.14	1.48	.72	.53	2.53	.64	1.17	.15
IN.	.49	.15	.90	2.53	2.22	1.71	.80	.61	2.82	.74	1.34	.17

CAL YR 1981 TOTAL 12361.8 MEAN 33.9 MAX 1360 MIN 1.7 CFSM .42 IN 5.72
WTR YR 1982 TOTAL 31320.1 MEAN 85.8 MAX 2220 MIN 4.5 CFSM 1.07 IN 14.49

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).

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 346.85 ft (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.--57 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 11	0500	4560	129	6.88	2.097	Aug. 12	0500	*7210	204	*8.37	2.551

Minimum discharge, 3.3 ft³/s (0.093 m³/s) Oct. 10, gage height, 1.02 ft (0.311 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	37	15	2050	337	904	86	70	98	138	45	22
2	5.1	30	17	423	209	499	83	68	70	73	44	23
3	4.8	27	18	757	1200	317	82	86	50	50	33	22
4	4.6	24	18	1510	981	236	83	73	1240	155	27	21
5	4.1	24	17	688	373	206	77	59	613	600	23	20
6	4.4	23	16	301	269	201	76	54	269	161	21	16
7	4.5	22	15	221	204	644	76	50	117	83	19	15
8	4.1	20	15	176	168	824	71	52	76	65	17	14
9	4.0	18	16	139	160	332	98	45	330	52	261	13
10	3.7	18	14	113	314	241	128	42	412	48	841	12
11	5.0	17	13	85	211	201	90	39	2790	46	668	12
12	10	23	13	80	163	181	80	37	428	46	3370	12
13	11	17	12	79	285	163	76	36	221	44	331	12
14	16	15	14	84	342	145	73	36	188	112	164	12
15	21	14	350	87	211	132	74	33	127	61	100	11
16	25	14	562	83	197	134	74	31	88	50	74	11
17	25	15	206	82	1080	140	73	33	79	43	68	12
18	26	15	128	79	881	126	93	44	2360	37	141	16
19	31	14	87	107	408	112	93	41	534	32	71	13
20	30	15	70	226	301	196	79	41	227	29	54	11
21	31	15	55	455	234	421	98	68	145	26	43	11
22	34	14	59	573	190	264	93	49	105	24	38	12
23	38	13	87	410	158	181	78	39	90	24	34	12
24	38	14	140	644	140	147	71	113	77	38	31	12
25	47	17	718	403	124	129	65	98	69	36	29	11
26	81	22	700	266	106	115	134	56	62	27	26	12
27	1120	23	320	190	303	100	211	45	56	23	23	17
28	452	18	209	156	1200	89	151	69	51	21	38	31
29	117	16	156	166	---	84	96	48	48	230	38	22
30	66	15	112	175	---	83	77	42	55	89	26	17
31	48	---	200	203	---	83	---	37	---	50	21	---
TOTAL	2315.9	569	4372	11011	10749	7630	2739	1634	11075	2513	6719	457
MEAN	74.7	19.0	141	355	384	246	91.3	52.7	369	81.1	217	15.2
MAX	1120	37	718	2050	1200	904	211	113	2790	600	3370	31
MIN	3.7	13	12	79	106	83	65	31	48	21	17	11
CFSM	.50	.13	.95	2.38	2.58	1.65	.61	.35	2.48	.54	1.46	.10
IN.	.58	.14	1.09	2.75	2.68	1.90	.68	.41	2.77	.63	1.68	.11

CAL YR 1981 TOTAL 24508.1 MEAN 67.1 MAX 2030 MIN 3.7 CFSM .45 IN 6.12
WTR YR 1982 TOTAL 61783.9 MEAN 169 MAX 3370 MIN 3.7 CFSM 1.13 IN 15.43

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.

DRAINAGE AREA.--772 mi² (1,999 km²).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good. Flow regulated by Lake Michie (see p.369). An average of 26.7 ft³/s (0.76 m³/s) was diverted from Flat River, an upstream tributary, for Durham municipal water supply, and an average of 2.6 ft³/s (0.074 m³/s) from Knap of Reeds Creek, an upstream tributary for Butner's municipal water supply. Sewage effluent from Durham, about 12.3 ft³/s (0.35 m³/s) and Butner, 2.4 ft³/s (0.068 m³/s) was returned to Neuse River, and the remainder, about 12.9 ft³/s (0.37 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. 367) 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 33.1 ft³/s (0.94 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.--12 years, 808 ft³/s (22.88 m³/s), 14.21 in/yr (361 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, 5,210 ft³/s (148 m³/s) June 14, gage height, 15.74 ft (4.798 m); minimum, 39 ft³/s (1.10 m³/s) Nov. 16, 17; minimum gage height, 2.35 ft (0.716 m) July 24, 25; minimum daily, 42 ft³/s (1.19 m³/s) Nov. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	225	79	1930	1070	1850	578	578	973	761	1180	118
2	44	223	79	3800	1090	2470	483	428	802	745	408	118
3	45	225	79	4630	1230	2750	420	394	766	808	608	117
4	44	224	79	4190	2150	3020	378	393	3650	803	368	116
5	44	223	79	4210	2880	2500	325	369	4310	754	296	116
6	44	222	80	4230	3070	2100	303	260	4730	738	174	116
7	45	222	79	4140	2690	2020	269	236	5080	796	112	114
8	45	116	80	3510	2290	2480	271	222	4210	572	115	122
9	45	45	80	1920	1930	2980	375	212	2370	241	113	120
10	45	45	80	1140	1640	3010	561	196	2180	152	114	94
11	45	45	79	1100	1500	2630	527	169	3970	59	115	72
12	45	45	70	1100	1380	2010	406	120	4600	167	700	74
13	46	45	79	300	1270	1980	327	89	4810	249	3200	77
14	46	45	76	250	1440	1740	300	80	4930	1340	3700	77
15	44	45	232	450	1510	1510	293	84	5110	1840	4100	76
16	44	42	1550	450	1440	1330	303	77	4880	640	4200	74
17	44	81	2280	450	1390	1190	374	71	4590	237	1300	74
18	44	114	964	450	1750	1130	525	80	4310	236	350	74
19	45	113	639	450	2260	1080	484	78	4320	385	700	76
20	45	97	454	1000	2300	968	379	85	4330	258	1100	77
21	44	70	449	1610	2120	1130	449	85	3760	250	320	77
22	44	71	445	2030	1920	1630	439	86	1930	116	230	76
23	44	80	240	2400	1720	2000	381	122	950	118	240	74
24	44	77	163	2460	1520	1980	317	121	416	74	390	74
25	46	72	515	3150	1290	1480	278	654	407	89	161	74
26	45	75	2010	3160	966	1150	285	1170	404	340	117	75
27	451	79	2970	3030	770	986	555	682	403	261	118	74
28	2350	80	1710	3100	1180	884	950	1450	694	106	120	73
29	2910	77	804	2400	---	813	1450	1290	830	108	122	73
30	852	81	747	2000	---	914	1330	1130	785	357	123	72
31	325	---	969	1200	---	841	---	713	---	1590	180	---
TOTAL	8048	3204	18239	66240	47766	54556	14315	11724	85500	15190	25074	2644
MEAN	260	107	588	2137	1706	1760	477	378	2850	490	809	88.1
MAX	2910	225	2970	4630	3070	3020	1450	1450	5110	1840	4200	122
MIN	44	42	70	250	770	813	269	71	403	59	112	72

CAL YR 1981 TOTAL 102746 MEAN 281 MAX 4020 MIN 32
WTR YR 1982 TOTAL 352500 MEAN 966 MAX 5110 MIN 42

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, 145 micromhos Oct. 28; minimum daily, 42 micromhos Jan. 5.
WATER TEMPERATURES: Maximum daily, 28.0°C July 24, 26-29, Aug. 11; minimum daily, 1.0°C Jan. 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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												
05...	1600	44	95	7.5	20.0	20	9.2	30	7	6.5	2.7	6.7
NOV												
30...	1330	86	115	6.8	9.0	32	11.2	27	0	6.5	2.5	5.9
JAN												
04...	1000	4180	67	6.1	5.5	120	12.8	21	9	4.8	2.1	5.3
05...	0900	4210	72	--	3.0	100	13.5	21	--	5.1	2.0	5.3
FEB												
04...	0900	2030	85	6.2	5.5	100	12.2	22	4	5.1	2.2	6.9
08...	1230	2260	80	7.8	7.0	90	12.3	20	0	4.5	2.1	5.2
11...	1550	1430	100	7.1	7.0	75	12.4	25	0	5.9	2.5	6.9
APR												
01...	1100	526	96	6.9	14.0	45	10.2	25	0	5.9	2.6	7.4
JUN												
04...	1000	2960	80	6.8	24.0	70	8.4	23	0	5.4	2.2	5.2
04...	1400	3900	72	6.1	24.5	100	8.4	22	4	5.1	2.2	5.1
07...	0945	5120	60	6.4	22.0	160	7.2	19	1	4.5	1.8	3.9
SEP												
30...	1520	72	117	6.7	22.0	22	9.5	25	0	6.3	2.6	7.9

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												
05...	30	.5	2.9	28	0	23	1.5	6.8	6.2	.1	12	68
NOV												
30...	29	.5	3.3	42	0	34	11	8.7	7.5	.1	9.8	82
JAN												
04...	33	.6	2.4	15	0	12	19	8.8	6.2	.2	9.0	78
05...	33	.5	2.2	--	--	--	--	8.8	5.7	<.1	8.8	78
FEB												
04...	38	.7	1.9	22	0	18	25	12	7.0	.1	9.1	72
08...	34	.6	1.9	38	0	31	.3	11	5.9	.1	9.3	68
11...	35	.7	1.8	32	0	26	4.0	11	6.9	<.1	11	66
APR												
01...	37	.7	1.4	30	0	25	5.7	9.5	6.8	.1	11	64
JUN												
04...	31	.5	2.1	31	0	25	6.8	6.0	4.4	<.1	8.7	71
04...	31	.5	2.3	22	0	18	33	6.0	4.8	<.1	8.7	68
07...	29	.4	1.9	22	0	18	12	6.0	3.2	<.1	8.5	58
SEP												
30...	36	.7	3.0	42	0	34	11	7.0	7.0	.2	9.6	90

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
05...	60	.09	8.1	.02	.020	.04	.03	8.0	.050	<.010	.01	1.6
NOV												
30...	68	.11	19.0	.47	.030	.50	.53	--	.180	.160	.21	.82
JAN												
04...	46	.11	880	--	--	.38	--	--	.130	--	--	.73
05...	47	.11	887	--	--	.38	--	--	.140	--	--	.84
FEB												
04...	56	.10	395	.32	.060	.38	.39	--	.350	.430	.55	.62
08...	47	.09	415	.33	.030	.36	.35	--	.190	.220	.28	.59
11...	62	.09	255	.45	.030	.48	.44	--	.460	.490	.63	.54
APR												
01...	59	.09	90.9	.48	.030	.51	.50	--	.250	.210	.27	1.3
JUN												
04...	47	.10	567	--	--	.30	.28	--	.170	.150	.19	.43
04...	47	.09	716	--	--	.40	.36	--	.190	.140	.18	1.0
07...	40	.08	802	--	--	.30	.30	--	.120	.080	.10	.58
SEP												
30...	61	.12	17.5	--	.010	<.10	<.10	--	.060	.050	.06	1.3

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, 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-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT												
05...	--	1.60	1.2	.38	518	1.6	7.3	526	.41	.070	.21	.020
NOV												
30...	.48	1.00	.36	.64	--	1.5	6.6	--	1.2	.070	.21	.030
JAN												
04...	--	.86	--	--	--	1.2	5.5	--	--	.110	.34	--
05...	--	.98	--	--	--	1.4	6.0	--	--	.130	.40	--
FEB												
04...	.47	.97	.07	.90	--	1.4	6.0	--	1.3	.170	.52	.050
08...	.39	.78	.17	.61	--	1.1	5.0	--	.96	.120	.37	.050
11...	.51	1.00	.00	1.0	--	1.5	6.6	--	1.4	.170	.52	.080
APR												
01...	--	1.50	--	<.10	--	2.0	8.9	--	--	.210	.64	.030
JUN												
04...	.45	.60	.00	.60	--	.90	4.0	--	.88	.140	.43	.060
04...	.46	1.20	.60	.60	--	1.6	7.1	--	.96	.180	.55	.040
07...	.52	.70	.10	.60	--	1.0	4.4	--	.90	.170	.52	.070
SEP												
30...	.65	1.40	.70	.70	--	--	--	--	--	.090	.28	.030

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 (UG/L AS AS)	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 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)
OCT												
05...	.020	<.010	--	37	--	--	1	0	1	<1	<1	30
NOV												
30...	.030	.030	.09	--	1	0	1	--	<1	<1	--	--
JAN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	1	--	--	--	1	--	--	6
FEB												
04...	.080	.040	.12	--	2	2	0	--	<1	<1	--	--
08...	.080	.040	.12	--	1	1	<1	--	<1	<1	--	--
11...	.110	.070	.21	--	1	1	0	--	1	<1	--	--
APR												
01...	.120	.050	.15	--	1	0	1	--	<1	<3	--	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	1	--	<1	--	<1	<1	--	--
07...	--	--	--	--	4	0	4	--	<1	<1	--	20
SEP												
30...	.050	.010	.03	--	1	--	--	--	<1	--	--	--

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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											
05...	--	<1	1	1	0	1	<10	11	9	2	<1
NOV											
30...	--	--	--	--	--	--	--	--	--	--	--
JAN											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	10	--	--	--
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
07...	8	12	--	2	0	2	--	9	6	3	--
SEP											
30...	--	--	--	--	--	--	--	--	--	--	--

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											
05...	780	560	220	89	5	--	<1	<10	200	170	34
NOV											
30...	--	--	--	--	3	1	2	--	--	--	--
JAN											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	2800	--	--	--	8	--	--	--	--	--	--
FEB											
04...	--	--	--	--	5	4	1	--	--	--	--
08...	--	--	--	--	4	3	1	--	--	--	--
11...	--	--	--	--	7	4	3	--	--	--	--
APR											
01...	--	--	--	--	15	--	<1	--	570	40	530
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	6	5	1	--	390	370	22
07...	2900	2500	400	--	6	5	1	--	170	100	75
SEP											
30...	--	--	--	--	3	--	--	--	--	--	--

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT									
05...	200	<.1	--	<.1	<.01	<1	<1	<1	40
NOV									
30...	--	<.1	--	<.1	--	<1	<1	--	--
JAN									
05...	--	.1	--	--	--	--	--	--	40
FEB									
04...	--	.3	.2	.1	--	<1	<1	--	--
08...	--	.3	.2	.1	--	<1	<1	--	--
11...	--	<.1	--	--	--	<1	<1	--	--
APR									
01...	--	.1	.0	.1	--	<1	<1	--	--
JUN									
04...	--	--	--	--	--	--	--	--	--
04...	--	.1	.0	.1	--	<1	<1	--	--
07...	--	.1	.0	.2	--	<1	<1	--	20
SEP									
30...	--	.1	--	--	--	<1	--	--	--

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, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT									
05...	--	<4	2	9.0	6.2	<.1	1.0	--	--
NOV									
30...	--	--	--	7.7	1.7	--	--	<.01	.10
JAN									
05...	--	--	--	--	--	--	--	--	.10
FEB									
04...	--	--	--	6.4	1.7	--	--	--	.00
08...	--	--	--	6.0	.9	--	--	--	.00
11...	--	--	--	5.2	1.5	--	--	--	.00
APR									
01...	--	--	--	4.3	1.1	--	--	--	<.10
JUN									
04...	--	--	--	--	--	--	--	--	.05
04...	--	--	--	--	--	--	--	--	.05
07...	10	6	--	--	--	--	--	--	.05
SEP									
30...	--	--	--	8.6	1.8	--	--	<.01	.07

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	OCT 5,81	FEB 11,82	SEP 30,82
TIME	1600	1550	1520
TOTAL CELLS/ML	27000	2000	340000
DIVERSITY: DIVISION	1.5	1.1	0.8
.CLASS	1.5	1.1	0.8
..ORDER	1.9	2.2	0.9
...FAMILY	2.5	2.3	1.0
....GENUS	3.2	3.0	1.7

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	--	-	69	3	5200	2
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	1400	5	14	1	4500	1
....MELOSIRA	1800	6	120	6	3400	1
..FRAGILARIALES						
...FRAGILARIACEAE						
....SYNEDRA	3600	13	41	2	--	-
..NAVICULALES						
...CYMBELLACEAE						
....AMPHORA	--	-	14	1	--	-
...NAVICULACEAE						
....NAVICULA	940	3	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....SCHROEDERIA	590	2	--	-	--	-
....TETRAEDRON	--	-	55	3	--	-
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	--	-	27	1	*	0
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	--	-	2800	1
...MICRACTINIACEAE						
....MICRACTINIUM	350	1	--	-	*	0
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	110	6	2400	1
....KIRCHNERIELLA	350	1	27	1	3800	1
....OOCYSTIS	2400	9	14	1	1700	1
....SELENASTRUM	820	3	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	--	-	5500	2
....COELASTRUM	--	-	--	-	5500	2
....CRUCIGENIA	3800	14	--	-	2800	1
....SCENEDESMUS	5200#	19	--	-	4800	1
....TETRASTRUM	470	2	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	27	1	2100	1
..ZYGNEMATALES						
...DESMIDIACEAE						
....STAURASTRUM	240	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	480#	24	42000	12
....ANACYSTIS	--	-	580#	29	250000#	72
..NOSTOCALES						
...MAMMATOIDEACEAE						
....RAPHIDIOPSIS	--	-	260	13	--	-
..OSCILLATORIALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	5600#	21	140	7	2400	1
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	*	0
....TRACHELOMONAS	--	-	--	-	2400	1
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..DINOKONTAE						
...GLENODINIACEAE						
....GLENODINIUM	--	-	--	-	*	0

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

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	80	102	65	90	68	90	90	80	76	86	75
2	90	81	101	71	89	64	89	88	78	77	81	76
3	90	81	98	68	82	66	90	91	75	79	74	79
4	91	85	102	70	81	67	89	92	72	81	78	77
5	90	85	102	42	69	66	94	97	59	87	82	79
6	90	85	106	49	69	69	98	92	59	82	76	80
7	92	85	109	48	70	74	95	93	60	83	78	81
8	91	88	92	50	69	78	98	97	64	80	81	80
9	97	88	111	60	77	68	100	95	65	80	80	80
10	99	88	87	70	79	64	98	105	69	78	79	81
11	98	85	112	65	92	64	102	98	67	79	80	83
12	100	89	121	58	86	66	91	98	52	73	79	84
13	101	89	125	68	85	68	90	99	52	78	79	85
14	102	89	134	70	87	69	91	99	53	77	53	85
15	105	88	125	79	80	73	96	106	54	80	54	86
16	110	89	138	85	79	78	98	110	56	67	60	89
17	110	90	120	89	80	78	112	120	60	64	60	86
18	115	90	103	99	87	81	91	116	67	68	63	86
19	117	90	98	108	71	84	96	124	69	67	65	86
20	119	91	94	110	71	84	98	121	61	72	70	90
21	119	91	91	100	76	88	94	128	63	72	73	89
22	120	92	92	90	76	88	98	135	68	71	73	89
23	121	92	93	80	77	76	98	123	70	72	75	90
24	121	92	91	72	81	76	98	120	72	75	73	92
25	120	95	91	78	84	74	100	112	70	74	72	93
26	120	97	92	70	86	81	100	89	77	77	73	91
27	125	100	77	71	87	84	98	76	72	76	73	95
28	145	99	69	71	73	80	99	72	75	74	73	93
29	90	99	82	75	---	80	88	73	76	76	73	96
30	78	100	82	70	---	81	83	70	74	85	76	102
31	78	---	82	88	---	82	---	77	---	82	73	---
MEAN	105	90	101	74	80	75	95	100	66	76	73	86

WTR YR 1982 MEAN 85 MAX 145 MIN 42

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

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

WTR YR 1982 MEAN 16.5 MAX 28.0 MIN 1.0

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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					
05...	1600	44	12	1.4	90
NOV					
30...	1330	86	17	3.9	96
JAN					
04...	1000	4180	58	655	96
05...	0900	4210	69	784	93
FEB					
04...	0900	2030	109	597	97
08...	1230	2260	49	299	98
11...	1550	1430	48	185	99
MAR					
08...	1015	2440	34	224	97
08...	1710	2600	41	288	97
11...	0915	2700	40	292	99
12...	0900	2300	37	230	98
12...	1440	490	40	53	96
APR					
01...	1100	526	119	169	95
JUN					
04...	1000	2960	37	296	86
04...	1400	3900	73	769	95
07...	0945	5120	57	788	95
07...	1005	5120	59	816	96
10...	1130	2180	35	206	91
SEP					
30...	1520	72	15	2.9	85

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/20	13 20	0000	2.45	45	118	7.31	19.0		9.8	105.0		10
81/11/16	10 10	0000	2.44	45	78	6.93	10.0	15.0	9.1	81.0	31.0	10
81/12/04	09 35	0000	2.71	79	104	6.86	10.0		10.4	92.0		30
82/01/26	15 30	0000	11.54	3120	62	6.46	2.0					
82/02/11	10 10	0000	7.65	1510	140	6.44	5.0	60.0	13.1	102.0	46.0	30
82/03/03	12 05	0000	10.38	2600	68	6.91	7.3		13.1	107.0		
82/04/02	10 30	0000	3.92	334	121	6.82	14.5		8.7	86.0		70
82/05/06	11 10	0000	3.55	260	114	7.10	19.0	25.0	8.1	87.0	20.0	30
82/06/04	10 20	0000	11.80	3240	82	6.70	24.0		6.8	80.0		480
82/07/09	10 30	0000	3.46	242	90	6.76	25.0		6.3	75.0		10
82/08/11	12 30	0000	2.78	1110	105	6.40	28.0	20.0	7.5	95.0	30.0	50
82/09/08	10 00	0000	2.81	121	90	6.80	24.0		6.6	77.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/20	13 20	0000	28	20	124	0.05K	0.120	0.800	0.070	0.050K		
81/11/16	10 10	0000	22	13	112	0.33	0.300	0.800	0.090	0.050K	10K	50K
81/12/04	09 35	0000	38	14	108	0.48	0.230	0.800	0.090	0.050K		
82/01/26	15 30	0000	11	41	127	0.44	0.130	0.600	0.160	0.070		
82/02/11	10 10	0000	16	53	140	0.46	0.500	0.900	0.160	0.050	10K	50K
82/03/03	12 05	0000	13	30	118	0.38	0.100	0.500	0.110	0.050K		
82/04/02	10 30	0000	29	110	240	0.55	0.240	0.800	0.240	0.050K		
82/05/06	11 10	0000		53	168		0.160	1.100	0.290	0.080	10K	50K
82/06/04	10 20	0000	22	38	196	0.27	0.130	0.800	0.160	0.050K		
82/07/09	10 30	0000	25	63	163	0.57	0.130	0.700	0.160	0.050K		
82/08/11	12 30	0000	23	38	119	0.05	0.050K	0.700	0.100	0.050K	10K	50K
82/09/08	10 00	0000	22	20	106	0.05K	0.050K	0.700	0.070	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/16	10 10	0000	50K	40K	100K	0.5K	100K	50K
82/02/11	10 10	0000	50K	40K	100K	0.2K	100K	50K
82/05/06	11 10	0000	50K	40K	100K	0.2K	100K	50K
82/08/11	12 30	0000	50K	40K	100K	1.5	100K	50K

K Less than noted value.

02087500 NEUSE RIVER NEAR CLAYTON, NC

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

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

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. WDR NC-81-1: Drainage area.

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. 367). The city of Raleigh diverted from Swift Creek (see p. 369), a downstream tributary, an average of 9.1 ft³/s (0.26 m³/s), and from the Neuse River upstream from station an average of 33.1 ft³/s (0.94 m³/s), most of which was returned as sewage effluent upstream from station.

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

AVERAGE DISCHARGE.--55 years, 1,171 ft³/s (33.16 m³/s), 13.83 in/yr (351 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 flood-mark at former site, discharge, 21,200 ft³/s (600 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,850 ft³/s (222 m³/s) June 12, gage height, 11.82 ft (3.603 m); minimum, 97 ft³/s (2.75 m³/s) Oct. 10, gage height, 0.98 ft (0.299 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	434	176	2720	1420	2720	982	1270	1040	1360	1260	303
2	115	374	226	3440	1380	2780	763	784	1750	1140	1040	250
3	116	360	274	4730	2500	2940	713	713	854	956	726	256
4	114	356	213	6740	3420	3110	672	654	4720	997	609	246
5	110	354	208	6600	3370	3050	608	623	7170	1240	532	234
6	116	421	194	5040	4400	3100	577	573	6880	1100	441	223
7	116	384	187	4500	3780	3860	538	482	5320	958	333	228
8	117	354	185	4390	3030	4950	516	449	5130	1010	414	225
9	116	232	176	3540	2550	3980	762	434	4680	627	351	238
10	112	156	162	1850	2230	3560	881	411	2670	550	411	234
11	115	151	158	1430	1960	3300	851	390	5420	401	614	207
12	117	148	154	1330	1780	2810	750	358	7570	321	1900	170
13	119	148	153	711	1920	2250	654	315	5790	408	3000	170
14	116	147	158	668	2060	2160	579	276	5400	1020	3350	176
15	118	159	400	831	1930	1990	549	255	5100	2150	3680	180
16	118	157	1540	854	1900	1880	538	251	4950	1450	3830	186
17	117	161	2580	918	2240	1650	564	427	4860	756	1840	186
18	120	203	1770	837	2780	1490	806	535	4530	471	629	180
19	120	232	1130	946	2720	1430	872	345	4330	446	842	182
20	123	230	661	1620	2820	1340	717	331	4150	589	1220	202
21	126	206	569	1860	2620	2080	834	350	4070	533	579	221
22	133	178	579	2640	2340	2300	810	331	3410	387	427	345
23	136	176	578	3100	2090	2220	708	369	1730	323	462	227
24	138	186	325	4080	1890	2410	629	690	974	364	549	199
25	201	246	511	3440	1670	2090	564	812	694	329	501	181
26	555	200	1540	3410	1390	1650	567	1650	651	588	318	218
27	650	190	2940	3350	1500	1360	803	1670	627	385	262	427
28	2120	188	2830	3080	3100	1210	1680	1680	643	284	266	252
29	3070	178	1430	2680	---	1100	1790	1990	1040	455	247	206
30	2160	175	839	2120	---	1020	1930	1550	1320	812	243	187
31	807	---	1080	1520	---	1220	---	1190	---	2060	250	---
TOTAL	12425	7084	23926	84975	66790	73010	24207	22158	107473	24470	31126	6739
MEAN	401	236	772	2741	2385	2355	807	715	3582	789	1004	225
MAX	3070	434	2940	6740	4400	4950	1930	1990	7570	2150	3830	427
MIN	110	147	153	668	1380	1020	516	251	627	284	243	170
CFSM	.35	.21	.67	2.38	2.07	2.05	.70	.62	3.12	.69	.87	.20
IN.	.40	.23	.77	2.75	2.15	2.36	.78	.72	3.48	.79	1.01	.22

CAL YR 1981 TOTAL 163729 MEAN 449 MAX 3760 MIN 81 CFSM .39 IN 5.30
WTR YR 1982 TOTAL 484383 MEAN 1327 MAX 7570 MIN 110 CFSM 1.15 IN 15.67

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	15 45	0000	1.05	114	177	7.06	18.0	3.0	13.2	139.0	28.0	10
81/11/10	07 45	0000	1.28	170	138	6.38	15.0	8.0	10.2	101.0	16.0	90
81/12/28	10 50	0000	5.98	2860	98	6.38	3.0	80.0	10.1	75.0	30.0	320
82/01/18	10 15	0000	2.56	780	155	6.79		35.0	14.2		23.0	10K
82/02/15	12 05	0000		1920								
	13 15	0000	4.50	1950	84	7.33	10.0	60.0	11.0	97.0	24.0	250
82/03/04	13 00	0000	6.16	3110	79	6.76	9.0	40.0	11.2	99.0	22.0	70
82/04/14	12 10	0000	2.18	578	132	7.10	15.0	15.0	8.8	87.0	15.0	60
82/05/11	12 30	0000	1.80	397	151	6.60	19.0	5.0	7.6	81.0	12.0	20
82/06/08	12 15	0000	8.70	5150	76	6.70	22.0	92.0	7.0	79.0	39.0	100
82/07/08	12 10	0000	2.92	1030	110	6.94	25.0	30.0	6.1	73.0	25.0	190
82/08/12	08 50	0000	5.02	2290	119	6.40	24.0	140.0	5.7	67.0	44.0	14000
82/09/07	10 00	0000	1.50	234								
	13 25	0000			207	7.10	22.0	5.0	8.1	92.0	30.0	150

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	15 45	0000	17	7	137	1.80	0.070	1.000	1.500	1.300		
81/11/10	07 45	0000	28	1	133	2.20	0.130	0.800	0.900	0.780	10K	50K
81/12/28	10 50	0000	9	72	151	0.57	0.240	0.800	0.220	0.100		
82/01/18	10 15	0000	43	16	128	1.10	0.190	0.800	0.290	0.180		
82/02/15	13 15	0000	38	55	150	0.64	0.180	0.600	0.210	0.090	10K	50K
82/03/04	13 00	0000	16	58	140	0.45	0.060	0.400	0.150	0.050		
82/04/14	12 10	0000	28	9	139	0.95	0.050	0.300	0.480	0.370		
82/05/11	12 30	0000	25	11	126		0.060	0.900	0.690	0.610	10K	50K
82/06/08	12 15	0000	17	76	197	0.40	0.080	0.700	0.230	0.060		
82/07/08	12 10	0000	28	35	127	0.84	0.080	0.700	0.360	0.210		
82/08/12	08 50	0000	15	271	367	0.63	0.050K	1.100	0.520	0.150	10K	50K
82/09/07	13 25	0000	29	12	170	3.20	0.050K	0.800	1.100	0.950		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/10	07 45	0000	50K	40K	100K	0.5K	100K	50K
82/02/15	13 15	0000	50K	40K	100K	0.2K	100K	50K
82/05/11	12 30	0000	50K	40K	100	0.2K	100K	50K
82/08/12	08 50	0000	50K	40K	200	0.2K	100K	50

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year. Prior to October 1970 medium and high water discharges only. Gage height records at different datum collected at this site since July 1911 are contained in reports of the National Weather Service, NOAA, U.S. Department of Commerce.

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

GAGE.--Water-stage recorder. Datum of gage is 99.26 ft (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.--Water-discharge records good. Diversions for municipal water supply for cities of Durham and Butner (see sta 02087183). Flow regulated by Falls Lake (see p. 367). The city of Raleigh diverted from Swift Creek (see p. 369), a downstream tributary, an average of 9.1 ft³/s (0.26 m³/s), and from Neuse River upstream from station an average of 33.1 ft³/s (0.94 m³/s), most of which was returned as sewage effluent upstream from station. The city of Smithfield diverted an average of 3.5 ft³/s (0.10 m³/s) 0.2 mi (0.3 km) upstream from station for municipal water supply, most of which was returned downstream as sewage effluent.

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

AVERAGE DISCHARGE.--10 years, 1,331 ft³/s (37.69 m³/s), 14.99 in/yr (381 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, 8,460 ft³/s (240 m³/s) Jan. 5, gage height, 18.39 ft (5.605 m); minimum, 96 ft³/s (2.72 m³/s) Oct. 20; minimum gage height, 2.97 ft (0.905 m) Oct. 11, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	610	188	2300	1700	3440	1230	1840	1060	1480	2270	319
2	121	423	210	3250	1640	3220	996	1020	1640	1380	1350	301
3	115	397	313	4050	2280	3300	875	822	1480	1110	1060	291
4	115	383	252	6270	3350	3300	834	755	4220	1090	697	310
5	110	378	235	8230	3910	3380	767	699	7260	1230	597	269
6	107	414	228	8010	4880	3430	700	654	8320	1330	539	250
7	109	461	215	6830	5210	4630	677	560	7880	1100	367	246
8	106	392	210	5980	4430	6060	614	489	7000	1100	391	242
9	108	332	205	5210	3600	6180	734	464	6600	880	377	244
10	106	188	189	3460	2920	5260	1030	439	4000	607	373	246
11	103	164	186	1990	2460	4690	1010	405	4310	563	542	241
12	105	157	185	1590	2170	3970	916	376	6580	380	1640	197
13	107	153	182	1160	2260	2990	789	322	7810	434	2580	180
14	105	150	190	885	2480	2590	700	283	7100	1140	3230	183
15	103	163	307	994	2400	2390	635	247	6540	1850	3450	189
16	103	162	1470	1110	2280	2420	613	231	6030	2060	3730	191
17	103	165	2150	1160	2560	2170	615	292	5700	1120	2990	185
18	103	176	2370	1110	3130	1920	783	542	5390	567	1040	178
19	104	241	1440	1140	3240	1750	1030	417	5060	498	815	178
20	101	239	1010	1710	3270	1660	877	313	4750	588	1240	182
21	102	227	753	2050	3200	1970	896	300	4510	584	944	221
22	102	195	737	2700	2900	2550	944	335	4160	496	517	297
23	108	182	759	3160	2550	2450	830	326	2670	376	493	276
24	105	193	584	4310	2280	2500	732	501	1510	423	635	220
25	118	237	539	4570	2070	2420	643	900	968	364	645	195
26	481	231	1530	4110	1810	2010	622	1310	845	502	401	218
27	436	202	2430	3930	1630	1640	856	1890	790	553	309	410
28	1790	203	3030	3540	2930	1440	2170	1840	768	303	332	327
29	2450	194	2140	3120	---	1300	2390	2370	1030	340	295	243
30	2710	186	1250	2610	---	1220	2170	1940	1380	748	271	210
31	1210	---	1140	1960	---	1290	---	1500	---	1780	269	---
TOTAL	11768	7798	26627	102499	79540	89540	28678	24382	127361	26976	34389	7239
MEAN	380	260	859	3306	2841	2888	956	787	4245	870	1109	241
MAX	2710	610	3030	8230	5210	6180	2390	2370	8320	2060	3730	410
MIN	101	150	182	885	1630	1220	613	231	768	303	269	178
CFSM	.32	.22	.71	2.74	2.36	2.40	.79	.65	3.52	.72	.92	.20
IN.	.36	.24	.82	3.16	2.45	2.76	.88	.75	3.93	.83	1.06	.22

CAL YR 1981 TOTAL 183096 MEAN 502 MAX 3340 MIN 91 CFSM .42 IN 5.65
WTR YR 1982 TOTAL 566797 MEAN 1553 MAX 8320 MIN 101 CFSM 1.29 IN 17.48

02087570 NEUSE RIVER AT SMITHFIELD, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COL MFM-FCB /100ML
81/10/14	12 20	0000	3.00	100	179	6.69	17.0		10.2	105.0		9
81/11/04	11 35	0000	4.54	388	116	6.83	20.0	15.0	8.2	89.0	30.0	7
81/12/04	14 55	0000	3.91	246								
81/12/09	14 55	0000	1.38	163	168	7.28	8.0		10.5	88.0		6
82/01/27	11 15	0000	13.77	3930	60	6.92			12.7			2
82/02/15	12 05	0000	10.46	2400	84	7.17	10.0	55.0	11.2	99.0	21.0	10
82/03/11	09 40	0000	14.02	4670	102	6.59	11.0		9.5	86.0		37
82/04/14	11 15	0000	5.74	705	114	7.10	16.0		8.2	82.0		5
82/05/11	11 30	0000	4.74	406	148	6.50	18.0	5.0	7.5	79.0	16.0	2
82/06/08	11 10	0000	17.18	6950	74	6.65	22.0		6.0	68.0		19
82/07/08	11 25	0000	7.03	1120	113	6.94	26.0		6.0	73.0		18
82/08/12	13 50	0000	9.51	2080	150	6.10	25.0	150.0	5.8	69.0	43.0	930
82/09/07	10 00	0000	3.88	244	200	7.10	21.0		7.3	81.0		19

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	12 20	0000	26	5	142	1.90	0.060	0.900	1.500	1.300		
81/11/04	11 35	0000	31	10	125	1.30	0.050K	0.500	0.530	0.440	11	5
81/12/09	14 55	0000	41	3	147	2.50	0.050K	0.700	0.820	0.760	10K	
82/01/27	11 15	0000	16	32	129	0.55	0.060	0.500	0.150	0.050		
82/02/15	12 05	0000	35	43	143	0.62	0.120	0.600	0.230	0.110	10K	5
82/03/11	09 40	0000	22	50	141	0.77	0.060	0.400	0.230	0.110		
82/04/14	11 15	0000	26	17	103	0.77	0.050K	0.500	0.320	0.200		
82/05/11	11 30	0000	26	20	174	1.20	0.050K	0.600	0.510	0.390	10K	5
82/06/08	11 10	0000	18	66	198	0.42	0.060	0.600	0.220	0.070		
82/07/08	11 25	0000	26	40	138	0.86	0.050K	0.500	0.370	0.220		
82/08/12	13 50	0000	18	273	405	0.96	0.050K	1.000	0.760	0.290	10K	5
82/09/07	10 00	0000	30	17	164	2.30	0.050K	0.500	0.790	0.730		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/04	11 35	0000	50K	40K	100K	0.5K	100K	50K
82/02/15	12 05	0000	50K	40K	100K	0.2K	100K	50K
82/05/11	11 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/12	13 50	0000	50K	40K	100	0.2K	100K	50

K Less than noted value.

02088000 MIDDLE CREEK NEAR CLAYTON, NC

LOCATION.--Lat 35°34'10", long 78°35'30", Johnston County, Hydrologic Unit 03020201, on right bank 300 ft (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).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 952: 1940(M), 1941. WSP 1233: 1943(M), 1945, 1949. WDR NC-81-1: Drainage area.

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

REMARKS.--Water-discharge records good above 5 ft³/s (0.14 m³/s) and fair below.

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

AVERAGE DISCHARGE.--43 years, 90.5 ft³/s (2.563 m³/s), 14.72 in/yr (374 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)	Time	Date	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	1500	*703	19.9	*7.05	2.149	May 28	0030	622	17.6	6.61	2.015
Mar. 8	2030	610	17.3	6.69	2.039						

Minimum discharge, 1.1 ft³/s (0.031 m³/s) Sept. 20, 26; minimum gage height, 1.35 ft (0.411 m) Sept. 20; minimum daily, 1.1 ft³/s (0.031 m³/s) Oct. 14, 15, 16.

REVISIONS.--Revised daily discharges in cubic feet per second for September 1981 are given below. These figures supersede those published in the report for 1981.

Sept. 1..... 3.6	Sept. 9.....33	Sept. 17.....2.5	Sept. 25.....1.7
2..... 3.4	10.....20	18.....2.2	26.....1.7
3..... 3.2	11.....10	19.....2.1	27.....1.8
4..... 2.8	12..... 7.0	20.....1.8	28.....1.7
5..... 9.6	13..... 6.3	21.....1.7	29.....1.6
6.....22	14..... 4.8	22.....1.6	30.....1.4
7.....16	15..... 3.6	23.....1.5	
8.....30	16..... 3.0	24.....1.6	

	TOTAL	MEAN	MAX	MIN	CFSM	IN
September 1981	203.2	6.77	33	1.4	.08	.09
Water Year 1981	10941.73	30.0	--	--	--	4.87

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	7.3	10	280	51	364	37	61	94	58	322	9.6
2	1.4	6.1	20	285	46	163	35	49	82	60	282	13
3	1.8	5.4	34	225	268	99	33	45	57	41	85	11
4	1.6	5.2	25	533	411	73	35	41	125	34	49	9.2
5	1.6	5.3	20	674	342	64	30	35	448	223	42	7.9
6	1.6	7.6	17	461	309	140	29	31	553	134	38	6.1
7	1.5	15	14	160	313	403	29	28	249	61	30	4.9
8	1.7	14	14	207	138	570	28	26	89	41	24	3.9
9	1.4	14	12	167	93	591	60	27	99	32	21	3.0
10	1.4	13	11	103	92	257	91	25	115	62	30	2.8
11	1.3	9.4	11	66	82	125	58	20	265	54	52	3.0
12	1.2	8.1	11	60	65	100	46	18	365	54	184	2.5
13	1.2	6.8	11	52	146	83	39	17	164	39	154	2.0
14	1.1	6.7	13	68	149	77	36	15	153	33	67	1.9
15	1.1	6.7	50	72	90	109	32	13	117	66	44	1.7
16	1.1	6.7	175	63	83	190	31	12	77	49	33	1.6
17	1.3	7.6	82	83	232	130	31	12	90	36	32	1.5
18	1.7	8.6	46	65	277	94	57	17	68	27	187	1.3
19	1.4	9.1	39	83	173	74	59	24	67	21	101	1.3
20	1.5	9.1	32	165	149	68	47	19	60	18	57	1.2
21	1.6	7.9	25	190	105	84	88	24	47	15	35	1.3
22	1.7	9.8	25	256	75	88	80	29	39	13	29	1.5
23	4.2	8.8	28	207	56	65	55	25	40	11	23	1.5
24	9.6	8.6	28	326	52	55	43	50	82	18	22	1.5
25	24	11	71	305	46	51	37	160	122	22	26	1.3
26	54	15	183	132	38	48	39	76	61	19	20	2.3
27	80	13	98	77	99	42	55	318	42	15	16	4.4
28	101	13	63	55	357	38	220	494	36	12	14	3.3
29	35	13	55	49	---	35	193	153	37	36	13	2.2
30	15	11	51	43	---	36	89	233	54	85	12	1.4
31	9.6	---	49	41	---	37	---	157	---	72	9.9	---
TOTAL	364.1	282.8	1323	5553	4337	4353	1742	2254	3897	1461	2053.9	110.1
MEAN	11.7	9.43	42.7	179	155	140	58.1	72.7	130	47.1	66.3	3.67
MAX	101	15	183	674	411	591	220	494	553	223	322	13
MIN	1.1	5.2	10	41	38	35	28	12	36	11	9.9	1.2
CFSM	.14	.11	.51	2.14	1.86	1.68	.70	.87	1.56	.56	.79	.04
IN.	.16	.13	.59	2.47	1.93	1.94	.78	1.00	1.74	.65	.92	.05

CAL YR 1981 TOTAL 10523.13 MEAN 28.8 MAX 532 MIN .58 CFSM .35 IN 4.69
WTR YR 1982 TOTAL 27730.90 MEAN 76.0 MAX 674 MIN 1.1 CFSM .91 IN 12.35

02088000 MIDDLE CREEK NEAR CLAYTON, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	13	15 0000	1.84	1	64	6.55	15.0		4.5	44.0		580
81/11/17	11	05 0000	1.72	8	89	6.82	16.0	3.0	8.1	81.0	25.0	260
81/12/09	11	35 0000	1.80	12	98	7.03	5.0		11.5	90.0		150
82/01/27	10	10 0000	2.78	77	74	7.61	1.0		14.9	105.0		100
82/02/15	10	35 0000	2.90	88	72	6.94	10.0	20.0	10.1	89.0	20.0	160
82/03/05	09	30 0000	2.64	62	66	6.89	8.9		10.7	92.0		70
82/04/14	09	10 0000	2.06	36	62	6.90	15.0		8.3	82.0		60
82/05/11	09	05 0000	1.68	19	78	6.60	15.0	7.0	7.2	71.0	18.0	40
82/06/08	09	00 0000	2.46	88	72	6.64	20.0		6.2	68.0		50
82/07/08	09	30 0000	1.99	43	71	6.91	24.0		6.0	70.0		240
82/08/12	15	10 0000	3.40	186		6.12	24.0	35.0	6.2	73.0	37.0	2000
82/09/07	08	45 0000	1.42	5	80	6.90	18.0		6.4	67.0		70

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	13	15 0000	25	7	98							
81/11/17	11	05 0000	23	1K	98	0.07	0.050K	0.400	0.080	0.060	11	50
81/12/09	11	35 0000	17	7	140							
82/01/27	10	10 0000	32	19	103							
82/02/15	10	35 0000	21	12	82	0.43	0.080	0.500	0.090	0.050K	10K	50
82/03/05	09	30 0000	11	16								
82/04/14	09	10 0000	19	13	95							
82/05/11	09	05 0000	22	21	104	0.32	0.060	0.600	0.110	0.050K	10K	50
82/06/08	09	00 0000	18	27	268							
82/07/08	09	30 0000	22	32	112							
82/08/12	15	10 0000	10	48	131	0.19	0.050K	0.800	0.170	0.050K	10K	50
82/09/07	08	45 0000	29	13	92							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/17	11	05 0000	50K	40K	100K	0.5K	100K	50K
82/02/15	10	35 0000	50K	40K	100K	0.2K	100K	50K
82/05/11	09	05 0000	50K	40K	100K	0.2K	100K	50K
82/08/12	15	10 0000	50K	40K	100	0.2K	100K	50K

K Less than noted value.

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).

PERIOD OF RECORD.--April 1978 to December 1982 (discontinued).

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

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

REMARKS.--Records good above 1.0 ft³/s (0.028 m³/s) and fair below. 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.--Water year 1982: 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)
Jan. 3	2230	51	1.44	6.01	1.832	Apr. 28	0730	*74	2.10	*6.35	1.935
Jan. 24	0700	40	1.13	5.68	1.731						

Minimum daily discharge, 0.01 ft³/s (<0.001 m³/s) Sept. 16-18.

October to December 1982: Maximum discharge during period, 32 ft³/s (0.91 m³/s) Dec. 12, gage height, 5.48 ft (1.670 m); minimum, 0.04 ft³/s (0.001 m³/s) Oct. 7, gage height, 3.19 ft (0.972 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	1.9	1.9	5.9	8.5	13	4.6	6.5	1.9	.75	14	.60
2	.75	1.9	3.5	3.5	7.6	10	4.4	5.2	1.6	.41	3.3	.30
3	.75	1.8	2.4	17	13	9.0	4.2	4.6	1.4	.31	2.1	.22
4	.75	1.8	2.0	32	11	8.1	4.0	4.0	2.0	2.0	1.6	.20
5	.80	1.8	1.8	16	13	7.6	3.8	3.6	8.0	2.9	1.2	4.0
6	.75	2.3	1.7	7.5	30	12	3.6	3.3	2.9	1.9	.84	1.0
7	.55	2.1	1.6	5.6	18	17	3.4	3.1	2.0	2.4	.48	.40
8	.42	1.9	1.6	4.9	12	15	3.6	2.9	1.6	2.1	.30	.04
9	.46	1.8	1.6	4.5	12	10	6.1	2.8	5.1	1.6	.43	.04
10	.59	1.8	1.6	4.1	16	8.9	4.1	2.5	5.7	2.4	1.5	.04
11	.72	1.8	1.6	3.9	12	8.2	3.7	2.3	5.1	5.8	1.0	.07
12	.74	1.8	1.6	4.0	9.8	7.7	3.5	2.1	3.0	2.7	5.9	.05
13	.70	1.7	1.6	4.1	24	7.1	3.2	1.9	2.2	3.0	2.3	.03
14	.50	1.7	2.3	5.0	19	7.4	3.1	1.7	2.8	7.0	1.3	.02
15	.40	1.7	6.4	5.2	13	14	2.9	1.5	2.0	3.5	.83	.02
16	.30	1.6	4.3	5.0	11	16	2.8	1.4	1.6	3.0	.44	.01
17	.26	1.7	2.4	5.2	25	11	2.8	2.7	1.4	2.9	.24	.01
18	.24	1.8	2.6	5.0	31	8.8	4.7	11	3.1	2.3	.18	.01
19	.50	1.7	2.4	7.0	23	7.8	3.0	3.3	5.1	2.1	.16	.02
20	.84	1.6	2.1	7.5	19	8.3	3.3	2.5	2.7	1.8	.13	1.9
21	.94	1.6	1.8	8.0	14	7.8	4.5	2.1	1.9	1.8	.12	3.6
22	1.0	1.6	2.0	8.5	11	7.2	3.1	2.0	2.2	1.5	.10	1.8
23	1.1	1.6	2.0	13	9.3	6.3	2.7	1.8	2.9	1.3	.09	.81
24	1.0	2.0	2.0	33	8.6	5.9	2.4	1.6	1.8	1.3	.08	.24
25	1.9	2.2	9.2	18	7.8	5.8	2.2	1.4	1.6	1.3	.07	.10
26	2.4	1.8	7.0	12	6.9	5.6	5.4	3.4	1.2	1.2	.07	5.2
27	4.2	1.8	3.4	8.7	14	5.4	9.4	4.7	.90	.94	.06	2.9
28	3.6	1.8	3.0	7.8	21	5.2	45	3.9	1.2	.71	.06	1.3
29	2.2	1.7	3.1	7.3	---	5.0	18	4.0	1.1	9.2	2.0	.47
30	2.0	1.6	2.7	6.8	---	4.8	9.0	3.0	1.2	3.4	1.6	.23
31	1.9	---	3.0	6.9	---	4.6	---	2.7	---	5.3	1.0	---
TOTAL	34.06	53.9	86.2	282.9	420.5	270.5	176.5	99.5	77.20	78.82	43.48	25.63
MEAN	1.10	1.80	2.78	9.13	15.0	8.73	5.88	3.21	2.57	2.54	1.40	.85
MAX	4.2	2.3	9.2	33	31	17	45	11	8.0	9.2	14	5.2
MIN	.24	1.6	1.6	3.5	6.9	4.6	2.2	1.4	.90	.31	.06	.01
CFSM	.22	.36	.56	1.82	2.99	1.74	1.17	.64	.51	.51	.28	.17
IN.	.25	.40	.64	2.10	3.12	2.01	1.31	.74	.57	.59	.32	.19

CAL YR 1981 TOTAL 1220.71 MEAN 3.34 MAX 197 MIN .00 CFSM .67 IN 9.06
WTR YR 1982 TOTAL 1649.19 MEAN 4.52 MAX 45 MIN .01 CFSM .90 IN 12.24

02088315 BEAVERDAM CREEK NEAR GRANTHAM, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	1.3	2.3									
2	.10	1.5	2.2									
3	.07	1.7	2.2									
4	.06	2.0	2.2									
5	.06	3.2	2.1									
6	.06	2.6	4.5									
7	.05	2.3	3.8									
8	.05	2.2	2.7									
9	.09	2.3	2.4									
10	.60	2.2	2.3									
11	.40	2.3	3.7									
12	.33	2.4	22									
13	.65	5.9	15									
14	1.9	3.5	5.4									
15	1.2	3.2	4.4									
16	.41	2.8	6.2									
17	.15	2.5	6.1									
18	.15	2.4	4.3									
19	.22	2.4	3.9									
20	.19	2.3	4.8									
21	.19	2.4	3.8									
22	1.5	2.4	3.2									
23	.75	2.3	4.0									
24	2.1	2.3	3.6									
25	6.0	2.2	4.4									
26	2.8	2.2	3.8									
27	2.0	2.3	3.0									
28	1.7	2.2	4.0									
29	1.5	3.0	6.0									
30	1.4	2.6	8.0									
31	1.3	---	12									
TOTAL	28.15	74.9	158.3									
MEAN	.91	2.50	5.11									
MAX	6.0	5.9	22									
MIN	.05	1.3	2.1									
CFSM	.18	.50	1.02									
IN.	.21	.56	1.18									

CAL YR 1982 TOTAL 1736.38 MEAN 4.76 MAX 45 MIN .01 CFSM .95 IN 12.89

02088470 LITTLE RIVER NEAR KENLY, NC

LOCATION.--Lat 35°35'20", long 78°11'18", Johnston County, Hydrologic Unit 03020201, near left bank on downstream side of bridge on Secondary Road 1934, 0.7 mi (1.1 km) downstream from Buffalo Creek, and 3.7 mi (6.0 km) west of Kenly.

DRAINAGE AREA.--191 mi² (495 km²).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good except those below 10 ft³/s (0.28 m³/s), which are fair. Some diurnal fluctuation and some regulation during periods of low flow caused by mill 10 mi (16 km) upstream.

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

AVERAGE DISCHARGE.--18 years, 184 ft³/s (5.211 m³/s), 13.08 in/yr (332 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	1700	*1410	39.9	*12.47	3.801	June 4	2200	1370	38.8	12.38	3.773
Mar. 8	1830	1390	39.4	12.44	3.792	June 14	1700	1020	28.9	11.33	3.453

Minimum daily discharge, 2.4 ft³/s (0.068 m³/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	94	25	299	281	684	159	283	70	190	515	22
2	5.4	64	27	403	283	628	151	200	96	219	272	22
3	5.2	50	41	496	419	573	141	164	133	201	161	24
4	5.7	41	57	841	643	470	131	146	1070	140	119	21
5	5.0	36	52	1320	695	354	120	112	1240	92	85	19
6	5.3	35	46	1290	883	378	119	88	972	77	67	17
7	4.6	39	41	1030	885	752	112	74	884	66	82	15
8	4.6	45	35	764	713	1260	101	63	785	63	97	15
9	4.2	42	33	569	600	1190	137	57	629	59	77	15
10	3.8	38	26	426	488	863	208	51	413	67	59	14
11	3.4	34	23	302	383	692	202	44	361	95	65	13
12	3.1	34	20	190	321	518	183	37	384	78	235	12
13	2.9	33	18	195	461	376	159	31	650	119	258	12
14	2.8	32	19	214	560	316	132	27	969	742	227	11
15	2.6	31	39	230	477	320	111	23	833	550	238	10
16	2.5	26	134	242	423	444	98	20	485	375	154	9.8
17	2.4	25	201	266	550	419	89	22	330	295	95	9.6
18	3.0	27	193	231	658	354	131	49	264	192	73	10
19	2.8	27	190	279	587	304	126	61	279	116	62	11
20	2.5	27	150	351	554	269	107	64	278	82	54	11
21	3.0	24	102	375	507	368	158	70	217	63	47	15
22	4.0	22	81	436	423	542	166	56	187	63	45	22
23	5.0	21	77	498	332	554	135	51	158	112	41	29
24	10	21	78	715	282	455	114	69	213	103	36	28
25	20	23	114	746	251	375	94	216	277	74	31	30
26	26	25	255	665	219	287	96	206	149	55	29	27
27	46	32	278	565	255	236	200	201	102	51	29	34
28	70	30	250	444	580	204	560	254	83	43	39	46
29	108	29	228	323	---	184	677	207	84	43	32	50
30	130	28	197	265	---	171	447	132	121	97	25	46
31	138	---	160	244	---	164	---	94	---	172	24	---
TOTAL	637.1	1035	3190	15214	13713	14704	5364	3172	12716	4694	3373	620.4
MEAN	20.6	34.5	103	491	490	474	179	102	424	151	109	20.7
MAX	138	94	278	1320	885	1260	677	283	1240	742	515	50
MIN	2.4	21	18	190	219	164	89	20	70	43	24	9.6
CFSM	.11	.18	.54	2.57	2.57	2.48	.94	.53	2.22	.79	.57	.11
IN.	.12	.20	.62	2.96	2.67	2.86	1.04	.62	2.48	.91	.66	.12

CAL YR 1981 TOTAL 31195.6 MEAN 85.5 MAX 1090 MIN 2.4 CFSM .45 IN 6.08
WTR YR 1982 TOTAL 78432.5 MEAN 215 MAX 1320 MIN 2.4 CFSM 1.13 IN 15.28

02088470 LITTLE RIVER NEAR KENLY, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	10 15	0000	3.34	3	83	6.95	16.0		7.3	73.0		20
81/11/10	11 15	0000	3.93	38	77	6.52	16.0	5.0	9.2	92.0	29.0	220
81/12/09	14 30	0000	3.99	34	78	7.56	10.0		10.9	96.0		180
82/01/18	10 45	0000	6.43	254	112	7.05			12.7			60
82/02/16	13 20	0000	7.70	416	60	6.90	15.0	25.0	9.9	99.0	23.0	80
82/03/17	14 25	0000	7.71	418	74	6.33	13.5		9.3	89.0		110
82/04/21	12 20	0000	5.66	164	59	6.70	16.0		7.1	71.0		210
82/05/12	11 45	0000	4.12	37	68	6.60	18.0	7.0	7.5	79.0	24.0	40
82/06/09	11 25	0000	9.24	638	54	6.10	21.0		5.6	62.0		340
82/07/07	12 30	0000	4.34	66	78	6.69	23.0		6.3	73.0		40
82/08/12	10 00	0000	6.28	250	62	6.40	24.0	35.0	5.7	67.0	42.0	5000
82/09/07	12 35	0000	3.33	15	70	7.10	21.0		6.8	75.0		90

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT WFLT MG/L	RESIDUE TOTAL 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
81/10/14	10 15	0000	4	1	67							
81/11/10	11 15	0000	19	1K	109	0.06	0.050K	0.600	0.200	0.050K	10K	5
81/12/09	14 30	0000	17	3	86							
82/01/18	10 45	0000	52	3	77							
82/02/16	13 20	0000	40	7	80	0.38	0.050K	0.400	0.070	0.050K	10K	5
82/03/17	14 25	0000	11	30	131							
82/04/21	12 20	0000	18	10	110							
82/05/12	11 45	0000	19	6	94	0.42	0.050K	0.600	0.190	0.050K	10K	5
82/06/09	11 25	0000	10	52	158							
82/07/07	12 30	0000	20	17	116							
82/08/12	10 00	0000	18	60	152	0.27	0.050K	0.700	0.250	0.060	10K	5
82/09/07	12 35	0000	22	2	73							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/10	11 15	0000	50K	40K	100K	0.5K	100K	50K
82/02/16	13 20	0000	50K	40K	100K	0.2K	100K	50K
82/05/12	11 45	0000	50K	40K	100K	0.2K	100K	50K
82/08/12	10 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02088500 LITTLE RIVER NEAR PRINCETON, NC

LOCATION.--Lat 35°30'40", long 78°09'38", Johnston County, Hydrologic Unit 03020201, on left bank 600 ft (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).

WATER-DISCHARGE RECORDS

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). WDR NC-81-1: Drainage area.

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.--Water-discharge records good except those below 10 ft³/s (0.28 m³/s) which are fair. Slight diurnal fluctuation and occasional regulation for short periods, caused by mills above station.

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

AVERAGE DISCHARGE.--52 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 6	0500	*1810	51.3	9.32	2.841	June 5	1200	1740	49.3	*10.05	3.063
Feb. 7	0800	1410	39.9	7.77	2.368	July 14	2300	1530	43.3	8.23	2.509
Mar. 9	1100	1730	49.0	9.05	2.758						

Minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	106	39	307	340	921	191	410	87	173	883	34
2	15	72	44	476	400	838	181	251	90	205	733	33
3	13	56	45	640	591	713	171	178	133	197	272	32
4	14	47	66	1160	810	615	161	156	1070	147	148	39
5	12	41	75	1660	952	491	148	130	1690	106	107	30
6	11	39	67	1780	1210	478	143	107	1520	91	82	27
7	12	38	62	1570	1380	847	139	93	1190	80	78	23
8	11	41	55	1170	1090	1420	130	83	957	73	93	16
9	10	45	51	785	817	1700	142	76	811	70	90	14
10	9.0	42	47	584	684	1400	211	69	549	67	68	13
11	8.4	39	43	420	554	957	222	64	420	92	63	12
12	7.2	36	40	285	453	708	194	57	540	90	242	11
13	5.1	49	36	271	611	525	172	50	800	234	385	10
14	4.6	34	36	296	806	430	146	46	1100	1450	244	9.4
15	3.8	34	58	318	703	425	129	42	1000	1240	243	9.4
16	3.5	33	113	320	582	600	118	38	800	610	175	9.3
17	3.4	29	186	354	764	611	111	36	600	515	107	9.2
18	4.5	28	191	317	997	517	134	46	320	270	82	8.8
19	3.8	31	184	348	913	431	148	70	300	145	69	11
20	3.5	32	163	495	773	371	126	73	320	104	60	14
21	3.2	34	118	535	682	450	145	80	320	82	52	20
22	3.0	31	95	584	583	683	175	75	240	69	47	26
23	6.0	28	86	664	467	737	145	66	200	202	45	34
24	10	29	87	1010	382	606	123	63	230	445	41	32
25	15	29	111	1110	332	503	108	211	294	170	41	31
26	21	31	243	935	284	387	104	263	173	97	40	30
27	37	38	307	738	305	300	194	255	111	73	39	40
28	54	43	272	598	679	251	688	272	92	60	40	56
29	108	41	241	461	---	222	972	244	88	54	38	68
30	119	40	209	355	---	207	712	155	93	73	37	60
31	124	---	174	315	---	197	---	111	---	128	36	---
TOTAL	666.0	1216	3544	20861	19144	19541	6483	3870	16138	7412	4680	762.1
MEAN	21.5	40.5	114	673	684	630	216	125	538	239	151	25.4
MAX	124	106	307	1780	1380	1700	972	410	1690	1450	883	68
MIN	3.0	28	36	271	284	197	104	36	87	54	36	8.8
CFSM	.09	.18	.49	2.90	2.95	2.72	.93	.54	2.32	1.03	.65	.11
IN.	.11	.19	.57	3.34	3.07	3.13	1.04	.62	2.59	1.19	.75	.12

CAL YR 1981 TOTAL 35678.0 MEAN 97.7 MAX 1450 MIN 3.0 CFSM .42 IN 5.72
WTR YR 1982 TOTAL 104317.1 MEAN 286 MAX 1780 MIN 3.0 CFSM 1.23 IN 16.73

02088500 LITTLE RIVER NEAR PRINCETON, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	10 45	0000	1.16	5	77	6.46	16.0		9.0	90.0		30
81/11/10	11 45	0000	1.58	41	75	6.11	17.0	4.0	9.4	97.0	33.0	80
81/12/09	13 55	0000	1.66	48	78	7.41	10.0		11.6	103.0		60
82/01/18	11 40	0000	2.70	302	87	7.38			13.9			80
82/02/16	13 45	0000	4.09	567	73	6.93	14.0	25.0	11.5	111.0	24.0	30
82/03/17	13 05	0000	4.37	613	76	6.46	12.0		10.1	94.0		220
82/04/21	11 30	0000	2.20	137	71	6.30	16.0		7.5	75.0		30
82/05/12	11 00	0000	1.66	57	68	6.70	18.0	5.0	7.3	77.0	27.0	20
82/06/09	10 30	0000	5.69	826	54	6.39	21.0		5.9	66.0		260
82/07/07	11 50	0000	1.74	79	77	6.70	24.0		6.3	74.0		40
82/08/12	10 45	0000	2.73	238		6.50	25.0	15.0	6.2	74.0	32.0	570
82/09/07	12 00	0000	1.34	23	75	7.10	22.0		6.6	75.0		20

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	10 45	0000	16	1	74	0.35	0.120	0.500	0.150	0.050		
81/11/10	11 45	0000	17	2	105	0.09	0.050K	0.500	0.200	0.070	10K	5
81/12/09	13 55	0000	18	25	114	0.36	0.120	0.700	0.200	0.120		
82/01/18	11 40	0000	48	3	77	0.81	0.140	0.600	0.100	0.050K		
82/02/16	13 45	0000	45	6	76	0.54	0.050K	0.400	0.060	0.050K	10K	5
82/03/17	13 05	0000	12	32	108	0.44	0.120	0.700	0.170	0.070		
82/04/21	11 30	0000	18	4	110	0.32	0.060	0.600	0.180	0.060		
82/05/12	11 00	0000	18	9	99	0.55	0.050K	0.800	0.200	0.090	10K	5
82/06/09	10 30	0000	12	45	140	0.25	0.090	0.800	0.240	0.080		
82/07/07	11 50	0000	18	8	106	0.48	0.050	0.500	0.190	0.050		
82/08/12	10 45	0000	17	32	122	0.43	0.050K	0.700	0.190	0.050	10K	5
82/09/07	12 00	0000	20	5	89	0.54	0.050K	0.400	0.170	0.050		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/10	11 45	0000	50K	40K	100K	0.5K	100K	50K
82/02/16	13 45	0000	50K	40K	100K	0.2K	100K	50K
82/05/12	11 00	0000	50K	40K	100K	0.2K	100K	50K
82/08/12	10 45	0000	50K	40K	100	0.2K	100K	50K

K Less than noted value.

02088682 BIG DITCH AT RETHA STREET AT GOLDSBORO, NC

LOCATION.--Lat 35°22'16", long 78°00'15", Wayne County, Hydrologic Unit 03020202, on right bank at upstream side of culvert on Retha Street at Goldsboro, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--2.17 mi² (5.62 km²).

PERIOD OF RECORD.--February 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m) from topographic map.

REMARKS.--Records good above 1.0 ft³/s (0.028 m³/s) and fair below except those for periods of no gage-height record, May 1 to June 9, 1982 and Aug. 11, 1982, which are poor.

EXTREMES FOR PERIOD.--February 1980 to September 1982: Peak discharges above base of 200 ft³/s (5.66 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, 1980	1900	253	7.16	5.36	1.634	Aug. 11, 1981	2330	622	17.6	7.26	2.213
June 26, 1980	1700	355	10.1	6.00	1.829	Aug. 22, 1981	1145	383	10.8	6.14	1.871
Aug. 19, 1980	1700	541	15.3	6.89	2.100	Jan. 3, 1982	1045	211	5.98	5.08	1.548
Sept. 6, 1980	0030	229	6.49	5.21	1.588	June 19, 1982	0015	273	7.73	5.49	1.673
Sept. 25, 1980	0315	425	12.0	6.35	1.935	Aug. 5, 1982	2000	225	6.37	5.18	1.579
Oct. 25, 1980	0315	312	8.84	5.73	1.747	Aug. 11, 1982	Unknown	*688	19.5	a*8.88	2.707
June 6, 1981	1815	218	6.17	5.13	1.564	Sept. 20, 1982	1715	353	10.0	6.49	1.978
July 4, 1981	0300	494	14.0	6.68	2.036						

a From floodmark.

No flow part of each day Aug. 16, 17, 1980, Aug. 4, 5, 6, Oct. 21, 22, 1981.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					1.8	1.5	4.7	1.8	.67	.42	.49	.19
2					1.6	2.0	4.3	1.8	.57	.38	.38	.55
3					1.6	2.0	4.2	1.7	.62	1.9	.12	13
4					1.5	6.7	4.4	1.6	.50	1.1	.12	1.1
5					1.5	20	4.0	1.6	.41	.25	.12	.39
6					1.7	10	3.8	1.4	.35	.18	.26	23
7					4.0	5.3	3.6	1.3	.94	.15	.20	.66
8					2.4	4.5	3.4	1.2	.44	.86	.14	.64
9					5.6	5.4	3.3	1.0	.45	1.6	.12	.75
10					14	3.5	3.0	.98	.47	.21	.10	.48
11					4.3	3.1	2.8	.94	.34	.19	.14	.76
12					3.4	3.9	2.8	.74	.23	.24	.24	.54
13					3.0	18	5.5	.62	.25	.19	.07	.57
14					2.6	4.9	16	.55	.24	.13	.05	.60
15					2.4	3.8	3.8	.51	.28	.12	.03	.31
16					2.8	3.4	3.0	.42	.23	.11	.05	.20
17					2.1	3.2	2.7	.31	.36	.16	.03	.12
18					1.9	49	2.5	.90	5.9	.34	.03	.28
19					1.8	6.1	2.3	.42	.32	.11	17	.54
20					2.0	5.6	2.3	15	.18	.10	2.3	.08
21					2.0	7.0	2.2	2.3	.17	.13	.74	.07
22					1.7	4.2	2.2	1.3	.15	.22	.40	.07
23					2.4	3.9	2.1	13	.17	17	.52	.06
24					2.1	4.6	1.8	1.5	.20	.73	.37	14
25					1.9	3.8	1.8	1.2	12	.21	.44	39
26					4.8	3.9	1.6	.96	34	.12	.57	1.5
27					1.8	4.1	6.8	.78	2.2	.14	.40	.46
28					1.7	9.8	7.6	.86	.66	.35	.25	.33
29					---	19	4.9	.68	.44	.23	.30	3.0
30					---	17	2.4	.70	.86	.15	.18	9.6
31					---	6.8	---	.66	---	.16	.37	---
TOTAL					---	246.0	115.8	58.73	64.60	28.18	26.53	112.85
MEAN					---	7.94	3.86	1.89	2.15	.91	.86	3.76
MAX					---	49	16	15	34	17	17	39
MIN					---	1.5	1.6	.31	.15	.10	.03	.06
CFSM					---	3.66	1.78	.87	.99	.42	.40	1.73
IN.					---	4.22	1.98	1.01	1.11	.48	.45	1.93

02088682 BIG DITCH AT RETHA STREET AT GOLDSBORO, NC--Continued

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	1.2	.73	2.0	1.2	1.2	.57	.36	1.9	.02	.01	.64
2	16	.96	.66	1.8	13	1.4	.35	.15	3.5	.09	.01	.52
3	3.9	.96	.54	1.6	2.0	1.1	.37	.15	.82	15	.01	.66
4	1.8	19	.56	1.5	1.5	2.3	.47	.18	9.1	49	.01	.48
5	1.2	2.7	.64	1.3	1.2	5.6	3.2	.17	2.7	.96	.01	.61
6	2.4	1.4	.63	1.3	1.1	1.6	2.1	.21	21	14	5.4	.43
7	1.1	1.1	.62	3.8	1.1	1.1	.27	4.7	1.9	3.6	.45	.36
8	.93	1.0	.61	1.3	1.2	1.0	.30	1.4	.45	.57	7.8	.72
9	.89	.91	.72	1.2	1.0	1.1	.67	.15	.32	.44	5.1	2.3
10	.76	.83	11	1.1	.98	1.1	.28	2.9	.27	.37	.06	.46
11	.69	.75	1.3	1.1	28	1.1	.26	.62	.28	.33	5.2	.36
12	.60	.57	.95	1.0	3.4	1.1	.31	.14	1.9	.32	79	.41
13	.56	.71	.86	1.0	2.3	2.1	.22	.15	.30	1.2	3.0	.41
14	.53	.84	.78	1.1	2.0	1.1	.26	.13	.34	.47	1.0	.40
15	.54	2.1	.79	1.0	1.8	1.1	.25	.15	.43	.23	.40	.49
16	.55	.90	1.1	.89	1.6	1.8	.33	.11	.30	.36	.22	.51
17	.63	1.3	.75	.77	1.5	1.1	.34	.12	.66	.21	16	.60
18	.70	2.0	.64	.88	1.5	1.3	.30	.15	.77	.13	.44	.77
19	1.9	.66	.65	.77	4.1	1.3	.27	5.1	.58	.16	43	.88
20	.38	.62	.53	.82	5.5	.97	.32	16	.42	.69	33	.73
21	.32	7.0	.52	5.4	1.9	1.1	.34	4.1	.14	.92	3.7	.84
22	.35	1.0	.59	1.2	1.6	1.3	.37	.36	.14	.28	96	.96
23	.38	.91	7.7	1.1	1.6	3.9	.36	.26	1.1	.06	12	1.1
24	1.4	1.4	1.1	.80	1.4	.59	.41	.23	.14	.07	6.1	1.2
25	36	3.2	.73	.72	1.3	.58	.29	.24	.12	8.2	3.4	1.3
26	1.4	.94	.69	.76	1.2	.69	.19	.18	.11	.36	2.3	1.4
27	.88	1.2	9.2	.72	1.2	.78	.22	.29	.07	.04	1.6	1.7
28	.81	.97	24	2.4	1.2	.77	.23	7.0	.07	.04	1.2	1.6
29	.65	.91	5.7	.78	---	.90	.24	.22	.06	.02	1.2	1.3
30	9.2	.78	3.1	1.6	---	2.4	2.0	.15	.07	.86	1.0	1.1
31	1.6	---	2.4	1.4	---	.41	---	.12	---	.02	.70	---
TOTAL	102.05	58.82	80.79	43.11	87.38	43.89	16.09	46.19	49.96	99.02	329.32	25.24
MEAN	3.29	1.96	2.61	1.39	3.12	1.42	.54	1.49	1.67	3.19	10.6	.84
MAX	36	19	24	5.4	28	5.6	3.2	16	21	49	96	2.3
MIN	.32	.57	.52	.72	.98	.41	.19	.11	.06	.02	.01	.36
CFSM	1.52	.90	1.20	.64	1.44	.65	.25	.69	.77	1.47	4.89	.39
IN.	1.75	1.01	1.38	.74	1.50	.75	.28	.79	.86	1.70	5.64	.43

WTR YR 1981 TOTAL 981.86 MEAN 2.69 MAX 96 MIN .01 CFSM 1.24 IN 16.82

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.19	.51	3.2	3.9	2.1	1.7	1.3	.70	2.5	13	.99
2	.66	.07	3.3	2.0	8.2	1.7	1.5	1.5	.50	1.5	1.7	1.1
3	.54	.11	.11	44	5.7	1.6	1.3	1.7	1.5	1.0	1.9	.89
4	.46	.11	.07	8.5	2.9	1.5	.85	1.2	8.0	.50	2.3	7.9
5	.40	.12	.07	4.7	24	1.5	.86	1.0	5.0	.35	21	4.0
6	.33	.77	.23	3.8	6.6	10	.90	.90	3.0	.90	2.7	1.5
7	.27	.07	.08	3.8	3.2	4.7	.66	.82	.80	.60	.62	.80
8	.30	.05	.13	3.5	2.4	2.3	1.5	.77	1.3	.38	1.1	.30
9	.26	.06	.14	2.8	3.7	1.8	2.3	.72	.80	.30	2.5	.37
10	.42	.07	.14	2.4	3.3	1.7	.37	.70	6.0	2.8	1.0	.42
11	.27	.09	.20	2.6	1.9	1.7	.37	.66	1.7	.22	84	.40
12	.24	.08	.11	2.6	8.2	1.9	.43	.62	.87	.13	30	.37
13	.28	.11	.09	5.1	11	2.1	.47	.60	2.0	12	7.7	.39
14	.36	.19	8.0	4.3	3.0	1.9	.38	.57	1.4	1.3	8.9	.38
15	.36	.21	16	3.9	2.4	9.4	.39	.55	1.3	.30	3.7	.40
16	.38	.33	1.3	2.9	6.6	2.3	.45	.54	1.5	5.0	3.1	.39
17	.39	.64	.89	2.5	9.1	1.8	3.9	.80	11	1.4	3.0	.39
18	.57	.11	4.0	2.5	3.4	1.7	1.6	1.0	5.2	1.0	3.0	.37
19	1.1	.12	1.3	4.7	3.9	1.7	.42	.60	23	.40	2.8	.70
20	.16	.17	1.1	2.9	2.5	4.2	2.6	.50	1.3	1.0	2.8	45
21	.20	.16	1.2	5.6	2.2	3.2	.70	.45	1.0	.30	3.0	3.0
22	.30	.12	1.8	2.9	1.9	1.7	.40	.42	2.9	.70	3.0	.92
23	.37	.09	1.2	18	1.8	1.6	.47	.40	1.2	3.0	3.1	.49
24	.40	1.2	1.8	6.6	1.8	1.7	.52	.38	1.4	1.0	2.5	.40
25	5.0	.09	28	4.0	1.6	1.9	.51	.70	1.3	.55	2.4	.37
26	.60	.08	3.3	3.1	1.5	2.2	8.0	1.6	1.8	.45	2.0	17
27	7.9	.09	2.9	2.6	13	2.2	19	3.0	2.1	.30	1.8	1.5
28	.73	.10	2.1	2.5	3.2	2.4	9.0	1.7	1.3	.50	8.1	.57
29	.60	.07	2.7	2.3	---	2.4	1.9	1.4	5.8	15	1.0	.48
30	.70	.07	1.7	2.1	---	2.1	1.5	1.3	4.0	1.8	1.3	.46
31	.67	---	5.9	2.9	---	1.9	---	1.0	---	16	1.1	---
TOTAL	26.02	5.74	90.37	165.3	142.9	80.9	64.95	29.40	99.67	73.18	226.12	92.25
MEAN	.84	.19	2.92	5.33	5.10	2.61	2.17	.95	3.32	2.36	7.29	3.08
MAX	7.9	1.2	28	44	24	10	19	3.0	23	16	84	45
MIN	.16	.05	.07	2.0	1.5	1.5	.37	.38	.50	.13	.62	.30
CFSM	.39	.09	1.35	2.46	2.35	1.20	1.00	.44	1.53	1.09	3.36	1.42
IN.	.45	.10	1.55	2.83	2.45	1.39	1.11	.50	1.71	1.25	3.87	1.58

CAL YR 1981 TOTAL 862.33 MEAN 2.36 MAX 96 MIN .01 CFSM 1.09 IN 14.78
WTR YR 1982 TOTAL 1096.80 MEAN 3.00 MAX 84 MIN .05 CFSM 1.38 IN 18.79

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).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 822: Drainage area. WSP 1333: 1931, 1935. WDR NC-81-1: Drainage area.

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.--Water-discharge records good. Flows regulated by Falls Lake (see p. 367). Diversions for municipal water supply for cities of Durham and Butner (see sta 02087183). National Weather Service gage height telemeter at station.

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

AVERAGE DISCHARGE.--52 years, 2,497 ft³/s (70.72 m³/s), 14.14 in/yr (359 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, 9,920 ft³/s (281 m³/s) Jan. 10, gage height, 18.62 ft (5.675 m); minimum, 150 ft³/s (4.25 m³/s) Oct. 24, 25, gage height, 2.22 ft (0.677 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	2220	404	2530	5700	4180	2200	5770	2860	1880	3050	507
2	205	1220	438	3130	4460	4920	2230	5510	2220	2070	4130	480
3	197	833	463	4240	4000	5400	2040	3670	2070	2090	3950	507
4	192	665	498	5050	4030	5670	1800	2470	2500	1860	3660	538
5	188	608	584	5670	4640	5740	1680	2010	3780	1660	2440	527
6	180	586	564	6400	5840	5690	1570	1720	4270	1630	1810	489
7	179	560	521	7350	6420	5740	1470	1510	5140	1880	1400	446
8	177	594	480	8440	7030	5970	1400	1330	5910	1940	1120	413
9	177	595	445	9380	7590	6400	1400	1150	6620	1730	965	396
10	178	557	418	9870	8000	7070	1450	1030	7280	1550	984	385
11	176	493	398	9730	8110	7900	1810	941	7750	1250	1020	384
12	175	378	375	9110	7820	8540	1990	869	7830	1150	5050	379
13	174	335	364	7600	7320	8730	1890	802	7560	1110	3950	363
14	173	322	390	5440	6600	8480	1710	729	7120	1230	3950	325
15	172	311	573	3390	6080	7910	1530	653	6790	2550	4030	306
16	171	304	757	2600	5850	7190	1380	585	6860	3600	3890	319
17	170	316	1470	2350	5850	6410	1270	528	7230	4070	3820	304
18	170	321	2540	2400	5930	5810	1290	529	7470	3030	3810	291
19	169	323	2990	2600	6060	5270	1420	670	7730	2090	3630	287
20	166	338	2710	2910	6280	4560	1740	792	7830	1480	2100	364
21	169	386	2000	3410	6440	3970	1810	696	7660	1240	1770	487
22	167	394	1500	3920	6450	3770	1800	640	7270	1160	1660	384
23	158	381	1310	4340	6280	4080	1920	628	6740	1000	1140	393
24	153	365	1270	5100	5910	4320	1800	614	6170	1000	908	457
25	183	356	1480	5590	5340	4350	1600	659	5210	1330	869	417
26	196	370	1550	6080	4370	4220	1500	1240	3460	1160	905	480
27	256	428	2430	6570	3870	3950	1660	1900	2130	875	810	526
28	573	445	3130	6900	3690	3360	2970	2560	1640	941	686	593
29	1120	417	3620	6950	---	2790	4720	2870	1450	936	596	729
30	2090	411	3780	6710	---	2470	5380	3210	1570	981	566	620
31	2620	---	3090	6270	---	2280	---	3260	---	1420	533	---
TOTAL	11284	15832	42542	172030	165960	167140	58430	51545	160120	51893	69202	13096
MEAN	364	528	1372	5549	5927	5392	1948	1663	5337	1674	2232	437
MAX	2620	2220	3780	9870	8110	8730	5380	5770	7830	4070	5050	729
MIN	153	304	364	2350	3690	2280	1270	528	1450	875	533	287
CFSM	.15	.22	.57	2.31	2.47	2.25	.81	.69	2.23	.70	.93	.18
IN.	.17	.25	.66	2.67	2.57	2.59	.91	.80	2.48	.80	1.07	.20

CAL YR 1981 TOTAL 383071 MEAN 1050 MAX 7120 MIN 151 CFSM .44 IN 5.94
WTR YR 1982 TOTAL 979074 MEAN 2682 MAX 9870 MIN 153 CFSM 1.12 IN 15.18

02089000 NEUSE RIVER NEAR GOLDSBORO, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/21	13 50	0000	2.30	166	156		15.0	6.0	9.7	96.0	18.0	10K
81/11/30	13 30	0000	3.08	406	134		8.0		11.4	96.0		30
81/12/16	14 20	0000	3.96	756	117		6.0		12.4	102.0		30
82/01/21	15 00	0000	9.70	3500	101		3.0	25.0	11.6	86.0	24.0	260
82/02/24	13 20	0000	13.82	5910	79		9.0		10.2	89.0		30
82/03/24	13 00	0000	11.34	4330	76	6.70	12.0		9.0	83.0		580
82/04/22	14 30	0000	6.31	1810	188	6.70	16.0	20.0	7.8	78.0	30.0	30
82/05/13	14 10	0000	4.03	792	117	6.80	22.0		9.4	108.0		40
82/06/10	14 00	0000	15.76	7340	64	6.70	22.0		6.0	68.0		60
82/07/13	12 30	0000	4.78	1120	96	6.30	27.0	15.0	7.3	90.0	29.0	1600
82/08/16	13 05	0000	10.45	3870	70	6.20	25.0		5.4	64.0		50
82/09/28	13 00	0000	3.48	584	132	6.60	20.0		7.7	84.0		150

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/21	13 50	0000		1K	163	0.78	0.120	0.600	0.500	0.350	10K	50K
81/11/30	13 30	0000		3	145							
81/12/16	14 20	0000		11	124						10K	
82/01/21	15 00	0000		20	108	1.10	0.120	0.700	0.150	0.060	10K	50K
82/02/24	13 20	0000		21	109							
82/03/24	13 00	0000		47	106							
82/04/22	14 30	0000	18	32	114	0.60	0.080	0.500	0.260	0.120	10K	50K
82/05/13	14 10	0000	21	21	125							
82/06/10	14 00	0000	15	26	124							
82/07/13	12 30	0000	13	34	193	0.78	0.060	0.500	0.280	0.130	10K	50K
82/08/16	13 05	0000	16	55	161							
82/09/28	13 00	0000	30	19	140							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/21	13 50	0000	50K	40K	100K	0.5K	100K	50K
82/01/21	15 00	0000	50K	40K	100	0.2K	100K	50K
82/04/22	14 30	0000	50K	40K	100K	0.2K	100K	50K
82/07/13	12 30	0000	50K	40K	100K	0.2	100K	50K

K Less than noted value.

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.--4.27 mi² (11.06 km²), revised.

PERIOD OF RECORD.--March 1978 to December 1982 (discontinued). Runoff figures for the period of record are unreliable and should not be used.

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.--Water year 1982: Maximum discharge, 57 ft³/s (1.61 m³/s) Aug. 12, gage height, 5.65 ft (1.722 m); minimum discharge, 0.01 ft³/s (<0.001 m³/s) July 11, 12, 13; minimum gage height, 2.23 ft (0.680 m) July 12, 13.

October to December 1982: Maximum discharge during period, 39 ft³/s (1.10 m³/s) Dec. 13, gage height, 4.67 ft (1.423 m); minimum, 0.02 ft³/s (<0.001 m³/s) Oct. 13, gage height, 2.29 ft (0.698 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.41	.39	4.1	5.6	10	2.8	5.7	.82	.74	53	.67
2	.03	.38	.96	3.5	6.3	7.5	2.5	4.0	.80	.53	50	.65
3	.02	.38	1.0	11	15	6.2	2.2	3.8	.73	.44	48	.62
4	.02	.38	.83	24	13	5.2	2.0	3.3	40	.48	46	2.8
5	.02	.38	.73	14	9.7	4.4	1.7	2.4	46	.45	28	2.2
6	.02	.45	.47	8.2	13	7.3	2.0	1.9	44	.41	8.8	1.4
7	.05	.41	.38	6.3	10	13	1.5	1.2	22	.40	4.4	.98
8	.03	.39	.44	5.4	7.7	12	1.5	1.0	6.0	.37	2.7	.62
9	.03	.33	.43	4.6	6.9	8.2	2.6	1.1	4.9	.34	1.5	.44
10	.02	.33	.36	3.8	7.8	6.2	2.6	.87	4.3	.05	2.1	.35
11	.04	.33	.27	2.8	7.0	5.3	2.2	.48	4.6	.01	4.0	.34
12	.03	.33	.25	2.5	6.3	4.7	2.0	.46	3.7	.01	52	.35
13	.02	.30	.26	3.1	29	4.1	1.7	.49	2.9	1.0	47	.33
14	.02	.25	.58	5.1	23	3.9	1.6	.47	6.9	11	46	.12
15	.02	.20	3.2	5.0	13	6.0	1.4	.39	4.5	7.5	33	.04
16	.02	.20	3.8	4.3	10	9.7	1.3	.36	2.6	4.0	11	.05
17	.02	.27	2.2	4.5	22	7.7	1.4	.39	1.9	2.1	5.2	.04
18	.02	.31	2.1	3.8	19	5.9	2.1	1.1	2.0	1.5	3.3	.02
19	.06	.30	1.9	5.1	13	4.8	1.8	1.1	28	3.8	2.5	.05
20	.05	.33	1.3	6.5	11	4.4	1.8	.92	12	27	1.9	.40
21	.05	.32	1.0	7.3	8.7	9.1	2.3	.78	5.0	8.3	1.6	1.9
22	.04	.25	1.1	8.1	6.8	9.8	2.0	.59	3.1	3.4	1.4	1.8
23	.05	.24	1.1	9.5	5.5	7.5	1.7	.80	2.7	1.9	1.2	1.3
24	.08	.34	1.2	23	4.8	6.0	1.4	1.1	2.4	1.6	1.1	.94
25	.25	.42	6.1	14	4.3	5.2	1.3	1.4	2.0	1.3	.94	.78
26	.35	.35	7.7	9.7	3.7	4.6	2.4	1.5	1.7	1.0	.83	1.8
27	.48	.37	4.9	6.8	6.1	3.7	5.6	6.3	1.4	.25	.70	3.5
28	.80	.45	3.6	5.6	13	3.2	35	3.9	1.1	.06	.93	2.5
29	.72	.41	3.0	4.5	---	3.1	19	2.2	1.0	8.3	.93	1.8
30	.64	.38	2.3	3.8	---	3.0	9.0	1.3	.93	50	.78	1.1
31	.48	---	2.4	3.9	---	2.9	---	.92	---	49	.70	---
TOTAL	4.50	10.19	56.25	223.8	301.2	194.6	118.4	52.22	259.98	187.24	461.51	29.89
MEAN	.15	.34	1.81	7.22	10.8	6.28	3.95	1.68	8.67	6.04	14.9	1.00
MAX	.80	.45	7.7	24	29	13	35	6.3	46	50	53	3.5
MIN	.02	.20	.25	2.5	3.7	2.9	1.3	.36	.73	.01	.70	.02

CAL YR 1981 TOTAL 896.46 MEAN 2.46 MAX 58 MIN .01
WTR YR 1982 TOTAL 1899.78 MEAN 5.20 MAX 53 MIN .01

02089222 BEAR CREEK NEAR PARKSTOWN, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	1.0	2.1									
2	.80	1.0	1.9									
3	.64	.92	1.6									
4	.40	1.4	1.6									
5	.35	6.6	1.3									
6	.33	5.5	1.9									
7	.32	3.7	2.0									
8	.31	2.5	1.9									
9	.31	2.1	1.5									
10	.33	1.7	1.4									
11	.37	1.7	1.6									
12	.43	1.6	21									
13	.07	4.5	34									
14	.16	6.4	17									
15	.23	4.5	9.0									
16	.49	3.8	7.5									
17	.58	3.2	6.9									
18	.27	2.7	5.6									
19	.14	2.5	4.5									
20	.09	2.2	4.8									
21	.08	1.6	4.0									
22	.13	1.4	3.2									
23	.20	1.1	3.2									
24	.78	.98	2.9									
25	5.4	.93	3.4									
26	8.1	1.1	.89									
27	5.0	1.5	.80									
28	3.0	2.0	1.4									
29	2.2	2.7	2.9									
30	1.9	1.9	8.2									
31	.94	---	12									
TOTAL	35.25	74.73	171.99									
MEAN	1.14	2.49	5.55									
MAX	8.1	6.6	34									
MIN	.07	.92	.80									

CAL YR 1982 TOTAL 2110.81 MEAN 5.78 MAX 53 MIN .01

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).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 822: Drainage area. WSP 1333: 1931-32. WDR NC-81-1: Drainage area.

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 records excellent. Flow regulated by Falls Lake (see p. 367). Diversions for municipal water supply for cities of Durham and Butner (see sta 02087183).

AVERAGE DISCHARGE.--52 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, 9,500 ft³/s (269 m³/s) Jan. 13, gage height, 15.74 ft (4.798 m); minimum, 231 ft³/s (6.54 m³/s) Oct. 24, gage height, 2.42 ft (0.738 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355	2120	468	3610	6890	5030	2730	4090	3040	1810	1870	651
2	341	2250	492	3280	6750	4650	2530	4790	3020	1960	2850	620
3	329	1580	521	3170	6450	4700	2470	5400	2610	2130	3320	599
4	321	1070	529	3780	5880	5020	2350	5530	2320	2210	3840	722
5	312	796	533	4510	5200	5390	2140	4430	2640	2080	4100	803
6	297	686	588	5160	4860	5740	1980	3030	3150	1870	3460	701
7	287	643	611	5640	4970	6020	1850	2230	3610	1790	2450	638
8	278	617	588	6070	5410	6140	1740	1880	4060	1910	1840	581
9	271	612	551	6600	5980	6180	1680	1620	4600	2000	1450	543
10	269	631	518	7330	6630	6270	1670	1400	5210	1910	1240	519
11	270	611	496	8210	7170	6480	1670	1250	5820	1800	1150	505
12	270	578	478	8990	7620	6840	1880	1150	6390	1510	1430	496
13	267	506	455	9410	8080	7380	2070	1070	6920	1570	2830	491
14	263	440	454	9420	8270	8010	2070	1000	7410	1700	3820	469
15	258	414	536	8880	8110	8590	1940	923	7550	1630	4150	441
16	253	396	710	7180	7680	8860	1760	841	7400	2340	4230	412
17	253	387	842	5390	7290	8640	1600	773	7180	3060	4240	411
18	251	387	1250	4110	7000	8110	1510	766	7070	3510	4170	403
19	245	392	2130	3620	6810	7460	1480	742	7450	3790	4070	399
20	243	397	2550	3330	6690	6830	1530	786	7700	3190	4010	458
21	243	403	2660	3260	6620	6250	1790	902	7820	2220	3280	535
22	240	422	2310	3400	6630	5580	1940	865	7860	1660	2350	700
23	245	444	1790	3730	6670	4920	1940	795	7840	1390	1990	604
24	234	458	1480	4160	6690	4530	2000	771	7660	1220	1530	543
25	261	448	1530	4640	6630	4480	1950	768	7310	1140	1170	551
26	265	438	1850	5140	6420	4570	1890	827	6880	1320	1030	616
27	311	432	1950	5550	6110	4610	1960	1170	6260	1330	1020	723
28	319	452	2200	5910	5630	4510	2200	1760	4560	1080	967	778
29	506	487	2730	6280	---	4230	2770	2280	2900	1090	854	737
30	826	474	3130	6600	---	3690	3540	2600	1980	1150	759	815
31	1650	---	3440	6810	---	3120	---	2850	---	1290	693	---
TOTAL	10733	19971	40370	173170	185140	182830	60630	59289	166220	58660	76163	17464
MEAN	346	666	1302	5586	6612	5898	2021	1913	5541	1892	2457	582
MAX	1650	2250	3440	9420	8270	8860	3540	5530	7860	3790	4240	815
MIN	234	387	454	3170	4860	3120	1480	742	1980	1080	693	399
CFSM	.13	.25	.48	2.08	2.46	2.19	.75	.71	2.06	.70	.91	.22
IN.	.15	.28	.56	2.39	2.56	2.53	.84	.82	2.30	.81	1.05	.24

CAL YR 1981 TOTAL 466682 MEAN 1279 MAX 6920 MIN 230 CFSM .48 IN 6.45
WTR YR 1982 TOTAL 1050640 MEAN 2878 MAX 9420 MIN 234 CFSM 1.07 IN 14.52

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.

INSTRUMENTATION.--Water-quality monitor since October 1981.

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.--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, 191 micromhos Aug. 12; minimum, 58 micromhos Mar. 12-15.
WATER TEMPERATURES: Maximum, 29.5°C July 28; minimum, 1.5°C Jan. 13-16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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)
OCT												
05...	1100	313	114	6.8	19.0	12	12.2	250	K24	24	2	5.5
NOV												
16...	1300	392	128	7.1	12.0	7.0	10.7	280	120	28	0	6.9
JAN												
12...	1230	9010	70	6.4	2.0	35	11.2	--	220	17	7	3.7
MAR												
01...	1145	5030	80	6.6	7.0	17	10.6	K60	180	20	5	4.9
MAY												
04...	1145	5580	79	6.4	18.0	9.1	5.5	100	1600	18	6	4.5
JUL												
07...	1330	1810	94	7.1	26.0	26	6.3	100	330	20	0	4.5
SEP												
09...	1100	535	138	7.0	23.5	8.3	7.8	--	--	23	0	5.3

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												
05...	2.4	13	51	1.3	2.9	27	0	22	5.6	13	12	.2
NOV												
16...	2.5	12	45	1.1	3.7	45	0	37	3.6	13	9.5	.2
JAN												
12...	1.8	5.3	37	.6	2.5	12	0	10	4.7	9.5	6.7	.2
MAR												
01...	2.0	7.4	41	.8	2.4	18	0	15	5.4	11	8.4	.1
MAY												
04...	1.7	6.6	40	.7	2.6	15	0	12	11	8.0	7.4	<.1
JUL												
07...	2.1	7.9	43	.8	2.1	34	0	28	2.8	10	7.3	.1
SEP												
09...	2.4	16	56	1.6	3.2	28	0	23	4.1	14	14	.2

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 1981 TO SEPTEMBER 1982

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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT												
05...	7.5	67	68	.09	56.6	.15	.13	.020	<.010	.01	.82	.84
NOV												
16...	11	89	86	.12	94.2	--	.87	--	.200	.26	--	.30
JAN												
12...	9.7	78	44	.11	1900	--	.43	--	.080	.10	--	.50
MAR												
01...	7.9	71	51	.10	964	--	.77	--	.160	.21	--	.59
MAY												
04...	7.3	74	47	.10	1120	--	.46	--	.160	.21	--	1.50
JUL												
07...	11	80	56	.11	391	--	.50	--	.080	.10	--	.50
SEP												
09...	12	77	80	.10	111	--	1.1	--	.040	.05	--	1.20

DATE	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)	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												
05...	.33	.51	.99	4.4	.64	.210	.64	.070	--	--	--	--
NOV												
16...	--	--	--	--	--	.300	.92	.230	.200	.61	1	0
JAN												
12...	--	--	--	--	--	.120	.37	.070	.050	.15	1	1
MAR												
01...	--	--	--	--	--	.100	.31	.080	.060	.18	--	--
MAY												
04...	--	--	--	--	--	.170	.52	.110	.090	.28	2	1
JUL												
07...	--	--	--	--	--	.270	.83	.160	.150	.46	--	--
SEP												
09...	--	--	--	--	--	.190	.58	.150	.130	.40	2	0

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)	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)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
16...	1	<100	--	41	<1	<1	20	10	10	<1	--	1
JAN												
12...	<1	100	40	57	<1	2	10	--	<10	<1	--	<1
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
04...	1	<100	--	44	<1	<1	10	--	<10	1	0	1
JUL												
07...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
09...	2	100	70	32	1	<1	10	--	<10	<1	--	<1

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	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)	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												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
16...	5	3	2	1100	500	600	5	3	2	100	20	81
JAN												
12...	13	5	8	1500	1100	380	<1	--	1	60	10	46
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
04...	5	1	4	1200	640	560	3	2	1	60	40	24
JUL												
07...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
09...	4	0	5	1100	750	350	2	0	2	60	30	31

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, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)
NOV												
16...	.2	.0	.2	<1	--	<1	<1	<1	<1	<1	40	30
JAN												
12...	<.1	--	<.1	5	2	3	<1	<1	<1	1	50	20
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
04...	<.1	--	<.1	5	0	5	<1	<1	<1	<1	30	7
SEP												
09...	.1	--	<.1	4	1	3	<1	<1	<1	<1	<10	--

DATE	ZINC, DIS-SOLVED (UG/L AS ZN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)
NOV												
16...	7	--	<1	--	<1.0	--	<.1	--	<1.0	--	<.1	--
JAN												
12...	29	--	--	--	--	--	--	--	--	--	--	--
MAR												
01...	--	<.10	--	<.10	--	<.01	--	<.10	--	<.01	--	<.01
MAY												
04...	23	<.10	<1	<.10	<1.0	<.01	<.1	<.10	1.0	<.01	.2	<.01
SEP												
09...	7	--	--	--	--	--	--	--	--	--	--	--

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)
NOV												
16...	<.1	--	<.1	--	--	<.1	--	<.1	--	<.1	--	--
JAN												
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
01...	--	<.01	--	.01	<.01	--	<.01	--	<.01	--	<.01	<.01
MAY												
04...	<.1	<.01	<.1	.01	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01
SEP												
09...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
16...	<.1	--	<.1	--	<.1	--	--	<.1	--	--	--	<.1
JAN												
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
01...	--	<.01	--	<.01	--	<.01	<.01	--	<.01	<.01	<.01	--
MAY												
04...	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1	<.01	<.01	<.01	<.1
SEP												
09...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)
NOV										
16...	--	--	<.10	--	<1.0	--	--	--	--	--
MAR										
01...	<.01	<.01	--	<.10	--	<.01	<.01	<.01	<.01	<.01
MAY										
04...	<.01	<.10	<1.00	<1	<10	<.01	.09	<.01	<.01	<.01

02089500 NEUSE RIVER AT KINSTON, NC--Continued

PHYTOPLANKTON ANALYSES, SEPTEMBER 1981

DATE	SEP 15,81
TIME	1430
TOTAL CELLS/ML	3500
DIVERSITY: DIVISION	1.3
.CLASS	1.3
..ORDER	1.4
...FAMILY	1.8
....GENUS	1.9

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..ACHNANTHALES		
...ACHNANTHACEAE		
....ACHNANTHES	29	1
..BACILLARIALES		
...NITZSCHIACEAE		
....NITZSCHIA	*	0
..FRAGILARIALES		
...FRAGILARIACEAE		
....SYNEDRA	58	2
..NAVICULALES		
...NAVICULACEAE		
....NAVICULA	58	2
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...DICTYOSPHAERIACEAE		
....DICTYOSPHAERIUM	58	2
...HYDRODICTYACEAE		
....PEDIASTRUM	350	10
...OOCYSTACEAE		
....ANKISTRODESMUS	58	2
...SCENEDESMACEAE		
....CRUCIGENIA	170	5
....SCENEDESMUS	260	7
..ZYGNEMATALES		
...DESMIDIACEAE		
....COSMARIUM	29	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	2300#	66
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	72	2
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..DINOKONTAE		
...PERIDINIACEAE		
....PERIDINIUM	29	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 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	120	133	109	118	147	145	146	92	91	91
2	---	---	124	138	119	130	150	142	146	95	93	94
3	---	---	130	125	118	119	150	144	146	97	90	95
4	---	---	141	122	119	121	144	137	140	97	86	90
5	---	---	116	119	117	118	139	133	136	86	85	85
6	---	---	125	118	116	117	137	133	135	85	78	82
7	---	---	128	120	116	117	135	133	134	78	72	75
8	---	---	132	124	119	122	140	134	137	72	69	70
9	---	---	129	125	122	124	140	134	138	69	67	68
10	---	---	129	128	123	125	134	126	129	67	65	66
11	---	---	131	131	124	128	126	125	126	68	64	65
12	---	---	129	134	131	133	133	125	129	78	68	70
13	---	---	149	135	133	134	137	133	135	76	69	73
14	---	---	148	135	131	134	137	133	135	86	76	81
15	---	---	153	134	130	132	136	131	134	87	85	87
16	---	---	153	132	128	129	132	130	131	91	87	88
17	---	---	131	131	128	130	130	121	125	100	91	96
18	---	---	142	128	126	128	127	119	124	125	99	107
19	---	---	152	131	127	129	136	115	130	128	113	121
20	---	---	164	136	131	134	121	105	110	117	111	112
21	163	159	161	136	133	135	121	118	119	130	118	126
22	164	160	163	137	133	135	119	117	118	126	106	114
23	162	157	159	139	136	137	118	116	117	116	106	111
24	160	158	159	146	140	143	115	112	113	115	105	109
25	158	132	153	148	145	146	113	106	109	105	101	104
26	156	148	151	151	147	149	109	104	107	100	96	98
27	149	139	147	153	148	151	108	102	104	95	90	92
28	151	149	151	150	137	142	109	101	105	89	87	88
29	154	145	149	150	138	145	101	94	99	88	86	87
30	184	155	164	151	143	147	97	92	94	86	83	85
31	189	118	157	---	---	---	101	92	98	82	81	82
MONTH	189	118	143	153	109	132	150	92	124	130	64	91

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	84	81	82	80	78	79	98	86	91	77	70	73
2	86	83	85	80	79	80	90	85	88	77	74	75
3	86	82	84	80	73	77	89	85	87	79	76	77
4	89	84	87	72	69	70	94	89	92	83	79	81
5	92	89	91	69	68	69	93	89	91	87	82	85
6	91	88	90	69	67	68	94	90	92	91	83	87
7	87	81	84	68	67	67	99	93	96	96	90	93
8	80	76	78	68	68	68	101	99	100	99	94	97
9	75	71	73	69	67	68	103	98	100	100	95	97
10	70	68	69	67	64	65	101	95	98	104	99	102
11	68	66	67	63	60	61	100	94	97	108	102	106
12	67	65	66	60	58	59	101	94	98	---	---	102
13	68	66	67	58	58	58	102	99	100	---	---	101
14	73	69	71	59	58	58	99	84	95	---	---	103
15	75	72	74	60	58	59	94	92	93	---	---	104
16	77	75	76	63	60	61	93	90	91	---	---	106
17	77	76	76	66	63	65	98	94	96	---	---	109
18	77	76	77	68	66	67	97	93	95	---	---	109
19	79	77	78	70	68	69	97	93	95	---	---	110
20	78	74	76	73	70	71	102	96	99	---	---	108
21	74	71	73	76	73	74	104	101	103	---	---	104
22	72	71	71	80	77	78	104	102	104	---	---	106
23	71	69	70	84	80	82	102	97	99	---	---	109
24	69	68	69	85	83	84	96	92	93	---	---	109
25	68	67	68	84	76	79	100	92	96	---	---	110
26	71	68	69	81	76	78	100	97	99	135	119	124
27	74	70	73	81	80	80	100	95	97	133	120	125
28	78	73	76	81	79	80	98	92	97	134	125	131
29	---	---	---	84	80	82	97	91	94	125	101	109
30	---	---	---	89	84	86	90	72	79	115	107	112
31	---	---	---	92	89	91	---	---	---	109	95	102
MONTH	92	65	76	92	58	72	104	72	95	135	70	102

02089500 NEUSE RIVER AT KINSTON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	95	86	90	101	97	99	135	94	113	---	---	114
2	90	85	87	97	92	94	109	96	101	---	---	114
3	92	89	91	92	91	91	109	97	105	---	---	116
4	94	89	92	94	91	92	97	93	94	---	---	111
5	93	88	91	92	90	91	95	92	93	---	---	108
6	90	82	87	93	90	91	100	95	97	---	---	112
7	81	72	75	96	95	95	107	99	103	---	---	114
8	75	70	73	98	94	96	106	97	101	---	---	118
9	73	66	70	98	93	96	128	103	114	139	124	131
10	68	67	68	95	92	93	161	130	147	144	125	134
11	69	68	68	104	95	99	184	162	173	146	141	143
12	71	68	69	110	104	107	191	182	186	144	138	142
13	74	70	72	111	101	107	180	83	109	155	139	148
14	75	72	73	106	102	104	95	83	87	157	153	154
15	77	74	75	110	105	108	101	96	99	158	153	155
16	76	75	75	109	89	101	98	95	96	156	151	154
17	76	73	75	95	89	92	101	98	100	152	142	146
18	74	71	73	94	90	92	98	92	96	143	136	140
19	71	69	70	94	91	92	92	90	90	144	136	141
20	73	70	71	96	92	94	95	90	92	139	133	136
21	74	71	73	107	96	101	102	95	98	140	134	136
22	76	73	74	103	98	100	112	103	108	146	137	140
23	80	76	78	106	98	102	113	106	110	154	129	140
24	81	79	80	109	105	107	140	114	126	143	129	136
25	84	81	82	128	109	118	---	---	99	157	143	151
26	88	84	86	130	118	126	---	---	102	158	139	149
27	93	88	90	117	107	109	---	---	102	155	147	151
28	99	93	96	132	109	120	---	---	104	152	143	148
29	99	93	94	148	132	138	---	---	107	149	142	145
30	101	95	99	153	150	151	---	---	109	149	138	144
31	---	---	---	150	136	144	---	---	112	---	---	---
MONTH	101	66	80	153	89	105	191	83	109	158	124	136
YEAR	191	58	106									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02089500 NEUSE RIVER AT KINSTON, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.0	7.5	8.0	7.0	7.5	14.5	13.5	14.0	17.5	16.0	17.0
2	8.0	7.0	7.5	8.0	6.5	7.0	15.0	13.5	14.5	18.0	16.5	17.0
3	9.5	7.5	8.5	8.0	7.0	7.5	15.5	14.5	15.0	18.0	17.5	18.0
4	10.5	9.5	10.0	8.5	7.0	7.5	16.0	15.0	15.5	19.0	18.0	18.0
5	10.5	10.0	10.0	9.0	8.0	8.5	15.5	14.5	15.0	19.5	18.0	18.5
6	10.5	9.5	10.0	9.0	8.5	9.0	14.5	13.5	14.0	20.0	18.5	19.5
7	10.0	9.5	9.5	9.0	8.5	8.5	13.5	12.5	13.0	21.0	19.5	20.5
8	9.5	9.0	9.5	9.0	8.5	9.0	12.5	11.5	12.0	21.5	20.5	21.0
9	9.5	9.0	9.5	9.0	8.5	8.5	12.5	11.0	11.5	22.0	20.5	21.0
10	9.5	9.0	9.5	9.5	8.5	9.0	13.0	11.0	12.0	22.0	20.0	21.0
11	9.0	8.5	9.0	10.0	9.0	9.5	13.0	11.5	12.0	22.0	19.5	21.0
12	9.0	8.0	8.5	11.5	10.0	10.5	13.5	11.5	12.5	---	---	---
13	8.0	7.5	8.0	13.0	11.0	12.0	14.0	12.5	13.5	---	---	---
14	8.0	6.5	7.5	13.5	12.5	13.0	15.0	14.0	14.5	---	---	---
15	9.5	7.5	8.5	13.5	13.0	13.0	16.0	14.0	15.0	---	---	---
16	10.0	9.5	9.5	13.0	12.0	12.5	17.5	15.5	17.0	---	---	---
17	11.0	10.0	10.5	13.5	12.0	12.5	19.5	17.5	18.5	---	---	---
18	10.0	10.0	10.0	13.5	12.5	13.0	20.5	18.5	19.0	---	---	---
19	10.5	9.5	10.0	13.5	12.5	13.0	19.5	18.0	18.5	---	---	---
20	11.5	9.5	10.5	13.5	12.5	13.0	18.0	17.5	18.0	---	---	---
21	12.0	10.5	11.5	14.0	12.5	13.0	18.5	17.5	18.0	---	---	---
22	11.5	10.0	10.5	15.0	13.5	14.5	18.0	17.0	17.5	---	---	---
23	11.0	9.5	10.0	14.5	14.0	14.0	17.5	15.5	16.5	---	---	---
24	12.0	10.0	11.0	14.0	13.5	13.5	17.5	15.5	16.5	---	---	---
25	12.0	10.5	11.5	14.0	12.5	13.5	17.5	15.5	17.0	---	---	---
26	10.5	9.5	10.0	14.5	13.5	14.0	17.5	16.5	17.0	25.5	23.5	24.5
27	9.5	7.5	9.0	14.0	12.5	13.5	18.5	16.5	17.5	25.5	24.0	24.5
28	8.5	8.0	8.0	13.0	12.0	12.5	18.0	17.5	18.0	25.5	24.0	25.0
29	---	---	---	12.5	11.5	12.0	17.5	16.5	17.0	25.5	24.0	25.0
30	---	---	---	13.5	12.5	12.5	17.5	16.0	16.5	25.5	24.5	25.0
31	---	---	---	14.0	12.5	13.5	---	---	---	26.0	25.0	25.5
MONTH	12.0	6.5	9.5	15.0	6.5	11.5	20.5	11.0	15.5	26.0	16.0	21.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	25.0	25.5	27.0	26.0	26.5	26.0	25.5	26.0	25.5	23.5	24.5
2	26.5	25.0	25.5	26.5	26.0	26.0	26.5	25.5	26.0	26.0	24.5	25.0
3	26.5	25.5	26.0	26.5	25.5	26.0	26.5	25.5	26.0	26.5	25.0	26.0
4	26.5	25.0	26.0	26.5	25.5	26.0	26.0	25.5	26.0	26.0	25.0	25.5
5	26.0	25.0	25.5	26.0	25.5	26.0	26.0	25.5	26.0	25.5	23.5	24.5
6	25.0	24.0	24.5	25.5	25.0	25.0	26.5	25.5	26.0	25.5	23.0	24.0
7	24.0	22.5	23.0	26.5	25.0	25.5	27.0	26.0	26.5	25.0	23.0	24.0
8	23.5	22.0	23.0	27.0	25.5	26.5	28.5	27.0	27.5	25.5	23.5	24.0
9	23.0	22.0	22.5	28.0	26.5	27.0	28.5	27.0	27.5	25.0	23.0	24.0
10	22.5	21.5	22.0	27.5	26.5	27.0	28.5	27.0	27.5	23.5	23.0	23.0
11	23.0	21.5	22.0	27.0	26.0	26.5	28.5	27.0	27.5	24.5	22.0	23.5
12	22.5	22.0	22.0	28.5	26.5	27.0	27.0	26.0	26.5	25.5	23.0	24.0
13	22.5	21.5	22.0	27.0	26.0	26.5	26.0	24.5	25.0	26.0	23.5	25.0
14	22.5	21.5	21.5	25.5	25.0	25.5	24.5	24.0	24.5	26.5	24.0	25.0
15	22.5	21.5	22.0	25.5	25.0	25.0	25.0	24.5	25.0	26.0	24.0	25.0
16	23.0	22.0	22.5	26.0	24.5	25.5	25.5	24.5	25.0	26.0	24.0	25.0
17	---	---	---	26.0	25.0	25.5	26.0	25.5	25.5	25.5	24.0	25.0
18	---	---	---	26.0	25.0	25.5	25.5	25.5	25.5	26.0	23.5	25.0
19	---	---	---	26.5	25.5	26.0	25.5	25.0	25.5	25.5	24.0	24.5
20	23.5	23.0	23.0	26.5	26.0	26.5	26.0	25.0	25.5	25.0	24.0	24.5
21	24.0	23.5	23.5	27.0	26.0	26.5	26.0	25.0	25.5	24.0	22.0	23.0
22	24.0	23.0	23.5	28.5	26.5	27.5	26.0	25.0	25.5	23.0	21.5	22.0
23	23.5	23.0	23.5	29.0	27.0	28.0	26.5	25.5	26.0	22.5	21.0	22.0
24	24.0	23.0	23.5	27.5	27.0	27.0	27.0	25.5	26.5	22.0	19.5	21.0
25	24.0	23.5	24.0	27.5	26.0	27.0	28.0	26.5	27.0	21.0	19.5	20.5
26	24.0	23.5	24.0	28.5	26.0	27.0	27.5	26.0	27.0	20.5	19.5	20.0
27	24.5	23.5	24.0	29.0	27.0	28.0	27.5	26.0	26.5	20.5	19.0	19.5
28	25.0	24.0	24.5	29.5	27.0	28.0	27.5	26.0	26.5	20.5	19.0	20.0
29	25.5	24.5	25.0	28.0	27.0	27.5	26.5	25.0	25.5	21.0	19.0	20.0
30	27.0	25.5	26.0	27.5	26.5	27.0	25.0	23.0	24.0	20.5	19.5	20.0
31	---	---	---	26.5	26.0	26.0	25.0	23.0	24.0	---	---	---
MONTH	27.0	21.5	23.5	29.5	24.5	26.5	28.5	23.0	26.0	26.5	19.0	23.5
YEAR	29.5	1.5	16.0									

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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					
05...	1100	313	19	16	93
NOV					
16...	1300	392	10	11	91
JAN					
12...	1230	9010	30	730	82
MAR					
01...	1145	5030	14	190	89
MAY					
04...	1145	5580	15	226	89
JUL					
07...	1330	1810	37	181	94
SEP					
09...	1100	535	15	22	93

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	12 30	0000	2.51	262	130		16.0	6.0	9.8	98.0	19.0	60
81/11/12	13 10	0000	3.43	575	116		13.0	7.0	7.8	74.0	21.0	40
81/12/08	13 15	0000	3.47	592	121		8.0	7.0	10.4	87.0	19.0	30
82/01/11	14 15	0000	14.93	8290			3.0	20.0	10.2	76.0		30
82/02/17	12 35	0000	14.04	7250	79		9.0	25.0	10.0	86.0	25.0	50
82/03/16	13 05	0000	15.32	8880	76	5.60	12.0	25.0	7.6	70.0	19.0	70
82/04/19	13 20	0000	5.44	1480	103	6.80	18.0	20.0	8.0	84.0	22.0	80
82/05/19	11 30	0000	3.85	741	112		24.0		6.6	77.0		170
82/06/08	13 00	0000	10.32	4110	62	6.20	23.0	35.0	5.3	61.0	42.0	190
82/07/12	13 30	0000	5.53	1480	85	6.80	28.0	15.0	5.8	72.0	28.0	180
82/08/10	12 40	0000	4.90	1210	96	6.20	27.0	15.0	6.2	77.0	31.0	650
82/09/27	12 40	0000	3.84	741	140	6.40	21.0	9.0	6.8	74.0	17.0	980

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	12 30	0000		8	117	0.91	0.100	0.600	0.260	0.130	10K	50K
81/11/12	13 10	0000		14	125	0.91	0.080	0.400	0.330	0.200		
81/12/08	13 15	0000		8	109	1.10	0.050	0.600	0.310	0.230		
82/01/11	14 15	0000		13	113	0.44	0.050K	0.400	0.140	0.050	10K	50K
82/02/17	12 35	0000		6	91	0.82	0.050K	0.400	0.120	0.050K		
82/03/16	13 05	0000		5	79	0.37	0.050K	0.400	0.110	0.050K		
82/04/19	13 20	0000	16	20	104	0.83	0.090	0.600	0.240	0.100	10K	50K
82/05/19	11 30	0000		19	107	1.10	0.080	0.400	0.270	0.120		
82/06/08	13 00	0000	10	44	135	0.48	0.050	0.700	0.270	0.100		
82/07/12	13 30	0000	17	31	122	0.78	0.050	0.500	0.150	0.110	10K	50K
82/08/10	12 40	0000	1	19	115	0.69	0.050K	0.500	0.230	0.080		
82/09/27	12 40	0000	13	10	130	1.40	0.100	0.800	0.310	0.170		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/14	12 30	0000	50K	40K	100K	0.5K	100K	50
82/01/11	14 15	0000	50K	40K	100K	0.2K	100K	50K
82/04/19	13 20	0000	50K	40K	100K	0.2K	100K	50K
82/07/12	13 30	0000	50K	40K	100K	0.2	100K	50K

K Less than noted value.

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC

LOCATION.--Lat 35°41'29", long 78°06'38", Wilson County, Hydrologic Unit 03020203, on right bank 250 ft (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).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good. Since September 1976, some regulation at low flow by Buckhorn Reservoir 1 mile (1.6 km) upstream (see p. 369).

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

AVERAGE DISCHARGE.--18 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, 1,230 ft³/s (34.8 m³/s) Mar. 8, gage height, 9.45 ft (2.880 m); minimum, 0.08 ft³/s (0.002 m³/s) Oct. 10-12, 15; minimum gage height, 1.29 ft (0.393 m) Oct. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	12	11	210	177	714	104	274	38	246	150	11
2	12	12	12	352	183	634	95	155	45	314	133	20
3	3.1	12	13	416	297	420	97	117	56	250	87	20
4	.37	12	15	727	517	289	101	100	196	128	62	17
5	.58	12	15	1010	635	222	69	82	392	82	47	11
6	.44	15	13	896	776	239	112	68	398	70	38	8.5
7	3.8	17	12	683	678	514	55	59	256	73	38	6.9
8	.77	12	18	425	477	1090	57	53	136	65	42	6.3
9	.32	12	17	359	332	1070	104	49	108	56	39	5.4
10	.12	12	16	267	262	708	151	39	94	74	33	5.1
11	.08	12	12	168	218	422	172	33	170	70	45	4.9
12	.09	12	11	119	186	284	139	31	405	57	273	4.8
13	.12	12	11	104	323	244	107	29	642	101	395	3.6
14	.13	12	11	119	460	220	83	27	575	599	260	3.0
15	.09	12	14	144	411	208	74	21	368	583	120	2.7
16	.22	12	36	132	324	314	69	20	230	312	71	3.0
17	.25	12	83	133	347	371	70	23	153	157	53	2.1
18	.59	13	97	137	439	304	91	39	119	96	45	2.1
19	8.7	12	80	160	426	222	81	40	134	67	35	1.7
20	11	15	61	237	376	191	81	36	156	54	31	2.3
21	11	13	47	296	319	454	96	31	139	41	26	3.9
22	11	12	46	376	244	702	103	41	104	33	21	5.0
23	11	12	43	426	184	590	92	71	84	42	20	4.4
24	12	12	39	577	157	380	78	91	78	87	18	2.4
25	12	12	74	606	141	241	64	361	72	78	18	2.1
26	12	11	152	513	123	202	74	425	61	55	15	11
27	12	11	177	340	166	150	120	216	54	39	14	14
28	12	12	142	225	506	121	420	144	45	33	19	10
29	12	12	118	160	---	112	577	101	48	61	17	7.8
30	12	11	94	134	---	107	458	67	87	97	13	7.9
31	12	---	92	130	---	107	---	45	---	104	11	---
TOTAL	174.87	370	1582	10581	9684	11846	3994	2888	5443	4124	2189	209.9
MEAN	5.64	12.3	51.0	341	346	382	133	93.2	181	133	70.6	7.00
MAX	12	17	177	1010	776	1090	577	425	642	599	395	20
MIN	.08	11	11	104	123	107	55	20	38	33	11	1.7
CFSM	.04	.08	.32	2.12	2.15	2.37	.83	.58	1.12	.83	.44	.04
IN.	.04	.09	.37	2.44	2.24	2.74	.92	.67	1.26	.95	.51	.05

CAL YR 1981 TOTAL 13475.66 MEAN 36.9 MAX 563 MIN .08 CFSM .23 IN 3.11
WTR YR 1982 TOTAL 53085.77 MEAN 145 MAX 1090 MIN .08 CFSM .90 IN 12.27

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	14 55	0000	1.31	1	73	6.36	19.0		8.8	94.0		50
81/11/10	08 40	0000	1.93	12	57	6.24	18.0	10.0	9.2	97.0	26.0	320
81/12/28	10 20	0000	3.00	146	92	7.42	4.0		10.3	79.0		30
82/01/11	16 55	0000	3.08	157	58	6.92			13.4			
82/02/16	10 15	0000	4.18	320	77	7.45	11.0	40.0	10.6	95.0	28.0	20
82/03/18	10 15	0000	4.14	313	63	6.14	12.5		9.1	86.0		50
82/04/20	13 25	0000	2.54	75	59	6.90	18.0		8.5	89.0		20
82/05/13	09 15	0000	2.14	29	64	6.40	22.0	15.0	5.9	67.0	40.0	10K
82/06/10	09 20	0000	2.68	79	56	6.38	24.0		5.0	59.0		10
82/07/06	09 30	0000	2.43	70	58	6.77	25.0		5.9	70.0		20
82/08/17	08 50	0000	2.31	54	60	6.70	25.0	20.0	6.4	76.0	32.0	10
82/09/10	08 45	0000	1.71	5	60	6.60	22.0		4.9	56.0		1300

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	14 55	0000	18	7	81							
81/11/10	08 40	0000	12	13	97	0.05K	0.050K	0.800	0.050	0.050K	10K	50K
81/12/28	10 20	0000	22	34	110							
82/01/11	16 55	0000	19	55	143							
82/02/16	10 15	0000	34	12	87	0.34	0.050	0.400	0.070	0.050K	10K	50K
82/03/18	10 15	0000	6	40	133							
82/04/20	13 25	0000	15	31	106							
82/05/13	09 15	0000	14	9	121	0.13	0.070	0.700	0.150	0.050K	10K	50K
82/06/10	09 20	0000	15	16	133							
82/07/06	09 30	0000	17	23	135							
82/08/17	08 50	0000	14	10	89	0.09	0.050K	0.600	0.070	0.050K	10K	50K
82/09/10	08 45	0000	15	3	66	0.16	0.090	0.600	0.060	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/10	08 40	0000	50K	40K	100	0.5K	100K	50K
82/02/16	10 15	0000	50K	40K	100K	0.2K	100K	50K
82/05/13	09 15	0000	50K	40K	100K	0.2K	100K	50K
82/08/17	08 50	0000	50K	40K	100K	0.3	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Water-discharge records good above 1 ft³/s (0.03 m³/s) and poor below. Recording rain gage at station.

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 RECORD.--Maximum discharge, 943 ft³/s (26.7 m³/s) Sept. 5, 1979, gage height, 11.90 ft (3.627 m); no flow July 13-15, Oct. 18-23, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 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)
Jan. 4	1100	459	13.0	8.29	2.527	Aug. 11	2300	*776	22.0	*10.91	3.325
June 3	2030	563	15.9	9.34	2.847						

No flow Oct. 18-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.14	1.3	22	7.4	12	2.1	3.0	.62	20	10	.36
2	.07	.11	13	5.2	8.4	8.7	1.9	3.0	2.7	3.2	4.1	11
3	.05	.08	2.2	70	28	6.9	1.9	6.2	84	1.6	2.4	.95
4	.04	.10	1.6	124	12	6.2	1.5	2.7	111	1.3	1.6	.53
5	.04	.29	.98	15	76	5.4	1.1	1.6	64	14	1.3	.24
6	.03	2.3	.23	5.8	37	13	1.3	1.0	10	2.9	1.0	.24
7	.03	.55	.10	9.7	11	18	1.2	.74	4.9	1.8	6.8	.29
8	.03	.18	.08	7.8	8.2	12	2.0	.74	3.2	1.0	3.2	.25
9	.03	.10	.05	4.9	8.7	7.7	14	.38	4.1	1.1	.52	.29
10	.03	.09	.03	4.3	8.2	6.0	3.4	.22	12	6.2	.30	.30
11	.02	.06	.02	3.9	6.0	5.2	2.3	.18	30	4.9	99	.25
12	.02	.04	.02	3.8	12	4.7	1.8	.07	9.4	1.4	190	.24
13	.02	.03	.27	8.6	53	4.9	1.4	.03	24	20	12	.22
14	.02	.03	11	5.9	13	3.6	1.1	.02	13	9.4	4.9	.20
15	.01	.03	32	6.0	8.7	33	.94	.03	6.0	3.2	2.5	.11
16	.01	.03	5.0	6.6	12	13	1.0	.01	4.9	4.8	1.4	.17
17	.01	1.1	3.4	5.2	34	7.7	9.8	.02	5.4	2.5	22	.15
18	.00	.91	4.3	4.6	14	5.3	5.8	.22	3.6	1.1	6.3	.04
19	.00	.25	2.8	15	14	4.6	1.3	.03	9.7	.52	1.8	.03
20	.00	.08	2.5	8.1	10	13	2.8	.07	3.0	.49	.91	2.2
21	.00	.04	2.4	18	7.7	72	4.0	.01	2.4	.42	2.8	1.0
22	.00	.03	3.2	8.5	6.0	13	1.3	9.1	3.2	.38	1.2	.49
23	.00	.09	2.5	61	4.9	8.1	.75	9.4	2.1	13	.56	.23
24	.01	2.4	2.7	28	4.6	5.9	.54	19	2.7	11	.57	.08
25	14	1.3	29	7.9	3.8	4.8	.43	25	1.8	1.8	1.9	.03
26	2.5	.48	6.7	5.6	3.2	4.0	11	5.2	1.3	1.0	.45	22
27	11	.17	4.2	4.8	40	3.0	24	3.0	1.3	.90	.20	4.9
28	2.6	.09	3.5	4.3	31	2.4	45	1.4	1.3	3.2	8.3	.74
29	1.5	.04	4.0	4.0	---	2.2	8.2	1.3	11	34	17	.47
30	.79	.03	3.2	3.5	---	2.4	4.3	1.0	8.3	43	1.4	.44
31	.34	---	29	4.6	---	2.1	---	.52	---	8.5	.50	---
TOTAL	33.27	11.17	171.28	486.6	482.8	310.8	158.16	95.19	440.92	218.61	406.91	48.44
MEAN	1.07	.37	5.53	15.7	17.2	10.0	5.27	3.07	14.7	7.05	13.1	1.61
MAX	14	2.4	32	124	76	72	45	25	111	43	190	22
MIN	.00	.03	.02	3.5	3.2	2.1	.43	.01	.62	.38	.20	.03
CFSM	.13	.05	.67	1.92	2.10	1.22	.64	.37	1.79	.86	1.60	.20
IN.	.15	.05	.78	2.21	2.19	1.41	.72	.43	2.00	.99	1.85	.22

CAL YR 1981 TOTAL 907.49 MEAN 2.49 MAX 99 MIN .00 CFSM .30 IN 4.12
WTR YR 1982 TOTAL 2864.15 MEAN 7.85 MAX 190 MIN .00 CFSM .96 IN 12.99

02090512 HOMINY SWAMP AT PHILLIPS STREET AT WILSON, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR NACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	14 15 0000		1.79	0.02	1045	7.11	20.0		9.1	99.0		100
81/11/10	09 55 0000		1.13	0.1	570	6.21	15.0	5.0	6.6	65.0	52.0	31000
81/12/29	15 30 0000		1.59	3	196	7.15	5.0		11.4	87.0		550
82/01/11	16 00 0000		1.58	4	95	6.62			12.7			
82/02/16	10 55 0000		1.98	13	156	7.18	15.0	20.0	9.3	91.0	27.0	220
82/03/18	11 05 0000		1.76	7	199	6.90	12.8		9.5	90.0		760
82/04/20	14 15 0000		1.46	1	290	7.10	17.0		4.6	46.0		560
82/05/13	10 15 0000		1.30	0.04	371	6.70	22.0	10.0	2.5	28.0	39.0	100
82/06/10	10 20 0000		1.60	4	196	6.62	22.0		3.0	34.0		400
82/07/06	10 25 0000		1.51	2	143	6.55	22.0		4.0	45.0		3600
82/08/17	10 00 0000		1.54	1	215	6.80	24.0	25.0	4.0	47.0	41.0	610
82/09/10	09 35 0000		1.46	0.3	300	6.80	24.0		7.6	89.0		270

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	14 15 0000		123	223	843	0.05K	0.210	4.000	0.910	0.050K		
81/11/10	09 55 0000		46	8	362	0.05K	0.580	1.300	0.220	0.050K	10K	50K
81/12/29	15 30 0000		45	6	144	1.80	0.160	0.900	0.100	0.050K		
82/01/11	16 00 0000		65	15	190	3.60	0.650	1.400	0.080	0.050K		
82/02/16	10 55 0000		47	10	116	1.80	0.330	0.800	0.090	0.050K	10K	50K
82/03/18	11 05 0000		32	10	164	2.90	0.270	1.000	0.130	0.050K		
82/04/20	14 15 0000		75	20	221	0.79	1.200	1.900	0.170	0.050K		
82/05/13	10 15 0000		79	20	249	0.77	0.600	1.400	0.220	0.050K	10K	50K
82/06/10	10 20 0000		42	41	188	1.40	0.400	1.200	0.190	0.050K		
82/07/06	10 25 0000		36	25	152	0.77	0.580	1.400	0.220	0.050		
82/08/17	10 00 0000		46	20	190	1.50	0.370	1.400	0.150	0.050K	10K	50K
82/09/10	09 35 0000		83	18	233	1.10	0.830	2.700	0.260	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/10	09 55 0000		50K	40K	100	0.5K	100K	140
82/02/16	10 55 0000		50K	40K	100K	0.2K	100K	60
82/05/13	10 15 0000		50K	40K	100K	0.2K	100K	50K
82/08/17	10 00 0000		50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02090625 TURNER SWAMP NEAR EUREKA, NC

LOCATION.--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).

WATER-DISCHARGE RECORDS

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

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

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 except those for period of no gage-height record, Oct. 10 to Nov. 12, which are poor.

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

AVERAGE DISCHARGE.--14 years, 2.29 ft³/s (0.0649 m³/s), 14.81 in/yr (376 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 5	2215	75	2.12	3.28	1.000	Aug. 11	2330	*489	13.8	*5.34	1.628
Apr. 28	0400	81	2.29	3.35	1.021						

Minimum daily discharge, 0.32 ft³/s (0.009 m³/s) Oct. 7, 14, 16, 17, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.46	.55	2.0	1.6	3.4	1.6	2.3	.56	.60	16	.69
2	.35	.44	1.0	.97	1.8	2.8	1.6	1.8	.55	.54	1.4	.71
3	.33	.42	.63	6.8	3.4	2.4	1.7	1.6	.60	.51	.84	.68
4	.36	.40	.55	4.7	2.2	2.1	1.7	1.4	2.3	.53	.70	3.3
5	.36	.50	.53	2.3	15	2.1	1.3	1.2	1.7	.91	.65	.89
6	.34	.48	.53	1.5	18	4.0	1.2	1.1	.77	.64	.80	.72
7	.32	.46	.52	1.3	4.5	4.7	1.1	1.0	.65	.56	.60	.67
8	.33	.44	.51	1.4	3.3	3.8	1.1	.96	.60	.51	.56	.63
9	.34	.44	.49	1.3	3.5	2.8	1.9	.89	1.5	.48	.56	.61
10	.40	.54	.49	1.6	4.1	2.4	1.4	.82	.99	.50	.58	.64
11	.38	.50	.51	1.4	2.8	2.3	1.3	.78	4.7	.58	40	.65
12	.36	.46	.53	1.5	2.6	2.1	1.2	.75	1.2	.53	67	.59
13	.34	.45	.54	1.9	13	2.0	1.1	.70	1.3	1.1	4.8	.59
14	.32	.46	1.1	2.3	5.4	1.9	1.1	.67	2.0	1.3	2.5	.59
15	.34	.46	3.3	2.0	3.9	4.2	1.0	.80	.84	.85	1.5	.60
16	.32	.46	1.3	2.0	3.6	4.3	1.0	.65	.69	.74	1.1	.60
17	.32	.51	.77	2.0	8.5	3.3	1.1	.69	2.3	.62	.95	.57
18	.34	.48	.83	1.6	4.9	2.5	1.8	.79	1.7	.55	.89	.57
19	.32	.47	.71	3.1	4.3	2.3	1.1	.73	2.9	.53	.84	.60
20	.34	.48	.61	2.7	3.7	2.6	1.2	.70	1.1	.50	.75	.61
21	.34	.45	.57	2.7	3.1	4.9	1.5	.62	1.3	.48	.74	.84
22	.36	.46	.67	1.7	2.5	3.1	1.2	.62	1.0	.46	.74	.71
23	.40	.47	.62	4.1	2.1	2.3	1.1	.59	.90	.75	.71	.60
24	.50	.56	.61	4.9	2.1	2.2	.96	1.1	.79	.79	.68	.57
25	.70	.53	3.2	2.3	1.9	2.1	.92	1.1	.72	.56	.79	.56
26	.90	.49	1.4	1.8	1.6	2.0	2.5	.94	.64	.50	.82	2.1
27	.80	.50	.98	1.3	3.8	1.8	3.9	1.2	.59	.47	.72	1.0
28	.60	.51	.83	1.3	5.0	1.7	29	.82	.59	.46	1.1	.69
29	.54	.49	.99	1.2	---	1.6	5.2	.68	.66	.87	1.0	.61
30	.50	.48	.77	1.2	---	1.6	3.2	.61	.64	.80	.73	.60
31	.48	---	1.2	1.2	---	1.7	---	.59	---	4.0	.68	---
TOTAL	12.98	14.25	27.84	68.07	132.2	83.0	75.98	29.20	36.78	23.22	151.73	23.79
MEAN	.42	.48	.90	2.20	4.72	2.68	2.53	.94	1.23	.75	4.89	.79
MAX	.90	.56	3.3	6.8	18	4.9	29	2.3	4.7	4.0	67	3.3
MIN	.32	.40	.49	.97	1.6	1.6	.92	.59	.55	.46	.56	.56
CFSM	.20	.23	.43	1.05	2.25	1.28	1.21	.45	.59	.36	2.33	.38
IN.	.23	.25	.49	1.21	2.34	1.47	1.35	.52	.65	.41	2.69	.42

CAL YR 1981 TOTAL 319.53 MEAN .88 MAX 16 MIN .26 CFSM .42 IN 5.66
WTR YR 1982 TOTAL 679.04 MEAN 1.86 MAX 67 MIN .32 CFSM .89 IN 12.02

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/21	12 00	0000	0.90	0.4	65		10.0	3.0	10.4	92.0	10.0K	200
81/11/30	11 00	0000	0.96	0.5	55		6.0		11.0	88.0		60
81/12/16	10 05	0000	1.18	1	109		7.0		9.8	80.0		60
82/01/21	12 30	0000	1.52	4	84		5.0		9.6	75.0	22.0	20
82/02/24	11 00	0000	1.33	2	65		10.0		10.4	92.0		10
82/03/24	10 30	0000	1.35	2	65	6.10	10.0		10.8	95.0		20
82/04/22	11 20	0000	1.18	1	85	6.70	14.0	5.0	10.8	103.0	20.0	20
82/05/13	11 20	0000	1.08	1	68	6.40	18.0		5.5	58.0		180
82/06/10	11 10	0000	1.10	1	57	6.00	18.0		6.6	69.0		220
82/07/13	16 10	0000	1.18	1	53	4.30	22.0	10.0	5.8	66.0	45.0	4200
82/08/16	11 10	0000	1.18	1	54	5.70	21.0		6.1	68.0		230
82/09/28	11 00	0000	1.02	1	70	5.80	17.0		8.3	86.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT WFLT MG/L	RESIDUE TOTAL 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
81/10/21	12 00	0000		1K	67	1.10	0.050K	0.300	0.050K	0.050K	10	50K
81/11/30	11 00	0000		4	85							
81/12/16	10 05	0000		2	105						14	
82/01/21	12 30	0000		5	90	1.10	0.050K	0.300	0.050	0.050K	10K	50K
82/02/24	11 00	0000		3	90							
82/03/24	10 30	0000		6	54							
82/04/22	11 20	0000	8	4	64	0.84	0.050K	0.300	0.070	0.050K	10K	50K
82/05/13	11 20	0000	10	1K	59							
82/06/10	11 10	0000	18	7	75							
82/07/13	16 10	0000		14	89	0.79	0.050K	0.500	0.110	0.050K	10K	50K
82/08/16	11 10	0000	6	1	68							
82/09/28	11 00	0000	10	2	77							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/21	12 00	0000	50K	40K	100K	0.5K	100K	50K
82/01/21	12 30	0000	50K	40K	100K	0.2K	100K	50
82/04/22	11 20	0000	50K	40K	100K	0.7	100K	50K
82/07/13	16 10	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02091000 NAHUNTA SWAMP NEAR SHINE, NC

LOCATION.--Lat 35°29'20", long 77°48'22" (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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1954 to current year. Monthly discharges only for some periods, published in WSP 1723.

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

GAGE.--Water-stage recorder. Datum of gage is 50.74 ft (15.466 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1955, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good.

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

AVERAGE DISCHARGE.--28 years, 86.1 ft³/s (2.438 m³/s), 14.54 in/yr (369 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)
Apr. 29	0530	648	18.4	6.87	2.094	Aug. 1	0900	712	20.2	7.16	2.182
June 5	0830	654	18.5	6.90	2.103	Aug. 12	2100	*2040	57.8	*10.89	3.319
July 30	0430	748	21.2	7.31	2.228						

Minimum discharge, 7.9 ft³/s (0.22 m³/s) Oct. 9, 18; minimum gage height, 1.35 ft (0.411 m) July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	13	15	71	84	152	54	140	23	25	550	24
2	9.3	13	22	59	83	122	50	104	22	24	174	23
3	9.9	13	25	145	151	106	49	98	20	19	86	22
4	9.5	12	19	279	131	93	49	83	525	19	60	84
5	9.2	13	18	164	126	88	46	68	481	22	48	25
6	9.2	15	16	103	471	129	48	60	138	22	63	19
7	8.6	15	15	78	292	207	46	53	72	19	40	26
8	8.3	13	15	78	170	187	46	48	52	18	35	26
9	8.3	12	15	70	138	135	64	45	77	15	32	23
10	8.9	13	14	61	173	112	61	41	58	13	34	23
11	9.7	13	14	52	139	101	53	38	98	16	54	22
12	9.4	13	14	48	114	94	49	35	67	16	1500	21
13	9.0	13	14	51	362	87	48	33	48	71	1660	19
14	8.5	13	17	72	280	83	46	30	50	212	644	18
15	8.3	13	60	68	180	110	44	28	43	155	149	17
16	8.6	12	70	64	149	163	41	26	36	59	90	17
17	8.4	14	39	68	406	129	40	25	42	46	66	16
18	8.2	14	33	60	303	106	58	26	74	36	56	15
19	8.9	14	32	71	207	92	51	24	190	30	49	17
20	8.7	14	27	92	176	88	45	26	86	40	42	29
21	8.9	14	24	100	146	137	59	24	58	24	38	41
22	9.4	13	26	112	121	115	53	24	56	20	37	28
23	9.9	13	26	126	104	90	45	22	50	27	34	24
24	9.8	15	26	283	96	78	40	22	39	120	32	20
25	15	18	88	179	88	74	38	30	36	55	30	19
26	17	16	89	119	78	71	56	35	31	32	32	38
27	17	16	55	93	111	64	126	156	27	24	28	45
28	23	16	46	82	204	59	524	63	24	20	29	31
29	16	16	43	77	---	57	585	40	25	139	31	25
30	14	15	40	71	---	56	262	31	28	430	28	23
31	13	---	38	69	---	56	---	29	---	158	25	---
TOTAL	330.9	417	995	3065	5083	3241	2776	1507	2576	1926	5776	780
MEAN	10.7	13.9	32.1	98.9	182	105	92.5	48.6	85.9	62.1	186	26.0
MAX	23	18	89	283	471	207	585	156	525	430	1660	84
MIN	8.2	12	14	48	78	56	38	22	20	13	25	15
CFSM	.13	.17	.40	1.23	2.26	1.31	1.15	.60	1.07	.77	2.31	.32
IN.	.15	.19	.46	1.42	2.35	1.50	1.28	.70	1.19	.89	2.67	.36

CAL YR 1981 TOTAL 13317.8 MEAN 36.5 MAX 776 MIN 5.5 CFSM .45 IN 6.16
WTR YR 1982 TOTAL 28472.9 MEAN 78.0 MAX 1660 MIN 8.2 CFSM .97 IN 13.17

02091000 NAHUNTA SWAMP NEAR SHINE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/20	10 30	0000	1.47	9	78		10.0	3.0	7.6	67.0	14.0	2400
81/11/12	11 15	0000	1.69	13	90		11.0		6.9	62.0		40
81/12/16	10 30	0000	2.80	72	136		7.0		10.4	85.0		5800
82/01/21	13 00	0000	2.90	91	98		5.0	15.0	10.2	80.0	18.0	190
82/02/10	14 15	0000	3.65	179								
82/02/24	11 40	0000	2.84	96	99		9.0		10.2	88.0		100
82/03/24	10 05	0000	2.62	79	91	6.40	10.0		9.9	88.0		540
82/04/22	12 00	0000	2.24	53	122	6.50	14.0	6.0	8.1	78.0	28.0	150
82/05/13	11 55	0000	1.88	34	104	6.60	17.0		5.1	51.0		390
82/06/10	11 45	0000	2.32	55	101		19.0		7.5	80.0		280
82/07/13	15 20	0000	2.80	86	62	5.10	23.0	80.0	5.6	64.0	61.0	15000
82/08/16	11 35	0000	2.95	86	86	5.20	21.0		6.1	68.0		100
82/09/28	11 30	0000	2.01	31	91	7.10	18.0		7.3	76.0		230

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/20	10 30	0000		7	92	2.30	0.050K	0.600	0.130	0.090	10K	50K
81/11/12	11 15	0000		3	90							
81/12/16	10 30	0000		13	127						10K	
82/01/21	13 00	0000		11	103	2.30	0.190	0.800	0.090	0.050K	10K	50K
82/02/24	11 40	0000		7	102							
82/03/24	10 05	0000		15	89							
82/04/22	12 00	0000	12	7	89	1.20	0.140	0.600	0.190	0.070	10K	50K
82/05/13	11 55	0000	8	5	98							
82/06/10	11 45	0000		22	119							
82/07/13	15 20	0000	3	151	238	0.92	0.150	1.000	0.520	0.120	10K	50K
82/08/16	11 35	0000	6	16	114							
82/09/28	11 30	0000	44	3	107							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/20	10 30	0000	50K	40K	100K	0.5K	100K	50K
82/01/21	13 00	0000	50K	40K	100K	0.2K	100K	50
82/04/22	12 00	0000	50K	40K	100K	0.2	100K	50K
82/07/13	15 20	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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 records good.

AVERAGE DISCHARGE.--53 years (water years 1929-82), 759 ft³/s (21.49 m³/s), 14.14 in/yr (359 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, 3,350 ft³/s (94.9 m³/s) Aug. 15, gage height, 13.73 ft (4.185 m); minimum, 42 ft³/s (1.19 m³/s) Oct. 16, 20, 21, 24, 25; minimum gage height, 2.73 ft (0.832 m) Oct. 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	77	77	460	1350	1010	661	1450	529	262	1120	205
2	54	71	82	485	1110	1040	600	1560	379	302	1300	182
3	53	67	89	627	998	1090	546	1560	296	351	1420	165
4	52	66	97	887	966	1200	507	1450	456	384	1330	382
5	52	66	106	984	970	1340	475	1250	884	407	1170	451
6	50	64	106	1080	1010	1470	453	940	1120	415	889	315
7	49	59	98	1190	1180	1540	432	691	1300	393	602	243
8	47	59	91	1370	1540	1500	411	502	1520	340	399	200
9	46	60	88	1650	1810	1400	407	421	1810	274	342	175
10	45	58	84	1890	2010	1320	422	353	1970	225	401	156
11	44	58	80	1990	2150	1300	446	309	1930	198	411	145
12	44	58	77	1920	2180	1400	468	273	1730	183	1140	136
13	44	58	77	1730	2170	1560	486	244	1460	194	1840	128
14	43	58	79	1410	2080	1690	490	218	1280	276	2840	120
15	43	57	110	1070	1990	1700	470	196	1150	537	3300	113
16	43	57	179	946	1910	1580	437	179	1070	673	3180	109
17	44	59	267	837	1950	1390	399	166	1050	803	2770	106
18	43	60	306	776	2060	1270	371	161	1080	878	2300	102
19	43	60	297	752	2130	1230	369	158	1210	926	1780	105
20	42	61	278	756	2090	1230	406	154	1220	929	1100	125
21	43	61	262	786	2020	1270	431	154	1100	801	715	184
22	43	60	248	845	1960	1270	438	160	864	451	499	222
23	43	62	231	911	1880	1240	435	167	697	304	395	180
24	42	66	213	1040	1760	1240	423	177	554	266	323	146
25	51	70	262	1200	1560	1330	402	270	481	324	280	128
26	61	76	417	1360	1320	1450	397	348	408	414	243	146
27	65	76	475	1500	1140	1510	447	540	353	481	219	348
28	72	75	485	1640	1040	1420	707	705	309	475	203	344
29	81	77	477	1740	---	1220	945	728	290	397	198	279
30	86	77	472	1730	---	1020	1250	737	274	618	202	220
31	81	---	456	1590	---	793	---	686	---	831	211	---
TOTAL	1605	1933	6666	37152	46334	41023	15131	16907	28774	14312	33122	5860
MEAN	51.8	64.4	215	1198	1655	1323	504	545	959	462	1068	195
MAX	86	77	485	1990	2180	1700	1250	1560	1970	929	3300	451
MIN	42	57	77	460	966	793	369	154	274	183	198	102
CFSM	.07	.09	.30	1.64	2.27	1.82	.69	.75	1.32	.63	1.47	.27
IN.	.08	.10	.34	1.90	2.36	2.09	.77	.86	1.47	.73	1.69	.30

CAL YR 1981 TOTAL 89528 MEAN 245 MAX 1200 MIN 42 CFSM .34 IN 4.57
WTR YR 1982 TOTAL 248819 MEAN 682 MAX 3300 MIN 42 CFSM .94 IN 12.70

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.

INSTRUMENTATION.--Water-quality monitor since October 1981.

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, Jan. 18, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 192 micromhos Nov. 4; minimum recorded, 43 micromhos Aug. 14, 15.
WATER TEMPERATURES: Maximum recorded, 27.0°C July 9-12, 28, 29; minimum recorded, 1.0°C Jan. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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											
16...	1430	58	136	7.2	11.0	4.0	10.0	220	K44	27	4
JAN											
12...	1030	1930	80	6.0	2.0	33	10.9	--	300	21	14
MAR											
01...	1000	1010	85	6.2	7.0	13	10.8	610	1900	21	12
MAY											
04...	0945	1470	76	6.4	17.5	12	5.0	80	650	18	9
JUL											
07...	1145	341	84	6.9	25.0	23	6.4	330	480	19	0
SEP											
09...	1400	171	110	6.5	22.0	7.0	6.8	--	--	24	12

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											
16...	6.7	2.5	14	48	1.3	4.2	28	0	23	2.3	13
JAN											
12...	4.9	2.1	6.7	37	.7	2.9	9	0	7	9.8	13
MAR											
01...	5.1	2.0	6.7	38	.7	2.6	11	0	9	7.4	11
MAY											
04...	4.4	1.7	5.8	37	.6	2.8	11	0	9	7.8	7.0
JUL											
07...	4.7	1.8	6.1	37	.7	2.5	49	0	40	2.7	8.0
SEP											
09...	6.3	2.1	9.0	40	.9	4.4	15	0	12	7.4	11

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 1981 TO SEPTEMBER 1982

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 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV											
16...	14	.2	8.8	91	87	.12	14.3	1.8	.150	.19	.50
JAN											
12...	9.2	<.1	9.9	91	52	.12	474	1.0	.110	.14	.74
MAR											
01...	9.3	.1	7.3	78	48	.11	213	1.3	.250	.32	.77
MAY											
04...	8.8	.1	6.1	78	44	.11	310	.66	.190	.24	1.60
JUL											
07...	8.2	.1	7.0	80	45	.11	73.7	.83	.250	.32	.80
SEP											
09...	12	.2	9.8	64	63	.09	29.5	1.9	.110	.14	.90

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	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)
NOV											
16...	.580	1.8	.480	.470	1.4	1	1	0	100	60	41
JAN											
12...	.190	.58	.100	.090	.28	1	1	0	100	30	69
MAR											
01...	.150	.46	.110	.100	.31	--	--	--	--	--	--
MAY											
04...	.220	.67	.170	.140	.43	2	1	1	<100	--	48
JUL											
07...	.390	1.2	.250	.230	.71	--	--	--	--	--	--
SEP											
09...	.300	.92	.200	.190	.58	1	0	1	100	60	43

DATE	CADMIUM TOTAL 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)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
NOV										
16...	<1	<1	20	10	10	<1	--	1	4	3
JAN										
12...	<1	2	10	--	<10	<1	--	<1	14	10
MAR										
01...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	1	<1	10	--	<10	1	0	1	6	1
JUL										
07...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	1	<1	10	--	<10	1	0	1	6	2

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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										
16...	1	730	360	370	4	--	<1	40	20	24
JAN										
12...	4	980	590	390	6	2	4	50	0	52
MAR										
01...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	5	1200	360	840	5	4	1	60	20	38
JUL										
07...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	4	1300	700	600	11	1	10	60	7	53

DATE	MERCURY TOTAL 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, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV												
16...	<.1	--	<1	--	<1	<1	<1	<1	<1	40	30	6
JAN												
12...	<.1	<.1	5	4	1	<1	<1	<1	1	60	30	26
MAY												
04...	<.1	<.1	4	0	4	<1	<1	<1	<1	20	--	--
SEP												
09...	<.1	<.1	5	3	2	<1	<1	<1	<1	40	20	18

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

PHYTOPLANKTON ANALYSES, SEPTEMBER 1981

DATE	SEP 15,81
TIME	1530
TOTAL CELLS/ML	33000
DIVERSITY: DIVISION	1.3
.CLASS	1.3
..ORDER	1.3
...FAMILY	1.8
....GENUS	2.7

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..EUPODISCALES		
...COSCINODISCACEAE		
....CYCLOTELLA	1400	4
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...DICTYOSPHAERIACEAE		
....DICTYOSPHAERIUM	780	2
...OOCYSTACEAE		
....ANKISTRODESMUS	1300	4
....KIRCHNERIELLA	390	1
....OOCYSTIS	1100	3
...SCENEDESMACEAE		
....COELASTRUM	780	2
....CRUCIGENIA	3100	10
....SCENEDESMUS	12000#	37
....TETRASTRUM	390	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....AGMENELLUM	1600	5
....ANACYSTIS	9200#	28
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	390	1
....TRACHELOMONAS	290	1

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 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	121	118	119	159	154	157	184	175	180	97	87	91
2	121	118	119	176	159	167	179	168	173	103	98	102
3	121	118	120	191	177	186	185	180	183	105	94	100
4	122	119	121	192	186	189	183	174	179	97	63	79
5	122	119	121	187	180	185	178	154	169	98	92	97
6	---	---	112	179	171	174	154	146	148	98	92	95
7	---	---	135	170	159	164	160	149	153	92	80	87
8	---	---	112	161	156	158	164	160	163	---	---	77
9	---	---	127	164	161	162	159	148	153	---	---	74
10	---	---	122	166	164	166	148	146	147	---	---	72
11	---	---	133	166	161	164	146	144	145	---	---	71
12	---	---	118	160	142	140	144	140	142	83	81	82
13	---	---	141	146	141	143	140	131	136	85	83	84
14	---	---	137	147	146	146	131	123	128	89	85	87
15	---	---	151	---	---	152	127	120	124	94	89	92
16	---	---	137	149	136	136	128	120	124	96	93	95
17	---	---	123	137	133	135	130	114	123	107	95	103
18	---	---	142	134	128	131	150	116	137	107	103	104
19	---	---	146	129	121	124	151	141	144	107	103	105
20	---	---	139	121	118	120	151	143	147	107	99	103
21	131	129	130	124	120	122	144	138	142	101	98	99
22	133	131	132	129	124	126	137	113	123	103	97	99
23	133	131	132	130	128	129	115	100	107	98	81	92
24	134	131	132	130	129	130	114	109	112	94	81	89
25	133	127	130	141	130	134	111	107	109	94	90	92
26	133	125	129	148	141	145	111	104	107	93	90	91
27	128	124	126	147	142	145	108	98	103	92	86	89
28	136	126	130	164	148	156	107	101	105	86	81	83
29	139	135	137	168	164	167	117	103	109	82	81	81
30	141	137	138	177	168	173	122	111	118	83	79	81
31	153	141	148	---	---	---	110	88	103	79	72	75
MONTH	153	118	130	192	118	151	185	88	137	107	63	89

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	88	73	82	86	84	85	92	90	91	77	76	76
2	91	88	90	88	86	87	98	91	95	76	75	76
3	94	79	85	89	82	86	95	92	93	76	75	75
4	85	80	83	82	75	78	95	93	94	77	76	76
5	---	---	82	76	73	75	95	92	94	---	---	78
6	---	---	81	75	74	74	100	94	96	---	---	82
7	---	---	79	77	75	76	98	94	96	---	---	88
8	---	---	74	81	78	80	97	94	96	---	---	93
9	---	---	72	84	81	83	97	94	96	---	---	96
10	---	---	70	85	82	84	98	95	97	---	---	100
11	---	---	69	82	75	79	98	94	96	---	---	102
12	---	---	69	75	70	72	97	94	95	---	---	104
13	---	---	70	70	68	69	108	97	103	---	---	107
14	---	---	70	69	67	68	99	91	93	---	---	110
15	---	---	71	75	70	72	91	89	90	---	---	111
16	---	---	72	78	76	77	91	88	90	---	---	113
17	---	---	71	79	76	78	91	90	91	---	---	114
18	---	---	70	84	79	82	96	92	94	---	---	115
19	---	---	69	84	80	82	95	94	95	---	---	116
20	---	---	70	82	81	81	98	94	96	---	---	116
21	---	---	70	81	76	79	102	96	98	---	---	116
22	---	---	71	83	78	81	109	99	103	---	---	115
23	---	---	72	84	83	83	99	96	97	---	---	114
24	---	---	72	84	80	83	97	96	97	---	---	113
25	---	---	74	80	76	77	105	98	102	---	---	105
26	---	---	77	76	75	75	101	93	97	---	---	100
27	---	---	80	76	75	76	99	92	95	---	---	92
28	---	---	81	80	76	78	93	88	90	---	---	87
29	---	---	---	84	80	82	91	78	83	---	---	87
30	---	---	---	87	84	86	80	77	79	---	---	87
31	---	---	---	90	88	89	---	---	---	---	---	88
MONTH	94	73	75	90	67	79	109	77	94	77	75	98

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	92	106	101	103	84	71	78	104	102	104
2	---	---	99	109	104	107	74	67	70	107	103	105
3	---	---	103	112	103	107	70	66	67	113	107	110
4	---	---	95	112	100	107	75	70	73	113	79	102
5	---	---	84	101	91	96	77	74	75	91	78	85
6	---	---	80	91	84	88	93	77	83	94	89	91
7	---	---	78	85	84	84	104	93	98	98	94	96
8	---	---	75	84	81	82	104	98	101	105	98	102
9	---	---	72	93	84	88	109	102	105	112	105	108
10	---	---	71	99	92	96	105	101	103	112	111	112
11	---	---	71	96	94	95	101	78	86	112	109	110
12	---	---	72	103	95	97	78	63	71	110	108	109
13	---	---	76	105	101	103	64	49	56	109	102	108
14	---	---	78	104	100	102	48	43	44	108	106	107
15	---	---	79	100	91	95	48	43	46	108	105	106
16	---	---	80	91	78	82	55	48	51	110	106	107
17	---	---	80	86	73	79	58	55	56	113	110	111
18	---	---	81	72	65	68	64	58	61	110	106	108
19	---	---	78	69	65	66	72	64	68	114	105	109
20	---	---	78	74	69	72	79	72	75	114	106	109
21	---	---	80	81	74	79	87	79	83	113	103	106
22	---	---	84	85	79	81	91	87	90	106	98	104
23	---	---	88	89	84	87	93	89	90	99	96	97
24	---	---	92	92	89	91	93	93	93	105	99	103
25	91	89	90	99	87	95	95	92	94	111	105	108
26	92	90	91	91	81	87	95	91	92	125	107	112
27	100	92	95	96	89	91	97	92	95	118	106	111
28	99	95	97	87	75	78	97	95	96	115	105	110
29	99	97	98	79	74	77	99	96	98	120	104	112
30	103	98	100	83	70	77	99	95	97	133	120	126
31	---	---	---	75	59	68	102	98	99	---	---	---
MONTH	103	89	85	112	59	88	109	43	80	133	78	106
YEAR	192	43	101									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	25.5	24.5	25.0	25.0	24.5	24.5	23.0	22.0	22.5
2	---	---	---	25.5	24.5	25.0	24.5	24.5	24.5	23.5	22.5	23.0
3	---	---	---	25.5	24.5	25.0	24.5	24.0	24.5	24.0	23.0	23.5
4	---	---	---	25.5	24.5	25.0	24.5	24.0	24.5	24.0	23.0	23.5
5	---	---	---	25.5	24.5	25.0	25.0	24.0	24.5	23.0	22.5	23.0
6	---	---	---	25.0	24.5	25.0	25.0	24.5	25.0	22.5	22.0	22.0
7	---	---	---	25.5	24.5	25.0	25.5	24.0	25.0	22.5	21.0	22.0
8	---	---	---	26.0	25.0	25.5	26.0	25.0	25.5	22.5	21.5	22.0
9	---	---	---	27.0	25.5	26.0	26.5	25.5	26.0	22.5	21.0	22.0
10	---	---	---	27.0	26.0	26.5	26.5	25.0	26.0	22.0	21.0	21.0
11	---	---	---	27.0	26.0	26.5	26.5	25.5	26.0	21.5	20.5	21.0
12	---	---	---	27.0	26.0	26.5	25.5	23.0	24.0	22.5	21.0	22.0
13	---	---	---	26.5	24.0	26.0	23.5	23.0	23.0	23.0	22.0	22.5
14	---	---	---	26.0	25.5	25.5	23.0	23.0	23.0	23.0	22.0	22.5
15	---	---	---	25.0	24.0	24.5	23.0	23.0	23.0	23.0	22.0	22.5
16	---	---	---	24.5	24.0	24.5	23.5	23.0	23.0	23.5	22.5	23.0
17	---	---	---	25.0	24.0	24.5	23.5	23.5	23.5	23.5	23.0	23.0
18	---	---	---	25.0	24.5	25.0	23.5	23.5	23.5	23.5	22.5	23.0
19	---	---	---	25.5	25.0	25.5	23.5	23.0	23.5	23.0	22.5	23.0
20	---	---	---	26.0	25.5	25.5	24.0	23.5	24.0	23.0	22.5	22.5
21	---	---	---	26.0	25.5	25.5	24.5	24.0	24.0	22.5	21.0	22.0
22	---	---	---	26.5	25.5	26.0	24.0	23.5	24.0	21.5	21.0	21.0
23	---	---	---	26.5	26.0	26.5	24.5	23.5	24.0	21.0	20.0	20.5
24	---	---	---	26.0	25.5	26.0	25.0	24.0	24.5	20.0	18.5	19.5
25	22.5	22.0	22.5	26.5	24.0	25.5	25.5	24.5	25.0	19.0	18.0	18.5
26	23.0	22.0	22.5	26.5	25.0	26.0	25.0	24.0	24.5	19.0	18.5	18.5
27	23.5	22.5	23.0	26.5	26.0	26.0	25.0	24.0	24.5	19.0	18.0	18.5
28	24.0	23.0	23.5	27.0	26.0	26.5	25.0	24.0	24.5	19.0	18.0	18.5
29	24.5	23.5	24.0	27.0	26.0	26.0	24.5	23.5	24.0	19.0	18.5	19.0
30	25.0	24.0	24.5	25.5	25.0	25.5	23.0	21.5	22.5	19.0	18.5	19.0
31	---	---	---	25.0	24.5	24.5	22.5	21.5	22.0	---	---	---
MONTH	25.0	22.0	23.5	27.0	24.0	25.5	26.5	21.5	24.0	24.0	18.0	21.5
YEAR	27.0	1.0	15.5									

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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					
16...	1430	58	6	.94	79
JAN					
12...	1030	1930	24	125	81
MAR					
01...	1000	1010	12	33	92
MAY					
04...	0945	1470	14	56	90
JUL					
07...	1145	341	30	28	80
SEP					
09...	1400	171	16	7.4	87

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/20	11 45	0000	2.74	42			13.0	6.0	8.6	81.0	12.0	180
81/11/12	14 00	0000	3.05	59	141		11.0		7.7	69.0		120
81/12/10	14 10	0000	3.45	84	126		5.0		11.4	89.0		130
82/01/18	14 20	0000	8.88	772	73		2.0		12.2	88.0	27.0	250
82/02/18	16 55	0000	12.43	2080	67		8.0		9.2	77.0		290
82/03/17	12 15	0000	11.26	1390	76	6.90	12.0		7.7	71.0		330
82/04/26	10 50	0000	6.27	390	106	5.20	16.0	7.0	7.2	72.0	34.0	100
82/05/11	14 15	0000	5.61	305	97	6.60	21.0		6.4	71.0		220
82/06/08	10 30	0000	11.48	1510	65	5.80	21.0		4.2	47.0		260
82/07/09	11 00	0000	5.40	276	78	6.10	26.0	10.0	6.1	74.0		120
82/08/10	11 15	0000	6.38	403	99	6.00	20.0		5.7	62.0		380
82/09/27	14 10	0000	5.98	351	114	5.90	18.0		6.7	62.0		2300

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/20	11 45	0000		11	106	1.90	0.110	0.800	0.340	0.190	10K	50K
81/11/12	14 00	0000		11	124							
81/12/10	14 10	0000		1K	115							
82/01/18	14 20	0000		7	107							
82/02/18	16 55	0000		14	108							
82/03/17	12 15	0000		3	89							
82/04/26	10 50	0000	3	14	93	7.80	0.200	0.800	0.110	0.230	10K	50K
82/05/11	14 15	0000	13	13	117							
82/06/08	10 30	0000	5	27	131							
82/07/09	11 00	0000	14	18	108	0.95	0.100	0.800	0.390	0.160	10K	50K
82/08/10	11 15	0000	11	16	129							
82/09/27	14 10	0000	11	16	131							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/20	11 45	0000	50K	40K	100K	0.5K	100K	60
82/04/26	10 50	0000	50K	40K	100K	0.2K	100K	50K
82/07/09	11 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, NC

LOCATION.--Lat 35°32'40", 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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--26 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)
Apr. 28	2300	925	26.2	13.56	4.133	Aug. 13	1000	*3530	100	*17.84	5.438
Aug. 2	0130	819	23.2	13.22	4.029						

Minimum discharge, 0.66 ft³/s (0.019 m³/s) Oct. 13; minimum gage height, 7.30 ft (2.225 m) Oct. 8, 9, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	6.3	6.1	48	62	266	49	489	24	16	638	19
2	1.8	6.4	8.1	59	68	244	45	199	20	15	772	16
3	2.0	6.3	9.0	83	111	175	40	103	17	12	645	15
4	1.8	5.7	7.7	408	176	127	36	72	23	9.5	271	21
5	1.7	5.4	7.2	466	180	102	32	55	119	11	64	21
6	1.4	5.6	6.6	342	342	102	32	44	248	9.7	43	16
7	1.2	5.5	6.3	183	529	217	30	35	177	9.3	34	13
8	.96	5.1	6.3	121	534	290	28	30	75	8.6	27	12
9	.85	5.0	6.1	107	371	255	33	24	44	7.7	62	12
10	.85	5.0	6.3	82	237	185	39	20	33	6.8	71	11
11	.85	5.5	6.3	60	205	137	41	18	91	7.4	53	11
12	.79	5.6	6.0	56	163	113	38	17	237	7.5	1300	10
13	.73	5.7	5.9	52	312	96	33	16	189	9.3	3250	10
14	.85	5.9	6.6	56	567	86	30	15	282	23	1980	11
15	.92	5.9	15	60	555	98	27	14	314	47	941	10
16	.98	5.7	28	56	445	274	25	12	104	26	424	10
17	1.0	5.8	22	70	430	346	24	12	59	21	139	9.7
18	.92	6.0	20	91	467	285	24	69	51	20	73	9.6
19	.86	6.4	18	60	387	188	24	38	81	15	51	10
20	.83	6.4	14	91	313	149	28	24	108	11	38	17
21	1.1	6.4	12	115	243	259	32	20	81	10	31	313
22	1.2	6.3	11	151	183	441	32	43	50	8.0	47	201
23	1.3	6.0	11	161	134	390	30	45	38	7.7	40	73
24	1.5	6.3	10	383	105	242	26	33	30	18	32	42
25	3.1	7.3	25	434	87	155	23	58	24	19	25	29
26	5.2	7.0	81	323	70	118	27	171	20	15	21	54
27	5.9	6.7	66	177	69	91	59	211	16	12	17	392
28	6.2	6.5	49	103	164	72	626	125	13	9.4	19	334
29	6.0	6.1	37	78	---	60	825	65	15	19	23	141
30	6.0	5.7	30	65	---	55	699	41	17	92	26	73
31	6.0	---	25	58	---	52	---	29	---	54	22	---
TOTAL	66.39	179.5	568.5	4599	7509	5670	3037	2147	2600	556.9	11179	1916.3
MEAN	2.14	5.98	18.3	148	268	183	101	69.3	86.7	18.0	361	63.9
MAX	6.2	7.3	81	466	567	441	825	489	314	92	3250	392
MIN	.73	5.0	5.9	48	62	52	23	12	13	6.8	17	9.6
CFSM	.02	.06	.20	1.59	2.87	1.96	1.08	.74	.93	.19	3.87	.69
IN.	.03	.07	.23	1.83	2.99	2.26	1.21	.86	1.04	.22	4.46	.76

CAL YR 1981 TOTAL 13944.67 MEAN 38.2 MAX 657 MIN .73 CFSM .41 IN 5.56
WTR YR 1982 TOTAL 40028.59 MEAN 110 MAX 3250 MIN .73 CFSM 1.18 IN 15.96

02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB IRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBP /100ML
81/10/21	10 50	0000	7.47	1	299		10.0	6.0	3.1	27.0		190
81/11/12	10 10	0000	8.17	6	218		11.0		1.2	11.0		10K
81/12/16	09 10	0000	9.28	30	168		5.0		8.0	62.0		1500
82/01/21	11 30	0000	10.28	120	115		3.0	15.0	10.6	79.0	22.0	170
82/02/24	10 10	0000	10.04	123	95		7.0		9.5	78.0		80
82/03/24	09 30	0000	10.82	252	88	6.00	12.0		8.6	80.0		50
82/04/22	10 00	0000	8.60	32	171	6.70	14.0	7.0	4.3	41.0		160
82/05/13	10 15	0000	8.07	17	140	6.70	19.0		4.0	43.0		170
82/06/10	10 00	0000	8.61	33	114	6.10	23.0		1.5	17.0		640
82/07/26	12 25	0000	8.29	15	80	6.40	25.0	15.0	2.4	29.0	48.0	300
82/08/16	10 15	0000	11.89	475	62		23.0		5.3	62.0		240
82/09/28	10 00	0000	11.47	355	103	5.80	18.0		6.7	69.0		560

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/21	10 50	0000		1K	262	6.50	0.050K	1.600	1.300	1.200	12	50K
81/11/12	10 10	0000		2	211							
81/12/16	09 10	0000		6	165						10K	
82/01/21	11 30	0000		6	117	1.80	0.090	0.700	0.080	0.050K	10K	50K
82/02/24	10 10	0000		4	105							
82/03/24	09 30	0000		9	81							
82/04/22	10 00	0000	30	7	139	0.69	0.850	1.500	0.520	0.230	10K	50K
82/05/13	10 15	0000	32	4	148							
82/06/10	10 00	0000	18	9	137							
82/07/26	12 25	0000	24	6	132	1.10	0.250	1.200	0.540	0.270	10K	50K
82/08/16	10 15	0000		9	125							
82/09/28	10 00	0000	9	8	119							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/21	10 50	0000	50K	40K	100K	0.5K	100K	50K
82/01/21	11 30	0000	50K	40K	100K	0.2K	100K	80
82/04/22	10 00	0000	50K	40K	100K	0.2K	100K	50K
82/07/26	12 25	0000	50K	40K	100K	0.3	100K	50K

K Less than noted value.

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 1982 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 AUGUST 1981 TO JULY 1982

DATE	TIME	TRITIUM IN WATER MOLECULES (TU)	TRITIUM WATER MOLECULES COUNT ERROR (TU)
AUG			
01...	1210	34.0	1.5
SEP			
02...	1530	30.6	1.4
OCT			
01...	1640	33.5	2.0
NOV			
02...	1510	34.3	2.1
DEC			
03...	1610	34.2	1.5
JAN			
02...1982	1340	31.1	1.4
FEB			
01...	1515	35.0	1.4
MAR			
02...	1635	33.4	1.5
APR			
07...	1610	32.6	1.8
MAY			
05...	1725	31.0	1.4
JUN			
09...	1710	38.9	1.5
JUL			
03...	1030	38.5	1.6

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 mi^2 (70 km^2), 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 bench mark). Prior to Oct. 1, 1972, at datum, 16.60 ft (5.060 m) higher.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--11 years, 35.6 ft^3/s (1.008 m^3/s), 17.91 in/yr (455 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft^3/s (51.3 m^3/s) Oct. 1, 1971, gage height, 24.53 ft (7.477 m) present datum; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 185 ft^3/s (5.24 m^3/s) Jan. 6, gage height, 21.22 ft (6.468 m), no peak above base of 250 ft^3/s (7.08 m^3/s); no flow Oct. 14 to Dec. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.00	.00	20	24	60	9.1	15	5.0	15	4.3	.38
2	.12	.00	.00	24	25	64	8.0	15	3.8	9.1	6.1	.28
3	.10	.00	.01	40	39	58	6.9	13	5.9	6.5	8.9	.22
4	.08	.00	.02	111	46	48	5.9	11	11	4.8	10	4.2
5	.06	.00	.03	159	50	39	5.0	8.1	22	4.5	5.7	11
6	.06	.00	.03	173	51	37	4.5	6.3	34	4.8	7.5	10
7	.05	.00	.04	118	46	52	3.6	5.4	34	5.2	9.8	7.6
8	.04	.00	.05	80	38	68	3.3	6.2	29	5.6	13	6.1
9	.03	.00	.05	60	33	71	3.4	15	22	5.6	25	5.1
10	.02	.00	.05	49	36	63	3.6	13	16	5.1	25	4.4
11	.02	.00	.05	43	37	50	3.8	9.2	12	5.1	17	4.0
12	.01	.00	.05	39	35	40	3.7	6.7	8.4	4.9	25	3.3
13	.01	.00	.05	34	59	32	3.4	5.3	5.8	5.1	40	2.7
14	.00	.00	.06	30	80	26	3.2	4.5	4.2	7.3	51	2.2
15	.00	.00	.14	26	85	32	2.9	3.7	2.7	11	39	1.7
16	.00	.00	.27	23	85	67	2.8	3.1	2.2	12	22	1.4
17	.00	.00	.35	21	110	73	2.6	4.4	2.4	11	16	1.2
18	.00	.00	.55	19	118	72	2.5	30	3.6	9.7	12	.94
19	.00	.00	.76	18	108	57	2.3	27	12	7.3	7.9	1.4
20	.00	.00	.86	19	92	46	2.2	14	18	5.5	5.0	1.8
21	.00	.00	.91	21	74	74	2.0	9.1	17	4.3	3.2	4.5
22	.00	.00	1.0	24	61	92	2.2	7.9	19	3.2	2.5	25
23	.00	.00	1.1	28	50	84	2.0	26	20	4.6	2.3	34
24	.00	.00	1.2	53	41	62	1.9	62	17	6.3	1.9	31
25	.00	.00	3.4	65	33	44	2.0	39	14	4.6	1.3	20
26	.00	.00	7.4	69	27	31	3.1	28	13	2.8	1.1	47
27	.00	.00	11	61	27	23	9.5	19	17	1.7	1.2	121
28	.00	.00	14	47	51	18	17	12	17	1.1	1.4	142
29	.00	.00	16	35	---	15	18	8.4	15	1.2	1.5	111
30	.00	.00	17	29	---	12	16	7.0	20	1.3	1.2	63
31	.00	---	16	24	---	11	---	6.7	---	2.2	.60	---
TOTAL	.73	.00	92.43	1562	1561	1521	156.4	441.0	423.0	178.4	368.40	668.42
MEAN	.024	.000	2.98	50.4	55.8	49.1	5.21	14.2	14.1	5.75	11.9	22.3
MAX	.13	.00	17	173	118	92	18	62	34	15	51	142
MIN	.00	.00	.00	18	24	11	1.9	3.1	2.2	1.1	.60	.22
CFSM	.001	.000	.11	1.87	2.07	1.82	.19	.53	.52	.21	.44	.83
IN.	.00	.00	.13	2.15	2.15	2.10	.22	.61	.58	.25	.51	.92

CAL YR 1981 TOTAL 6341.51 MEAN 17.4 MAX 303 MIN .00 CFSM .64 IN 8.74
WTR YR 1982 TOTAL 6972.78 MEAN 19.1 MAX 173 MIN .00 CFSM .71 IN 9.61

02091970 CREEPING SWAMP NEAR VANCEBORO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1981 to current year.

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.

REMARKS.--Station operated as background station 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 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 1981 TO SEPTEMBER 1982

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)
JAN												
04...	1540	126	78	--	10.0	160	7.4	980	K6600	23	--	6.1
18...	1230	21	82	5.2	1.0	30	10.0	K8	K20	21	19	5.7
FEB												
24...	1330	.45	61	6.0	11.0	35	10.9	K12	K26	16	9	4.3
APR												
20...	1615	2.1	64	6.0	18.0	90	5.9	92	K550	16	0	4.4
JUN												
01...	1300	4.3	55	5.6	26.0	85	1.3	80	300	15	4	4.0
AUG												
12...	1545	28	45	6.2	24.0	80	4.2	440	6200	14	4	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)
JAN												
04...	1.8	7.4	39	.7	2.4	--	--	--	--	16	9.7	.2
18...	1.7	4.2	29	.4	1.1	2	0	2	20	16	8.9	<.1
FEB												
24...	1.3	4.8	37	.6	1.2	8	0	7	3.9	9.7	8.5	<.1
APR												
20...	1.3	5.3	39	.6	1.4	24	0	20	38	4.0	8.6	<.1
JUN												
01...	1.1	4.1	36	.5	1.3	13	0	11	69	5.0	8.5	.1
AUG												
12...	1.0	3.4	32	.4	1.7	12	0	10	8.6	4.0	7.2	<.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)
JAN												
04...	6.7	84	51	.11	28.6	--	--	.38	--	.070	--	--
18...	8.0	68	47	.09	3.9	.04	.010	.05	.09	--	--	--
FEB												
24...	2.9	62	34	.08	.08	--	<.010	.10	.07	--	--	--
APR												
20...	1.3	65	38	.09	.37	--	<.010	<.10	<.10	<.010	.090	.12
JUN												
01...	5.7	64	38	.09	.74	--	.010	<.10	<.10	.040	--	--
AUG												
12...	7.9	38	33	.05	2.9	.09	.020	.11	--	.040	.020	.03

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 1981 TO SEPTEMBER 1982

DATE	NITROGEN, ORGANIC TOTAL (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 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
JAN												
04...	.76	.83	--	--	1.2	5.4	--	.100	.31	--	--	--
18...	--	.43	.00	.43	.48	2.1	.52	.010	.03	.010	--	--
FEB												
24...	--	.74	.36	.38	.84	3.7	.45	.030	.09	.040	--	--
APR												
20...	--	.48	--	--	--	--	--	.050	.15	.030	.050	.020
JUN												
01...	1.1	1.10	--	--	--	--	--	.090	.28	.030	.040	.020
AUG												
12...	.66	.70	--	--	.81	3.6	--	.070	.21	.050	.070	.040

DATE	PHOSPHATE, 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)	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)
JAN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
24...	--	3	1	2	7	<1	150	10	140	8	5	3
APR												
20...	.06	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	.06	--	--	--	--	--	--	--	--	--	--	--
AUG												
12...	.12	--	--	--	--	--	--	--	--	--	--	--

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 DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
FEB								
24...	.2	.0	.2	40	30	0	8.8	.3

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JAN				
04...	1540	120	55	19
18...	1230	21	47	2.7
FEB				
24...	1330	.45	3	.00
APR				
20...	1615	2.1	78	.44
JUN				
01...	1300	4.3	5	.06
AUG				
12...	1545	28	19	1.4

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 mi² (471 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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.

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

AVERAGE DISCHARGE.--32 years, 207 ft³/s (5.862 m³/s), 15.45 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,060 ft³/s (172 m³/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, 975 ft³/s (27.6 m³/s) Feb. 17, gage height 10.93 ft (3.331 m); minimum, 7.0 ft³/s (0.20 m³/s) Sept. 17, gage height, 4.94 ft (1.506 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	11	73	145	449	91	104	47	85	311	14
2	12	11	12	83	149	411	84	86	49	69	560	13
3	12	11	15	164	277	354	78	83	43	55	315	13
4	12	11	16	856	342	313	75	77	78	46	172	56
5	11	11	14	823	324	281	70	67	165	41	111	77
6	11	11	13	632	298	280	67	59	141	39	84	54
7	11	11	12	457	265	490	63	54	102	34	70	38
8	10	11	12	341	219	590	59	50	84	30	90	27
9	9.9	10	11	267	191	499	61	57	75	28	112	20
10	9.5	10	11	202	262	352	64	53	68	24	94	16
11	9.5	10	10	149	272	264	62	48	66	28	78	14
12	9.2	10	9.6	123	234	219	59	45	66	31	416	12
13	9.1	10	9.5	114	482	176	56	40	56	32	754	11
14	9.0	10	9.8	110	676	152	52	37	71	176	437	9.9
15	8.8	10	13	105	559	186	48	34	70	99	270	9.0
16	8.6	10	26	100	477	454	46	31	56	85	163	8.3
17	8.3	10	29	98	753	458	44	31	58	72	122	7.8
18	8.1	10	25	96	926	384	43	45	60	68	97	7.6
19	7.9	10	24	110	768	304	41	50	105	62	83	9.3
20	7.7	10	23	141	673	251	38	47	122	53	70	22
21	7.7	10	19	160	567	491	37	41	92	49	57	33
22	7.7	10	18	228	453	594	39	39	87	49	48	60
23	7.8	10	18	231	368	470	38	74	75	41	40	69
24	7.8	10	17	538	318	350	36	80	74	48	33	62
25	8.5	11	29	496	273	268	34	93	72	61	28	51
26	13	11	93	380	234	206	39	75	74	48	24	75
27	15	12	86	292	230	156	80	64	65	38	20	354
28	15	12	76	223	387	128	301	63	57	31	18	302
29	14	12	69	184	---	112	267	61	54	27	21	220
30	13	11	63	157	---	102	149	59	114	36	19	147
31	12	---	58	146	---	96	---	53	---	62	16	---
TOTAL	318.1	318	851.9	8079	11122	9840	2221	1800	2346	1647	4733	1811.9
MEAN	10.3	10.6	27.5	261	397	317	74.0	58.1	78.2	53.1	153	60.4
MAX	15	12	93	856	926	594	301	104	165	176	754	354
MIN	7.7	10	9.5	73	145	96	34	31	43	24	16	7.6
CFSM	.06	.06	.15	1.43	2.18	1.74	.41	.32	.43	.29	.84	.33
IN.	.07	.06	.17	1.65	2.27	2.01	.45	.37	.48	.34	.97	.37

CAL YR 1981 TOTAL 43472.0 MEAN 119 MAX 1890 MIN 7.7 CFSM .65 IN 8.89
WTR YR 1982 TOTAL 45087.9 MEAN 124 MAX 926 MIN 7.6 CFSM .68 IN 9.22

02092000 SWIFT CREEK NEAR VANCEBORO, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/13	10 30	0000	5.29	9	132		15.0	10.0	8.2	80.0	22.0	60
81/11/16	10 00	0000	5.38	10	221		10.0		7.0	62.0		200
81/12/08	09 45	0000	5.48	12	190		7.0		8.9	73.0		10K
82/01/11	10 15	0000	7.74	147			1.0	10.0	12.2	86.0	20.0	20
82/02/10	14 15	0000	8.44	280	121		8.0		9.5	80.0		680
82/03/16	10 00	0000	9.30	462	104	6.80	10.0		8.5	75.0		1200
82/04/13	10 50	0000	6.91	54	162	7.00	17.0	15.0	10.5	105.0	21.0	20
82/05/17	10 00	0000	6.36	28			21.0		4.8	52.0		10
82/06/09	09 40	0000	7.08	76	143	6.90	24.0		5.8	68.0		100
82/07/22	10 00	0000	6.70	51	154	7.00	27.0	25.0	5.9	73.0	29.0	70
82/08/17	10 00	0000	7.55	114	98	6.10	24.0		5.8	68.0		690
82/09/07	10 30	0000	6.22	39	151	6.30	21.0		5.2	58.0		310

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/13	10 30	0000		18	190	0.65	0.070	0.600	0.140	0.050K	10K	50K
81/11/16	10 00	0000		16	188							
81/12/08	09 45	0000		10	171							
82/01/11	10 15	0000		10	150	2.50	0.430	0.900	0.090	0.050K	10K	50K
82/02/10	14 15	0000		50	184							
82/03/16	10 00	0000		93	212							
82/04/13	10 50	0000	36	14	152	1.30	0.210	0.600	0.160	0.050K	10K	50K
82/05/17	10 00	0000		24	180							
82/06/09	09 40	0000	29	78	205							
82/07/22	10 00	0000	39	43	177	0.81	0.120	0.800	0.250	0.070	10K	50K
82/08/17	10 00	0000	15	52	172							
82/09/07	10 30	0000	30	55	193							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/13	10 30	0000	50K	40K	100	0.5K	100K	90
82/01/11	10 15	0000	50K	40K	100K	0.2K	100K	50K
82/04/13	10 50	0000	60	40K	100K	0.2K	100K	50K
82/07/22	10 00	0000	50K	40K	100	0.2	100K	50K

K Less than noted value.

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 mi² (435 km²).

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.

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

AVERAGE DISCHARGE.--31 years, 198 ft³/s (5.607 m³/s), 16.00 in/yr (406 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft³/s (258 m³/s) Sept. 21, 1955, gage height, 17.84 ft (5.438 m); minimum, 1.1 ft³/s (0.031 m³/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 ft³/s (215 m³/s), from information furnished by North Carolina State Highway Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) Jan. 6, gage height, 12.20 ft (3.719 m); minimum, 4.3 ft³/s (0.12 m³/s) Oct. 21, 22, Sept. 3, 4; minimum gage height, 2.25 ft (0.686 m) Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	16	118	185	239	72	260	24	24	229	6.2
2	12	11	17	125	203	269	68	227	18	19	261	5.6
3	11	11	21	185	322	273	63	167	17	14	260	4.7
4	9.9	11	27	562	401	254	59	116	16	13	220	28
5	9.3	12	28	892	458	223	56	89	19	11	154	71
6	8.6	12	27	1150	488	200	53	71	62	10	96	113
7	7.9	12	26	1120	466	218	50	58	89	9.5	62	118
8	7.3	12	23	900	399	273	48	50	79	8.3	42	115
9	7.0	11	21	692	323	298	49	42	59	8.6	30	88
10	6.5	11	19	525	314	287	53	36	41	10	24	51
11	6.1	12	17	364	323	248	55	32	33	11	21	32
12	5.8	12	15	276	331	209	54	27	32	14	20	22
13	5.5	12	13	213	430	179	52	24	31	23	25	18
14	5.5	11	12	199	496	166	49	21	26	23	35	14
15	5.3	11	17	218	538	188	46	18	26	43	31	12
16	5.2	11	27	240	569	284	42	15	26	77	26	9.7
17	5.0	12	40	251	614	340	39	13	21	125	22	8.1
18	5.1	13	50	238	654	367	39	13	19	197	18	6.9
19	5.0	13	44	210	680	357	39	18	87	223	22	11
20	4.7	12	39	202	648	305	42	27	222	202	21	34
21	4.3	13	38	202	575	247	43	24	280	152	17	53
22	4.5	13	35	224	489	207	46	24	316	99	14	76
23	5.1	13	33	257	404	176	49	25	319	66	11	73
24	5.9	15	32	333	317	148	47	21	235	46	9.5	56
25	6.0	16	37	383	251	124	43	16	137	35	8.1	43
26	6.6	17	68	401	207	112	49	21	90	29	6.7	43
27	7.7	18	99	396	181	105	118	37	62	24	5.7	86
28	8.5	17	111	365	200	95	190	54	45	21	6.1	117
29	10	16	120	310	---	86	256	46	35	49	5.1	119
30	11	16	125	245	---	79	281	44	28	155	5.8	93
31	12	---	115	202	---	75	---	35	---	189	7.0	---
TOTAL	227.3	388	1312	11998	11466	6631	2150	1671	2494	1930.4	1715.0	1527.2
MEAN	7.33	12.9	42.3	387	410	214	71.7	53.9	83.1	62.3	55.3	50.9
MAX	13	18	125	1150	680	367	281	260	319	223	261	119
MIN	4.3	11	12	118	181	75	39	13	16	8.3	5.1	4.7
CFSM	.04	.08	.25	2.30	2.44	1.27	.43	.32	.50	.37	.33	.30
IN.	.05	.09	.29	2.66	2.54	1.47	.48	.37	.55	.43	.38	.34

CAL YR 1981 TOTAL 52307.4 MEAN 143 MAX 2890 MIN 4.3 CFSM .85 IN 11.58
WTR YR 1982 TOTAL 43509.9 MEAN 119 MAX 1150 MIN 4.3 CFSM .71 IN 9.63

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/13	14 10	0000	2.36	6	240		15.0	2.0	6.7	65.0	14.0	10
81/11/16	12 15	0000	2.60	11	265		12.0		7.6	70.0		10K
81/12/08	12 10	0000	3.02	23	143		10.0		10.1	89.0		20
82/01/18	12 10	0000	6.37	239	88		2.0	3.0	12.8	89.0	31.0	50
82/02/18	16 00	0000	9.85	664	51		11.0		9.2	83.0		170
82/03/16	11 55	0000	6.88	281	102	7.70	11.0		8.5	77.0		260
82/04/13	14 00	0000	3.57	52	146	7.30	14.0	2.0	10.0	96.0	25.0	60
82/05/17	12 15	0000	2.60	12			20.0		3.5	38.0		20
82/06/15	11 50	0000	3.08	27	120		22.0		6.3	72.0		170
82/07/22	12 25	0000	4.44	98	90	6.60	25.0	3.0	6.2	74.0	50.0	100
82/08/12	13 00	0000	2.78	20								
82/08/17	13 00	0000	2.95	26	120	6.90	25.0		5.4	65.0		80
82/09/14	12 00	0000	2.64	14	159	6.60	22.0		5.9	75.0		40

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT WFLT MG/L	RESIDUE TOTAL 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
81/10/13	14 10	0000		2	178	1.80	0.050K	0.400	0.070	0.050K	12	50K
81/11/16	12 15	0000		5	170							
81/12/08	12 10	0000		1K	126							
82/01/18	12 10	0000		4	92	0.79	0.050K	0.400	0.050K	0.050K	10K	50K
82/02/18	16 00	0000		4	87							
82/03/16	11 55	0000		6	100							
82/04/13	14 00	0000	46	2	119	1.00	0.050K	0.300	0.050	0.050K	10K	50K
82/05/17	12 15	0000		5	132							
82/06/15	11 50	0000		3	122							
82/07/22	12 25	0000	24	2	131	0.40	0.050K	0.600	0.090	0.050K	10K	50K
82/08/17	13 00	0000	39	3	126							
82/09/14	12 00	0000	33	2	141							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/13	14 10	0000	50K	40K	100K	0.5K	100K	50K
82/01/18	12 10	0000	50K	40K	100K	0.2K	100K	50K
82/04/13	14 00	0000	50K	40K	100K	0.2K	100K	50K
82/07/22	12 25	0000	50K	40K	100	2.9	100K	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, 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).

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

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

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

REMARKS.--Records good except those for period of no gage-height record, Dec. 11 to Jan. 21, which are poor. Recording rain gage at station.

AVERAGE DISCHARGE.--5 years, 3.76 ft³/s (0.106 m³/s), 25.79 in/yr (655 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 847 ft³/s (24.0 m³/s) July 24, 1982, gage height, 5.77 ft (1.759 m) from rating curve extended above 150 ft³/s (4.25 m³/s); no flow for part of July 26, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges 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)
Feb. 12	2300	113	3.20	2.60	0.792	June 22	1730	260	7.36	3.45	1.052
Feb. 16	1145	193	5.47	3.10	0.945	July 14	1230	146	4.13	3.23	0.985
Mar. 7	1115	118	3.34	2.64	0.805	July 24	2030	*847	24.0	*5.77	1.759
June 18	2100	106	3.00	2.55	0.777	July 25	1530	272	7.70	3.51	1.070

Minimum discharge, 0.41 ft³/s (0.012 m³/s) May 23, July 10; minimum gage height, 1.34 ft (0.408 m) Nov. 15, 16, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.3	1.4	4.0	5.0	5.6	2.6	3.0	.72	.87	6.9	2.6
2	1.7	1.3	2.7	8.0	17	5.0	2.6	2.3	.69	.87	6.2	2.6
3	1.4	1.5	1.6	15	11	4.6	2.5	2.2	.60	.84	6.5	2.6
4	1.3	1.5	1.5	30	7.8	4.3	2.3	1.9	.63	.73	5.4	7.0
5	1.3	1.5	1.6	20	6.2	4.3	2.5	1.6	.79	.74	5.1	2.8
6	1.3	1.7	1.7	10	6.3	5.7	2.6	1.5	.67	.74	5.1	2.3
7	1.3	1.7	1.7	6.0	5.1	22	2.6	1.4	.60	.72	5.0	2.2
8	1.3	1.7	1.7	3.5	4.7	8.8	3.0	1.3	.60	.64	4.7	2.0
9	1.3	1.7	1.7	2.7	9.6	6.6	3.2	1.2	.68	.56	4.6	2.0
10	1.5	1.8	1.9	2.2	6.3	5.3	2.3	1.1	.93	.48	4.3	2.0
11	1.6	2.0	2.0	1.9	5.1	4.5	2.3	1.1	.97	.68	4.3	2.5
12	1.5	1.8	1.8	1.8	15	4.2	2.2	1.1	.62	.54	5.9	2.5
13	1.3	1.9	2.0	3.5	24	3.9	2.3	.86	.56	12	4.9	2.2
14	1.3	2.0	3.0	5.8	9.2	3.8	2.3	.86	.50	27	17	2.0
15	1.3	1.5	4.6	4.0	7.3	4.2	2.3	.95	.51	15	6.1	2.0
16	1.3	.99	3.0	2.8	35	3.9	2.3	.86	.52	10	5.0	2.0
17	1.4	1.0	2.0	2.0	27	3.7	2.3	.87	.93	7.4	4.5	2.0
18	1.3	1.0	3.8	1.5	12	3.5	2.1	.75	18	5.7	4.2	2.1
19	1.4	1.1	2.5	4.0	9.1	3.5	2.0	.76	13	4.9	3.9	2.2
20	1.4	1.1	1.6	9.0	7.5	3.5	5.1	.72	2.7	4.3	4.7	2.5
21	1.4	1.2	1.5	6.0	6.7	3.4	2.9	1.0	1.7	3.9	3.9	9.2
22	1.5	1.2	1.4	4.5	5.9	3.6	2.7	.87	35	3.6	3.9	4.8
23	1.5	1.2	1.3	6.6	5.5	3.5	2.3	.49	11	6.8	4.7	3.1
24	1.5	1.9	3.0	6.5	5.2	3.5	1.9	.59	4.4	110	3.5	2.8
25	1.7	1.2	7.0	4.9	4.7	3.3	1.7	.62	2.7	71	4.3	2.4
26	1.5	1.2	4.0	4.4	4.1	3.2	19	.61	2.0	23	4.7	11
27	1.8	1.2	2.5	4.0	8.9	3.2	9.5	.63	1.6	12	3.9	5.6
28	1.3	1.2	1.6	3.9	6.6	3.0	6.2	8.7	1.4	8.3	3.2	3.8
29	1.2	1.3	2.9	3.9	---	2.9	4.4	1.4	1.2	6.8	3.2	3.2
30	1.2	1.3	2.0	3.5	---	2.9	3.6	.92	.99	8.2	2.9	2.9
31	1.3	---	1.8	4.0	---	2.7	---	.74	---	6.7	2.9	---
TOTAL	43.8	42.99	72.8	189.9	277.8	146.1	105.6	42.90	107.21	355.01	155.4	98.9
MEAN	1.41	1.43	2.35	6.13	9.92	4.71	3.52	1.38	3.57	11.5	5.01	3.30
MAX	1.8	2.0	7.0	30	35	22	19	8.7	35	110	17	11
MIN	1.2	.99	1.3	1.5	4.1	2.7	1.7	.49	.50	.48	2.9	2.0
CFSM	.71	.72	1.19	3.10	5.01	2.38	1.78	.70	1.80	5.81	2.53	1.67
IN.	.82	.81	1.37	3.57	5.22	2.74	1.98	.81	2.01	6.67	2.92	1.86

CAL YR 1981 TOTAL 1238.57 MEAN 3.39 MAX 98 MIN .71 CFSM 1.71 IN 23.26
WTR YR 1982 TOTAL 1638.41 MEAN 4.49 MAX 110 MIN .48 CFSM 2.27 IN 30.77

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1955 to current year.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 771.30 ft (235.092 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 13, 1955, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Some diurnal fluctuation at medium and low flows caused by mill upstream.

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

AVERAGE DISCHARGE.--27 years, 23.4 ft³/s (0.663 m³/s), 15.43 in/yr (392 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1730	680	19.3	8.85	2.697	May 30	0700	407	11.5	7.59	2.313
Feb. 3	1900	436	12.3	7.76	2.365	June 5	0500	607	17.2	8.56	2.609
May 24	1230	534	15.1	8.25	2.515	June 10	2400	474	13.4	7.97	2.429
May 26	2400	*995	28.2	*9.69	2.954	June 13	2000	609	17.2	8.57	2.612

Minimum discharge, 5.9 ft³/s (0.17 m³/s) Sept. 18, 19, 26, gage height, 2.88 ft (0.878 m); minimum daily, 6.6 ft³/s (0.19 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	11	10	168	30	68	17	14	44	14	15	9.1
2	7.8	10	11	56	20	70	16	15	30	13	11	9.1
3	7.2	9.7	9.2	80	218	55	17	18	32	13	9.9	8.6
4	6.8	9.6	10	364	131	36	15	14	186	13	9.4	7.9
5	6.7	9.8	9.6	125	53	29	15	13	357	13	9.3	7.5
6	7.1	11	8.8	56	36	27	18	13	66	13	9.5	7.4
7	7.6	9.5	8.7	40	26	86	15	12	43	12	8.9	7.5
8	6.9	8.6	8.8	28	22	89	15	12	31	12	9.3	7.5
9	7.2	8.7	8.4	23	23	42	25	12	24	13	10	7.3
10	7.3	8.6	8.3	18	24	31	16	11	221	14	12	7.5
11	6.9	9.0	8.2	16	20	27	15	11	227	13	9.8	7.3
12	7.2	8.6	8.0	16	18	24	15	11	69	20	9.7	7.2
13	7.5	8.7	7.9	17	26	22	14	11	334	32	9.0	7.1
14	7.4	8.6	14	16	21	20	14	11	166	15	8.6	7.7
15	7.7	8.4	80	18	19	21	15	10	43	15	8.1	7.7
16	7.4	8.6	117	15	45	21	14	10	31	13	8.1	7.3
17	7.2	8.7	39	16	156	20	16	10	30	12	46	7.0
18	7.3	8.8	23	18	125	19	18	11	58	11	58	7.0
19	8.5	8.3	17	16	52	21	15	11	31	11	16	6.7
20	7.7	8.6	15	16	35	21	16	41	26	11	12	7.2
21	7.9	8.5	15	27	27	54	16	76	24	11	11	7.4
22	8.0	8.1	15	28	22	29	15	76	22	11	10	7.8
23	8.9	8.3	19	28	20	23	14	22	18	18	9.6	7.1
24	11	9.8	17	34	20	21	13	260	16	14	9.6	7.0
25	11	9.2	139	27	18	20	13	60	17	11	9.4	7.0
26	27	8.6	100	22	17	21	26	195	16	10	8.8	12
27	117	8.5	46	21	31	18	35	381	16	9.6	8.7	12
28	26	8.5	28	17	52	17	27	78	21	9.3	8.9	8.8
29	15	8.3	20	16	---	16	18	74	17	11	8.1	7.9
30	13	8.3	16	16	---	16	16	239	16	11	8.0	7.7
31	12	---	47	20	---	17	---	59	---	14	8.2	---
TOTAL	402.8	268.9	883.9	1378	1307	1001	514	1791	2232	412.9	389.9	236.3
MEAN	13.0	8.96	28.5	44.5	46.7	32.3	17.1	57.8	74.4	13.3	12.6	7.88
MAX	117	11	139	364	218	89	35	381	357	32	58	12
MIN	6.6	8.1	7.9	15	17	16	13	10	16	9.3	8.0	6.7
CFSM	.63	.44	1.38	2.16	2.27	1.57	.83	2.81	3.61	.65	.61	.38
IN.	.73	.49	1.60	2.49	2.36	1.81	.93	3.23	4.03	.75	.70	.43

CAL YR 1981 TOTAL 5478.9 MEAN 15.0 MAX 340 MIN 3.9 CFSM .73 IN 9.89
WTR YR 1982 TOTAL 10817.7 MEAN 29.6 MAX 381 MIN 6.6 CFSM 1.44 IN 19.53

02093800 REEDY FORK NEAR OAK RIDGE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB IRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/08	10 40	0000	2.91	6	166	6.60	11.0	4.0	9.6	86.0	10.0K	140
81/11/12	13 45	0000	3.00	8	151	6.80	10.0		9.9	88.0		560
81/12/28	10 45	0000	3.65	27	69	6.40	5.0		11.4	89.0		160
82/01/21	10 30	0000	3.60	25	92	6.60	4.0	35.0	10.6	81.0	13.0	330
82/02/18	13 48	0000	4.60	96	57	6.40	5.0		11.0	86.0		340
82/03/11	13 00	0000	3.68	30	76	6.60	13.0		9.9	93.0		90
82/04/27	14 22	0000	3.64	38	77	6.80	19.0	25.0	8.3	88.0	16.0	2400
82/05/06	14 00	0000	3.31	15	108	6.90	21.0		8.4	93.0		1500
82/06/03	11 15	0000	3.57	24	95	6.40	19.0		8.3	88.0		250
82/07/21	08 15	0000	3.18	11	117	6.50	22.0	15.0	7.5	85.0	10.0K	1200
82/08/10	14 26	0000	3.20	12	120	6.60	25.0		7.1	83.0		1600
82/09/13	14 35	0000	3.02	8	105	7.30	22.0		7.7	87.0		2100

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/08	10 40	0000	40	3	119	0.40	0.050K	0.300	0.270	0.200	10K	50K
81/11/12	13 45	0000	34	3	150							
81/12/28	10 45	0000	18	20	98							
82/01/21	10 30	0000	21	32	131	0.80	0.190	0.500	0.220	0.090	10K	50K
82/02/18	13 48	0000	15	170	280							
82/03/11	13 00	0000	18	26	120							
82/04/27	14 22	0000	25	103	200	0.41	0.050K	0.600	0.360	0.080	10K	50K
82/05/06	14 00	0000	27	17	111							
82/06/03	11 15	0000	34	36	125							
82/07/21	08 15	0000	28	22	130	0.60	0.050K	0.300	0.200	0.130	10K	50K
82/08/10	14 26	0000	28	15	118							
82/09/13	14 35	0000	38	9	113							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/08	10 40	0000	50K	40K	100K	0.5K		50K
82/01/21	10 30	0000	50K	40K	100K	0.2K	100K	50K
82/04/27	14 22	0000	50K	40K	100K	0.2K	100K	50K
82/07/21	08 15	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

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. WDR NC-81-1: Drainage area.

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. 370), since 1957 by Lake Higgins on Brush Creek, a tributary to Lake Brandt, (see p. 370), 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 21.1 ft³/s (0.60 m³/s) and an average of 17.1 ft³/s (0.48 m³/s) from Lake Townsend for municipal water supply.

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

AVERAGE DISCHARGE.--54 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, 3,910 ft³/s (111 m³/s) June 5, gage height 12.69 ft (3.868 m); minimum discharge, 4.1 ft³/s (0.12 m³/s) Sept. 11, 12; minimum gage height, 0.73 ft (0.223 m) Oct. 1, 2, Dec. 3, 4, 7, 8, 12, 13, 14; minimum daily, 4.1 ft³/s (0.12 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	11	5.5	433	206	172	42	91	446	30	29	5.0
2	5.7	11	6.1	517	181	162	38	75	341	20	19	5.1
3	6.5	13	5.8	366	510	163	45	73	263	17	17	5.0
4	6.8	13	5.7	954	560	159	73	63	1110	28	15	4.9
5	6.8	12	6.1	866	408	256	47	52	3240	23	12	4.7
6	6.9	13	5.8	581	256	236	43	43	1630	14	17	4.4
7	7.4	26	5.6	268	329	275	46	39	547	11	12	4.4
8	7.6	17	5.6	163	235	488	24	33	249	15	10	4.3
9	7.2	11	5.6	123	335	361	32	28	161	19	19	4.4
10	7.4	10	5.6	96	320	191	46	23	813	33	19	4.2
11	7.6	7.9	5.6	71	311	132	38	18	1360	20	14	4.1
12	7.6	7.6	5.5	55	250	104	43	15	757	97	22	4.4
13	7.7	6.8	5.6	42	47	91	43	14	544	399	15	4.8
14	8.0	6.5	6.2	47	28	84	44	13	849	204	12	4.9
15	8.5	6.2	51	58	22	76	43	11	588	149	10	5.2
16	10	5.8	115	57	49	70	41	9.7	272	128	9.0	5.7
17	11	6.2	161	58	236	73	51	8.8	221	97	8.3	5.8
18	12	6.5	198	53	569	65	96	8.1	157	69	14	6.0
19	20	6.2	136	49	383	62	65	30	126	50	15	7.3
20	24	6.8	80	79	360	67	63	47	116	35	11	7.5
21	21	6.8	50	104	191	88	78	36	96	25	16	6.9
22	22	6.5	44	84	100	107	68	72	75	16	14	7.0
23	25	6.8	52	213	68	105	57	129	60	30	11	6.8
24	30	7.6	60	253	96	95	49	168	47	66	9.4	6.8
25	29	8.3	227	145	71	81	42	278	40	37	7.8	6.5
26	35	7.6	505	97	46	75	49	300	36	31	7.5	12
27	107	7.5	315	84	63	63	121	1010	34	25	6.5	17
28	41	6.8	219	83	155	50	205	778	34	20	5.9	8.2
29	19	6.2	266	83	---	43	140	392	45	22	5.6	6.5
30	12	5.6	166	85	---	38	113	775	42	15	5.2	5.7
31	10	---	164	90	---	38	---	651	---	24	5.0	---
TOTAL	535.1	273.2	2889.3	6257	6385	4070	1885	5278.6	14299	1769	393.2	185.5
MEAN	17.3	9.11	93.2	202	228	131	62.8	170	477	57.1	12.7	6.18
MAX	107	26	505	954	569	488	205	1010	3240	399	29	17
MIN	5.4	5.6	5.5	42	22	38	24	8.1	34	11	5.0	4.1

CAL YR 1981 TOTAL 10625.0 MEAN 29.1 MAX 505 MIN 3.7
WTR YR 1982 TOTAL 44219.9 MEAN 121 MAX 3240 MIN 4.1

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB IRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	12 25	0000	0.80	8	102	6.90	12.0	10.0	8.5	79.0	14.0	10
81/11/03	10 55	0000	0.89	14	92	6.70	14.0		8.7	84.0		60
81/12/15	13 50	0000	1.22	40	77	7.10	2.0		10.8	78.0		140
82/01/05	10 45	0000	4.37	824	71	6.80	4.0	50.0	12.1	92.0	18.0	50
82/02/04	14 05	0000	3.71	598	55	6.60	7.0		10.6	87.0		80
82/03/09	14 07	0000	2.69	310	61	6.70	9.0		11.0	95.0		140
82/04/01	11 00	0000	1.30	42	71	6.90	14.0	20.0	9.6	92.0	10.0K	50
82/05/25	09 22	0000	2.22	208	64	6.90	20.0		8.4	91.0		850
82/06/17	11 15	0000	2.24	212	68	7.00	24.0		8.3	98.0		70
82/07/07	08 50	0000	0.89	11	74	7.20	23.0	40.0	8.0	92.0	15.0	300
82/08/05	09 43	0000	0.89	11	75	7.00	24.0		7.7	91.0		55
82/09/23	09 33	0000	0.84	7	94	7.10	17.0		6.7	69.0		70

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT WFLT MG/L	RESIDUE TOTAL 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
81/10/12	12 25	0000	39	7	50	0.05K	0.060	0.500	0.050K	0.050K	10K	50
81/11/03	10 55	0000	41	7	108	0.05K	0.050K	0.400	0.050K	0.050K		
81/12/15	13 50	0000	40	17	110	0.05	0.050K	0.200	0.050K	0.050K		
82/01/05	10 45	0000	27	60	106	0.12	0.100	0.400	0.080	0.050K	10K	50
82/02/04	14 05	0000	23	68	150	0.12	0.050K	0.400	0.100	0.050K		
82/03/09	14 07	0000	22	19	94	0.17	0.050K	0.500	0.050	0.050K		
82/04/01	11 00	0000	25	13	150	0.14	0.050K	0.400	0.050	0.050K	10K	50
82/05/25	09 22	0000	22	166	308	0.22	0.060	0.500	0.250	0.050K		
82/06/17	11 15	0000	20	23	87	0.08	0.050	0.400	0.070	0.050K		
82/07/07	08 50	0000	31	42	128	0.12	0.050K	0.300	0.080	0.050K	10K	50
82/08/05	09 43	0000	33	14	78	0.15	0.050K	0.300	0.050K	0.050K		
82/09/23	09 33	0000	40	7	85	0.08	0.050	0.300	0.060	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/12	12 25	0000	50K	40K	100K	0.5K		50K
82/01/05	10 45	0000	50K	40K	100K	0.2K	100K	50K
82/04/01	11 00	0000	50K	40K	100	0.2K	100K	50K
82/07/07	08 50	0000	50K	40K	100K	3.0	100K	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.

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

AVERAGE DISCHARGE.--54 years, 54.9 ft³/s (1.555 m³/s), 20.10 in/yr (511 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)
Jan. 4	1230	1550	43.9	9.82	2.993	May 29	2300	2220	62.9	11.38	3.469
Feb. 3	1330	1470	41.6	9.55	2.911	June 5	0200	*4530	128	*14.34	4.371
May 26	2300	3240	91.8	12.77	3.892	June 10	1130	4290	121	14.05	4.282

Minimum discharge, 9.4 ft³/s (0.27 m³/s) Oct. 8, gage height, 1.84 ft (0.561 m); minimum daily, 20 ft³/s (0.57 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	29	44	265	67	179	35	39	144	37	75	29
2	42	31	38	61	85	123	32	44	55	33	31	28
3	24	31	26	261	639	78	54	50	58	32	29	27
4	21	31	36	626	144	58	35	37	482	30	26	24
5	22	32	27	104	69	55	34	34	1540	32	47	24
6	24	33	23	57	55	81	52	30	93	27	48	22
7	24	29	24	46	45	287	33	30	57	32	33	25
8	22	22	26	40	42	126	44	32	44	35	26	27
9	25	24	30	36	60	65	115	30	40	165	123	24
10	21	24	30	31	64	52	40	29	1470	65	33	23
11	22	26	27	31	42	47	32	29	326	35	29	21
12	25	27	25	32	42	43	32	28	86	170	43	20
13	26	25	24	33	112	39	32	31	419	232	31	21
14	28	27	78	37	51	38	45	31	171	89	36	23
15	23	24	278	34	44	52	43	32	72	63	33	24
16	24	27	135	54	230	49	35	26	51	35	32	23
17	23	29	44	44	369	40	129	27	46	31	164	22
18	30	27	36	33	119	39	84	26	65	28	75	22
19	37	27	28	65	75	48	42	107	57	28	38	37
20	23	27	27	49	58	60	119	51	41	26	32	21
21	22	25	30	143	48	238	64	73	40	28	31	21
22	26	22	48	86	42	62	41	38	38	30	32	23
23	57	28	71	133	39	48	37	30	35	86	35	23
24	35	50	50	106	39	43	38	249	35	44	29	23
25	96	29	412	62	37	41	33	197	34	31	30	24
26	203	22	98	49	33	44	135	649	33	26	27	200
27	399	25	51	41	240	36	210	872	44	27	26	53
28	50	22	42	38	270	33	170	121	78	26	27	30
29	32	27	36	37	---	34	57	473	44	38	25	25
30	31	29	32	36	---	34	43	577	50	29	26	24
31	26	---	298	41	---	38	---	162	---	138	27	---
TOTAL	1488	831	2174	2711	3160	2210	1895	4184	5748	1728	1299	933
MEAN	48.0	27.7	70.1	87.5	113	71.3	63.2	135	192	55.7	41.9	31.1
MAX	399	50	412	626	639	287	210	872	1540	232	164	200
MIN	21	22	23	31	33	33	32	26	33	26	25	20

CAL YR 1981 TOTAL 17336 MEAN 47.5 MAX 559 MIN 19
WTR YR 1982 TOTAL 28361 MEAN 77.7 MAX 1540 MIN 20

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	11 00	0000	1.97	15	650	7.20	14.0	5.0	5.1	49.0	46.0	360
81/11/03	09 45	0000	2.11	23	422	7.00	15.0		6.1	60.0		200
81/12/15	15 00	0000	4.52	444	207	6.90	7.0		10.1	83.0		3000
82/01/05	09 45	0000	2.84	102	80	6.60	5.0	140.0	10.4	81.0	38.0	120
82/02/04	15 05	0000	2.95	120	143	6.40	8.0		9.6	81.0		2900
82/03/09	15 10	0000	2.58	66	240	7.20	11.0		9.0	81.0		7100
82/04/01	10 00	0000	2.16	26	390	7.10	14.0	15.0	7.6	73.0	40.0	130
82/05/25	08 25	0000	3.26	176	125	6.80	22.0		5.2	59.0		7100
82/06/17	10 15	0000	2.35	42	199	6.90	24.0		5.0	60.0		800
82/07/07	07 40	0000	2.14	25	400	7.00	24.0	8.0	6.1	72.0	35.0	300
82/08/05	08 40	0000	2.24	32	450	6.80	25.0		3.9	46.0		110
82/09/23	08 32	0000	2.12	24	232	7.10	17.0		6.0	62.0		200

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE 105 NFLT MG/L	RESIDUE TOTAL 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
81/10/12	11 00	0000	140	1	309	0.76	12.000	12.000	4.000	3.800	11	50K
81/11/03	09 45	0000	120	4	270	1.20	9.000	9.000	2.700	2.500		
81/12/15	15 00	0000	53	191	328	3.10	0.050K	1.500	0.960	0.850		
82/01/05	09 45	0000	33	76	181	0.65	0.180	0.800	0.230	0.060	10K	50K
82/02/04	15 05	0000	33	100	251	0.78	0.620	1.300	0.430	0.170		
82/03/09	15 10	0000	70	29	208	0.54	3.200	4.000	1.000	0.760		
82/04/01	10 00	0000	117	7	230	0.82	7.000	7.000	1.700	1.400	10K	50K
82/05/25	08 25	0000	41	320	448	0.64	0.800	2.100	0.700	0.230		
82/06/17	10 15	0000	60	20	168	0.18	2.300	3.100	1.800	0.680		
82/07/07	07 40	0000	84	9	270	4.40	6.200	8.300	3.000	2.800	10K	50K
82/08/05	08 40	0000	97	7	252	2.70	2.800	5.200	3.000	2.700		
82/09/23	08 32	0000	50	23	177	2.40	0.300	1.200	0.900	0.870		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/12	11 00	0000	50K	40K	100K	0.5K		50K
82/01/05	09 45	0000	50K	40K	100K	0.2K	100K	50K
82/04/01	10 00	0000	50K	40K	100K	0.2K	100K	50
82/07/07	07 40	0000	50K	40K	100K	1.7	100K	50K

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 757: 1929(M). WSP 782: 1934. WSP 1383: 1930, 1932(M), 1933(m), 1936, 1943, 1944(M), 1947(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 471.69 ft (143.771 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Some diurnal fluctuation and occasional regulation. City of Burlington diverted from two reservoirs on Stony Creek (see p. 370) an average of 10.0 ft³/s (0.28 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.

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

AVERAGE DISCHARGE.--54 years, 574 ft³/s (16.26 m³/s), 12.86 in/yr (327 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1600	6830	193	14.67	4.471	June 5	1400	*10600	300	*18.98	5.785
Feb. 3	1930	7470	212	15.47	4.715	June 10	2230	10400	295	18.74	5.712
June 4	0800	7880	223	15.99	4.874						

Minimum discharge, 91 ft³/s (2.58 m³/s) Sept. 14, gage height, 1.65 ft (0.503 m); minimum daily, 100 ft³/s (2.83 m³/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	281	146	3830	692	2250	316	573	1940	326	337	130
2	170	232	174	1800	698	1620	292	451	1090	262	271	136
3	230	208	191	2200	4190	1350	288	444	1210	237	177	133
4	120	198	168	5110	4490	1030	348	394	6030	273	174	124
5	104	187	180	4120	1890	942	298	337	9020	360	161	117
6	111	183	180	2160	1340	1020	276	298	7450	270	166	108
7	120	183	160	1470	1160	1810	321	274	3230	219	184	106
8	120	176	152	1060	870	2750	263	265	1580	213	198	108
9	108	152	157	756	831	1600	395	257	1080	218	441	110
10	128	142	155	547	957	1170	462	235	4640	554	535	109
11	110	143	148	365	795	886	334	213	7620	291	389	105
12	112	144	138	321	693	691	303	209	2390	471	1450	103
13	130	141	131	315	666	559	281	201	1870	1670	457	103
14	135	138	143	321	709	502	277	201	3320	1980	290	100
15	139	134	532	330	492	457	339	193	2150	712	223	113
16	120	134	1830	352	608	474	367	199	1360	483	184	124
17	126	134	915	369	2630	449	350	252	1050	381	170	120
18	126	139	732	333	2700	421	691	206	2310	307	526	117
19	132	138	649	345	1720	385	464	191	952	262	297	198
20	150	138	464	450	1420	429	398	458	611	229	229	171
21	130	138	323	729	1060	1150	738	330	463	214	216	129
22	110	137	294	1190	735	855	497	327	382	203	181	123
23	150	128	345	977	541	597	394	780	371	210	159	121
24	203	136	453	1390	478	504	346	751	328	357	155	116
25	130	183	1930	1010	454	445	320	1430	302	281	151	112
26	270	168	2640	693	376	413	377	798	293	243	148	145
27	640	150	1360	504	651	377	989	3270	279	215	142	484
28	2000	142	978	449	2030	329	2450	3730	319	204	138	244
29	663	143	839	445	---	297	1030	1240	334	206	132	168
30	485	141	660	434	---	292	730	3540	389	183	124	148
31	381	---	918	454	---	296	---	1820	---	243	122	---
TOTAL	7763	4791	18085	34829	35876	26350	14934	23867	64363	12277	8527	4225
MEAN	250	160	583	1124	1281	850	498	770	2145	396	275	141
MAX	2000	281	2640	5110	4490	2750	2450	3730	9020	1980	1450	484
MIN	104	128	131	315	376	292	263	191	279	183	122	100
CFSM	.41	.26	.96	1.86	2.11	1.40	.82	1.27	3.54	.65	.45	.23
IN.	.48	.29	1.11	2.14	2.20	1.62	.92	1.47	3.95	.75	.52	.26

CAL YR 1981 TOTAL 115521 MEAN 316 MAX 4700 MIN 68 CFSM .52 IN 7.09
WTR YR 1982 TOTAL 255887 MEAN 701 MAX 9020 MIN 100 CFSM 1.16 IN 15.71

02096500 HAW RIVER AT HAW RIVER, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/19	13 25	0000	1.87	132	424	6.60	13.0	9.0	7.7	73.0	45.0	10K
81/11/03	13 20	0000	2.28	222	218	7.00	16.0		8.3	83.0		10K
81/12/15	12 20	0000	2.96	406	200	6.90	4.0		10.8	82.0		10
82/01/05	12 40	0000	10.64	3930	72	6.60	6.0	250.0	11.3	90.0	48.0	3900
82/02/04	12 00	0000	11.62	4560	80	6.20	6.0		11.0	89.0		7500
82/03/09	10 10	0000	6.26	1620	84	6.30	6.0		11.3	90.0		270
82/04/01	12 55	0000	2.68	322	175	7.20	16.0	20.0	9.8	98.0	20.0	60
82/05/20	09 45	0000	3.92	712	178	7.00	20.0		7.3	78.0		1300
82/06/09	12 20	0000	4.87	1070	94	7.10	24.0		8.2	96.0		130
82/07/07	10 40	0000	2.25	215	150	7.40	25.0	40.0	8.2	98.0	20.0	390
82/08/05	10 55	0000	2.00	161	240	7.40	26.0		7.6	93.0		880
82/09/23	11 00	0000	1.83	123	376	7.50	18.0		8.0	84.0		40

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/19	13 25	0000	74	5	284	5.20	0.810	2.300	2.300	2.100	10K	50K
81/11/03	13 20	0000	40	12	194	1.60	1.300	2.300	0.820	0.540		
81/12/15	12 20	0000	42	48	253	2.10	1.300	3.000	0.890	0.870		
82/01/05	12 40	0000	16	278	355	0.72	0.240	0.900	0.610	0.080	10K	50K
82/02/04	12 00	0000	17	307	439	0.45	0.330	1.200	0.670	0.110		
82/03/09	10 10	0000	21	40	144	0.59	0.370	0.900	0.240	0.090		
82/04/01	12 55	0000	33	11	100	2.00	0.340	1.000	0.610	0.470	10K	50K
82/05/20	09 45	0000	43	107	272	2.80	0.250	1.200	1.500	1.000		
82/06/09	12 20	0000	26	78	188	0.57	0.090	0.600	0.300	0.130		50K
82/07/07	10 40	0000	44	29	160	1.60	0.050K	0.700	0.500	0.350	10K	50K
82/08/05	10 55	0000	53	20	204	2.00	0.050K	0.800	0.920	0.650		
82/09/23	11 00	0000	63	17	303	4.30	0.130	1.700	1.800	1.600		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/19	13 25	0000	50K	40K	100K	0.5K	100K	50K
81/11/03	13 20	0000				0.5K		
81/12/15	12 20	0000				0.5K		
82/01/05	12 40	0000	60	40K	100K	0.2K	100K	70
82/02/04	12 00	0000				0.2K		
82/03/09	10 10	0000				0.2K		
82/04/01	12 55	0000	50K	40K	100K	0.2K	100K	50K
82/05/20	09 45	0000				0.2K		
82/06/09	12 20	0000	50K	40K	100K	0.2K	100K	50K
82/07/07	10 40	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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 excellent. Considerable regulation for short periods at low flow caused by powerplant above station. Gage height telemeter at station.

AVERAGE DISCHARGE.--9 years, 1,337 ft³/s (37.86 m³/s), 14.24 in/yr (362 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, 1.1 ft³/s (0.031 m³/s) Oct. 9, 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. 4	0045	18800	532	12.46	3.798	June 11	1030	*32700	926	*15.50	4.724
June 5	1245	21400	606	13.16	4.011						

Minimum discharge, 0.61 ft³/s (0.017 m³/s) Oct. 9, gage height, 1.88 ft (0.573 m); minimum daily, 1.1 ft³/s (0.031 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	623	248	10900	1300	6040	701	1290	3490	1960	551	258
2	194	491	310	5050	1560	4390	662	1020	2650	833	521	173
3	175	419	278	5570	7340	3050	704	913	1840	648	478	149
4	67	379	275	10600	13300	2260	703	908	11800	392	338	214
5	211	359	280	9550	4530	1880	705	747	17400	2630	250	157
6	42	345	288	4130	2880	2020	685	670	11200	1210	255	166
7	262	326	336	2840	2230	3810	630	641	5300	773	234	164
8	98	313	248	2060	1870	7210	644	520	2860	544	222	165
9	1.1	294	266	1590	1540	3740	860	544	1930	485	415	279
10	124	269	226	1230	2180	2520	1120	398	7460	2030	2040	87
11	127	258	252	904	1970	1970	905	507	25800	1150	1030	97
12	215	258	162	724	1520	1610	740	505	6910	895	2420	94
13	15	255	214	726	1860	1390	690	268	3400	1560	2020	253
14	213	251	275	754	2240	1210	647	442	5240	3790	849	168
15	62	245	900	784	1540	1120	645	417	3700	1760	395	165
16	156	240	4010	800	1330	1180	677	193	2400	1040	552	151
17	20	243	2390	850	4300	1160	710	396	1860	771	396	54
18	121	242	1400	829	6450	1050	878	547	9060	657	587	177
19	193	246	1170	979	3740	954	1250	474	4090	566	824	93
20	127	244	913	1390	2740	913	826	286	1910	453	486	318
21	44	240	662	2250	2210	3110	1350	735	1330	387	480	322
22	233	231	563	3820	1680	2790	1310	624	1050	437	416	256
23	65	230	571	3260	1290	1640	926	1100	936	287	188	172
24	109	233	696	4880	1090	1280	808	2100	846	555	396	56
25	206	252	2090	3280	1030	1100	686	3840	721	568	293	147
26	691	301	6180	2110	908	1000	756	2000	505	520	197	194
27	7160	281	3200	1520	1360	886	1810	6700	555	430	179	221
28	6590	260	2020	1170	5880	813	6700	9670	591	412	229	730
29	1850	246	1650	1070	---	723	2930	3490	721	438	207	274
30	1070	241	1430	1020	---	706	1700	9260	1420	323	102	292
31	800	---	1350	1010	---	689	---	4590	---	315	302	---
TOTAL	21292.1	8815	34853	87650	81868	64214	34358	55795	138975	28819	17852	6046
MEAN	687	294	1124	2827	2924	2071	1145	1800	4633	930	576	202
MAX	7160	623	6180	10900	13300	7210	6700	9670	25800	3790	2420	730
MIN	1.1	230	162	724	908	689	630	193	505	287	102	54
CFSM	.54	.23	.88	2.22	2.29	1.62	.90	1.41	3.63	.73	.45	.16
IN.	.62	.26	1.02	2.56	2.39	1.87	1.00	1.63	4.05	.84	.52	.18

CAL YR 1981 TOTAL 265929.1 MEAN 729 MAX 20600 MIN 1.1 CFSM .57 IN 7.76
WTR YR 1982 TOTAL 580537.1 MEAN 1591 MAX 25800 MIN 1.1 CFSM 1.25 IN 16.94

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to September 1982.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to September 1982.
WATER TEMPERATURES: October 1981 to September 1982.

INSTRUMENTATION.--Water-quality monitor since October 1981.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams.

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

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 429 micromhos Oct. 27; minimum, 51 micromhos June 11.
WATER TEMPERATURES: Maximum, 30.0°C July 28; minimum, 0.0°C Jan. 11-19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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												
02...	1500	362	245	6.6	20.5	20	9.1	41	0	9.1	4.5	41
27...	1030	3280	189	5.7	--	50	--	32	0	8.1	2.9	25
27...	1745	12900	100	5.4	15.0	190	10.0	24	7	5.7	2.3	9.5
28...	0830	7820	80	5.7	14.5	320	9.7	20	7	4.9	2.0	5.4
28...	1330	5990	80	5.5	15.0	320	10.2	22	7	5.3	2.2	5.5
29...	0900	1880	75	5.6	14.5	240	10.2	21	9	5.1	2.1	5.6
MAR												
15...	1100	1110	103	6.5	12.5	35	10.8	28	3	6.6	2.8	9.1
31...	1045	712	142	6.5	12.5	25	10.4	32	11	7.6	3.2	13
JUN												
04...	1045	13400	65	6.4	21.0	420	9.2	18	0	4.4	1.8	2.9
04...	1415	13300	73	6.2	21.0	210	9.2	24	5	5.5	2.4	5.9
04...	1700	12300	72	6.1	21.0	440	9.3	28	11	7.8	2.0	3.2
05...	1015	20700	60	6.5	20.0	360	9.1	19	5	4.7	1.8	4.5
11...	1200	31600	50	6.1	20.0	340	8.5	16	5	3.9	1.5	2.3
AUG												
26...	0915	23	145	6.7	24.5	30	7.2	31	0	7.2	3.2	15

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												
02...	69	3.6	4.7	57	0	47	23	30	26	.3	17	185
27...	58	2.1	5.1	43	0	35	144	19	14	.3	10	124
27...	40	.9	5.5	21	0	17	163	10	8.0	.1	8.8	80
28...	31	.6	4.0	16	0	13	62	8.7	5.4	.1	8.2	74
28...	31	.6	3.9	18	0	15	93	8.7	5.4	.1	9.0	72
29...	32	.6	3.7	15	0	12	69	9.9	5.8	.1	8.9	72
MAR												
15...	39	.8	1.9	31	0	25	15	12	7.9	.1	16	85
31...	45	1.1	2.1	26	0	21	20	15	9.5	.2	13	112
JUN												
04...	23	.3	2.6	26	0	21	15	6.0	3.3	<.1	8.3	62
04...	32	.6	2.7	23	0	19	25	8.0	4.4	.1	10	36
04...	--	.3	--	21	0	17	26	7.0	4.0	.1	6.7	--
05...	30	.5	2.6	17	0	14	10	8.0	3.4	<.1	7.1	60
11...	21	.3	2.7	14	0	11	22	8.0	2.9	<.1	6.4	66
AUG												
26...	48	1.3	3.8	44	0	36	13	14	9.8	.3	17	97

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
02...	168	.25	181	1.9	.010	1.9	1.9	4.2	.030	.050	.06	.79
27...	107	.17	1100	1.5	.080	1.6	1.7	--	.620	.670	.86	1.2
27...	63	.11	2790	.68	.070	.75	.68	--	.310	.350	.45	1.6
28...	48	.10	1560	.51	.080	.59	.54	--	.160	.120	.15	.94
28...	49	.10	1160	.49	.070	.56	.51	--	.140	.150	.19	1.1
29...	50	.10	365	.51	.040	.55	.46	--	.150	.110	.14	1.5
MAR												
15...	71	.12	255	.73	.030	.76	.76	--	.080	.070	.09	.52
31...	83	.15	215	.97	.030	1.0	1.1	--	.130	.170	.22	1.6
JUN												
04...	41	.08	2240	--	--	.80	.54	--	.390	.090	.12	1.6
04...	51	.05	1290	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	43	.08	3350	--	--	.90	.64	--	.340	.080	.10	1.5
11...	37	.09	5630	--	--	.50	.40	--	.240	.090	.12	1.7
AUG												
26...	90	.13	6.0	1.2	.010	1.2	1.2	--	.030	.090	.12	.37

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, 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-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT												
02...	.71	.82	.06	.76	2080	2.7	12	2080	2.7	.560	1.7	.530
27...	.93	1.80	.20	1.6	--	3.4	15	--	3.3	.930	2.9	.710
27...	1.1	1.90	.50	1.4	--	2.7	12	--	2.1	.980	3.0	.280
28...	.98	1.10	.00	1.1	--	1.7	7.5	--	1.6	.600	1.8	.100
28...	1.1	1.20	.00	1.2	--	1.8	7.8	--	1.7	.580	1.8	.110
29...	.53	1.60	.96	.64	--	2.2	9.5	--	1.1	.310	.95	.100
MAR												
15...	.25	.60	.28	.32	--	1.4	6.0	--	1.1	.190	.58	.140
31...	1.3	1.70	.20	1.5	--	2.7	12	--	2.6	.270	.83	.210
JUN												
04...	.51	2.00	1.4	.60	--	2.8	12	--	1.1	.630	1.9	.100
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	.42	1.80	1.3	.50	--	2.7	12	--	1.1	.730	2.2	.090
11...	.41	1.90	1.4	.50	--	2.4	11	--	.90	.310	.95	.070
AUG												
26...	.41	.40	.00	.50	--	1.6	7.1	--	1.7	.320	.98	.300

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 (UG/L AS AS)	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)
OCT												
02...	.560	.550	1.7	230	2	0	2	0	1	--	<1	<1
27...	.690	.620	1.9	--	1	0	1	--	1	--	<1	--
27...	.350	.220	.67	--	1	0	1	--	2	--	<1	--
28...	.210	.080	.25	--	1	0	1	--	1	--	<1	--
28...	.210	.080	.25	--	1	0	1	--	2	0	2	--
29...	.170	.080	.25	--	1	0	1	--	1	--	<1	--
MAR												
15...	.140	.110	.34	--	1	--	<1	--	<1	--	<1	--
31...	.250	.230	.71	--	3	0	3	--	1	--	<1	--
JUN												
04...	--	--	--	--	2	1	1	--	<1	--	<1	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	1	--	<1	--	1	--	<1	--
11...	--	--	--	--	1	--	<1	--	1	--	<1	--
AUG												
26...	.320	.300	.92	--	1	0	1	--	1	--	<1	--

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	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, 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												
02...	20	--	<1	9	2	0	2	<10	13	7	6	4
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
15...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	30	8	22	--	14	13	1	--	37	30	7	--
11...	20	0	25	--	14	13	1	--	44	29	15	--
AUG												
26...	--	--	--	--	--	--	--	--	--	--	--	--

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											
02...	610	190	420	720	5	--	<1	<10	30	3	27
27...	--	--	--	--	22	--	<1	--	--	--	--
27...	--	--	--	--	39	38	1	--	--	--	--
28...	--	--	--	--	29	27	2	--	--	--	--
28...	--	--	--	--	29	26	3	--	--	--	--
29...	--	--	--	--	24	--	<1	--	--	--	--
MAR											
15...	--	--	--	--	1	--	<1	--	--	--	--
31...	--	--	--	--	10	--	<1	--	--	--	--
JUN											
04...	--	--	--	--	23	22	1	--	570	510	60
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
05...	14000	14000	310	--	40	39	1	--	780	750	31
11...	20000	20000	380	--	24	20	4	--	570	440	130
AUG											
26...	--	--	--	--	3	0	6	--	--	--	--

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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										
02...	560	<.1	--	.1	<.01	<1	<1	<1	60	50
27...	--	.1	--	<.1	--	<1	<1	--	--	--
27...	--	.1	--	<.1	--	<1	<1	--	--	--
28...	--	.1	--	<.1	--	<1	<1	--	--	--
28...	--	.1	--	<.1	--	<1	<1	--	--	--
29...	--	.1	--	<.1	--	<1	<1	--	--	--
MAR										
15...	--	.1	.0	.1	--	<1	<1	--	--	--
31...	--	.2	.0	.2	--	<1	<1	--	--	--
JUN										
04...	--	.3	--	--	--	<1	<1	--	--	--
05...	--	.1	--	<.1	--	<1	<1	--	90	80
11...	--	<.1	--	<.1	--	<1	<1	--	60	40
AUG										
26...	--	.1	.0	.1	--	<1	<1	--	--	--

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)	CYANIDE TOTAL (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT									
02...	7	25	7.0	1.3	9.3	.1	9.4	--	.00
27...	--	--	--	--	--	--	--	--	--
27...	--	--	9.7	8.6	--	--	--	--	--
28...	--	--	10	>4.0	--	--	--	--	--
28...	--	--	9.8	>4.0	--	--	--	--	--
29...	--	--	10	3.0	--	--	--	--	--
MAR									
15...	--	--	3.7	.6	--	--	--	<.01	<.10
31...	--	--	3.7	.5	--	--	--	<.01	--
JUN									
04...	--	--	--	--	--	--	--	--	.05
05...	9	--	--	--	--	--	--	--	.04
11...	18	--	--	--	--	--	--	--	.01
AUG									
26...	--	--	4.8	.9	--	--	--	<.01	.06

02096960 HAW RIVER NEAR BYNUM, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	OCT 2,81	AUG 26,82
TIME	1500	0915
TOTAL CELLS/ML	0	26
DIVERSITY: DIVISION	0.0	0.0
.CLASS	0.0	0.0
..ORDER	0.0	0.0
...FAMILY	0.0	0.0
....GENUS	0.0	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)				
.BACILLARIOPHYCEAE				
..BACILLARIALES				
...NITZSCHIACEAE				
....NITZSCHIA	--	-	28#	100

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

02096960 HAW RIVER NEAR BYNUM, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	355	132	117	123	---	---	180	90	74	83
2	---	---	248	128	117	123	---	---	170	96	89	91
3	---	---	240	123	110	115	---	---	175	92	81	87
4	---	---	325	128	112	119	---	---	175	86	81	83
5	---	---	230	137	130	134	---	---	174	85	77	79
6	---	---	385	141	131	136	---	---	173	87	81	84
7	---	---	215	150	141	145	---	---	165	98	87	92
8	---	---	285	152	149	151	---	---	180	113	99	106
9	---	---	300	174	153	163	---	---	175	128	114	122
10	---	---	265	176	161	168	---	---	185	128	123	126
11	---	---	267	177	169	173	---	---	180	123	122	123
12	---	---	230	174	165	170	---	---	208	128	124	126
13	---	---	300	164	152	158	---	---	190	132	127	129
14	---	---	230	153	144	149	---	---	175	137	132	135
15	341	339	340	146	142	144	---	---	125	146	137	142
16	336	325	330	159	146	150	---	---	85	148	145	147
17	323	313	320	175	160	168	---	---	98	152	146	149
18	319	310	315	193	175	185	---	---	112	155	149	151
19	330	315	322	202	193	198	---	---	118	156	153	154
20	338	326	333	203	190	199	---	---	125	155	152	153
21	333	321	329	190	179	184	---	---	135	161	154	158
22	329	324	328	---	---	185	---	---	140	170	162	167
23	326	314	322	---	---	185	---	---	140	165	160	162
24	328	309	318	---	---	185	---	---	133	163	143	156
25	335	321	327	---	---	180	---	---	100	142	138	140
26	338	322	333	---	---	170	---	---	75	150	143	148
27	429	59	210	---	---	174	---	---	90	150	147	148
28	91	79	83	---	---	178	---	---	103	149	145	147
29	83	73	77	---	---	180	---	---	180	147	144	145
30	92	83	88	---	---	187	104	98	102	151	146	148
31	118	92	101	---	---	---	105	78	101	157	149	152
MONTH	429	59	269	203	110	163	105	78	144	170	74	130

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	162	158	160	106	87	96	157	138	148	188	129	157
2	165	159	161	96	91	94	167	155	160	214	188	200
3	159	129	151	96	91	93	173	165	169	221	188	210
4	130	72	84	99	97	98	170	163	166	208	173	193
5	88	79	84	104	96	100	169	164	167	186	162	171
6	99	89	94	103	97	100	167	164	166	228	184	204
7	110	100	105	100	76	90	163	156	158	253	228	242
8	110	106	108	81	74	77	176	157	170	268	252	261
9	114	110	113	78	73	75	175	153	167	270	153	207
10	115	111	113	77	71	74	185	146	155	169	153	164
11	115	111	113	81	74	78	186	155	168	159	148	153
12	115	112	113	91	79	85	155	143	148	158	136	145
13	116	109	113	98	89	94	173	151	163	141	127	137
14	110	106	108	102	95	99	163	131	145	140	121	127
15	107	97	101	104	99	102	135	122	127	169	141	153
16	107	97	103	100	97	99	150	126	136	169	153	162
17	105	98	101	112	99	105	163	149	156	169	160	164
18	102	87	95	116	113	115	167	144	158	191	166	179
19	87	84	85	125	118	121	169	144	159	209	190	201
20	91	87	89	134	128	132	157	135	142	199	177	187
21	94	89	91	135	96	118	142	127	137	175	159	164
22	95	94	95	99	90	94	134	126	130	189	167	178
23	99	94	95	110	102	106	134	123	127	189	145	155
24	104	98	101	107	103	105	155	135	147	168	117	142
25	111	104	107	118	109	114	142	133	136	149	102	117
26	112	110	111	129	119	124	136	127	133	282	154	212
27	113	99	110	138	132	135	126	114	120	336	175	277
28	98	86	92	144	140	142	112	84	91	337	256	298
29	---	---	---	147	143	145	97	85	92	359	339	351
30	---	---	---	147	145	146	127	96	105	375	264	338
31	---	---	---	147	137	141	---	---	---	253	126	168
MONTH	165	72	107	147	71	106	186	84	145	375	102	194

02096960 HAW RIVER NEAR BYNUM, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	160	121	140	152	110	125	132	100	113	239	217	224
2	149	115	141	134	119	129	150	113	134	260	224	241
3	114	96	105	130	119	125	165	152	156	266	234	261
4	132	67	89	133	128	130	171	148	162	263	239	257
5	66	52	58	138	94	118	165	155	160	255	240	247
6	71	55	64	134	108	115	173	156	164	245	236	239
7	72	69	70	108	103	106	177	170	174	252	245	248
8	83	73	78	115	104	109	176	150	164	277	253	260
9	94	83	88	129	116	123	169	150	160	323	280	299
10	101	58	88	178	104	141	166	89	124	323	318	321
11	64	51	57	113	82	93	182	136	163	319	289	312
12	75	62	70	149	113	126	173	90	136	321	316	318
13	81	76	78	151	106	128	87	67	70	316	285	304
14	101	74	84	129	103	117	82	69	76	284	267	277
15	92	84	86	101	92	94	93	83	88	266	256	261
16	91	86	89	115	95	102	112	94	104	268	259	263
17	98	91	94	---	---	130	116	103	112	271	251	266
18	97	73	81	---	---	135	103	59	84	293	259	277
19	85	74	79	---	---	140	155	102	129	297	293	295
20	95	85	91	---	---	150	251	162	207	298	293	296
21	95	93	94	---	---	158	273	181	226	358	296	317
22	---	---	120	---	---	153	195	181	189	398	363	383
23	128	115	121	---	---	174	185	144	165	401	394	399
24	133	125	127	---	---	140	149	137	144	396	345	384
25	142	134	138	---	---	140	149	136	143	396	373	389
26	157	143	151	---	---	145	162	144	154	376	300	338
27	155	149	152	---	---	130	159	147	154	299	248	277
28	164	150	157	143	102	109	147	140	142	379	245	301
29	166	155	160	116	103	106	163	144	152	379	337	361
30	154	134	146	129	111	122	181	164	174	327	242	277
31	---	---	---	146	129	138	215	183	196	---	---	---
MONTH	166	51	103	178	82	127	273	59	146	401	217	296
YEAR	429	51	161									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02096960 HAW RIVER NEAR BYNUM, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	6.5	6.5	5.0	4.5	5.0	17.0	14.0	15.0	18.0	15.0	16.5
2	6.5	5.5	6.0	7.0	5.0	6.0	17.0	14.0	15.5	18.0	16.0	17.0
3	6.0	5.0	5.5	8.0	7.0	7.5	18.0	15.5	16.5	18.5	17.0	17.5
4	6.5	5.0	5.5	7.5	7.5	7.5	17.5	15.5	16.5	19.0	17.0	18.0
5	7.0	6.5	7.0	9.5	7.5	8.5	15.5	14.0	15.0	20.0	17.5	18.5
6	7.5	7.0	7.5	9.0	8.0	8.5	15.5	13.0	14.0	20.5	17.5	19.0
7	7.5	6.5	7.0	8.0	7.5	7.5	13.5	12.0	12.5	22.0	19.0	20.5
8	6.5	5.5	6.0	7.5	6.5	7.0	12.5	10.5	11.5	21.0	19.5	20.5
9	6.5	6.5	6.5	7.5	6.0	7.0	12.0	10.5	11.0	21.0	18.5	19.5
10	6.5	6.0	6.5	8.5	6.5	7.5	12.5	10.5	11.5	22.0	18.5	20.0
11	6.5	6.0	6.5	10.0	8.0	9.0	13.0	10.5	12.0	21.0	18.0	19.5
12	6.5	5.5	6.5	11.5	10.0	10.5	14.5	12.0	13.0	22.5	18.0	20.5
13	7.0	6.5	6.5	13.5	11.5	12.5	16.0	13.5	15.0	24.0	19.5	21.5
14	7.0	5.5	6.0	13.5	11.5	12.5	17.0	15.0	16.0	23.5	21.0	22.5
15	7.0	6.0	6.5	13.0	11.5	12.5	18.5	15.5	17.0	24.0	21.5	23.0
16	8.0	7.0	7.5	11.5	11.0	11.0	19.5	17.0	18.0	25.0	21.5	23.0
17	9.5	8.0	9.0	13.5	10.5	12.0	20.0	18.0	19.0	25.0	22.5	24.0
18	9.0	7.5	8.5	14.5	12.0	13.5	20.0	18.5	19.0	24.5	22.5	23.5
19	7.5	7.0	7.5	14.0	12.5	13.5	18.5	17.5	18.0	24.0	23.0	23.5
20	7.5	6.5	7.0	14.0	13.0	13.5	17.5	16.5	17.0	24.0	21.5	23.0
21	8.0	7.0	7.5	13.5	12.5	13.0	17.0	16.5	17.0	23.5	22.0	23.0
22	8.0	7.5	7.5	14.0	12.0	13.0	16.5	14.5	15.5	24.5	22.0	23.0
23	9.0	7.0	7.5	14.0	12.5	13.5	15.5	13.0	14.5	24.0	20.5	22.0
24	10.0	7.5	9.0	14.0	12.5	13.5	16.5	13.5	15.0	23.0	21.0	22.0
25	10.0	9.0	9.5	14.5	12.0	13.5	16.0	14.5	15.5	21.5	20.0	20.5
26	9.0	7.0	7.5	15.0	13.0	14.0	18.0	15.5	16.5	22.0	20.5	21.0
27	7.0	4.5	6.0	14.0	12.5	13.0	18.0	16.5	17.0	21.0	19.5	20.5
28	4.5	4.0	4.5	12.5	11.0	12.0	17.0	15.5	16.5	20.5	19.5	20.0
29	---	---	---	13.0	10.5	12.0	17.0	15.0	16.0	22.5	20.0	21.0
30	---	---	---	14.5	11.5	13.0	17.0	14.5	16.0	21.0	19.5	20.5
31	---	---	---	14.5	13.5	14.0	---	---	---	22.5	20.0	21.5
MONTH	10.0	4.0	7.0	15.0	4.5	11.0	20.0	10.5	15.5	25.0	15.0	21.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	21.0	21.5	25.0	23.5	24.5	25.5	23.5	24.5	24.0	23.5	23.5
2	22.5	20.0	21.5	26.0	23.0	24.0	26.0	24.5	25.5	25.5	23.5	24.5
3	22.0	20.0	21.5	26.5	23.5	25.0	27.5	25.0	26.0	27.0	24.5	25.5
4	22.0	19.5	20.0	28.0	24.5	26.0	27.0	24.5	25.5	27.0	24.5	25.5
5	22.0	20.0	20.5	26.0	22.5	24.0	26.5	25.0	25.5	25.5	22.5	24.5
6	23.0	20.0	21.5	25.0	23.0	24.0	28.0	25.0	26.5	25.0	22.0	23.5
7	23.0	20.5	22.0	25.5	23.5	24.5	28.5	25.5	27.0	25.0	21.0	23.0
8	24.0	21.0	22.5	26.5	24.0	25.5	29.0	25.5	27.0	24.5	21.5	23.0
9	24.5	22.0	23.0	28.0	25.0	26.0	28.5	26.0	27.0	24.0	21.5	23.0
10	24.5	20.5	23.0	26.5	24.0	25.5	26.0	23.5	24.5	23.5	22.0	23.0
11	22.0	20.5	21.5	25.5	23.5	24.5	26.0	24.5	25.0	24.0	22.0	23.0
12	22.5	20.5	21.5	26.0	24.5	25.0	25.0	24.0	24.5	25.0	22.0	23.5
13	22.5	20.5	21.5	25.5	24.5	25.0	24.0	22.5	23.5	25.0	22.5	24.0
14	23.0	20.0	21.5	25.0	23.5	24.5	24.5	23.0	23.5	25.5	24.0	24.5
15	23.5	21.0	22.5	25.0	23.5	24.0	26.0	23.5	24.5	26.0	24.0	25.0
16	24.5	22.0	23.0	25.5	23.5	24.5	26.5	24.5	25.0	27.0	24.5	26.0
17	24.5	22.5	23.5	26.5	24.5	25.5	26.0	24.0	25.5	26.0	25.0	25.5
18	24.0	21.0	22.5	27.5	25.0	26.0	24.0	20.0	22.5	26.5	23.0	25.0
19	24.5	21.0	22.5	28.5	25.5	27.0	25.5	23.5	24.5	25.0	24.0	24.5
20	25.0	22.5	23.5	28.0	26.0	27.0	27.0	24.5	25.5	24.5	23.5	24.0
21	25.0	23.0	24.0	28.5	25.5	27.0	26.5	25.0	25.5	23.5	22.0	23.0
22	---	---	---	28.0	25.5	26.5	26.0	23.5	25.0	22.0	21.0	21.5
23	26.0	24.0	25.0	27.5	25.5	26.5	27.5	24.5	25.5	21.5	19.5	20.5
24	25.0	23.0	24.0	26.0	25.0	25.5	27.5	25.0	26.0	21.0	18.5	20.0
25	25.0	22.5	24.0	26.0	24.5	25.5	27.5	25.5	26.5	21.0	17.5	19.5
26	25.5	23.0	24.5	28.0	25.0	26.5	27.5	25.0	26.0	20.0	18.5	19.0
27	27.0	24.0	25.5	26.5	25.5	26.0	26.5	24.5	25.5	20.0	17.5	19.0
28	26.0	24.5	25.5	30.0	26.0	27.0	27.5	25.0	26.0	20.0	18.5	19.5
29	27.0	24.5	25.5	27.0	24.5	25.5	25.5	23.5	25.0	20.5	19.0	20.0
30	26.0	24.5	25.0	26.5	24.5	25.5	25.5	22.0	24.0	20.5	18.5	19.5
31	---	---	---	25.5	24.5	25.0	24.0	23.5	23.5	---	---	---
MONTH	27.0	19.5	23.0	30.0	22.5	25.5	29.0	20.0	25.0	27.0	17.5	23.0
YEAR	30.0	.0	16.5									

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT							
02...	1500	362	3	2.9	--	--	--
27...	1030	3280	108	956	--	--	--
27...	1745	12900	473	16500	--	--	--
28...	0830	7820	182	3840	--	--	--
28...	1330	5990	405	6550	--	--	--
29...	0900	1880	86	437	--	--	--
MAR							
15...	1100	1110	18	54	--	--	--
31...	1045	712	12	23	--	--	--
JUN							
04...	1045	13400	330	11900	30	33	49
04...	1415	13300	629	22600	--	--	--
04...	1700	12300	922	30600	--	--	--
05...	1015	20700	808	45200	--	--	--
11...	1200	31600	750	64000	--	--	--
AUG							
26...	0915	23	20	1.2	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
02...	--	--	--	--	--	92
27...	--	--	--	--	--	85
27...	--	--	--	--	--	92
28...	--	--	--	--	--	93
28...	--	--	--	--	--	97
29...	--	--	--	--	--	95
MAR						
15...	--	--	--	--	--	96
31...	--	--	--	--	--	95
JUN						
04...	74	87	78	87	100	--
04...	--	--	--	--	--	97
04...	--	--	--	--	--	99
05...	--	--	--	--	--	88
11...	--	--	--	--	--	87
AUG						
26...	--	--	--	--	--	90

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/15	13 15 0000		2.28	29	296	7.63	18.0		8.6	91.0		10K
81/11/18	15 05 0000		3.31	245	132	8.14	15.0	5.0	9.0	88.0	24.0	10
81/12/17	14 15 0000		5.65	2080	99	7.10	4.0		13.0			3300
82/01/05	14 10 0000		9.24	8850	114	6.96	4.0		14.4	110.0		1500
82/02/10	14 50 0000		5.86	2360	83	7.12	6.0	60.0	12.5	100.0	19.0	560
82/03/17	14 50 0000		4.79	1140								
82/04/07	13 45 0000		4.14	634								
82/04/21	14 12 0000		4.98	1320								
82/06/02	14 35 0000		5.80	2280								
82/06/22	10 00 0000		4.63	997	101	7.06	22.0		7.7	87.0		140
82/07/14	10 25 0000		7.48	5070	112	7.04	24.0		6.9	81.0		3800
82/08/11	14 50 0000		4.63	997								
82/08/16	12 00 0000		3.84	483	120	6.30	26.0	60.0	7.4	90.0	25.0	120
82/09/14	10 45 0000		2.37	45	170	7.20	23.0		9.2	106.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/15	13 15 0000		44	0	204	3.00	0.110	1.100	0.960	0.860		
81/11/18	15 05 0000		62	1K	224	1.90	0.050K	0.500	0.670	0.670	11	50K
81/12/17	14 15 0000		43	32	156	0.67	0.300	0.900		0.090	10K	
82/01/05	14 10 0000		21	68	184	0.52	0.120	0.600	0.230	0.050		
82/02/10	14 50 0000		31	27	122	0.58	0.270	0.600	0.190	0.080	10K	50K
82/06/22	10 00 0000		27	30	114	0.72	0.050	0.500	0.210	0.100		
82/07/14	10 25 0000		27	574	696	1.10	0.050K	1.000	0.860	0.190		
82/08/16	12 00 0000		20	32	149	0.86	0.050K	0.800	0.260	0.160	10K	50K
82/09/14	10 45 0000			1	132	0.67	0.050K	0.500	0.320	0.290		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	15 05 0000		50K	40K	100K	0.5K	100K	50K
82/02/10	14 50 0000		50K	40K	100K	0.2K	100K	50K
82/08/16	12 00 0000		50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year. Published as Haw River near Haywood, NC (02098200) October 1965 to September 1978.

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

GAGE.--Water-stage recorder. Datum of gage is 155.00 ft (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 fair. 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. 367). On Sept. 1, 1981, B. Everett Jordan Lake gates closed and storage began.

AVERAGE DISCHARGE.--17 years, 1,593 ft³/s (45.11 m³/s) adjusted for storage, 12.81 in/yr (325 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 and Aug. 19, 1982, for maintenance work at dam and at gaging station; minimum daily discharge, 35 ft³/s (0.99 m³/s) Sept. 12, 1966, at former site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,000 ft³/s (453 m³/s) June 8; gage height, 14.50 ft (4.420 m); no flow part of August 19 for maintenance work at gaging station; minimum daily discharge, 136 ft³/s (3.85 m³/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	1360	377	2650	803	1730	705	5080	7060	1460	1220	694
2	138	634	373	5110	1440	3820	706	2930	8710	1610	1220	692
3	136	363	377	5360	2200	5470	708	1580	9320	1400	1220	612
4	139	662	380	2640	1560	5830	702	706	5380	1250	1240	558
5	138	529	379	1930	2980	5730	705	724	5290	1260	946	566
6	140	295	374	3560	4380	3450	699	500	8120	1260	585	549
7	141	204	372	4360	4360	1200	698	390	14100	1270	449	559
8	203	206	374	4000	4940	2100	695	390	15600	1270	454	559
9	348	382	259	2440	5030	4500	704	390	14300	1040	455	564
10	348	896	192	1230	3670	7080	714	380	9040	838	466	580
11	376	347	193	465	2280	8630	720	380	10000	838	734	580
12	380	346	192	310	2060	7910	711	380	8780	1120	1180	580
13	378	347	191	300	2050	4400	711	380	7180	1370	1800	530
14	371	348	190	300	2070	3230	705	380	6950	2050	2030	520
15	369	347	365	290	2460	2660	703	390	11600	3380	2010	525
16	315	347	2060	290	2890	3160	712	390	12200	2660	1590	525
17	190	296	3600	280	1970	2730	712	390	11200	2030	1290	525
18	190	185	3390	280	3630	1910	690	380	7630	2040	1340	525
19	199	195	2670	270	6540	1760	1470	380	6650	1710	830	525
20	216	201	1590	272	6250	1460	2230	350	6440	1060	856	525
21	168	201	1560	312	6070	1480	1860	350	7740	770	578	525
22	150	199	1550	2430	4360	2660	1880	350	8350	715	446	525
23	162	199	1360	3020	1880	4140	1550	350	8180	615	445	525
24	174	198	652	3510	1490	3060	880	770	8150	616	446	525
25	178	608	652	4360	2130	1740	724	1610	7180	609	445	525
26	187	185	992	4610	1920	1230	722	2780	4460	616	442	525
27	1420	187	2580	5650	1400	848	926	1970	2750	615	535	525
28	4850	183	3170	4740	1400	710	2060	2660	1360	493	692	500
29	5800	184	2420	796	---	710	3140	5230	611	925	690	450
30	4040	301	2610	792	---	710	5640	6490	787	1200	687	450
31	2150	---	1910	798	---	710	---	6970	---	1220	694	---
TOTAL	24133	10935	37354	67355	84213	96758	35782	46400	235118	39310	28015	16368
MEAN	778	365	1205	2173	3008	3121	1193	1497	7837	1268	904	546
MAX	5800	1360	3600	5650	6540	8630	5640	6970	15600	3380	2030	694
MIN	136	183	190	270	803	710	690	350	611	493	442	450
(†)	+105	-7	+384	+1874	+1046	-330	+194	+753	-972	+47	-91	-400

CAL YR 1981 TOTAL 300966 MEAN 825 MAX 8700 MIN 41
WTR YR 1982 TOTAL 721741 MEAN 1977 MAX 15600 MIN 136 MEAN‡ 2193 CFSM‡ 1.30 IN‡ 17.65

† Change in contents, equivalent in cubic feet per second, in B. Everett Jordan Reservoir; furnished by Corps of Engineers.
‡ Adjusted for change in contents.

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.

INSTRUMENTATION.--Water-quality monitor since October 1981.

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).

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, 572 micromhos Nov. 11, 1973; minimum, 23 micromhos July 29, 1982.
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, 307 micromhos Oct. 27; minimum, 23 micromhos July 29.
WATER TEMPERATURES: Maximum, 28.0°C July 27, 28, 30, Aug. 1-5; minimum, 1.5°C Jan. 18, 22, 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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												
07...	1415	152	146	7.2	20.0	16	5.7	33	0	7.9	3.3	20
27...	1230	310	144	6.3	--	38	--	30	0	7.2	2.9	19
28...	1130	4940	102	5.6	15.0	210	10.8	22	5	5.2	2.1	7.9
JAN												
04...	1310	2600	67	6.4	5.5	140	13.1	22	8	5.2	2.3	5.7
MAR												
31...	1330	108	120	7.1	13.0	35	10.8	29	4	7.0	2.9	9.9
JUN												
04...	1130	4000	88	6.2	23.0	140	8.6	24	3	5.7	2.3	5.9
05...	1200	2720	71	6.4	22.0	320	9.1	21	4	5.0	2.0	4.3
11...	1300	1720	75	6.4	22.0	140	8.2	22	2	5.3	2.1	5.4
AUG												
26...	1350	438	135	6.2	23.5	80	3.7	30	0	7.7	2.7	7.9

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												
07...	52	1.6	4.8	59	0	48	4.4	18	12	.2	11	112
27...	53	1.6	4.9	46	0	38	37	18	12	.2	7.1	108
28...	39	.8	4.4	21	0	17	88	10	7.4	.1	7.6	77
JAN												
04...	33	.6	2.3	17	0	14	12	8.7	6.5	.1	9.9	76
MAR												
31...	40	.9	2.0	31	0	25	4.0	13	8.2	.2	12	96
JUN												
04...	33	.6	2.3	26	0	21	27	9.0	5.7	<.1	8.9	82
05...	28	.4	2.4	21	0	17	13	7.0	4.2	.1	8.7	76
11...	32	.5	2.6	24	0	20	15	10	4.9	.1	9.1	71
AUG												
26...	34	.7	2.7	52	0	43	39	9.0	9.3	.2	11	86

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
07...	100	.15	46.0	.63	.020	.65	.66	3.3	.150	.200	.26	.78
27...	97	.15	90.4	.55	.010	.56	.58	--	.060	.060	.08	.54
28...	56	.10	1030	.48	.030	.51	--	--	.100	--	--	1.9
JAN												
04...	50	.10	534	--	--	.55	--	--	.140	--	--	.70
MAR												
31...	71	.13	28.0	.68	.030	.71	.72	--	.120	.150	.19	.59
JUN												
04...	53	.11	886	--	--	.50	.45	--	.160	.130	.17	.34
05...	44	.10	558	--	--	.70	.68	--	.190	.110	.14	1.0
11...	51	.10	330	--	--	.50	.47	--	.150	.080	.10	1.1
AUG												
26...	70	.12	102	.24	.070	.31	.30	--	1.10	1.10	1.4	1.2

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, 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-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT												
07...	.59	.93	.14	.79	.0	1.6	7.0	3.3	1.5	.320	.98	.270
27...	.32	.60	.22	.38	--	1.2	5.1	--	.96	.260	.80	.220
28...	--	2.00	1.4	.65	--	2.5	11	--	--	.320	.98	.210
JAN												
04...	--	.84	--	--	--	1.4	6.2	--	--	.170	.52	--
MAR												
31...	--	.71	--	--	--	1.4	6.3	--	--	.190	.58	.130
JUN												
04...	--	.50	--	--	--	1.0	4.4	--	--	.190	.58	.090
05...	.39	1.20	.70	.50	--	1.9	8.4	--	1.2	.360	1.1	.110
11...	1.1	1.20	.00	1.2	--	1.7	7.5	--	1.7	.220	.67	.080
AUG												
26...	.90	2.30	.30	2.0	--	2.6	12	--	2.3	.350	1.1	.190

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 (UG/L AS AS)	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)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT												
07...	.290	.280	.86	1400	2	0	3	<1	--	1	<1	<1
27...	.190	.170	.52	--	--	--	--	--	--	--	--	--
28...	.150	.190	.58	--	1	0	1	--	--	1	<1	--
JAN												
04...	--	--	--	--	1	--	--	--	--	1	--	--
MAR												
31...	.170	.120	.37	--	3	0	3	--	--	<1	<1	--
JUN												
04...	--	--	--	--	1	--	<1	--	--	<1	<1	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	1	--	--	--	100	1	--	--
AUG												
26...	.300	.190	.58	--	1	0	1	--	--	5	<1	--

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	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, 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												
07...	20	15	5	35	3	1	2	<10	21	0	21	18
27...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
04...	5	--	--	--	--	--	--	--	16	--	--	--
MAR												
31...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
11...	3	--	--	--	--	--	--	--	--	--	--	--
AUG												
26...	--	--	--	--	--	--	--	--	--	--	--	--

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											
07...	630	100	530	2900	22	--	<1	10	30	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	23	19	4	--	--	--	--
JAN											
04...	2600	--	--	--	12	--	--	--	--	--	--
MAR											
31...	--	--	--	--	4	0	4	--	--	--	--
JUN											
04...	--	--	--	--	6	5	1	--	320	130	190
05...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	8	--	--	--	--	--	--
AUG											
26...	--	--	--	--	5	0	5	--	--	--	--

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, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT										
07...	460	.1	.0	.1	<.01	<1	<1	<1	--	60
28...	--	<.1	--	<.1	--	<1	<1	--	--	--
JAN										
04...	--	<.1	--	--	--	--	--	--	--	20
MAR										
31...	--	.2	.0	.2	--	<1	<1	--	--	--
JUN										
04...	--	.1	.0	.1	--	<1	<1	--	--	--
05...	--	--	--	--	--	--	--	--	--	--
11...	--	<.1	--	--	--	<1	--	--	<1	--
AUG										
26...	--	.1	.0	.1	--	<1	<1	--	--	--

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)	CYANIDE TOTAL (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT									
07...	<4	64	6.8	.4	27	.1	27	--	.00
28...	--	--	9.6	>4.0	--	--	--	--	--
JAN									
04...	--	--	--	--	--	--	--	--	--
MAR									
31...	--	--	6.2	.4	--	--	--	<.01	--
JUN									
04...	--	--	--	--	--	--	--	--	.05
05...	--	--	--	--	--	--	--	--	.05
11...	--	--	--	--	--	--	--	--	.03
AUG									
26...	--	--	8.2	2.6	--	--	--	<.01	.05

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	OCT 7,81	AUG 26,82
TIME	1415	1350
TOTAL CELLS/ML	290	8600
DIVERSITY: DIVISION	1.6	1.1
.CLASS	1.6	1.1
..ORDER	2.6	2.1
...FAMILY	2.8	2.3
....GENUS	2.9	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)				
.BACILLARIOPHYCEAE				
..BACILLARIALES				
...NITZSCHIACEAE				
....NITZSCHIA	28	10	400	5
..EUPODISCALES				
...COSCINODISCACEAE				
....CYCLOTELLA	28	10	*	0
....MELOSIRA	14	5	99	1
..FRAGILARIALES				
...FRAGILARIACEAE				
....FRAGILARIA	--	-	*	0
....SYNEDRA	--	-	*	0
..NAVICULALES				
...CYMBELLACEAE				
....CYMBELLA	14	5	--	-
...NAVICULACEAE				
....NAVICULA	70#	24	60	1
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...HYDRODICTYACEAE				
....PEDIASTRUM	--	-	80	1
...OOCYSTACEAE				
....ANKISTRODESMUS	--	-	160	2
....CHODATELLA	--	-	*	0
....KIRCHNERIELLA	--	-	180	2
....OOCYSTIS	--	-	*	0
...SCENEDESMACEAE				
....CRUCIGENIA	--	-	240	3
....SCENEDESMUS	56#	19	320	4
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	14	5	120	1
..ZYGNEMATALES				
...DESMIDIACEAE				
....EUASTRUM	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)				
.CYANOPHYCEAE				
..CHROOCOCCALES				
...CHROOCOCCACEAE				
....ANACYSTIS	14	5	1600#	18
..NOSTOCALES				
...NOSTOCACEAE				
....CYLINDROSPERMUM	--	-	400	5
..OSCILLATORIALES				
...OSCILLATORIACEAE				
....LYNGBYA	--	-	280	3
....OSCILLATORIA	--	-	4400#	51
EUGLENOPHYTA (EUGLENOIDS)				
.EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS	56#	19	180	2

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 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	143	152	137	147	202	191	195	97	79	89
2	---	---	143	145	138	141	218	198	203	83	80	81
3	---	---	153	154	138	150	221	204	217	84	81	83
4	---	---	143	147	130	138	216	203	208	82	70	77
5	---	---	143	139	131	135	216	188	196	77	74	76
6	---	---	153	144	135	140	197	187	190	74	73	73
7	---	---	168	134	127	130	217	198	205	74	69	73
8	---	---	168	140	129	135	228	217	224	77	74	76
9	---	---	166	133	127	130	217	204	208	79	77	78
10	---	---	174	137	129	133	207	201	204	82	79	80
11	---	---	171	139	137	139	212	203	207	85	82	83
12	---	---	168	140	137	139	216	212	214	91	85	87
13	---	---	153	137	132	135	218	215	216	93	85	89
14	---	---	161	134	132	133	223	218	220	90	86	88
15	---	---	159	146	134	138	223	147	187	89	88	88
16	---	---	188	161	147	153	226	171	200	95	89	91
17	---	---	188	173	162	169	182	170	177	94	87	89
18	---	---	199	168	158	163	190	180	185	91	88	90
19	---	---	249	175	159	168	181	146	163	91	89	90
20	---	---	172	199	170	177	146	136	140	93	85	89
21	---	---	199	189	170	182	142	136	140	89	81	86
22	---	---	224	170	165	166	140	136	138	119	84	103
23	257	234	246	165	163	164	139	133	136	122	115	118
24	269	236	250	166	163	164	137	127	132	137	121	130
25	228	184	197	190	165	170	131	109	119	135	119	126
26	192	165	186	177	167	168	127	110	116	120	114	117
27	307	115	186	206	178	194	128	108	117	114	101	110
28	226	100	131	215	206	210	107	102	104	100	97	98
29	166	102	130	216	186	207	107	102	105	102	97	100
30	178	146	163	202	186	194	111	102	105	107	102	105
31	148	142	146	---	---	---	114	77	105	108	100	106
MONTH	307	100	175	216	127	157	228	77	170	137	69	93

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	106	105	105	105	95	100	121	115	116	115	106	110
2	107	104	105	104	98	100	116	112	114	108	104	106
3	106	89	101	101	99	100	113	110	112	110	105	107
4	115	85	106	100	98	99	118	111	114	108	105	106
5	84	76	80	98	96	97	121	115	116	111	106	107
6	81	76	78	97	83	92	124	115	119	109	106	108
7	80	78	79	90	57	75	124	122	123	109	106	107
8	86	79	82	96	64	85	123	118	120	109	107	108
9	90	86	88	94	89	91	121	116	119	114	106	108
10	94	87	90	91	89	90	134	122	128	117	109	110
11	88	85	86	93	91	91	142	135	140	116	109	111
12	89	87	88	93	91	92	144	140	142	113	109	111
13	95	88	90	93	91	92	141	135	138	120	111	112
14	95	94	95	93	91	91	145	132	137	116	111	113
15	99	94	95	94	93	93	143	131	137	115	111	113
16	100	97	99	96	94	95	137	134	135	116	111	113
17	102	97	99	96	94	95	137	133	136	114	107	112
18	106	101	104	95	94	95	134	127	129	113	110	111
19	105	104	105	96	95	95	132	125	128	112	106	111
20	104	94	101	97	96	97	130	125	127	114	111	112
21	99	96	98	101	97	99	130	124	128	116	111	113
22	98	96	97	110	98	103	134	123	130	114	111	113
23	101	95	96	110	107	109	136	129	132	116	111	112
24	98	93	97	109	106	107	137	131	134	115	110	112
25	98	95	96	107	105	106	137	128	131	122	115	118
26	97	94	95	111	106	109	131	123	128	120	111	117
27	97	70	86	111	109	110	127	120	123	118	110	113
28	95	72	86	114	110	111	138	124	133	118	88	105
29	---	---	---	114	110	112	138	125	132	96	84	87
30	---	---	---	119	114	115	126	115	122	96	81	87
31	---	---	---	123	118	120	---	---	---	86	83	85
MONTH	115	70	94	123	57	99	145	110	127	122	81	108

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	96	85	89	98	72	89	92	74	80	141	138	140
2	99	90	94	106	97	102	93	87	90	144	139	142
3	102	94	99	110	101	106	97	90	93	144	139	141
4	100	72	90	102	96	99	101	96	98	143	138	141
5	77	65	71	104	95	99	109	100	104	143	136	139
6	69	64	67	108	103	105	111	107	108	146	141	142
7	74	65	69	103	98	101	114	110	112	152	144	147
8	82	75	79	103	99	100	116	113	114	158	151	155
9	88	81	86	102	99	100	119	116	117	164	156	160
10	88	73	85	104	99	101	117	106	113	166	162	164
11	72	49	59	104	100	101	118	114	116	167	163	165
12	60	53	55	101	98	100	124	115	120	169	165	167
13	65	57	61	101	97	99	121	111	116	169	163	167
14	69	61	65	102	97	99	121	108	116	169	165	167
15	77	67	71	99	96	97	110	106	108	164	157	159
16	83	77	80	99	92	95	114	107	110	162	158	160
17	87	84	85	92	90	91	118	111	114	162	155	158
18	87	82	84	93	86	91	122	114	120	166	154	159
19	85	80	82	93	88	90	120	116	118	159	146	151
20	85	79	82	96	85	91	117	114	116	151	147	149
21	90	84	87	98	90	93	121	117	118	150	133	145
22	91	87	90	98	87	93	125	120	123	158	142	149
23	94	91	92	117	43	80	126	123	125	180	164	174
24	94	91	93	91	50	68	131	126	128	193	180	186
25	97	91	93	96	90	94	132	129	131	193	182	187
26	97	92	94	96	85	94	136	130	133	181	147	171
27	97	92	94	106	90	98	138	132	134	151	139	146
28	102	92	97	105	81	101	136	132	134	181	150	174
29	103	95	98	81	23	49	133	130	131	188	177	183
30	125	81	103	88	84	87	140	131	135	201	184	191
31	---	---	---	96	78	92	142	139	140	---	---	---
MONTH	125	49	83	117	23	94	142	74	117	201	133	159
YEAR	307	23	123									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	3.0	3.5	6.5	5.5	6.0	14.5	12.5	13.5	18.0	17.0	17.5
2	3.5	3.0	3.5	5.5	5.0	5.0	14.5	12.5	13.0	18.0	17.0	17.5
3	4.0	3.5	3.5	6.0	5.0	5.5	14.0	12.5	13.0	18.0	16.5	17.5
4	5.5	3.5	5.0	6.0	6.0	6.0	15.0	13.0	14.0	18.0	16.0	17.0
5	5.0	5.0	5.0	6.5	6.5	6.5	14.5	14.0	14.0	18.0	15.5	16.5
6	5.5	5.0	5.5	7.0	6.5	7.0	15.5	13.5	14.0	18.0	16.0	17.0
7	5.5	5.5	5.5	7.0	6.5	7.0	15.0	13.5	14.0	18.0	16.0	16.5
8	5.5	5.5	5.5	8.0	6.5	7.0	14.0	13.5	14.0	17.5	16.0	16.0
9	5.5	5.5	5.5	7.5	7.0	7.5	15.0	13.5	14.0	17.5	15.5	16.5
10	6.0	5.5	5.5	7.5	7.5	7.5	15.0	13.0	14.0	17.5	15.5	16.5
11	6.0	5.5	6.0	8.5	7.5	7.5	14.0	12.5	13.0	17.5	15.5	16.5
12	6.0	5.5	6.0	8.5	8.0	8.0	14.0	12.5	13.0	18.0	15.5	16.5
13	6.0	5.5	6.0	9.5	8.5	9.0	14.0	12.0	13.0	18.5	15.5	17.0
14	6.0	5.5	6.0	10.0	9.0	9.5	14.5	12.5	13.5	19.0	16.5	17.5
15	6.0	6.0	6.0	10.0	9.5	10.0	15.0	13.0	13.5	18.0	16.5	17.0
16	6.0	6.0	6.0	10.5	10.0	10.5	14.5	13.0	13.5	18.0	16.0	17.0
17	6.5	6.0	6.5	10.5	10.0	10.5	15.0	13.5	14.0	18.0	16.5	17.0
18	7.0	6.0	6.5	11.5	10.0	10.5	16.0	13.0	14.5	18.0	16.5	17.0
19	7.5	7.0	7.0	11.0	10.5	10.5	14.5	13.5	14.0	17.5	16.0	17.0
20	7.5	7.0	7.0	11.5	10.5	11.0	15.0	14.5	14.5	18.0	16.5	17.0
21	7.5	6.5	7.0	12.0	11.0	11.5	15.0	14.5	15.0	17.5	16.5	17.0
22	7.0	6.5	6.5	13.5	11.5	12.0	15.5	14.5	15.0	18.0	16.5	17.0
23	7.5	6.5	6.5	13.5	12.5	13.0	16.0	14.5	15.0	18.0	16.5	17.0
24	7.5	6.5	7.0	13.0	12.5	13.0	16.0	14.5	15.0	17.5	16.5	17.0
25	7.5	7.0	7.0	14.0	12.5	13.0	15.5	14.0	14.5	18.0	17.5	18.0
26	7.0	7.0	7.0	14.5	12.5	13.5	15.5	14.5	14.5	19.5	18.0	18.5
27	7.0	5.5	6.0	14.5	13.0	13.5	16.0	14.5	15.0	20.0	19.0	19.5
28	6.5	5.5	6.0	14.5	13.0	13.5	17.0	15.5	16.5	22.0	19.5	21.0
29	---	---	---	14.5	12.5	13.5	17.5	16.5	17.0	22.5	21.5	22.0
30	---	---	---	14.5	13.0	13.5	17.5	17.0	17.5	22.5	22.0	22.5
31	---	---	---	13.5	13.0	13.0	---	---	---	22.5	22.0	22.5
MONTH	7.5	3.0	6.0	14.5	5.0	10.0	17.5	12.0	14.5	22.5	15.5	17.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	22.0	22.5	25.0	23.5	24.0	28.0	26.5	27.5	24.5	23.5	24.0
2	23.0	22.5	22.5	25.0	23.5	24.0	28.0	27.0	27.5	25.0	23.0	24.0
3	23.0	22.5	22.5	24.5	23.5	24.0	28.0	27.0	27.5	25.0	23.0	24.0
4	23.0	21.5	22.5	25.0	23.5	24.0	28.0	27.0	27.5	25.5	23.0	24.0
5	22.5	21.0	21.5	25.0	24.0	24.5	28.0	27.0	27.5	24.5	23.5	24.0
6	21.5	21.0	21.0	25.5	24.0	24.5	27.5	26.5	27.0	25.0	23.5	24.0
7	22.0	21.0	21.5	25.0	24.0	24.5	27.0	25.5	26.5	24.5	23.5	24.0
8	22.5	21.5	22.0	25.5	23.5	24.5	26.5	25.5	26.0	25.0	23.5	24.0
9	23.0	22.5	23.0	25.5	23.5	24.5	26.0	25.0	25.5	24.5	23.5	24.0
10	23.0	22.5	23.0	25.0	24.0	24.5	26.0	25.0	25.5	25.0	23.0	24.0
11	23.0	21.0	22.0	25.0	24.0	24.5	26.0	25.0	25.5	25.0	23.5	24.0
12	21.5	20.5	21.0	25.0	24.0	24.5	26.5	25.5	26.0	25.0	23.5	24.0
13	21.5	21.0	21.0	25.5	24.5	25.0	26.5	26.0	26.5	25.0	23.5	24.0
14	22.0	21.0	21.5	26.0	25.0	25.5	27.0	26.0	26.5	24.0	23.0	23.5
15	22.0	21.5	21.5	26.0	26.0	26.0	26.5	26.0	26.5	24.5	23.0	24.0
16	22.5	21.5	22.0	27.0	26.0	26.0	26.5	26.0	26.0	24.5	23.5	24.0
17	23.0	22.5	22.5	26.5	26.0	26.0	26.5	25.5	26.0	24.0	22.0	23.5
18	23.5	23.0	23.0	26.5	26.0	26.0	26.0	25.5	25.5	24.0	23.5	24.0
19	23.0	22.5	23.0	26.5	26.0	26.5	26.5	25.5	26.0	24.5	23.5	24.0
20	23.0	22.5	23.0	26.5	26.0	26.0	26.0	25.0	25.5	24.5	24.0	24.5
21	23.5	23.0	23.0	26.5	25.5	26.0	25.5	24.5	25.0	24.5	24.0	24.0
22	23.5	23.5	23.5	26.5	25.5	26.0	25.0	23.5	24.5	24.0	23.5	24.0
23	24.0	23.5	24.0	26.0	25.0	25.5	25.0	24.0	24.5	24.0	23.0	23.5
24	24.5	24.0	24.0	26.0	25.0	25.5	24.5	23.5	24.0	24.0	22.5	23.0
25	24.5	24.0	24.5	26.5	25.5	26.0	24.5	23.5	24.0	23.5	22.5	23.0
26	24.5	24.0	24.5	26.5	25.5	26.0	24.5	23.0	24.0	23.0	22.5	22.5
27	24.5	23.5	24.0	28.0	25.5	26.5	24.5	23.0	24.0	23.5	22.5	23.0
28	24.5	23.5	24.0	28.0	26.5	27.0	25.0	23.0	24.0	23.0	22.0	22.5
29	24.0	23.0	23.5	27.5	26.5	27.0	25.5	23.5	24.0	22.0	21.5	22.0
30	24.0	22.5	23.5	28.0	27.5	27.5	25.0	24.0	24.0	22.0	21.0	21.5
31	---	---	---	27.5	27.5	27.5	24.5	23.5	24.0	---	---	---
MONTH	24.5	20.5	22.5	28.0	23.5	25.5	28.0	23.0	25.5	25.5	21.0	23.5
YEAR	28.0	1.5	15.5									

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1415	152	27	11	51
27...	1230	310	29	24	94
28...	1130	4940	187	2490	90
JAN					
04...	1310	2600	71	498	99
MAR					
31...	1330	108	17	5.0	98
JUN					
04...	1130	4000	37	400	93
05...	1200	2720	190	1400	100
11...	1300	1720	100	464	100
AUG					
26...	1350	438	52	61	97

02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/21	12 55	0000	3.43	222	198	7.28	20.0		7.7	84.0		10
81/11/18	11 45	0000	3.32	181	211	7.40	9.0	9.0	10.5	91.0	23.0	10
81/12/17	11 35	0000	7.80	3630	158	7.02	3.0		12.4	92.0		2500
82/01/22	11 54	0000	6.22	3240	140	6.66			12.8			10
82/02/10	13 35	0000	6.60	3660	101	6.75	5.0	60.0	13.4	105.0	23.0	210
82/03/17	13 00	0000	5.85	2740								
82/04/07	12 25	0000	4.09	692								
82/04/21		0000	5.17	1980								
82/06/02	13 00	0000	10.21	7400								
82/06/21	10 50	0000	10.30	7240	88	6.83	23.0		8.5	98.0		100
82/07/15	11 00	0000	6.50	3410	117	6.70	24.0		7.6	89.0		70
82/08/11	13 45	0000	4.37	896								
82/08/16	09 20	0000	5.16	1970		5.68	25.0	45.0	7.5	89.0	28.0	40
82/09/14	08 45	0000	3.86	505	180	6.20	24.0		6.5	76.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/21	12 55	0000	48	8	157	0.86	0.110	0.900	0.390	0.250		
81/11/18	11 45	0000	41	5	170	0.99	0.050K	0.400	0.320	0.240	10K	50K
81/12/17	11 35	0000	42	23	180	1.30	0.320	1.100	0.510	0.440		
82/01/22	11 54	0000	31	24	127	0.68	0.410	0.900	0.210	0.120		
82/02/10	13 35	0000	24	50	149	0.56	0.170	0.600	0.170	0.060	10K	50K
82/06/21	10 50	0000	26	28	140	0.36	0.150	1.000	0.190	0.060		
82/07/15	11 00	0000	36	39	153	0.62	0.360	0.800	0.230	0.060		
82/08/16	09 20	0000	12	30	127	0.44	0.270	1.000	0.210	0.050K	10K	50K
82/09/14	08 45	0000		32	155	0.27	0.660	1.200	0.200	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	11 45	0000	50K	40K	100K	0.5K	100K	50K
82/02/10	13 35	0000	50K	40K	100K	0.2K	100K	50K
82/08/16	09 20	0000	50K	40K	100	0.2K	100K	50K

K Less than noted value.

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.--54 years, 16.5 ft³/s (0.467 m³/s), 15.14 in/yr (385 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)
Dec. 31	2015	1040	29.4	3.11	0.948	May 31	2130	*3350	94.9	*7.22	2.201
Jan. 4	0900	1780	50.4	4.12	1.256	June 5	0300	Unknown		4.49	1.369
Feb. 3	0945	973	27.6	3.03	0.924						

Minimum discharge, 2.7 ft³/s (0.076 m³/s) Sept. 17, 18, 19, gage height, 0.29 ft (0.088 m); minimum daily, 3.0 ft³/s (0.085 m³/s) Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	5.0	6.2	76	17	59	8.8	8.4	96	6.1	9.7	3.9
2	3.7	4.8	5.8	21	13	36	8.3	10	24	5.9	6.1	3.9
3	3.9	4.8	4.7	85	204	24	10	9.2	34	5.8	5.3	3.6
4	3.9	4.5	5.8	354	39	19	8.4	7.4	297	5.8	4.9	3.2
5	3.9	4.9	4.9	32	21	17	8.2	6.8	443	5.9	5.5	3.2
6	3.4	5.1	4.4	19	17	53	9.6	6.6	28	5.7	5.6	3.3
7	3.4	4.4	4.8	16	13	153	7.8	6.4	17	6.2	4.8	3.2
8	3.2	4.3	4.3	13	11	41	9.5	6.4	13	6.1	4.7	3.2
9	3.2	4.3	4.2	10	15	22	22	6.1	11	5.7	5.8	3.3
10	3.3	4.3	4.3	7.8	16	17	11	6.2	193	6.0	5.3	3.3
11	3.3	4.3	4.1	7.3	12	15	9.6	5.7	61	6.2	4.9	3.3
12	3.4	4.1	4.0	6.9	11	14	8.9	5.5	21	11	5.0	3.2
13	3.3	4.2	4.0	7.5	23	12	8.2	5.3	230	35	4.5	3.3
14	3.3	4.1	15	8.1	15	11	8.0	5.2	42	15	4.3	3.4
15	3.3	4.1	105	7.6	12	13	8.0	5.1	21	8.8	4.1	3.4
16	3.3	4.2	44	6.5	102	13	7.7	6.6	16	7.6	3.9	3.1
17	3.2	4.3	16	6.4	188	12	10	7.5	14	6.2	14	3.0
18	3.7	4.1	11	6.9	45	11	11	5.8	15	5.8	10	3.0
19	4.0	4.1	8.4	11	24	12	8.1	6.2	12	5.3	5.8	4.0
20	3.3	4.0	6.6	12	19	25	15	15	9.3	5.1	4.8	3.4
21	3.5	3.9	6.1	42	16	44	12	31	8.3	4.7	4.3	3.3
22	3.5	3.9	8.5	26	13	18	10	13	8.1	7.2	4.0	3.5
23	6.1	3.9	19	38	11	14	8.1	8.5	7.9	12	4.0	3.2
24	4.7	5.6	15	37	10	13	7.5	101	7.5	7.1	3.8	3.1
25	10	4.8	170	20	9.4	11	7.2	21	7.3	5.6	3.8	3.1
26	31	4.7	38	16	8.7	10	22	37	8.1	5.1	3.6	12
27	97	4.5	20	11	46	7.7	26	66	10	4.8	3.7	6.6
28	14	4.3	15	9.9	91	8.6	21	40	10	4.6	3.6	4.4
29	8.6	4.1	12	9.4	---	8.4	13	81	7.2	4.7	3.3	3.8
30	6.2	4.1	9.1	9.2	---	8.5	9.8	69	6.8	4.8	3.3	3.7
31	5.4	---	173	13	---	8.7	---	597	---	20	3.6	---
TOTAL	259.6	131.7	753.2	945.5	1022.1	730.9	334.7	1205.9	1678.5	245.8	160.0	113.9
MEAN	8.37	4.39	24.3	30.5	36.5	23.6	11.2	38.9	56.0	7.93	5.16	3.80
MAX	97	5.6	173	354	204	153	26	597	443	35	14	12
MIN	3.2	3.9	4.0	6.4	8.7	7.7	7.2	5.1	6.8	4.6	3.3	3.0
CFSM	.57	.30	1.64	2.06	2.47	1.60	.76	2.63	3.78	.54	.35	.26
IN.	.65	.33	1.89	2.38	2.57	1.84	.84	3.03	4.22	.62	.40	.29

CAL YR 1981 TOTAL 5723.0 MEAN 15.7 MAX 620 MIN 2.6 CFSM 1.06 IN 14.38
WTR YR 1982 TOTAL 7581.8 MEAN 20.8 MAX 597 MIN 3.0 CFSM 1.41 IN 19.06

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 mi² (324 km²).

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). WDR NC-81-1: Drainage area.

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. Some regulation by High Point Lake and Oak Hollow Reservoir (see p. 370). City of High Point diverted an average of 17.7 ft³/s (0.50 m³/s) for municipal water supply during water year; 11.9 ft³/s (0.34 m³/s) was discharged as sewage effluent into Richland Creek above station and 4.5 ft³/s (0.13 m³/s) into Rich Fork Creek in Pee Dee River basin.

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

AVERAGE DISCHARGE.--54 years, 125 ft³/s (3.540 m³/s), 13.58 in/yr (345 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s (566 m³/s) Sept. 25, 1947, gage height, 32.2 ft (9.81 m), from floodmark, from rating curve extended above 7,100 ft³/s (201 m³/s) on basis of contracted-opening measurement of peak flow at bridge 1.5 mi (2.4 km) upstream; minimum, 0.5 ft³/s (0.014 m³/s) Nov. 28, 1931, gage height, 1.41 ft (0.430 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Nov. 12, 1933.

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)
Jan. 4	1430	3120	88.4	14.51	4.423	June 5	0600	3300	93.5	15.03	4.581
May 27	0030	*5770	163	*20.44	6.230	June 17	2230	2860	81.0	13.70	4.176

Minimum discharge, 12 ft³/s (0.34 m³/s) Sept. 6, 7, gage height, 1.84 ft (0.561 m); minimum daily, 13 ft³/s (0.37 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	51	25	1080	134	567	63	76	716	45	40	19
2	21	48	38	317	119	404	56	66	206	37	35	20
3	19	28	24	613	1140	265	65	70	119	32	29	18
4	15	30	24	1740	689	186	78	60	580	29	23	16
5	15	26	26	677	305	152	57	51	2010	27	20	15
6	16	25	20	276	203	214	66	47	436	26	45	13
7	16	22	19	180	159	547	60	43	197	84	21	14
8	19	19	20	142	144	542	48	40	145	62	20	16
9	18	20	20	119	165	252	150	37	260	32	27	16
10	17	22	19	104	194	170	99	36	1040	30	33	16
11	18	22	18	96	149	138	71	34	959	26	21	16
12	16	22	18	95	116	116	63	32	326	30	21	16
13	19	21	18	90	167	105	58	29	624	37	20	18
14	19	21	35	52	107	95	54	27	575	91	18	18
15	19	19	221	49	118	112	48	26	236	47	16	19
16	19	19	316	51	241	123	46	27	148	38	16	20
17	19	23	113	58	811	122	60	66	445	30	170	20
18	18	22	47	45	608	97	162	79	619	25	124	18
19	25	22	37	69	287	85	75	118	196	23	37	18
20	23	22	33	78	197	92	120	110	118	22	25	18
21	21	21	32	232	156	245	158	151	87	22	21	20
22	21	20	37	291	122	159	86	149	69	21	18	20
23	27	18	47	317	91	109	64	112	62	52	19	20
24	36	29	92	363	84	87	53	575	56	42	20	19
25	50	27	729	234	82	81	49	530	52	27	18	18
26	143	21	562	168	65	78	166	1050	50	26	18	55
27	335	18	229	117	275	68	330	2220	46	24	17	42
28	114	19	142	103	574	57	273	500	50	21	17	22
29	51	19	98	96	---	52	148	508	49	21	15	19
30	44	18	72	92	---	52	97	678	55	20	14	18
31	54	---	421	97	---	55	---	271	---	21	18	---
TOTAL	1264	714	3552	8041	7502	5427	2923	7818	10531	1070	956	597
MEAN	40.8	23.8	115	259	268	175	97.4	252	351	34.5	30.8	19.9
MAX	335	51	729	1740	1140	567	330	2220	2010	91	170	55
MIN	15	18	18	45	65	52	46	26	46	20	14	13

CAL YR 1981 TOTAL 27237 MEAN 74.6 MAX 1530 MIN 14
WTR YR 1982 TOTAL 50395 MEAN 138 MAX 2220 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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/29	13 40	0000	2.28	43	172	6.70	17.0	25.0	8.0	82.0	27.0	260
81/11/09	11 15	0000	2.01	18	435	6.80	12.0		8.4	78.0		60
81/12/10	13 25	0000	2.01	18	399	7.20	6.0		9.9	79.0		70
82/01/20	12 55	0000	2.52	69	274	6.80	3.0	25.0	10.7	79.0	32.0	10K
82/02/02	10 40	0000	2.73	95	152	6.80	6.0		10.8	86.0		40
82/03/03	14 25	0000	3.61	256	116	6.90	10.0		10.4	92.0		150
82/04/13	11 00	0000	2.40	58	144	7.30	15.0	10.0	10.0	98.0	20.0	10K
82/05/25	14 10	0000	4.55	454	91	6.80	24.0		7.7	91.0		6300
82/06/17	14 28	0000	2.82	109	153	7.20	25.0		7.6	90.0		660
82/07/07	18 22	0000	3.00	138	175	7.30	26.0	15.0	7.3	89.0	26.0	140
82/08/05	16 00	0000	1.95	18	170	6.80	27.0		7.4	91.0		20
82/09/23	14 55	0000	1.96	18	370	7.20	21.0		6.2	70.0		80

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/29	13 40	0000	34	14	154	0.57	0.730	1.900	0.550	0.440	10K	50K
81/11/09	11 15	0000	58	15	317	2.90	3.700	5.800	3.600	2.900		
81/12/10	13 25	0000	59	9	320	5.60	4.000	6.300	3.600	3.600		
82/01/20	12 55	0000	51	28		1.00	4.100	4.700	1.400	1.200	10K	50K
82/02/02	10 40	0000	35	17	170	0.62	1.700	2.400	0.570	0.450		
82/03/03	14 25	0000	32	19	110	0.30	0.710	1.000	0.450	0.350		
82/04/13	11 00	0000	43	17	160	1.20	0.150	0.600	0.400	0.300	10K	50K
82/05/25	14 10	0000	21	356	487	0.96	0.200	1.400	0.520	0.130		
82/06/17	14 28	0000	43	16	141	0.89	1.000	1.700	0.600	0.500		
82/07/07	18 22	0000	43	22	152	1.50	1.100	2.000	0.950	0.780	10K	50K
82/08/05	16 00	0000	38	12	118	2.00	0.290	1.000	0.720	0.630		
82/09/23	14 55	0000	60	8	254	3.30	0.680	2.100	2.000	1.900		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/29	13 40	0000	50K	40K	100K	0.5K	100K	50K
82/01/20	12 55	0000	50K	40K	100K	0.2K	100K	50K
82/04/13	11 00	0000	80	40K	100K	0.2K	100K	50K
82/07/07	18 22	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02100500 DEEP RIVER AT RAMSEUR, NC

LOCATION.--Lat 34°43'34", long 79°39'20", Randolph County, Hydrologic Unit 03030003, on right bank 0.2 mi (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).

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. WDR NC-81-1: Drainage area.

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. 370) and small powerplant reservoirs. Prior to January 1963 large diurnal fluctuation caused by powerplant immediately above station. Town of Asheboro diverted an average of 5.7 ft³/s (0.16 m³/s) for water supply from Pee Dee River basin and discharged an average of 5.4 ft³/s (0.15 m³/s) of sewage effluent into the Deep River above the station.

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

AVERAGE DISCHARGE.--59 years (1923-82), 352 ft³/s (9.969 m³/s), 13.70 in/yr (348 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)
Jan. 1	0100	6330	179	10.99	3.350	May 27	1030	9080	257	14.62	4.456
Jan. 4	1900	6400	181	11.09	3.380	June 11	0100	*9700	275	*15.37	4.685
Feb. 3	1630	7670	217	12.83	3.911	June 18	0530	7520	213	12.63	3.850

Minimum discharge, 33 ft³/s (0.93 m³/s) Oct. 4, 19, 20, gage height, 0.75 ft (0.229 m); minimum daily, 33 ft³/s (0.93 m³/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	121	72	4070	398	1870	204	296	1140	175	306	44
2	36	111	95	1020	321	1250	194	250	740	137	142	44
3	35	104	104	2160	3900	720	195	237	338	126	116	48
4	34	84	80	4510	2720	509	228	219	760	130	106	48
5	35	81	74	2240	943	429	196	183	2810	305	97	44
6	36	82	74	791	594	440	189	165	1040	170	86	44
7	37	74	67	503	450	1420	195	154	424	131	84	41
8	37	69	65	389	378	1840	177	144	289	227	81	38
9	36	63	65	319	397	747	382	137	651	150	80	38
10	35	63	62	277	747	503	348	124	4130	178	285	37
11	36	67	66	217	464	414	245	121	4650	163	370	34
12	36	68	64	218	383	371	209	118	1000	208	241	36
13	36	64	62	229	594	334	193	116	671	140	118	36
14	36	62	64	224	536	312	185	111	1250	200	108	37
15	36	62	518	189	365	311	232	102	531	182	95	37
16	37	61	1190	192	458	401	179	96	360	142	86	37
17	37	65	428	217	1980	343	191	89	359	131	82	38
18	38	67	247	176	1910	319	437	128	4330	114	428	37
19	34	66	163	253	817	275	282	159	888	101	200	37
20	33	71	127	386	559	276	250	309	429	91	116	37
21	35	81	108	1000	441	719	447	425	308	81	104	38
22	39	74	120	1160	367	494	299	249	254	76	88	41
23	44	77	138	1120	308	350	227	263	230	73	78	42
24	51	83	172	1460	276	292	192	2070	510	301	70	43
25	106	96	1200	802	260	265	174	1500	215	136	64	43
26	650	86	1670	527	229	250	670	646	188	115	57	46
27	1580	72	661	366	499	224	1790	6410	170	101	54	163
28	758	69	402	310	1770	202	2080	2110	259	87	51	96
29	242	66	327	294	---	186	636	1080	193	83	49	76
30	151	68	249	268	---	185	388	1830	229	97	48	64
31	125	---	1020	270	---	189	---	711	---	96	44	---
TOTAL	4497	2277	9754	26157	23064	16440	11614	20552	29346	4447	3934	1444
MEAN	145	75.9	315	844	824	530	387	663	978	143	127	48.1
MAX	1580	121	1670	4510	3900	1870	2080	6410	4650	305	428	163
MIN	33	61	62	176	229	185	174	89	170	73	44	34
CFSM	.42	.22	.90	2.42	2.36	1.52	1.11	1.90	2.80	.41	.36	.14
IN.	.48	.24	1.04	2.79	2.46	1.75	1.24	2.19	3.13	.47	.42	.15

CAL YR 1981 TOTAL 81165 MEAN 222 MAX 4440 MIN 25 CFSM .64 IN 8.65
WTR YR 1982 TOTAL 153526 MEAN 421 MAX 6410 MIN 33 CFSM 1.21 IN 16.36

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/29	12 00	0000	1.63	242	123	6.70	17.0	85.0	8.5	88.0	37.0	730
81/11/09	13 05	0000	0.96	66	144	6.90	14.0		9.4	90.0		40
81/12/10	10 20	0000	0.94	62	263	6.80	5.0		11.6	91.0		40
82/01/20	11 15	0000	2.03	386	110	8.10	2.0	30.0	11.3	82.0	16.0	70
82/02/02	13 00	0000	1.82	308	123	6.50	6.0		10.6	85.0		80
82/03/03	13 10	0000	2.70	710	90	6.60	9.0		10.1	87.0		320
82/04/13	12 45	0000	1.50	200	137	7.50	17.0	10.0	10.4	107.0	28.0	10K
82/05/25	12 30	0000	3.80	1410	85	7.00	23.0		8.2	94.0		10000
82/06/17	12 30	0000	1.79	297	93	7.10	26.0		8.3	101.0		230
82/07/07	17 30	0000	1.24	128	130	7.50	27.0	20.0	7.7	95.0	22.0	90
82/08/05	15 00	0000	1.07	95	132	7.20	28.0		7.8	99.0		30
82/09/23	14 00	0000	0.81	42	307	7.40	23.0		8.1	93.0		70

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/29	12 00	0000	23	46	184	0.76	0.280	1.200	0.480	0.300	11	50K
81/11/09	13 05	0000	35	8	135	1.00	0.050	0.700	0.420	0.290		
81/12/10	10 20	0000	47	1K	1K	3.10	0.200	1.100	1.200	1.100		
82/01/20	11 15	0000	47	7	116	0.69	0.580	1.000	0.310	0.220	10K	50K
82/02/02	13 00	0000	35	6	139	0.74	1.000	1.200	0.400	0.300		
82/03/03	13 10	0000	22	35	130	0.50	0.350	0.700	0.220	0.110		
82/04/13	12 45	0000	41	51	300	1.20	0.140	0.600	0.410	0.300	10K	50K
82/05/25	12 30	0000	20	304	410	0.91	0.240	1.500	0.520	0.140		
82/06/17	12 30	0000	30	20	129	0.73	0.080	0.600	0.200	0.100		
82/07/07	17 30	0000	37	16	125	0.90	0.080	0.900	0.390	0.240	10K	50K
82/08/05	15 00	0000	35	5	126	1.30	0.050K	0.700	0.490	0.350		
82/09/23	14 00	0000	56	6	231	1.70	0.090	1.100	0.900	0.810		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/29	12 00	0000	50K	40K	100K	0.5K	100K	50K
82/01/20	11 15	0000	50K	40K	100K	0.2K	100K	50K
82/04/13	12 45	0000	60	40K	100K	0.2K	100K	50K
82/07/07	17 30	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02102000 DEEP RIVER AT MONCURE, NC

LOCATION.--Lat 35°37'38", long 79°06'58", Lee County, Hydrologic Unit 03030003, on right bank 1.0 mi (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).

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 1082: (1930-46 not previously published). WDR NC-81-1: Drainage area.

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.--52 years, 1,452 ft³/s (41.12 m³/s), 13.75 in/yr (349 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.--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)
Jan. 4	2000	15300	433	7.54	2.298	June 11	1100	*26600	753	*9.77	2.978
Feb. 4	0200	15000	425	7.48	2.280						

Minimum discharge, 58 ft³/s (1.64 m³/s) Oct. 19, 21, 22, 24, gage height, 0.93 ft (0.283 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	425	194	10600	1040	8140	701	1690	2260	616	1230	145
2	104	347	200	10700	1180	5240	699	1260	3580	514	1110	142
3	93	313	212	7630	5060	3360	690	1040	2400	465	741	138
4	83	289	235	13200	14000	2310	661	894	3080	408	542	139
5	80	277	274	12900	13000	1800	653	832	11300	845	400	117
6	80	282	250	8380	6570	4060	648	725	10300	627	292	112
7	80	264	222	2880	3430	10600	599	641	3460	626	245	132
8	77	244	208	2430	2250	12800	586	586	1440	422	208	127
9	75	227	198	2000	1740	7830	735	550	1150	374	262	110
10	73	209	187	1440	1820	3390	1120	531	6070	500	2110	104
11	74	198	181	1090	2360	2300	1180	494	22400	451	1530	101
12	74	190	177	842	1780	1890	867	452	16500	437	1380	88
13	74	186	172	784	1800	1640	726	425	10800	453	2340	83
14	74	185	174	895	2310	1500	649	406	3640	1540	968	83
15	73	182	1170	1030	2010	1790	621	389	2850	2290	573	96
16	74	177	5410	1050	1660	3190	911	367	1710	1280	410	97
17	75	175	3470	1460	7590	2570	807	370	1260	649	503	104
18	74	175	1660	1720	8550	1890	1440	611	2740	471	2000	87
19	70	175	1100	1500	4990	1550	2140	541	5580	402	1030	84
20	72	175	819	2670	3280	1340	1240	453	2100	372	778	86
21	70	172	607	4310	2390	1630	1940	890	1180	425	522	89
22	69	167	507	6370	1850	1930	2080	1420	871	285	364	117
23	71	167	482	5020	1490	1650	1330	3290	745	614	396	124
24	69	184	491	8090	1260	1270	962	3240	1400	915	352	113
25	107	196	1370	5440	1120	1080	789	3970	1770	429	261	113
26	391	212	5440	2910	1010	992	795	2660	1100	484	229	108
27	3760	242	3980	1980	1610	915	3110	7580	704	349	205	127
28	5410	246	2040	1490	8800	824	12000	9600	582	378	187	142
29	2590	221	1360	1240	---	758	10600	4810	652	3250	149	300
30	1020	200	1110	1120	---	719	3230	2860	781	1030	139	246
31	591	---	1210	1040	---	705	---	2590	---	657	159	---
TOTAL	15737	6702	35110	124211	105950	91663	54509	56167	124405	22559	21615	3654
MEAN	508	223	1133	4007	3784	2957	1817	1812	4147	728	697	122
MAX	5410	425	5440	13200	14000	12800	12000	9600	22400	3250	2340	300
MIN	69	167	172	784	1010	705	586	367	582	285	139	83
CFSM	.35	.16	.79	2.79	2.64	2.06	1.27	1.26	2.89	.51	.49	.09
IN.	.41	.17	.91	3.22	2.75	2.38	1.41	1.46	3.23	.59	.56	.09

CAL YR 1981 TOTAL 264849 MEAN 726 MAX 11900 MIN 53 CFSM .51 IN 6.87
WTR YR 1982 TOTAL 662282 MEAN 1814 MAX 22400 MIN 69 CFSM 1.27 IN 17.18

02102000 DEEP RIVER AT MONCURE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1944, 1956, 1962-73, October 1981 to September 1982.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1955 to September 1956, October 1961 to September 1967, October 1981 to September 1982.
WATER TEMPERATURES: October 1943 to September 1944, October 1955 to September 1956, October 1961 to September 1967, October 1981 to September 1982.

INSTRUMENTATION.--Water-quality monitor since October 1981.

REMARKS.--Station is part of district's Primary Accounting Network used to define stream-quality characteristics of the State's major streams. Miscellaneous chemical data published for water years 1947, 1955, 1957-61. During period 1966-73, data were published as Deep River at U.S. Highway 1, at Moncure (station 02102049).

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, 443 micromhos Feb. 1, 1966; minimum daily, 25 micromhos July 21, 1956.
WATER TEMPERATURES: Maximum daily, 34.5°C July 3, 1956; minimum daily, 0.0°C Jan. 29, 1963, Jan. 15, 1964, Jan. 29, 1966, Jan. 14-19, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 227 micromhos Oct. 23; minimum, 42 micromhos June 11, 12, 13.
WATER TEMPERATURES: Maximum, 30.0°C July 27; minimum, 0.0°C Jan. 14-19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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												
02...	1300	94	115	6.9	21.5	40	10.1	34	6	7.7	3.6	13
27...	1145	2940	112	6.1	--	65	--	20	4	4.9	2.0	7.6
28...	1030	5360	102	5.8	14.5	120	7.7	23	5	5.6	2.3	13
JAN												
04...	1230	12700	68	6.2	6.0	120	12.4	18	9	4.2	1.8	4.1
MAR												
31...	1210	708	90	6.8	14.0	30	8.7	23	0	5.4	2.4	8.5
JUN												
04...	1215	2770	65	7.0	22.0	180	9.0	22	2	5.1	2.2	4.5
05...	1130	14900	60	6.3	21.0	320	8.7	18	2	4.4	1.6	3.2
11...	1345	25500	47	6.1	20.5	350	8.4	15	6	3.7	1.4	1.9
AUG												
26...	1155	220	105	6.6	25.0	90	6.5	24	0	5.9	2.3	8.5

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												
02...	48	1.3	3.3	34	0	28	6.8	11	12	.2	10	84
27...	41	.8	2.9	20	0	16	29	10	7.8	<.1	5.5	70
28...	50	1.3	4.0	22	0	18	65	12	9.3	.1	6.0	--
JAN												
04...	30	.5	2.4	11	0	9	8.6	8.3	5.3	<.1	8.1	71
MAR												
31...	43	.8	1.2	36	0	30	6.8	11	7.2	.1	9.3	76
JUN												
04...	28	.5	2.3	24	0	20	3.1	6.0	4.5	<.1	9.8	--
05...	26	.4	2.1	20	0	16	15	5.0	3.5	.1	7.5	63
11...	19	.2	2.4	11	0	9	17	8.0	3.0	<.1	6.1	61
AUG												
26...	41	.8	2.3	30	0	25	13	9.0	9.2	.2	13	82

02102000 DEEP RIVER AT MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
02...	80	.11	21.3	--	<.010	.37	.35	1.7	.020	.020	.03	1.8
27...	52	.10	556	.23	.020	.25	.25	--	.030	.030	.04	.74
28...	65	.09	941	.42	.030	.45	.43	--	.080	.070	.09	1.0
JAN												
04...	38	.10	2440	--	--	.72	--	--	.230	--	--	1.1
MAR												
31...	58	.10	145	--	<.010	.55	.59	--	.030	.080	.10	5.2
JUN												
04...	44	--	--	--	--	--	--	--	--	--	--	--
05...	36	.09	2530	--	--	.70	.61	--	.140	.050	.06	1.3
11...	33	.08	4200	--	--	.70	.58	--	.190	.070	.09	2.1
AUG												
26...	66	.11	48.7	.82	.010	.83	.85	--	.030	--	--	.37

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, 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-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT												
02...	1.1	1.80	.70	1.1	687	2.2	9.6	689	1.5	.200	.61	.190
27...	.85	.77	.00	.88	--	1.0	4.5	--	1.1	.190	.58	.140
28...	.47	1.10	.56	.54	--	1.6	6.9	--	.97	.290	.89	.110
JAN												
04...	--	1.30	--	--	--	2.0	8.9	--	--	.290	.89	--
MAR												
31...	1.4	5.20	3.7	1.5	--	5.8	25	--	2.1	.160	.49	.120
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	.45	1.40	.90	.50	--	2.1	9.3	--	1.1	.300	.92	.100
11...	2.0	2.30	.20	2.1	--	3.0	13	--	2.7	.240	.74	.090
AUG												
26...	--	.40	--	--	--	1.2	5.4	--	--	.190	.58	.160

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 (UG/L AS AS)	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)
OCT												
02...	.180	.160	.49	36	2	1	1	0	1	--	<1	<1
27...	.130	.110	.34	--	--	--	--	--	--	--	--	--
28...	.130	.090	.28	--	2	1	1	--	2	--	<1	--
JAN												
04...	--	--	--	--	1	--	--	--	1	--	--	--
MAR												
31...	.140	.130	.40	--	3	0	3	--	1	--	<1	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	4	1	3	--	<1	--	<1	--
11...	--	--	--	--	2	1	1	--	1	--	<1	--
AUG												
26...	.180	.160	.49	--	1	0	1	--	1	0	2	--

02102000 DEEP RIVER AT MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	CHROMIUM, TOTAL RECOVERABLE (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											
02...	30	<1	2	2	0	2	<10	9	5	4	<1
27...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JAN											
04...	4	--	--	--	--	--	--	13	--	--	--
MAR											
31...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
AUG											
26...	--	--	--	--	--	--	--	--	--	--	--

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											
02...	650	120	530	210	4	--	<1	<10	50	30	24
27...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	20	0	20	--	--	--	--
JAN											
04...	4400	--	--	--	16	--	--	--	--	--	--
MAR											
31...	--	--	--	--	5	2	3	--	--	--	--
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	13	12	1	--	420	380	42
11...	--	--	--	--	19	15	4	--	--	--	--
AUG											
26...	--	--	--	--	2	0	5	--	--	--	--

02102000 DEEP RIVER AT MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT									
02...	270	<.1	--	<.1	<.01	<1	<1	<1	40
28...	--	<.1	--	.1	--	<1	<1	--	--
JAN									
04...	--	<.1	--	--	--	--	--	--	60
MAR									
31...	--	.2	.0	.2	--	<1	<1	--	--
JUN									
05...	--	.1	.0	.1	--	<1	<1	--	--
11...	--	<.1	--	<.1	--	<1	<1	--	--
AUG									
26...	--	.2	.0	.2	--	<1	<1	--	--

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, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT								
02...	<4	9	6.8	1.4	<.1	1.3	--	.00
28...	--	--	14	--	--	--	--	--
JAN								
04...	--	--	--	--	--	--	--	--
MAR								
31...	--	--	3.9	--	--	--	<.01	--
JUN								
05...	--	--	--	--	--	--	--	.05
11...	--	--	--	--	--	--	--	.01
AUG								
26...	--	--	6.9	.7	--	--	<.01	.04

02102000 DEEP RIVER AT MONCURE, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	OCT 2,81	AUG 26,82
TIME	1300	1155
TOTAL CELLS/ML	180	250
DIVERSITY: DIVISION	1.2	1.0
.CLASS	1.2	1.0
..ORDER	2.0	1.0
...FAMILY	2.3	1.0
....GENUS	2.5	1.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)				
.BACILLARIOPHYCEAE				
..BACILLARIALES				
...NITZSCHIACEAE				
....NITZSCHIA	14	8	28	11
..EUPODISCALES				
...COSCINODISCACEAE				
....CYCLOTELLA	14	8	--	-
....MELOSIRA	14	8	--	-
..NAVICULALES				
...CYMBELLACEAE				
....CYMBELLA	14	8	--	-
...NAVICULACEAE				
....NAVICULA	56#	31	--	-
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
....SCENEDESMUS	56#	31	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)				
.CYANOPHYCEAE				
..CHROOCOCCALES				
...CHROOCOCCACEAE				
....ANACYSTIS	14	8	--	-
..OSCILLATORIALES				
...OSCILLATORIACEAE				
....OSCILLATORIA	--	-	190#	78
PYRRHOPHYTA (FIRE ALGAE)				
.DINOPHYCEAE				
..DINOKONTAE				
...GLENODINIACEAE				
....GLENODINIUM	--	-	28	11

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

02102000 DEEP RIVER AT MONCURE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	112	---	---	117	135	127	130	74	58	66
2	---	---	115	---	---	123	134	129	131	66	61	64
3	---	---	118	---	---	125	147	135	141	66	54	62
4	---	---	122	---	---	128	152	144	148	63	54	56
5	---	---	125	---	---	130	157	147	153	59	54	56
6	---	---	130	166	139	151	162	157	159	54	50	52
7	---	---	135	144	138	141	163	159	161	58	53	55
8	---	---	138	143	133	138	168	158	161	64	58	62
9	---	---	145	138	129	133	164	159	161	66	64	65
10	---	---	155	131	126	127	167	163	165	70	67	69
11	---	---	165	131	125	127	167	162	164	70	68	69
12	---	---	175	130	125	128	165	158	163	70	67	69
13	---	---	180	134	130	132	161	158	159	71	68	70
14	176	175	175	137	133	135	159	157	158	75	71	73
15	181	177	179	140	135	137	156	124	142	86	75	80
16	183	178	180	141	135	138	137	115	128	81	76	79
17	180	176	178	140	130	136	123	100	108	98	79	87
18	194	183	189	133	129	131	134	113	125	85	78	82
19	201	197	199	137	130	134	140	129	134	81	79	80
20	208	204	205	136	129	133	139	130	135	83	75	79
21	218	211	214	138	130	134	130	126	128	76	73	74
22	225	221	222	139	130	135	131	126	129	79	72	75
23	227	224	225	138	132	135	128	125	126	77	72	75
24	223	215	218	138	132	135	126	119	121	81	75	79
25	214	199	205	135	134	134	120	95	109	74	70	72
26	201	180	191	143	137	140	93	79	86	73	72	73
27	181	103	129	143	135	138	101	82	89	74	73	74
28	---	---	102	137	130	132	119	101	109	75	74	74
29	---	---	80	138	129	131	105	90	98	77	75	76
30	---	---	98	135	128	131	96	82	88	82	77	80
31	---	---	108	---	---	---	84	73	82	82	79	81
MONTH	227	103	158	166	125	133	168	73	132	98	50	71

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	82	79	80	81	70	74	91	85	87	65	60	63
2	83	80	82	84	80	82	85	84	85	69	65	67
3	81	66	77	84	77	80	86	83	84	71	68	70
4	86	57	66	78	76	77	84	82	83	72	70	71
5	60	57	58	78	77	77	85	83	84	75	72	74
6	58	55	56	78	61	72	88	85	87	78	74	76
7	60	58	60	67	55	62	92	88	91	81	76	79
8	63	60	61	59	51	56	97	91	95	82	79	80
9	67	63	65	65	58	61	99	97	98	84	80	81
10	70	67	69	66	63	64	101	98	99	85	82	83
11	76	71	73	67	65	67	104	100	102	88	84	86
12	81	76	78	69	67	68	103	98	100	90	83	87
13	82	80	82	71	68	70	103	99	101	93	86	89
14	83	81	82	72	71	71	105	99	101	100	89	94
15	81	78	79	73	71	72	107	103	105	108	100	102
16	85	82	84	72	66	69	112	105	109	105	92	99
17	84	69	76	69	66	68	112	109	110	101	93	96
18	78	62	66	70	66	68	109	97	105	100	90	94
19	83	72	77	73	70	72	101	94	99	101	94	98
20	76	73	74	75	73	75	103	93	100	107	93	98
21	74	73	74	78	75	76	93	81	88	108	101	104
22	75	73	74	81	76	78	91	80	86	102	91	97
23	76	75	76	87	81	83	93	90	92	100	59	79
24	79	76	78	91	87	89	89	83	85	88	74	82
25	80	78	79	98	91	95	84	83	84	114	85	101
26	84	80	82	97	93	94	85	83	84	92	77	84
27	84	78	82	93	91	92	105	86	93	79	46	54
28	77	67	72	91	88	89	98	57	76	75	47	61
29	---	---	---	87	86	87	57	55	56	63	53	59
30	---	---	---	90	87	89	61	57	58	67	62	64
31	---	---	---	91	90	90	---	---	---	69	64	66
MONTH	86	55	74	98	51	76	112	55	91	114	46	82

02102000 DEEP RIVER AT MONCURE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	78	69	74	80	79	79	104	85	95	160	148	155
2	82	66	76	83	77	80	119	104	110	157	150	153
3	80	59	71	88	82	84	126	120	122	165	155	159
4	71	59	66	94	86	89	145	125	135	166	150	161
5	67	57	62	105	93	98	149	136	139	150	139	143
6	71	56	61	104	95	98	149	127	138	146	144	145
7	87	71	78	103	95	100	169	124	142	147	130	138
8	107	87	95	102	95	98	173	146	161	140	128	134
9	115	96	103	103	100	102	176	126	151	139	132	136
10	102	68	86	103	99	101	126	69	91	142	133	139
11	67	42	46	106	99	101	109	81	97	149	138	144
12	49	42	44	114	107	111	122	109	115	154	139	147
13	49	42	44	117	112	114	128	93	106	161	149	155
14	57	50	55	126	102	110	155	100	138	163	158	161
15	64	57	61	114	91	106	109	92	99	164	148	159
16	68	61	64	89	62	73	130	93	112	157	146	152
17	73	68	71	70	61	65	120	84	103	162	147	153
18	80	71	74	92	71	81	90	57	64	170	149	162
19	86	72	78	98	93	96	72	58	64	173	166	170
20	128	90	106	96	81	88	91	72	82	177	173	174
21	130	88	109	82	71	76	102	87	92	180	175	178
22	131	75	83	75	60	65	---	---	117	180	171	176
23	76	73	75	71	60	67	---	---	115	170	156	165
24	86	73	78	77	69	72	---	---	127	172	159	167
25	83	72	78	71	57	62	---	---	125	170	162	167
26	88	83	86	84	59	74	121	105	115	174	168	171
27	93	88	91	94	84	89	140	122	133	174	165	170
28	---	---	93	96	84	94	148	138	143	168	154	161
29	---	---	105	80	46	65	152	146	148	169	154	161
30	---	---	100	90	67	77	158	148	153	154	141	146
31	---	---	---	98	83	93	160	156	158	---	---	---
MONTH	131	42	77	126	46	87	176	57	119	180	128	157
YEAR	227	42	105									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02102000 DEEP RIVER AT MONCURE, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	4.5	5.0	5.0	4.0	4.5	15.0	13.0	14.0	18.0	15.5	16.5
2	5.0	4.5	4.5	6.0	5.0	5.5	15.0	13.0	14.0	18.0	15.5	17.0
3	6.0	4.5	5.0	6.5	6.0	6.5	16.0	14.5	15.0	18.5	16.5	17.5
4	6.0	5.5	6.0	7.0	6.5	7.0	16.0	14.0	15.0	19.5	16.0	17.5
5	7.0	6.0	6.5	9.0	7.0	8.0	15.0	14.0	14.5	19.5	17.0	18.5
6	7.5	7.0	7.0	9.0	8.5	9.0	14.5	13.5	14.0	20.5	18.0	19.0
7	7.5	7.0	7.0	9.0	7.5	8.5	14.5	12.0	13.5	21.5	19.0	20.0
8	7.0	6.5	7.0	7.5	7.0	7.5	13.5	12.0	13.0	20.5	19.5	20.0
9	7.0	6.5	6.5	7.5	7.0	7.0	14.0	12.0	12.5	21.0	19.0	20.0
10	7.0	6.5	6.5	7.5	7.0	7.5	13.5	11.5	12.5	21.0	18.5	20.0
11	7.0	6.5	6.5	9.0	7.5	8.5	14.0	12.0	13.0	21.5	18.5	20.0
12	7.0	6.5	6.5	11.0	9.0	9.5	15.0	11.5	13.0	22.5	19.0	20.5
13	7.0	6.5	6.5	12.0	10.0	11.0	15.0	13.5	14.0	23.0	20.0	21.5
14	6.5	6.0	6.5	12.5	11.5	12.0	16.5	14.5	15.5	24.0	21.0	22.5
15	7.0	6.0	6.5	12.5	12.0	12.5	17.5	15.0	16.5	24.5	22.0	23.0
16	7.5	6.5	7.0	12.0	11.5	11.5	18.0	16.0	17.0	24.0	22.0	23.0
17	9.0	7.5	8.5	12.0	11.0	11.5	19.0	17.0	18.0	25.0	22.5	23.5
18	9.5	9.0	9.0	12.5	11.5	12.0	19.5	18.0	18.5	24.5	22.5	23.5
19	9.0	7.5	8.0	12.5	11.5	12.0	18.5	18.0	18.5	23.5	22.5	23.0
20	8.0	7.5	7.5	13.0	12.5	12.5	18.0	17.5	18.0	24.5	22.5	23.5
21	8.0	7.5	7.5	13.5	12.5	13.0	17.5	17.0	17.5	24.5	22.5	23.5
22	8.5	7.5	7.5	14.5	13.0	13.5	17.0	15.5	16.5	24.0	23.0	23.5
23	9.0	7.0	8.0	14.5	13.0	14.0	17.0	15.0	15.5	23.0	20.0	22.0
24	9.5	7.5	8.5	14.0	13.5	13.5	17.5	14.0	15.5	23.0	22.0	22.5
25	9.0	8.0	8.5	15.0	13.0	14.0	17.0	15.0	16.0	23.0	22.5	23.0
26	8.0	7.0	7.0	15.0	13.5	14.0	18.0	16.5	17.0	22.5	21.5	22.0
27	7.0	6.0	6.5	14.0	12.5	13.5	18.0	16.5	17.5	21.5	20.5	21.0
28	6.0	4.5	5.5	13.0	11.5	12.0	18.0	16.5	17.0	21.5	21.0	21.5
29	---	---	---	13.5	11.0	12.0	16.5	16.0	16.5	22.0	21.0	21.5
30	---	---	---	14.5	12.0	13.0	17.0	15.5	16.0	23.0	21.5	22.0
31	---	---	---	14.0	13.5	14.0	---	---	---	23.5	22.0	23.0
MONTH	9.5	4.5	7.0	15.0	4.0	10.5	19.5	11.5	15.5	25.0	15.5	21.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	23.0	23.5	26.5	25.5	26.5	26.0	24.5	25.5	24.5	23.5	24.0
2	24.5	22.0	23.5	27.0	24.5	25.5	27.0	25.0	26.0	26.5	24.0	25.0
3	24.0	22.0	23.5	27.5	25.0	26.0	27.0	25.5	26.0	27.0	25.0	26.0
4	23.0	21.0	22.0	28.0	25.5	26.5	27.0	25.5	26.0	26.5	24.5	25.5
5	22.5	20.5	22.0	26.5	25.5	26.0	27.0	25.5	26.0	26.0	23.5	24.5
6	21.5	21.0	21.5	27.5	24.5	26.0	28.5	26.0	27.0	24.5	22.5	23.5
7	22.0	21.0	21.5	27.5	26.0	26.5	29.0	26.5	27.5	24.5	22.0	23.5
8	23.0	21.0	22.0	28.5	26.0	27.5	29.0	26.5	27.5	24.5	22.0	23.5
9	24.0	22.0	23.0	29.0	27.0	27.5	28.5	27.0	27.5	24.5	22.0	23.5
10	23.5	22.0	22.5	28.5	27.0	27.5	27.0	23.5	25.0	24.0	22.5	23.0
11	22.5	21.0	21.5	28.5	26.5	27.5	26.5	25.0	25.5	23.0	22.0	22.5
12	21.5	21.0	21.0	27.5	26.5	27.0	26.0	25.5	26.0	25.0	22.5	23.5
13	21.5	21.0	21.0	27.5	26.5	27.0	25.5	25.0	25.0	25.5	23.5	24.5
14	22.0	21.0	21.5	27.0	26.0	26.5	25.5	24.0	24.5	25.5	24.5	25.0
15	22.0	21.5	21.5	27.0	25.5	26.5	26.0	24.0	24.5	26.0	24.5	25.0
16	23.0	21.5	22.5	26.0	25.0	25.5	26.5	24.5	25.5	26.5	25.0	25.5
17	23.5	22.0	23.0	27.5	24.5	26.0	26.0	24.5	25.0	26.0	24.5	25.0
18	23.0	22.0	22.5	28.0	25.5	26.5	24.5	22.5	23.0	26.0	24.0	25.0
19	23.5	22.5	23.0	29.0	26.5	27.5	24.5	22.0	23.0	25.5	24.0	24.5
20	23.0	22.0	22.5	28.0	26.5	27.0	26.0	24.0	24.5	24.5	24.0	24.0
21	24.5	22.0	23.0	28.0	26.0	27.0	25.5	24.5	25.0	24.0	22.0	23.0
22	23.5	22.5	23.0	28.5	26.0	27.0	26.0	24.0	25.0	22.0	21.5	21.5
23	24.5	22.5	24.0	27.5	25.5	26.5	26.0	24.5	25.5	21.5	19.5	21.0
24	23.5	22.0	23.0	27.0	25.5	26.5	26.5	24.5	25.5	21.0	19.0	20.0
25	24.0	22.0	23.0	27.0	25.0	26.0	27.5	25.5	26.0	21.0	19.0	20.0
26	25.0	23.0	24.0	28.5	25.5	27.0	27.0	25.0	26.0	21.0	18.5	19.5
27	25.0	23.0	24.0	30.0	26.5	28.0	26.5	25.0	25.5	20.5	18.0	19.0
28	---	---	---	29.5	27.0	28.0	27.0	25.5	26.0	21.0	18.5	19.5
29	---	---	---	25.5	24.0	24.5	26.5	23.5	25.0	20.5	18.5	19.5
30	---	---	---	26.0	24.0	25.0	25.0	22.5	24.0	20.5	18.5	19.5
31	---	---	---	26.0	25.5	25.5	24.5	23.0	24.0	---	---	---
MONTH	25.0	20.5	22.5	30.0	24.0	26.5	29.0	22.0	25.5	27.0	18.0	23.0
YEAR	30.0	.0	15.5									

02102000 DEEP RIVER AT MONCURE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT							
02...	1300	94	6	1.5	--	--	--
27...	1145	2940	108	857	--	--	--
28...	1030	5360	124	1800	--	--	--
JAN							
04...	1230	12700	225	7720	--	--	--
MAR							
31...	1210	708	23	44	--	--	--
JUN							
04...	1215	2770	217	1620	--	--	--
05...	1130	14900	153	6160	--	--	--
11...	1345	25500	543	37400	51	59	70

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
02...	--	--	--	--	--	92
27...	--	--	--	--	--	91
28...	--	--	--	--	--	97
JAN						
04...	--	--	--	--	--	97
MAR						
31...	--	--	--	--	--	88
JUN						
04...	--	--	--	--	--	94
05...	--	--	--	--	--	91
11...	79	88	96	97	100	--

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/21	12 05	0000	0.94	60	195	8.79	10.0		9.9	88.0		10K
81/11/18	12 15	0000	1.30	157	159	7.26	5.0	10.0	9.3	73.0	24.0	10K
81/12/17	12 05	0000	3.91	3420	88	6.46	2.0		13.1	95.0		2900
82/01/22	12 15	0000	5.17	6690	45	6.45			16.2			500
82/02/10	14 00	0000	3.05	1870	90	6.88	5.0	55.0	13.1	102.0	18.0	50
82/03/03	14 45	0000	3.79	3180	57	6.88			12.1			420
82/04/01	10 15	0000	2.10	699	105	7.30	13.4		10.5	99.0		30
82/05/03	10 30	0000	2.44	1050	73	6.50	16.0	35.0	9.0	90.0	24.0	10
82/06/21	10 00	0000	2.57	1200	71	6.77	23.0		7.7	89.0		250
82/07/15	10 30	0000	3.18	2080	115	7.02	25.0		7.3	81.0		190
82/08/23	09 50	0000	1.76	434	92	6.80	25.0	30.0	7.5	89.0	27.0	10
82/09/14	09 10	0000	1.00	82	170	6.60	24.0		7.8	92.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/21	12 05	0000	41	0	140							
81/11/18	12 15	0000	15	5	152	0.43	0.050K	0.500	0.200	0.140	10K	50K
81/12/17	12 05	0000	35	65	186							
82/01/22	12 15	0000	26	70	148							
82/02/10	14 00	0000	18	26	103	0.60	0.060	0.400	0.090	0.050K	10K	50K
82/03/03	14 45	0000	2	34	99							
82/04/01	10 15	0000	22	9	92							
82/05/03	10 30	0000		24	112	0.58	0.170	0.500	0.150	0.070	10K	50K
82/06/21	10 00	0000	18	74	237							
82/07/15	10 30	0000	29	74	189							
82/08/23	09 50	0000	20	14	112	0.70	0.050K	0.600	0.180	0.090	10K	50K
82/09/14	09 10	0000		4	126							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	12 15	0000	50K	40K	100	0.5K	100K	50K
82/02/10	14 00	0000	50K	40K	100K	0.2K	100K	50K
82/05/03	10 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/23	09 50	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02102192 BUCKHORN CREEK NEAR CORINTH, NC

LOCATION.--Lat 35°33'34", long 78°58'25", Chatham County, Hydrologic Unit 03030004, on left bank at upstream side of bridge on State Highway 42, 0.2 mi (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).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 154.63 ft (47.131 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Since Dec. 1, 1980, considerable regulation by Shearon Harris Main Reservoir (see p. 370).

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

AVERAGE DISCHARGE.--10 years, 68.0 ft³/s (1.926 m³/s), 12.10 in/yr (307 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, 703 ft³/s (19.9 m³/s) July 29, gage height, 6.20 (1.890 m); minimum, 0.11 ft³/s (0.003 m³/s) Oct. 17, 18, 19; minimum gage height, 1.25 ft (0.381 m) Oct. 2, 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.50	1.9	21	3.9	9.2	4.0	3.8	1.8	14	23	1.6
2	.25	.49	3.1	5.1	4.0	6.4	3.8	3.4	2.5	3.1	6.1	1.5
3	.23	.52	2.7	40	29	5.2	3.9	3.1	2.7	2.1	3.7	1.4
4	.23	.58	2.0	52	16	4.4	4.0	2.7	21	2.0	2.9	1.2
5	.27	1.6	1.8	13	21	4.1	4.0	2.5	36	5.7	2.5	1.2
6	.24	13	1.6	5.9	18	38	4.4	2.5	5.2	2.6	2.4	1.4
7	.23	3.5	1.4	4.2	8.8	82	4.0	2.3	3.2	1.8	2.0	1.3
8	.23	1.7	1.4	4.7	6.3	29	4.6	2.3	4.0	1.5	1.9	1.2
9	.20	1.1	1.2	3.6	5.3	16	9.1	2.4	5.2	1.3	2.2	1.1
10	.20	1.1	1.2	3.2	5.1	11	6.0	2.2	8.0	3.1	3.2	1.0
11	.19	1.1	1.1	2.7	4.3	8.8	5.3	2.0	15	2.7	3.7	1.0
12	.21	1.4	1.1	2.6	4.0	7.7	4.9	1.8	25	2.5	8.2	.96
13	.15	1.4	1.0	3.0	6.8	7.0	4.4	1.7	19	2.3	3.3	.86
14	.13	1.4	1.0	3.4	5.0	6.4	4.2	1.7	11	2.2	2.6	.80
15	.13	1.6	7.8	3.4	4.3	12	4.5	1.4	7.4	2.5	2.0	.81
16	.13	1.6	4.6	3.9	6.6	10	4.1	1.4	5.0	2.3	1.7	.93
17	.12	1.7	2.2	4.9	24	8.2	5.3	1.5	3.6	1.9	1.7	.97
18	.12	1.7	1.9	3.7	10	7.0	8.9	1.8	3.2	1.5	2.6	.84
19	.12	1.6	1.7	8.2	8.7	6.4	4.5	1.8	2.7	2.0	1.9	.78
20	.12	1.7	1.3	9.6	6.7	6.0	6.5	2.6	2.4	2.0	1.6	.88
21	.13	1.4	1.2	15	5.4	7.8	9.6	5.1	2.3	1.9	1.9	1.1
22	.14	1.6	1.3	11	4.4	6.1	5.8	2.5	3.4	1.7	2.5	1.5
23	.14	1.6	1.4	17	3.9	5.5	4.9	1.9	5.4	3.1	1.7	.94
24	.14	2.5	1.6	17	3.7	5.2	4.1	1.8	8.0	4.9	1.6	.77
25	2.2	2.8	13	8.2	3.3	5.2	3.6	1.8	4.5	2.8	1.4	.66
26	1.5	2.0	7.2	6.1	3.1	4.6	4.2	2.0	3.5	2.3	1.3	1.5
27	11	1.8	3.5	4.9	17	4.6	4.9	4.4	2.8	1.9	1.2	1.9
28	1.3	1.7	2.7	4.4	20	4.6	8.2	2.5	2.2	2.1	1.6	.99
29	.52	1.6	2.6	4.0	---	4.5	5.2	2.0	1.9	129	1.4	.87
30	.52	1.3	2.2	3.8	---	4.3	4.2	2.0	4.8	11	1.2	.73
31	.45	---	13	3.8	---	4.3	---	1.7	---	8.3	1.5	---
TOTAL	21.83	57.59	91.7	293.3	258.6	341.5	155.1	72.6	222.7	228.1	96.5	32.69
MEAN	.70	1.92	2.96	9.46	9.24	11.0	5.17	2.34	7.42	7.36	3.11	1.09
MAX	11	13	13	52	29	82	9.6	5.1	36	129	23	1.9
MIN	.12	.49	1.0	2.6	3.1	4.1	3.6	1.4	1.8	1.3	1.2	.66
CFSM	.009	.03	.04	.12	.12	.14	.07	.03	.10	.10	.04	.01
IN.	.01	.03	.04	.14	.13	.17	.08	.04	.11	.11	.05	.02

CAL YR 1981 TOTAL 789.75 MEAN 2.16 MAX 58 MIN .11 CFSM .03 IN .39
WTR YR 1982 TOTAL 1872.21 MEAN 5.13 MAX 129 MIN .12 CFSM .07 IN .91

02102192 BUCKHORN CREEK NEAR CORINTH, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/21	11 00	0000	1.35	0.1	117	7.33	10.0		5.2	46.0		30
81/11/18	11 05	0000	1.62	2	102	7.29	5.0	7.0	8.9	70.0	10.0	170
81/12/17	10 45	0000	1.58	2	88	6.61	2.0		10.8	78.0		210
82/01/22	11 16	0000	1.72	10	75	6.87			14.6			210
82/02/10	12 50	0000	1.59	6	70	6.88	5.0	15.0	12.2	95.0	10.0K	90
82/03/11	10 15	0000	1.64	10	65	6.68	10.3		10.6	94.0		30
82/04/01	09 30	0000	1.52	4	82	6.93	12.3		9.7	91.0		60
82/05/03	09 30	0000	1.52	3	71	6.60	16.0	5.0	7.7	77.0	24.0	30
82/06/21	09 10	0000	1.47	3	80	6.84	22.0		5.6	64.0		150
82/07/15	09 40	0000	1.48	3	73	6.85	23.0		5.9	68.0		40
82/08/23	08 50	0000	1.47	2	80	6.70	23.0	10.0	6.6	76.0	10.0K	40
82/09/14	08 00	0000	1.47	2	92	6.10	22.0		6.4	73.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/21	11 00	0000	22	2	127							
81/11/18	11 05	0000	17	88	152	0.24	0.050K	0.200	0.050K	0.050K	10K	50K
81/12/17	10 45	0000	18	1	91							
82/01/22	11 16	0000	18	9	83							
82/02/10	12 50	0000	43	6	71	0.19	0.050K	0.200	0.050K	0.050K	10K	50K
82/03/11	10 15	0000	12	160	220							
82/04/01	09 30	0000	20	14	92							
82/05/03	09 30	0000	23	1	68	0.10	0.050K	0.200	0.050K	0.050K	10K	50K
82/06/21	09 10	0000	27	8	105							
82/07/15	09 40	0000	27	16	113							
82/08/23	08 50	0000	29	6	81	0.08	0.050K	0.300	0.050K	0.050K	10K	50K
82/09/14	08 00	0000		3	104							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	11 05	0000	50K	40K	100K	0.5K	100K	50K
82/02/10	12 50	0000	50K	40K	100K	0.2K	100K	50K
82/05/03	09 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/23	08 50	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02102500 CAPE FEAR RIVER AT LILLINGTON, NC

LOCATION.--Lat 35°24'22", long 78°48'48", Harnett County, Hydrologic Unit 03030004, on right bank 60 ft (18 m) downstream from downstream bridge on U.S. Highway 401, 1,860 ft (567 m) downstream from Southern Railway bridge, 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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 1002: 1930(M). WSP 1032: 1942(m). WSP 1303: 1944(M). WSP 1333: 1945. WSP 1383: 1924-29, 1936. WSP 1703: 1929. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 104.62 ft (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. 367). 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.

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

AVERAGE DISCHARGE.--58 years (water years 1924-82), 3,368 ft³/s (95.38 m³/s), 13.20 in/yr (335 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.--Peak discharge above base of 30,000 ft³/s (850 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 11	1100	*35,100	994	*15.26	4.651

Minimum discharge, 190 ft³/s (5.38 m³/s) Oct. 23, gage height, 0.81 ft (0.247 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239	2430	596	11300	2030	11000	1630	8140	10200	2370	4200	822
2	246	1340	636	16000	2250	9590	1600	5260	11900	2320	4000	822
3	230	750	627	15000	6090	9480	1600	3540	12300	2080	3800	797
4	222	775	675	18600	16800	8970	1560	1920	10700	1750	2800	680
5	220	1080	661	16900	17100	8290	1510	1720	14100	1980	1800	655
6	214	762	673	14600	14400	8940	1540	1560	17400	2190	1180	631
7	216	569	645	8420	8880	13200	1470	1150	18100	1930	769	632
8	211	505	626	7160	7410	17400	1460	1070	17100	1760	703	640
9	346	502	593	5650	7880	14700	1610	1030	16000	1560	676	642
10	476	1020	412	3630	6490	12000	1870	990	14900	1310	1880	625
11	489	824	385	2120	5090	11500	2130	962	31300	1340	2420	71
12	498	569	387	1360	4380	11700	1850	921	23200	1360	2540	73
13	493	554	384	1240	4270	7080	1640	880	22500	1710	4080	70
14	490	552	403	1330	4800	5750	1540	853	11000	2360	3490	58
15	492	554	678	1470	4690	5000	1490	831	14900	5520	2810	63
16	491	550	6360	1530	5210	6670	1590	810	14000	4870	2400	68
17	359	554	8070	1800	9080	6690	1770	804	14100	2900	1680	66
18	271	445	5760	2150	12300	4540	1980	943	10500	2590	3070	66
19	274	374	4340	2020	13000	3970	3490	1050	13100	2370	2370	64
20	284	393	2690	3120	10600	3340	4260	947	9330	1650	1760	64
21	289	390	2400	4700	9360	3520	4020	1260	9880	1180	1390	66
22	232	378	2280	8330	7580	4310	4540	1760	10200	1070	909	69
23	210	377	2000	9110	4320	6440	3600	3150	10000	895	806	70
24	234	403	1240	11800	2950	5530	2330	3680	10500	1810	867	69
25	329	618	1730	11400	3500	3570	1730	5860	10900	1230	755	68
26	510	656	5970	8040	3550	2750	1670	6120	7000	1000	672	73
27	2890	419	7400	8670	3150	2220	2580	12100	4550	963	637	74
28	11500	450	5680	8670	9970	1790	12000	11400	2550	850	845	71
29	9330	440	4440	2480	---	1710	15500	11700	1440	7000	842	69
30	6690	419	3700	2160	---	1660	11100	9660	1590	5000	818	78
31	3090	---	3760	2060	---	1640	---	10800	---	4000	825	--
TOTAL	42065	19652	76201	212820	207130	214950	96660	112871	375240	70918	57794	2073
MEAN	1357	655	2458	6865	7398	6934	3222	3641	12510	2288	1864	69
MAX	11500	2430	8070	18600	17100	17400	15500	12100	31300	7000	4200	82
MIN	210	374	384	1240	2030	1640	1460	804	1440	850	637	58
CFSM	.39	.19	.71	1.98	2.14	2.00	.93	1.05	3.61	.66	.54	.2
IN.	.45	.21	.82	2.29	2.22	2.31	1.04	1.21	4.03	.76	.62	.2

CAL YR 1981 TOTAL 601818 MEAN 1649 MAX 20200 MIN 144 CFSM .48 IN 6.46
WTR YR 1982 TOTAL 1507032 MEAN 4129 MAX 31300 MIN 210 CFSM 1.19 IN 16.18

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/13	11 00	0000	1.40	476	145	6.98	17.0	5.0	8.3	86.0	28.0	60
81/11/09	11 35	0000	1.41	481	100	6.85	17.0	25.0	9.5	98.0	26.0	10
81/12/28	12 30	0000	5.42	5640	70	7.03	9.0	65.0	10.3	89.0	35.0	370
82/01/26	10 25	0000	6.74	8000	30	5.68	5.0	70.0	11.2	87.0	22.0	420
82/02/09	10 15	0000	6.97	8520	40	5.62	7.0	140.0	11.2	92.0	24.0	800
82/03/11	10 45	0000	8.14	11300	40	7.17	12.0	60.0	10.8	99.0	21.0	600
82/04/06	11 10	0000	2.68	1540	80	7.27	13.0	50.0	9.4	89.0		30
82/05/04	11 30	0000	2.98	1840	47	6.55	16.0	35.0	9.6	96.0	23.0	40
82/06/09	11 10	0000	10.02	16400	40	5.63	22.0	130.0	9.2	105.0	26.0	490
82/07/27	11 40	0000	2.12	990	120	6.95	25.0	25.0	6.2	69.0	37.0	70
82/08/24	12 00	0000	2.00	889	90	6.48	20.0	25.0	8.4	91.0	26.0	90
82/09/08	12 40	0000	1.64	630	120	7.24	22.0	10.0	9.8	111.0	22.0	10

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/13	11 00	0000	24	5	116	0.43	0.060	0.700	0.160	0.100		
81/11/09	11 35	0000		20	143	0.70	0.050K	0.600	0.230	0.100		
81/12/28	12 30	0000		33	141	0.53	0.270	0.800	0.240	0.100	10K	50K
82/01/26	10 25	0000		28	115	0.58	0.270	0.700	0.180	0.090		
82/02/09	10 15	0000		53	182	0.55	0.160	0.600	0.180	0.050		
82/03/11	10 45	0000		43	200	0.54	0.120	0.600	0.170	0.050	10K	50K
82/04/06	11 10	0000	24	67	147	0.46	0.050	0.500	0.210	0.050		
82/05/04	11 30	0000		11	115	0.65	0.070	0.500	0.190	0.090		
82/06/09	11 10	0000	41	396	506	0.40	0.050K	1.000	0.230	0.050K	10K	50K
82/07/27	11 40	0000	17	6	106	0.73	0.050	0.600	0.160	0.050		
82/08/24	12 00	0000	13	7	136	0.78	0.050K	0.600	0.150	0.050		
82/09/08	12 40	0000	29	8	121	0.75	0.050K	1.700	0.130	0.050K	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/28	12 30	0000	50K	40K	100K	0.5K	100K	50K
82/03/11	10 45	0000	50K	40K	100K	0.2K	100K	50K
82/06/09	11 10	0000	50K	40K	100K	0.3	100K	50K
82/09/08	12 40	0000	50K	40K	100K		100K	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).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NC-72-1: 1968-70 (M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 191.18 ft (58.272 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Some diurnal fluctuation at low flow during growing season.

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

AVERAGE DISCHARGE.--14 years, 12.6 ft³/s (0.357 m³/s), 22.43 in/yr (570 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.--Peak discharge above base of 60 ft³/s (1.78 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 11	0015	*86	2.44	*2.40	0.732

Minimum discharge, 3.5 ft³/s (0.099 m³/s) Oct. 2, 3, gage height, 0.78 ft (0.238 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	6.4	7.6	33	13	16	10	9.9	6.2	14	29	6.0
2	4.0	6.4	11	13	12	13	9.7	9.4	5.8	8.1	10	5.8
3	4.0	6.1	7.7	32	40	12	9.8	10	5.9	6.9	7.8	5.6
4	4.3	5.9	6.7	48	27	12	9.4	9.1	6.9	6.4	6.9	5.4
5	4.3	6.1	6.2	29	18	12	9.5	8.4	16	6.5	26	5.3
6	4.0	8.1	6.0	15	21	26	9.9	8.1	8.0	6.5	28	5.4
7	4.0	6.3	5.8	13	14	37	9.4	7.8	6.5	5.9	10	5.2
8	4.0	5.8	5.8	12	13	27	11	7.8	6.2	5.6	9.2	5.3
9	4.3	5.8	5.7	11	13	16	17	7.8	5.9	5.2	12	5.4
10	4.7	5.9	5.7	11	14	14	11	7.3	28	5.4	20	5.6
11	4.7	6.1	5.8	9.9	12	13	10	7.1	50	7.0	13	5.9
12	4.5	5.8	5.8	9.9	12	13	9.7	6.8	14	8.1	14	5.9
13	4.5	5.5	5.7	11	22	13	9.3	6.5	11	8.7	11	5.1
14	4.5	5.6	6.2	13	14	18	9.1	6.3	13	13	9.8	5.0
15	4.6	5.5	20	13	12	23	9.0	6.2	9.4	13	8.5	5.3
16	4.6	5.5	20	15	13	19	8.9	6.2	8.8	10	7.7	5.0
17	4.6	6.2	8.6	16	27	15	9.6	6.7	21	9.5	7.3	5.0
18	4.6	5.8	8.0	11	25	13	14	9.0	11	7.3	7.7	5.3
19	4.5	5.5	7.6	14	16	13	9.8	19	10	6.8	8.0	5.9
20	4.6	5.5	7.1	15	14	13	12	12	8.6	7.0	7.4	6.2
21	4.8	5.4	6.7	20	13	13	15	23	8.0	6.4	6.9	7.1
22	4.8	5.5	7.6	15	12	12	11	17	11	5.9	7.0	8.9
23	5.0	5.5	7.3	20	11	11	9.6	9.8	12	5.9	6.7	6.7
24	5.3	8.6	6.9	23	10	11	9.1	9.5	8.7	8.4	6.3	6.0
25	14	7.6	24	13	9.7	11	8.8	8.7	8.1	8.0	6.1	5.6
26	16	6.3	20	12	9.4	11	13	8.1	7.2	6.5	5.7	11
27	35	6.1	10	11	24	11	18	9.4	6.9	5.7	5.8	11
28	20	6.3	9.2	10	30	11	32	10	7.9	5.4	5.8	7.1
29	8.1	6.0	13	9.8	---	11	14	7.9	7.5	11	5.7	6.4
30	7.2	5.8	9.3	9.6	---	11	11	7.0	7.9	8.7	5.8	6.2
31	6.7	---	13	9.4	---	11	---	6.6	---	10	6.0	---
TOTAL	214.4	182.9	290.0	497.6	471.1	462	349.6	288.4	337.4	242.8	321.1	185.6
MEAN	6.92	6.10	9.35	16.1	16.8	14.9	11.7	9.30	11.2	7.83	10.4	6.19
MAX	35	8.6	24	48	40	37	32	23	50	14	29	11
MIN	4.0	5.4	5.7	9.4	9.4	11	8.8	6.2	5.8	5.2	5.7	5.0
CFSM	.91	.80	1.23	2.11	2.20	1.95	1.53	1.22	1.47	1.03	1.36	.81
IN.	1.05	.89	1.41	2.43	2.30	2.25	1.70	1.41	1.64	1.18	1.57	.90

CAL YR 1981 TOTAL 2638.0 MEAN 7.23 MAX 37 MIN 3.3 CFSM .95 IN 12.86
WTR YR 1982 TOTAL 3842.9 MEAN 10.5 MAX 50 MIN 4.0 CFSM 1.38 IN 18.73

02102908 FLAT CREEK NEAR INVERNESS, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/29	15 10	0000	0.90	8	40	6.83	16.0		7.8	78.0		170
81/11/17	16 40	0000	0.85	5	40	6.95	12.0		7.8	72.0		20
81/12/09	10 47	0000	0.86	6	10	5.11	8.0	1.0	11.0	92.0	10.0K	20
82/01/20	16 10	0000	1.10	14	40	4.98	5.0		10.4	81.0		10K
82/02/18	14 20	0000	1.30	23	50	5.21	9.0		10.9	94.0		60
82/03/30	10 15	0000	1.01	11	20	5.02	11.0	3.0	9.3	84.0	11.0	10K
82/04/20	11 10	0000	0.98	10	12	4.95	14.0		10.0	96.0		50
82/05/20	11 20	0000	1.05	12	40	5.36	22.0		9.4	107.0		60
82/06/07	10 30	0000	0.89	7	15	4.34	20.0	3.0	9.2	100.0	14.0	40
82/07/20	14 20	0000	0.91	8	10	5.03	25.0	3.0	7.4	88.0		100
82/08/17	11 00	0000	0.90	8	10	5.01	25.0		6.8	82.0		30
82/09/22	11 00	0000	0.96	9	50	6.15	21.0	2.0	9.2	102.0	20.0	480

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/29	15 10	0000	5	4	68							
81/11/17	16 40	0000	5	4	65							
81/12/09	10 47	0000	1	1K	34	0.05K	0.050K	0.100K	0.050K	0.050K	10K	50K
82/01/20	16 10	0000	2	1	28							
82/02/18	14 20	0000		4	27							
82/03/30	10 15	0000		1K	20	0.07		0.100	0.050K	0.050K	10K	50K
82/04/20	11 10	0000	2	1	16							
82/05/20	11 20	0000	3	7	46							
82/06/07	10 30	0000		2	21	0.05	0.050K	0.200	0.050K	0.050K	10K	50K
82/07/20	14 20	0000	2	4	26							
82/08/17	11 00	0000	3	1	34							
82/09/22	11 00	0000	8	2	85	0.05K	0.050K	0.200	0.050K	0.050K	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/09	10 47	0000	50K	40K	100K	0.5K	100K	50K
82/03/30	10 15	0000	50K	40K	100K	0.3	100K	50K
82/06/07	10 30	0000	50K	40K	100K	0.2K	100K	50K
82/09/22	11 00	0000	50K	40K	100K	0.2	100K	50K

K Less than noted value.

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).

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.

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

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. 367). Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station.

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

AVERAGE DISCHARGE.--45 years, 4,957 ft³/s (140.4 m³/s), 13.87 in/yr (352 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, 30,700 ft³/s (869 m³/s) June 12; maximum gage height, 18.67 ft (5.691 m) June 13; minimum discharge, 408 ft³/s (11.6 m³/s) Oct. 8, 9, 10, gage height, 0.71 ft (0.216 m); minimum daily, 414 ft³/s (11.7 m³/s) Oct. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	4370	912	7330	4110	13000	2830	13600	11300	2210	4820	1100
2	479	3030	1160	14800	4040	13500	2720	9660	11700	2310	5010	1200
3	454	1940	1450	17700	5720	15300	2620	6060	9640	2390	4810	1300
4	440	1360	1500	20500	14900	14000	2720	4310	9930	2440	3850	1200
5	429	1330	1490	23500	17500	12100	2650	3050	11200	2370	3090	1100
6	425	1530	1530	27000	20100	11200	2630	2670	15600	2380	2790	1000
7	435	1330	1450	26800	18000	15700	2540	2320	17900	2430	2430	1000
8	414	1350	1260	21000	17300	19400	2420	1930	18300	2430	1900	980
9	414	1360	1140	16000	13900	21800	2590	1780	17900	2240	1680	870
10	445	1300	1060	8520	11100	20800	2920	1690	16800	1950	1670	900
11	626	1540	900	5770	8620	18600	3220	1610	22000	1760	3070	980
12	684	1340	820	4140	7320	17100	3250	1540	29700	1780	4040	980
13	706	1050	795	3210	7240	14000	2900	1480	29100	1800	4660	950
14	699	998	796	3070	7590	10900	2620	1450	25000	1910	5860	900
15	697	980	1050	3290	7590	8350	2400	1390	19100	4320	5040	850
16	706	975	2610	3450	7480	8940	2260	1330	17600	6660	4190	820
17	701	1000	8600	3710	8590	10500	2410	1290	16200	5480	3230	840
18	615	1140	8670	4100	12000	9260	2580	1320	14400	4160	2620	810
19	540	904	6990	4340	13400	7540	2760	1380	13100	3460	3720	820
20	498	775	5120	4730	15400	6660	4530	1450	13100	3100	3040	870
21	494	807	3720	6240	14800	5930	5520	1510	11900	2840	2400	920
22	517	816	3280	8620	13500	5900	5820	1900	11200	2340	2100	969
23	504	801	3070	12300	9620	6060	5700	3030	11200	1820	1700	969
24	488	829	2700	13000	5990	6360	4500	4530	11200	2250	1400	969
25	498	899	2660	15000	5090	6150	3340	5300	12400	2880	1300	969
26	634	1120	4650	14000	5260	4820	2830	6850	11300	2260	1200	977
27	1120	1180	8880	13000	5250	4270	3190	8860	7200	1870	1100	1260
28	6620	987	8900	12400	5570	3730	8290	12800	4710	1620	1050	1360
29	11300	950	7390	9190	---	3330	16200	13400	3090	3680	1000	1200
30	9930	933	6220	4720	---	3230	16500	12200	2270	7870	1000	1120
31	6880	---	5850	3930	---	3060	---	11100	---	5170	1000	---
TOTAL	49864	38924	106623	335360	286980	321490	127460	142790	426040	92180	86770	30183
MEAN	1609	1297	3439	10820	10250	10370	4249	4606	14200	2974	2799	1006
MAX	11300	4370	8900	27000	20100	21800	16500	13600	29700	7870	5860	1360
MIN	414	775	795	3070	4040	3060	2260	1290	2270	1620	1000	810
CFSM	.33	.27	.71	2.23	2.11	2.14	.88	.95	2.93	.61	.58	.21
IN.	.38	.30	.82	2.57	2.20	2.46	.98	1.09	3.27	.71	.67	.23

CAL YR 1981 TOTAL 853923 MEAN 2340 MAX 18600 MIN 414 CFSM .48 IN 6.55
WTR YR 1982 TOTAL 2044664 MEAN 5602 MAX 29700 MIN 414 CFSM 1.16 IN 15.68

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/01	16 05	0000	0.78	464	100	6.88	26.0		6.3	77.0		20
81/11/18	15 10	0000	1.46	1160	80	6.92	14.0		8.1	78.0		10K
81/12/03	16 40	0000	1.74	1490	70	6.63	13.0	8.0	8.1	76.0	18.0	40
82/01/27	13 40	0000	6.23	12300	30	5.59	4.0		10.8	82.0		190
82/02/11	15 30	0000	4.96	8260	40	5.41	10.0		11.2	99.0		50
82/03/23	15 15	0000	4.16	6090	40	7.14	15.0	20.0	10.2	100.0	18.0	170
82/04/08	15 05	0000	2.88	2390	70	6.60	13.0		8.8	83.0		20
82/05/06	15 00	0000	2.54	2650	42	6.65	16.0		9.6	96.0		80
82/06/16	14 55	0000	11.48	17200	50	6.31	23.0	70.0	5.8	66.0	34.0	300
82/07/28	10 00	0000	1.85	1630	120	6.67	24.0		6.8	80.0		30
82/08/10	14 55	0000	1.87	1660	80	7.03	24.0		6.0	71.0		50
82/09/02	15 50	0000	1.50	1200	75	6.42	22.0	8.0	5.2	60.0	26.0	20

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/01	16 05	0000	11	7	73							
81/11/18	15 10	0000		1K	98							
81/12/03	16 40	0000		13	99	0.78	0.310	0.700	0.470	0.290	10K	50K
82/01/27	13 40	0000		84	173							
82/02/11	15 30	0000		48	120							
82/03/23	15 15	0000		12	86	0.46	0.090	0.400	0.140	0.060	10K	50K
82/04/08	15 05	0000	15	13	93							
82/05/06	15 00	0000		25	120							
82/06/16	14 55	0000	9	77	153	0.43	0.080	0.600	0.200	0.050	10K	50K
82/07/28	10 00	0000	14	13	98							
82/08/10	14 55	0000	16	8	83							
82/09/02	15 50	0000	13	8	90	0.74	0.160	0.500	0.280	0.170	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/03	16 40	0000	50K	40K	100K	0.5K	100K	50K
82/03/23	15 15	0000	50K	40K	100K		100K	50K
82/06/16	14 55	0000	50K	40K	100K	0.2K	100K	50K
82/09/02	15 50	0000	50K	40K	100K		100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1969 to current year.

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

GAGE.--Water-stage recorder with concrete lock and dam control. Datum of gage is -2.90 ft (-0.884 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Water-discharge records fair. Slight regulation at high flow December 1972 to August 1981, caused by storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (see p. 367). 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 14.3 ft³/s (0.40 m³/s) for municipal water supply, most of which is returned as sewage below station. Gage height telemeter at station.

AVERAGE DISCHARGE.--13 years, 5,753 ft³/s (162.9 m³/s), 14.87 in/yr (378 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, 380 ft³/s (10.8 m³/s) Oct. 7, 1982, gage height, 14.50 ft (4.420 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,500 ft³/s (722 m³/s) June 15, gage height, 21.30 ft (6.492 m); minimum, 380 ft³/s (10.8 m³/s) Oct. 7, gage height, 14.50 ft (4.420 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	525	6530	980	6880	4990	10800	2910	15500	12600	2510	5550	1070
2	528	4330	1250	9550	4930	13500	2780	14500	12400	2760	5760	1050
3	499	2790	1600	13900	5400	14100	2830	11100	12400	2930	5630	1060
4	486	1830	1560	17000	8410	14100	2850	7060	12900	2830	4780	1160
5	481	1470	1580	19100	13400	13500	2840	4520	13100	2620	3840	1140
6	467	1390	1600	21000	16300	12700	2800	3330	13300	2600	3190	1000
7	465	1500	1620	22700	18000	12700	2620	2860	14900	2780	2790	933
8	448	1440	1480	23000	18200	14500	2500	2410	16300	2620	2280	893
9	445	1460	1250	20500	16600	16900	2680	2180	17100	2410	1840	867
10	449	1440	1130	16600	14500	18600	2900	1930	17600	2170	1670	858
11	695	1450	1040	11500	12500	19400	3210	1790	17900	1890	2140	852
12	740	1660	900	7240	10100	19300	3440	1670	18500	1820	3590	875
13	760	1450	860	4960	8930	18400	3240	1570	20600	1820	4220	923
14	770	1100	840	4050	8750	16500	2930	1460	23200	2510	5150	927
15	770	1080	1050	3970	8760	13300	2680	1410	25200	3380	5570	871
16	750	1060	1560	4070	8820	10700	2520	1350	24100	5770	4870	854
17	740	1050	4690	4190	9590	10400	2490	1290	21200	6690	4040	865
18	640	1200	8560	4380	11500	10900	2910	1400	19100	5690	3030	843
19	581	1030	8480	4750	14100	9920	3380	1620	17900	4680	3110	852
20	507	980	7010	4930	15600	8390	4380	1770	16300	3980	3490	905
21	530	840	5020	5690	16000	7210	5590	1830	14800	3560	2910	978
22	540	830	3910	7400	15300	6550	5780	2080	13200	3030	2530	1010
23	540	830	3460	9840	13900	6680	6040	2720	12300	2430	2020	1000
24	560	870	3200	12600	10500	7750	5600	3540	11800	2120	1590	1020
25	540	900	2990	14200	7010	7770	4430	4620	11700	2760	1400	1030
26	540	970	3900	15400	6000	6220	3560	6010	12100	2870	1280	1150
27	752	1270	6550	15100	6060	5120	3720	7040	10900	2350	1140	1290
28	2260	1200	9070	13700	7100	4500	5160	9680	7750	1910	1030	1340
29	8050	1050	9160	13000	---	3820	10100	11800	7870	1830	1020	1270
30	10300	1020	8000	9460	---	3450	14200	12900	3130	5300	1090	1190
31	9610	---	6780	5820	---	3250	---	12800	---	6640	1080	---
TOTAL	45968	46020	111080	346480	311250	340930	123070	155740	452150	99260	93630	30076
MEAN	1483	1534	3583	11180	11120	11000	4102	5024	15070	3202	3020	1003
MAX	10300	6530	9160	23000	18200	19400	14200	15500	25200	6690	5760	1340
MIN	445	830	840	3970	4930	3250	2490	1290	3130	1820	1020	843
CFSM	.28	.29	.68	2.13	2.12	2.09	.78	.96	2.87	.61	.58	.19
IN.	.33	.33	.79	2.45	2.20	2.41	.87	1.10	3.20	.70	.66	.21

CAL YR 1981 TOTAL 940211 MEAN 2576 MAX 16000 MIN 440 CFSM .49 IN 6.66
WTR YR 1982 TOTAL 2155654 MEAN 5906 MAX 25200 MIN 445 CFSM 1.12 IN 15.26

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, 160 micromhos Oct. 30; minimum, 55 micromhos Mar. 12.
WATER TEMPERATURES: Maximum, 29.0°C July 12, 14, 28; minimum, 3.0°C Jan. 17, 18, 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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											
05...	1030	474	95	6.7	22.0	20	7.1	K20	K48	18	2
DEC											
02...	1230	989	115	6.8	12.0	6.0	9.4	K20	K40	20	0
FEB											
03...	1145	5170	80	6.8	7.0	23	11.2	K28	350	19	0
MAR											
11...	1100	19500	61	6.1	9.5	45	10.4	440	450	15	7
MAY											
03...	1005	11700	90	6.0	17.0	38	7.7	80	88	19	6
JUL											
08...	1045	2570	80	6.2	27.0	17	6.7	96	200	19	3
SEP											
09...	1030	871	110	6.2	25.0	14	6.5	--	--	18	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)
OCT											
05...	4.2	1.8	9.7	49	1.1	3.1	19	0	16	4.7	11
DEC											
02...	4.9	1.9	14	56	1.5	3.0	25	0	21	5.3	13
FEB											
03...	4.4	1.9	6.6	41	.7	1.8	35	0	29	4.9	13
MAR											
11...	3.5	1.5	4.8	38	.6	1.6	10	0	8	13	8.5
MAY											
03...	4.6	1.8	6.5	40	.7	2.0	16	0	13	26	8.0
JUL											
08...	4.4	1.9	7.0	42	.8	2.0	19	0	16	20	8.0
SEP											
09...	4.2	1.8	9.4	50	1.1	2.2	23	0	19	18	9.0

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 1981 TO SEPTEMBER 1982

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, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT											
05...	9.1	.1	13	72	--	65	.10	92.1	--	.70	.67
DEC											
02...	11	.2	8.9	84	--	68	.11	224	--	--	.77
FEB											
03...	7.3	<.1	8.3	65	--	53	.09	907	--	--	.55
MAR											
11...	4.7	<.1	7.0	62	37	39	.08	3260	26	--	.39
MAY											
03...	6.3	<.1	7.8	76	--	45	.10	2400	--	--	.53
JUL											
08...	6.1	<.1	8.6	74	--	48	.10	513	--	--	.60
SEP											
09...	9.4	.1	9.4	60	--	56	.08	141	--	--	.80

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, 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											
05...	.200	.150	.19	.60	.65	.80	.00	.80	1.5	6.6	1.5
DEC											
02...	--	.170	.22	--	--	.39	--	--	--	--	--
FEB											
03...	--	.180	.23	--	--	.71	--	--	--	--	--
MAR											
11...	--	.070	.09	--	--	.51	--	--	--	--	--
MAY											
03...	--	.120	.15	--	--	.61	--	--	--	--	--
JUL											
08...	--	.140	.18	--	--	.40	--	--	--	--	--
SEP											
09...	--	.150	.19	--	--	1.00	--	--	--	--	--

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	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)
OCT										
05...	.260	.80	.220	--	--	--	--	--	--	--
DEC										
02...	.340	1.0	.320	.290	.89	1	0	1	<100	--
FEB										
03...	.150	.46	.100	.080	.25	1	--	<1	100	70
MAR										
11...	.140	.43	.060	.050	.15	2	0	2	100	70
MAY										
03...	.150	.46	.120	.090	.28	--	--	--	--	--
JUL										
08...	.220	.67	.180	.120	.37	--	--	--	--	--
SEP										
09...	.300	.92	.260	.250	.77	2	0	2	100	70

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL 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										
05...	--	--	--	--	--	--	--	--	--	--
DEC										
02...	48	<1	1	30	20	10	4	<1	8	4
FEB										
03...	26	<1	<1	<10	--	<10	7	<1	6	0
MAR										
11...	33	<1	<1	10	0	10	<1	<1	7	3
MAY										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	26	<1	<1	10	--	<10	<1	1	5	1

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										
05...	--	--	--	--	--	--	--	--	--	--
DEC										
02...	4	810	160	650	3	2	1	100	30	75
FEB										
03...	6	570	360	210	<1	--	<1	40	0	43
MAR										
11...	4	1400	1100	320	5	--	<1	70	40	28
MAY										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	4	1300	370	930	2	1	1	220	20	200

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, 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)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
DEC											
02...	<.1	--	<.1	3	0	3	<1	<1	<1	--	<1
FEB											
03...	.1	.0	.1	<1	--	<1	<1	<1	<1	--	<1
MAR											
11...	.1	--	--	3	2	1	<1	<1	1	0	1
SEP											
09...	.1	--	<.1	3	0	3	<1	<1	<1	--	<1

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	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)
OCT											
05...	--	--	--	<1.9	.8	3.7	<.5	3.6	<.5	.05	.05
DEC											
02...	40	20	20	--	--	--	--	--	--	--	--
FEB											
03...	40	--	<4	--	--	--	--	--	--	--	--
MAR											
11...	30	20	13	<.6	1.7	1.5	<1.3	1.4	<1.3	.40	.07
SEP											
09...	20	0	26	--	--	--	--	--	--	--	--

PHYTOPLANKTON ANALYSES, SEPTEMBER 1981

DATE	SEP 14,81
TIME	1120
TOTAL CELLS/ML	4400
DIVERSITY: DIVISION	1.5
.CLASS	1.5
..ORDER	2.0
...FAMILY	2.1
....GENUS	2.3

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..BACILLARIALES		
...NITZSCHIACEAE		
....NITZSCHIA	220	5
..EUPODISCALES		
...COSCINODISCACEAE		
....CYCLOTELLA	2400#	55
..SURIRELLALES		
...SURIRELLACEAE		
....SURIRELLA	110	2
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	180	4
...SCENEDESMACEAE		
....ACTINASTRUM	290	7
....SCENEDESMUS	140	3
....TETRASTRUM	140	3
..ZYGNEMATALES		
...DESMIDIACEAE		
....COSMARIUM	110	2
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	360	8
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..DINOKONTAE		
...PERIDINIACEAE		
....PERIDINIUM	430	10

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 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	89	81	82	118	106	111	125	121	124	101	99	100
2	87	83	85	107	105	106	122	110	115	100	90	96
3	90	86	88	113	108	111	110	108	109	103	92	97
4	92	89	90	119	113	116	111	108	109	97	84	88
5	96	86	93	123	119	120	113	111	112	84	79	81
6	99	96	98	125	122	124	114	110	113	82	73	77
7	101	98	100	128	124	126	114	108	111	76	72	73
8	102	100	101	132	128	129	109	102	105	73	70	71
9	103	101	102	133	129	130	104	101	102	73	66	68
10	103	102	102	132	130	131	113	105	109	68	65	66
11	102	100	101	133	131	132	114	111	113	69	66	68
12	103	100	101	134	132	133	111	106	108	70	68	69
13	113	102	109	133	124	130	108	106	107	70	69	70
14	118	112	116	124	118	120	112	108	110	70	68	69
15	117	116	117	125	118	122	111	109	110	70	68	69
16	116	113	115	128	124	126	113	110	111	70	68	69
17	113	107	110	126	122	124	112	104	110	70	66	68
18	120	109	114	122	118	120	124	105	115	71	66	69
19	129	122	126	125	118	122	145	119	130	70	66	69
20	131	128	129	127	125	126	141	110	120	72	69	70
21	132	130	131	126	121	124	129	119	125	72	71	71
22	131	124	128	122	114	119	118	111	114	72	71	71
23	123	114	118	114	103	108	113	110	111	78	72	74
24	118	114	115	106	103	105	123	113	118	80	73	76
25	125	118	122	107	105	106	127	123	125	79	74	75
26	127	124	125	105	102	104	126	121	124	80	78	79
27	130	127	128	112	102	107	121	112	117	84	79	81
28	132	119	129	125	112	120	119	104	109	83	81	82
29	143	117	134	124	117	122	112	101	107	86	81	84
30	160	133	145	120	115	116	109	95	100	87	84	85
31	139	118	127	---	---	---	101	97	99	90	86	88
MONTH	160	81	112	134	102	120	145	95	113	103	65	77

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	89	83	86	79	76	77	92	88	90	98	88	91
2	84	81	82	79	74	77	90	87	88	88	84	86
3	80	77	79	77	69	71	90	87	89	92	86	90
4	79	74	77	70	67	68	90	88	89	100	92	97
5	78	74	76	78	69	75	91	88	89	103	100	102
6	83	74	78	82	77	80	92	88	90	105	102	104
7	76	69	72	84	81	83	90	86	88	105	104	105
8	70	68	69	85	81	83	93	89	92	104	103	104
9	68	66	67	80	66	74	94	90	92	103	101	103
10	70	67	68	67	59	63	94	90	92	103	101	102
11	73	70	71	62	59	61	95	90	93	103	100	102
12	76	73	75	67	55	64	93	89	91	102	97	101
13	77	75	76	72	67	70	91	89	90	98	96	97
14	77	74	76	77	73	75	91	89	90	99	96	97
15	76	72	74	79	77	78	92	89	90	106	100	104
16	73	72	73	79	77	78	94	89	92	106	104	105
17	74	73	73	80	77	78	96	85	94	106	104	105
18	75	74	74	77	75	77	100	96	98	105	103	104
19	81	76	78	77	76	77	101	98	100	105	103	104
20	81	73	78	78	76	77	102	98	100	104	100	102
21	78	73	75	78	76	77	105	99	102	102	99	101
22	83	78	80	78	75	76	106	102	104	108	102	106
23	83	81	81	76	73	75	107	101	103	109	107	108
24	83	79	81	77	75	76	108	100	105	109	108	109
25	82	79	81	80	76	78	106	100	103	108	101	104
26	84	81	82	87	79	83	106	105	106	105	102	103
27	84	82	83	92	85	88	106	101	104	105	94	99
28	83	78	80	96	90	94	100	89	98	111	93	104
29	---	---	---	96	93	95	104	97	99	117	95	107
30	---	---	---	95	91	94	103	94	98	105	84	96
31	---	---	---	93	91	92	---	---	---	93	83	89
MONTH	89	66	77	96	55	78	108	85	95	117	83	101

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	93	86	88	---	---	86	88	72	80	108	101	104
2	96	89	93	---	---	85	78	73	75	106	97	100
3	93	90	91	---	---	85	80	61	71	101	97	99
4	99	93	95	---	---	86	66	60	63	99	92	95
5	102	85	99	---	---	87	68	64	65	97	92	95
6	107	102	105	---	---	86	73	67	69	102	98	100
7	107	87	98	---	---	86	76	69	72	106	101	103
8	86	79	82	81	79	80	79	75	77	109	105	107
9	78	76	77	83	76	81	82	79	81	116	108	111
10	---	---	70	84	83	84	83	80	81	114	110	112
11	---	---	64	86	84	85	85	81	83	122	113	116
12	---	---	63	89	86	88	92	84	86	113	107	110
13	---	---	62	91	88	89	97	90	95	111	106	107
14	---	---	61	93	90	91	89	83	86	110	108	109
15	---	---	60	94	88	90	99	84	90	122	111	117
16	---	---	60	97	92	95	99	81	94	130	122	126
17	---	---	62	97	85	91	79	70	73	135	126	129
18	---	---	63	91	86	89	95	76	85	136	129	132
19	---	---	64	93	91	92	100	95	98	135	122	127
20	---	---	64	92	89	90	98	93	95	123	117	120
21	---	---	65	89	85	86	104	94	97	129	121	126
22	---	---	66	86	83	85	107	100	103	136	128	133
23	---	---	67	89	83	84	110	107	108	137	133	135
24	---	---	68	89	85	87	118	107	109	142	133	136
25	---	---	68	92	86	87	114	107	109	137	125	131
26	---	---	68	88	86	87	114	107	109	133	124	128
27	---	---	69	87	76	81	108	104	106	140	133	136
28	---	---	72	80	76	77	112	104	107	140	132	135
29	---	---	78	83	79	81	115	108	111	136	131	134
30	---	---	84	92	81	87	115	106	110	139	132	136
31	---	---	---	91	84	86	112	103	106	---	---	---
MONTH	107	76	74	97	76	86	118	60	90	142	92	118
YEAR	160	55	95									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.0	23.0	23.5	16.0	15.5	15.5	11.5	11.0	11.5	7.0	7.0	7.0
2	24.0	20.5	23.0	16.0	15.5	16.0	12.0	11.0	12.0	7.0	7.0	7.0
3	23.0	22.5	22.5	16.5	16.0	16.0	12.0	11.5	12.0	7.0	6.5	6.5
4	22.5	22.0	22.5	16.5	16.0	16.0	12.0	11.5	11.5	7.0	6.5	7.0
5	22.5	22.0	22.0	16.5	16.0	16.5	11.5	11.0	11.0	7.0	6.5	7.0
6	23.0	18.5	22.0	16.5	16.0	16.5	11.0	10.5	10.5	7.5	6.5	7.0
7	22.5	22.0	22.0	16.5	16.0	16.0	10.5	10.0	10.0	8.0	7.5	8.0
8	22.0	21.5	22.0	16.0	15.5	16.0	10.0	10.0	10.0	8.0	8.0	8.0
9	21.5	21.0	21.0	16.0	15.5	15.5	10.0	9.0	9.5	8.0	7.5	7.5
10	21.0	20.5	21.0	16.0	15.5	15.5	9.5	8.5	9.0	8.0	7.0	7.5
11	20.5	20.5	20.5	15.5	15.0	15.0	8.5	8.0	8.5	7.0	5.5	6.0
12	20.5	20.0	20.0	15.0	14.5	15.0	8.0	8.0	8.0	5.5	5.0	5.0
13	20.0	19.5	20.0	14.5	14.0	14.5	8.0	7.5	7.5	5.0	4.5	5.0
14	19.5	19.5	19.5	14.0	14.0	14.0	8.0	7.5	7.5	5.0	4.0	4.5
15	19.5	19.0	19.5	14.0	14.0	14.0	8.0	8.0	8.0	4.5	4.0	4.0
16	19.5	19.0	19.0	14.0	13.5	14.0	8.0	7.5	8.0	4.0	3.5	3.5
17	19.5	19.0	19.0	14.0	13.5	14.0	8.0	7.5	7.5	3.5	3.0	3.0
18	20.0	19.0	19.5	14.0	13.5	14.0	7.5	6.5	7.0	3.5	3.0	3.0
19	19.5	18.5	19.0	14.0	13.5	13.5	6.5	5.5	6.0	3.5	3.0	3.5
20	18.5	18.0	18.5	14.0	13.5	14.0	6.0	5.0	5.5	4.0	3.5	4.0
21	19.0	18.0	18.5	13.5	13.0	13.5	5.0	4.5	5.0	4.0	4.0	4.0
22	18.5	18.0	18.0	13.5	12.5	13.0	5.5	5.0	5.5	4.5	4.0	4.0
23	19.0	17.5	18.5	12.5	12.0	12.5	6.5	5.5	6.0	4.5	4.0	4.5
24	18.5	17.5	18.0	12.0	12.0	12.0	6.5	4.5	6.5	5.0	4.5	4.5
25	17.5	17.5	17.5	12.0	11.5	11.5	6.5	6.5	6.5	5.0	4.5	4.5
26	18.0	17.0	17.5	11.5	11.0	11.5	6.5	6.5	6.5	4.5	4.5	4.5
27	18.5	17.5	18.0	11.5	11.0	11.5	7.0	6.5	6.5	4.5	4.0	4.0
28	18.5	17.5	18.0	11.5	11.5	11.5	8.0	7.0	7.5	4.5	4.0	4.0
29	18.0	17.0	17.5	11.5	11.5	11.5	8.0	7.0	7.5	4.5	4.0	4.0
30	17.0	16.0	16.5	11.5	11.0	11.5	7.0	6.5	7.0	4.0	3.5	4.0
31	16.0	15.5	16.0	---	---	---	7.5	7.0	7.0	5.5	4.0	4.5
MONTH	24.0	15.5	19.5	16.5	11.0	14.0	12.0	4.5	8.0	8.0	3.0	5.0

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	5.5	9.0	8.0	9.0	15.0	14.0	14.0	18.0	16.5	17.0
2	6.5	6.0	6.0	8.5	7.5	8.0	15.0	14.5	15.0	17.0	16.5	17.0
3	7.5	6.5	7.0	8.0	7.5	8.0	15.5	15.0	15.0	18.0	17.0	17.5
4	8.0	7.0	7.5	8.5	8.0	8.0	16.0	15.0	15.5	18.5	17.5	18.0
5	8.5	7.5	8.0	9.5	8.5	9.0	15.5	15.0	15.5	19.0	18.5	18.5
6	8.0	7.0	7.5	10.0	9.0	9.5	15.5	15.5	15.5	19.5	19.0	19.0
7	8.5	8.0	8.0	10.0	9.0	9.5	15.5	15.0	15.5	20.0	19.0	19.5
8	8.5	8.0	8.0	10.0	9.5	9.5	15.5	14.5	15.0	20.5	19.5	20.0
9	9.0	8.5	8.5	10.0	9.0	9.5	15.0	14.5	14.5	21.0	20.0	20.5
10	9.0	8.5	8.5	10.0	9.5	9.5	15.0	14.5	14.5	21.5	20.5	21.0
11	8.5	8.0	8.0	10.0	9.5	9.5	15.0	14.0	14.5	21.5	20.5	21.0
12	8.5	8.0	8.0	11.0	9.5	10.0	15.0	14.0	14.5	22.0	21.0	21.5
13	8.5	8.0	8.0	11.5	10.5	10.5	15.0	14.0	14.5	22.5	21.5	22.0
14	8.5	8.0	8.0	12.0	11.5	12.0	15.0	14.5	14.0	23.5	22.0	22.5
15	9.0	8.0	8.5	12.5	12.0	12.5	15.5	14.5	15.0	23.5	22.0	23.0
16	9.5	8.5	9.0	13.0	12.0	12.5	16.0	15.0	15.5	24.0	22.5	23.5
17	10.0	9.0	9.5	13.0	12.5	13.0	17.0	16.0	16.5	24.0	23.0	23.5
18	10.5	10.0	10.0	13.0	12.5	13.0	18.0	17.0	17.5	24.0	23.5	24.0
19	10.5	10.0	10.0	13.0	12.0	12.5	18.5	18.0	18.0	24.5	24.0	24.0
20	10.5	9.5	10.0	13.5	13.0	13.5	18.5	18.5	18.5	24.5	24.0	24.0
21	10.5	10.0	10.0	14.5	13.5	14.0	19.0	18.5	19.0	24.5	24.5	24.5
22	10.0	9.5	10.0	15.0	14.5	14.5	19.5	18.5	19.0	24.5	24.5	24.5
23	10.5	9.5	10.0	15.0	14.5	15.0	18.5	17.0	17.5	25.0	24.5	24.5
24	11.0	10.0	10.5	15.0	14.0	14.5	17.0	16.5	17.0	25.0	24.5	25.0
25	11.0	10.0	10.5	14.5	14.0	14.5	17.0	16.5	16.5	26.0	25.0	25.0
26	10.5	9.5	10.0	15.0	14.0	14.5	17.0	17.0	17.0	25.5	25.0	25.5
27	9.5	9.0	9.5	14.5	14.0	14.0	17.5	17.0	17.0	25.5	25.0	25.0
28	9.5	9.0	9.0	14.0	13.5	14.0	18.0	17.0	17.5	25.0	24.0	24.5
29	---	---	---	13.5	13.0	13.5	18.5	17.0	17.5	24.0	23.0	23.5
30	---	---	---	14.0	13.0	13.5	18.5	17.5	18.5	23.5	22.5	23.0
31	---	---	---	14.5	13.5	14.0	---	---	---	24.0	23.0	23.5
MONTH	11.0	5.5	8.5	15.0	7.5	12.0	19.5	14.0	16.0	26.0	16.5	22.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	23.5	24.0	---	---	---	26.0	25.0	25.5	27.0	25.5	26.0
2	24.5	24.0	24.5	---	---	---	25.5	24.0	24.5	27.0	25.5	26.5
3	24.5	24.5	24.5	---	---	---	24.5	23.5	24.0	27.0	26.0	26.5
4	24.5	24.0	24.5	---	---	---	24.5	23.5	24.0	27.0	26.0	26.5
5	24.5	24.0	24.0	---	---	---	25.5	24.0	24.5	27.0	25.5	26.0
6	24.5	24.0	24.0	---	---	---	25.0	24.0	24.5	25.5	25.0	25.5
7	24.5	23.5	24.0	---	---	---	25.5	24.5	25.0	25.5	25.0	25.5
8	23.5	22.5	23.0	27.5	27.0	27.0	26.0	25.0	26.0	26.0	25.0	25.5
9	22.5	22.5	22.5	27.5	27.0	27.0	26.5	25.5	26.0	25.5	24.5	25.0
10	---	---	---	28.5	27.0	27.5	26.5	26.0	26.5	25.5	24.5	25.0
11	---	---	---	28.5	27.0	27.5	27.0	26.5	26.5	27.0	24.0	25.0
12	---	---	---	29.0	27.5	28.0	27.0	26.5	26.5	25.5	24.0	24.5
13	---	---	---	28.5	28.0	28.0	26.5	26.5	26.5	25.5	24.5	25.0
14	---	---	---	29.0	27.5	28.0	26.5	26.0	26.5	25.0	24.0	24.5
15	---	---	---	28.0	27.0	27.5	26.5	26.0	26.0	24.5	24.0	24.5
16	---	---	---	28.0	27.5	27.5	26.0	25.0	25.5	25.0	24.0	24.5
17	---	---	---	27.5	26.5	27.0	25.0	24.5	25.0	25.5	24.5	25.0
18	---	---	---	26.5	26.0	26.5	25.0	24.5	25.0	25.5	24.5	25.0
19	---	---	---	26.5	26.0	26.0	25.5	25.0	25.0	25.0	25.0	25.0
20	---	---	---	27.0	25.5	26.5	25.5	25.0	25.0	25.0	24.0	24.5
21	---	---	---	27.5	26.5	27.0	26.0	25.0	25.5	24.5	23.5	24.0
22	---	---	---	27.5	27.0	27.0	26.5	25.5	26.0	24.5	23.0	24.0
23	---	---	---	28.0	27.0	27.5	26.5	25.5	26.0	23.5	23.0	23.5
24	---	---	---	28.0	27.5	27.5	26.5	26.0	26.0	23.5	22.5	23.0
25	---	---	---	28.5	27.5	28.0	27.0	26.0	26.5	23.5	22.0	23.0
26	---	---	---	28.5	27.5	28.0	27.0	26.5	26.5	23.0	21.5	22.0
27	---	---	---	28.5	28.0	28.0	27.0	26.5	27.0	22.0	21.0	21.5
28	---	---	---	29.0	28.0	28.5	27.5	27.0	27.0	22.0	21.0	21.5
29	---	---	---	28.5	26.5	27.5	27.0	26.5	27.0	21.5	21.0	21.0
30	---	---	---	26.5	26.0	26.5	27.0	26.0	26.5	21.0	20.5	21.0
31	---	---	---	26.5	25.5	26.0	27.0	26.0	26.5	---	---	---
MONTH	24.5	22.5	24.0	29.0	25.5	27.5	27.5	23.5	26.0	27.0	20.5	24.5
YEAR	29.0	3.0	16.5									

02105769 CAPE FEAR RIVER AT LOCK 1, NEAR KELLY, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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					
05...	1030	474	7	9.0	96
DEC					
02...	1230	989	11	29	93
FEB					
03...	1145	5170	15	209	98
MAR					
11...	1100	19500	54	2840	91
JUL					
08...	1045	2570	17	118	86
SEP					
09...	1030	871	8	19	97

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/01	14 00	0000	14.71	528	85	6.99	26.0	15.0	7.3	88.0	44.0	10
81/11/18	13 40	0000	15.16	1010	90	6.94	14.0	10.0	7.7	74.0		
81/12/03	15 00	0000	15.38	1300	80	6.71	14.0	7.0	7.9	76.0	18.0	20
82/01/27	11 45	0000	19.55	15100	30	5.73	4.0	55.0	10.9	83.0	48.0	130
82/02/11	12 55	0000	19.01	12500	50	5.43	10.0	60.0	11.2	99.0	24.0	40
82/03/23	13 50	0000	17.55	6540	50	7.08	14.0	20.0	10.2	98.0	21.0	100
82/04/08	13 30	0000	15.98	2430	70	6.66	13.0	10.0	8.8	82.0	13.0	10K
82/05/06	13 50	0000	16.40	3270	42	6.69	16.0	15.0	9.8	98.0	30.0	10
82/06/16	13 40	0000	21.07	24000	57	6.17	23.0	70.0	5.4	62.0	40.0	60
82/07/28	12 30	0000	15.78	1930	90	6.52	25.0	20.0	6.6	79.0	25.0	20
82/08/10	13 50	0000	15.60	1670	80	6.68	25.0	10.0	5.8	69.0	33.0	10K
82/09/02	14 20	0000	15.22	1060	80	6.45	22.0	15.0	5.4	61.0	30.0	10

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/01	14 00	0000		12	66							
81/11/18	13 40	0000		3	107							
81/12/03	15 00	0000		2	94	0.78	0.050K	0.400	0.340	0.250	10	50K
82/01/27	11 45	0000		32	117	0.59	0.210	0.600	0.150	0.060		
82/02/11	12 55	0000		56	129	0.48	0.090	0.400	0.160	0.050K		
82/03/23	13 50	0000		17	95	0.46	0.090	0.400	0.130	0.050K	10K	50K
82/04/08	13 30	0000	16	7	140	0.62	0.170	0.400	0.220	0.110		
82/05/06	13 50	0000		5	101	0.62	0.100	0.700	0.160	0.080		
82/06/16	13 40	0000	10	46	136	0.37	0.050K	0.600	0.180	0.050	10K	50K
82/07/28	12 30	0000	10	8	74	0.70	0.090	0.600	0.220	0.110	10K	
82/08/10	13 50	0000	15	5	84	0.53	0.050K	0.600	0.180	0.080		
82/09/02	14 20	0000	14	16	100	0.73	0.130	0.500	0.220	0.120	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/03	15 00	0000	50K	40K	100K	0.5K	100K	50K
82/03/23	13 50	0000	50K	40K	100K	0.2K	100K	50K
82/06/16	13 40	0000	50K	40K	100K	0.2K	100K	50K
82/09/02	14 20	0000	50K	40K	100K		100K	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).

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 80.52 ft (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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--32 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, 958 ft³/s (27.1 m³/s) Aug. 1, gage height, 7.66 ft (2.335 m); minimum, 9.8 ft³/s (0.28 m³/s) Oct. 15, 16, gage height, 2.04 ft (0.622 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	35	24	167	207	269	88	153	70	43	909	17
2	12	30	35	156	201	284	84	134	46	54	683	16
3	12	28	49	206	214	303	80	109	42	46	483	16
4	11	26	51	534	229	275	76	90	40	38	397	19
5	12	24	44	542	231	237	70	80	69	301	321	34
6	12	25	35	570	253	219	69	65	58	385	235	42
7	12	26	30	575	271	230	66	54	54	235	178	31
8	12	26	27	475	273	246	65	47	40	200	112	22
9	11	24	25	376	272	279	86	43	30	115	79	18
10	11	23	24	308	312	280	93	39	58	49	95	16
11	11	22	23	273	311	254	93	34	197	66	100	16
12	11	22	22	225	300	237	83	31	148	65	153	17
13	11	22	21	184	324	225	71	28	111	60	174	17
14	10	21	28	179	324	215	63	25	101	175	161	15
15	9.9	20	82	183	303	208	59	22	75	206	140	13
16	10	20	104	187	320	210	55	20	62	207	99	14
17	9.9	22	99	193	368	217	55	19	54	159	63	16
18	11	24	107	194	421	233	109	24	71	153	53	16
19	12	23	105	198	416	251	106	23	111	209	55	15
20	12	23	75	196	404	239	103	24	105	155	51	26
21	12	22	58	200	376	219	110	25	96	97	53	39
22	12	21	50	218	335	200	97	26	85	83	53	37
23	12	23	48	233	293	180	85	23	76	56	44	33
24	12	31	49	317	253	169	70	20	59	59	38	25
25	14	34	111	353	221	153	59	37	49	67	32	20
26	19	33	181	349	205	138	67	51	38	103	29	48
27	33	30	180	366	203	125	104	72	30	139	24	82
28	58	27	181	337	253	113	134	83	31	82	22	79
29	59	25	192	306	---	103	145	89	33	80	21	59
30	57	23	190	257	---	96	155	87	29	146	19	37
31	43	---	168	220	---	91	---	83	---	436	18	---
TOTAL	556.8	755	2418	9077	8093	6498	2600	1660	2068	4269	4894	855
MEAN	18.0	25.2	78.0	293	289	210	86.7	53.5	68.9	138	158	28.5
MAX	59	35	192	575	421	303	155	153	197	436	909	82
MIN	9.9	20	21	156	201	91	55	19	29	38	18	13
CFSM	.19	.27	.84	3.16	3.11	2.26	.93	.58	.74	1.49	1.70	.31
IN.	.22	.30	.97	3.64	3.24	2.60	1.04	.67	.83	1.71	1.96	.34

CAL YR 1981 TOTAL 25837.2 MEAN 70.8 MAX 1450 MIN 1.4 CFSM .76 IN 10.36
WTR YR 1982 TOTAL 43743.8 MEAN 120 MAX 909 MIN 9.9 CFSM 1.29 IN 17.54

02106000 LITTLE COHARIE CREEK NEAR ROSEBORO, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	12 55	0000	2.13	12	71	6.74	16.0		7.9	79.0		70
81/11/18	10 35	0000	3.00	24	60	6.62	14.0		8.7	83.0		100
81/12/03	11 00	0000	3.88	49	50	6.11	11.0	2.0	8.3	77.0	28.0	80
82/01/27	09 45	0000	6.70	377	40	5.25	4.0		10.4	79.0		20
82/02/11	09 30	0000	6.51	313	50	5.63	9.0		10.9	94.0		130
82/03/23	10 25	0000	5.81	176	40	7.18	13.0	2.0	10.2	96.0	35.0	20
82/04/08	10 00	0000	4.04	64	50	6.17	10.0		9.8	87.0		30
82/05/06	09 30	0000	4.10	67	35	6.01	15.0		9.4	92.0		30
82/06/16	10 40	0000	4.05	64	62	5.80	23.0	3.0	6.9	79.0	49.0	120
82/07/28	14 10	0000	3.91	59	60	5.80	26.0		6.8	83.0		90
82/08/10	10 00	0000	4.76	97	50	6.02	24.0		8.4	99.0		220
82/09/02	11 00	0000	2.29	16	60	6.28	22.0	2.0	7.2	82.0	36.0	380

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	12 55	0000	6	2	57							
81/11/18	10 35	0000	6	1	70							
81/12/03	11 00	0000	4	1K	7	0.23	0.160	0.500	0.100	0.050	10K	50K
82/01/27	09 45	0000	6	2	68							
82/02/11	09 30	0000	7	4	72							
82/03/23	10 25	0000	7	4	64	0.27	0.090	0.500	0.070	0.050K	10K	50K
82/04/08	10 00	0000	5	3	60							
82/05/06	09 30	0000	3	4	80							
82/06/16	10 40	0000	6	2	83	0.35	0.050	0.700	0.140	0.060	10K	50K
82/07/28	14 10	0000	7	7	81							
82/08/10	10 00	0000	8	11	97							
82/09/02	11 00	0000	11	2	72	0.61	0.130	0.600	0.190	0.110	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/03	11 00	0000	50K	40K	100K	0.5K	100K	50K
82/03/09		0000				0.2K		
82/03/23	10 25	0000	50K	40K	100K		100K	50K
82/06/16	10 40	0000	50K	40K	100K	0.2K	100K	50K
82/09/02	11 00	0000	50K	40K	100K		100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1723: 1955(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.61 ft (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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--31 years, 784 ft³/s (22.20 m³/s), 15.75 in/yr (400 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, 3,020 ft³/s (85.5 m³/s) Jan. 8, gage height, 13.95 ft (4.252 m); minimum, 92 ft³/s (2.61 m³/s) Oct. 21, gage height, 2.04 ft (0.622 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	260	217	1240	1550	1580	603	1040	328	226	1140	136
2	144	232	248	1290	1490	1660	580	891	302	225	1360	131
3	134	214	371	1340	1510	1700	556	794	260	227	1530	127
4	126	202	397	1600	1570	1700	532	737	231	221	1750	222
5	120	190	368	1880	1620	1650	499	659	413	210	1900	441
6	116	191	336	2170	1630	1550	483	559	666	317	1810	329
7	113	187	305	2660	1610	1500	473	472	584	388	1570	310
8	106	179	280	2990	1540	1490	464	403	401	454	1340	323
9	102	174	259	2930	1440	1500	525	359	291	514	1130	265
10	100	171	243	2670	1420	1490	616	321	255	510	805	194
11	101	171	233	2360	1460	1460	609	285	569	409	533	161
12	101	172	222	2050	1530	1410	569	256	930	304	903	150
13	101	171	213	1770	1640	1350	527	233	1060	303	1470	142
14	96	168	223	1590	1780	1290	483	212	904	465	1560	135
15	95	167	381	1510	1880	1250	446	193	694	786	1480	124
16	93	165	673	1460	1950	1270	416	177	517	1030	1330	120
17	93	165	791	1400	2090	1310	392	165	394	1060	1090	119
18	93	174	775	1320	2190	1330	459	158	370	979	811	116
19	94	183	775	1210	2260	1320	660	154	751	1070	649	119
20	93	187	755	1130	2300	1300	692	163	1120	958	516	168
21	93	186	674	1120	2310	1250	713	167	1230	810	419	271
22	95	188	586	1200	2250	1230	710	182	1130	686	369	330
23	99	190	528	1320	2140	1200	641	188	816	581	324	280
24	99	194	483	1460	1970	1110	568	188	611	447	280	241
25	101	230	558	1570	1790	1010	502	183	491	484	246	205
26	112	269	986	1660	1610	916	503	177	398	422	217	242
27	154	268	1180	1710	1480	829	748	299	331	376	196	538
28	276	253	1260	1740	1490	750	1030	676	288	345	175	638
29	343	235	1270	1740	---	691	1140	775	270	331	161	547
30	319	224	1270	1690	---	652	1140	578	251	650	153	454
31	291	---	1230	1620	---	623	---	420	---	955	145	---
TOTAL	4155	5960	18090	53400	49500	39371	18279	12064	16856	16743	27362	7578
MEAN	134	199	584	1723	1768	1270	609	389	562	540	883	253
MAX	343	269	1270	2990	2310	1700	1140	1040	1230	1070	1900	638
MIN	93	165	213	1120	1420	623	392	154	231	210	145	116
CFSM	.20	.29	.86	2.55	2.62	1.88	.90	.58	.83	.80	1.31	.37
IN.	.23	.33	1.00	2.94	2.72	2.17	1.01	.66	.93	.92	1.51	.42

CAL YR 1981 TOTAL 214635 MEAN 588 MAX 7350 MIN 72 CFSM .87 IN 11.81
WTR YR 1982 TOTAL 269358 MEAN 738 MAX 2990 MIN 93 CFSM 1.09 IN 14.82

02106500 BLACK RIVER NEAR TOMAHAWK, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	15 10	0000	2.15	101	100	6.72	16.0		8.2	82.0		190
81/11/18	12 20	0000	2.64	175	70	7.09	12.0		9.7	90.0		60
81/12/03	13 00	0000	3.88	383	65	6.67	12.0	4.0	8.8	81.0	28.0	180
82/01/27	10 55	0000	10.15	1710	40	5.44	3.0		10.6	79.0		130
82/02/11	11 00	0000	9.12	1460	50	5.44	8.0		11.0	92.0		450
82/03/23	12 25	0000	8.31	1260	40	7.21	14.0	3.0	10.4	100.0	27.0	30
82/04/08	11 35	0000	4.48	470	60	6.48	10.0		9.4	83.0		30
82/05/06	13 00	0000	5.06	555	42	6.56	16.0		9.8	98.0		190
82/06/16	13 00	0000	4.76	544	73	6.40	23.0	5.0	7.3	84.0	35.0	30
82/07/28	13 50	0000	3.60	352	90	6.74	26.0		7.0	85.0		70
82/08/10	13 00	0000	6.33	782	60	6.07	24.0		6.0	71.0		90
82/09/02	13 00	0000	2.23	101	85	6.60	22.0	2.0	7.6	86.0	26.0	20

DATE FROM TO	TIME OF DAY	DEPTH FEET	1 ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	15 10	0000	7	0	2							
81/11/18	12 20	0000	8	1	86							
81/12/03	13 00	0000	13	1K	59	0.80	0.320	0.600	0.160	0.100	10K	50K
82/01/27	10 55	0000	5	5	75							
82/02/11	11 00	0000	5	8	83							
82/03/23	12 25	0000		5	68	0.57	0.050	0.500	0.090	0.050K	10K	50K
82/04/08	11 35	0000	10	3	74							
82/05/06	13 00	0000	4	10	70							
82/06/16	13 00	0000	11	11	82	0.57	0.050K	0.500	0.190	0.080	10K	50K
82/07/28	13 50	0000	17	8	78							
82/08/10	13 00	0000	9	9	94							
82/09/02	13 00	0000	13	1K	88	0.73	0.050K	0.300	0.190	0.110	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/03	13 00	0000	50K	40K	100K	0.5K	100K	50K
82/03/09		0000				0.2K		
82/03/23	12 25	0000	50K	40K	100K		100K	50K
82/06/16	13 00	0000	50K	40K	100	0.2K	100K	50K
82/09/02	13 00	0000	50K	40K	100K		100K	50K

K Less than noted value.

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 mi² (982 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WDR NC-81-1: 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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--31 years, 418 ft³/s (11.84 m³/s), 14.98 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft³/s (167 m³/s) Oct. 10, 1964, gage height, 14.32 ft (4.365 m); minimum, 0.1 ft³/s (0.003 m³/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, 1,670 ft³/s (47.3 m³/s) Jan. 10, gage height, 10.86 ft (3.310 m); minimum, 12 ft³/s (0.34 m³/s) Oct. 24, 25; minimum gage height, 2.68 ft (0.817 m) Oct. 21, 22, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	58	54	502	985	922	385	431	418	165	359	55
2	40	57	63	501	929	910	357	473	383	151	465	50
3	35	53	74	535	899	903	329	500	338	151	694	44
4	31	49	79	696	865	897	305	504	291	179	1120	54
5	29	45	82	965	834	881	281	537	300	253	1340	53
6	27	44	82	1250	815	875	262	589	312	344	1310	43
7	24	43	80	1490	807	896	245	601	308	394	1160	35
8	22	42	78	1620	818	929	230	566	295	401	1010	31
9	20	41	77	1650	864	953	235	502	275	360	883	27
10	19	41	76	1670	955	963	242	412	262	255	736	25
11	18	40	76	1630	1080	960	242	320	307	175	607	24
12	17	39	75	1520	1190	962	238	248	456	160	599	24
13	16	38	73	1360	1270	971	229	195	648	162	593	23
14	15	36	77	1220	1240	1000	217	158	707	209	540	20
15	15	36	124	1090	1170	1040	202	133	645	316	460	19
16	14	34	178	952	1130	1050	187	114	570	532	357	19
17	14	35	190	844	1140	1040	178	100	520	651	271	18
18	14	37	192	753	1140	987	215	90	543	638	219	17
19	13	37	199	684	1150	930	256	82	625	584	201	17
20	13	37	200	651	1200	880	276	76	668	530	202	20
21	13	39	193	649	1200	844	293	81	648	452	182	44
22	13	40	188	665	1160	826	297	121	596	352	168	77
23	13	38	186	705	1100	810	282	176	530	276	167	68
24	12	41	188	784	1040	778	264	214	477	288	160	55
25	12	49	234	872	990	738	247	219	429	299	145	43
26	15	53	320	967	927	688	242	200	366	268	126	47
27	21	53	389	1050	908	633	277	270	307	237	108	95
28	40	54	431	1110	926	578	335	420	271	235	95	121
29	50	53	469	1120	---	519	368	381	236	254	84	112
30	53	52	490	1080	---	463	395	385	198	287	72	92
31	58	---	490	1030	---	420	---	433	---	292	62	---
TOTAL	741	1314	5707	31615	28732	26246	8111	9531	12929	9850	14495	1372
MEAN	23.9	43.8	184	1020	1026	847	270	307	431	318	468	45.7
MAX	58	58	490	1670	1270	1050	395	601	707	651	1340	121
MIN	12	34	54	501	807	420	178	76	198	151	62	17
CFSM	.06	.12	.49	2.69	2.71	2.24	.71	.81	1.14	.84	1.24	.12
IN.	.07	.13	.56	3.10	2.82	2.58	.80	.94	1.27	.97	1.42	.13

CAL YR 1981 TOTAL 72751.5 MEAN 199 MAX 2290 MIN 8.7 CFSM .53 IN 7.14
WTR YR 1982 TOTAL 150643.0 MEAN 413 MAX 1670 MIN 12 CFSM 1.09 IN 14.79

02107000 SOUTH RIVER NEAR PARKERSBURG, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	14 20	0000	2.89	17	59	5.92	16.0		5.8	58.0		10
81/11/18	11 30	0000	3.52	36	50	6.66	12.0		8.5	79.0		30
81/12/03	12 20	0000	4.46	75	50	5.93	11.0	2.0	8.7	78.0	27.0	10
82/01/27	10 25	0000	9.87	1040	40	5.63	3.0		10.8	80.0		10
82/02/11	10 25	0000	9.90	1070	40	5.23	9.0		11.4	98.0		10
82/03/23	11 40	0000	9.29	810	40	7.11	13.0	2.0	10.4	98.0	41.0	10K
82/04/08	11 00	0000	6.62	228	40	5.49	10.0		9.6	85.0		10
82/05/06	10 40	0000	8.75	591	35	4.98	16.0		10.0	100.0		30
82/06/16	12 20	0000	6.48	569	52	4.93	23.0	2.0	6.0	70.0	69.0	40
82/07/28	13 00	0000	6.53	236	70	5.98	25.0		6.5	77.0		80
82/08/10	11 00	0000	9.19	743	45	5.29	24.0		6.4	75.0		40
82/09/02	12 15	0000	3.84	50	50	5.80	22.0	2.0	7.4	84.0	64.0	30

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	14 20	0000	3	1	12							
81/11/18	11 30	0000		1	84							
81/12/03	12 20	0000	9	1K	43	0.05K	0.050K	0.400	0.050K	0.050K	10K	50K
82/01/27	10 25	0000	7	1	68							
82/02/11	10 25	0000	4	4	69							
82/03/23	11 40	0000	5	3	71	0.05K	0.050K	0.400	0.050K	0.050K	10K	50K
82/04/08	11 00	0000	2	4	64							
82/05/06	10 40	0000	2	5	92							
82/06/16	12 20	0000	2	1	83	0.07	0.050K	0.600	0.050	0.050K	10K	50K
82/07/28	13 00	0000	9	6	82							
82/08/10	11 00	0000	3	6	95							
82/09/02	12 15	0000	4	3	106	0.22	0.050K	0.600	0.100	0.050K	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/03	12 20	0000	50K	40K	100K	0.5K	100K	50K
82/03/09		0000				0.2K		
82/03/23	11 40	0000	50K	40K	100K	0.2K	100K	50K
82/06/16	12 20	0000	50K	40K	100	0.2K	100K	50K
82/09/02	12 15	0000	50K		100K		100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1940 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 17.28 ft (5.267 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good.

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

AVERAGE DISCHARGE.--42 years, 725 ft³/s (20.53 m³/s), 16.44 in/yr (418 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, 3,150 ft³/s (89.2 m³/s) Jan. 7, gage height, 11.67 ft (3.557 m); minimum, 30 ft³/s (0.85 m³/s) Oct. 20, 21; minimum gage height, 1.50 ft (0.457 m) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	71	106	854	988	1010	355	1310	147	115	1870	69
2	57	69	112	1090	1050	1050	335	1060	193	101	2050	63
3	54	68	127	1680	1280	1060	318	796	256	90	1880	59
4	51	67	153	2000	1420	1030	296	634	219	84	1530	84
5	50	65	155	2200	1460	990	275	505	361	83	1170	192
6	46	65	147	2830	1410	943	262	394	578	83	870	259
7	42	64	140	3110	1310	969	247	306	467	81	674	174
8	40	64	132	2950	1200	1020	237	246	391	91	468	115
9	38	63	123	2570	1100	1010	257	212	373	92	309	100
10	37	62	115	2180	1130	968	293	186	336	78	213	94
11	36	62	109	1770	1190	916	309	159	366	72	170	89
12	35	63	104	1380	1190	865	301	138	348	109	183	83
13	36	64	102	1090	1360	810	284	123	287	116	352	75
14	35	66	117	952	1600	787	262	111	239	106	468	68
15	34	67	199	962	1760	806	240	100	226	161	523	61
16	33	69	288	952	1830	939	220	91	214	359	481	61
17	33	69	336	943	2040	1020	203	85	199	579	459	63
18	33	69	364	879	2270	1050	205	87	276	595	489	52
19	34	72	377	831	2380	1050	245	103	970	371	419	49
20	32	75	378	811	2320	1040	281	114	1560	233	301	54
21	31	75	350	831	2120	1000	303	96	1710	231	222	83
22	31	75	317	954	1880	977	317	88	1470	226	180	150
23	32	81	292	1030	1670	900	317	86	1190	200	166	193
24	33	84	298	1200	1460	787	293	83	865	134	143	172
25	33	86	524	1330	1260	689	261	77	555	156	121	123
26	36	94	691	1390	1070	609	342	75	357	217	109	153
27	41	107	764	1360	931	543	858	75	255	161	100	404
28	55	108	789	1260	957	484	1170	133	194	121	89	565
29	66	107	805	1150	---	435	1320	177	157	424	81	600
30	76	107	791	1050	---	399	1390	171	133	1170	89	529
31	74	---	847	968	---	375	---	153	---	1550	79	---
TOTAL	1327	2258	10152	44557	41636	26531	11996	7974	14892	8189	16258	4836
MEAN	42.8	75.3	327	1437	1487	856	400	257	496	264	524	161
MAX	76	108	847	3110	2380	1060	1390	1310	1710	1550	2050	600
MIN	31	62	102	811	931	375	203	75	133	72	79	49
CFSM	.07	.13	.55	2.40	2.48	1.43	.67	.43	.83	.44	.88	.27
IN.	.08	.14	.63	2.77	2.59	1.65	.74	.50	.92	.51	1.01	.30

CAL YR 1981 TOTAL 176115 MEAN 483 MAX 4920 MIN 31 CFSM .81 IN 10.94
WTR YR 1982 TOTAL 190606 MEAN 522 MAX 3110 MIN 31 CFSM .87 IN 11.84

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/05	13 20	0000	1.83	50	254		18.0		8.3	87.0		70
81/11/02	14 30	0000	1.98	67	234		16.5		9.2	92.0		50
81/12/10	11 10	0000	2.30	120	170		4.0	3.0	11.2	85.0	26.0	200
82/01/06	12 00	0000	11.34	2880	80		8.0		9.6	81.0		500
82/02/04	13 30	0000	8.48	1440	90	7.10	11.0		8.6	77.0		150
82/03/02	13 40	0000	7.10	1060	94	6.00	8.0	4.0	10.6	89.0	31.0	230
82/04/08	12 00	0000	3.10	234	141	6.50	11.0		9.2	83.0		10
82/05/04	12 30	0000	5.28	635	128	6.30	17.0		7.3	75.0		70
82/06/02	13 00	0000	2.84	193	284	6.70	26.0	4.0	6.7	82.0	35.0	160
82/07/22	08 35	0000	2.90	228	224	6.60	24.0		6.2	74.0		280
82/08/09	11 30	0000	3.42	313	157	6.30	26.0		6.0	73.0		50
82/09/08	09 00	0000	2.10	118	154	6.60	20.0	4.0	6.8	74.0	39.0	100

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/05	13 20	0000		3	207							
81/11/02	14 30	0000		1K	238							
81/12/10	11 10	0000		6	210	0.85	0.390	0.800	0.110	0.060	10K	50K
82/01/06	12 00	0000		7	116							
82/02/04	13 30	0000		7	108							
82/03/02	13 40	0000		4	110	1.10	0.160	0.600	0.070	0.050K	10K	50K
82/04/08	12 00	0000		9	130							
82/05/04	12 30	0000		4	138							
82/06/02	13 00	0000		7	203	0.79	0.120	1.000	0.170	0.080	10K	50K
82/07/22	08 35	0000	17	16	189							
82/08/09	11 30	0000	12	9	156							
82/09/08	09 00	0000	19	6	158	0.88	0.190	0.800	0.150	0.090	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/10	11 10	0000	50K	40K	100K	0.5K	100K	100
82/03/02	13 40	0000	50K	40K	100K	0.2K	100K	50K
82/06/02	13 00	0000	50K	40K	100K	0.2K	100K	50K
82/09/08	09 00	0000	50K	40K	100K		100K	50K

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 good.

AVERAGE DISCHARGE.--6 years, 10.4 ft³/s (0.295 m³/s), 18.04 in/yr (458 mm/yr).

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, Oct. 14-16, 20-23, 1981.

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)
June 5	0015	189	5.35	5.22	1.591	July 17	1800	216	6.12	5.71	1.740
June 19	1630	*305	8.64	*7.11	2.167	Sept. 4	0345	192	5.44	5.27	1.606

No flow Oct. 14-16, 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.12	.40	13	25	11	2.3	6.7	2.5	1.8	8.6	.11
2	.09	.10	2.5	11	36	9.6	2.0	5.7	3.2	1.5	5.8	.13
3	.41	.08	.44	39	68	9.2	2.5	4.7	2.6	1.5	3.8	.15
4	.65	.08	.45	136	37	7.7	3.1	4.5	2.7	1.4	2.4	23
5	.18	.07	.42	75	25	7.8	1.8	3.6	48	.95	1.7	7.3
6	.05	.07	.37	31	19	9.5	1.3	2.6	21	1.6	1.2	2.0
7	.03	.07	.39	22	16	14	1.3	1.9	8.8	.94	.91	1.1
8	.01	.10	.43	17	12	12	2.2	2.2	4.6	.92	1.4	.81
9	.01	.06	.41	13	17	9.3	3.9	2.2	3.9	.79	.78	.61
10	.36	.05	.40	11	41	7.8	3.8	.82	9.6	3.6	.50	.47
11	.93	.07	.42	8.8	28	6.8	3.3	.57	21	1.3	.82	.40
12	.18	.06	.32	7.9	23	6.3	2.7	.39	9.2	.90	18	.44
13	.01	.08	.31	8.4	65	6.5	2.4	.27	7.2	.76	22	.29
14	.00	.47	7.5	14	45	6.4	2.2	.21	7.0	5.1	7.0	.21
15	.00	.27	9.1	18	28	10	2.5	.30	3.6	3.4	3.7	.15
16	.00	.15	5.9	15	39	12	2.1	1.7	3.8	2.4	2.2	.10
17	.06	.10	3.7	13	69	9.5	2.5	1.3	3.2	37	1.6	.12
18	.22	.06	6.4	10	45	8.1	2.8	2.9	65	87	1.7	.10
19	.09	.06	5.1	9.5	31	7.6	.87	3.8	236	35	1.4	.26
20	.00	.23	3.7	9.4	25	6.9	1.9	1.7	119	12	1.2	6.0
21	.00	.05	2.8	21	19	7.0	1.4	.99	51	9.2	1.1	2.0
22	.00	.22	2.8	30	14	7.3	1.5	1.5	34	6.6	.85	1.7
23	.00	.15	2.7	30	11	6.0	1.1	2.5	32	4.3	.79	1.2
24	.34	1.1	2.6	49	9.6	4.8	1.5	.63	18	3.3	.57	.78
25	.44	.30	16	29	8.4	4.5	2.2	.29	11	2.5	1.0	.55
26	.10	.12	17	19	7.2	4.1	20	.23	7.8	2.0	1.4	29
27	2.4	.28	9.2	13	10	3.7	32	.37	6.8	1.5	.24	31
28	.14	.25	6.6	11	13	3.9	23	1.5	4.4	1.1	.18	13
29	.06	.24	8.8	10	---	2.8	12	2.9	3.4	18	.20	7.2
30	.22	.16	7.7	11	---	2.5	8.0	2.5	2.7	25	.13	4.9
31	.07	---	9.1	12	---	2.4	---	1.4	---	11	.11	---
TOTAL	7.19	5.22	134.06	717.0	787.2	227.0	150.17	62.87	753.0	284.36	93.28	135.08
MEAN	.23	.17	4.32	23.1	28.1	7.32	5.01	2.03	25.1	9.17	3.01	4.50
MAX	2.4	1.1	17	136	69	14	32	6.7	236	87	22	31
MIN	.00	.05	.31	7.9	7.2	2.4	.87	.21	2.5	.76	.11	.10
CFSM	.03	.02	.55	2.96	3.60	.94	.64	.26	3.22	1.18	.39	.58
IN.	.03	.02	.64	3.42	3.75	1.08	.72	.30	3.59	1.36	.44	.64

CAL YR 1981 TOTAL 2463.29 MEAN 6.75 MAX 270 MIN .00 CFSM .87 IN 11.75
WTR YR 1982 TOTAL 3356.43 MEAN 9.20 MAX 236 MIN .00 CFSM 1.18 IN 16.01

02109500 WACCAMAW RIVER AT FREELAND, NC

LOCATION.--Lat 34°05'43", long 78°32'55", Brunswick County, Hydrologic Unit 03040206, on left bank 150 ft (6 m) 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.

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

AVERAGE DISCHARGE.--43 years, 706 ft³/s (19.99 m³/s), 14.10 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, 4,610 ft³/s (131 m³/s) Jan. 9, gage height, 14.92 ft (4.548 m); minimum, 16 ft³/s (0.45 m³/s) Sept. 19; minimum gage height, 1.33 ft (0.405 m) Sept. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	269	58	28	814	2130	2220	374	754	121	1920	555	39
2	241	57	33	971	2180	2040	349	751	112	1710	515	35
3	209	53	44	1200	2410	1870	331	749	102	1500	466	31
4	184	48	48	1710	2590	1720	310	748	102	1230	417	30
5	162	45	49	2330	2670	1580	284	740	196	1060	382	36
6	144	43	47	3100	2650	1470	265	711	272	986	343	43
7	121	41	46	3780	2610	1400	242	667	339	914	293	40
8	106	38	44	4320	2560	1360	222	617	470	801	243	35
9	93	37	41	4570	2540	1340	219	563	576	689	200	30
10	84	35	39	4490	2510	1320	220	511	623	589	171	28
11	81	34	38	4200	2400	1200	213	459	691	532	144	27
12	75	33	36	3800	2290	1180	202	406	748	502	116	26
13	70	33	36	3360	2390	1150	189	355	761	483	146	25
14	65	33	50	3040	2450	1120	175	309	723	459	244	24
15	61	32	127	2750	2520	1080	161	267	649	449	321	22
16	57	32	184	2510	2650	1050	149	230	552	437	315	20
17	53	30	214	2300	3030	1010	141	195	452	411	269	18
18	49	30	259	2110	3490	971	130	169	430	372	225	18
19	43	28	307	1950	3820	911	121	144	821	339	203	17
20	38	28	323	1820	4000	847	118	124	1300	361	212	22
21	36	26	321	1730	4080	797	162	109	1830	417	210	51
22	33	25	319	1670	4060	746	204	114	2460	464	195	88
23	32	24	312	1640	3890	697	222	112	2990	479	175	103
24	29	25	305	1640	3620	656	224	104	3370	512	152	106
25	30	26	340	1640	3310	620	222	121	3540	510	128	100
26	32	28	429	1660	2980	582	271	133	3360	478	105	122
27	36	28	499	1700	2680	543	464	181	2970	437	87	200
28	57	28	555	1780	2430	500	606	201	2610	406	72	220
29	64	27	606	1930	---	459	689	187	2340	378	60	227
30	63	27	651	2070	---	424	741	162	2130	441	52	227
31	61	---	705	2130	---	397	---	138	---	548	46	---
TOTAL	2678	1032	7035	74715	80940	33260	8220	11031	37640	20814	7062	2010
MEAN	86.4	34.4	227	2410	2891	1073	274	356	1255	671	228	67.0
MAX	269	58	705	4570	4080	2220	741	754	3540	1920	555	227
MIN	29	24	28	814	2130	397	118	104	102	339	46	17
CFSM	.13	.05	.33	3.54	4.25	1.58	.40	.52	1.85	.99	.34	.10
IN.	.15	.06	.38	4.09	4.43	1.82	.45	.60	2.06	1.14	.39	.11

CAL YR 1981 TOTAL 176891 MEAN 485 MAX 7620 MIN 24 CFSM .71 IN 9.68
WTR YR 1982 TOTAL 286437 MEAN 785 MAX 4570 MIN 17 CFSM 1.15 IN 15.67

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	10 30	0000	2.90	74	53		16.0		7.0	70.0		10
81/11/16	11 45	0000	1.86	32	52		10.0		8.9	79.0		10K
81/12/09	11 20	0000	2.06	42	54		7.0	6.0	11.0	90.0	59.0	10K
82/01/11	11 25	0000	14.78	4300	56	4.50	5.0		8.8	69.0		20
82/02/15	13 15	0000	13.82	2540	53	5.60	9.0		8.2	71.0		40
82/03/08	12 40	0000	12.16	1370	50	4.80	12.0	2.0	7.0	65.0	59.0	30
82/04/15	14 10	0000	4.10	158	58	5.70	17.0		7.4	76.0		10K
82/05/12	13 00	0000	7.26	402	55	5.20	20.0		4.3	47.0		10
82/06/15	12 20	0000	9.52	649	52	5.10	23.0	2.0	4.5	52.0		10K
82/07/21	08 40	0000	7.18	412	50	5.40	25.0		4.9	58.0		120
82/08/12	11 30	0000	3.54	113	48	5.70	27.0		4.9	60.0		10
82/09/15	11 00	0000	1.51	21	60		25.0	6.0	6.4	76.0	66.0	10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	10 30	0000		8	137							
81/11/16	11 45	0000		5	94							
81/12/09	11 20	0000		7	122	0.59	0.260	0.900	0.050K	0.050K	10K	50K
82/01/11	11 25	0000		8	101							
82/02/15	13 15	0000		2	82							
82/03/08	12 40	0000		4	98	0.09	0.050K	0.600	0.050K	0.050K	10K	50K
82/04/15	14 10	0000		13	132							
82/05/12	13 00	0000		13	142							
82/06/15	12 20	0000	2	2	122	0.12	0.050	1.100	0.050K	0.050K	10K	50K
82/07/21	08 40	0000	4	13	133							
82/08/12	11 30	0000	4	13	171							
82/09/15	11 00	0000		2	170	0.15	0.050K	0.800	0.050K	0.050K	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/09	11 20	0000	50K	40K	100K	0.5K	100K	330
82/02/15	13 15	0000				0.2K		
82/03/08	12 40	0000	50K	40K	100K	0.2K	100K	50K
82/06/15	12 20	0000	50K	40K	100K	0.2	100K	110
82/09/15	11 00	0000	50K	40K	100K	3.0	100K	50

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.--43 years, 49.6 ft³/s (1.405 m³/s), 23.39 in/yr (594 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	1100	*664	18.8	*3.75	1.143	Aug. 13	0230	411	11.6	2.92	0.890
July 14	2030	477	13.5	3.15	0.960						

Minimum discharge, 7.3 ft³/s (0.21 m³/s) Oct. 9; minimum gage height, 0.69 ft (0.210 m) Oct. 7, 8, 9; minimum daily, 7.6 ft³/s (0.22 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	10	16	63	73	47	25	56	98	44	116	57
2	8.3	10	20	43	71	54	24	50	66	38	71	41
3	8.1	9.7	13	44	477	53	35	45	71	36	54	32
4	8.0	9.3	12	195	204	48	28	41	168	34	47	28
5	8.3	9.3	11	85	111	44	26	37	161	32	42	27
6	8.3	11	11	52	80	41	32	35	85	31	39	26
7	8.1	9.7	10	39	62	63	27	34	64	30	35	25
8	7.7	9.0	10	32	52	56	28	34	53	31	34	24
9	7.6	9.0	10	28	55	50	33	31	46	37	42	23
10	7.7	8.6	10	23	48	46	31	29	50	48	39	23
11	8.2	8.6	8.6	21	42	43	29	27	53	99	50	23
12	8.2	8.6	9.9	23	38	41	28	26	88	92	49	23
13	8.2	8.6	9.8	23	38	38	28	25	178	83	138	23
14	7.9	8.6	17	22	35	36	28	25	99	123	60	28
15	7.9	8.5	30	21	35	38	32	24	73	139	46	26
16	7.9	8.6	25	20	63	35	31	24	61	93	44	23
17	7.7	9.0	17	21	118	41	44	25	56	67	40	21
18	7.9	9.3	15	23	112	36	46	24	55	56	36	20
19	8.2	8.6	12	19	82	34	39	23	47	66	66	20
20	7.9	8.6	12	19	67	33	37	42	41	49	39	21
21	8.0	8.6	11	32	58	33	34	43	38	43	34	20
22	8.3	8.3	14	33	50	31	32	35	36	44	31	27
23	8.6	8.0	16	37	44	30	30	35	35	58	30	21
24	9.9	10	15	38	41	29	29	52	34	56	29	19
25	9.2	10	34	32	37	29	30	43	32	43	30	19
26	21	9.3	26	26	35	30	91	66	43	38	27	21
27	41	9.0	22	21	42	27	166	83	59	35	26	24
28	17	9.0	20	24	45	26	112	99	148	33	26	20
29	12	8.6	19	23	---	25	82	88	85	32	25	19
30	12	8.6	18	22	---	25	66	62	54	66	24	19
31	11	---	34	43	---	25	---	73	---	122	43	---
TOTAL	318.4	272.0	508.3	1147	2215	1187	1303	1336	2177	1798	1412	743
MEAN	10.3	9.07	16.4	37.0	79.1	38.3	43.4	43.1	72.6	58.0	45.5	24.8
MAX	41	11	34	195	477	63	166	99	178	139	138	57
MIN	7.6	8.0	8.6	19	35	25	24	23	32	30	24	19
CFSM	.36	.32	.57	1.29	2.75	1.33	1.51	1.50	2.52	2.01	1.58	.86
IN.	.41	.35	.66	1.48	2.86	1.53	1.68	1.73	2.81	2.32	1.82	.96

CAL YR 1981 TOTAL 8172.8 MEAN 22.4 MAX 227 MIN 7.5 CFSM .78 IN 10.56
WTR YR 1982 TOTAL 14416.7 MEAN 39.5 MAX 477 MIN 7.6 CFSM 1.37 IN 18.62

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.--17 years, 104 ft³/s (2.945 m³/s), 29.36 in/yr (746 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	1145	*1900	53.8	*3.98	1.213	June 17	1930	913	25.9	2.79	0.850
Apr. 27	2015	956	27.1	2.85	0.869						

Minimum discharge, 14 ft³/s (0.40 m³/s) Dec. 11, result of freezeup; minimum daily, 15 ft³/s (0.42 m³/s) Oct. 1-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	23	30	127	171	76	60	130	66	64	95	69
2	15	23	49	94	124	97	58	113	59	56	64	59
3	15	22	43	83	1160	110	72	100	55	53	53	52
4	15	22	37	406	403	104	67	90	91	49	46	45
5	15	22	35	182	191	99	64	82	150	46	43	40
6	15	22	33	109	136	93	71	77	98	46	46	38
7	15	20	32	85	104	124	66	75	80	46	46	37
8	15	20	32	73	88	129	64	72	72	46	46	35
9	15	20	30	63	85	115	66	68	64	55	105	35
10	15	19	24	46	79	100	66	66	77	60	98	35
11	15	19	21	36	71	92	64	64	83	58	73	35
12	15	18	24	50	65	85	64	62	92	109	74	35
13	15	18	23	53	64	81	64	58	318	106	91	32
14	15	18	35	52	59	75	64	55	161	75	79	36
15	15	17	63	48	58	70	64	54	110	78	64	37
16	15	17	66	46	86	70	62	55	82	97	56	32
17	15	17	52	30	210	80	74	54	189	72	53	32
18	15	17	45	39	236	74	84	67	175	60	52	32
19	15	17	26	43	163	70	73	62	93	58	104	32
20	15	17	21	43	130	68	70	61	74	51	62	32
21	15	17	20	64	114	68	67	66	65	48	52	32
22	15	17	26	74	98	65	64	55	58	46	49	42
23	16	17	30	72	87	64	61	56	57	48	43	30
24	19	20	33	76	79	64	58	86	53	60	44	30
25	19	23	49	69	73	64	59	70	49	49	51	27
26	37	23	55	62	67	75	194	105	51	44	44	32
27	81	22	51	51	70	65	426	96	60	41	41	38
28	38	22	48	54	74	63	486	126	126	38	39	29
29	26	22	45	56	---	61	225	102	130	36	39	26
30	24	22	43	46	---	60	160	81	78	39	38	25
31	24	---	52	69	---	60	---	69	---	80	54	---
TOTAL	614	593	1173	2401	4345	2521	3137	2377	2916	1814	1844	1091
MEAN	19.8	19.8	37.8	77.5	155	81.3	105	76.7	97.2	58.5	59.5	36.4
MAX	81	23	66	406	1160	129	486	130	318	109	105	69
MIN	15	17	20	30	58	60	58	54	49	36	38	25
CFSM	.41	.41	.79	1.61	3.22	1.69	2.18	1.60	2.02	1.22	1.24	.76
IN.	.47	.46	.91	1.86	3.36	1.95	2.43	1.84	2.26	1.40	1.43	.84

CAL YR 1981 TOTAL 16481 MEAN 45.2 MAX 713 MIN 14 CFSM .94 IN 12.75
WTR YR 1982 TOTAL 24826 MEAN 68.0 MAX 1160 MIN 15 CFSM 1.41 IN 19.20

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.--43 years, 144 ft³/s (4.078 m³/s), 21.92 in/yr (557 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 discharge 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)
Feb. 3	1130	*2260	64.0	*5.95	1.814

Minimum discharge, 28 ft³/s (0.79 m³/s) Dec. 11, gage height, 0.68 ft (0.207 m), result of freezeup; minimum daily, 38 ft³/s (1.08 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	53	58	237	191	138	102	151	102	90	144	110
2	40	52	74	151	126	164	97	140	91	86	104	99
3	39	51	55	136	1360	186	127	135	85	85	95	90
4	40	50	51	563	424	164	109	123	102	83	90	79
5	40	52	48	247	237	146	103	117	201	81	93	74
6	41	53	46	152	181	138	120	113	112	82	88	73
7	40	47	45	124	149	204	104	110	95	81	84	71
8	38	46	45	107	131	182	107	109	89	80	86	70
9	40	46	43	95	138	156	121	103	86	114	149	69
10	40	46	42	73	125	141	115	99	169	99	107	70
11	42	45	39	75	114	131	108	96	140	197	107	70
12	42	45	43	85	107	124	104	94	379	151	99	70
13	41	44	48	92	111	119	102	92	743	163	95	68
14	41	44	55	88	102	113	101	90	270	182	93	72
15	41	44	97	86	100	114	99	88	181	495	87	73
16	41	45	95	81	140	110	97	89	150	225	84	67
17	40	49	67	64	379	123	121	89	135	163	83	64
18	40	46	58	66	330	110	126	108	123	127	147	63
19	41	44	49	75	218	111	106	95	114	150	240	63
20	40	46	44	75	176	115	103	87	105	128	100	64
21	40	46	64	106	157	126	100	91	99	107	88	63
22	41	44	71	112	136	110	95	90	97	102	83	73
23	46	42	78	114	124	104	93	114	97	140	81	64
24	53	50	69	108	118	102	91	143	94	253	80	61
25	48	50	104	93	111	102	94	99	91	121	80	62
26	95	46	101	82	105	183	278	106	105	106	76	67
27	230	44	90	65	123	125	408	97	103	98	75	79
28	86	44	86	78	129	113	344	96	172	94	76	65
29	70	43	82	97	---	107	213	128	113	91	73	61
30	58	43	74	76	---	105	170	155	98	94	72	61
31	55	---	101	92	---	103	---	106	---	140	115	---
TOTAL	1630	1400	2022	3695	5842	4069	4058	3353	4541	4208	3074	2135
MEAN	52.6	46.7	65.2	119	209	131	135	108	151	136	99.2	71.2
MAX	230	53	104	563	1360	204	408	155	743	495	240	110
MIN	38	42	39	64	100	102	91	87	85	80	72	61
CFSM	.59	.52	.73	1.33	2.34	1.47	1.51	1.21	1.69	1.53	1.11	.80
IN.	.68	.58	.84	1.54	2.44	1.70	1.69	1.40	1.89	1.75	1.28	.89

CAL YR 1981 TOTAL 27753 MEAN 76.0 MAX 758 MIN 31 CFSM .85 IN 11.57
WTR YR 1982 TOTAL 40027 MEAN 110 MAX 1360 MIN 38 CFSM 1.23 IN 16.69

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. 367). Corps of Engineers stage radio and telephone-telemeter at station.

AVERAGE DISCHARGE.--67 years (1903-8, 1920-82), 824 ft³/s (23.34 m³/s), 22.20 in/yr (564 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, 5,620 ft³/s (159 m³/s) Feb. 5, gage height, 7.92 ft (2.414 m); minimum, 126 ft³/s (3.57 m³/s) May 25, gage height, 1.43 ft (0.436 m); minimum daily, 175 ft³/s (4.96 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	443	272	586	726	659	485	854	820	528	846	517
2	202	378	285	426	795	812	495	781	773	476	798	520
3	206	263	260	396	2940	965	559	747	608	479	605	503
4	195	260	253	1280	1930	848	627	659	704	485	578	507
5	175	261	254	1350	4910	722	569	566	1280	484	492	514
6	177	262	251	1200	4060	713	531	561	1580	500	484	512
7	188	256	246	1080	1950	890	504	569	1240	500	474	521
8	201	254	244	744	903	1030	504	578	702	502	484	529
9	202	248	242	593	776	864	594	545	507	536	559	531
10	200	251	240	477	814	691	566	494	610	513	627	532
11	193	248	233	442	637	755	517	484	754	684	632	535
12	190	247	243	524	573	637	499	479	1130	748	600	534
13	192	245	243	507	589	649	484	475	2050	896	563	528
14	206	250	262	496	573	650	478	470	1660	1170	625	534
15	209	249	329	491	551	607	493	471	1360	1690	536	532
16	200	234	307	497	679	589	501	471	868	1200	472	524
17	214	227	259	479	1020	654	624	466	776	815	484	511
18	204	248	247	490	1800	651	759	484	902	660	518	512
19	198	245	231	496	2070	598	611	474	771	816	781	508
20	201	248	216	489	1200	587	517	465	654	631	626	521
21	201	250	229	536	850	644	511	468	503	523	544	521
22	195	247	250	526	733	623	501	484	529	512	509	535
23	205	230	266	506	689	533	492	509	528	561	514	521
24	218	223	262	491	602	504	473	629	509	896	523	518
25	216	230	338	463	578	508	453	307	496	643	523	521
26	354	244	324	492	566	674	944	1030	513	548	514	491
27	627	249	304	459	734	600	2680	1060	517	490	515	510
28	420	264	295	476	845	501	2760	871	847	485	521	494
29	443	251	288	476	---	476	2040	1070	1070	485	513	489
30	436	242	275	472	---	475	1160	849	871	499	506	485
31	452	---	368	497	---	474	---	647	---	647	553	---
TOTAL	7720	7747	8316	18443	35093	20583	22931	19017	26132	20602	17519	15510
MEAN	249	258	268	595	1253	664	764	613	871	665	565	517
MAX	627	443	368	1350	4910	1030	2760	1070	2050	1690	846	535
MIN	175	223	216	398	551	474	453	307	496	476	472	485
(†)	+23	-7	+114	+82	-2	+4	+3	+2	-7	+8	-34	-154
MEAN‡	272	251	382	677	1251	668	767	615	864	673	531	363
CFSM‡	.54	.50	.76	1.34	2.48	1.33	1.52	1.22	1.71	1.34	1.05	.72
IN‡	.62	.56	.88	1.54	2.58	1.53	1.70	1.41	1.91	1.54	1.21	.80

CAL YR 1981 TOTAL 166611 MEAN 456 MAX 4830 MIN 160 MEAN‡ 459 CFSM‡ .91 IN‡ 12.35
WTR YR 1982 TOTAL 219613 MEAN 602 MAX 4910 MIN 175 MEAN‡ 605 CFSM‡ 1.20 IN‡ 16.29

† 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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--18 years, 193 ft³/s (5.466 m³/s), 20.48 in/yr (520 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 information by local residents and rating curve extended as explained above. A discharge of 24 ft³/s (0.68 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)
Feb. 3	1230	2820	79.9	6.21	1.893	July 14	0300	3200	90.6	6.69	2.039
June 13	0230	2130	60.3	5.25	1.600	July 14	2300	*3610	102	*7.21	2.198

Minimum discharge, 42 ft³/s (1.19 m³/s) Dec. 10, gage height, 1.12 ft (0.341 m), result of freezeup; minimum daily, 49 ft³/s (1.39 m³/s) Oct. 3, 8, 9, 17, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	72	75	361	235	196	139	218	164	127	204	144
2	50	70	93	210	158	231	128	204	144	119	150	133
3	49	68	73	202	1740	248	186	198	136	117	137	110
4	50	66	70	805	602	210	158	177	195	113	130	95
5	52	69	66	380	339	189	145	165	313	109	133	91
6	52	70	64	239	258	179	156	158	176	110	127	89
7	50	63	63	194	204	286	139	153	152	111	118	88
8	49	61	62	161	178	256	142	151	141	148	157	85
9	49	61	60	141	192	214	168	143	136	165	214	85
10	50	61	58	99	175	191	156	136	256	156	142	86
11	52	61	70	84	155	178	146	131	219	259	139	88
12	52	61	68	78	146	170	140	127	282	263	130	86
13	51	60	70	74	152	163	135	123	1040	467	122	86
14	50	60	73	72	139	155	135	118	381	1180	120	109
15	51	60	130	70	137	152	130	116	263	808	115	101
16	51	60	129	70	184	147	130	114	218	375	113	88
17	49	65	93	68	519	150	173	113	193	272	111	83
18	50	61	83	68	423	140	219	109	172	200	106	81
19	51	60	76	70	291	158	163	234	157	275	119	81
20	49	61	74	68	236	153	155	156	141	294	104	85
21	50	61	94	66	203	155	148	121	133	174	100	83
22	50	59	99	65	177	142	139	130	133	165	96	87
23	57	58	100	65	163	136	134	310	133	282	96	81
24	64	71	99	63	155	133	130	339	128	464	96	79
25	58	71	148	60	147	150	132	227	125	230	100	80
26	122	64	143	53	139	244	319	230	223	181	92	89
27	504	63	123	51	176	161	513	180	220	160	90	99
28	125	62	115	76	182	146	531	179	240	158	91	84
29	91	60	108	84	---	140	319	176	152	142	87	80
30	81	60	100	96	---	137	254	191	136	145	85	79
31	75	---	143	115	---	136	---	155	---	207	182	---
TOTAL	2286	1899	2822	4308	7805	5446	5662	5282	6502	7976	3806	2735
MEAN	73.7	63.3	91.0	139	279	176	189	170	217	257	123	91.2
MAX	504	72	148	805	1740	286	531	339	1040	1180	214	144
MIN	49	58	58	51	137	133	128	109	125	109	85	79
CFSM	.58	.50	.71	1.09	2.18	1.38	1.48	1.33	1.70	2.01	.96	.71
IN.	.66	.55	.82	1.25	2.27	1.58	1.65	1.54	1.89	2.32	1.11	.79

CAL YR 1981 TOTAL 36835 MEAN 101 MAX 1130 MIN 37 CFSM .79 IN 10.71
WTR YR 1982 TOTAL 56529 MEAN 155 MAX 1740 MIN 49 CFSM 1.21 IN 16.43

02112120 ROARING RIVER NEAR ROARING RIVER, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	18	15 0000	1.20	53	27	6.70	13.0	1.0	9.8	92.0	10.0K	10K
81/11/30	10	35 0000	1.24	63	28	6.30	4.0		12.2	93.0		10
81/12/29	15	40 0000	1.48	108	32	6.20	3.0		11.4	84.0		60
82/01/07	15	00 0000	1.79	194	26	6.20	9.0	7.0	11.0	95.0	10.0K	30
82/02/10	14	25 0000	1.71	165	26	6.40	7.0		10.6	87.0		50
82/03/23	15	36 0000	1.59	136	32	6.50	13.0		9.5	90.0		10
82/04/19	15	25 0000	1.68	160	23	6.60	14.0	8.0	9.7	93.0	16.0	120
82/05/19	10	21 0000	1.50	113	39	7.10	17.0		8.1	84.0		330
82/06/02	14	30 0000	1.63	146	39	6.90	20.0		8.3	90.0		730
82/07/26	10	00 0000	1.62	193	46	7.10	24.0	8.0	7.8	92.0	10.0K	330
82/08/12	16	00 0000	1.63	130	30	7.50	24.0		8.5	100.0		120
82/09/15	09	25 0000	1.52	101	24	6.80	20.0		8.6	93.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	18	15 0000	9	2	29	0.16	0.050K	0.200	0.050K	0.050K	10K	50K
81/11/30	10	35 0000	11	2	50							
81/12/29	15	40 0000	9	1K	38							
82/01/07	15	00 0000	8	9	24	0.32	0.050K	0.400	0.050K	0.050K	10K	50K
82/02/10	14	25 0000	10	8	44							
82/03/23	15	36 0000	9	3	35							
82/04/19	15	25 0000	9	6	92	0.14	0.050K	0.200	0.050K	0.050K	10K	50K
82/05/19	10	21 0000	14	32	99							
82/06/02	14	30 0000	10	59	98							
82/07/26	10	00 0000	19	16	70	0.34	0.050K	0.200	0.060	0.050K	10K	50K
82/08/12	16	00 0000	12	6	45							
82/09/15	09	25 0000	11	14	108							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/14	18	15 0000	50K	40K	100K	0.5K		50K
82/01/07	15	00 0000	50K	40K	100K	0.2K	100K	50K
82/04/19	15	25 0000	50K	40K	100K	0.2K	100K	50K
82/07/26	10	00 0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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. 367). The Corps of Engineers has a stage radio-telemeter and the National Weather Service, a telephone-telemeter, at station.

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

AVERAGE DISCHARGE.--18 years, 1,434 ft³/s (40.61 m³/s), 22.41 in/yr (569 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, 11,300 ft³/s (320 m³/s) Feb. 3, gage height, 13.66 ft (4.164 m); minimum, 296 ft³/s (8.38 m³/s) Oct. 5, 6, 8, gage height, 0.80 ft (0.244 m); minimum daily, 299 ft³/s (8.47 m³/s) Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	611	469	1730	1130	1290	819	1520	1260	1100	1410	990
2	325	597	573	1190	1140	1400	802	1370	1250	930	1310	919
3	322	472	505	975	7210	1500	908	1340	1120	870	1060	892
4	325	431	471	2990	3570	1480	1010	1250	1270	860	1060	816
5	303	421	468	2490	4980	1240	970	1110	2280	830	908	808
6	299	445	452	1790	4860	1160	912	1070	1980	820	910	792
7	301	418	450	1640	2970	1440	845	1050	1800	840	862	792
8	307	406	448	1300	1710	1680	831	1050	1320	800	920	792
9	318	405	438	1040	1280	1480	950	1030	990	860	1440	799
10	322	403	438	836	1440	1180	978	936	1050	890	1130	791
11	321	397	450	652	1170	1240	875	892	1200	920	1080	798
12	311	401	460	873	1050	1110	837	885	1470	1050	1110	798
13	312	397	480	869	1050	1070	813	876	5290	1300	1030	790
14	314	399	497	806	1020	1060	802	851	2660	2400	986	832
15	340	408	716	778	962	1020	797	832	2110	3600	1000	837
16	329	401	851	788	1120	984	817	822	1560	2120	852	787
17	329	392	606	770	2100	1020	884	817	1320	1640	848	764
18	332	401	540	720	2680	1050	1240	818	1280	1230	853	754
19	322	404	530	772	2920	1010	1090	905	1170	1330	1120	748
20	322	411	500	749	1980	1010	888	1090	1060	1700	1020	765
21	325	412	477	859	1530	1100	868	891	960	1900	892	770
22	325	406	526	985	1240	1060	819	998	980	1200	810	772
23	340	409	557	1030	1190	933	805	981	970	1320	793	767
24	380	420	571	987	1070	861	782	1560	960	1890	807	748
25	366	430	759	842	999	852	807	1080	900	1380	812	754
26	628	428	852	820	955	1140	1610	1210	1300	1150	796	774
27	2310	428	739	800	1070	1070	3150	1660	2000	1030	781	781
28	817	440	688	790	1490	892	4720	1390	1550	982	793	762
29	667	437	656	770	---	828	2970	1500	1450	931	783	733
30	623	420	614	758	---	815	1940	1500	1400	931	768	720
31	617	---	720	749	---	799	---	1250	---	1050	904	---
TOTAL	13784	12850	17501	33148	55886	34774	36539	34534	45910	39854	29848	23845
MEAN	445	428	565	1069	1996	1122	1218	1114	1530	1286	963	795
MAX	2310	611	852	2990	7210	1680	4720	1660	5290	3600	1440	990
MIN	299	392	438	652	955	799	782	817	900	800	768	720
(†)	+23	-7	+114	+82	-2	+4	+3	+2	-7	+8	-34	-154
MEAN‡	468	421	679	1151	1994	1126	1221	1116	1523	1294	929	641
CFSM‡	.54	.48	.78	1.32	2.29	1.30	1.41	1.28	1.75	1.49	1.07	.74
IN‡	.62	.54	.90	1.52	2.38	1.50	1.57	1.48	1.95	1.72	1.23	.83

CAL YR 1981	TOTAL	256510	MEAN	703	MAX	5460	MIN 246	MEAN‡	706	CFSM‡	.81	IN‡ 11.00
WTR YR 1982	TOTAL	378473	MEAN	1037	MAX	7210	MIN 299	MEAN‡	1040	CFSM‡	1.20	IN‡ 16.29

† 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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	09 55	0000	0.86	366	55	7.60	10.0	4.0	10.5	93.0	10.0K	60
81/11/30	10 05	0000	1.03	414	41	6.40	6.0		11.2	90.0		10
81/12/29	09 50	0000	1.61	656	41	6.40	4.0		11.8	90.0		
82/01/07	15 40	0000	3.35	1610	35	6.40	7.0	25.0	11.2	92.0	11.0	130
82/02/10	14 55	0000	3.09	1450	32	6.40	6.0		10.7	86.0		280
82/03/23	08 40	0000	2.15	930	38	6.30	11.0		10.8	97.0		260
82/04/19	16 10	0000	2.40	1080	27	6.60	13.0	20.0	9.4	89.0	24.0	250
82/05/19	09 47	0000	1.79	835	44	6.40	18.0		7.7	81.0		690
82/06/02	15 01	0000	2.26	1070	42	6.80	22.0		8.1	92.0		700
82/07/26	09 25	0000	2.42	1170	39	6.50	24.0	30.0	7.7	91.0	11.0	520
82/08/12	16 45	0000	2.15	1020	41	7.00	25.0		7.3	87.0		40000
82/09/15	08 44	0000	1.84	840	45	6.80	21.0		7.9	88.0		350

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	09 55	0000	23	9	51	0.44	0.050	0.300	0.050	0.050K	10K	50
81/11/30	10 05	0000	12	7	62							
81/12/29	09 50	0000	14	10	51							
82/01/07	15 40	0000	15	35	53	0.31	0.120	0.400	0.070	0.050K	10K	50
82/02/10	14 55	0000	11	28	89							
82/03/23	08 40	0000	11	26	72							
82/04/19	16 10	0000	11	32	139	0.27	0.050K	0.400	0.080	0.050K	10K	50
82/05/19	09 47	0000	14	40	85							
82/06/02	15 01	0000	12	67	114							
82/07/26	09 25	0000	12	51	99	0.42	0.050K	0.300	0.080	0.050K	10K	50
82/08/12	16 45	0000	16	105	189							
82/09/15	08 44	0000	15	42	227							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/14	09 55	0000	50K	40K	100K	0.5K		50K
82/01/07	15 40	0000	50K	40K	100K	0.2K	100K	50K
82/04/19	16 10	0000	50K	40K	100K	0.2K	100K	50K
82/07/26	09 25	0000	50K	40K	100K	0.2K	100K	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.--18 years, 128 ft³/s (3.625 m³/s), 22.06 in/yr (560 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 ft³/s (0.45 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	2200	1750	49.6	4.92	1.500	June 13	0500	2120	60.0	5.50	1.676
June 12	0600	*2260	64.0	*5.71	1.740	July 15	0330	1850	52.4	5.08	1.548

Minimum discharge, 34 ft³/s (0.96 m³/s) Oct. 8-17, gage height, 1.67 ft (0.509 m); minimum daily, 34 ft³/s (0.96 m³/s) Oct. 9-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	60	51	195	107	126	101	125	179	121	100	108
2	38	58	64	121	86	137	91	120	145	111	95	101
3	36	55	54	115	843	146	125	118	133	109	110	94
4	36	54	50	354	328	130	114	109	198	105	295	86
5	36	56	49	204	190	121	100	104	394	102	145	81
6	36	56	46	137	149	116	104	100	200	102	124	81
7	36	51	45	116	124	165	96	98	159	102	117	79
8	35	49	45	102	111	151	93	96	140	101	113	77
9	34	48	44	92	116	129	108	94	132	116	109	77
10	34	48	43	89	111	120	103	90	300	118	105	77
11	34	48	43	78	100	114	98	88	196	113	103	77
12	34	48	45	74	96	111	94	85	578	120	118	77
13	34	47	44	70	97	107	92	81	1010	138	101	77
14	34	46	48	67	92	102	92	79	351	338	98	103
15	34	46	86	64	89	99	90	77	254	568	97	96
16	34	46	94	64	105	99	90	77	218	200	91	86
17	34	45	69	63	291	97	104	77	195	159	88	77
18	35	45	61	62	233	95	117	74	175	139	86	75
19	35	44	56	63	162	99	98	241	160	130	86	76
20	35	45	43	62	137	101	93	217	148	162	91	78
21	35	45	55	60	124	114	94	122	136	133	91	78
22	35	43	65	60	113	102	89	122	127	145	85	79
23	39	43	65	59	107	97	87	134	127	189	85	76
24	47	52	65	58	103	94	85	223	124	159	82	74
25	42	53	87	56	98	94	85	149	120	136	82	74
26	104	48	92	57	92	130	200	339	163	122	85	81
27	481	47	83	56	113	101	185	400	162	135	81	92
28	115	46	80	62	125	97	236	396	178	115	80	81
29	81	45	76	87	---	93	160	250	144	106	79	77
30	69	44	70	70	---	92	137	234	127	101	77	77
31	64	---	90	67	---	93	---	178	---	100	102	---
TOTAL	1815	1461	1903	2856	4442	3472	3361	4697	6673	4595	3201	2472
MEAN	58.5	48.7	61.5	93.1	159	112	112	152	222	148	103	82.4
MAX	481	60	94	354	843	165	236	400	1010	568	295	108
MIN	34	43	43	56	86	92	85	74	120	100	77	74
CFSM	.74	.62	.78	1.18	2.02	1.42	1.42	1.93	2.82	1.88	1.31	1.05
IN.	.86	.69	.90	1.35	2.10	1.64	1.59	2.22	3.15	2.17	1.51	1.17

CAL YR 1981 TOTAL 23892 MEAN 65.5 MAX 1680 MIN 24 CFSM .83 IN 11.28
WTR YR 1982 TOTAL 40983 MEAN 112 MAX 1010 MIN 34 CFSM 1.42 IN 19.35

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 OF 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. Some irrigation diversions at times in the growing season.

AVERAGE DISCHARGE.--51 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)
Oct. 27	0430	4800	136	9.39	2.862	June 13	0930	5730	162	10.42	3.176
Feb. 3	1200	3070	86.9	7.22	2.201	July 15	0430	4480	127	8.99	2.740
May 28	0700	2200	62.3	6.14	1.871	July 24	0430	2790	79.0	6.88	2.097
June 3	2300	*10500	297	*13.65	4.161	Aug. 9	0100	2930	83.0	7.05	2.149

Minimum discharge, 43 ft³/s (1.22 m³/s) Oct. 8, 9, 10, gage height, 2.03 ft (0.619 m); minimum daily, 44 ft³/s (1.25 m³/s) Oct. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	92	64	383	182	204	140	214	352	172	189	143
2	51	86	88	225	133	245	132	210	251	160	151	127
3	48	80	72	205	1670	245	179	200	1230	156	139	117
4	48	76	66	754	619	207	172	178	1070	150	135	105
5	49	75	64	365	304	184	142	166	947	145	137	99
6	50	76	61	223	233	174	151	160	377	146	134	98
7	47	68	60	183	192	274	134	154	282	141	125	97
8	44	65	59	158	170	255	134	152	241	143	173	94
9	44	65	56	140	170	204	160	148	228	176	716	94
10	45	64	55	114	170	183	150	139	883	162	203	94
11	47	63	55	84	148	171	140	134	447	150	204	97
12	48	62	62	78	138	164	134	129	699	172	207	96
13	47	60	60	74	143	156	133	125	2750	225	155	93
14	46	59	62	72	134	150	131	120	604	377	147	112
15	46	60	139	70	128	145	134	116	395	1480	138	122
16	47	58	173	70	150	147	132	116	334	347	187	101
17	45	59	110	68	335	146	150	116	294	234	137	92
18	46	57	93	68	347	138	188	110	272	197	132	90
19	47	56	81	70	240	145	149	175	248	203	128	90
20	45	57	77	68	203	159	142	310	224	410	122	94
21	45	56	90	66	181	214	138	186	209	183	118	92
22	47	54	96	65	166	165	130	170	201	184	114	98
23	53	54	91	65	150	149	126	276	198	238	112	91
24	65	69	95	63	143	145	123	387	188	787	113	88
25	59	72	132	60	135	143	124	613	182	242	120	89
26	180	62	149	53	127	236	391	496	210	192	117	104
27	1990	59	130	51	159	159	487	472	289	170	110	123
28	259	58	123	70	185	145	778	1090	220	167	111	100
29	149	57	115	84	---	139	316	470	197	153	104	93
30	116	55	105	96	---	136	245	422	185	153	100	92
31	102	---	118	99	---	136	---	291	---	172	118	---
TOTAL	4008	1936	2801	4250	7055	5463	5785	8045	14207	7987	4896	3025
MEAN	129	64.5	90.4	137	252	176	193	260	474	258	158	101
MAX	1990	92	173	754	1670	274	778	1090	2750	1480	716	143
MIN	44	54	55	51	127	136	123	110	182	141	100	88
CFSM	1.01	.50	.71	1.07	1.97	1.38	1.51	2.03	3.70	2.02	1.23	.79
IN.	1.16	.56	.81	1.24	2.05	1.59	1.68	2.34	4.13	2.32	1.42	.88

CAL YR 1981 TOTAL 35824 MEAN 98.1 MAX 2240 MIN 13 CFSM .77 IN 10.41
WTR YR 1982 TOTAL 69458 MEAN 190 MAX 2750 MIN 44 CFSM 1.48 IN 20.19

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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good. Some regulation by W. Kerr Scott Reservoir (see p. 367).

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

AVERAGE DISCHARGE.--6 years, 2,015 ft³/s (57.06 m³/s), 22.32 in/yr (567 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, 20,700 ft³/s (586 m³/s) June 13, gage height, 17.87 ft (5.447 m); minimum, 409 ft³/s (11.6 m³/s) Oct. 8, 9, 10, 20, 21, 22, gage height, 2.95 ft (0.899 m); minimum daily, 409 ft³/s (11.6 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	525	949	646	2920	1430	2100	1300	2170	2270	1680	1910	1360
2	467	905	842	2000	1480	2260	1250	1870	1940	1360	1850	1250
3	443	836	798	1490	9240	2240	1350	1870	1890	1310	1610	1240
4	439	728	722	4630	6850	2250	1600	1700	10100	1300	1420	1100
5	444	706	690	4200	4970	1940	1450	1510	5160	1240	1320	1060
6	435	740	660	2610	5460	1820	1400	1470	3170	1220	1300	1060
7	423	705	640	2220	3850	2110	1300	1450	2820	1250	1220	1050
8	410	668	620	1890	2390	2660	1300	1430	2150	1200	1290	1030
9	409	657	610	1470	1720	2310	1370	1410	1670	1280	3880	1030
10	410	651	600	1210	1850	2100	1470	1300	3880	1320	1980	1040
11	434	651	590	877	1640	1800	1440	1240	3890	1340	1630	1050
12	436	646	630	1020	1480	1750	1300	1220	2880	1550	1650	1060
13	429	640	660	1220	1480	1650	1310	1200	14100	1970	1510	1050
14	427	631	900	1160	1460	1600	1270	1170	5530	3810	1390	1110
15	430	629	1900	1130	1420	1550	1260	1150	3640	7140	1410	1200
16	454	629	1300	1130	1590	1550	1270	1130	2710	3260	1320	1090
17	435	626	900	1050	2730	1500	1300	1140	2170	2430	1250	1030
18	434	613	875	1020	4010	1550	1750	1130	2230	1780	1250	999
19	433	613	793	1080	3770	1500	1640	1190	2070	1660	1430	998
20	419	614	645	1050	3030	1600	1430	1930	1820	2360	1460	1020
21	415	614	611	1120	2290	1800	1360	1340	1580	1580	1300	1040
22	420	612	812	1350	1870	1700	1310	1430	1420	1420	1170	1070
23	436	602	830	1430	1760	1550	1270	1340	1480	2400	1110	1040
24	498	620	854	1400	1640	1450	1250	2470	1460	5060	1100	1000
25	523	690	1090	1210	1530	1400	1230	2300	1370	2360	1130	1000
26	740	652	1410	1120	1440	1600	2280	3450	1920	1770	1130	1050
27	7610	632	1210	1030	1550	1750	3800	3230	3510	1530	1090	1120
28	1950	629	1110	1030	2100	1500	7510	6060	2410	1420	1100	1100
29	1190	636	1040	1070	---	1400	4120	3050	2090	1360	1090	1010
30	1050	618	965	1050	---	1350	2890	3230	2150	1370	1050	991
31	977	---	1010	1050	---	1300	---	2050	---	1460	1100	---
TOTAL	24545	20142	26963	48237	76030	54640	54780	58630	95480	62190	44450	32248
MEAN	792	671	870	1556	2715	1763	1826	1891	3183	2006	1434	1075
MAX	7610	949	1900	4630	9240	2660	7510	6060	14100	7140	3880	1360
MIN	409	602	590	877	1420	1300	1230	1130	1370	1200	1050	991
(†)	+23	-7	+114	+82	-2	+4	+3	+2	-7	+8	-34	-154

CAL YR 1981 TOTAL 376800 MEAN 1032 MAX 7610 MIN 315 MEAN‡ 1035 CFSM‡ .84 IN‡ 11.40
WTR YR 1982 TOTAL 598335 MEAN 1639 MAX 14100 MIN 409 MEAN‡ 1642 CFSM‡ 1.34 IN‡ 18.19

† 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.

02113500 YADKIN RIVER AT SILOAM, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/22	11 40	0000	2.96	427	52	6.80	12.0	4.0	9.3	86.0	10.0K	10
81/11/05	10 10	0000	3.40	720	41	6.90	13.0		9.8	93.0		80
81/12/08	10 25	0000	3.30	644	39	6.80	5.0		11.2	87.0		40
82/01/25	11 02	0000	4.17	1220	41	6.60	1.0	25.0	11.7	82.0	10.0K	160
82/02/15	11 00	0000	4.30	1410	31	6.70	5.0		10.8	84.0		40
82/03/18	10 40	0000	4.51	1600	37	6.80	11.0		10.6	95.0		30
82/04/15	10 35	0000	4.08	1260	39	7.00	14.0	15.0	9.4	90.0	10.0K	10
82/05/13	10 45	0000	4.01	1210	43	7.20	20.0		8.8	96.0		20
82/06/07	14 58	0000	5.70	2590	33	7.00	22.0		8.7	99.0		400
82/07/19	09 47	0000	4.59	1640	45	6.90	24.0	30.0	7.9	93.0	10.0K	250
82/08/16	11 50	0000	4.07	1250	41	6.90	25.0		7.8	93.0		240
82/09/14	11 14	0000	3.88	1110	38	7.30	21.0		8.2	91.0		160

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/22	11 40	0000	23	0	61	0.14	0.050K	0.200	0.080	0.060	10K	50K
81/11/05	10 10	0000	21	11	69							
81/12/08	10 25	0000	18	2	51							
82/01/25	11 02	0000	16	15	69	0.55	0.200	0.500	0.110	0.050K	10K	50K
82/02/15	11 00	0000	14	15	59							
82/03/18	10 40	0000	12	17	72							
82/04/15	10 35	0000	17	14	57	0.28	0.050K	0.200	0.080	0.050K	10K	50K
82/05/13	10 45	0000	15	23	76							
82/06/07	14 58	0000	14	144	152							
82/07/19	09 47	0000	14	63	112	0.49	0.050K	0.200	0.120	0.050K	10K	50K
82/08/16	11 50	0000	17	32	99							
82/09/14	11 14	0000	20	17	72							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/22	11 40	0000	50K	40K	100K	0.5K	100K	50K
82/01/25	11 02	0000	50K	40K	100K	0.2K	100K	50K
82/04/15	10 35	0000	50K	40K	100K	0.2K	100K	180
82/07/19	09 47	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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 on Secondary Road 2019 at Ararat, and 300 ft (91 m) downstream from Flat Shoal Creek.

DRAINAGE AREA.--231 mi² (598 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--18 years, 312 ft³/s (8.836 m³/s), 18.34 in/yr (466 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.--Peak discharges above base of 3,000 ft³/s (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)
Oct. 27	0800	6930	196	10.81	3.295	May 29	2100	3380	95.7	6.17	1.881
Feb. 3	1300	4500	127	7.76	2.365	June 4	0100	3450	97.7	6.28	1.914
Apr. 28	0100	3720	105	6.66	2.030	June 13	0900	*9700	275	*13.56	4.133
May 28	0700	4200	119	7.34	2.237						

Minimum discharge, 65 ft³/s (1.84 m³/s) Dec. 11, result of freezeup; minimum daily, 75 ft³/s (2.12 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	161	115	728	298	361	233	310	527	311	282	237
2	83	151	155	321	218	399	221	300	398	299	249	231
3	82	142	125	347	2600	373	294	303	663	296	240	227
4	81	133	119	1440	1040	330	290	258	1210	289	231	201
5	85	132	118	599	482	309	237	241	1470	290	234	192
6	86	131	110	340	366	299	251	232	570	285	212	189
7	82	117	110	285	309	462	227	226	445	275	202	186
8	77	109	110	246	282	396	225	218	397	340	336	181
9	75	111	108	222	293	333	263	212	406	368	968	172
10	82	107	103	178	285	307	239	202	1400	371	293	175
11	84	107	88	156	258	296	226	198	599	293	275	179
12	86	103	89	136	247	288	216	191	462	343	279	180
13	86	102	92	124	254	280	211	183	5210	648	244	169
14	86	98	118	117	235	272	300	177	1320	554	233	182
15	85	98	267	102	232	270	402	171	792	948	225	211
16	87	98	277	92	277	268	238	211	658	512	230	186
17	85	99	184	84	426	264	248	297	558	349	216	174
18	88	95	157	140	445	253	316	188	518	314	206	168
19	89	93	139	172	349	270	245	237	449	309	225	165
20	88	98	96	178	307	281	226	281	408	338	198	166
21	91	96	132	227	284	342	219	465	388	287	193	168
22	93	90	161	243	270	284	207	339	373	316	184	201
23	104	89	162	220	261	264	200	520	368	367	180	170
24	139	128	176	204	256	256	195	514	340	708	184	164
25	112	134	249	189	254	256	192	1060	341	301	216	165
26	274	110	249	177	245	375	614	1640	360	279	189	193
27	3860	104	221	161	297	265	886	742	404	260	176	233
28	519	104	205	212	355	247	1710	1960	371	295	180	187
29	254	98	192	193	---	240	502	1290	351	261	164	172
30	221	95	173	161	---	237	355	1110	330	252	160	172
31	179	---	238	176	---	234	---	611	---	276	193	---
TOTAL	7526	3333	4838	8170	11425	9311	10188	14887	22086	11334	7597	5596
MEAN	243	111	156	264	408	300	340	480	736	366	245	187
MAX	3860	161	277	1440	2600	462	1710	1960	5210	948	968	237
MIN	75	89	88	84	218	234	192	171	330	252	160	164
CFSM	1.05	.48	.68	1.14	1.77	1.30	1.47	2.08	3.19	1.58	1.06	.81
IN.	1.21	.54	.78	1.32	1.84	1.50	1.64	2.40	3.56	1.83	1.22	.90

CAL YR 1981 TOTAL 57073 MEAN 156 MAX 3860 MIN 21 CFSM .68 IN 9.19
WTR YR 1982 TOTAL 116291 MEAN 319 MAX 5210 MIN 75 CFSM 1.38 IN 18.73

02113850 ARARAT RIVER AT ARARAT, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/22	10 55	0000	0.96	89	195	6.70	13.0	4.0	10.1	95.0	13.0	40
81/11/05	09 45	0000	1.14	136	123	6.10	13.0		9.9	93.0		100
81/12/08	09 55	0000	1.08	108	95	6.40	5.0		11.2	87.0		30
82/01/25	10 20	0000	1.30	189	74	7.40	1.0	10.0	11.6	82.0	10.0K	10
82/02/15	10 30	0000	1.31	230	72	6.30	6.0		10.4	83.0		
82/03/18	10 10	0000	1.38	255	79	6.20	12.0		10.6	98.0		270
82/04/15	10 00	0000	1.66	378	60	6.30	12.0	900.0	9.1	84.0		8300
82/05/13	10 10	0000	1.24	180	94	6.70	20.0		9.0	98.0		160
82/06/07	15 35	0000	1.79	445	36	6.90	23.0		8.4	97.0		670
82/07/19	09 12	0000	1.44	309	125	6.60	23.0	25.0	8.1	93.0	15.0	370
82/08/16	11 10	0000	1.33	240	64	6.50	23.0		8.2	94.0		200
82/09/14	10 37	0000	1.17	174	105	7.10	20.0		8.3	90.0		90

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/22	10 55	0000	41	4	134	0.31	0.090	0.600	0.740	0.690	10K	50K
81/11/05	09 45	0000	25	3	105							
81/12/08	09 55	0000	22	16	77							
82/01/25	10 20	0000	19	6	78	0.63	0.130	0.400	0.180	0.120	10K	50K
82/02/15	10 30	0000	13	3	73							
82/03/18	10 10	0000	15	3	80							
82/04/15	10 00	0000	18	766	767	0.62	0.280	2.000	0.850	0.050K	10K	50K
82/05/13	10 10	0000	24	11	105							
82/06/07	15 35	0000	15	157	207							
82/07/19	09 12	0000	17	38	95	0.58	0.050K	0.200	0.160	0.090	10K	50K
82/08/16	11 10	0000	20	18	102							
82/09/14	10 37	0000	30	10	100							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/22	10 55	0000	50K	40K	100K	0.5K	100K	50K
82/01/25	10 20	0000	50K	40K	100K	0.2K	100K	50K
82/04/15	10 00	0000	50K	40K	100K	0.2K	100K	70
82/07/19	09 12	0000	50K	40K	100K	0.2	100K	50K

K Less than noted value.

02114450 LITTLE YADKIN RIVER AT DALTON, NC

LOCATION.--Lat 36°17'56", long 80°25'53", Stokes County, Hydrologic Unit 03040101, on left bank 1,200 ft (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.--22 years, 46.5 ft³/s (1.317 m³/s), 14.75 in/yr (375 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 discharge 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)
Oct. 27	0430	*1780	50.4	*5.53	1.686

Minimum discharge, 7.2 ft³/s (0.20 m³/s) Aug. 29, 30, Sept. 9, 10, 18, 19, gage height, 0.53 ft (0.162 m); minimum daily, 7.2 ft³/s (0.20 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	20	19	157	67	95	26	35	25	19	21	13
2	12	19	26	71	40	112	25	34	21	17	14	13
3	11	18	19	64	627	91	30	34	24	17	12	13
4	12	17	19	368	194	61	28	28	114	17	12	9.7
5	12	18	18	121	83	50	25	26	113	17	14	8.4
6	12	24	17	64	57	46	28	24	40	17	14	8.3
7	12	17	17	49	44	142	24	23	28	16	12	8.1
8	11	16	16	40	38	107	25	23	23	15	14	7.7
9	11	16	16	36	38	61	34	22	21	16	75	7.4
10	12	16	15	31	37	47	28	20	400	21	28	7.5
11	12	15	16	32	33	42	27	19	160	17	18	8.0
12	13	15	17	31	30	38	25	19	59	15	16	7.7
13	13	15	17	31	34	35	25	18	479	16	14	7.7
14	13	15	20	33	31	32	27	17	109	16	14	9.1
15	13	15	150	32	30	32	35	17	54	18	13	11
16	13	15	132	31	64	31	26	16	41	16	12	9.3
17	13	15	55	27	186	30	27	17	126	15	12	7.9
18	14	14	38	26	114	29	27	18	64	14	12	7.2
19	16	14	28	28	70	32	24	17	37	14	11	7.3
20	15	14	27	28	55	33	26	20	30	18	11	8.9
21	15	14	24	44	46	49	26	29	29	14	10	11
22	16	14	25	50	39	36	23	20	25	14	9.4	39
23	21	14	26	48	36	31	22	19	24	15	9.4	14
24	22	18	25	46	35	29	22	37	22	15	9.3	11
25	18	16	151	41	33	29	22	25	22	14	9.5	10
26	50	15	110	34	33	35	53	24	26	12	9.5	15
27	506	15	73	34	47	29	162	26	34	11	8.8	18
28	71	14	52	31	56	28	187	27	26	12	9.1	16
29	35	14	42	32	---	27	63	54	25	25	8.1	13
30	26	14	33	25	---	27	43	57	24	16	7.5	12
31	22	---	80	32	---	27	---	27	---	19	9.1	---
TOTAL	1053	476	1323	1717	2197	1493	1165	792	2225	498	448.7	339.2
MEAN	34.0	15.9	42.7	55.4	78.5	48.2	38.8	25.5	74.2	16.1	14.5	11.3
MAX	506	24	151	368	627	142	187	57	479	25	75	39
MIN	11	14	15	25	30	27	22	16	21	11	7.5	7.2
CFSM	.79	.37	1.00	1.29	1.83	1.13	.91	.60	1.73	.38	.34	.26
IN.	.92	.41	1.15	1.49	1.91	1.30	1.01	.69	1.93	.43	.39	.29

CAL YR 1981 TOTAL 9089.3 MEAN 24.9 MAX 602 MIN 3.8 CFSM .58 IN 7.90
WTR YR 1982 TOTAL 13726.9 MEAN 37.6 MAX 627 MIN 7.2 CFSM .88 IN 11.93

02115360 YADKIN RIVER AT ENON, NC

LOCATION (REVISED).--Lat 36°07'55", long 80°26'39", Forsyth County, Hydrologic Unit 03040101, on left bank 50 ft (15 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. 367). Corps of Engineers stage-radio telemeter at station.

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

AVERAGE DISCHARGE.--18 years, 2,566 ft³/s (72.67 m³/s), 20.57 in/yr (522 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.--Maximum discharge, 31,400 ft³/s (889 m³/s) June 13, gage height, 21.29 ft (6.489 m); minimum, 596 ft³/s (16.9 m³/s) Oct. 8, 9, gage height, 2.52 ft (0.768 m); minimum daily, 603 ft³/s (17.1 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	673	1270	825	3990	1920	3700	1680	2900	3120	2240	2200	1650
2	671	1220	1050	3000	2100	3400	1670	2470	2640	1800	2100	1570
3	656	1160	1070	2130	11800	3200	1710	2450	2440	1680	1900	1610
4	638	1000	952	6350	12700	2900	2090	2230	9110	1640	1800	1400
5	634	986	912	6210	5610	2510	1870	2030	6370	1600	1700	1300
6	633	1050	876	3440	6520	2280	1820	1880	4230	1580	1610	1280
7	616	971	853	2790	4810	2660	1740	1820	3510	1570	1540	1270
8	605	906	842	2440	3210	3680	1650	1790	2870	1540	1520	1260
9	603	878	828	1960	2360	2950	1780	1780	2360	1770	5040	1240
10	609	873	814	1470	2060	2540	1890	1680	5450	1830	2820	1240
11	620	865	800	876	1980	2250	1790	1600	6860	1690	2060	1260
12	622	856	773	1170	1890	2250	1680	1540	3590	1940	2120	1270
13	617	842	815	1630	1830	2070	1650	1520	19300	2400	1900	1280
14	617	829	856	1510	1750	2030	1620	1480	8250	4310	1760	1330
15	617	831	1530	1420	1760	1980	1850	1450	4620	8420	1730	1470
16	633	831	2610	1520	2200	1950	1710	1430	3690	4100	1670	1370
17	623	825	1650	1360	3000	1910	1680	1560	3160	2990	1570	1270
18	614	812	1260	1280	5200	1940	2100	1470	3220	2340	1540	1210
19	632	804	1110	1300	4600	1920	2110	1470	2790	2050	1560	1200
20	615	804	942	1400	3800	2000	1880	2190	2460	2750	1790	1220
21	606	807	821	1500	3100	2280	1760	2010	2240	2150	1590	1250
22	610	809	994	1900	2600	2160	1690	1930	2000	1800	1460	1420
23	641	786	1050	1970	2300	1970	1610	1780	1990	2400	1380	1300
24	710	814	1070	1970	2100	1820	1570	3200	1920	5810	1370	1220
25	767	909	1730	1740	1900	1760	1540	3580	1850	3100	1390	1200
26	912	871	2210	1560	1800	2080	2320	5970	1950	2200	1450	1270
27	12100	833	1800	1410	2000	2180	3960	5120	4190	1920	1370	1430
28	3790	824	1560	1350	2300	1890	10300	7770	2800	1790	1350	1400
29	1880	820	1420	1440	---	1730	5200	3950	2570	1780	1340	1260
30	1510	809	1290	1430	---	1680	3800	4860	2550	1720	1290	1210
31	1340	---	1330	1420	---	1680	---	3050	---	1770	1310	---
TOTAL	37414	26895	36643	64936	99200	71350	69720	79960	124100	76680	55230	39660
MEAN	1207	897	1182	2095	3543	2302	2324	2579	4137	2474	1782	1322
MAX	12100	1270	2610	6350	12700	3700	10300	7770	19300	8420	5040	1650
MIN	603	786	773	876	1750	1680	1540	1430	1850	1540	1290	1200
(†)	+23	-7	+114	+82	-2	+4	+3	+2	-7	+8	-34	-154

CAL YR 1981 TOTAL 475921 MEAN 1304 MAX 12100 MIN 368 MEAN‡ 1307 CFSM‡ .77 IN‡ 10.45
WTR YR 1982 TOTAL 781788 MEAN 2142 MAX 19300 MIN 603 MEAN‡ 2145 CFSM‡ 1.27 IN‡ 17.24

† 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.

02115360 YADKIN RIVER AT ENON, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/22	12 20	0000	2.57	622	66	6.90	13.0	3.0	9.7	92.0	11.0	10
81/11/05	10 45	0000	3.14	942	61	6.60	14.0		9.8	94.0		20
81/12/08	11 00	0000	2.97	840	43	6.40	5.0		11.7	91.0		20
82/01/25	11 50	0000	4.40	1740	47	6.30	1.0	25.0	11.6	82.0	10.0K	60
82/02/15	11 40	0000	4.47	1800	43	6.50	6.0		10.5	84.0		10
82/03/18	11 15	0000	4.72	1980	40	6.80	11.0		10.6	95.0		10K
82/04/15	11 20	0000	5.02	2220	46	7.00	15.0	15.0	9.4	92.0	10.0K	30
82/05/13	11 18	0000	4.06	1520	52	7.20	21.0		8.7	97.0		10K
82/06/07	14 10	0000	6.62	3520	29	6.90	21.0		8.7	97.0		540
82/07/19	10 30	0000	4.83	2060	48	6.90	25.0	50.0	7.8	93.0	13.0	350
82/08/16	12 30	0000	4.22	1630	48	7.00	26.0		7.7	95.0		120
82/09/14	12 00	0000	3.71	1290	45	7.30	22.0		8.3	94.0		20

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/22	12 20	0000	27	4	70	0.06	0.050K	0.300	0.090	0.050	10K	50K
81/11/05	10 45	0000	20	8	78							
81/12/08	11 00	0000	20	1K	86							
82/01/25	11 50	0000	17	10	73	0.58	0.170	0.500	0.110	0.050K	10K	50K
82/02/15	11 40	0000	15	17	66							
82/03/18	11 15	0000	15	15	70							
82/04/15	11 20	0000	17	19	77	0.21	0.050K	0.200	0.090	0.050K	10K	50K
82/05/13	11 18	0000	14	19	104							
82/06/07	14 10	0000	12	172	209							
82/07/19	10 30	0000	15	85	140	0.55	0.050K	0.300	0.130	0.050K	86	50K
82/08/16	12 30	0000	18	40	113						10K	
82/09/14	12 00	0000	19	16	66						10K	

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/22	12 20	0000	50K	40K	100K	0.5K	100K	50K
82/01/25	11 50	0000	50K	40K	100K	0.2K	100K	50K
82/04/15	11 20	0000	90	40K	100K	3.2	100K	70
82/07/19	10 30	0000	50K	40K	100K	0.2K	100K	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 September 1982 (discontinued).

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 20.3 ft³/s (0.57 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 (discontinued June 16, 1982).

AVERAGE DISCHARGE.--11 years, 71.3 ft³/s (2.019 m³/s), 14.76 in/yr (375 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, 2,280 ft³/s (64.6 m³/s) Jan. 4, gage height, 11.19 ft (3.411 m); minimum, 12 ft³/s (0.34 m³/s) Oct. 4, 5; minimum gage height, 1.30 ft (0.396 m) Sept. 7, 13; minimum daily, 13 ft³/s (0.37 m³/s) Oct. 4, 5, 8-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	58	283	59	110	37	26	76	29	36	20
2	32	20	28	109	80	99	34	25	51	27	24	22
3	14	20	19	166	453	76	39	30	66	28	23	19
4	13	19	26	794	238	60	31	25	391	26	22	15
5	13	69	18	328	99	52	31	24	552	23	22	14
6	19	36	17	99	69	53	41	23	128	24	22	14
7	17	21	18	68	54	166	30	23	63	25	20	15
8	13	19	18	52	49	131	43	42	72	28	19	15
9	13	19	17	45	68	76	64	37	71	30	89	16
10	13	20	16	37	56	58	37	23	354	26	30	16
11	13	19	16	36	42	50	33	23	204	25	26	17
12	13	19	16	38	41	47	33	22	275	32	25	14
13	13	19	16	37	66	43	32	21	248	85	22	54
14	13	19	88	35	40	39	30	21	94	55	21	61
15	13	17	348	37	40	48	36	20	69	40	20	26
16	15	19	109	48	188	40	29	60	60	34	21	21
17	14	18	49	34	329	43	35	58	186	30	31	19
18	31	17	42	30	219	38	33	54	159	27	23	19
19	26	18	35	49	96	49	27	77	65	26	21	22
20	16	17	30	39	65	58	42	37	46	25	20	18
21	16	16	27	83	53	115	32	59	39	33	19	19
22	16	16	41	70	47	60	29	49	37	52	17	42
23	56	16	52	92	43	44	28	33	36	35	15	20
24	25	30	39	65	41	41	26	110	37	28	16	18
25	48	19	363	54	38	41	27	91	32	25	19	18
26	87	17	179	47	36	45	84	503	30	24	19	70
27	210	16	82	40	113	36	62	1060	30	23	18	28
28	33	16	56	39	153	34	51	262	33	22	17	22
29	24	16	45	36	---	33	34	280	44	27	17	20
30	22	17	40	35	---	34	30	399	35	30	17	20
31	20	---	291	52	---	41	---	118	---	56	18	---
TOTAL	885	623	2199	2977	2875	1860	1120	3635	3583	1000	729	714
MEAN	28.5	20.8	70.9	96.0	103	60.0	37.3	117	119	32.3	23.5	23.8
MAX	210	69	363	794	453	166	84	1060	552	85	89	70
MIN	13	16	16	30	36	33	26	20	30	22	15	14

CAL YR 1981 TOTAL 15044 MEAN 41.2 MAX 717 MIN 12
WTR YR 1982 TOTAL 22200 MEAN 60.8 MAX 1060 MIN 13

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 records 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. 367). Corps of Engineers have a stage radio and satellite telemeter, and the National Weather Service, a telephone telemeter, at station.

AVERAGE DISCHARGE.--54 years, 2,974 ft³/s (84.22 m³/s), 17.71 in/yr (450 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, 24,000 ft³/s (680 m³/s) June 14, gage height, 18.25 ft (5.563 m); minimum, (result of regulation), 276 ft³/s (7.82 m³/s) Oct. 7, gage height, -0.21 ft (-0.064 m); minimum daily, 617 ft³/s (17.5 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	729	1440	1030	5810	2050	4240	1990	3510	3790	2740	2320	1520
2	701	1400	1260	5000	2510	4030	1970	2930	3220	2210	2510	1730
3	662	1330	1360	3460	6790	3750	1960	2740	2750	1920	2240	1640
4	688	1230	1220	8060	21000	3470	2200	2620	8850	1870	1980	1540
5	702	1150	1160	11700	8130	3200	2250	2390	9850	1830	1820	1390
6	734	1370	1100	5200	7280	2810	2150	2170	6750	1760	1730	1320
7	635	1210	1080	3700	6180	3150	2060	2070	4360	1740	1710	1340
8	631	1120	1060	3120	4330	4880	1940	2050	3630	1720	1580	1300
9	638	1080	1030	2620	3210	3900	2130	2120	3060	1760	3670	1250
10	653	1060	1000	2110	2870	3270	2210	1980	4490	2120	4510	1250
11	689	1050	978	1600	2830	2800	2150	1840	10900	2010	2550	1270
12	764	1040	968	1300	2440	2720	2000	1750	4590	1980	2290	1290
13	617	1030	973	1730	2400	2540	1920	1700	11200	2340	2250	1290
14	676	998	1050	1820	2360	2410	1890	1670	19800	3590	1960	1420
15	674	1000	2050	1800	2230	2380	1970	1640	6470	6970	1830	1540
16	699	1010	4340	1800	2630	2330	2100	1590	4720	6190	1810	1510
17	731	1010	2670	1870	4880	2310	1960	1680	3840	3600	1760	1330
18	697	1010	1820	1490	7480	2300	2080	1750	5110	2860	1670	1260
19	755	944	1530	1630	5290	2280	2460	1710	3690	2280	1600	1250
20	703	994	1370	1860	4790	2340	2230	2170	3130	2400	1790	1250
21	666	992	1320	2100	3710	2700	2100	2700	2780	2870	1730	1270
22	682	979	1270	2650	3070	2750	1970	2310	2420	2060	1570	1450
23	743	971	1570	2940	2610	2430	1870	2380	2290	2050	1480	1460
24	901	1000	1540	2860	2480	2210	1810	3290	2300	4910	1460	1320
25	926	1100	3000	2440	2320	2110	1770	4740	2180	4780	1450	1270
26	1070	1110	4090	2100	2170	2140	2030	4290	2140	2790	1460	1330
27	7900	1040	2880	1850	2280	2580	4060	12400	3820	2270	1440	1540
28	8210	1030	2290	1690	3160	2310	8120	7280	3350	2020	1430	1520
29	2720	1020	1980	1770	---	2080	7080	6460	3120	2060	1430	1390
30	1870	1010	1770	1790	---	1980	4690	5700	2880	1940	1430	1300
31	1570	---	1950	1750	---	1980	---	4190	---	2000	1410	---
TOTAL	41036	32728	52709	91620	123480	86380	77120	97820	151480	83640	59870	41540
MEAN	1324	1091	1700	2955	4410	2786	2571	3155	5049	2698	1931	1385
MAX	8210	1440	4340	11700	21000	4880	8120	12400	19800	6970	4510	1730
MIN	617	944	968	1300	2050	1980	1770	1590	2140	1720	1410	1250
(†)	+23	-7	+114	+82	-2	+4	+3	+2	-7	+8	-34	-154

CAL YR 1981 TOTAL 563641 MEAN 1544 MAX 8210 MIN 365 MEAN‡ 1547 CFSM‡ .68 IN‡ 9.23
WTR YR 1982 TOTAL 939423 MEAN 2574 MAX 21000 MIN 617 MEAN‡ 2577 CFSM‡ 1.13 IN‡ 15.34

† 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, 140 micromhos Oct. 24; minimum daily, 44 micromhos June 14.
WATER TEMPERATURES: Maximum daily, 28.0°C July 8, 28, Aug. 8, 23, 24, 25; minimum daily, 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,480 mg/L June 11; minimum daily mean, 7 mg/L Dec. 11.
SEDIMENT LOADS: Maximum daily, 80,800 tons (73,300 tonnes) May 27; minimum daily, 18 tons (16 tonnes) Oct. 10, 13, Dec. 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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											
09...	1000	1080	100	6.7	10.0	9.6	10.1	--	170	23	0
JAN											
05...	1030	13400	60	--	5.0	170	12.2	3200	3800	16	--
MAR											
02...	1300	4150	58	7.1	5.5	40	13.0	K1200	K4300	17	0
MAY											
04...	0930	2660	58	6.8	17.0	2.9	10.1	--	--	16	0
JUL											
13...	1030	2350	112	7.4	18.0	65	8.8	--	--	16	0
SEP											
07...	1100	1340	70	7.4	22.5	23	8.2	28	120	17	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											
09...	5.8	2.0	8.8	42	.9	3.1	36	0	30	9.3	6.3
JAN											
05...	3.8	1.5	4.3	33	.5	2.6	--	--	--	--	7.9
MAR											
02...	4.2	1.5	4.9	36	.6	1.8	24	0	20	1.7	5.6
MAY											
04...	4.0	1.4	4.5	36	.5	1.4	20	0	16	4.9	4.0
JUL											
13...	4.3	1.3	4.4	34	.5	1.8	26	0	21	1.7	6.0
SEP											
07...	4.5	1.4	5.7	39	.6	1.9	28	0	23	1.6	4.0

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 1981 TO SEPTEMBER 1982

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 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV											
09...	6.8	.1	15	68	63	.09	198	--	--	--	--
JAN											
05...	3.9	<.1	8.0	55	--	.07	1990	.61	.130	.17	1.60
MAR											
02...	5.5	<.1	11	56	41	.08	627	.56	.060	.08	.60
MAY											
04...	3.8	<.1	12	50	41	.07	359	.58	.070	.09	.39
JUL											
13...	5.0	.2	12	58	51	.08	368	.70	.040	.05	1.80
SEP											
07...	5.5	.1	13	57	48	.08	206	.72	.040	.05	.60

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	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)
NOV											
09...	--	--	--	--	--	1	1	0	<100	--	16
JAN											
05...	.590	1.8	.060	.040	.12	1	1	0	100	50	54
MAR											
02...	.170	.52	.100	.100	.31	--	--	--	--	--	--
MAY											
04...	.210	.64	.120	.090	.28	2	1	1	<100	--	18
JUL											
13...	.250	.77	.130	.110	.34	--	--	--	--	--	--
SEP											
07...	.180	.55	.140	.130	.40	1	0	1	<100	--	14

DATE	CADMIUM TOTAL 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)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
NOV										
09...	<1	<1	10	--	<10	<1	--	1	11	--
JAN										
05...	1	<1	20	10	10	14	--	<1	20	17
MAR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	<1	<3	10	--	<10	1	0	1	8	5
JUL										
13...	--	--	--	--	--	--	--	--	--	--
SEP										
07...	<1	<1	10	--	<10	1	--	<1	6	1

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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										
09...	<1	--	--	180	2	--	<1	--	--	29
JAN										
05...	3	19000	19000	310	49	--	<1	550	490	58
MAR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	3	1500	1300	160	5	4	1	80	70	10
JUL										
13...	--	--	--	--	--	--	--	--	--	--
SEP										
07...	5	1800	1700	130	4	--	<1	50	40	6

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)
NOV							
09...	.2	.0	.2	5	1	4	<1
JAN							
05...	.2	.1	.1	18	16	2	<1
MAY							
04...	<.1	--	<.1	3	1	2	<1
SEP							
07...	<.1	--	<.1	3	0	3	<1

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV						
09...	<1	<1	<1	--	--	7
JAN						
05...	<1	<1	<1	70	50	17
MAY						
04...	<1	<1	<1	20	--	<12
SEP						
07...	<1	<1	<1	40	30	9

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	74	78	73	85	71	70	61	55	66	92	79
2	110	74	94	69	74	75	75	62	68	67	67	70
3	120	77	74	72	50	70	82	65	66	74	65	82
4	99	82	76	66	56	69	79	64	55	78	68	80
5	98	81	87	64	56	67	72	71	60	73	71	78
6	92	135	76	63	56	69	70	73	68	72	79	77
7	91	85	77	64	53	71	70	78	59	71	80	71
8	95	83	79	68	57	52	71	74	61	75	78	77
9	110	84	83	71	57	65	78	73	61	71	75	75
10	110	84	90	88	69	66	71	72	60	75	57	78
11	100	86	87	75	71	69	71	71	51	69	57	85
12	98	89	90	75	75	71	67	76	65	74	66	85
13	90	90	93	70	84	72	64	90	50	65	69	87
14	105	95	84	70	79	75	63	85	44	68	75	85
15	110	94	83	86	74	71	69	86	57	58	74	91
16	100	86	68	96	74	72	69	88	59	48	70	73
17	110	86	65	85	71	71	77	88	62	55	71	75
18	100	89	71	88	67	77	80	82	67	61	70	88
19	97	90	75	90	65	77	67	71	65	61	71	82
20	92	89	73	100	61	80	75	80	66	63	80	80
21	110	93	72	98	62	75	72	83	69	61	80	82
22	120	92	82	90	64	69	73	77	67	69	80	99
23	118	85	82	99	62	71	82	69	74	75	84	72
24	140	91	92	85	69	74	77	70	78	69	80	82
25	97	99	60	84	73	78	78	64	78	51	80	89
26	100	84	65	84	81	76	84	65	80	55	82	84
27	90	78	60	84	85	75	63	60	75	58	90	75
28	52	78	62	87	89	71	52	56	60	68	91	71
29	60	74	65	85	---	71	66	59	60	69	87	73
30	68	72	66	92	---	75	55	59	66	70	84	71
31	73	---	66	83	---	75	---	59	---	82	96	---
MEAN	99	87	77	81	69	72	71	72	64	67	76	80

WTR YR 1982 MEAN 76 MAX 140 MIN 44

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	13.0	6.0	4.0	6.0	5.0	13.0	18.0	24.0	25.0	25.0	23.0
2	20.0	13.0	7.0	4.0	5.0	5.0	14.0	18.0	23.0	24.0	25.0	23.0
3	15.0	13.0	5.0	4.0	5.0	8.0	15.0	19.0	23.0	26.0	25.0	24.0
4	15.0	14.0	10.0	5.0	5.5	8.0	15.0	20.0	21.5	26.0	25.0	24.0
5	15.0	14.0	7.0	4.5	5.0	7.0	13.0	21.0	22.0	26.0	26.0	23.0
6	18.0	15.0	5.0	5.0	10.0	10.0	12.0	22.0	23.0	26.0	26.0	23.0
7	17.0	12.0	5.0	5.0	10.0	9.0	11.0	23.0	23.0	25.0	27.0	22.0
8	17.0	11.0	5.0	6.0	5.0	5.0	11.0	23.0	24.0	28.0	28.0	22.0
9	15.0	10.0	4.0	4.0	6.0	6.0	10.0	23.0	25.0	27.0	27.0	22.0
10	15.0	10.0	3.0	.0	6.0	7.0	10.0	23.0	22.0	27.0	25.0	22.0
11	15.0	10.0	3.0	---	6.0	9.0	10.0	23.0	21.0	26.0	25.0	21.0
12	14.0	10.0	3.0	---	5.0	10.0	13.0	24.0	23.0	26.0	25.0	22.0
13	13.0	9.0	1.0	---	9.0	12.0	14.0	24.0	21.0	26.0	24.0	22.0
14	15.0	7.0	3.0	---	7.0	13.0	15.0	25.0	20.0	26.0	25.0	23.0
15	15.0	8.0	4.0	.0	5.0	12.0	17.0	25.0	23.0	25.0	25.0	23.0
16	14.0	7.0	4.0	.0	7.0	10.0	17.0	26.0	22.0	24.0	25.0	24.0
17	15.0	8.0	4.0	.5	8.0	11.0	18.0	26.0	23.0	24.0	26.0	24.0
18	14.0	7.0	4.0	.0	8.0	10.0	18.0	26.0	23.0	26.0	25.0	23.0
19	14.0	8.0	3.0	.5	8.0	12.0	17.0	24.0	23.0	26.0	25.0	24.0
20	12.0	11.0	.0	.0	7.5	13.0	17.0	24.0	24.0	24.0	25.0	23.0
21	11.0	8.0	.5	5.0	8.0	13.0	15.0	24.0	24.0	26.0	25.0	23.0
22	12.0	8.0	.0	1.0	8.0	13.0	14.0	24.0	25.0	26.0	25.0	21.0
23	13.0	10.0	3.0	2.0	7.0	8.0	12.0	24.0	25.0	26.0	28.0	23.0
24	11.0	5.0	4.0	2.0	8.0	12.0	14.0	23.0	24.0	26.0	28.0	18.0
25	12.0	6.0	3.5	2.0	10.0	12.0	15.0	23.0	24.0	24.0	28.0	18.0
26	12.0	7.0	4.0	2.0	8.0	12.0	18.0	23.0	24.0	25.0	25.0	19.0
27	13.0	10.0	4.0	4.0	7.0	12.0	18.0	23.0	24.0	26.0	26.0	20.0
28	13.0	8.0	5.0	2.0	4.0	10.0	18.0	23.0	23.0	28.0	24.0	18.0
29	14.0	8.0	5.0	3.0	---	9.0	18.0	23.0	24.0	27.0	23.0	19.0
30	14.0	7.0	5.0	5.0	---	12.0	18.0	25.0	25.0	26.0	23.0	19.0
31	12.0	---	4.0	5.0	---	12.0	---	25.0	---	26.0	24.0	---
MEAN	14.5	9.5	4.0	3.0	7.0	10.0	14.5	23.0	23.0	26.0	25.5	22.0

WTR YR 1982 MEAN 15.5 MAX 28.0 MIN .0

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	20	39	34	132	18	50	458	7180	53	293	194	2220
2	18	34	38	144	30	102	279	3770	69	468	140	1520
3	20	36	38	136	22	81	220	2060	408	14100	111	1120
4	19	35	38	126	19	63	971	24600	1040	59000	63	590
5	15	28	40	124	19	60	525	16600	510	11200	48	415
6	15	30	82	303	10	30	420	5900	420	8260	49	372
7	19	33	60	196	10	29	280	2800	379	6320	96	924
8	16	27	29	88	9	26	185	1560	185	2160	359	4730
9	11	19	16	47	8	22	78	552	158	1370	119	1250
10	10	18	24	69	8	22	40	228	126	976	57	503
11	10	19	22	62	7	18	35	151	110	841	40	302
12	9	19	23	65	8	21	31	109	95	626	31	228
13	11	18	20	56	10	26	50	234	105	680	31	213
14	12	22	15	40	16	45	50	246	104	663	44	286
15	10	18	26	70	168	1220	49	238	103	620	31	199
16	12	23	15	41	383	4490	88	428	121	859	30	189
17	15	30	11	30	183	1320	84	424	372	5240	28	175
18	19	36	15	41	60	295	40	161	649	13100	38	236
19	21	43	12	31	28	116	42	185	340	4860	40	246
20	15	28	15	40	20	74	25	126	300	3880	38	240
21	15	27	12	32	20	71	35	198	215	2150	72	525
22	12	22	10	26	14	48	91	651	113	937	110	817
23	19	38	10	26	13	55	141	1120	110	775	70	459
24	39	95	11	30	22	91	125	965	74	496	30	179
25	24	60	25	74	266	2880	53	349	68	426	35	199
26	26	75	20	60	268	2960	34	193	67	393	38	220
27	834	27200	12	34	139	1080	57	285	84	517	86	599
28	702	17800	18	50	62	383	59	269	145	1240	55	343
29	239	1760	40	110	35	187	74	354	---	---	45	253
30	79	399	19	52	29	139	70	338	---	---	39	208
31	41	174	---	---	47	291	51	241	---	---	29	155
TOTAL	---	48205	---	2335	---	16295	---	72515	---	142450	---	19915
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	30	161	182	1720	450	4600	140	1040	111	695	39	160
2	45	239	134	1060	400	3480	110	656	111	752	60	280
3	39	206	109	806	300	2230	73	378	92	556	33	146
4	52	309	78	552	1860	55900	71	358	72	385	32	133
5	76	462	69	445	1300	34600	55	272	52	256	31	116
6	60	348	62	363	700	12800	55	261	52	243	38	135
7	44	245	63	352	525	6180	42	197	43	199	34	123
8	31	162	55	304	320	3140	47	218	48	205	25	88
9	53	305	49	280	200	1650	55	261	313	4880	22	74
10	41	245	51	273	903	16200	80	458	435	5300	25	84
11	45	261	40	199	2480	75400	78	423	230	1580	25	86
12	36	194	40	189	840	10400	69	369	145	897	24	84
13	30	156	38	174	1690	60600	179	1130	110	668	25	87
14	24	122	35	158	1310	75600	335	3250	77	407	40	153
15	30	160	38	168	419	7320	641	13500	70	346	45	187
16	40	227	40	172	355	4520	481	8040	61	298	31	126
17	51	270	100	454	219	2270	300	2920	57	271	25	90
18	40	225	90	425	440	6070	190	1470	76	343	28	95
19	58	385	89	411	305	3040	120	739	50	216	28	94
20	49	295	135	956	222	1880	105	680	45	217	25	84
21	49	278	179	1300	160	1200	210	1630	46	215	26	89
22	39	207	205	1280	138	902	250	1390	45	191	52	204
23	26	131	375	2410	118	730	225	1250	46	184	38	150
24	30	147	829	8460	103	640	528	8080	38	150	25	89
25	36	172	1000	12800	103	606	480	6190	38	149	30	103
26	58	318	571	7500	148	855	290	2180	35	138	42	151
27	226	2480	2460	80800	291	3560	148	907	32	124	30	125
28	543	13800	1050	22800	166	1500	106	578	27	104	25	103
29	580	11100	1120	19500	158	1330	125	695	35	135	25	94
30	319	4040	500	7690	138	1070	80	419	25	97	26	91
31	---	---	260	2940	---	---	99	535	34	129	---	---
TOTAL	---	37650	---	176941	---	400273	---	60474	---	20330	---	3624

TOTAL LOAD FOR YEAR: 1001007 TONS.

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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					
09...	1000	1080	16	47	86
JAN					
05...	1030	13400	330	11900	67
MAR					
02...	1300	4150	113	1270	44
APR					
02...	1130	2000	47	254	64
MAY					
04...	0930	2660	62	445	73
JUL					
13...	1030	2350	133	844	78
SEP					
07...	1100	1340	37	134	90

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/26	12 30	0000	1.00	1050	98	7.10	11.0	6.0	9.6	86.0	13.0	60
81/11/05	13 00	0000	1.13	1140	92	6.80	16.0	15.0	8.7	87.0	18.0	150
81/12/08	13 10	0000	1.03	1060	82	7.10	8.0	8.0	10.9	92.0	10.0K	40
82/01/25	14 05	0000	2.61	2440	71	6.50	3.0	25.0	11.2	83.0	12.0	340
82/02/15	14 00	0000	2.42	2260	58	6.80	8.0	35.0	10.2	86.0	10.0	80
82/03/18	13 50	0000	2.47	2330	66	6.60	15.0	20.0	9.6	94.0	10.0K	200
82/04/15	13 35	0000	2.06	1930	67	6.80	18.0	15.0	8.8	93.0	10.0K	10
82/05/13	13 40	0000	1.80	1660	69	7.20	24.0	2.0	8.2	96.0	10.0	40
82/06/07	12 15	0000	4.42	4300	54	6.80	20.0	270.0	8.2	89.0	30.0	1900
82/07/01	13 50	0000	2.94	2760	57	6.80	26.0	70.0	7.5	91.0	13.0	200
82/08/16	15 20	0000	1.94	1810	70	7.00	28.0	40.0	7.2	91.0	20.0	100
82/09/14	14 10	0000	1.50	1420	75	7.20	23.0	15.0	7.7	89.0	10.0K	190

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT WFLT MG/L	RESIDUE TOTAL 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
81/10/26	12 30	0000	31	18	117	0.37	0.090	0.500	0.230	0.160	10K	50K
81/11/05	13 00	0000	26	21	126	0.50	0.190	0.500	0.230	0.100		
81/12/08	13 10	0000	31	2	75	0.84	0.330	0.600	0.150	0.110		
82/01/25	14 05	0000	28	31	108	0.67	0.170	0.600	0.170	0.060	10K	50K
82/02/15	14 00	0000	23	26	86	0.66	0.120	0.400	0.180	0.060		
82/03/18	13 50	0000	24	32	97	0.51	0.050K	0.300	0.150	0.070		
82/04/15	13 35	0000	21	12	120	0.29	0.050K	0.200	0.150	0.080	10K	50K
82/05/13	13 40	0000	22	27	98	0.52	0.050K	0.300	0.200	0.100		
82/06/07	12 15	0000	21	273	458	0.73	0.050K	0.060	0.390	0.050K		
82/07/01	13 50	0000	20	86	160	0.66	0.050K	0.400	0.250	0.080	10K	50K
82/08/16	15 20	0000	24	53	123	0.67	0.050K	0.400	0.190	0.080		
82/09/14	14 10	0000	30	26	122	0.64	0.050	0.300	0.230	0.200		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/26	12 30	0000	50K	40K	100K	0.5K	100K	50K
82/01/25	14 05	0000	50K	40K	100K	0.2K	100K	50K
82/04/15	13 35	0000	100	40K	100K	0.2K	100K	50
82/07/01	13 50	0000	50K	40K	100K	0.2K	100K	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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for August and September, which are fair. 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.

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

AVERAGE DISCHARGE.--14 years, 1.06 ft³/s (0.030 m³/s), 13.71 in/yr (348 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0730	*83	2.35	*2.60	0.792	May 26	1700	58	1.64	2.27	0.692
Feb. 3	1015	41	1.16	2.03	0.619						

Minimum discharge, 0.11 ft³/s (0.003 m³/s) Oct. 1, 2, 7, 8, gage height, 0.41 ft (0.125 m); minimum daily, 0.13 ft³/s (0.004 m³/s) Oct. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.23	.62	3.7	.63	2.2	.42	.57	1.9	.41	.42	.20
2	.15	.23	.44	1.3	.94	1.3	.41	.56	1.3	.39	.31	.19
3	.14	.23	.36	3.1	16	.93	.47	.54	.83	.40	.27	.17
4	.15	.22	.33	18	3.9	.80	.38	.48	.83	.39	.25	.16
5	.15	.27	.31	2.2	1.9	.71	.39	.46	1.0	.38	.26	.15
6	.15	.26	.29	1.2	1.4	.71	.41	.45	.66	.37	.24	.14
7	.13	.22	.28	.86	1.0	2.3	.36	.44	.57	.37	.22	.15
8	.13	.22	.26	.66	.92	1.5	.49	.48	.52	.36	.24	.14
9	.14	.22	.23	.56	1.0	1.0	.59	.45	.48	.37	.85	.14
10	.16	.21	.22	.46	.95	.83	.44	.41	1.2	.36	.36	.14
11	.16	.21	.22	.41	.81	.76	.44	.43	.79	.34	.32	.15
12	.15	.21	.21	.41	.78	.68	.42	.42	.95	.32	.31	.17
13	.16	.20	.20	.45	.94	.64	.41	.37	6.2	.31	.29	.21
14	.15	.20	.53	.46	.78	.59	.45	.35	1.8	.31	.27	.20
15	.16	.20	3.0	.41	.77	.66	.46	.35	1.0	.31	.25	.16
16	.15	.21	1.4	.43	2.1	.60	.44	.35	.79	.30	.24	.15
17	.15	.21	.64	.39	3.1	.62	.49	.37	.99	.29	.49	.15
18	.18	.21	.47	.36	2.0	.54	.45	.37	.93	.27	.25	.14
19	.17	.21	.37	.51	1.4	.53	.46	1.1	.69	.27	.20	.14
20	.16	.21	.32	.53	1.1	.74	.57	2.0	.58	.26	.19	.15
21	.17	.20	.30	1.3	.92	.86	.52	1.1	.53	.25	.19	.18
22	.17	.20	.35	1.3	.78	.64	.50	4.4	.54	.39	.20	.23
23	.25	.20	.41	1.8	.71	.58	.48	2.1	.51	.44	.19	.18
24	.20	.27	.40	1.5	.67	.56	.48	2.4	1.5	.33	.18	.17
25	.31	.23	3.6	.96	.62	.53	.55	1.8	.62	.29	.17	.18
26	.42	.22	1.6	.74	.60	.51	.92	7.9	.54	.26	.17	.37
27	.99	.21	.87	.60	1.6	.47	1.3	3.3	.54	.24	.17	.28
28	.33	.20	.62	.56	2.5	.43	.98	2.2	.52	.96	.16	.23
29	.27	.20	.50	.53	---	.43	.71	2.0	.48	.44	.16	.20
30	.25	.22	.42	.51	---	.40	.62	1.0	.44	.35	.17	.20
31	.23	---	5.9	.65	---	.48	---	1.2	---	.68	.19	---
TOTAL	6.63	6.53	25.67	46.87	50.82	24.53	16.01	40.35	30.23	11.41	8.18	5.42
MEAN	.21	.22	.83	1.51	1.82	.79	.53	1.30	1.01	.37	.26	.18
MAX	.99	.27	5.9	18	16	2.3	1.3	7.9	6.2	.96	.85	.37
MIN	.13	.20	.20	.36	.60	.40	.36	.35	.44	.24	.16	.14
CFSM	.20	.21	.79	1.44	1.73	.75	.51	1.24	.96	.35	.25	.17
IN.	.23	.23	.91	1.66	1.80	.87	.57	1.43	1.07	.40	.29	.19

CAL YR 1981 TOTAL 182.50 MEAN .50 MAX 7.3 MIN .13 CFSM .48 IN 6.46
WTR YR 1982 TOTAL 272.65 MEAN .75 MAX 18 MIN .13 CFSM .71 IN 9.65

02117030 HUMPY CREEK NEAR FORK, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/26	13 45	0000	0.62	0.4	64	6.70	11.0	10.0	8.5	77.0	26.0	1200
81/11/05	13 45	0000	0.52	0.2	60	6.70	16.0		7.4	74.0		370
81/12/08	13 50	0000	0.54	0.3	53	6.60	9.0		9.7	84.0		290
82/01/25	14 50	0000	0.84	1	43	6.10	5.0	25.0	10.8	84.0	10.0K	70
82/02/15	14 42	0000	0.72	1	42	6.40	10.0		9.7	86.0		100
82/03/18	14 35	0000	0.70	0.5	45	6.50	17.0		9.2	95.0		70
82/04/15	14 25	0000	0.66	0.5	46	6.80	20.0	15.0	8.3	90.0	7.0	800
82/05/13	14 28	0000	0.58	0.3	52	7.00	22.0		8.1	92.0		340
82/06/07	11 30	0000	0.68	1	54	6.80	19.0		8.5	90.0		940
82/07/01	14 00	0000	0.58	0.4	31	7.00	22.0	10.0	7.9	90.0	10.0K	370
82/08/16	16 05	0000	0.50	0.2	52	6.90	25.0		7.2	86.0		510
82/09/14	15 00	0000	0.48	0.2	55	7.00	20.0		7.9	86.0		2100

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/26	13 45	0000	21	8	109	0.66	0.060	0.500	0.080	0.050K	10K	50K
81/11/05	13 45	0000	26	4	96							
81/12/08	13 50	0000	25	11	81							
82/01/25	14 50	0000	13	9	68	0.22	0.050K	0.200	0.050K	0.050K	10K	50K
82/02/15	14 42	0000	18	10	73							
82/03/18	14 35	0000	17	11	71							
82/04/15	14 25	0000	20	5	77	0.12	0.050K	0.200	0.080	0.050K	10K	50K
82/05/13	14 28	0000	24	11	93							
82/06/07	11 30	0000	23	14	80							
82/07/01	14 00	0000	28	6	74	0.28	0.050K	0.200	0.080	0.050K	10K	50K
82/08/16	16 05	0000	26	14	86							
82/09/14	15 00	0000	24	22	102							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/26	13 45	0000	50K	40K	100K	0.5K	100K	50K
82/01/25	14 50	0000	50K	40K	100K	0.2K	100K	50K
82/04/15	14 25	0000	90	40K	100K	0.2K	100K	50K
82/07/01	14 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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 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 mi^2 (793 km^2).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good. The city of Statesville diverted an average of 8.0 ft^3/s (0.23 m^3/s) for water supply and waste-treatment dilution. The Alexander Water Corporation withdraws an average of 1.5 ft^3/s (0.042 m^3/s) for water supply.

AVERAGE DISCHARGE.--44 years, 342 ft^3/s (9.685 m^3/s), 15.18 in/yr (386 mm/yr).

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 RECORD.--Maximum discharge, 11,800 ft^3/s (334 m^3/s) Oct. 17, 1964; maximum gage height, 18.59 ft (5.666 m) Sept. 23, 1979; minimum, 30 ft^3/s (0.85 m^3/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 ft^3/s or about 620 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,700 ft^3/s (76 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 5	0100	*2900	82.1	*9.77	2.978

Minimum discharge, 67 ft^3/s (1.90 m^3/s) Oct. 9, gage height, 1.62 ft (0.494 m); minimum daily, 68 ft^3/s (1.93 m^3/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	161	138	1400	287	567	217	373	386	186	444	122
2	76	153	209	817	270	496	220	327	517	174	307	147
3	80	145	191	654	1420	416	213	316	284	168	204	132
4	72	141	156	2040	2520	368	229	279	217	172	169	125
5	76	146	153	2420	1470	330	220	257	1300	168	157	114
6	79	181	138	785	650	307	219	241	1490	155	219	104
7	73	149	132	518	499	417	216	230	463	147	217	98
8	75	131	132	411	411	567	209	225	315	160	170	101
9	68	126	135	336	377	426	247	238	257	153	162	99
10	77	131	119	293	406	364	256	224	401	157	161	95
11	82	129	115	198	347	331	236	206	776	170	192	98
12	84	122	121	256	314	321	217	201	409	182	312	98
13	91	119	120	272	319	298	208	194	1530	174	274	98
14	82	126	137	250	321	283	217	184	1460	344	198	103
15	85	123	416	248	289	288	244	174	533	231	172	114
16	90	119	692	242	378	292	234	179	378	243	159	114
17	81	129	402	210	609	291	217	175	322	194	157	109
18	86	126	266	203	647	305	242	185	636	176	147	96
19	91	115	225	246	504	271	237	179	366	156	141	90
20	89	116	165	222	419	264	219	179	291	146	136	98
21	90	124	137	298	373	279	232	174	243	152	130	97
22	84	117	212	391	329	274	219	170	220	230	131	122
23	90	111	198	538	298	249	210	206	225	329	130	124
24	111	125	198	577	289	235	198	227	230	430	118	114
25	123	130	722	427	272	236	200	244	217	286	112	104
26	176	123	903	339	254	237	324	302	202	200	113	106
27	1090	126	544	278	305	235	866	496	236	175	111	117
28	605	125	380	241	478	221	1130	235	241	216	111	119
29	260	120	306	255	---	217	713	404	245	182	110	119
30	190	120	261	242	---	218	470	280	218	173	109	106
31	170	---	462	245	---	214	---	221	---	239	104	---
TOTAL	4599	3909	8485	15852	15055	9817	9079	7525	14608	6268	5377	3283
MEAN	148	130	274	511	538	317	303	243	487	202	173	109
MAX	1090	181	903	2420	2520	567	1130	496	1530	430	444	147
MIN	68	111	115	198	254	214	198	170	202	146	104	90
CFSM	.48	.43	.90	1.67	1.76	1.04	.99	.79	1.59	.66	.57	.36
IN.	.56	.48	1.03	1.93	1.83	1.19	1.10	.91	1.78	.76	.65	.40

CAL YR 1981 TOTAL 79333 MEAN 217 MAX 3540 MIN 68 CFSM .71 IN 9.64
WTR YR 1982 TOTAL 103857 MEAN 285 MAX 2520 MIN 68 CFSM .93 IN 12.63

02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/26	11 10	0000	2.14	163	53	6.60	10.0	15.0	9.4	83.0	15.0	3000
81/11/05	11 45	0000	2.02	143	59	6.90	15.0		9.3	91.0		250
81/12/08	11 50	0000	1.98	130	44	6.80	6.0		10.8	86.0		280
82/01/25	12 45	0000	3.02	417	46	6.30	3.0	30.0	11.2	83.0	10.0K	470
82/02/15	12 35	0000	2.62	285	43	6.40	8.0		10.6	89.0		200
82/03/18	12 15	0000	2.70	310	47	6.80	13.0		10.1	95.0		600
82/04/15	12 10	0000	2.50	250	48	6.90	17.0	20.0	9.0	93.0	11.0	2700
82/05/13	12 08	0000	2.30	195	51	7.00	21.0		8.3	92.0		30
82/06/07	13 13	0000	3.10	453	42	6.80	21.0		8.2	91.0		1600
82/07/01	15 00	0000	2.22	180	48	7.10	25.0	30.0	7.8	93.0	10.0K	910
82/08/16	14 40	0000	2.10	155	52	7.10	25.0		7.3	87.0		910
82/09/14	12 55	0000	1.82	105	51	7.30	22.0		8.0	91.0		100

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/26	11 10	0000	25	32	107	0.05K	0.050K	0.300	0.060	0.050K	10K	50K
81/11/05	11 45	0000	30	13	95							
81/12/08	11 50	0000	24	1	103							
82/01/25	12 45	0000	17	32	95	0.62	0.060	0.400	0.070	0.050K	10K	50K
82/02/15	12 35	0000	17	19	74							
82/03/18	12 15	0000	22	34	87							
82/04/15	12 10	0000	18	22	87	0.33	0.050K	0.200	0.050	0.050K	10K	50K
82/05/13	12 08	0000	25	44	90							50K
82/06/07	13 13	0000	17	157	208							
82/07/01	15 00	0000	30	67	135	0.44	0.050K	0.300	0.090	0.050K	10K	50K
82/08/16	14 40	0000	28	113	172							
82/09/14	12 55	0000	28	38	111							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/26	11 10	0000	50K	40K	100K	0.5K	100K	50K
82/01/25	12 45	0000	50K	40K	100K	0.2K	100K	50K
82/04/15	12 10	0000	60	40K	100K	0.2K	100K	50K
82/05/13	12 08	0000	50K	40K	100K		100K	50K
82/07/01	15 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02118500 HUNTING CREEK NEAR HARMONY, NC

LOCATION.--Lat 36°00'00", long 80°44'44", Iredell County, Hydrologic Unit 03040102, on right bank 52 ft (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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--32 years, 205 ft³/s (5.806 m³/s), 17.96 in/yr (456 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	1730	*3650	103	*10.96	3.341	June 4	2300	2000	56.6	6.89	2.100
May 26	1430	3010	85.2	9.33	2.844	July 15	0630	2770	78.4	8.51	2.594

Minimum discharge, 40 ft³/s (1.13 m³/s) Oct. 8, 9; minimum gage height, 0.27 ft (0.082 m); Oct. 1, 3; minimum daily, 40 ft³/s (1.13 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	90	77	594	155	283	130	214	235	136	219	101
2	44	86	114	351	138	288	124	193	159	120	132	91
3	43	82	88	270	1920	252	143	181	134	115	112	83
4	44	79	77	1030	1030	220	166	166	430	111	105	75
5	45	99	73	505	407	201	140	155	968	106	101	71
6	46	96	66	286	285	186	151	148	269	106	112	70
7	43	84	65	218	232	260	137	143	185	105	100	70
8	40	80	64	187	206	302	140	143	154	102	94	68
9	42	79	61	169	198	232	170	143	142	113	110	68
10	43	76	60	144	201	206	151	130	229	129	128	66
11	46	74	58	167	178	192	142	124	341	120	117	69
12	46	71	59	207	168	181	137	119	196	117	144	69
13	45	67	58	187	178	172	134	115	952	157	111	68
14	44	67	70	186	169	165	133	111	354	159	105	74
15	44	67	179	175	161	168	140	107	227	944	97	82
16	44	67	278	171	232	169	132	106	186	233	93	73
17	44	68	159	140	441	184	135	115	173	159	90	68
18	45	66	129	143	385	171	158	103	220	131	89	66
19	47	64	109	148	272	160	134	103	169	119	87	66
20	48	65	117	139	231	160	134	110	150	140	83	71
21	49	64	122	148	208	165	137	108	141	114	81	76
22	50	62	126	175	185	160	128	113	136	112	81	93
23	58	62	114	202	173	147	121	116	138	142	80	79
24	81	73	105	211	167	144	118	145	135	431	79	71
25	67	77	247	176	157	143	118	132	135	156	79	69
26	141	62	266	157	149	152	440	599	191	123	78	74
27	878	59	192	137	182	138	469	198	209	112	76	89
28	231	60	170	128	255	131	842	255	210	141	75	82
29	130	56	154	135	---	130	359	179	167	109	74	76
30	107	56	139	126	---	130	252	150	141	112	70	72
31	96	---	196	127	---	130	---	317	---	151	79	---
TOTAL	2776	2158	3792	7139	8663	5722	5815	5041	7476	5125	3081	2250
MEAN	89.5	71.9	122	230	309	185	194	163	249	165	99.4	75.0
MAX	878	99	278	1030	1920	302	842	599	968	944	219	101
MIN	40	56	58	126	138	130	118	103	134	102	70	66
CFSM	.58	.46	.79	1.48	1.99	1.19	1.25	1.05	1.61	1.07	.64	.48
IN.	.67	.52	.91	1.71	2.08	1.37	1.40	1.21	1.79	1.23	.74	.54

CAL YR 1981 TOTAL 37783 MEAN 104 MAX 878 MIN 39 CFSM .67 IN 9.07
WTR YR 1982 TOTAL 59038 MEAN 162 MAX 1920 MIN 40 CFSM 1.05 IN 14.17

02118500 HUNTING CREEK NEAR HARMONY, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/09	13 40	0000	0.29	41	48		13.0		9.4	89.0		150
81/11/17	14 15	0000	0.70	74	46		9.0	4.0	10.9	94.0	10.0K	100
81/12/10	12 50	0000	0.63	60			1.0		13.9	98.0		70
82/01/22	14 00	0000	1.42	168	68		4.0		12.4	95.0		2300
82/02/11	11 30	0000	1.22	170	58		6.0	15.0	11.7	91.0	10.0	530
82/03/10	11 05	0000	1.47	196	48		8.0		11.2	94.0		300
82/04/19	10 35	0000	1.02	140	41		14.0		9.6	92.0		260
82/05/05	10 40	0000	1.18	167	48	6.80	15.0	8.0	10.1	99.0	10.0K	550
82/06/15	10 20	0000	1.50	215	42	6.70	19.0		8.0	85.0		2000
82/07/13	11 45	0000	1.36	184	45	6.40	23.0		9.6	110.0		5500
82/08/11	11 20	0000	0.70	116	45	6.40	22.0	35.0	7.0	81.0	11.0	900
82/09/21	11 00	0000	0.42	78	30	6.80	14.0		8.2	79.0		310

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/09	13 40	0000		6	76							
81/11/17	14 15	0000		2	430	0.30	0.050K	0.100	0.050K	0.050K	10K	50K
81/12/10	12 50	0000		3	62							
82/01/22	14 00	0000		17	100							
82/02/11	11 30	0000		14	100	0.68	0.050	0.500	0.190	0.050K	10K	50K
82/03/10	11 05	0000		71	150							
82/04/19	10 35	0000		9	54							
82/05/05	10 40	0000	11	44	151	0.50	0.050K	0.200	0.070	0.050K	10K	50K
82/06/15	10 20	0000	10	145	192							
82/07/13	11 45	0000	13	128	202							
82/08/11	11 20	0000	13	39	98	0.48	0.050K	0.400	0.090	0.050K	10K	50K
82/09/21	11 00	0000	24	16	157							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/17	14 15	0000	50K	40K	100	2.0	100K	50K
82/02/11	11 30	0000	50K	40K	100	1.8	100K	50K
82/05/05	10 40	0000	50K	40K	100K	0.5	100K	50K
82/08/11	11 20	0000	50K	40K	100K	0.5	100K	50K

K Less than noted value.

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)
Jan. 1	0300	1800	51.0	11.73	3.575	Feb. 3	1830	1830	51.8	11.88	3.621
Jan. 4	2030	*2050	58.1	*12.72	3.877	June 1	2130	1610	45.6	11.00	3.353

Minimum discharge, 11 ft³/s (0.31 m³/s) Sept. 7, 8, gage height, 1.35 ft (0.411 m); minimum daily, 12 ft³/s (0.34 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	39	54	1070	104	253	67	69	714	41	125	27
2	22	37	73	229	87	170	64	66	360	38	49	23
3	21	36	47	439	1090	132	68	63	115	37	42	19
4	22	34	42	1500	659	113	63	59	96	36	38	17
5	19	35	38	773	222	105	62	56	115	35	38	15
6	14	52	36	226	170	99	62	55	74	34	42	15
7	13	37	36	169	138	210	61	54	64	34	36	15
8	12	35	35	138	121	193	66	54	59	34	36	14
9	13	34	33	120	124	128	90	52	55	34	34	14
10	16	34	32	102	130	112	67	50	72	40	34	14
11	16	33	32	99	109	104	64	47	79	36	33	15
12	16	32	33	100	101	98	62	46	57	35	185	16
13	16	32	32	91	131	94	61	45	117	34	44	18
14	16	33	47	89	112	93	62	43	91	192	40	18
15	16	33	351	84	102	97	73	42	62	55	32	22
16	16	32	312	83	224	97	63	41	56	49	30	18
17	15	31	112	83	466	91	65	62	54	56	27	14
18	16	30	87	77	223	86	67	57	346	42	26	18
19	18	30	75	81	155	83	59	44	89	39	26	41
20	15	30	67	86	131	99	62	45	67	37	24	21
21	17	29	72	185	117	115	63	50	62	35	23	19
22	18	29	65	176	104	89	59	184	58	35	22	30
23	21	29	64	283	98	81	56	225	56	51	21	19
24	27	36	63	239	96	77	55	144	57	56	21	18
25	31	33	377	140	92	75	56	79	54	42	20	17
26	84	31	238	114	88	73	92	64	52	36	19	23
27	527	31	127	96	139	69	197	76	50	34	19	28
28	84	32	99	92	237	67	176	70	48	32	19	22
29	55	30	86	87	---	66	90	168	46	32	17	19
30	46	31	76	83	---	67	75	67	45	41	17	19
31	41	---	433	85	---	68	---	122	---	95	18	---
TOTAL	1286	1000	3274	7219	5570	3304	2227	2299	3270	1427	1157	588
MEAN	41.5	33.3	106	233	199	107	74.2	74.2	109	46.0	37.3	19.6
MAX	527	52	433	1500	1090	253	197	225	714	192	185	41
MIN	12	29	32	77	87	66	55	41	45	32	17	14
CFSM	.35	.28	.90	1.98	1.69	.91	.63	.63	.92	.39	.32	.17
IN.	.41	.32	1.03	2.28	1.76	1.04	.70	.72	1.03	.45	.36	.19

CAL YR 1981 TOTAL 23454 MEAN 64.3 MAX 1410 MIN 12 CFSM .55 IN 7.39
WTR YR 1982 TOTAL 32621 MEAN 89.4 MAX 1500 MIN 12 CFSM .76 IN 10.28

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, 1.2 ft³/s (0.034 m³/s) Oct. 8, 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 31	2000	222	6.29	3.97	1.210	July 23	1900	555	15.7	6.13	1.868
Jan. 4	1200	*594	16.8	*6.32	1.926	July 31	2030	250	7.08	4.22	1.286
June 5	0330	391	11.1	5.25	1.600						

Minimum discharge, 1.1 ft³/s (0.031 m³/s) Oct. 8; minimum gage height, 1.01 ft (0.308 m) Oct. 7, 8; minimum daily, 1.2 ft³/s (0.034 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.7	4.3	35	6.9	18	5.1	6.4	18	3.8	19	3.5
2	1.6	2.7	4.1	13	6.8	12	4.9	6.0	12	3.8	8.2	3.3
3	1.9	2.6	3.3	39	76	9.7	5.9	6.0	8.4	3.8	5.9	3.1
4	2.9	2.6	3.4	167	29	8.4	5.2	5.2	23	3.8	4.9	2.9
5	2.2	2.7	3.1	24	14	7.7	5.2	4.9	101	3.7	4.7	2.9
6	1.6	2.8	3.0	14	11	7.0	4.9	4.8	15	3.7	4.5	2.9
7	1.3	2.5	3.1	11	8.2	25	4.4	4.6	9.8	3.6	4.1	2.8
8	1.2	2.4	3.1	8.6	7.4	16	5.2	4.6	7.7	3.5	4.3	2.8
9	1.4	2.4	2.9	7.3	9.0	10	7.1	4.6	6.7	9.2	12	2.7
10	1.6	2.4	2.9	6.4	8.9	8.6	5.3	4.4	24	4.8	7.7	2.8
11	2.1	2.5	3.0	6.0	7.2	7.9	5.0	4.3	16	3.9	7.1	2.8
12	2.0	2.4	2.9	5.1	6.8	7.4	4.8	4.3	9.0	4.7	5.7	2.8
13	1.9	2.4	3.0	5.3	11	7.0	4.7	4.1	19	5.3	4.8	3.5
14	1.9	2.4	5.1	5.4	8.1	6.6	4.7	3.9	11	3.9	4.5	3.9
15	1.9	2.5	22	5.2	7.2	7.8	4.9	3.8	7.9	3.6	4.3	3.4
16	1.8	2.5	12	5.5	24	7.3	4.7	3.7	6.8	3.4	3.9	3.0
17	1.8	2.6	5.8	5.2	31	7.0	6.8	3.6	6.6	3.2	8.3	2.9
18	1.8	2.5	4.8	5.1	15	6.4	6.4	3.5	11	3.1	5.9	2.9
19	2.2	2.5	4.0	7.0	11	6.3	5.1	6.3	6.4	3.1	4.3	4.0
20	1.9	2.6	4.2	8.1	9.2	7.0	6.0	8.8	5.5	3.0	4.0	3.2
21	2.1	2.5	4.0	27	8.1	8.4	5.6	13	5.0	2.9	3.9	3.1
22	2.1	2.5	4.1	20	7.0	6.7	5.0	7.9	5.0	12	3.7	3.3
23	2.6	2.6	4.1	26	6.6	6.1	4.8	8.5	4.9	98	3.6	2.9
24	2.6	3.2	3.9	19	6.4	6.0	4.6	71	5.0	17	3.5	2.8
25	3.2	2.8	27	11	5.9	5.8	4.7	30	4.7	8.6	3.4	2.8
26	3.9	2.7	14	8.3	5.7	5.5	13	37	4.6	6.8	3.1	4.6
27	15	2.9	7.6	7.1	19	5.2	35	26	4.7	5.7	3.2	3.7
28	3.9	3.0	5.9	6.1	26	5.1	16	18	4.6	4.7	3.6	3.2
29	3.0	2.8	5.0	5.7	---	5.1	9.2	19	4.6	4.1	3.1	3.1
30	2.7	2.8	4.4	5.6	---	5.1	7.4	9.6	4.1	4.4	3.1	3.0
31	2.7	---	51	6.1	---	5.2	---	12	---	44	3.3	---
TOTAL	80.6	78.5	231.0	525.1	392.4	257.3	211.6	349.8	372.0	289.1	165.6	94.6
MEAN	2.60	2.62	7.45	16.9	14.0	8.30	7.05	11.3	12.4	9.33	5.34	3.15
MAX	15	3.2	51	167	76	25	35	71	101	98	19	4.6
MIN	1.2	2.4	2.9	5.1	5.7	5.1	4.4	3.5	4.1	2.9	3.1	2.7
CFSM	.27	.27	.77	1.76	1.46	.86	.73	1.18	1.29	.97	.56	.33
IN.	.31	.30	.89	2.03	1.52	.99	.82	1.35	1.44	1.12	.64	.37

CAL YR 1981 TOTAL 1810.6 MEAN 4.96 MAX 92 MIN 1.2 CFSM .52 IN 7.00
WTR YR 1982 TOTAL 3047.6 MEAN 8.35 MAX 167 MIN 1.2 CFSM .87 IN 11.78

02123567 DUTCHMANS CREEK NEAR UWHARRIE, NC

LOCATION.--Lat 35°22'05", long 80°01'49", Montgomery County, Hydrologic Unit 03040103, near midstream at upstream end of two 6 ft corrugated metal pipe culverts on Secondary Road 1150, 1.0 mi (1.6 km) upstream from mouth and 3.0 mi (4.8 km) southwest of Uwharrie.

DRAINAGE AREA.--3.44 mi² (8.91 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1981 to September 1982.

GAGE.--Water-stage recorder. Datum of gage is 340 ft (104 m) from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft³/s (3.4 m³/s), from rating curve extended above 85 ft³/s (2.41 m³/s) on basis of computation of peak flow through culvert, 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. 31	1900	173	4.9	4.54	1.384	Feb. 3	1115	*215	6.1	*5.01	1.527

Minimum discharge, 0.29 ft³/s (0.008 m³/s) Sept. 9; minimum gage height, 1.15 ft (0.351 m) Sept. 5, 6, 7, 8, 9; minimum daily, 0.33 ft³/s (0.009 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.84	.75	1.9	17	4.2	11	2.3	4.2	2.0	2.4	2.5	.65
2	.80	.76	2.0	5.0	3.0	7.0	2.3	3.8	2.4	1.0	1.2	.59
3	.68	.74	1.3	36	59	5.4	2.6	3.5	1.7	1.0	.98	.46
4	.68	.75	1.2	36	13	4.4	2.2	3.1	3.5	1.2	.87	.46
5	.68	1.0	1.0	9.6	7.2	4.0	2.2	2.9	5.4	1.7	.82	.36
6	.68	1.4	.90	5.2	5.6	6.6	2.2	2.7	2.0	1.6	.85	.36
7	.68	1.0	.90	4.5	4.3	14	2.1	2.6	1.5	1.3	.73	.36
8	.64	.90	.90	5.0	3.7	9.1	3.5	2.7	1.4	1.0	.70	.36
9	.64	.90	.75	3.4	4.2	5.9	2.1	2.6	1.4	.88	.78	.33
10	.68	.91	.74	2.7	4.7	4.9	2.0	2.3	1.7	.86	.97	.35
11	.68	.91	.75	2.4	3.5	4.3	2.3	2.2	2.4	1.6	4.6	.38
12	.68	.90	.65	2.4	3.2	3.9	2.0	2.2	1.5	2.0	4.3	.41
13	.68	.75	.66	2.9	4.1	3.7	1.9	2.0	2.5	8.5	1.4	.37
14	.68	.76	.75	2.8	3.2	3.6	1.9	1.9	2.1	2.2	1.2	.45
15	.68	.90	14	2.3	3.0	6.3	1.8	1.9	1.5	1.6	.97	.53
16	.73	.91	4.7	3.8	15	4.8	1.8	1.9	1.4	1.7	.87	.43
17	.73	1.1	1.7	4.1	28	4.1	2.2	1.8	2.7	1.6	5.7	.35
18	.73	.91	1.6	2.9	8.5	3.6	2.4	1.8	1.6	1.2	2.8	.36
19	.73	.75	1.4	5.1	7.5	3.4	1.8	2.5	1.5	1.1	1.5	.78
20	.73	1.0	1.0	7.1	5.7	3.2	4.4	3.5	1.3	.98	1.7	.61
21	.73	.90	.95	14	4.7	3.1	3.6	4.1	1.2	.89	1.1	.79
22	.78	.88	.90	8.5	3.8	3.0	2.5	2.4	1.2	.83	.94	.65
23	.83	.90	.90	16	3.3	2.8	2.1	2.8	1.3	1.4	.78	.50
24	.87	2.4	.75	12	3.1	2.8	2.0	3.5	1.2	1.4	.70	.46
25	2.8	1.4	13	5.9	2.8	2.6	2.0	2.3	1.1	1.1	1.0	.43
26	11	1.0	6.5	4.2	2.6	2.6	10	2.8	1.0	.97	.71	1.4
27	3.2	.90	3.5	3.3	22	2.6	32	3.7	.98	.84	.65	.73
28	1.0	1.0	2.2	3.0	19	2.5	22	2.8	1.2	.77	.61	.43
29	.75	.75	1.9	2.8	---	2.5	6.6	2.7	1.1	1.8	.52	.38
30	.75	.90	1.3	2.6	---	2.4	4.9	2.0	1.4	1.4	.48	.40
31	.75	---	33	2.9	---	2.4	---	1.7	---	2.2	.54	---
TOTAL	37.51	29.03	103.70	235.4	251.9	142.5	133.7	82.9	53.18	49.02	43.47	15.12
MEAN	1.21	.97	3.35	7.59	9.00	4.60	4.46	2.67	1.77	1.58	1.40	.50
MAX	11	2.4	33	36	59	14	32	4.2	5.4	8.5	5.7	1.4
MIN	.64	.74	.65	2.3	2.6	2.4	1.8	1.7	.98	.77	.48	.33
CFSM	.35	.28	.97	2.21	2.62	1.34	1.30	.78	.52	.46	.41	.15
IN.	.41	.31	1.12	2.54	2.72	1.54	1.45	.90	.57	.53	.47	.16

WTR YR 1982 TOTAL 1177.43 MEAN 3.23 MAX 59 MIN .33 CFSM .94 IN 12.73

02123567 DUTCHMANS CREEK NEAR UWHARRIE

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to September 1982.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1981 to September 1982.
WATER TEMPERATURES: November 1981 to September 1982.

INSTRUMENTATION.--Water-quality monitor since November 1981.

REMARKS.--Basin above station is 98 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, 70 micromhos Sept. 8; minimum, 29 micromhos Feb. 3, 27.
WATER TEMPERATURES: Maximum, 25.5°C July 28; minimum, 0.0°C on many days in December and January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1200	.68	55	6.4	9.5	7	11.2	14	0	2.9	1.6	6.5
JAN												
04...	1000	97	30	6.4	8.0	70	13.2	8	3	1.6	.9	2.3
04...	1415	44	30	6.1	9.0	70	12.9	8	5	1.6	.9	2.1
FEB												
03...	0830	31	35	--	--	85	--	9	--	1.8	1.1	3.4
03...	0900	63	34	--	--	80	--	9	--	1.9	1.1	3.0
03...	1000	184	28	--	--	90	--	7	--	1.5	.9	2.1
03...	1100	208	28	--	--	85	--	8	--	1.7	.9	1.8
03...	1230	170	28	--	--	90	--	8	--	1.6	.9	1.6
APR												
12...	0945	2.1	45	6.8	10.0	15	11.0	10	0	2.2	1.1	5.4
JUL												
14...	1030	2.6	41	7.1	--	75	11.4	9	3	2.4	.8	4.1

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												
14...	47	.8	1.5	24	0	20	15	1.7	3.7	<.1	32	79
JAN												
04...	34	.4	1.5	6	0	5	3.8	5.9	2.0	<.1	9.9	50
04...	33	.4	1.4	4	0	3	5.1	5.8	1.9	<.1	9.3	48
FEB												
03...	42	.6	.9	--	--	--	--	4.3	2.4	<.1	14	58
03...	39	.5	.8	--	--	--	--	4.1	2.3	.1	12	54
03...	34	.4	1.1	--	--	--	--	4.5	1.8	<.1	8.0	50
03...	29	.3	1.3	--	--	--	--	5.3	2.0	<.1	6.8	54
03...	27	.3	1.5	--	--	--	--	5.4	1.6	<.1	5.8	45
APR												
12...	51	.8	.9	20	0	16	5.3	2.0	3.1	<.1	27	--
JUL												
14...	46	.6	1.0	7	0	6	.9	5.0	3.1	<.1	24	68

02123567 DUTCHMANS CREEK NEAR UWHARRIE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
OCT												
14...	62	.11	.15	--	<.010	<.01	.01	.020	.060	.08	.23	.19
JAN												
04...	28	.07	13.1	.04	.010	.05	.04	.010	.030	.04	.30	.25
04...	25	.07	5.7	--	<.010	.03	.03	<.010	<.010	.01	--	--
FEB												
03...	32	.08	4.9	.08	.050	.13	.13	.090	.100	.13	.49	.28
03...	28	.07	9.2	.04	.060	.10	.14	.090	.050	.06	.77	--
03...	23	.07	24.8	.05	.070	.12	.10	.100	.080	.10	.90	.27
03...	22	.07	30.3	.08	.050	.13	.17	.100	.100	.13	1.0	1.0
03...	21	.06	20.7	.06	.040	.10	.09	.060	.080	.10	.51	.36
APR												
12...	52	--	--	--	<.010	<.10	<.10	.050	.030	.04	.09	.16
JUL												
14...	44	.09	.48	--	.010	<.10	<.10	.060	.050	.06	.64	.45

DATE	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)	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												
14...	.25	.00	.25	--	--	.26	<.010	--	<.010	--	<.010	--
JAN												
04...	.31	.03	.28	.36	1.6	.32	.040	.12	<.010	<.010	<.010	--
04...	1.60	1.1	.48	1.6	7.2	.51	.020	.06	.010	<.010	<.010	--
FEB												
03...	.58	.20	.38	.71	3.1	.51	.110	.34	.070	.060	.030	.09
03...	.86	--	--	.96	4.3	--	.090	.28	.060	.060	.060	.18
03...	1.00	.65	.35	1.1	5.0	.45	.120	.37	.040	.080	.020	.06
03...	1.10	.00	1.1	1.2	5.4	1.3	.080	.25	.060	.060	.060	.18
03...	.57	.13	.44	.67	3.0	.53	.050	.15	.020	.040	.010	.03
APR												
12...	.14	.00	.19	--	--	--	<.010	--	<.010	<.010	<.010	--
JUL												
14...	.70	.20	.50	--	--	--	.070	.21	.020	.020	.020	.06

DATE	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)	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, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
OCT												
14...	--	--	--	--	--	--	10	9	1	--	--	7
JAN												
04...	1	1	0	1	0	3	10	--	<1	<1	<1	5
04...	1	1	0	1	--	<1	<10	--	2	1	<1	7
FEB												
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
12...	1	0	1	<1	--	<1	--	--	--	--	--	--
JUL												
14...	<1	--	<1	<1	--	<1	--	--	--	--	--	--

02123567 DUTCHMANS CREEK NEAR UWHARRIE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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											
14...	1	6	250	120	130	19	18	1	--	--	--
JAN											
04...	0	5	720	530	190	<1	--	<1	50	30	19
04...	0	7	380	200	180	<1	--	<1	30	20	15
FEB											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
APR											
12...	--	--	--	--	--	6	0	6	--	--	--
JUL											
14...	--	--	--	--	--	5	1	4	--	--	--

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, 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)
OCT										
14...	--	--	--	--	--	30	30	4	<.3	--
JAN										
04...	.2	--	--	<1	<1	10	0	10	8.2	1.1
04...	.2	.0	.2	<1	<1	10	0	10	7.6	.9
APR										
12...	.4	.0	.4	<1	<1	--	--	--	1.2	1.0
JUL										
14...	.1	--	<.1	<1	<1	--	--	--	8.0	.1

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JAN				
04...	1000	97	53	14
04...	1415	44	17	2.0
APR				
12...	0945	2.1	4	.02
JUL				
14...	1030	2.6	10	.07

02123567 DUTCHMANS CREEK NEAR UWHARRIE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	JAN 4,82	JAN 4,82
TIME	1000	1415
TOTAL CELLS/ML	14	14
DIVERSITY: DIVISION	0.0	0.0
.CLASS	0.0	0.0
..ORDER	0.0	0.0
...FAMILY	0.0	0.0
....GENUS	0.0	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)				
.BACILLARIOPHYCEAE				
..NAVICULALES				
...NAVICULACEAE				
....NAVICULA	--	-	14#	100
EUGLENOPHYTA (EUGLENOIDS)				
.EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS	14#	100	--	-

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

02123567 DUTCHMANS CREEK NEAR UWHARRIE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), NOVEMBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	50	49	49	40	35	37
2				---	---	---	49	48	48	42	40	41
3				---	---	---	49	48	49	42	33	36
4				---	---	---	49	48	49	36	32	34
5				---	---	---	50	48	49	39	34	36
6				---	---	---	49	48	49	41	39	40
7				---	---	---	49	48	48	43	40	41
8				---	---	---	48	47	48	44	40	42
9				---	---	---	50	48	50	44	43	44
10				---	---	---	52	50	51	49	44	46
11				---	---	---	54	51	52	52	48	50
12				---	---	---	54	52	53	49	46	48
13				57	56	56	55	53	54	46	42	44
14				57	55	56	55	54	55	43	42	42
15				56	55	55	55	42	46	46	43	45
16				55	54	55	46	42	44	46	42	44
17				55	54	54	49	46	48	46	41	43
18				56	54	55	50	49	49	48	45	46
19				55	54	54	51	49	50	45	43	44
20				54	53	54	54	51	52	43	43	43
21				55	53	54	56	51	53	43	39	41
22				55	53	54	51	48	49	42	40	41
23				54	52	53	52	50	50	42	39	41
24				52	49	51	52	51	52	41	38	39
25				52	50	51	51	43	46	42	41	42
26				53	51	52	48	43	46	44	42	43
27				54	52	53	56	48	53	46	44	45
28				53	51	52	53	48	49	46	44	45
29				52	51	52	50	48	49	47	45	46
30				52	50	51	51	50	50	46	45	46
31				---	---	---	51	34	46	46	44	45
MONTH				57	49	53	56	34	50	52	32	43

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	46	43	44	37	33	35	48	48	48	45	43	44
2	47	46	46	39	37	38	49	48	48	46	45	46
3	46	29	36	40	39	40	49	48	48	48	46	47
4	37	33	35	41	40	41	49	48	48	48	47	48
5	39	37	38	42	41	41	50	49	49	49	48	48
6	41	39	40	42	40	41	49	48	48	50	48	49
7	42	31	41	42	35	39	49	48	49	50	49	49
8	42	41	42	40	36	38	49	48	49	53	50	51
9	43	42	42	41	39	40	48	46	47	53	49	50
10	43	42	42	41	41	41	49	47	48	51	49	50
11	44	43	43	42	41	42	49	48	49	51	49	50
12	45	43	44	44	42	42	50	48	48	51	50	50
13	44	43	43	44	43	43	49	48	49	52	50	51
14	46	44	45	44	42	44	50	49	49	53	51	52
15	46	44	45	45	41	42	51	49	50	53	51	52
16	45	33	42	44	43	43	52	50	50	53	51	52
17	36	33	34	45	43	44	52	49	51	54	52	53
18	39	36	37	46	44	45	51	49	50	54	52	53
19	40	39	39	46	45	46	51	49	50	54	51	53
20	41	40	41	47	45	46	51	46	49	52	40	49
21	42	32	41	47	46	46	49	47	48	50	42	47
22	43	42	42	47	46	46	50	49	49	55	50	51
23	44	42	43	47	46	47	50	49	49	52	43	49
24	43	42	43	47	46	47	50	49	50	51	45	49
25	45	41	44	47	46	47	51	49	50	54	51	52
26	45	42	45	48	47	47	50	41	45	54	50	52
27	42	29	35	49	47	48	44	32	36	52	48	50
28	34	31	33	48	47	48	39	32	35	56	49	52
29	---	---	---	49	46	48	42	39	41	54	52	52
30	---	---	---	48	47	47	43	42	43	56	53	54
31	---	---	---	48	47	48	---	---	---	57	54	55
MONTH	47	29	41	49	33	44	52	32	47	57	40	50

02123567 DUTCHMANS CREEK NEAR UWHARRIE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), NOVEMBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	57	52	55	54	50	52	54	47	50	62	61	62
2	52	48	50	56	43	54	58	54	55	63	61	62
3	57	42	53	58	55	57	60	56	58	64	62	63
4	55	40	53	59	55	57	61	58	60	65	62	63
5	48	40	44	57	54	55	62	60	61	64	62	63
6	52	48	50	57	43	54	63	60	61	65	61	63
7	53	50	52	57	54	55	63	60	61	62	61	62
8	55	52	53	59	56	58	63	60	62	70	61	63
9	56	53	54	61	58	60	63	60	62	62	60	61
10	56	53	55	62	60	61	63	59	61	63	60	62
11	53	50	51	62	42	57	61	31	57	63	62	62
12	55	53	54	55	43	50	46	30	40	63	62	63
13	55	46	53	54	32	41	53	46	49	63	62	63
14	52	47	49	50	43	47	56	53	54	64	63	64
15	55	52	53	54	50	52	58	55	57	65	63	64
16	56	54	55	56	52	54	59	57	58	65	63	64
17	54	47	49	55	51	52	61	35	52	65	64	65
18	54	52	53	58	55	56	50	44	47	66	63	65
19	56	53	54	59	56	58	54	50	52	65	64	65
20	58	54	55	60	57	59	55	51	52	65	64	65
21	60	56	58	61	58	60	59	55	56	66	60	62
22	60	55	58	62	59	60	59	56	58	61	59	60
23	59	54	57	63	55	60	62	58	60	61	58	60
24	58	55	57	56	53	54	62	59	60	60	59	60
25	59	55	57	59	56	57	61	55	59	---	---	60
26	60	55	57	60	57	59	62	58	60	---	---	52
27	60	56	58	61	58	60	63	60	61	---	---	50
28	60	56	59	62	59	61	64	61	63	---	---	53
29	60	57	59	62	55	58	65	60	63	---	---	55
30	62	50	58	57	54	55	62	60	61	---	---	58
31	---	---	---	59	47	56	65	61	63	---	---	---
MONTH	62	40	54	63	32	56	65	30	57	70	58	61
YEAR	70	29	50									

TEMPERATURE, WATER (DEG. C), NOVEMBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	7.5	6.5	7.0	7.5	1.5	6.5
2				---	---	---	9.5	7.0	8.5	6.0	5.0	5.5
3				---	---	---	8.0	6.0	6.5	7.0	5.5	6.5
4				---	---	---	8.0	6.0	7.0	9.5	7.0	8.0
5				---	---	---	6.0	4.0	5.0	7.0	5.5	6.0
6				---	---	---	4.0	2.5	3.5	7.0	5.0	6.0
7				---	---	---	5.5	2.0	4.0	10.0	6.5	8.0
8				---	---	---	6.0	5.0	5.5	9.0	5.0	7.0
9				---	---	---	5.5	3.0	4.0	5.0	3.5	4.0
10				---	---	---	3.0	1.0	2.0	3.5	.0	1.0
11				---	---	---	2.0	.0	1.0	.5	.0	.0
12				---	---	---	2.0	.0	1.0	.5	.0	.0
13				8.0	6.5	7.5	1.5	.0	.5	.5	.0	.0
14				8.0	6.5	6.5	3.5	1.5	3.0	.5	.0	.0
15				8.5	5.5	7.0	6.5	1.5	5.5	1.0	.0	.5
16				9.0	6.0	7.5	6.5	4.5	5.5	1.0	.5	3.0
17				11.0	9.0	10.0	6.0	3.0	4.5	1.5	.0	.5
18				9.5	7.0	8.5	6.0	3.5	5.5	1.0	.0	.5
19				10.5	6.5	8.5	3.5	.5	2.0	3.5	.0	2.0
20				13.0	9.5	11.5	.5	.0	.0	4.5	3.5	4.0
21				9.5	6.0	7.5	.0	.0	.0	6.0	4.5	5.5
22				6.0	4.0	5.0	3.5	.0	2.0	5.5	4.5	5.5
23				6.0	3.0	4.5	8.5	3.5	7.0	6.0	4.5	5.0
24				8.0	6.0	7.0	8.5	8.0	8.5	6.0	4.0	5.5
25				8.0	6.5	7.0	8.0	6.5	7.0	5.0	3.0	4.0
26				8.0	5.0	6.5	6.5	6.0	6.0	3.5	1.5	2.5
27				10.5	6.5	8.5	6.5	6.0	6.0	1.5	.0	1.0
28				11.0	8.0	10.0	6.5	6.0	6.0	3.0	.0	1.5
29				8.0	6.5	7.5	7.0	5.0	6.0	3.5	1.0	2.0
30				7.0	6.0	6.5	5.0	3.0	3.5	5.0	1.5	3.0
31				---	---	---	6.5	2.5	4.0	9.5	4.0	7.0
MONTH				13.0	3.0	7.5	9.5	.0	4.5	10.0	.0	3.5

02123567 DUTCHMANS CREEK NEAR UWHARRIE--Continued

TEMPERATURE, WATER (DEG. C), NOVEMBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.0	6.0	7.5	8.5	6.0	7.0	16.5	11.5	13.5	15.5	10.5	13.0
2	6.0	5.0	5.5	9.0	5.5	7.5	15.0	9.5	12.5	16.5	12.5	14.5
3	8.0	4.5	6.5	10.5	8.5	9.5	17.5	13.5	15.0	17.5	14.0	16.0
4	9.5	7.5	8.5	9.5	8.0	8.5	15.5	11.5	13.5	17.0	13.0	15.0
5	8.5	8.0	8.0	12.0	8.0	10.0	12.0	10.0	11.0	17.5	13.0	15.5
6	8.5	7.5	8.0	11.5	9.0	10.5	13.0	8.5	11.0	18.5	13.5	16.0
7	7.5	5.0	6.0	9.0	7.0	8.5	10.5	6.0	8.5	19.5	16.0	18.0
8	6.5	3.5	5.0	8.5	6.0	7.0	8.5	7.0	7.5	17.5	17.0	17.5
9	8.0	6.0	6.5	9.0	4.5	7.0	11.0	6.5	8.5	18.5	14.5	16.5
10	8.0	5.5	6.5	10.5	6.5	8.5	11.5	6.5	9.0	18.0	13.5	16.0
11	7.0	5.0	6.0	12.5	9.0	11.0	12.5	7.0	10.0	18.0	13.5	16.0
12	6.5	4.0	5.5	14.5	10.0	12.0	16.5	8.0	13.5	19.0	14.0	16.5
13	7.0	5.5	6.5	15.5	12.0	13.5	16.5	11.5	14.0	20.0	15.0	18.0
14	6.5	3.5	5.0	13.5	11.0	12.5	17.0	12.5	15.0	21.0	17.0	19.0
15	9.0	5.5	7.0	12.0	10.0	11.0	18.0	14.0	16.0	21.0	17.5	19.5
16	11.0	9.0	10.0	10.0	9.0	9.5	18.5	14.5	16.5	21.0	17.5	19.0
17	11.5	9.0	10.5	13.5	9.5	11.0	19.5	16.5	18.0	21.0	18.5	20.0
18	9.0	6.5	7.5	14.0	11.0	12.5	17.5	13.5	16.0	22.0	18.5	20.0
19	8.5	6.5	7.5	13.0	11.0	12.0	14.5	12.0	13.5	20.5	19.0	20.0
20	9.0	6.0	7.5	13.5	12.0	12.5	14.5	13.5	14.0	22.0	19.0	20.0
21	10.0	7.0	9.0	14.5	12.0	13.0	15.5	13.5	14.5	21.0	19.0	20.0
22	8.5	6.5	7.5	15.0	12.0	13.5	13.5	10.5	12.5	22.0	19.0	20.5
23	8.5	5.5	7.0	14.0	10.5	12.5	13.0	8.0	10.5	22.0	20.0	21.0
24	11.5	7.0	9.0	12.5	10.0	11.0	14.0	8.0	11.0	21.5	20.0	20.5
25	10.5	7.0	9.5	14.0	9.0	11.5	14.0	10.0	12.5	22.5	20.0	21.0
26	7.0	3.5	5.5	13.5	9.5	12.0	16.5	13.5	15.0	21.5	20.0	20.5
27	6.0	2.0	4.0	10.5	6.5	8.5	17.0	14.0	15.5	21.0	20.0	20.5
28	6.5	6.0	6.5	9.0	4.5	7.0	16.5	14.0	15.5	22.5	20.5	21.0
29	---	---	---	10.0	4.0	7.5	15.5	12.5	14.0	23.5	20.0	21.5
30	---	---	---	13.5	7.5	10.5	15.0	11.0	13.0	24.5	21.5	23.0
31	---	---	---	13.5	11.0	12.5	---	---	---	25.0	21.5	23.0
MONTH	11.5	2.0	7.0	15.5	4.0	10.5	19.5	6.0	13.0	25.0	10.5	18.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	22.0	23.0	23.5	21.5	22.5	24.0	22.5	23.0	21.5	20.5	21.0
2	23.5	20.5	22.0	22.5	19.0	21.0	23.5	15.5	22.0	23.5	21.5	22.5
3	22.5	20.5	21.5	24.0	20.5	22.5	23.5	21.0	22.5	23.5	22.0	23.0
4	22.0	21.0	21.5	24.0	21.5	22.5	23.5	14.5	22.0	22.5	20.0	21.5
5	23.0	21.0	22.0	23.0	21.5	22.5	23.5	22.0	22.5	20.0	18.0	19.0
6	22.0	19.0	20.5	22.5	20.5	21.5	24.5	22.5	23.5	19.5	16.5	18.0
7	21.5	18.0	20.0	23.5	21.0	22.5	24.5	22.5	23.5	20.0	16.5	18.5
8	22.5	19.0	21.0	24.5	22.0	23.0	24.5	23.0	24.0	20.0	17.0	18.5
9	23.5	20.5	22.0	24.5	22.0	23.5	25.0	23.0	24.0	20.0	18.0	19.0
10	23.5	22.0	22.5	24.0	22.5	23.0	24.0	23.0	23.5	20.0	18.0	19.0
11	22.5	21.0	21.5	24.5	22.5	23.5	24.0	22.5	23.5	19.5	18.0	19.0
12	22.5	20.0	21.0	23.5	22.5	23.0	23.0	22.0	22.5	21.0	18.0	19.5
13	21.5	21.0	21.5	23.5	22.0	22.5	22.0	21.5	22.0	22.0	19.5	21.0
14	22.5	19.5	21.0	23.0	22.0	22.5	23.0	21.0	22.0	21.5	20.5	21.0
15	22.0	19.5	21.0	23.5	22.0	22.5	23.0	20.5	22.0	22.5	20.0	21.5
16	23.5	21.5	22.5	25.0	15.5	22.5	23.5	21.0	22.5	22.5	20.5	21.5
17	23.5	22.0	22.5	24.5	21.5	23.0	23.0	21.0	22.0	22.0	20.0	21.0
18	23.0	22.0	22.5	24.5	22.0	23.5	21.0	15.5	20.0	22.5	20.0	21.5
19	24.0	21.5	22.5	25.0	22.5	24.0	23.0	20.5	21.5	21.5	21.0	21.0
20	23.5	21.5	22.5	25.0	23.0	24.0	23.5	21.0	22.5	21.5	20.5	21.0
21	23.5	21.5	22.5	25.0	22.5	24.0	23.5	21.5	22.5	21.5	21.0	21.5
22	22.0	21.0	21.0	24.5	23.0	23.5	22.5	20.0	21.5	21.0	18.5	19.5
23	22.5	19.5	21.0	24.5	23.0	23.5	23.5	21.0	22.0	18.5	17.0	16.0
24	22.0	21.0	21.5	24.0	22.5	23.5	23.5	15.5	22.0	18.5	17.5	18.0
25	22.5	20.0	21.5	24.0	15.5	23.0	25.0	14.5	23.0	---	---	---
26	23.5	20.5	22.0	25.0	22.0	23.5	23.0	20.5	22.0	---	---	---
27	23.0	21.0	22.0	25.0	23.0	24.0	22.5	20.0	21.5	---	---	---
28	23.5	22.0	22.5	25.5	23.5	24.5	23.0	21.5	22.5	---	---	---
29	24.0	22.0	23.0	24.5	14.5	23.5	22.0	19.5	20.5	---	---	---
30	24.0	21.5	23.0	24.5	22.5	23.5	21.0	18.5	20.0	---	---	---
31	---	---	---	23.5	23.0	23.5	20.5	20.0	20.5	---	---	---
MONTH	24.0	18.0	22.0	25.5	14.5	23.0	25.0	14.5	22.0	23.5	16.5	20.0
YEAR	25.5	.0	14.0									

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.--28 years, 56.9 ft³/s (1.611 m³/s), 13.90 in/yr (353 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)
Dec. 31	2000	*3720	105	*9.74	2.969	May 24	0700	3540	100	9.49	2.893
Jan. 4	1000	2680	75.9	8.25	2.515						

Minimum discharge, 0.20 ft³/s (0.006 m³/s) Sept. 26, gage height, 0.74 ft (0.226 m); minimum daily, 0.21 ft³/s (0.006 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	7.7	4.4	670	64	330	14	39	104	10	15	1.5
2	2.3	7.1	5.6	149	50	165	13	29	120	7.4	8.9	1.5
3	2.0	6.5	5.1	850	890	103	13	23	161	6.3	6.4	1.4
4	2.1	6.0	5.0	1140	423	75	13	18	243	6.5	4.8	1.2
5	2.0	5.8	4.6	260	167	64	11	15	131	6.2	4.0	.94
6	2.0	5.3	4.2	126	117	59	11	13	59	5.4	3.6	.86
7	1.9	5.1	3.9	88	81	220	10	11	35	4.7	2.9	.81
8	1.7	4.9	3.7	70	64	187	11	10	24	4.2	2.5	.73
9	1.6	4.6	3.5	55	72	99	20	9.3	18	3.8	3.3	.65
10	1.7	4.6	3.3	40	151	73	17	7.9	18	6.1	3.5	.73
11	1.7	4.4	3.2	28	90	61	13	7.1	33	11	86	.78
12	1.6	4.1	3.1	24	67	52	12	6.5	18	14	71	.83
13	1.5	3.7	3.0	26	77	45	10	5.9	107	13	12	.76
14	1.4	3.6	3.9	31	65	42	9.7	6.1	53	7.8	7.7	11
15	1.4	3.6	117	32	54	55	9.2	5.6	26	6.6	5.6	4.3
16	1.4	3.6	116	35	86	62	8.7	5.3	19	18	4.4	2.0
17	1.3	3.6	47	57	678	50	9.7	5.3	15	20	16	.86
18	1.3	3.6	28	43	231	41	14	5.0	340	8.6	32	.54
19	1.4	3.7	19	54	180	36	12	136	54	6.4	10	.47
20	1.4	3.4	14	141	129	34	13	50	24	5.2	6.8	.49
21	1.3	3.3	10	485	92	31	23	133	16	4.2	5.1	.62
22	1.3	3.2	10	279	66	27	16	123	12	16	4.9	.44
23	1.4	3.1	10	462	52	23	13	47	24	17	3.9	.32
24	1.5	4.4	10	317	45	22	11	1500	77	20	3.0	.24
25	5.5	4.8	159	135	38	21	9.9	625	25	9.3	2.7	.21
26	51	4.1	128	88	31	19	194	126	15	6.8	2.0	.64
27	64	3.8	66	60	343	16	249	542	11	5.1	1.8	.71
28	30	3.8	44	51	549	15	537	364	19	4.2	1.8	.46
29	15	3.7	42	46	---	14	109	449	19	29	1.5	.36
30	11	3.5	34	39	---	14	58	106	12	26	1.3	.31
31	8.5	---	860	39	---	14	---	57	---	12	1.4	---
TOTAL	225.0	132.6	1770.5	5920	4952	2069	1464.2	4480.0	1832	320.8	335.8	36.66
MEAN	7.26	4.42	57.1	191	177	66.7	48.8	145	61.1	10.3	10.8	1.22
MAX	64	7.7	860	1140	890	330	537	1500	340	29	86	11
MIN	1.3	3.1	3.0	24	31	14	8.7	5.0	11	3.8	1.3	.21
CFSM	.13	.08	1.03	3.44	3.18	1.20	.88	2.61	1.10	.19	.19	.02
IN.	.15	.09	1.18	3.96	3.31	1.38	.98	3.00	1.23	.21	.22	.02

CAL YR 1981 TOTAL 12242.50 MEAN 33.5 MAX 1660 MIN .58 CFSM .60 IN 8.19
WTR YR 1982 TOTAL 23538.56 MEAN 64.5 MAX 1500 MIN .21 CFSM 1.16 IN 15.75

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 December 1982 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 372 ft (113 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft³/s (91.2 m³/s) June 4, 1982, gage height, 7.45 ft (2.271 m) from rating curve extended above 1,800 ft³/s (51.0 m³/s); no flow at times in most years.

EXTREMES FOR PERIOD.--October 1981 to December 1982: 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)
Dec. 31, 1981	1815	1320	37.4	6.69	2.039	June 10, 1982	1900	3050	86.4	7.40	2.256
June 3, 1982	1600	878	24.9	6.33	1.929	June 24, 1982	0045	1100	31.2	6.54	1.993
June 4, 1982	2200	*3220	91.2	*7.45	2.271	Dec. 12, 1982	0200	1780	50.4	6.95	2.118

No flow Aug. 7, 8, 9, 26-31, Sept. 1-17, 1982. Minimum discharge, 0.01 ft³/s (<0.001 m³/s) Oct. 1, 2, 3-7, 8, 9, 1982; minimum gage height, 1.53 ft (0.466 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.09	.11	48	11	34	2.3	2.5	2.2	19	.32	.00
2	.01	.07	.13	19	8.1	20	2.1	1.7	7.7	2.9	.10	.00
3	.01	.05	.16	135	140	14	2.0	1.5	104	1.8	.04	.00
4	.01	.04	.08	137	36	11	1.9	1.2	417	1.4	.02	.00
5	.01	.04	.06	25	29	9.9	1.8	.95	59	1.3	.02	.00
6	.01	.06	.04	15	22	16	1.9	.82	9.9	.93	.01	.00
7	.01	.05	.03	13	14	34	1.7	.75	4.9	.66	.00	.00
8	.01	.05	.02	10	12	17	1.9	.72	3.2	.52	.00	.00
9	.01	.05	.02	9.0	12	11	3.5	.72	2.6	.33	.00	.00
10	.01	.05	.02	7.6	13	9.4	2.2	.58	515	.21	.02	.00
11	.01	.05	.03	7.3	9.7	8.2	1.9	.51	48	.30	1.0	.00
12	.01	.04	.03	7.3	8.5	7.2	1.8	.46	10	.54	1.1	.00
13	.01	.04	.03	7.3	18	6.6	1.7	.44	6.7	.45	.10	.00
14	.01	.04	.05	7.3	11	6.8	1.6	.36	4.7	.48	.04	.00
15	.01	.03	41	7.3	9.2	48	1.7	.30	3.1	.28	.02	.00
16	.01	.03	13	11	44	18	1.6	.26	2.5	.21	.01	.00
17	.01	.04	4.0	16	94	13	1.6	.24	2.0	.14	.01	.00
18	.01	.03	3.7	14	22	9.2	1.7	.24	1.8	.09	11	.10
19	.01	.03	2.4	26	22	7.6	1.5	.21	1.7	.07	1.1	5.3
20	.01	.03	1.5	37	15	6.8	1.7	.22	1.2	.05	.13	.14
21	.01	.03	1.2	58	12	5.9	1.8	8.6	.94	.04	.05	.05
22	.01	.02	1.1	31	9.4	5.1	1.6	10	1.0	.04	.03	.06
23	.02	.03	1.2	69	8.0	4.1	1.5	9.9	12	.04	.03	.03
24	.02	.06	1.0	34	7.3	3.8	1.4	3.7	79	.04	.02	.02
25	.08	.05	77	17	6.3	3.6	1.4	3.0	4.7	.07	.01	.01
26	1.9	.06	19	13	5.7	3.2	20	18	2.7	.05	.00	.03
27	12	.07	10	10	125	2.8	16	27	1.9	.04	.00	.03
28	.69	.06	6.0	9.3	69	2.4	25	11	1.8	.02	.00	.03
29	.21	.05	4.9	8.4	---	2.3	7.5	9.0	1.4	.02	.00	.03
30	.19	.05	3.0	7.8	---	2.3	4.0	3.9	35	.02	.00	.02
31	.11	---	213	8.4	---	2.3	---	2.6	---	.03	.00	---
TOTAL	15.44	1.39	403.81	825.0	793.2	345.5	118.3	121.38	1347.64	32.07	15.18	5.85
MEAN	.50	.046	13.0	26.6	28.3	11.1	3.94	3.92	44.9	1.03	.49	.20
MAX	12	.09	213	137	140	48	25	27	515	19	11	5.3
MIN	.01	.02	.02	7.3	5.7	2.3	1.4	.21	.94	.02	.00	.00
CFSM	.06	.005	1.49	3.04	3.23	1.27	.45	.45	5.13	.12	.06	.02
IN.	.07	.01	1.72	3.51	3.37	1.47	.50	.52	5.73	.14	.06	.02

CAL YR 1981 TOTAL 1289.64 MEAN 3.53 MAX 257 MIN .00 CFSM .40 IN 5.48
WTR YR 1982 TOTAL 4024.76 MEAN 11.0 MAX 515 MIN .00 CFSM 1.26 IN 17.11

02125557 GOURDVINE CREEK AT SECONDARY ROAD 1715 NEAR OLIVE BRANCH, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	1.7	12									
2	.01	1.6	6.1									
3	.01	3.6	3.4									
4	.01	20	2.5									
5	.01	10	2.0									
6	.01	4.7	6.3									
7	.01	3.5	2.6									
8	.02	2.8	1.7									
9	.01	2.3	1.4									
10	.02	2.1	1.1									
11	.02	1.9	11									
12	.02	1.5	349									
13	.34	4.8	23									
14	1.5	2.5	15									
15	.18	2.3	12									
16	.07	2.0	112									
17	.06	1.7	18									
18	.05	1.3	11									
19	.05	1.3	9.0									
20	.04	1.5	9.9									
21	.04	1.4	6.5									
22	.26	1.4	5.1									
23	.11	1.4	4.5									
24	.14	1.2	4.1									
25	130	.89	3.7									
26	19	.76	3.4									
27	6.7	.90	3.2									
28	4.4	.97	3.0									
29	3.0	2.4	5.1									
30	2.3	2.0	4.8									
31	1.9	---	26									
TOTAL	170.31	86.42	678.4									
MEAN	5.49	2.88	21.9									
MAX	130	20	349									
MIN	.01	.76	1.1									
CFSM	.63	.33	2.50									
IN.	.72	.37	2.88									

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 mi² (10.31 km²).

PERIOD OF RECORD.--July 1978 to December 1982 (discontinued).

GAGE.--Water-stage recorder and V-notch weir. Altitude of gage is 538 ft (164 m), from topographic map.

REMARKS.--Records fair except those for February to May, which are poor. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 970 ft³/s (27.5 m³/s) May 10, 1979, gage height, 6.25 ft (1.905 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Water year 1982: Peak discharges above base of 360 ft³/s (10.2 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. 31	1945	*493	14.0	*5.25	1.600	Apr. 27	2315	442	12.5	5.09	1.551
Jan. 3	1115	366	10.4	4.82	1.469						

No flow many days during the year.

October to December 1982: Maximum discharge, 225 ft³/s (6.37 m³/s) Dec. 12, gage height, 4.16 ft (1.268 m); no peak above base of 360 ft³/s (10.2 m³/s); no flow many days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	44	5.0	37	.55	1.9	.32	3.0	3.7	.00
2	.00	.00	.00	12	5.3	16	.68	1.1	.16	.30	.58	.00
3	.00	.00	.00	149	20	13	.79	.66	.05	.06	.16	.00
4	.00	.00	.00	87	29	12	.65	.32	.07	.04	.05	.00
5	.00	.00	.00	23	11	11	.79	.30	.06	3.0	.04	.00
6	.00	.00	.00	11	8.0	8.9	.88	.30	.01	.35	.05	.00
7	.00	.00	.00	9.7	5.2	14	.84	.28	.00	.07	.02	.00
8	.00	.00	.00	8.4	4.9	10	1.3	.28	.00	.02	.01	.00
9	.00	.00	.00	6.8	5.4	5.6	2.1	.24	.00	.00	.00	.00
10	.00	.00	.00	2.8	6.0	3.4	1.1	.21	.00	.00	.00	.00
11	.00	.00	.00	.91	5.1	2.3	.86	.19	.00	4.0	.00	.00
12	4.3	.00	.00	.87	4.3	1.9	.54	.18	.00	8.4	.02	.00
13	7.6	.00	.00	.84	4.5	1.5	.49	.18	.00	.80	.00	.00
14	5.9	.00	.00	.85	2.5	1.4	.50	.14	.00	2.8	.00	.00
15	1.7	.00	16	.90	1.4	20	.58	.13	.00	2.4	.00	.00
16	.03	.00	13	2.0	22	14	.58	.11	.00	35	.00	.00
17	.01	.00	9.6	5.2	73	11	.69	.09	.00	25	.00	.00
18	.00	.00	8.9	5.1	20	8.0	.73	.09	.00	2.5	.00	.00
19	.00	.00	7.7	11	12	2.7	.49	.06	.00	.58	.00	16
20	.00	.00	5.7	14	11	2.3	4.9	.05	.00	.16	.00	1.4
21	.00	.00	2.0	29	9.2	1.8	1.9	.04	.00	.05	.00	.28
22	.00	.00	.87	17	8.1	1.4	.95	.03	.07	.02	.00	.10
23	.00	.00	.86	34	6.1	1.1	.72	.02	.03	.03	.00	.04
24	.00	.00	.71	27	1.4	.97	.49	.89	.02	.31	.00	2.5
25	.98	.00	38	13	.84	.86	.60	1.3	.00	.23	.00	9.5
26	1.1	.00	25	12	.68	.59	61	61	.00	.12	.00	8.6
27	1.2	.00	11	10	47	.45	107	7.4	5.4	1.1	.00	7.1
28	.05	.00	9.6	8.8	59	.42	89	2.9	3.3	2.0	.00	3.7
29	.01	.00	9.4	7.5	---	.41	9.7	4.6	.47	.23	.00	.08
30	.00	.00	7.4	4.7	---	.44	3.5	1.1	.45	.08	.00	.05
31	.00	---	122	4.8	---	.55	---	.40	---	.89	.00	---
TOTAL	22.88	.00	287.74	563.17	387.92	204.99	294.90	86.49	10.41	93.54	4.63	49.35
MEAN	.74	.000	9.28	18.2	13.9	6.61	9.83	2.79	.35	3.02	.15	1.65
MAX	7.6	.00	122	149	73	37	107	61	5.4	35	3.7	16
MIN	.00	.00	.00	.84	.68	.41	.49	.02	.00	.00	.00	.00
CFSM	.19	.000	2.33	4.57	3.49	1.66	2.47	.70	.09	.76	.04	.42
IN.	.21	.00	2.69	5.26	3.62	1.92	2.76	.81	.10	.87	.04	.46

CAL YR 1981 TOTAL 816.20 MEAN 2.24 MAX 149 MIN .00 CFSM .56 IN 7.63
WTR YR 1982 TOTAL 2006.02 MEAN 5.50 MAX 149 MIN .00 CFSM 1.38 IN 18.75

02125696 LANE CREEK AT SECONDARY ROAD 2115 NEAR TRINITY, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	4.2	6.6									
2	.02	.42	5.8									
3	.01	.08	5.0									
4	.00	2.7	4.0									
5	.00	.93	2.1									
6	.00	.30	3.6									
7	.00	.17	2.2									
8	.02	.13	.91									
9	.03	.10	.66									
10	.02	.10	.51									
11	.01	.09	6.4									
12	.00	.09	93									
13	1.0	.85	14									
14	.59	.23	7.4									
15	.06	.27	7.1									
16	.01	.12	46									
17	.00	.13	14									
18	.00	.11	7.6									
19	.00	2.6	7.1									
20	.00	5.9	6.7									
21	.00	5.0	6.0									
22	.00	4.0	5.4									
23	.00	2.0	4.8									
24	.04	.24	3.6									
25	21	.13	1.2									
26	9.9	.13	.88									
27	2.2	.35	.78									
28	2.8	.58	.79									
29	7.8	1.6	4.4									
30	6.9	1.8	5.3									
31	5.9	---	10									
TOTAL	58.35	35.35	283.83									
MEAN	1.88	1.18	9.16									
MAX	21	5.9	93									
MIN	.00	.08	.51									
CFSM	.47	.30	2.30									
IN.	.55	.33	2.65									

CAL YR 1982 TOTAL 2072.93 MEAN 5.68 MAX 149 MIN .00 CFSM 1.43 IN 19.37

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 December 1982 (discontinued).

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 PERIOD.--October 1981 to December 1982: 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)
Dec. 31, 1981	1915	*1080	30.6	*6.36	1.939	Apr. 27, 1982	2315	491	13.9	4.06	1.237
Jan. 3, 1982	1015	705	20.0	4.92	1.500	June 24, 1982	0245	507	14.4	4.13	1.259
Jan. 4, 1982	0930	500	14.2	4.10	1.250	Dec. 12, 1982	0400	919	26.0	5.72	1.743
Apr. 26, 1982	1215	624	17.7	4.61	1.405						

Minimum discharge, 0.03 ft³/s (<0.001 m³/s) Oct. 1, 3, 4, 5, 7, 9, 24, 1981, Sept. 16, 17, 18, 1982; 0.05 ft³/s (0.001 m³/s) Oct. 4, 5, 1982, gage height, 0.23 ft (0.070 m); minimum daily, 0.03 ft³/s (<0.001 m³/s) Oct. 3, 1981, Sept. 17, 1982; 0.05 ft³/s (0.001 m³/s) Oct. 4, 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.11	.14	33	4.0	27	.72	2.1	.24	2.8	1.3	.04
2	.04	.11	.12	7.6	3.0	12	.62	1.5	.17	.43	1.0	.05
3	.03	.14	.09	222	5.2	6.4	.59	1.2	.13	.22	1.1	.05
4	.04	.09	.08	115	9.0	4.5	.46	1.0	.27	.29	.99	.05
5	.04	.05	.08	12	26	4.1	.46	.71	1.0	.68	.63	.05
6	.04	.07	.08	5.9	14	4.9	.59	.58	.36	.32	.22	.05
7	.04	.06	.06	4.2	6.6	26	.50	.48	.17	.23	.11	.04
8	.04	.06	.07	2.9	4.3	10	1.1	.45	.10	.14	.07	.04
9	.04	.08	.08	2.2	9.3	5.1	4.8	.44	.09	.15	.06	.05
10	.06	.08	.08	1.6	14	3.7	1.7	.35	1.1	.13	3.0	.05
11	.04	.04	.09	.90	5.1	3.1	1.0	.28	1.5	.14	4.6	.05
12	.05	.06	.09	.75	3.6	2.7	.74	.25	.35	1.6	1.2	.05
13	.05	.06	.09	1.0	7.0	2.3	.59	.21	.22	.36	.52	.05
14	.04	.06	.12	1.6	5.8	2.2	.54	.19	.24	.16	.33	.05
15	.05	.06	56	1.7	4.0	30	.60	.17	.18	.16	.15	.05
16	.05	.08	9.3	5.3	13	10	.59	.15	.11	65	.08	.04
17	.05	.13	2.7	12	75	5.8	.78	.14	.09	9.0	.06	.03
18	.05	.14	2.2	10	20	4.0	2.6	.14	.07	1.4	.31	.04
19	.08	.15	1.5	16	14	3.0	.94	.13	.11	.71	.40	45
20	.09	.16	.76	25	7.8	2.9	7.4	.12	.26	.38	.14	1.1
21	.11	.15	.49	40	5.1	2.9	4.5	.14	.25	.16	.09	.35
22	.13	.19	.66	27	3.2	2.4	2.0	.12	.65	.13	.07	.22
23	.15	.20	.94	18	2.5	1.7	1.1	.12	.58	2.3	.06	.14
24	.11	.24	.88	6.6	2.2	1.3	.72	3.8	65	8.1	.06	.09
25	.04	.14	89	4.1	1.7	1.3	.72	1.2	2.0	6.7	.05	.08
26	.04	.06	13	3.7	1.5	1.1	107	16	.75	1.8	.06	.15
27	.04	.07	6.1	3.5	102	.87	107	6.2	.55	1.7	.05	.12
28	.04	.11	3.8	3.4	66	.73	54	1.8	.55	1.7	.05	.22
29	.08	.13	5.3	3.1	---	.68	7.2	1.6	.40	2.0	.04	.23
30	.12	.13	2.4	2.9	---	.68	3.4	.65	.38	1.9	.05	.15
31	.10	---	218	3.1	---	.71	---	.32	---	1.0	.05	---
TOTAL	1.92	3.21	414.30	596.05	434.9	184.07	314.96	42.54	77.87	111.79	16.90	48.68
MEAN	.062	.11	13.4	19.2	15.5	5.94	10.5	1.37	2.60	3.61	.55	1.62
MAX	.15	.24	218	222	102	30	107	16	65	65	4.6	45
MIN	.03	.04	.06	.75	1.5	.68	.46	.12	.07	.13	.04	.03
CFSM	.01	.02	2.30	3.29	2.66	1.02	1.80	.24	.45	.62	.09	.28
IN.	.01	.02	2.64	3.80	2.77	1.17	2.01	.27	.50	.71	.11	.31

CAL YR 1981 TOTAL 1083.86 MEAN 2.97 MAX 218 MIN .00 CFSM .51 IN 6.91
WTR YR 1982 TOTAL 2247.19 MEAN 6.16 MAX 222 MIN .03 CFSM 1.06 IN 14.34

02125699 WICKER BRANCH AT SECONDARY ROAD 1940 NEAR TRINITY, NC--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER TO DECEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	3.6	18									
2	.08	2.7	7.3									
3	.06	2.2	4.1									
4	.05	1.7	2.9									
5	.07	1.3	2.2									
6	.08	.80	6.6									
7	.08	.65	2.7									
8	.21	.54	1.5									
9	.44	.50	1.1									
10	.27	.42	.88									
11	.19	.37	18									
12	.15	1.3	218									
13	5.9	.90	10									
14	5.2	1.1	4.9									
15	.48	.70	3.7									
16	.29	.47	81									
17	.20	.40	9.6									
18	.16	5.4	4.8									
19	.12	.61	3.9									
20	.11	.67	5.1									
21	.11	.68	3.1									
22	.09	.65	2.2									
23	3.2	.58	1.8									
24	1.0	.50	1.7									
25	22	.39	1.8									
26	7.0	.33	1.6									
27	2.0	.41	1.5									
28	1.2	.44	1.4									
29	1.2	2.9	7.4									
30	4.5	3.0	5.7									
31	6.4	---	26									
TOTAL	62.95	36.21	460.48									
MEAN	2.03	1.21	14.9									
MAX	22	5.4	218									
MIN	.05	.33	.88									
CFSM	.35	.21	2.56									
IN.	.40	.23	2.94									

CAL YR 1982 TOTAL 2387.40 MEAN 6.54 MAX 222 MIN .03 CFSM 1.12 IN 15.23

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.

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

AVERAGE DISCHARGE.--53 years, 1,331 ft³/s (37.69 m³/s), 13.17 in/yr (335 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)
Jan. 1	0600	25800	731	18.40	5.608	Feb. 28	0600	17700	501	14.21	4.331
Jan. 4	1800	25700	728	18.36	5.596	June 11	0300	*26100	739	*18.55	5.654
Feb. 3	2300	22500	637	16.79	5.118	June 19	1500	18100	513	14.45	4.404
Feb. 17	1300	17800	504	14.29	4.356						

Minimum discharge, 75 ft³/s (2.12 m³/s) Sept. 8, 10, 13, 14; minimum gage height, 0.43 ft (0.131 m) Sept. 8; minimum daily, 77 ft³/s (2.18 m³/s) Sept. 8, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	204	144	20700	1120	8270	454	1050	1080	699	347	99
2	140	181	166	8050	1210	4920	444	799	3020	558	404	101
3	133	174	264	10300	9800	3110	425	657	2040	363	335	110
4	121	168	267	20700	15900	2120	432	574	7610	291	294	115
5	113	162	208	14900	5820	1670	407	498	6430	266	253	107
6	112	165	172	5320	3900	1690	378	442	1950	317	223	91
7	116	163	156	2450	2580	3130	366	403	926	254	206	83
8	117	153	151	1800	1780	6460	371	370	641	230	201	77
9	112	148	149	1320	1480	3220	511	351	541	230	190	81
10	109	144	143	1050	2350	2050	678	324	2680	219	185	81
11	107	143	140	799	2140	1550	559	300	14900	282	200	83
12	102	141	135	647	1450	1300	441	284	3200	682	1020	81
13	100	144	129	699	1450	1130	392	269	1700	2410	501	77
14	100	135	131	772	1690	1120	375	258	2000	836	276	87
15	102	128	1440	785	1340	2440	362	244	1210	380	198	104
16	102	125	4680	780	1520	3340	347	231	811	315	169	133
17	104	130	2190	1380	14400	1980	343	233	684	635	156	104
18	103	134	997	1170	8620	1430	400	479	3510	452	228	91
19	99	136	660	1210	4230	1140	498	286	16300	426	482	174
20	95	135	483	2990	3590	1000	430	658	8520	293	291	494
21	95	137	354	6850	2490	904	488	751	1010	250	217	249
22	96	131	314	6990	1800	827	523	1250	661	226	164	181
23	95	126	360	6630	1330	737	450	1970	628	251	139	142
24	98	134	330	8200	1120	705	383	5760	3410	510	127	121
25	125	154	2900	4020	978	730	346	7570	2060	436	129	114
26	343	171	5390	2450	834	698	1920	3210	730	293	135	118
27	1030	169	2340	1610	4830	639	5610	5660	513	255	122	116
28	1160	146	1260	1200	14100	572	9550	5410	610	229	118	119
29	631	133	907	1050	---	509	4180	4950	656	236	108	131
30	347	128	800	916	---	457	1720	2680	481	468	102	124
31	254	---	2930	850	---	454	---	1200	---	309	99	---
TOTAL	6501	4442	30690	138588	113852	60302	33783	49121	90512	13601	7619	3788
MEAN	210	148	990	4471	4066	1945	1126	1585	3017	439	246	126
MAX	1160	204	5390	20700	15900	8270	9550	7570	16300	2410	1020	494
MIN	95	125	129	647	834	454	343	231	481	219	99	77
CFSM	.15	.11	.72	3.26	2.96	1.42	.82	1.16	2.20	.32	.18	.09
IN.	.18	.12	.83	3.76	3.09	1.64	.92	1.33	2.45	.37	.21	.10

CAL YR 1981 TOTAL 218807 MEAN 599 MAX 16000 MIN 79 CFSM .44 IN 5.93
WTR YR 1982 TOTAL 552799 MEAN 1515 MAX 20700 MIN 77 CFSM 1.10 IN 14.99

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/28	14 00	0000	2.62	1230	242		16.0	50.0	8.8	88.0	40.0	1400
81/11/19	09 45	0000	0.67	134	368		10.0	4.0	8.4	74.0	29.0	80
81/12/10	12 35	0000	0.71	143	240		5.0	25.0	12.8	100.0	26.0	20
82/01/27	11 10	0000	2.98	1630	94		4.0	55.0	12.6	96.0	11.0	130
82/02/10	10 50	0000	3.60	2410	128		8.0	35.0	10.8	91.0	17.0	230
82/03/18	10 45	0000	2.82	1440	112		13.0	25.0	12.0	113.0	10.0K	120
82/04/15	11 00	0000	1.33	360	173		19.0	4.0	9.3	99.0	18.0	10K
82/05/26	11 00	0000	3.82	2700	97	7.00	22.0	170.0	8.3	94.0	44.0	4400
82/06/22	11 00	0000	1.90	660	158	7.30	24.0	40.0	8.0	94.0	15.0	420
82/07/20	10 45	0000	1.14	284	155	6.80	25.0	50.0	6.6	79.0	16.0	680
82/08/19	11 40	0000	1.74	572	270	7.40	23.0	65.0	7.0	82.0	24.0	2100
82/09/23	11 15	0000	0.70	140	350	7.60	19.0	15.0	7.8	83.0	28.0	50

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/28	14 00	0000		98	310	1.30	0.180	1.300	0.640	0.420		
81/11/19	09 45	0000		0	420	0.19	0.050K	0.800	1.000	0.900	11	50K
81/12/10	12 35	0000		24	290	0.73	0.050	0.060	0.780	0.730	10K	
82/01/27	11 10	0000		27	150	1.50	0.160	0.700	0.150	0.070		
82/02/10	10 50	0000		27	230	1.50	0.160	0.600	0.180	0.100	10K	50K
82/03/18	10 45	0000		22	240	0.99	0.110	0.600	0.300	0.160		
82/04/15	11 00	0000		5	246	0.21	0.050K	0.400	0.290	0.210		
82/05/26	11 00	0000	21	252	367	1.10	0.050K	1.200	0.400	0.080	10K	50K
82/06/22	11 00	0000	28	35	156	0.85	0.050K	0.400	0.180	0.080		
82/07/20	10 45	0000	26	72	201	1.40	0.050K	0.700	0.300	0.200		
82/08/19	11 40	0000	57	85	297	1.00	0.050K	0.800	0.580	0.470	10K	50K
82/09/23	11 15	0000	63	20	339	0.77	0.060	0.800	0.860	0.790		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/19	09 45	0000	50K	40K	100K	0.5K	100K	50K
82/02/10	10 50	0000	50K	40K	100K	2.6	100K	50K
82/05/26	11 00	0000	50K	40K	100K	0.2K	100K	50
82/08/19	11 40	0000	50K	40K	100K	0.2K	100K	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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records fair.

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

AVERAGE DISCHARGE.--28 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)
Jan. 1	0400	2490	70.5	7.64	2.329	Feb. 3	1900	*3140	88.9	*8.63	2.630

Minimum discharge, 7.0 ft³/s (0.20 m³/s) Sept. 10, 11, gage height, 1.30 ft (0.396 m); minimum daily, 8.0 ft³/s (0.23 m³/s) Sept. 10, 11, 12, 13, 17, 18, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	26	24	1320	129	468	82	127	47	52	73	11
2	15	25	31	238	119	277	79	112	53	47	49	11
3	13	24	33	912	1410	175	79	104	47	34	30	10
4	13	23	30	1290	786	136	83	95	68	33	24	10
5	13	23	28	492	248	125	78	88	94	36	21	9.0
6	13	26	26	181	170	150	76	84	68	32	20	8.8
7	13	24	24	129	132	408	73	80	47	28	18	8.8
8	13	22	24	122	112	520	74	78	40	28	17	8.6
9	13	21	23	103	107	197	118	78	40	28	17	8.2
10	14	21	22	87	203	147	126	73	607	30	106	8.0
11	14	21	21	82	141	130	87	69	704	47	82	8.0
12	14	21	21	78	110	121	79	64	143	80	199	8.0
13	14	21	21	77	115	114	75	63	92	299	67	8.0
14	14	20	22	91	133	131	73	61	82	319	38	8.2
15	14	20	305	100	104	148	127	60	73	60	29	8.2
16	15	20	357	87	126	202	114	58	58	45	25	8.2
17	15	21	110	120	729	142	103	60	60	39	22	8.0
18	15	21	73	117	306	122	399	58	243	34	32	8.0
19	15	21	57	108	200	111	145	60	103	30	34	10
20	15	21	48	192	183	107	131	70	62	28	25	10
21	15	21	47	394	139	120	197	108	48	26	20	12
22	16	21	44	384	117	120	129	82	43	25	18	11
23	17	20	44	395	102	100	104	63	45	24	17	10
24	18	26	44	574	97	93	93	82	44	24	16	8.8
25	34	32	223	212	92	91	89	115	41	27	24	8.0
26	116	29	307	137	85	89	285	75	39	27	16	12
27	283	27	121	123	235	84	461	68	36	24	15	37
28	130	25	83	107	575	80	1390	76	43	21	14	26
29	51	24	74	89	---	79	282	88	66	68	12	15
30	34	22	86	84	---	80	160	78	48	62	11	11
31	28	---	259	85	---	81	---	53	---	37	10	---
TOTAL	1023	689	2632	8510	7005	4948	5391	2430	3184	1694	1101	328.8
MEAN	33.0	23.0	84.9	275	250	160	180	78.4	106	54.6	35.5	11.0
MAX	283	32	357	1320	1410	520	1390	127	704	319	199	37
MIN	13	20	21	77	85	79	73	53	36	21	10	8.0
CFSM	.31	.22	.80	2.59	2.36	1.51	1.70	.74	1.00	.52	.34	.10
IN.	.36	.24	.92	2.99	2.46	1.74	1.89	.85	1.12	.59	.39	.12

CAL YR 1981 TOTAL 25727.8 MEAN 70.5 MAX 3250 MIN 3.4 CFSM .67 IN 9.03
WTR YR 1982 TOTAL 38935.8 MEAN 107 MAX 1410 MIN 8.0 CFSM 1.01 IN 13.66

02128000 LITTLE RIVER NEAR STAR, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/28	13 56	0000	2.08	100	50	6.32	17.0		8.9	92.0		3300
81/11/17	15 00	0000	1.55	21	60	7.18	11.0		8.7	78.0		100
81/12/30	12 45	0000	1.95	84	30	6.74	9.0	15.0	11.4	98.0	23.0	840
82/01/28	11 45	0000	2.01	96	40	5.64	4.0		11.2	85.0		60
82/02/23	14 30	0000	2.02	98	40	7.13	13.0		11.0	104.0		50
82/03/31	12 00	0000	1.91	77	40	6.85	12.0	5.0	10.8	100.0	10.0K	100
82/04/21	12 00	0000	2.43	192	41	6.96	14.0		10.6			1230
82/05/26	11 50	0000	1.90	71	42	6.48	20.0		8.4	102.0		190
82/06/29	12 50	0000	1.65	66	50	6.89	23.0	9.0	7.6	87.0	12.0	120
82/07/21	13 30	0000	1.57	26	60	7.51	24.0		8.3	98.0		100
82/08/18	14 50	0000	1.67	38	40	6.45	23.0		6.8	78.0		190
82/09/23	13 05	0000	1.37	10	60	7.09	18.0	4.0	8.4	88.0	13.0	300

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/28	13 56	0000		22	142							
81/11/17	15 00	0000		2	94							
81/12/30	12 45	0000		2	87	0.07	0.050K	0.200	0.050K	0.050K	10K	50K
82/01/28	11 45	0000		6	82							
82/02/23	14 30	0000		8	56							
82/03/31	12 00	0000	31	5	50	0.05K	0.050K	0.200	0.060	0.050K	10K	50K
82/04/21	12 00	0000	18	16	89							
82/05/26	11 50	0000	43	13	86							
82/06/29	12 50	0000	7	12	87	0.15	0.050K	0.300	0.080	0.050K	10K	50K
82/07/21	13 30	0000	25	6	72							
82/08/18	14 50	0000	7	4	102							
82/09/23	13 05	0000	8	3	85	0.06	0.050K	0.200	0.050K	0.050K	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/30	12 45	0000	50K	40K	100K	0.5K	100K	50K
82/03/31	12 00	0000	50K	40K	100	0.2K	100K	50K
82/06/29	12 50	0000	50K	40K	100K	0.2K	100K	50K
82/09/23	13 05	0000	50K	40K	100K	0.3	100K	50K

K Less than noted value.

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 records good. Flow regulated since 1928 by Blewett Falls Lake and five other reservoirs upstream. (See p. 368).

AVERAGE DISCHARGE.--60 years (1906-11, 1927-82), 8,012 ft³/s (226.9 m³/s), 15.85 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, 54,900 ft³/s (1,550 m³/s) Feb. 4. gage height, 10.41 ft (3.173 m); minimum, 214 ft³/s (6.06 m³/s) Nov. 20, gage height, 0.82 ft (0.250 m); minimum daily, 248 ft³/s (7.02 m³/s) Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2520	4260	4010	31400	7720	25800	6300	12000	10800	6820	483	2730
2	4720	2960	918	25900	9520	20800	5750	11400	11000	5510	3960	3090
3	1080	4540	2880	23500	14100	17300	5740	9460	12600	4320	2900	2370
4	1220	4430	2900	42200	45900	13400	2100	6440	14300	413	4580	514
5	4200	4200	1410	41500	29100	12400	5820	9820	29200	331	6570	530
6	3010	1640	618	25600	21800	13200	8040	9770	18000	4240	6280	336
7	4550	1500	2010	17300	14600	15800	4080	8860	16100	6290	738	2790
8	1300	390	3450	11200	11500	22200	4730	2040	12100	6350	375	1880
9	3190	1190	2610	11900	11900	16900	2940	3330	9680	6340	3450	3310
10	1940	969	2680	10600	12300	12600	1180	6850	9310	1570	4990	3040
11	4220	4280	2450	11300	14100	12900	1650	5410	28200	439	8150	1120
12	4240	3800	389	10500	12100	11500	2720	4910	21600	5860	8270	599
13	1560	4660	566	9490	12500	10800	5080	3610	15300	8140	8420	5100
14	5280	4130	4640	9510	12200	8120	4330	2660	16500	8480	5300	2810
15	2760	1970	3290	9800	10300	5390	4900	1770	25400	8400	2990	2620
16	5290	3650	9240	9970	9780	9680	5340	1040	17500	8260	3420	2910
17	282	3410	9190	9540	23600	9930	5090	4430	11600	5530	3550	2190
18	296	4830	6840	9410	29200	9810	710	4300	12200	4980	5020	509
19	2570	917	6170	9640	19600	8450	4980	4290	23500	4480	3890	551
20	1990	652	400	9340	17100	2160	5780	1960	24000	6860	4670	3540
21	1480	951	5980	11000	14200	3740	4730	4280	14700	6730	1210	4120
22	617	897	6350	19600	13800	4370	7890	5120	11600	4320	1190	4020
23	1190	2450	4310	19600	12800	5410	3140	1530	9620	5790	3710	1080
24	2490	1100	4710	22400	11900	7140	2970	6290	7770	2640	2990	3270
25	2130	1390	6260	18200	10700	7200	1610	19600	7480	913	4500	1170
26	5440	254	9840	12400	10200	5960	7110	16800	4360	4090	3350	881
27	6080	248	9860	11500	11100	5390	10000	12200	3130	5680	1030	3300
28	6860	769	10700	10200	29700	538	22600	20100	4670	8270	326	4510
29	4820	1760	10100	8890	---	3960	24000	21000	4330	7560	555	4360
30	6000	3350	9810	521	---	6890	13800	14000	6510	6850	642	3330
31	6310	---	9970	2050	---	6910	---	11100	---	6920	1980	---
TOTAL	101655	71747	154551	475961	453320	316648	185110	246370	413060	163376	109489	72580
MEAN	3279	2392	4986	15350	16190	10210	6170	7947	13770	5270	3532	2419
MAX	8000	4830	10700	42200	45900	25800	24000	21000	29200	8480	8420	5100
MIN	282	248	389	521	7720	538	710	1040	3130	331	326	336
(†)	-964	-610	+571	+881	+420	-211	+1213	+381	-527	-343	-300	-613

CAL YR 1981 TOTAL 1445347 MEAN 3960 MAX 33800 MIN 158 MEAN‡ 4022 CFSM‡ .59 IN‡ 8.01
WTR YR 1982 TOTAL 2763867 MEAN 7572 MAX 45900 MIN 248 MEAN‡ 7561 CFSM‡ 1.10 IN‡ 14.93

† 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.

INSTRUMENTATION.--Water-quality monitor since November 1981.

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.--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, 151 micromhos Jan. 30, 1982; 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, 151 micromhos Jan. 30; minimum, 55 micromhos June 21.
WATER TEMPERATURES: Maximum, 30.5°C Aug. 7; minimum, 2.5°C Dec. 21, Jan. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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...	1215	6180	89	7.0	20.0	16	7.4	21	K320	21	0
NOV											
09...	1630	568	104	6.3	17.0	5.0	9.7	--	--	23	4
JAN											
18...	1300	9420	100	6.3	3.5	24	11.6	23	47	22	6
MAR											
02...	1000	20800	75	6.9	7.0	52	12.0	K530	K700	20	0
MAY											
05...	1045	10400	80	6.8	18.0	21	7.8	21	K280	22	1
JUL											
08...	1100	6180	95	6.3	26.0	74	5.0	25	>100	23	1
SEP											
07...	1315	1900	93	6.8	25.5	6.4	8.8	--	--	22	--

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...	4.7	2.2	11	49	1.2	3.0	33	0	27	4.3	6.1
NOV											
09...	5.3	2.3	11	47	1.1	3.0	23	0	19	23	8.2
JAN											
18...	5.4	2.1	6.6	36	.7	2.5	20	0	16	23	8.4
MAR											
02...	4.5	2.1	5.1	33	.5	1.9	26	0	21	3.4	8.9
MAY											
05...	5.0	2.2	6.2	36	.6	1.9	25	0	21	5.9	8.0
JUL											
08...	5.6	2.2	7.4	38	.7	2.4	27	0	22	21	10
SEP											
07...	5.1	2.2	8.3	42	.8	2.3	--	--	--	--	7.0

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 1981 TO SEPTEMBER 1982

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											
07...	8.2	.2	8.6	64	59	.09	1070	.29	.32	.050	.040
NOV											
09...	8.4	.2	9.8	69	63	.09	106	--	.39	--	.060
JAN											
18...	8.9	.1	10	68	58	.09	1730	--	.67	--	.100
MAR											
02...	6.2	<.1	8.7	62	46	.08	3480	--	.66	--	.140
MAY											
05...	6.3	<.1	11	50	52	.07	1400	--	.50	--	.120
JUL											
08...	7.1	<.1	11	85	63	.12	1420	--	.70	--	.100
SEP											
07...	7.5	.2	9.3	58	57	.08	298	--	<.10	--	.060

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)
OCT										
07...	.05	.46	.34	.51	.13	.38	.80	3.5	.70	.050
NOV										
09...	.08	--	--	.28	--	--	--	--	--	.210
JAN										
18...	.13	--	--	.26	--	--	--	--	--	.070
MAR										
02...	.18	--	--	.72	--	--	--	--	--	.100
MAY										
05...	.15	--	--	.78	--	--	--	--	--	.080
JUL										
08...	.13	--	--	.40	--	--	--	--	--	.190
SEP										
07...	.08	--	--	.40	--	--	--	--	--	.020

DATE	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	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)
OCT										
07...	.15	.040	--	--	--	--	--	--	--	--
NOV										
09...	.64	.040	.030	.09	1	1	0	100	80	18
JAN										
18...	.21	.040	.020	.06	1	0	1	100	80	19
MAR										
02...	.31	.060	.040	.12	--	--	--	--	--	--
MAY										
05...	.25	.030	.030	.09	2	1	1	<100	--	25
JUL										
08...	.58	.130	.120	.37	--	--	--	--	--	--
SEP										
07...	.06	<.010	<.010	--	2	0	2	<100	--	15

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
OCT										
07...	--	--	--	--	--	--	--	--	--	--
NOV										
09...	<1	<1	10	0	10	<1	--	1	6	5
JAN										
18...	1	<1	20	10	10	1	0	1	7	0
MAR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
05...	1	<1	20	10	10	2	--	<1	4	1
JUL										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
07...	1	<1	20	10	10	1	--	<1	5	1

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										
09...	1	250	200	46	1	--	<1	20	4	16
JAN										
18...	7	660	490	170	<1	--	<1	60	40	23
MAR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
05...	3	480	210	270	4	3	1	90	10	77
JUL										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
07...	4	5100	5000	110	7	6	1	70	30	45

DATE	MERCURY TOTAL 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, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV												
09...	<.1	<.1	4	0	4	<1	<1	<1	<1	50	40	13
JAN												
18...	.1	<.1	7	5	2	<1	<1	<1	<1	50	--	<4
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	<.1	<.1	5	--	<1	<1	<1	<1	<1	30	20	7
SEP												
07...	<.1	<.1	4	1	3	<1	<1	<1	<1	<10	--	7

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
09...	--	<1	--	<1.0	--	<.1	--	<1.0	--	.2	--	<.1
JAN												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
02...	<.10	--	<.10	--	<.01	--	<.10	--	<.01	--	<.01	--
MAY												
05...	<.10	11	<.10	<1.0	<.01	<.1	<.10	4.0	<.01	<.1	<.01	5.5
SEP												
07...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	ODT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV												
09...	--	<.1	--	--	<.1	--	<.1	--	<.1	--	--	<.1
JAN												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
02...	<.01	--	<.01	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAY												
05...	<.01	1.2	--	<.01	.1	<.01	<.1	<.01	<.1	--	<.01	<.1
SEP												
07...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV											
09...	--	<.1	--	<.1	--	--	<.1	--	--	--	<.1
JAN											
18...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	<.01	--	<.01	--	<.01	<.01	--	<.01	<.01	<.01	--
MAY											
05...	<.01	<.1	<.01	<.1	--	<.01	<.1	--	--	<.01	<.1
SEP											
07...	--	--	--	--	--	--	--	--	--	--	--

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL THI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)
NOV										
09...	--	--	<.10	--	<1.0	--	--	--	--	--
MAR										
02...	<.01	<.01	--	<.10	--	<.01	.13	<.01	<.01	<.01
MAY										
05...	--	<.10	<1.00	<1	<10	--	.03	<.01	<.01	<.01

PHYTOPLANKTON ANALYSES, SEPTEMBER 1981

DATE	SEP 14,81
TIME	1130
TOTAL CELLS/ML	120
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	0.0

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..NAVICULALES		
...NAVICULACEAE		
....NAVICULA	120	#100

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 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1			86	---	---	82	120	117	118	106	83	99
2			82	---	---	84	---	---	100	99	91	93
3			91	---	---	82	---	---	108	92	74	82
4			90	---	---	82	---	---	101	92	83	87
5			83	---	---	83	---	---	106	88	84	86
6			84	---	---	87	---	---	111	85	80	83
7			82	---	---	89	---	---	104	89	85	87
8			89	---	---	97	---	---	100	90	88	89
9			84	103	100	102	138	134	136	96	90	93
10			87	102	100	101	137	127	132	98	92	96
11			82	102	101	101	137	129	133	100	96	98
12			83	102	100	101	135	131	133	99	95	97
13			88	109	101	105	135	129	132	100	94	97
14			82	116	109	113	134	131	133	105	93	97
15			85	116	113	114	133	111	125	100	93	97
16			82	115	109	112	129	117	126	102	94	98
17			99	113	107	110	131	118	124	100	93	97
18			99	108	105	107	147	131	142	102	99	100
19			85	106	103	104	142	130	133	103	100	101
20			87	105	103	104	130	124	127	103	95	99
21			89	108	105	107	126	119	123	105	97	100
22			94	111	107	109	122	119	121	107	103	105
23			90	112	109	110	122	114	120	105	96	101
24			86	112	105	108	123	116	120	95	87	92
25			87	110	107	108	116	104	109	97	91	95
26			81	111	107	109	112	109	111	97	89	92
27			81	109	106	108	128	109	118	91	87	90
28			80	111	106	108	128	122	126	91	85	89
29			82	115	108	112	122	112	116	90	86	88
30			79	118	112	116	113	112	113	151	88	129
31			80	---	---	---	113	87	108	132	79	107
MONTH			86	118	100	102	147	87	120	151	74	96

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	93	84	89	79	75	77	109	103	107	84	81	82
2	112	92	98	76	73	74	110	106	108	84	80	83
3	109	74	89	75	73	74	108	96	102	85	80	83
4	86	76	82	76	73	74	109	96	105	86	82	85
5	78	75	77	76	73	75	103	95	100	86	79	82
6	79	78	78	77	73	75	106	98	102	84	78	81
7	79	78	79	75	63	71	115	103	107	82	75	80
8	82	78	80	73	69	71	122	102	110	88	82	85
9	82	78	81	79	69	75	116	99	104	86	82	84
10	82	77	80	78	71	75	115	98	107	87	83	85
11	84	79	81	76	74	75	120	101	112	91	87	89
12	84	80	83	76	70	73	110	102	107	94	89	92
13	87	82	85	76	70	74	116	98	107	114	92	97
14	85	82	84	78	73	76	106	98	101	106	92	96
15	87	82	85	---	---	81	117	106	114	110	91	100
16	92	83	86	---	---	78	120	104	113	112	92	102
17	84	80	82	---	---	78	104	96	100	108	90	98
18	85	80	83	---	---	78	98	94	96	102	92	96
19	80	79	80	---	---	79	99	95	97	97	91	94
20	81	79	80	---	---	86	98	89	93	109	95	101
21	82	80	81	---	---	83	94	84	90	107	97	101
22	83	81	82	---	---	82	101	95	99	113	96	103
23	82	79	81	---	---	81	103	97	99	114	99	106
24	81	78	80	---	---	85	105	92	98	117	101	106
25	82	78	80	89	87	88	106	92	97	111	100	105
26	102	77	82	105	86	95	108	89	96	98	80	89
27	94	68	78	109	105	107	109	91	97	87	81	85
28	84	71	77	115	106	110	106	85	95	87	84	86
29	---	---	---	120	109	114	86	79	82	86	81	83
30	---	---	---	129	92	111	84	81	82	82	79	81
31	---	---	---	104	92	98	---	---	---	86	82	84
MONTH	112	68	82	129	63	83	122	79	101	117	75	91

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	85	83	84	90	88	89	103	83	93	81	66	73
2	84	80	83	89	86	88	107	82	93	71	63	67
3	86	82	83	89	85	86	94	84	88	75	64	69
4	87	82	85	93	87	90	92	85	87	82	74	78
5	86	70	79	94	90	92	90	85	88	86	80	83
6	71	68	69	92	89	90	90	87	88	93	85	88
7	78	72	76	91	88	90	106	90	99	94	89	92
8	79	77	78	96	91	94	125	106	115	92	85	89
9	80	77	78	92	88	91	131	85	109	92	88	91
10	80	72	79	93	87	89	89	81	84	93	89	91
11	80	69	76	94	87	90	81	78	80	95	92	93
12	75	71	73	86	75	83	80	74	78	99	95	96
13	76	75	76	85	81	83	76	68	73	99	94	96
14	80	76	77	85	80	83	81	67	75	94	91	93
15	81	76	78	82	79	81	93	78	84	95	89	93
16	79	76	77	79	77	78	100	82	91	92	88	90
17	78	75	77	80	76	78	88	78	83	91	86	89
18	79	75	77	81	77	78	81	77	78	90	86	88
19	91	75	79	82	77	79	85	77	81	89	85	87
20	76	56	62	83	76	79	79	71	75	92	89	90
21	65	55	60	85	83	84	83	70	76	91	89	91
22	70	64	68	88	83	85	94	83	88	94	90	91
23	73	70	72	82	79	81	99	70	86	98	90	93
24	75	72	74	89	78	83	80	71	75	117	101	111
25	80	75	76	97	81	88	77	71	74	112	109	111
26	91	80	86	102	79	87	77	70	74	108	98	104
27	99	83	89	82	78	79	87	73	79	106	102	105
28	92	86	90	88	78	84	102	87	94	109	101	106
29	97	88	91	87	84	85	103	99	101	101	97	99
30	92	88	90	85	80	82	110	101	105	99	86	96
31	---	---	---	82	79	81	110	72	100	---	---	---
MONTH	99	55	78	102	75	85	131	67	87	117	63	91
YEAR	151	55	92									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	5.5	6.0	6.5	6.0	6.0	14.5	12.5	13.5	18.5	16.0	17.0
2	6.5	5.5	6.0	8.0	6.5	7.0	14.5	12.5	13.5	18.5	16.0	17.5
3	6.5	5.5	6.0	8.5	7.0	8.0	14.5	13.0	13.5	19.0	17.0	18.0
4	6.5	5.0	6.0	8.5	8.0	8.0	16.5	12.5	14.0	20.0	16.0	18.0
5	6.5	6.5	6.5	10.0	8.0	9.0	14.0	12.5	13.5	19.0	17.5	18.0
6	6.5	6.0	6.5	9.5	9.0	9.0	14.0	12.5	13.0	19.5	17.5	18.5
7	7.0	6.0	6.5	9.0	8.0	9.0	14.5	11.5	13.0	20.0	18.0	19.0
8	7.5	6.0	6.5	9.0	8.5	8.5	13.0	10.5	12.0	20.0	18.0	19.0
9	6.5	6.0	6.5	10.0	8.5	9.0	13.0	10.5	12.0	22.0	18.0	19.5
10	7.0	6.0	6.5	10.0	8.5	9.0	13.5	10.0	12.0	20.5	18.5	19.5
11	7.0	6.0	6.5	10.5	9.0	9.5	16.0	12.0	13.0	20.5	16.5	19.0
12	7.0	5.0	6.0	11.5	9.5	10.5	14.5	11.0	13.0	21.0	17.5	19.5
13	7.0	6.5	6.5	13.0	10.0	11.5	13.5	12.0	13.0	21.5	17.5	20.0
14	7.0	5.5	6.5	12.5	11.5	12.0	15.0	12.5	13.5	23.0	18.5	21.0
15	7.0	6.0	6.5	---	---	---	15.5	13.5	14.5	26.0	20.0	21.5
16	8.0	7.0	7.5	---	---	---	16.5	14.5	15.5	23.5	19.5	21.0
17	8.5	7.5	8.0	---	---	---	16.5	15.0	16.0	22.0	20.0	21.0
18	9.5	8.5	9.0	---	---	---	18.5	14.5	16.5	23.0	19.5	21.5
19	9.5	8.0	9.0	---	---	---	17.5	15.5	16.5	22.5	20.5	22.0
20	9.0	7.5	8.0	---	---	---	16.5	16.0	16.5	24.0	21.5	22.5
21	9.0	7.5	8.0	---	---	---	16.5	16.0	16.5	23.5	22.0	22.5
22	9.0	8.0	8.5	---	---	---	16.0	15.5	15.5	24.0	21.5	22.5
23	9.0	8.0	8.5	---	---	---	17.0	13.5	15.0	26.0	21.5	23.0
24	10.0	8.0	9.0	---	---	---	17.0	12.5	15.0	23.0	22.0	22.5
25	9.5	8.5	9.0	14.0	12.5	13.5	16.5	13.5	15.0	24.5	22.0	23.5
26	8.5	7.5	8.5	13.5	12.0	12.5	16.0	14.5	15.5	21.5	21.0	21.5
27	7.5	7.0	7.0	13.0	10.0	11.5	18.0	16.0	17.0	22.5	21.5	21.5
28	7.0	6.0	6.5	13.0	9.5	11.0	17.5	16.5	16.5	22.5	21.0	21.5
29	---	---	---	12.5	9.0	11.0	17.0	16.5	16.5	23.5	21.5	22.0
30	---	---	---	13.5	11.0	12.0	17.5	16.0	16.5	23.5	21.5	22.5
31	---	---	---	13.0	12.0	12.5	---	---	---	24.5	22.0	23.0
MONTH	10.0	5.0	7.0	14.0	6.0	10.0	18.5	10.0	14.5	26.0	16.0	20.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	23.0	24.0	27.5	25.5	26.0	29.0	25.5	26.5	27.5	24.5	25.5
2	25.0	23.5	24.0	27.0	24.5	25.5	28.0	25.5	27.0	28.0	25.0	26.0
3	24.0	23.5	23.5	27.5	25.0	26.0	29.5	25.5	26.5	27.0	24.5	25.5
4	24.0	22.5	23.5	28.5	25.0	26.5	27.5	25.0	26.5	27.0	24.5	25.5
5	23.0	22.0	22.5	28.0	26.0	27.0	27.0	26.0	26.5	25.5	23.5	25.0
6	23.5	22.0	22.5	27.0	24.5	26.0	28.5	26.0	27.0	26.0	23.0	24.5
7	24.0	22.0	23.0	28.0	25.5	26.5	30.5	25.5	27.5	27.5	23.0	24.5
8	24.5	23.0	23.5	28.0	26.0	26.5	29.0	26.0	27.5	27.0	23.0	24.5
9	26.5	24.0	25.0	28.0	25.5	26.5	28.0	26.5	27.0	25.5	23.0	24.0
10	25.5	24.0	24.5	29.5	25.5	26.5	28.0	25.5	26.5	25.0	23.5	24.0
11	24.0	23.0	23.5	29.0	25.5	27.0	28.0	27.0	27.5	24.0	23.0	23.5
12	23.0	22.0	22.5	26.5	25.0	26.0	27.5	26.5	27.0	26.0	23.5	24.5
13	23.5	22.5	23.0	27.0	26.0	26.0	26.5	25.5	26.0	25.5	24.0	25.0
14	24.0	23.0	23.5	26.0	25.5	25.5	29.0	25.5	26.5	25.5	24.5	25.0
15	24.0	23.0	24.0	25.5	25.0	25.5	29.0	25.0	27.0	28.5	24.0	25.5
16	24.5	24.0	24.0	26.0	24.0	25.0	27.5	25.5	27.0	27.5	24.0	25.5
17	24.5	24.0	24.0	26.5	24.0	25.0	28.0	25.0	26.0	27.5	24.0	25.5
18	24.5	24.0	24.0	27.0	25.0	26.0	27.5	25.5	26.0	27.5	24.0	25.5
19	24.5	23.5	24.0	26.0	24.5	25.5	27.5	24.5	26.0	26.0	25.0	25.5
20	24.0	23.5	23.5	27.5	25.5	26.5	27.5	24.5	26.0	25.5	24.0	25.0
21	24.5	23.0	23.5	28.0	26.0	27.0	27.5	25.0	26.0	25.0	23.0	24.5
22	24.0	23.5	23.5	27.5	26.0	26.5	29.0	24.5	27.0	25.0	23.5	24.0
23	25.5	23.5	24.5	27.5	26.5	27.0	27.0	25.5	26.5	24.5	21.5	23.0
24	24.5	24.0	24.5	28.0	26.0	26.5	29.5	25.0	26.5	24.0	21.0	22.5
25	25.5	24.0	24.5	29.0	25.5	27.0	28.0	26.0	27.0	24.5	21.0	22.5
26	26.5	23.5	25.0	28.5	26.5	27.5	30.0	25.5	27.0	23.0	19.0	20.5
27	26.0	24.0	25.0	29.0	26.0	27.0	28.5	25.5	27.0	23.5	19.5	21.5
28	25.5	23.5	24.5	28.0	26.5	27.0	28.5	26.5	27.5	23.5	20.5	22.0
29	26.5	24.0	25.0	27.5	27.5	27.5	27.0	24.5	25.5	23.0	20.0	22.0
30	27.5	25.0	26.0	28.0	26.5	27.0	27.0	24.0	25.5	23.0	20.0	21.5
31	---	---	---	27.0	26.0	26.5	26.0	24.5	25.5	---	---	---
MONTH	27.5	22.0	24.0	29.5	24.0	26.5	30.5	24.0	26.5	28.5	19.0	24.0
YEAR	30.5	2.5	17.0									

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1215	6180	16	267	94
NOV					
09...	1630	568	5	7.7	94
JAN					
18...	1300	9420	16	407	94
MAR					
02...	1000	20800	30	1690	98
MAY					
05...	1045	10400	20	562	96
JUL					
06...	1100	6180	32	534	97
SEP					
07...	1315	1900	9	46	89

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/29	07 56	0000	3.37	5680	60	7.01	15.0		8.6	84.0	40.0	50
81/11/19	12 20	0000	1.98	1260	50	7.21	12.0		8.7	81.0		160
81/12/29	13 00	0000	4.30	10000	70	6.76	10.0	20.0	10.2		17.0	210
82/01/07	14 10	0000	5.45	16100				90.0				580
82/02/03	13 10	0000	4.40	10500	50	5.61	4.0	80.0	11.2	85.0	26.0	80
82/03/10	12 00	0000	4.82	12600	40	7.13	12.0	55.0	10.6	98.0	15.0	50
82/04/22	12 18	0000	3.92	8100	73	6.91	14.0	20.0	9.6	92.0	12.0	10
82/05/27	12 20	0000	4.70	12000	90	6.93	23.0	40.0	8.4	97.0	17.0	210
82/06/24	15 00	0000	3.88	7900	42	6.21	23.0	150.0	7.8	90.0	18.0	1300
82/07/22	13 00	0000	3.55	6400	95	6.70	25.0	75.0	5.2	63.0	14.0	10
82/08/25	09 05	0000	1.30	470	90	6.70	18.0	15.0	7.2	76.0	12.0	10
82/09/27	12 00	0000	3.42	5880	100	6.84	25.0	15.0	8.3	99.0	12.0	50

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/29	07 56	0000		62	182	0.41	0.230	1.000	0.320	0.180		
81/11/19	12 20	0000		1	54	0.65	0.860	1.200	0.350	0.340		
81/12/29	13 00	0000		19	106	0.84	0.080	0.400	0.080	0.050K	10K	50K
82/01/07	14 10	0000		51	148	0.66	0.050K	0.400	0.120	0.050K		
82/02/03	13 10	0000		87	186	0.55	0.050	0.400	0.140	0.050K		
82/03/10	12 00	0000		18	112	0.60	0.070	0.500	0.120	0.050K	10K	50K
82/04/22	12 18	0000	23	16	70	0.48	0.050	0.300	0.080	0.050K		
82/05/27	12 20	0000	20	47	165	0.12	0.080	0.600	0.120	0.050K		
82/06/24	15 00	0000	8	186	272	0.73	0.050K	0.700	0.250	0.050K	10K	50K
82/07/22	13 00	0000	22	49	186	0.76	0.080	0.500	0.120	0.050K		
82/08/25	09 05	0000	18	2	110	0.39	0.090	0.400	0.050	0.050K		
82/09/27	12 00	0000	27	14	183	0.47	0.080	0.400	0.080	0.050K	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/29	13 00	0000	50K	40K	100K	0.5K	100K	50K
82/03/10	12 00	0000	50K	40K	100K	1.1	100K	50K
82/06/24	15 00	0000	50K	40K	100K	0.2K	100K	50K
82/09/27	12 00	0000	50K	40K	100K	0.3	100K	80

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 mi² (474 km²).

WATER-DISCHARGE RECORDS

PERIOD OF 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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--43 years, 259 ft³/s (7.335 m³/s), 19.22 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft³/s (309 m³/s) Sept. 18, 1945, gage height, 10.29 ft (3.136 m); minimum, 22 ft³/s (0.62 m³/s) Oct. 5, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 850 ft³/s (24 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	1200	*953	27.0	*6.21	1.893

Minimum discharge, 41 ft³/s (1.16 m³/s) Oct. 4, gage height, 1.55 ft (0.472 m); minimum daily, 42 ft³/s (1.19 m³/s) Oct. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	276	137	370	303	512	254	395	174	113	254	84
2	44	197	185	484	321	556	247	337	132	110	379	85
3	42	172	209	651	360	516	241	272	116	95	319	82
4	42	153	179	835	422	437	229	245	144	85	149	107
5	45	142	148	942	498	379	217	212	314	115	132	169
6	47	179	138	911	588	371	212	189	417	124	127	159
7	44	197	130	736	546	463	211	172	383	99	109	101
8	44	160	127	576	467	646	213	161	384	86	99	87
9	43	135	120	467	431	795	259	161	260	77	101	80
10	44	128	114	402	398	722	316	160	160	82	129	79
11	47	128	111	364	371	581	323	145	383	100	187	81
12	49	126	110	332	357	484	283	133	487	166	290	86
13	47	121	109	309	360	425	236	125	357	308	369	86
14	47	117	113	315	358	402	211	117	273	409	417	79
15	46	114	179	330	347	420	201	111	195	354	470	82
16	47	113	304	346	338	462	196	126	164	317	347	87
17	47	117	391	366	369	496	197	179	195	295	197	77
18	47	118	401	377	468	488	229	191	193	272	192	71
19	47	113	376	370	564	439	271	199	163	220	245	99
20	49	110	311	369	568	392	295	155	136	145	200	149
21	50	108	211	389	487	370	314	225	118	137	153	140
22	51	106	188	442	412	356	331	291	121	140	145	162
23	53	106	195	510	369	343	311	289	163	120	144	174
24	56	125	191	528	339	328	255	288	157	157	126	134
25	93	175	248	512	313	315	211	279	130	178	109	103
26	212	177	371	474	296	303	230	210	115	164	97	114
27	438	142	460	425	321	292	306	234	102	122	92	186
28	709	130	443	373	412	280	357	313	143	104	86	210
29	763	129	407	331	---	268	370	335	185	121	86	166
30	604	122	354	305	---	260	397	295	165	147	82	121
31	423	---	316	295	---	256	---	278	---	153	83	---
TOTAL	4365	4236	7276	14436	11383	13357	7923	6822	6429	5115	5915	3440
MEAN	141	141	235	466	407	431	264	220	214	165	191	115
MAX	763	276	460	942	588	795	397	395	487	409	470	210
MIN	42	106	109	295	296	256	196	111	102	77	82	71
CFSM	.77	.77	1.28	2.55	2.22	2.36	1.44	1.20	1.17	.90	1.04	.63
IN.	.89	.86	1.48	2.93	2.31	2.72	1.61	1.39	1.31	1.04	1.20	.70

CAL YR 1981 TOTAL 54105 MEAN 148 MAX 763 MIN 28 CFSM .81 IN 11.00
WTR YR 1982 TOTAL 90697 MEAN 248 MAX 942 MIN 42 CFSM 1.36 IN 18.44

02133500 DROWNING CREEK NEAR HOFFMAN, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/07	13 20	0000	1.60	46	34	6.96	18.0		7.8	82.0		20
81/11/05	13 00	0000	3.18	139	20	6.85	15.0		8.7	85.0		60
81/12/09	12 00	0000	2.87	120	25	5.82	8.0	2.0	11.2	94.0	12.0	10
82/01/20	14 20	0000	5.15	370	30	5.51	5.0		10.3	80.0		30
82/02/18	12 15	0000	5.43	467	40	5.49	10.0		10.8	96.0		70
82/03/30	13 40	0000	4.54	260	20	5.73	11.0	5.0	11.0	99.0	13.0	40
82/04/20	13 40	0000	4.80	300	24	5.56	14.0		10.2	98.0		240
82/05/20	13 40	0000	3.40	152	50	5.68	21.0		9.4	104.0		100
82/06/07	13 00	0000	5.15	370	22	4.70	20.0	10.0	6.6	73.0	40.0	240
82/07/20	12 00	0000	3.20	128	20	5.66	25.0	5.0	7.4	88.0		40
82/08/17	14 00	0000	3.78	186	30	5.05	25.0		8.2	98.0		30
82/09/22	13 00	0000	3.62	165	40	5.97	21.0	3.0	7.4	82.0	25.0	240

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/07	13 20	0000	2	1	38							
81/11/05	13 00	0000	2	3	32							
81/12/09	12 00	0000	2	1K	40	0.29	0.050K	0.200	0.050K	0.050K	10K	50K
82/01/20	14 20	0000	4	1	19							
82/02/18	12 15	0000	6	7	47							
82/03/30	13 40	0000		2	32	0.24		0.200	0.050K	0.050K	10K	50K
82/04/20	13 40	0000	3	4	53							
82/05/20	13 40	0000	42	11	64							
82/06/07	13 00	0000	1	8	70	0.05K	0.050K	0.500	0.050K	0.050K	10K	50K
82/07/20	12 00	0000	3	4	94							
82/08/17	14 00	0000	2	1K	60							
82/09/22	13 00	0000	5	4	96	0.11	0.050K	0.300	0.050K	0.050K	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/09	12 00	0000	50K	40K	100K	0.5K	100K	50K
82/03/30	13 40	0000	50K	40K	100K	0.2K	100K	50K
82/06/07	13 00	0000	50K	40K	100K	0.2K	100K	50K
82/09/22	13 00	0000	50K	40K	100K	0.2	100K	50K

K Less than noted value.

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 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.

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

AVERAGE DISCHARGE.--53 years, 1,325 ft³/s (37.52 m³/s), 14.65 in/yr (372 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, 3,960 ft³/s (112 m³/s) Feb. 19, gage height, 7.83 ft (2.387 m); minimum, 121 ft³/s (3.43 m³/s) Oct. 24, gage height, 1.11 ft (0.338 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	369	360	1590	2550	2820	1360	2120	1230	535	1020	287
2	165	399	394	1690	2490	2930	1300	2040	1150	481	1030	273
3	158	428	425	2090	2480	2970	1240	1950	1060	433	990	259
4	159	464	439	2400	2410	2930	1170	1800	1020	402	927	260
5	154	513	441	3040	2370	2870	1110	1660	1080	467	886	260
6	149	625	440	3390	2380	2850	1050	1510	1020	521	863	248
7	144	680	439	3740	2400	2920	998	1400	950	638	845	237
8	143	731	441	3890	2390	3020	962	1310	909	658	815	227
9	137	730	443	3900	2400	3090	981	1250	881	615	785	227
10	134	679	444	3890	2540	3120	985	1170	855	539	762	238
11	135	560	439	3890	2650	3100	985	1100	883	464	756	248
12	134	468	423	3780	2770	3040	981	1010	906	434	750	249
13	130	423	395	3570	2960	3000	965	912	925	387	736	233
14	127	387	378	3360	2990	2930	950	798	934	483	681	215
15	127	362	405	3110	3000	2920	937	687	928	626	627	200
16	127	335	449	2820	3090	2920	928	600	930	768	588	189
17	126	313	487	2590	3400	2870	929	539	935	1030	558	182
18	127	305	532	2390	3710	2790	947	500	990	1340	542	178
19	126	294	579	2250	3900	2680	971	480	1180	1400	535	174
20	124	288	615	2150	3900	2550	1080	540	1240	1320	532	178
21	123	286	647	2130	3740	2410	1230	560	1270	1260	542	190
22	122	282	675	2160	3500	2310	1280	540	1230	1270	573	193
23	122	281	703	2290	3280	2200	1310	500	1130	1430	587	210
24	121	290	723	2520	3060	2120	1330	490	1010	1620	583	238
25	125	308	866	2690	2840	2040	1310	505	902	1660	561	261
26	135	313	935	2830	2650	1970	1360	592	811	1560	517	329
27	155	318	1050	2840	2670	1860	1480	761	731	1390	465	358
28	209	328	1170	2780	2740	1770	1670	960	677	1190	413	379
29	245	335	1290	2700	---	1650	1950	1110	628	1010	366	392
30	283	343	1360	2630	---	1550	2110	1240	585	925	331	393
31	330	---	1440	2580	---	1450	---	1280	---	929	305	---
TOTAL	4768	12437	19827	87680	81260	79650	35859	31914	28980	27785	20471	7505
MEAN	154	415	640	2828	2902	2569	1195	1029	966	896	660	250
MAX	330	731	1440	3900	3900	3120	2110	2120	1270	1660	1030	393
MIN	121	281	360	1590	2370	1450	928	480	585	387	305	174
CFSM	.13	.34	.52	2.30	2.36	2.09	.97	.84	.79	.73	.54	.20
IN.	.14	.38	.60	2.66	2.46	2.41	1.09	.97	.88	.84	.62	.23

CAL YR 1981 TOTAL 193991 MEAN 531 MAX 1680 MIN 121 CFSM .43 IN 5.88
WTR YR 1982 TOTAL 438136 MEAN 1200 MAX 3900 MIN 121 CFSM .98 IN 13.27

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/29	11 43	0000	2.06	215	40	6.76	16.0		9.3	93.0		30
81/11/04	14 45	0000	3.43	467	80	6.54	18.0		8.8	93.0	54.0	100
81/12/02	14 00	0000	3.27	398	85	6.63	12.0	2.0	8.7	81.0	32.0	110
82/01/11	13 40	0000	7.79	3890	40	6.21	7.0	3.0	10.6	87.0	40.0	10
82/02/04	12 40	0000	6.81	2400	40	5.62	5.0	1.0	11.0	86.0	31.0	10K
82/03/03	12 45	0000	7.23	2970	30	7.15	12.0	1.0	11.2	104.0	27.0	10K
82/04/14	12 15	0000	5.10	949	40	6.52	14.0	2.0	10.4	100.0	38.0	10
82/05/13	13 20	0000	5.01	905	32	6.43	19.0	2.0	9.6	102.0	65.0	1400
82/06/17	13 00	0000	5.10	949	42	6.57	22.0	2.0	8.2	93.0	57.0	160
82/07/14	13 30	0000	3.31	445	110	6.61	23.0		5.6	64.0		480
82/08/04	12 10	0000	5.07	929	60	5.94	24.0	15.0	5.6	66.0	54.0	60
82/09/16	14 00	0000	1.66	188	210	6.87	24.0	2.0	6.9	81.0	33.0	100

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/11/04	14 45	0000	10	2	123	0.05K	0.080	0.700	0.120	0.080		
81/12/02	14 00	0000	14	1K	95	0.36	0.050K	0.300	0.130	0.090	10K	50K
82/01/11	13 40	0000		8	73	0.39	0.050K	0.400	0.050K	0.050K		
82/02/04	12 40	0000		5	78	0.18	0.050K	0.400	0.050K	0.050K		
82/03/03	12 45	0000		2	99	0.60	0.050K	0.300	0.050K	0.050K	10K	50K
82/04/14	12 15	0000		2	77	0.19	0.050K	0.400	0.080	0.050K		
82/05/13	13 20	0000	3	14	183	0.20	0.050	0.800	0.170	0.050K		
82/06/17	13 00	0000	3	3	96	0.17	0.050K	0.600	0.150	0.080	10K	50K
82/07/14	13 30	0000	21	30	134							
82/08/04	12 10	0000	6	2	80	0.14	0.050K	0.700	0.110	0.050K		
82/09/16	14 00	0000	14	3	141	0.60	0.050K	0.600	0.270	0.220	10K	50K

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/12/02	14 00	0000	50K	40K	100K	0.5K	100K	50K
82/03/03	12 45	0000	50K	40K	100K	0.2K	100K	50K
82/06/17	13 00	0000	50K	40K	100K	0.2K	100K	50K
82/09/16	14 00	0000	50K	40K	100K	0.2K	100K	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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963, 1970-73, 1975. October 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,230 ft (376 m) from topographic map.

REMARKS.--Water-discharge records good. About 1.0 ft³/s (0.028 m³/s) is diverted by the town of Marion for water supply.

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 RECORD.--Maximum discharge, 4,480 ft³/s (127 m³/s) May 27, 1982, gage height, 9.03 ft (2.752 m), from rating curve extended above 2,470 ft³/s (70.0 m³/s); minimum, 51 ft³/s (1.44 m³/s) Sept. 1, 1981, gage height, 1.12 ft (0.341 m) and Dec. 11, 1981, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s (71 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. 3	1145	3160	89.5	7.39	2.252	May 27	0615	*4480	127	*9.03	2.752

Minimum discharge, 51 ft³/s (1.44 m³/s) Dec. 11, gage height, 1.12 ft (0.341 m), result of freezeup; minimum daily, 55 ft³/s (1.56 m³/s) Oct. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	73	121	411	299	252	157	293	375	155	344	120
2	59	71	124	269	352	273	151	266	302	151	239	126
3	60	70	89	365	2270	284	171	243	268	147	206	112
4	58	69	80	1250	906	262	150	225	284	143	186	103
5	58	70	78	488	523	246	150	211	284	137	175	100
6	59	72	74	312	397	230	160	202	242	137	175	97
7	57	67	73	248	319	374	144	194	222	141	164	95
8	55	67	71	212	279	327	165	199	213	142	178	90
9	55	67	68	189	304	284	202	183	201	176	167	89
10	60	67	67	157	275	258	195	172	282	196	151	92
11	63	66	65	152	246	241	173	166	250	266	192	94
12	63	65	68	150	230	228	163	159	311	188	230	93
13	62	64	68	150	226	218	157	154	414	281	173	94
14	60	65	95	150	207	209	154	150	266	295	165	127
15	59	66	165	145	202	251	158	148	235	391	154	113
16	60	66	149	140	288	249	189	159	230	332	146	105
17	61	68	108	135	456	258	201	151	209	226	157	91
18	62	65	97	134	400	244	214	143	204	241	143	90
19	61	66	85	138	330	231	187	178	197	287	148	91
20	59	72	77	144	287	222	179	233	183	234	136	96
21	60	68	83	271	260	216	174	184	174	199	130	98
22	62	65	91	298	236	202	162	156	170	567	124	135
23	68	64	94	336	220	191	155	225	169	390	121	94
24	75	81	90	331	209	186	151	390	161	343	122	88
25	71	75	251	256	198	183	164	240	165	254	125	86
26	132	69	188	221	190	179	662	302	161	214	113	90
27	165	70	143	190	231	169	1050	2280	187	194	110	100
28	94	82	131	180	236	165	732	696	177	223	111	94
29	80	69	121	168	---	163	445	603	173	192	107	86
30	75	72	112	158	---	161	343	454	157	204	103	86
31	74	---	319	207	---	160	---	425	---	308	106	---
TOTAL	2145	2071	3445	7957	10576	7116	7458	9784	6866	7354	4901	2975
MEAN	69.2	69.0	111	257	378	230	249	316	229	237	158	99.2
MAX	165	82	319	1250	2270	374	1050	2280	414	567	344	135
MIN	55	64	65	134	190	160	144	143	157	137	103	86
CFSM	.55	.54	.87	2.02	2.98	1.81	1.96	2.49	1.80	1.87	1.24	.78
IN.	.63	.61	1.01	2.33	3.10	2.08	2.18	2.87	2.01	2.15	1.44	.87

CAL YR 1981 TOTAL 51174 MEAN 140 MAX 1500 MIN 52 CFSM 1.10 IN 14.99
WTR YR 1982 TOTAL 72648 MEAN 199 MAX 2280 MIN 55 CFSM 1.57 IN 21.28

02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/06	14 30	0000	1.20	62	71	7.10	17.0		10.2	105.0		2300
81/11/03	08 00	0000	1.26	71	73	6.80	12.0	3.0	9.1	84.0	10.0K	200
81/12/02	07 15	0000	1.63	132		7.10	6.0		10.8	86.0		6600
82/01/05	07 15	0000	3.01	544	30	6.50	3.0		11.5	85.0		80
82/02/08	07 30	0000	2.28	284	32	7.10	3.0	5.0	12.0	89.0	10.0K	20
82/03/03	08 00	0000	2.33	299	45	6.70	5.0		11.6	91.0		1800
82/04/28	07 15	0000	3.61	810	25	6.60	11.0		10.0	90.0		1800
82/05/06	08 10	0000	1.96	204	125	7.00	15.0	5.0	8.3	81.0	10.0K	5100
82/06/21	07 00	0000	1.75	174	110	7.00	20.0		7.6	83.0		320
82/07/14	07 15	0000	2.41	358	33	6.70	21.0		7.7	86.0		5700
82/08/17	08 00	0000	1.76	159	54	7.00	20.0	15.0	7.8	85.0	10.0K	7400
82/09/21	07 30	0000	1.39	90	120		18.0		7.9	83.0		560

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/06	14 30	0000	20	2	69							
81/11/03	08 00	0000	24	7	76	0.20	0.050K	0.300	0.070	0.050K	18	50K
81/12/02	07 15	0000	19	38	103							
82/01/05	07 15	0000	6	36	82							
82/02/08	07 30	0000	10	7	53	0.33	0.050K	0.100	0.050K	0.050K	10K	50K
82/03/03	08 00	0000	10	4	31							
82/04/28	07 15	0000	8	105	144							
82/05/06	08 10	0000	17	11	62	0.33	0.280	0.500	0.050	0.050K	10K	50K
82/06/21	07 00	0000	15	22	81							
82/07/14	07 15	0000	9	101	154							
82/08/17	08 00	0000	17	21	58	0.16	0.050K	0.300	0.060	0.050K	10K	50K
82/09/21	07 30	0000		11	64							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/03	08 00	0000	50K	40K	100	0.5K		70
82/02/08	07 30	0000	50K	40K	100K	0.2K	100K	50K
82/05/06	08 10	0000	50K	40K	100K	0.2K	100K	50K
82/08/17	08 00	0000	50K	40K	100K	0.2	100K	50K

K Less than noted value.

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.

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

AVERAGE DISCHARGE.--60 years, (1922-82), 148 ft³/s (4.191 m³/s), 30.13 in/yr (765 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.--Peak discharge above base of 1,600 ft³/s (45 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	1130	*2150	60.9	*4.85	1.478

Minimum discharge, 4 ft³/s (0.11 m³/s) Dec. 11, gage height, 0.86 ft (0.262 m), result of freezeup; minimum daily, 16 ft³/s (0.45 m³/s) Oct. 8, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	33	37	279	459	129	91	189	225	69	370	56
2	17	31	50	189	292	139	86	167	170	63	172	134
3	20	30	50	155	1580	168	94	151	142	58	122	87
4	17	29	40	981	758	176	90	136	132	57	98	69
5	17	30	36	477	432	189	83	125	169	56	87	60
6	17	28	34	257	310	214	94	117	142	58	77	53
7	17	27	32	194	240	348	94	110	116	55	67	48
8	16	26	31	160	199	346	88	109	105	57	65	43
9	16	26	29	130	213	251	97	105	97	65	89	40
10	16	26	26	110	188	211	101	96	97	100	100	40
11	17	26	18	105	169	186	95	91	101	114	90	39
12	18	26	29	100	175	169	93	88	95	139	82	39
13	18	25	27	95	111	154	91	87	122	107	70	41
14	18	39	36	92	156	148	91	83	123	95	67	52
15	18	40	77	90	163	145	93	81	96	122	61	48
16	17	32	116	86	143	150	103	79	88	118	59	44
17	17	32	76	85	238	155	115	80	90	125	58	38
18	17	31	62	82	330	167	135	98	88	108	58	38
19	18	30	40	80	247	141	121	88	79	290	62	38
20	18	28	42	99	210	135	110	148	73	180	63	40
21	18	27	42	156	184	132	107	116	67	95	62	41
22	18	26	43	206	174	131	99	119	64	81	55	56
23	20	25	55	176	151	117	93	130	63	87	50	40
24	22	28	67	244	139	112	89	220	62	91	51	37
25	22	29	92	171	130	109	90	174	58	83	53	36
26	48	28	85	147	120	109	246	527	56	70	51	38
27	105	27	70	110	131	102	344	453	108	60	47	42
28	81	28	66	105	137	96	495	272	90	57	44	40
29	51	29	63	105	---	93	300	346	106	54	42	36
30	39	29	58	103	---	92	226	466	76	96	40	36
31	35	---	82	151	---	92	---	223	---	255	42	---
TOTAL	805	871	1611	5520	7779	4906	4054	5274	3100	3065	2454	1449
MEAN	26.0	29.0	52.0	178	278	158	135	170	103	98.9	79.2	48.3
MAX	105	40	116	981	1580	348	495	527	225	290	370	134
MIN	16	25	18	80	111	92	83	79	56	54	40	36
CFSM	.39	.44	.78	2.67	4.17	2.37	2.02	2.55	1.54	1.48	1.19	.72
IN.	.45	.49	.90	3.08	4.34	2.74	2.26	2.94	1.73	1.71	1.37	.81

CAL YR 1981 TOTAL 27872 MEAN 76.4 MAX 1000 MIN 13 CFSM 1.15 IN 15.54
WTR YR 1982 TOTAL 40888 MEAN 112 MAX 1580 MIN 16 CFSM 1.68 IN 22.80

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR. PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	12 15 0000		1.03	18	47		14.0		9.8	94.0		10K
81/11/17	12 20 0000		1.16	32	51		10.0	4.0	9.6	85.0	16.0	10K
81/12/07	13 00 0000		1.20	36	51		6.0		12.0	96.0		10K
82/01/07	12 05 0000		1.92	186	47		6.0		11.7	94.0		10K
82/02/08	12 55 0000		1.96	199	51		5.0	3.0	10.6	83.0	10.0K	10
82/03/15	12 00 0000		1.78	148	30		10.0		10.9	96.0		10
82/04/05	12 30 0000		1.46	79	47		11.0		10.0	90.0		20
82/05/17	12 45 0000		1.44	75	50	6.90	21.0	1.0	9.6	107.0	10.0K	10
82/06/16	13 10 0000		1.50	86	20	6.80	24.0		8.4	99.0		20
82/07/15	12 35 0000		1.64	114	30	6.70	25.0		7.2	86.0		50
82/08/18	12 20 0000		1.36	61	40	6.70	23.0	2.0	5.4	62.0	14.0	10K
82/09/22	12 30 0000		1.44	75	35	6.70	18.0		7.9	83.0		200

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	12 15 0000			2	130							
81/11/17	12 20 0000			19	220	0.05K	0.050K	0.300	0.080	0.050K	10K	50K
81/12/07	13 00 0000			0	130							
82/01/07	12 05 0000			4	11							
82/02/08	12 55 0000			1	75	0.26	0.050K	0.100K	0.050K	0.050K	10K	
82/03/15	12 00 0000			1K	9							50K
82/04/05	12 30 0000			1	27							
82/05/17	12 45 0000		8	1K	37	0.12	0.050K	0.200	0.050K	0.050K	10K	50K
82/06/16	13 10 0000		9	6	154							
82/07/15	12 35 0000		10	19	88							
82/08/18	12 20 0000		9	24	82	0.05K	61.300	0.200	0.050K	0.050K	10K	50K
82/09/22	12 30 0000		11	23	75							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/17	12 20 0000		50K	40K	100K	0.5K	100K	50K
82/02/08	12 55 0000					0.2K		
82/03/15	12 00 0000		50K	40K	100K		100K	50K
82/05/17	12 45 0000		50K	40K	100K	0.7	100K	50K
82/08/18	12 20 0000		50K	40K	100K	0.2K	100K	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.--30 years, 37.9 ft³/s (1.073 m³/s), 18.25 in/yr (464 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)
Feb. 3	1130	*971	27.5	*7.46	2.274	June 4	2030	846	24.0	6.88	2.097

Minimum discharge, 6.3 ft³/s (0.18 m³/s) Oct. 1, 2, 3, 4, 7, 8, gage height, 0.97 ft (0.296 m); minimum daily, 6.6 ft³/s (0.19 m³/s) Oct. 3, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	12	18	104	26	47	23	42	44	21	28	19
2	7.2	11	17	57	27	49	21	37	38	20	20	16
3	6.6	11	14	51	567	42	27	33	30	20	18	14
4	6.8	11	13	215	158	37	24	30	221	20	17	13
5	7.1	11	12	90	84	33	23	28	332	19	19	12
6	7.1	10	11	56	61	31	24	27	88	19	18	12
7	6.7	9.7	11	42	47	49	22	25	56	19	17	12
8	6.6	9.6	11	34	40	45	25	25	43	26	16	12
9	6.8	9.7	11	30	40	39	29	23	36	24	31	11
10	7.2	9.6	11	26	36	35	26	22	97	23	29	12
11	7.4	9.6	11	25	32	33	24	21	53	37	52	12
12	7.3	10	11	22	30	31	24	20	46	27	31	12
13	7.2	9.3	11	22	30	29	23	20	87	26	23	12
14	7.0	9.4	15	21	28	27	24	19	53	26	21	12
15	7.1	9.2	32	20	27	30	24	19	42	31	19	12
16	7.0	9.0	34	20	49	28	23	18	36	29	18	11
17	6.7	9.3	22	19	76	30	29	19	35	24	17	10
18	7.2	9.0	19	19	66	27	27	18	35	22	17	10
19	7.3	9.0	18	19	52	26	25	18	30	22	16	10
20	7.2	9.3	17	19	43	26	24	19	27	21	15	12
21	7.4	8.7	16	26	37	26	23	19	25	19	15	11
22	7.5	8.9	15	27	33	24	22	18	24	26	14	11
23	11	8.7	16	39	30	23	21	26	24	25	14	10
24	9.2	11	15	37	28	23	20	47	24	22	14	10
25	9.3	9.5	63	31	26	23	22	48	24	19	14	10
26	44	9.0	52	26	25	24	88	48	27	18	13	13
27	93	9.2	37	27	36	22	158	31	28	18	13	13
28	22	9.2	29	24	44	21	120	95	31	17	13	12
29	16	8.7	25	21	---	21	68	70	26	17	12	11
30	14	9.9	22	20	---	21	51	42	23	19	12	11
31	12	---	65	23	---	22	---	35	---	39	20	---
TOTAL	385.8	290.5	674	1212	1778	944	1084	962	1685	715	596	358
MEAN	12.4	9.68	21.7	39.1	63.5	30.5	36.1	31.0	56.2	23.1	19.2	11.9
MAX	93	12	65	215	567	49	158	95	332	39	52	19
MIN	6.6	8.7	11	19	25	21	20	18	23	17	12	10
CFSM	.44	.34	.77	1.39	2.25	1.08	1.28	1.10	1.99	.82	.68	.42
IN.	.51	.38	.89	1.60	2.35	1.25	1.43	1.27	2.22	.94	.79	.47

CAL YR 1981 TOTAL 7106.3 MEAN 19.5 MAX 287 MIN 6.6 CFSM .69 IN 9.37
WTR YR 1982 TOTAL 10684.3 MEAN 29.3 MAX 567 MIN 6.6 CFSM 1.04 IN 14.09

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 except those for period of no gage-height record, July 8 to Sept. 24, which are poor. Occasional diversions for irrigation by upstream golf course.

AVERAGE DISCHARGE.--17 years, 17.8 ft³/s (0.504 m³/s), 14.74 in/yr (374 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft³/s (122 m³/s) June 18, 1982, gage height, 11.70 ft (3.566 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 31	2215	1290	36.5	9.16	2.792	May 26	2115	511	14.5	6.07	1.850
Jan. 4	1145	1590	45.0	9.64	2.938	June 1	0215	542	15.3	6.27	1.911
Feb. 3	1200	802	22.7	7.75	2.362	June 10	2315	1310	37.1	9.19	2.801
May 17	0015	651	18.4	6.92	2.109	June 18	0745	*4300	122	*11.70	3.566
May 25	0600	850	24.1	8.00	2.438						

Minimum discharge, 0.66 ft³/s (0.019 m³/s) Oct. 2, gage height, 1.04 ft (0.317 m); minimum daily, 0.99 ft³/s (0.028 m³/s) Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	2.4	19	144	21	56	7.2	9.1	162	5.8	8.0	3.8
2	.99	2.2	17	27	14	34	6.8	7.7	32	5.3	6.0	3.3
3	.99	2.2	6.2	181	307	23	9.2	7.0	17	5.2	5.2	3.0
4	1.0	2.1	4.7	593	59	18	7.5	6.2	13	4.9	4.6	2.9
5	1.4	2.5	4.0	46	29	16	6.7	5.6	14	4.7	4.4	2.8
6	1.3	3.4	3.6	25	23	15	6.9	5.3	9.5	4.6	4.4	2.7
7	1.0	2.2	3.5	19	18	81	6.3	5.1	7.2	4.5	4.3	2.6
8	1.0	2.1	3.3	14	17	37	10	4.9	10	4.5	20	2.6
9	1.0	2.0	3.1	12	23	22	16	4.6	34	35	30	2.6
10	1.2	2.1	3.0	9.7	28	18	9.2	4.3	193	20	20	3.0
11	1.3	2.2	3.0	7.6	20	16	8.0	4.0	139	9.0	17	5.0
12	1.3	2.3	3.0	7.2	17	15	7.3	3.7	21	7.0	16	3.5
13	1.3	2.5	3.0	8.3	24	14	6.8	3.4	21	13	6.0	2.8
14	1.3	2.1	14	9.0	21	15	6.5	3.1	14	7.0	5.0	2.7
15	1.2	2.2	106	8.2	18	20	6.2	3.0	10	5.6	4.3	2.8
16	1.0	2.2	39	9.9	29	19	6.1	60	8.7	10	4.0	2.7
17	1.0	2.2	14	12	122	16	9.0	91	25	6.0	20	2.6
18	1.0	2.2	9.2	8.3	32	13	11	14	1120	5.0	30	2.4
19	1.2	2.1	6.6	11	37	12	7.0	16	34	4.6	12	2.3
20	1.1	2.1	5.3	20	25	12	7.7	14	17	4.2	6.0	2.3
21	1.1	2.1	4.8	90	20	11	7.6	9.5	13	4.0	4.5	2.2
22	1.1	2.2	5.1	48	16	10	6.3	7.5	10	50	3.8	2.2
23	1.2	2.2	5.0	90	14	8.9	5.8	15	9.8	30	3.8	2.2
24	1.6	4.3	5.0	45	12	8.6	5.5	82	14	15	4.6	2.1
25	10	3.0	54	24	11	8.5	6.2	287	9.3	7.0	9.0	2.1
26	23	2.7	25	18	9.9	8.3	54	125	7.7	6.0	4.0	2.3
27	57	2.7	14	13	66	7.4	50	77	7.5	5.5	3.3	2.6
28	6.3	2.8	11	12	80	7.0	26	32	7.3	5.0	3.1	2.1
29	3.5	2.6	17	11	---	7.0	15	37	8.1	30	2.9	1.9
30	2.8	2.6	9.8	10	---	7.0	11	17	7.2	60	3.2	1.7
31	2.4	---	375	11	---	7.2	---	43	---	30	4.8	---
TOTAL	132.58	72.5	796.2	1544.2	1112.9	562.9	348.8	1004.0	1995.3	408.4	274.2	79.8
MEAN	4.28	2.42	25.7	49.8	39.7	18.2	11.6	32.4	66.5	13.2	8.85	2.66
MAX	57	4.3	375	593	307	81	54	287	1120	60	30	5.0
MIN	.99	2.0	3.0	7.2	9.9	7.0	5.5	3.0	7.2	4.0	2.9	1.7
CFSM	.26	.15	1.57	3.04	2.42	1.11	.71	1.98	4.06	.81	.54	.16
IN.	.30	.16	1.81	3.50	2.52	1.28	.79	2.28	4.53	.93	.62	.18

CAL YR 1981 TOTAL 2875.18 MEAN 7.88 MAX 375 MIN .99 CFSM .48 IN 6.52
WTR YR 1982 TOTAL 8331.78 MEAN 22.8 MAX 1120 MIN .99 CFSM 1.39 IN 18.90

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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good. 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.

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

AVERAGE DISCHARGE.--46 years (1925-31, 1942-82), 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.--Peak discharge above base of 2,800 ft³/s (79 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	1430	*3270	92.6	*7.86	2.396

Minimum discharge, 17 ft³/s (0.48 m³/s) Nov. 18, gage height, 0.78 ft (0.238 m); minimum daily, 20 ft³/s (0.57 m³/s) Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	46	50	595	123	141	94	187	346	132	251	65
2	33	45	77	324	137	153	91	177	220	103	163	66
3	33	44	71	263	1830	167	99	169	167	88	150	63
4	33	43	58	1240	665	163	112	158	293	84	114	57
5	33	43	55	419	306	157	104	148	354	79	90	54
6	33	49	54	243	232	145	101	136	198	77	91	53
7	33	46	52	219	207	140	97	122	165	77	82	52
8	30	43	52	167	189	144	96	113	158	78	82	51
9	31	42	51	120	171	154	111	115	147	80	78	50
10	32	42	51	105	162	153	113	110	132	86	87	51
11	34	41	51	101	145	149	112	107	136	149	156	51
12	36	41	50	109	129	144	109	101	141	195	196	52
13	35	36	49	96	126	139	104	98	145	163	159	52
14	34	29	50	94	120	131	99	95	151	151	110	54
15	34	32	103	90	113	123	96	91	148	295	94	57
16	35	35	190	91	123	128	96	91	140	245	88	54
17	34	33	119	82	243	128	101	90	128	180	81	48
18	33	20	102	76	286	126	150	90	115	169	81	46
19	34	21	106	94	209	121	163	89	104	146	79	46
20	34	24	111	82	175	118	145	89	96	104	73	50
21	35	30	71	84	166	119	116	92	90	95	70	51
22	37	35	52	108	163	113	104	90	87	88	67	49
23	38	40	54	146	155	109	98	95	91	101	65	47
24	50	43	57	228	141	104	94	114	93	135	65	45
25	49	44	177	185	125	103	96	122	89	127	66	44
26	65	48	311	169	110	102	406	163	111	97	62	48
27	158	48	198	155	119	98	1010	165	152	81	60	59
28	151	48	112	128	134	94	618	159	149	87	61	58
29	86	47	93	102	---	93	297	168	143	91	59	52
30	52	47	80	91	---	93	215	161	143	88	56	47
31	48	---	164	92	---	94	---	149	---	130	59	---
TOTAL	1436	1185	2871	6098	6804	3946	5247	3854	4632	3801	2995	1572
MEAN	46.3	39.5	92.6	197	243	127	175	124	154	123	96.6	52.4
MAX	158	49	311	1240	1830	167	1010	187	354	295	251	66
MIN	30	20	49	76	110	93	91	89	87	77	56	44
CFSM	.56	.48	1.11	2.37	2.92	1.53	2.10	1.49	1.85	1.48	1.16	.63
IN.	.64	.53	1.28	2.73	3.04	1.76	2.35	1.72	2.07	1.70	1.34	.70

CAL YR 1981 TOTAL 29041 MEAN 79.6 MAX 570 MIN 20 CFSM .96 IN 12.98
WTR YR 1982 TOTAL 44441 MEAN 122 MAX 1830 MIN 20 CFSM 1.47 IN 19.87

02143000 HENRY FORK NEAR HENRY RIVER, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/02	10 40	0000	0.99	36	35		16.0		6.2	62.0		50
81/11/12	11 30	0000	1.02	39	42		6.0	3.0	11.8	94.0	10.0K	10
81/12/01	09 00	0000	1.09	48	46		6.0		10.6	85.0		30
82/01/06	11 10	0000	1.96	243	37		6.0		11.8	92.0		50
82/02/04	10 00	0000	3.02	665	32		7.0	40.0	11.2	92.0	10.0K	75
82/03/01	09 50	0000	1.59	141	46		6.0		11.6	93.0		50
82/04/01	09 30	0000	1.38	94	33		14.0		10.3	99.0		30
82/05/04	10 35	0000	1.66	157	21	6.60	17.0	3.0	9.6	99.0	10.0K	10
82/06/01	10 15	0000	2.26	346	26	6.50	20.0		8.6	93.0		3300
82/07/06	10 30	0000	1.26	77	30	6.60	23.0		7.6	87.0		100
82/08/04	10 20	0000	1.50	120	150	6.30	21.0	10.0	7.9	87.0	10.0K	1100
82/09/01	12 10	0000	1.22	65	35	6.10	19.0		8.2	87.0		330

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/02	10 40	0000		11	81							
81/11/12	11 30	0000		3	330	0.09	0.070	0.100	0.050K	0.050K	10K	50K
81/12/01	09 00	0000		1	96							
82/01/06	11 10	0000		10	54							
82/02/04	10 00	0000		53	72	0.20	0.050K	0.200	0.080	0.050K	10K	50K
82/03/01	09 50	0000		6	21							
82/04/01	09 30	0000		7	74							
82/05/04	10 35	0000	8	5	12	0.05K	0.050K	0.100	0.050K	0.050K	10K	50K
82/06/01	10 15	0000	5	120	139							
82/07/06	10 30	0000	19	39	70							
82/08/04	10 20	0000	9	26	88	0.13	0.050K	0.200	0.050K	0.050K	10K	50K
82/09/01	12 10	0000	7	16	80							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/12	11 30	0000	50K	40K	100K	0.5K	100K	50K
82/02/04	10 00	0000	50K	40K	100K	0.2	100K	50K
82/05/04	10 35	0000	50K	40K	100K	0.2K	100K	50K
82/08/04	10 20	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1960-61. October 1961 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 1,103.00 ft (336.194 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good.

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

AVERAGE DISCHARGE.--21 years, 50.1 ft³/s (1.419 m³/s), 26.47 in/yr (672 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)
Jan. 4	0930	795	22.5	5.44	1.658	June 4	0300	798	22.6	5.45	1.661
Feb. 3	0930	*1120	31.7	*6.82	2.079						

Minimum discharge, 8.1 ft³/s (0.23 m³/s) Oct. 2, 3, 7, 8, gage height, 1.71 ft (0.521 m); minimum daily, 8.4 ft³/s (0.24 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	14	29	248	62	43	28	41	96	37	43	22
2	8.7	13	35	127	51	54	27	39	118	32	30	21
3	8.6	13	23	103	656	62	36	38	57	31	26	20
4	9.0	13	19	433	203	46	32	36	339	29	24	18
5	9.0	13	16	140	95	40	31	34	199	28	25	16
6	9.0	15	15	77	69	39	33	33	82	27	25	16
7	8.7	13	14	54	54	64	30	32	51	27	23	15
8	8.4	12	14	40	42	65	33	34	40	27	24	15
9	8.7	12	13	39	50	47	37	30	39	32	23	15
10	9.6	12	13	37	45	40	37	28	60	55	65	15
11	10	12	13	45	40	41	35	27	66	125	70	16
12	10	12	13	39	39	39	32	26	49	53	37	16
13	10	12	13	41	39	38	30	25	76	53	37	16
14	10	12	24	36	38	37	30	25	55	55	35	19
15	10	12	71	38	39	38	30	24	40	174	31	18
16	10	12	66	30	62	38	30	26	39	69	32	16
17	10	12	35	37	138	38	49	28	46	42	30	14
18	12	12	27	38	116	38	64	28	52	44	28	14
19	13	12	22	29	73	37	39	26	39	42	28	16
20	11	12	23	30	55	37	38	29	37	37	27	16
21	11	12	22	46	46	36	35	28	34	33	26	15
22	11	11	20	64	40	34	32	29	34	31	23	15
23	16	11	24	91	39	32	29	39	35	31	23	14
24	18	15	27	121	38	32	28	62	35	30	22	13
25	17	14	144	67	37	32	34	37	34	29	22	13
26	55	13	90	45	36	31	211	124	42	27	20	19
27	65	14	45	39	39	30	236	72	35	26	20	20
28	24	15	38	38	41	29	151	81	42	26	21	15
29	17	13	34	36	---	28	77	57	51	27	19	14
30	15	14	29	34	---	28	52	51	48	28	19	14
31	15	---	101	41	---	29	---	55	---	46	21	---
TOTAL	458.8	382	1072	2283	2282	1222	1586	1244	1970	1353	899	486
MEAN	14.8	12.7	34.6	73.6	81.5	39.4	52.9	40.1	65.7	43.6	29.0	16.2
MAX	65	15	144	433	656	65	236	124	339	174	70	22
MIN	8.4	11	13	29	36	28	27	24	34	26	19	13
CFSM	.58	.49	1.35	2.86	3.17	1.53	2.06	1.56	2.56	1.70	1.13	.63
IN.	.66	.55	1.55	3.30	3.30	1.77	2.30	1.80	2.85	1.96	1.30	.70

CAL YR 1981 TOTAL 10136.0 MEAN 27.8 MAX 412 MIN 8.4 CFSM 1.08 IN 14.67
WTR YR 1982 TOTAL 15237.8 MEAN 41.7 MAX 656 MIN 8.4 CFSM 1.62 IN 22.06

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/02	11 40	0000	1.73	9	25		16.0		8.8	88.0		90
81/11/12	12 15	0000	1.79	12	34		7.0	1.0	12.0	98.0	10.0K	20
81/12/01	09 45	0000	1.92	23	26		6.0		11.9	95.0		60
82/01/06	12 00	0000	2.40	75	36		6.0		11.9	95.0		20
82/02/04	10 45	0000	3.10	215	29		8.0	9.0	11.0	92.0	10.0K	20
82/03/01	10 25	0000	2.21	45	36		5.0		11.8	92.0		40
82/04/01	10 00	0000	2.00	28	27		12.0		10.9	101.0		40
82/05/04	11 30	0000	2.08	35	20	6.70	14.0	4.0	10.1	98.0	10.0K	55
82/06/01	10 45	0000	2.44	82	18	6.50	18.0		10.2	107.0		80
82/07/06	11 00	0000	1.96	28	20	6.70	21.0		8.2	91.0		130
82/08/04	11 00	0000	1.96	25	25	6.30	20.0	4.0	8.7	95.0	10.0K	210
82/09/01	12 35	0000	1.92	23	30	6.40	19.0		8.7	93.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/02	11 40	0000		4	110							
81/11/12	12 15	0000		4	110	0.05	0.050K	0.100K	0.050K	0.050K	10K	50K
81/12/01	09 45	0000		3	100							
82/01/06	12 00	0000		2	140							
82/02/04	10 45	0000		9	12	0.06	0.050K	0.100K	0.050K	0.050K	10K	50K
82/03/01	10 25	0000		3	14							
82/04/01	10 00	0000		3	52							
82/05/04	11 30	0000	6	5	46	0.12	0.050K	0.100	0.050K	0.050K	10K	50K
82/06/01	10 45	0000	6	17	32							
82/07/06	11 00	0000	13	7	44							
82/08/04	11 00	0000	7	3	57	0.06	0.050K	0.100K	0.050K	0.050K	10K	50K
82/09/01	12 35	0000	8	5	62							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/12	12 15	0000	50K	40K	100K	0.5K	100K	50K
82/02/04	10 45	0000	50K	40K	100	1.0	100K	50K
82/05/04	11 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/04	11 00	0000	50K	40K	100K	0.2K	100K	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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--31 years, 90.3 ft³/s (2.557 m³/s), 17.72 in/yr (450 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 discharge 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)
Jan. 4	2200	*1650	46.7	*4.92	1.500

Minimum discharge, 8.8 ft³/s (0.25 m³/s) Oct. 3, 4, 8, 9, gage height, 0.71 ft (0.216 m); minimum daily, 9.4 ft³/s (0.27 m³/s) Oct. 2, 3, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	23	46	655	80	116	55	50	89	44	77	25
2	9.4	22	63	182	63	93	51	46	113	36	36	25
3	9.4	23	34	331	662	83	55	46	64	33	31	23
4	10	22	29	1240	465	76	52	44	127	33	26	20
5	10	22	27	607	186	73	49	43	170	31	24	19
6	11	24	28	181	131	67	50	45	76	30	31	19
7	11	22	28	125	102	124	48	43	56	32	25	19
8	9.4	23	28	93	89	115	56	40	52	35	25	18
9	9.4	22	26	78	109	90	72	41	62	31	24	18
10	11	21	22	65	115	79	54	39	232	37	39	19
11	14	21	22	58	90	74	51	39	158	35	176	19
12	15	21	22	55	84	71	49	38	85	36	50	20
13	13	22	23	55	86	71	48	37	419	37	38	20
14	14	23	29	55	75	77	50	35	150	44	33	20
15	13	23	163	49	71	81	49	35	89	36	28	22
16	13	21	139	50	235	79	47	63	69	34	26	21
17	13	22	65	48	296	72	52	226	61	31	25	17
18	15	23	47	44	229	69	66	62	56	29	25	16
19	15	22	39	49	131	65	48	50	51	33	31	18
20	14	22	33	51	104	64	48	48	45	26	24	19
21	14	21	32	103	90	63	49	46	42	25	24	17
22	15	21	35	177	80	61	45	41	42	38	24	20
23	18	21	34	339	72	57	44	104	53	48	21	19
24	21	25	34	220	69	57	44	411	49	33	23	17
25	25	24	158	121	64	57	45	227	43	28	26	16
26	70	23	132	94	61	56	87	421	41	26	22	21
27	174	23	79	77	93	52	120	149	39	24	21	26
28	40	24	62	69	117	53	84	98	53	24	22	21
29	27	24	48	64	---	53	65	94	72	25	21	20
30	24	22	41	60	---	53	54	73	80	26	20	18
31	23	---	356	64	---	54	---	61	---	40	22	---
TOTAL	691.6	672	1924	5459	4049	2255	1687	2795	2738	1020	1040	592
MEAN	22.3	22.4	62.1	176	145	72.7	56.2	90.2	91.3	32.9	33.5	19.7
MAX	174	25	356	1240	662	124	120	421	419	48	176	26
MIN	9.4	21	22	44	61	52	44	35	39	24	20	16
CFSM	.32	.32	.90	2.54	2.10	1.05	.81	1.30	1.32	.48	.48	.29
IN.	.37	.36	1.03	2.93	2.18	1.21	.91	1.50	1.47	.55	.56	.32

CAL YR 1981 TOTAL 15594.0 MEAN 42.7 MAX 1050 MIN 9.4 CFSM .62 IN 8.38
WTR YR 1982 TOTAL 24922.6 MEAN 68.3 MAX 1240 MIN 9.4 CFSM .99 IN 13.40

02143500 INDIAN CREEK NEAR LABORATORY, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/01	11 30	0000	0.74	12	197		17.0		8.2	85.0		300
81/11/13	12 10	0000	0.84	22	130		8.0	5.0	10.4	87.0	12.0	390
81/12/02	09 30	0000	1.09	66	182		8.0		9.4	79.0		61000
82/01/12	13 30	0000	1.03	52	73		1.0		12.0	85.0		20
82/02/18	11 45	0000	1.52	206	82		9.0	1400.0	9.6	83.0	49.0	1400
82/03/03	10 20	0000	1.16	86	139		9.0		9.9	85.0		140
82/04/07	10 00	0000	1.01	48	102		10.0		11.8	104.0		140
82/05/06	11 10	0000	1.00	45	85	7.10	18.0	9.0	9.4	99.0	10.0K	520
82/06/03	10 30	0000	1.08	64	74	6.90	21.0		8.4	93.0		1300
82/07/08	10 30	0000	0.94	35	80	6.90	22.0		8.3	94.0		1500
82/08/05	10 30	0000	0.85	24	150	6.80	22.0	15.0	6.7	77.0	16.0	600
82/09/07	11 30	0000	0.82	20	92	6.80	18.0		9.0	73.0		180

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/01	11 30	0000		22	190							
81/11/13	12 10	0000		7	230	0.25	0.050K	0.200	0.420	0.200	10K	50K
81/12/02	09 30	0000		30	280							
82/01/12	13 30	0000		4	80							
82/02/18	11 45	0000		710	780	0.66	0.130	1.400	0.830	0.050K	11	50K
82/03/03	10 20	0000		9	91							
82/04/07	10 00	0000		5	100							
82/05/06	11 10	0000	18	10	84	0.70	0.050K	0.400	0.340	0.190	10K	50K
82/06/03	10 30	0000	20	88	194							
82/07/08	10 30	0000	20	21	110							
82/08/05	10 30	0000	26	14	134	0.59	0.050K	0.500	0.300	0.160	10K	50K
82/09/07	11 30	0000	40	20	157							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/13	12 10	0000	50K	40K	100K	0.5K	100K	50K
82/02/18	11 45	0000	50K	40K	100K	0.2K	100K	50K
82/05/06	11 10	0000	50K	40K	100K	0.2	100K	50K
82/08/05	10 30	0000	50K	40K	100	0.3	100K	50K

K Less than noted value.

02144000 LONG CREEK NEAR BESSEMER CITY, NC

LOCATION.--Lat 35°18'23", long 81°14'05", Gaston County, Hydrologic Unit 03050102, on right bank 700 ft (213 m) upstream from bridge on Secondary Road 1456, 3.3 mi (5.3 km) northeast of Bessemer City, and 8.2 mi (13.2 km) upstream from mouth.

DRAINAGE AREA.--31.8 mi² (82.4 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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 1.8 ft³/s (0.051 m³/s) was diverted during the year.

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

AVERAGE DISCHARGE.--30 years, 35.8 ft³/s (1.014 m³/s), 15.29 in/yr (388 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 2,400 ft³/s (68.0 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 31	1900	1110	31.4	5.67	1.728	Jan. 4	0900	*1230	34.8	*5.96	1.817

Minimum discharge, 2.3 ft³/s (0.065 m³/s) Oct. 8, 9; minimum gage height, 0.95 ft (0.290 m) Oct. 8, 9, 18; minimum daily, 2.4 ft³/s (0.068 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	7.7	36	346	44	75	25	22	71	14	16	6.7
2	3.1	7.4	35	64	31	58	24	21	23	11	9.4	6.4
3	3.1	7.2	17	238	324	45	27	21	18	11	8.3	5.7
4	3.4	7.0	13	778	99	40	24	19	27	10	7.6	5.1
5	4.1	8.0	11	99	55	37	23	18	45	11	7.6	4.4
6	3.6	9.9	11	56	46	34	23	17	18	11	8.7	4.4
7	2.7	7.4	11	43	38	72	21	16	15	11	7.6	4.3
8	2.4	7.0	10	35	35	54	32	16	13	9.7	7.3	4.2
9	2.6	7.1	9.5	32	40	42	38	16	12	11	10	4.3
10	3.5	6.8	9.1	26	43	39	26	15	53	19	12	4.2
11	3.9	7.0	8.9	24	34	36	25	15	43	19	15	4.4
12	3.8	7.1	9.1	24	32	35	24	14	32	22	9.3	6.7
13	3.5	6.8	9.0	25	38	35	24	14	76	12	19	5.0
14	3.4	6.7	29	24	33	35	22	13	33	32	12	5.3
15	3.2	7.5	145	23	31	45	22	13	21	22	9.1	6.1
16	2.7	7.2	80	25	124	40	22	13	18	13	8.3	5.3
17	2.7	7.1	35	25	192	37	23	14	18	17	7.2	4.4
18	2.7	7.0	24	21	66	33	24	14	16	12	11	7.6
19	3.5	7.0	18	24	58	32	21	13	16	11	17	11
20	3.1	7.0	16	27	46	31	22	13	14	10	8.3	5.7
21	3.1	6.8	15	85	40	30	21	12	12	9.4	7.3	5.1
22	3.3	6.7	15	79	35	29	20	12	12	8.8	6.6	5.4
23	3.8	7.2	16	127	33	27	19	14	13	11	6.5	5.1
24	5.1	11	16	75	31	26	19	48	13	9.8	6.1	4.8
25	12	9.0	89	47	29	26	22	51	13	9.0	5.9	4.8
26	45	8.1	55	38	28	27	54	37	12	8.7	5.4	7.3
27	117	7.6	37	32	63	25	65	23	11	8.1	5.3	7.9
28	17	8.7	28	29	83	23	36	18	24	7.6	5.6	6.0
29	11	8.0	25	28	---	24	27	21	34	7.5	5.3	5.3
30	8.8	8.4	21	26	---	26	24	14	28	9.1	4.8	4.7
31	8.0	---	371	32	---	24	---	27	---	17	6.1	---
TOTAL	298.0	227.4	1224.6	2557	1751	1142	799	594	754	394.7	275.6	167.6
MEAN	9.61	7.58	39.5	82.5	62.5	36.8	26.6	19.2	25.1	12.7	8.89	5.59
MAX	117	11	371	778	324	75	65	51	76	32	19	11
MIN	2.4	6.7	8.9	21	28	23	19	12	11	7.5	4.8	4.2
CFSM	.30	.24	1.24	2.59	1.97	1.16	.84	.60	.79	.40	.28	.18
IN.	.35	.27	1.43	2.99	2.05	1.34	.93	.69	.88	.46	.32	.20

CAL YR 1981 TOTAL 6353.1 MEAN 17.4 MAX 371 MIN 2.4 CFSM .55 IN 7.43
WTR YR 1982 TOTAL 10184.9 MEAN 27.9 MAX 778 MIN 2.4 CFSM .88 IN 11.91

02144000 LONG CREEK NEAR BESSEMER CITY, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/08	13 00	0000	0.96	3	102		15.0		7.0	70.0		100
81/11/16	14 00	0000	1.20	7	79		8.0	7.0	11.0	92.0	15.0	1100
81/12/03	12 40	0000	1.63	19	85		8.0		9.0	76.0		7100
82/01/05	14 05	0000	2.44	83	60		6.0		11.8	94.0		530
82/02/03	12 10	0000	4.44	616	58		5.0	1500.0	11.0	86.0		11000
82/03/02	11 45	0000	2.22	58	71		7.0		11.0	90.0		540
82/04/13	11 40	0000	1.73	24	84		15.0		9.2	90.0		290
82/05/10	11 30	0000	1.55	15	71	7.00	16.0	15.0	6.8	68.0	10.0K	450
82/06/09	13 15	0000	1.44	13	85	7.10	23.0		6.2	72.0		620
82/07/12	11 35	0000	1.60	18	70	6.40	22.0		6.2	72.0		25000
82/08/10	11 45	0000	1.30	10	90	6.80	22.0	160.0	6.0	69.0	19.0	2700
82/09/16	12 00	0000	1.10	6	95	6.80	20.0		6.0	65.0		420

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/08	13 00	0000		9	130							
81/11/16	14 00	0000		7	120	0.50	0.050K	0.200	0.050	0.050K	10K	50K
81/12/03	12 40	0000		24	150							
82/01/05	14 05	0000		74	560							
82/02/03	12 10	0000		1100	1500	0.54	0.240	1.600	1.200	0.090	36	50K
82/03/02	11 45	0000		17	64							
82/04/13	11 40	0000		13	120							
82/05/10	11 30	0000	26	27	147	0.44	0.090	0.400	0.100	0.050K	10K	50K
82/06/09	13 15	0000	26	28	108							
82/07/12	11 35	0000	20	190	317							
82/08/10	11 45	0000	24	57	208	0.58	0.070	0.600	0.220	0.050K	10K	50K
82/09/16	12 00	0000	31	25	135							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/16	14 00	0000	50K	40K	100K	0.5K	100K	50K
82/02/03	12 10	0000	50K	40K	100	0.2	100K	50
82/05/10	11 30	0000	50K	40K	100	0.3	100K	50K
82/08/10	11 45	0000	50K	40K	100	0.2	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good. Since July 2, 1981, wash water from upstream city water filtration plants enters creek below gage via sewer to waste water treatment plant. Creek channel improved by dredging in 1917 and maintained by Mecklenburg County Drainage Commission to present time. The drainage area is urbanized and has an impervious area of about 20 percent.

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

AVERAGE DISCHARGE.--20 years, 43.4 ft³/s (1.229 m³/s), 19.20 in/yr (488 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, 3.8 ft³/s (0.11 m³/s) Oct. 17, 18, 1981.

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)
Oct. 26	2015	1810	51.3	7.87	2.399	May 20	2015	1230	34.8	6.52	1.987
Oct. 27	0145	1280	36.2	6.65	2.027	May 25	0515	1560	44.2	7.30	2.225
Dec. 31	1730	3680	104	11.31	3.447	June 10	2000	*6400	181	*14.98	4.566
Jan. 4	0730	2840	80.4	9.86	3.005	June 18	0515	4440	126	12.44	3.792
Feb. 3	0915	2000	56.6	8.29	2.527	June 23	2315	1570	44.5	7.33	2.234

Minimum discharge, 3.8 ft³/s (0.11 m³/s) Oct. 17, 18, gage height, 0.47 ft (0.143 m); minimum daily, 4.0 ft³/s (0.11 m³/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	9.7	111	127	42	81	15	16	75	33	41	9.7
2	5.8	9.7	29	41	46	51	14	14	18	27	18	8.8
3	5.2	9.2	11	329	595	36	34	15	13	26	14	8.4
4	4.8	8.4	9.7	755	86	31	15	11	19	26	13	7.2
5	5.8	23	9.7	72	46	26	15	9.7	17	26	12	7.2
6	5.5	18	7.6	46	36	24	15	8.8	11	26	12	7.2
7	5.2	6.8	7.6	41	30	197	14	8.4	11	26	12	7.2
8	4.6	6.4	7.6	36	28	60	82	9.2	18	25	56	7.2
9	4.6	6.2	7.2	31	78	36	41	9.7	149	86	63	7.2
10	4.8	6.2	7.6	28	48	29	17	9.7	1200	54	30	7.2
11	4.8	6.3	7.6	43	29	27	15	9.2	133	26	38	12
12	4.8	7.6	6.8	34	28	25	14	8.8	41	23	40	8.8
13	4.8	6.8	6.8	32	49	40	14	8.0	43	38	25	7.6
14	4.6	6.8	89	33	28	32	14	7.6	31	18	14	7.6
15	4.6	6.4	321	43	28	83	14	7.2	33	15	12	8.0
16	5.2	6.8	69	65	250	36	13	43	27	25	11	7.6
17	4.0	6.8	26	36	65	29	83	27	68	15	43	6.8
18	9.4	6.4	17	28	50	25	30	11	1080	13	65	6.4
19	7.2	6.4	13	49	55	23	19	53	66	13	27	8.0
20	4.8	6.8	13	59	40	22	28	118	42	13	14	6.8
21	4.6	6.1	14	206	35	20	17	36	38	13	13	9.2
22	4.6	5.8	13	113	28	20	14	13	39	121	11	7.2
23	9.7	6.1	12	158	24	19	13	52	122	86	11	6.4
24	7.2	41	13	69	20	18	13	161	139	46	12	6.4
25	165	8.8	183	38	19	18	37	245	35	25	24	6.1
26	307	5.8	36	30	19	20	267	36	31	15	9.7	19
27	267	7.6	24	23	281	15	127	31	51	14	8.8	8.5
28	25	7.6	19	21	139	15	47	78	58	13	8.8	6.8
29	14	5.2	29	19	---	15	24	48	53	35	8.0	6.8
30	14	15	15	18	---	16	19	16	41	138	8.4	5.8
31	11	---	871	53	---	16	---	42	---	80	13	---
TOTAL	934.8	279.7	2006.2	2676	2222	1105	1084	1162.3	3702	1140	687.7	239.1
MEAN	30.2	9.32	64.7	86.3	79.4	35.6	36.1	37.5	123	36.8	22.2	7.97
MAX	307	41	871	755	595	197	267	245	1200	138	65	19
MIN	4.0	5.2	6.8	18	19	15	13	7.2	11	13	8.0	5.8
CFSM	.98	.30	2.11	2.81	2.59	1.16	1.18	1.22	4.01	1.20	.72	.26
IN.	1.13	.34	2.43	3.24	2.69	1.34	1.31	1.41	4.49	1.38	.83	.29

CAL YR 1981 TOTAL 10088.6 MEAN 27.6 MAX 871 MIN 4.0 CFSM .90 IN 12.22
WTR YR 1982 TOTAL 17238.8 MEAN 47.2 MAX 1200 MIN 4.0 CFSM 1.54 IN 20.89

02146300 IRWIN CREEK NEAR CHARLOTTE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/08	10 45	0000	0.49	5	230		15.0		8.8	86.0		380
81/11/16	11 45	0000	0.57	7	210		9.0	4.0	10.8	93.0	13.0	390
81/12/03	10 30	0000	0.65	11	189		7.0		10.8	89.0		1100
82/01/05	11 00	0000	1.61	73	152		6.0		10.8	86.0		35
82/02/03	09 10	0000	8.29	2040	75		5.0	950.0	11.6	91.0		6000
82/03/02	09 10	0000	1.32	51	172		6.0		10.8	86.0		1200
82/04/13	09 45	0000	0.71	14	228		15.0		10.5	103.0		220
82/05/10	09 00	0000	0.60	10	245	7.60	16.0	3.0	9.1	91.0	10.0K	440
82/06/14	10 45	0000	1.01	31	210	7.40	23.0		7.6	87.0		3200
82/07/12	09 40	0000	0.87	22	215	7.20	25.0		6.5	77.0		1100
82/08/10	09 30	0000	0.93	23	175	7.00	23.0	10.0	5.9	68.0	21.0	5200
82/09/16	09 10	0000	0.58	7	300	7.60	21.0		6.3	70.0		1800

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/08	10 45	0000		3	240							
81/11/16	11 45	0000		6	280	0.61	0.050K	0.200	0.070	0.050K	10K	50K
81/12/03	10 30	0000		13	510	1.10	0.480	1.000	0.250	0.190		
82/01/05	11 00	0000		40	210	1.60	0.420	0.900	0.130	0.050K		
82/02/03	09 10	0000		1500	1800	0.50	0.200	1.700	1.200	0.120	15	50K
82/03/02	09 10	0000		15	160	1.00	0.450	0.900	0.190	0.090		
82/04/13	09 45	0000		4	190	1.00	0.100	0.300	0.100	0.050K		
82/05/10	09 00	0000	80	4	345	0.89	0.050K	0.400	0.230	0.050K	10K	50K
82/06/14	10 45	0000	60	128	380	1.00	0.210	0.600	0.080	0.050K		
82/07/12	09 40	0000	60	11	194	0.54	0.140	0.400	0.150	0.060		
82/08/10	09 30	0000	47	25	162	0.38	0.050K	3.300	0.140	0.060	10K	50K
82/09/16	09 10	0000	90	21	265	0.31	0.050	0.500	0.120	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/16	11 45	0000	50	40K	100K	0.5K	100K	120
82/02/03	09 10	0000	50K	90	400	1.6	100K	370
82/05/10	09 00	0000	50K	40K	100K	0.6	100K	60
82/08/10	09 30	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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).

AVERAGE DISCHARGE.--5 years, 75.2 ft³/s (2.130 m³/s), 23.97 in/yr (609 mm/yr).

REMARKS.--Water-discharge records good except those for periods of no gage-height record, Feb. 11 to Mar. 10, Apr. 23-29, which are poor. 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 15.4 ft³/s (0.44 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.

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 RECORD.--Maximum discharge, 7,220 ft³/s (204 m³/s) June 10, 1982; maximum gage height, 12.44 ft (3.792 m) Mar. 23, 1979; minimum, 11 ft³/s (0.31 m³/s) Sept. 24, Oct. 14, 1981; minimum gage height, 1.78 ft (0.543 m) Oct. 14, 1981.

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)
Oct. 27	0115	2370	67.1	8.03	2.448	June 10	1845	*7220	204	*12.25	3.734
Dec. 31	1715	4740	134	10.38	3.164	June 18	0515	2110	59.8	7.73	2.356
Jan. 4	0715	3210	90.9	8.97	2.734	June 24	0030	2760	78.2	8.48	2.585
Feb. 3	0945	2270	64.3	7.91	2.411	July 14	1815	2390	67.7	8.05	2.454

Minimum discharge, 11 ft³/s (0.31 m³/s) Oct. 14, gage height, 1.78 ft (0.543 m); minimum daily, 16 ft³/s (0.45 m³/s) Oct. 4, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	21	146	160	80	100	31	32	134	59	76	23
2	20	21	46	49	61	50	30	31	37	29	35	24
3	17	21	20	607	721	43	62	35	30	27	31	30
4	16	24	21	830	118	40	31	30	34	28	27	21
5	18	19	21	82	64	40	30	30	36	25	27	20
6	18	19	20	49	49	55	31	29	26	26	26	21
7	18	18	22	52	41	350	28	29	26	26	25	22
8	17	19	21	40	39	100	137	28	28	25	114	23
9	17	21	21	34	123	50	93	26	218	86	174	23
10	17	20	21	30	88	40	33	27	1460	93	44	23
11	18	20	21	34	50	38	29	27	332	124	69	24
12	18	21	21	30	40	40	29	26	184	70	60	25
13	19	20	20	36	50	60	29	26	183	57	34	24
14	16	20	145	45	60	56	29	26	181	283	30	24
15	18	19	501	46	35	156	33	25	181	42	27	24
16	19	21	88	96	300	58	29	61	122	33	27	26
17	17	20	40	56	260	46	244	69	35	72	56	21
18	26	20	23	38	80	42	75	29	365	26	80	25
19	23	21	25	60	120	37	33	135	40	26	43	22
20	18	20	23	80	50	39	58	237	30	26	27	22
21	19	20	28	382	45	36	37	97	29	24	27	23
22	19	19	24	160	40	35	31	42	40	137	25	22
23	25	20	24	271	38	36	30	56	69	43	26	22
24	24	78	25	102	36	32	30	513	401	93	26	22
25	350	26	334	55	36	32	32	212	40	40	50	21
26	286	20	50	46	40	34	120	52	31	27	26	38
27	410	23	35	40	400	30	240	37	29	26	26	28
28	31	20	31	36	120	29	90	91	76	27	23	24
29	25	18	35	36	---	29	46	73	41	69	21	23
30	22	29	29	34	---	30	34	35	81	104	28	22
31	21	---	1050	86	---	31	---	79	---	167	21	---
TOTAL	1602	678	2931	3717	3184	1794	1784	2245	4519	1860	1331	712
MEAN	51.7	22.6	94.5	120	114	57.9	59.5	72.4	151	60.0	42.9	23.7
MAX	410	78	1050	830	721	350	244	513	1460	283	174	38
MIN	16	18	20	30	35	29	28	25	26	24	21	20
CFSM	1.21	.53	2.22	2.82	2.68	1.36	1.40	1.70	3.55	1.41	1.01	.56
IN.	1.40	.59	2.56	3.25	2.78	1.57	1.56	1.96	3.95	1.62	1.16	.62

CAL YR 1981 TOTAL 19922 MEAN 54.6 MAX 1060 MIN 15 CFSM 1.28 IN 17.40
WTR YR 1982 TOTAL 26357 MEAN 72.2 MAX 1460 MIN 16 CFSM 1.70 IN 23.02

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCRR /100ML
81/10/07	09 45	0000	1.97	18	512		23.0		5.8	67.0		10K
81/11/18	07 30	0000	1.95	17	328		14.0	9.0	8.4	81.0	26.0	50
81/12/08	09 30	0000	1.98	16	336		12.0		9.4	87.0		10K
82/01/21	09 15	0000	5.57	860	120		6.0		12.0	96.0		850
82/02/16	09 35	0000	2.47	52	198		8.0	30.0	8.6	72.0	27.0	10K
82/03/23	09 05	0000	2.24	33	256		14.0		11.2	108.0		10K
82/04/20	09 10	0000	2.16	28	255		17.0		9.0	93.0		10K
82/05/20	09 10	0000	2.30	37	210	7.60	22.0	60.0	7.3	83.0	32.0	10K
82/06/24	09 20	0000	3.23	162	138	7.20	22.0		6.8	77.0		12000
82/07/22	09 30	0000	2.02	21	355	7.20	26.0		6.1	74.0		10
82/08/26	09 00	0000	2.05	22	355	7.40	25.0	10.0	6.2	74.0	29.0	10K
82/09/28	09 45	0000	1.92	18	360	7.40	20.0		6.9	75.0		10K

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/07	09 45	0000		150	430	0.05	16.000	26.000	8.100	6.000		
81/11/18	07 30	0000		8	440	0.25	14.000	14.000	4.600	3.900	10K	50K
81/12/08	09 30	0000		5	380							
82/01/21	09 15	0000		470	680							
82/02/16	09 35	0000		23	180	0.63	3.600	5.400	0.940	0.780	10K	50K
82/03/23	09 05	0000		6	190							
82/04/20	09 10	0000		13	220							
82/05/20	09 10	0000	55	52	239	0.59	4.800	6.800	1.700	1.400	10K	50K
82/06/24	09 20	0000	39	176	330							
82/07/22	09 30	0000	98	8	259							
82/08/26	09 00	0000	97	5	247	0.59	12.000	13.000	3.700	3.400	10K	50K
82/09/28	09 45	0000	98	10	290							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	07 30	0000	50K	40K	100	0.5K	100K	50K
82/02/16	09 35	0000	50K	40K	100K	0.4	100K	50K
82/05/20	09 10	0000	50K	40K	100K	0.3	100K	50
82/08/26	09 00	0000	50K	50	100K	0.5	100K	50K

K Less than noted value.

02146600 McALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'14", long 80°46'05", Mecklenburg County, Hydrologic Unit 03050103, near left bank on downstream end of bridge pier at Sardis Road (Secondary Road 3356), 1.7 mi (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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1962 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 553.39 ft (168.673 m) National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--Water-discharge 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.

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

AVERAGE DISCHARGE.--20 years, 40.3 ft³/s (1.141 m³/s), 13.82 in/yr (351 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)
Dec. 31	1945	3010	85.2	12.12	3.694	Feb. 27	Unknown	Unknown		Unknown	
Jan. 4	0815	2380	67.4	10.88	3.316	Apr. 27	2200	1460	41.3	8.58	2.615
Jan. 21	0830	1460	41.3	8.60	2.621	June 10	2215	*5940	168	*16.18	4.932
Feb. 3	1200	2570	72.8	11.27	3.435	June 24	0130	1400	39.6	8.40	2.560

Minimum discharge, 2.3 ft³/s (0.065 m³/s) Oct. 20, Sept. 18, 19; minimum gage height, 0.97 ft (0.296 m) Oct. 20; minimum daily, 2.5 ft³/s (0.071 m³/s) Oct. 9, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	4.4	26	231	67	250	16	22	16	31	25	5.0
2	3.2	4.4	13	44	34	130	15	19	12	9.6	174	4.7
3	2.6	4.3	6.3	501	953	64	23	19	11	8.4	42	4.1
4	2.8	4.1	5.3	806	141	43	15	16	15	9.2	13	3.8
5	2.6	4.1	5.0	86	56	32	15	15	15	7.1	9.5	3.4
6	2.8	4.3	4.9	38	42	30	15	14	11	6.8	8.4	3.4
7	3.0	4.1	4.9	31	32	380	14	14	9.5	6.6	7.1	3.4
8	2.7	3.9	4.8	31	29	160	39	15	15	6.4	8.1	3.4
9	2.5	4.1	4.4	22	53	65	45	14	105	7.4	38	3.1
10	2.7	4.1	4.6	19	57	36	20	13	1350	12	19	3.1
11	3.1	4.3	4.6	16	31	29	17	12	810	31	95	3.6
12	3.0	4.1	4.6	15	25	26	16	11	46	27	75	5.0
13	2.8	4.1	4.6	18	40	25	15	9.9	50	14	13	4.7
14	2.7	4.0	28	24	26	47	14	9.6	29	116	9.8	5.0
15	2.8	4.1	224	22	24	150	15	9.3	23	29	8.0	4.1
16	2.8	4.0	57	36	174	64	13	25	18	12	7.1	3.4
17	2.8	4.2	21	35	469	48	52	37	25	9.0	7.7	3.4
18	3.3	4.0	13	23	134	32	37	11	32	8.7	21	3.1
19	4.9	3.9	10	47	70	27	18	46	15	8.5	19	2.6
20	2.7	3.8	8.8	99	38	25	25	74	12	6.8	8.0	3.4
21	2.5	3.6	8.3	451	31	22	22	41	11	6.5	6.8	5.9
22	2.7	3.6	9.2	141	27	20	16	16	17	24	6.1	3.8
23	3.0	3.7	8.7	215	24	19	14	35	44	12	5.7	2.9
24	4.8	16	8.6	110	22	18	13	278	291	11	5.5	2.7
25	61	6.3	193	45	21	18	18	38	27	8.4	5.3	2.6
26	42	4.5	45	32	19	17	137	54	15	7.6	4.7	5.9
27	90	4.3	26	23	400	15	362	60	12	6.9	4.4	5.6
28	13	5.6	18	21	560	15	218	40	13	6.9	4.7	3.4
29	6.0	4.3	15	21	---	15	43	39	14	7.4	4.1	2.9
30	5.3	5.3	12	19	---	15	27	17	40	21	4.1	2.7
31	4.8	---	950	45	---	16	---	14	---	32	4.4	---
TOTAL	294.4	139.5	1748.6	3267	3599	1845	1389	1037.8	3103.5	510.2	663.5	114.1
MEAN	9.50	4.65	56.4	105	129	59.5	43.6	33.5	103	16.5	21.4	3.80
MAX	90	16	950	806	953	380	362	278	1350	116	174	5.9
MIN	2.5	3.6	4.4	15	19	15	13	9.3	9.5	6.4	4.1	2.6
CFSM	.24	.12	1.42	2.65	3.26	1.50	1.10	.85	2.60	.42	.54	.10
IN.	.28	.13	1.64	3.07	3.38	1.73	1.23	.97	2.92	.48	.62	.11

CAL YR 1981 TOTAL 9561.9 MEAN 26.2 MAX 982 MIN 1.9 CFSM .66 IN 8.98
WTR YR 1982 TOTAL 17631.6 MEAN 48.3 MAX 1350 MIN 2.5 CFSM 1.22 IN 16.56

02146600 McALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/07	14 15	0000	1.01	3	156		20.0		6.4	71.0		110
81/11/18	12 00	0000	1.06	4	137		9.0	15.0	10.0	86.0	10.0K	100
81/12/08	13 20	0000	1.07	5	120		8.0		10.9	89.0		30
82/01/21	11 00	0000	6.97	994	58		4.0		12.4	92.0		3400
82/02/16	11 15	0000	1.57	33	115		12.0	80.0	9.2	95.0	17.0	3500
82/03/23	10 35	0000	1.36	18	115		13.0		12.0	85.0		260
82/04/20	12 40	0000	1.46	24	123		16.0		9.0	90.0		870
82/05/20	11 20	0000	1.30	14	148	7.50	21.0	72.0	7.0	78.0	26.0	2800
82/06/24	12 45	0000	1.95	82	65	6.50	23.0		8.0	92.0		6100
82/07/22	12 40	0000	1.13	7	150	7.10	26.0		6.0	74.0		1100
82/08/26	14 00	0000	1.06	5	150	7.50	25.0	10.0	6.7	80.0	10.0K	130
82/09/28	14 30	0000	1.03	4	142	7.30	19.0		5.5	59.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/07	14 15	0000		8	310							
81/11/18	12 00	0000		12	190	0.05K	0.050K	0.200	0.050K	0.050K	10K	50
81/12/08	13 20	0000		8	150							
82/01/21	11 00	0000		630	940							
82/02/16	11 15	0000		35	140	0.23	0.210	0.600	0.210	0.060	10K	50
82/03/23	10 35	0000		9	95							
82/04/20	12 40	0000		19	130							
82/05/20	11 20	0000	47	73	321	0.26	0.050K	0.600	0.110	0.050K	10K	50
82/06/24	12 45	0000	21	120	200							
82/07/22	12 40	0000	59	20	145							
82/08/26	14 00	0000	57	11	147	0.05	0.050K	0.200	0.050K	0.050K	10K	50
82/09/28	14 30	0000	63	7	211							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	12 00	0000	50K	40K	100K	0.6	100K	50K
82/02/16	11 15	0000	50K	40K	100K	5.4	100K	50K
82/05/20	11 20	0000	50K	40K	100K	0.2K	100K	50
82/08/26	14 00	0000	50K	40	100K	0.6	100K	50K

K Less than noted value.

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 except those below 1.0 ft³/s, which are fair. 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.--20 years, 7.82 ft³/s (0.221 m³/s), 15.28 in/yr (388 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,150 ft³/s (89.2 m³/s) June 10, 1982, gage height, 10.89 ft (3.319 m), from rating curve extended above 1,400 cfs on basis of computation of peak flow through culvert; 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)
Dec. 31	1700	1070	30.3	7.28	2.219	May 24	0230	525	14.9	4.50	1.372
Jan. 4	0630	715	20.2	5.58	1.701	June 10	1945	*3150	89.2	*10.89	3.319
Jan. 21	0745	668	18.9	5.32	1.622	July 14	1845	1530	43.3	8.73	2.661
Feb. 3	0900	748	21.2	5.76	1.756	Aug. 11	2000	500	14.2	4.37	1.332
May 20	2015	668	18.9	5.32	1.622						

Minimum discharge, 0.13 ft³/s (0.004 m³/s) Sept. 8, 9, 10, 16, 17, 18, 19, 25, 26, 30; minimum gage height, 0.72 ft (0.219 m) Oct. 8, 23, Sept. 25, 26, 30; minimum daily, 0.13 ft³/s (0.004 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.51	14	19	9.2	17	1.7	1.7	5.4	8.4	3.7	.52
2	.33	.58	2.6	4.3	8.7	7.3	1.8	1.4	1.1	1.0	2.0	.48
3	.28	.56	.89	141	181	4.5	7.7	2.4	.98	.76	1.5	.38
4	.26	.65	.69	152	17	3.6	2.0	1.2	1.4	.89	.91	.25
5	.37	.51	.55	11	9.1	3.2	1.6	1.2	1.6	.62	.90	.23
6	.34	.55	.61	5.2	5.6	4.3	1.7	1.1	.85	.58	.98	.21
7	.24	.56	.95	6.6	3.7	78	1.4	1.1	.65	.59	.82	.20
8	.22	.51	.51	5.1	2.9	11	18	1.3	.69	.46	5.8	.17
9	.23	.51	.51	3.0	19	5.1	7.6	1.1	12	5.6	16	.14
10	.93	.51	.49	2.3	10	3.8	2.0	.92	362	4.5	2.2	.16
11	.25	.51	.61	1.9	3.8	3.2	1.7	.78	17	15	33	.44
12	.23	.51	.69	1.9	3.2	2.9	1.6	.81	3.6	5.9	4.6	.57
13	.23	.51	.52	4.2	9.7	4.9	1.5	.81	7.6	6.3	1.3	.29
14	.30	.51	17	5.8	3.2	4.4	1.4	.90	2.9	204	.92	.25
15	.36	.55	84	5.9	2.7	29	3.0	.89	4.9	9.6	.79	.20
16	.56	.71	9.2	16	76	6.7	1.4	4.7	8.0	1.7	.67	.21
17	.34	.47	2.3	7.8	75	4.1	29	7.2	2.3	2.4	.94	.17
18	1.1	.35	1.6	4.1	9.6	3.2	4.2	.82	14	.77	2.4	.18
19	1.0	.36	1.3	19	17	2.8	1.9	28	1.2	.60	1.2	.20
20	.29	.41	1.2	23	5.8	2.7	6.9	98	.82	.53	.63	.40
21	.23	.39	1.1	118	4.1	2.5	2.2	11	.72	.42	.54	1.1
22	.23	.39	1.3	32	2.9	2.3	1.6	2.2	3.7	16	.48	.39
23	.44	.41	1.2	48	2.5	2.1	1.4	18	17	1.8	.41	.20
24	1.0	7.0	1.5	16	2.4	1.9	1.2	101	31	2.8	.44	.17
25	45	.78	68	6.3	2.1	1.9	8.9	5.6	1.3	.88	.39	.13
26	13	.53	5.6	4.1	2.2	2.2	42	2.5	.97	.72	.34	1.5
27	30	.58	2.9	2.8	103	1.7	46	2.2	.88	.59	.36	.66
28	1.2	.91	2.0	2.5	42	1.6	12	7.3	1.4	.52	.41	.26
29	.67	.45	1.8	2.2	---	1.6	3.1	4.1	2.9	1.1	.31	.20
30	.51	2.0	1.3	2.1	---	1.7	2.1	1.4	35	8.0	.28	.22
31	.54	---	234	14	---	1.8	---	2.8	---	20	.41	---
TOTAL	101.00	23.78	460.92	687.1	633.4	223.0	218.6	314.43	543.86	323.03	85.63	10.48
MEAN	3.26	.79	14.9	22.2	22.6	7.19	7.29	10.1	18.1	10.4	2.76	.35
MAX	45	7.0	234	152	181	78	46	101	362	204	33	1.5
MIN	.22	.35	.49	1.9	2.1	1.6	1.2	.78	.65	.42	.28	.13
CFSM	.47	.11	2.14	3.19	3.25	1.04	1.05	1.45	2.60	1.50	.40	.05
IN.	.54	.13	2.47	3.68	3.39	1.19	1.17	1.68	2.91	1.73	.46	.06

CAL YR 1981 TOTAL 2350.84 MEAN 6.44 MAX 234 MIN .17 CFSM .93 IN 12.58
WTR YR 1982 TOTAL 3625.23 MEAN 9.93 MAX 362 MIN .13 CFSM 1.43 IN 19.40

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).

WATER-DISCHARGE RECORDS

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 1.00 ft (0.305 m) higher.

REMARKS.--Water-discharge records good except those above 500 ft³/s, which are fair, and those for period of no gage-height record, April 27 to June 15, which are poor. The drainage area is the eastern side of the city of Charlotte and has an impervious area of about 12 percent.

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

AVERAGE DISCHARGE.--8 years, 129 ft³/s (3.653 m³/s), 18.96 in/yr (482 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)
Dec. 15	2130	1420	40.2	5.85	1.783	Feb. 28	0015	1880	53.2	6.75	2.057
Jan. 3	1900	2520	71.4	7.78	2.371	Mar. 7	2115	1460	41.3	5.94	1.811
Jan. 4	1715	3480	98.6	9.02	2.749	Apr. 27	1500	2500	70.8	7.74	2.359
Jan. 21	Unknown	1960	55.5	6.89	2.100	May 24	Unknown	1520	43.0	6.06	1.847
Feb. 3	2130	4080	116	9.68	2.950	June 11	Unknown	*5870	166	*11.67	3.557
Feb. 17	0715	2620	74.2	7.92	2.414	July 15	0015	2160	61.2	7.21	2.198

Minimum discharge, 3.2 ft³/s (0.091 m³/s) Sept. 25, 26, gage height, 1.07 ft (0.326 m); minimum daily, 3.4 ft³/s (0.096 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	10	62	2940	262	750	35	60	42	244	110	7.5
2	7.5	9.6	46	252	88	289	33	46	44	29	67	8.0
3	6.4	9.3	20	1410	1880	133	48	42	38	20	267	7.2
4	7.4	10	15	2640	1620	92	40	38	34	20	27	6.8
5	8.3	9.8	14	820	234	77	33	36	38	16	17	5.3
6	8.5	9.6	12	147	135	77	34	34	28	15	16	4.9
7	8.6	9.3	12	91	90	783	29	32	20	14	13	5.4
8	8.3	9.4	12	90	72	672	54	32	19	13	13	5.0
9	8.1	9.5	11	60	120	141	134	32	180	18	88	4.7
10	8.3	9.5	11	47	171	94	49	34	500	50	68	4.4
11	9.6	9.6	11	44	83	77	38	28	3370	129	71	4.6
12	8.7	9.7	11	39	65	66	36	25	230	226	386	6.2
13	8.1	9.7	11	45	101	62	33	23	210	49	38	6.2
14	8.0	9.7	57	56	70	76	37	21	92	291	22	5.7
15	8.2	9.7	759	50	57	376	39	20	58	862	16	6.0
16	7.8	9.8	536	59	242	202	32	45	51	56	13	6.6
17	6.2	10	72	113	1950	101	151	120	58	68	15	4.2
18	6.0	11	43	66	649	76	62	70	82	27	25	4.0
19	9.1	9.7	31	115	316	63	39	90	34	22	44	3.9
20	8.3	9.8	25	309	166	60	72	70	24	17	15	3.8
21	6.1	9.4	25	1250	108	54	46	290	22	14	11	8.4
22	6.0	9.1	26	790	77	50	36	42	28	27	10	9.4
23	6.3	9.1	24	890	62	45	32	68	34	41	9.4	5.3
24	7.1	35	23	687	56	43	30	950	772	47	8.9	3.8
25	165	24	750	160	51	43	197	190	66	42	8.5	3.4
26	125	13	340	99	46	42	471	60	35	19	7.9	4.2
27	298	11	92	67	808	36	1590	100	28	14	7.2	12
28	39	14	58	57	1340	34	400	80	31	13	7.4	9.6
29	19	12	46	52	---	34	150	100	32	12	7.2	7.6
30	14	13	36	47	---	36	80	48	56	58	6.3	5.9
31	12	---	1060	62	---	35	---	30	---	45	6.5	---
TOTAL	857.2	344.3	4251	13554	10919	4719	4060	2856	6256	2518	1421.3	180.0
MEAN	27.7	11.5	137	437	390	152	135	92.1	209	81.2	45.8	6.00
MAX	298	35	1060	2940	1950	783	1590	950	3370	862	386	12
MIN	6.0	9.1	11	39	46	34	29	20	19	12	6.3	3.4
CFSM	.30	.12	1.48	4.73	4.22	1.65	1.46	1.00	2.26	.88	.50	.07
IN.	.35	.14	1.71	5.46	4.40	1.90	1.63	1.15	2.52	1.01	.57	.07

CAL YR 1981 TOTAL 27450.7 MEAN 75.2 MAX 2510 MIN 3.8 CFSM .81 IN 11.05
WTR YR 1982 TOTAL 51935.8 MEAN 142 MAX 3370 MIN 3.4 CFSM 1.54 IN 20.91

02146750 McALPINE CREEK BELOW McMULLEN CREEK NEAR PINEVILLE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/07	11 00	0000	1.24	8	201		18.0		5.4	57.0		90
81/11/18	09 15	0000	1.28	10	191		9.0	5.0	9.8	84.0	10.0K	50
81/12/08	11 00	0000	1.37	13	187		8.0		11.0	92.0		40
82/01/21	10 30	0000	6.00	1400	76		4.0		11.4	79.0		5900
82/02/16	10 40	0000	2.29	92	210		12.0	35.0	8.9	82.0	13.0	470
82/03/23	11 00	0000	1.88	45	172		14.0		10.9	105.0		180
82/04/20	10 00	0000	2.26	88	175		16.0		7.2	72.0		570
82/05/20	10 45	0000	1.96	52	127	7.30	21.0	55.0	6.0	68.0	20.0	5100
82/06/24	10 30	0000	5.76	1080	65	6.40	22.0		8.9	101.0		15000
82/07/22	10 35	0000	1.40	12	214	7.00	26.0		5.6	68.0		220
82/08/26	10 20	0000	1.27	8	225	7.30	23.0	7.0	6.2	71.0	10.0K	240
82/09/28	10 45	0000	1.29	9	200	7.50	18.0		7.0	74.0		170

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT WFLT MG/L	RESIDUE TOTAL 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
81/10/07	11 00	0000		4	180	0.05K	0.080	0.300	0.050K	0.050K		
81/11/18	09 15	0000		1	330	0.08	0.050K	0.200	0.080	0.050K	10K	50K
81/12/08	11 00	0000		4	230	0.06	0.060	0.200	0.050K	0.050K		
82/01/21	10 30	0000		120	1300	0.37	0.150	1.300	0.920	0.080		
82/02/16	10 40	0000		16	150	0.31	0.050K	0.200	0.070	0.050K	10K	50K
82/03/23	11 00	0000		5	140	0.05	0.050K	0.200	0.070	0.050K		
82/04/20	10 00	0000		11	160	0.18	0.050K	0.500	0.140	0.050K		
82/05/20	10 45	0000	35	47	173	0.44	0.060	0.600	0.140	0.050K	10K	50K
82/06/24	10 30	0000	16	480	570	0.38	0.050	1.000	0.360	0.050K		
82/07/22	10 35	0000	71	6	162	0.11	0.060	0.300	0.050	0.050K		
82/08/26	10 20	0000	83	12	165	0.09	0.050	0.300	0.050	0.050K	10K	50K
82/09/28	10 45	0000	90	1	189	0.05K	0.050K	0.300	0.050K	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	09 15	0000	50K	40K	100	0.5K	100K	50K
82/02/16	10 40	0000	50K	40K	100K	1.9	100K	50K
82/05/20	10 45	0000	50K	40K	100K	0.2K	100K	50K
82/08/26	10 20	0000	50K	40	100K	0.2K	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--22 years, 72.2 ft³/s (2.045 m³/s), 12.82 in/yr (326 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)
Jan. 1	0600	*2570	72.8	*13.88	4.231	Feb. 17	1000	1630	46.2	11.88	3.621
Jan. 4	1900	1500	42.5	11.56	3.523	Feb. 28	0200	1540	43.6	11.66	3.554
Feb. 3	2300	2350	66.6	13.46	4.103						

Minimum discharge, 0.93 ft³/s (0.026 m³/s) Sept. 11; minimum gage height, 1.30 ft (0.396 m) Sept. 11, 18, 19; minimum daily, 1.0 ft³/s (0.028 m³/s) Sept. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	5.5	23	1530	92	466	30	50	18	151	20	1.9
2	2.4	5.3	35	170	61	244	28	41	17	27	13	2.0
3	2.2	5.1	32	862	1340	127	29	37	19	17	8.8	2.0
4	2.1	4.7	27	1170	916	95	29	33	116	14	7.1	2.0
5	2.0	5.2	26	352	203	86	26	29	55	13	6.2	3.7
6	2.0	5.6	24	125	164	96	28	26	28	11	6.0	2.0
7	2.0	5.1	23	86	99	404	25	24	18	11	5.6	1.4
8	2.0	5.0	24	63	76	273	27	23	15	9.8	5.1	1.1
9	2.0	4.8	24	49	71	111	78	25	14	9.0	7.3	1.1
10	1.8	4.8	26	43	113	88	42	22	112	9.8	11	1.0
11	2.0	4.8	26	34	72	75	31	19	534	12	100	1.0
12	2.0	4.7	26	35	56	66	28	18	54	22	29	1.1
13	1.9	4.5	28	33	87	59	26	17	33	12	14	1.4
14	1.7	5.9	37	39	75	71	25	16	43	10	9.8	1.4
15	1.8	9.4	358	40	54	336	25	15	23	9.8	7.7	1.2
16	1.9	9.6	260	42	147	186	25	15	20	11	6.4	1.2
17	1.8	10	63	83	1170	101	26	15	17	26	5.6	1.2
18	1.6	10	36	52	270	80	44	15	15	16	17	1.1
19	1.6	10	28	76	201	64	29	17	14	11	29	48
20	1.8	11	22	205	134	60	29	16	13	9.0	9.8	12
21	1.7	11	19	430	96	54	40	23	12	7.5	6.9	15
22	1.7	12	19	232	72	49	30	17	13	13	5.8	8.3
23	1.6	11	20	436	57	42	25	26	16	21	5.8	4.9
24	1.8	14	19	377	52	40	23	470	522	15	4.8	3.3
25	17	18	506	121	47	40	23	121	71	12	4.1	2.5
26	49	17	232	85	42	38	373	56	32	9.7	3.2	2.2
27	44	16	85	59	657	33	443	32	106	8.4	2.6	2.9
28	21	16	55	50	949	31	809	32	244	7.9	2.4	5.5
29	11	17	44	47	---	30	126	133	43	11	2.2	7.3
30	7.7	16	35	43	---	30	71	32	28	50	2.0	4.3
31	6.0	---	656	43	---	29	---	22	---	16	1.9	---
TOTAL	202.1	279.0	2838	7012	7373	3504	2593	1437	2265	582.9	360.1	144.0
MEAN	6.52	9.30	91.5	226	263	113	86.4	46.4	75.5	18.8	11.6	4.80
MAX	49	18	656	1530	1340	466	809	470	534	151	100	48
MIN	1.6	4.5	19	33	42	29	23	15	12	7.5	1.9	1.0
CFSM	.09	.12	1.20	2.95	3.44	1.48	1.13	.61	.99	.25	.15	.06
IN.	.10	.14	1.38	3.41	3.59	1.70	1.26	.70	1.10	.28	.18	.07

CAL YR 1981 TOTAL 25221.26 MEAN 69.1 MAX 1800 MIN .55 CFSM .90 IN 12.26
WTR YR 1982 TOTAL 28590.10 MEAN 78.3 MAX 1530 MIN 1.0 CFSM 1.02 IN 13.90

02146900 TWELVE MILE CREEK NEAR WAXHAW, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/07	13 45	0000	1.44	2	95		17.0		6.4	66.0		70
81/11/18	11 30	0000	1.79	9	93		8.0	7.0	8.2	69.0	13.0	170
81/12/08	13 00	0000	2.10	24	80		8.0		10.8	57.0		170
82/01/21	11 30	0000	5.00	420	80		5.0		11.9	93.0		1400
82/02/16	13 35	0000	2.41	59	98		11.0	40.0	9.6	86.0	14.0	10K
82/03/17	12 30	0000	2.79	102	63		11.0		9.8	88.0		380
82/04/20	12 10	0000	2.10	26	91		16.0		9.0	90.0		130
82/05/20	12 10	0000	1.96	17	110	7.20	20.0	15.0	8.6	93.0	12.0	170
82/06/24	12 15	0000	8.93	951	60	6.30	23.0		6.0	69.0		14000
82/07/22	12 10	0000	1.65	6	110	6.80	24.0		5.3	62.0		140
82/08/26	12 20	0000	1.49	3	100	7.10	21.0	35.0	6.2	69.0	12.0	50
82/09/28	13 00	0000	1.64	7	110	6.90	17.0		7.0	80.0		220

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/07	13 45	0000		3	270							
81/11/18	11 30	0000		2	190	0.05K	0.050K	0.300	0.050K	0.050K	10K	50K
81/12/08	13 00	0000		3	190							
82/01/21	11 30	0000		150	320							
82/02/16	13 35	0000		12	91	0.38	0.050K	0.300	0.060	0.050K	10K	50K
82/03/17	12 30	0000		21	110							
82/04/20	12 10	0000		8	91							
82/05/20	12 10	0000	35	5	173	1.20	0.100	0.400	0.080	0.050K	10K	50K
82/06/24	12 15	0000	9	1180	1380							
82/07/22	12 10	0000	40	12	116							
82/08/26	12 20	0000	37	20	190	0.18	0.050K	0.400	0.080	0.050K	10K	50K
82/09/28	13 00	0000	36	8	142							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/18	11 30	0000	50K	40K	100K	0.5K	100K	50K
82/02/16	13 35	0000	50K	40K	100K	25.0	100K	50K
82/05/20	12 10	0000	50K	40K	100K	0.2K	100K	50K
82/08/26	12 20	0000	50K	40	100K	0.2K	100K	50K

K Less than noted value.

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.--32 years, 135 ft³/s (3.823 m³/s), 23.21 in/yr (590 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.--Peak discharges above base of 1,400 ft³/s (40 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. 3	1030	2170	61.5	9.50	2.896	May 27	0530	*2580	73.1	*10.64	3.243

Minimum discharge, 26 ft³/s (0.74 m³/s) Dec. 20, gage height, 1.84 ft (0.561 m), result of freezeup; minimum daily, 38 ft³/s (1.08 m³/s) Oct. 3, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	49	93	306	167	131	82	142	162	69	184	66
2	39	49	96	160	196	131	82	131	136	67	108	68
3	38	47	64	209	1480	122	102	122	120	66	91	63
4	40	47	56	783	478	113	87	114	121	64	80	57
5	40	57	52	271	253	108	84	108	119	63	75	55
6	41	59	49	170	193	105	93	103	105	64	76	55
7	39	48	48	135	157	172	84	99	98	70	70	53
8	38	46	46	114	139	152	96	99	94	75	72	52
9	38	45	44	101	148	133	120	94	91	99	89	51
10	40	45	43	88	137	122	115	89	109	119	105	52
11	42	45	44	85	123	115	104	86	117	145	174	53
12	43	45	47	85	116	109	96	83	148	91	163	54
13	43	44	48	84	114	106	91	80	251	172	112	53
14	41	44	65	83	105	103	93	78	141	235	98	61
15	41	44	111	80	103	114	105	75	167	141	86	67
16	42	43	109	76	149	113	118	74	164	155	79	63
17	41	44	77	72	252	108	123	74	119	119	78	52
18	42	43	66	70	268	103	124	72	111	108	80	51
19	42	43	57	67	187	99	112	72	101	108	80	50
20	41	68	59	69	155	98	106	106	92	103	69	53
21	42	53	65	100	138	97	102	92	87	90	65	53
22	43	46	67	113	124	92	95	78	84	85	63	70
23	51	45	60	147	115	90	90	130	83	83	61	53
24	54	54	56	146	110	89	87	241	79	93	65	51
25	48	50	204	115	104	89	94	116	81	83	81	50
26	98	47	145	100	100	87	331	110	79	77	62	52
27	117	48	101	89	120	83	418	918	87	73	59	57
28	66	52	84	85	127	82	313	303	79	72	60	53
29	55	46	74	79	---	81	203	284	77	79	58	49
30	52	47	67	75	---	82	162	226	72	119	57	50
31	50	---	258	106	---	82	---	177	---	188	60	---
TOTAL	1486	1443	2455	4265	5858	3311	3912	4576	3374	3175	2660	1667
MEAN	47.9	48.1	79.2	138	209	107	130	148	112	102	85.8	55.6
MAX	117	68	258	783	1480	172	418	918	251	235	184	70
MIN	38	43	43	67	100	81	82	72	72	63	57	49
CFSM	.61	.61	1.00	1.75	2.65	1.35	1.65	1.87	1.42	1.29	1.09	.70
IN.	.70	.68	1.16	2.01	2.76	1.56	1.84	2.15	1.59	1.50	1.25	.78

CAL YR 1981 TOTAL 30083 MEAN 82.4 MAX 597 MIN 36 CFSM 1.04 IN 14.17
WTR YR 1982 TOTAL 38162 MEAN 105 MAX 1480 MIN 38 CFSM 1.33 IN 17.98

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).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1553: 1935-39(m). WDR NC-81-1: Drainage area.

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.

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

AVERAGE DISCHARGE.--57 years, 312 ft³/s (8.836 m³/s), 19.26 in/yr (489 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.--Peak discharges above base of 3,000 ft³/s (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)
Jan. 4	0845	4050	115	6.39	1.948	Feb. 3	2330	*4900	139	*7.30	2.225

Minimum discharge, 21 ft³/s (0.59 m³/s) Mar. 29, gage height, 0.74 ft (0.226 m); minimum daily, 49 ft³/s (1.39 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	108	157	1660	286	320	190	325	931	155	543	138
2	80	132	267	646	274	307	183	292	516	146	279	142
3	76	95	185	730	2270	297	199	269	351	141	201	122
4	49	99	155	2980	3840	277	212	235	296	134	172	115
5	83	145	99	1910	996	252	185	226	306	133	161	112
6	89	88	115	681	641	247	198	218	256	127	161	112
7	85	109	136	475	491	334	187	209	205	124	155	117
8	83	84	104	370	407	432	202	213	201	124	188	120
9	81	133	126	305	387	352	260	209	189	124	181	96
10	50	112	98	264	398	311	232	197	181	156	320	122
11	85	89	101	206	335	285	220	189	231	156	247	96
12	93	87	92	224	298	268	211	185	274	174	321	116
13	83	119	96	219	287	254	200	178	679	156	321	131
14	80	80	127	208	262	265	189	170	423	278	242	111
15	83	99	272	194	255	259	205	166	311	272	209	144
16	87	129	377	188	338	280	193	163	261	407	196	116
17	72	96	249	188	553	251	205	170	233	264	172	115
18	97	81	199	182	580	250	310	185	224	189	164	104
19	74	103	150	171	466	238	260	163	209	244	164	110
20	84	119	135	172	388	233	239	273	194	176	158	120
21	83	83	122	208	335	235	226	406	171	154	144	108
22	85	97	162	289	289	232	209	226	169	152	143	110
23	112	124	143	435	266	219	193	287	173	186	145	114
24	89	101	147	475	252	215	181	361	159	189	128	100
25	108	104	282	362	238	213	189	256	203	184	140	109
26	194	89	527	293	226	209	417	301	226	158	133	101
27	343	99	317	253	264	205	970	351	187	141	125	125
28	219	104	248	228	315	199	834	383	189	147	112	124
29	133	105	213	212	---	204	522	547	218	154	126	97
30	121	129	177	189	---	192	389	389	175	188	122	115
31	99	---	546	202	---	181	---	325	---	279	118	---
TOTAL	3188	3142	6124	15120	15937	8026	8410	8067	8341	5612	5991	3462
MEAN	103	105	198	488	569	259	280	260	278	181	193	115
MAX	343	145	546	2980	3840	432	970	547	931	407	543	144
MIN	49	80	92	171	226	181	181	163	159	124	112	96
CFSM	.47	.48	.90	2.22	2.59	1.18	1.27	1.18	1.26	.82	.88	.52
IN.	.54	.53	1.04	2.56	2.69	1.36	1.42	1.36	1.41	.95	1.01	.59

CAL YR 1981 TOTAL 63184 MEAN 173 MAX 1390 MIN 43 CFSM .79 IN 10.68
WTR YR 1982 TOTAL 91420 MEAN 250 MAX 3840 MIN 49 CFSM 1.14 IN 15.46

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/13	09 00	0000	1.50	193	102	7.10	14.0		8.9	86.0		140
81/11/16	12 00	0000	0.86	34		7.40	8.0	5.0	11.7	98.0	10.0K	160
81/12/16	11 45	0000	1.95	406		6.60	6.0		11.0	88.0		3700
82/01/20	10 15	0000	1.45	174	75	7.20	4.0		11.5	88.0		1900
82/02/17	12 05	0000	2.26	593	84	7.00	11.0	240.0	9.8	88.0	14.0	2000
82/03/24	11 20	0000	1.55	213	102	7.10	13.0		9.9	93.0		180
82/04/26	10 00	0000	1.89	372	145	7.00	13.0		9.5	90.0		920
82/05/24	10 40	0000	1.98	423	74	7.00	20.0	70.0	7.6	83.0	10.0	2600
82/06/24	08 30	0000	1.62	243	120	7.00	22.0		7.8	89.0		320
82/07/15	10 45	0000	1.82	335	85	6.90	23.0		7.3	84.0		3200
82/08/31	08 45	0000	0.92	42	120	7.00	21.0	15.0	7.2	80.0	10.0K	330
82/09/29	11 40	0000	1.55	213	180	7.10	17.0		7.9	81.0		120

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/13	09 00	0000	25	5	87							
81/11/16	12 00	0000	24	10	101	0.36	0.130	0.300	0.190	0.100	11	50K
81/12/16	11 45	0000	14	38	112						10K	
82/01/20	10 15	0000	23	10	83							
82/02/17	12 05	0000	15	127	209	0.35	0.050K	0.400	0.200	0.050K	10K	50K
82/03/24	11 20	0000	20	16	96							
82/04/26	10 00	0000	16	23	78							
82/05/24	10 40	0000	17	82	153	0.48	0.110	0.400	0.180	0.050K	10K	50K
82/06/24	08 30	0000	24	24	123							
82/07/15	10 45	0000	16	42	180							
82/08/31	08 45	0000	23	12	98	0.45	0.100	0.300	0.170	0.090	10K	50K
82/09/29	11 40	0000	25	4	141							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/16	12 00	0000	50K	40K	100K	1.6	100K	50K
82/02/17	12 05	0000	50K	40K	100K	0.2K	100K	50K
82/05/24	10 40	0000	50K	40K	100K	0.2K	100K	50K
82/08/31	08 45	0000	50K	40K	100	0.2K	100K	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.

DRAINAGE AREA.--875 mi² (2,266 km²).

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

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

GAGE.--Water-stage recorder. Datum of gage is 639.92 ft (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.--Records good. Considerable diurnal fluctuation and some regulation caused by powerplants above station.

AVERAGE DISCHARGE.--57 years, 1,507 ft³/s (42.68 m³/s), 23.39 in/yr (594 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.--Peak discharges above base of 9,000 ft³/s (250 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)
Jan. 4	1100	15200	430	10.42	3.176	Feb. 3	2100	15800	447	*10.65	3.246

Minimum discharge, 317 ft³/s (8.98 m³/s) Aug. 30, gage height, 1.50 ft (0.457 m); minimum daily, 391 ft³/s (11.1 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	448	460	800	5050	1230	1560	990	1430	2340	955	2610	723
2	457	538	1180	2640	1270	1370	933	1400	2060	964	1900	697
3	447	472	973	3040	10000	1460	1100	1330	1440	842	1360	844
4	391	510	830	11300	11000	1400	974	1490	1170	778	1050	724
5	464	563	738	6110	4130	1600	901	1230	1460	769	982	536
6	437	573	549	3280	3250	1280	1130	1060	1030	679	982	804
7	452	556	589	2320	2380	1450	1120	1170	1040	771	873	683
8	436	493	680	1550	2070	2030	1140	1170	960	609	868	590
9	439	527	613	1340	2050	1640	1450	1030	880	842	832	584
10	425	551	652	1170	2100	1460	1110	980	980	896	1400	502
11	464	529	675	1230	1670	1420	928	1040	1140	1010	1250	599
12	500	522	659	1110	1430	1360	1170	1090	1440	1080	1210	835
13	448	531	618	1040	1510	1350	1210	980	1860	1170	1410	703
14	464	504	702	1010	1280	1270	973	1060	1900	3160	989	621
15	450	490	1170	972	1210	983	1120	860	1370	2140	941	713
16	472	546	1500	984	1610	1510	1070	700	1240	1590	844	693
17	465	530	1100	872	3010	1310	1290	820	1280	1320	909	767
18	481	502	885	873	2920	1120	1280	850	1440	1170	848	602
19	465	523	788	934	2360	1160	1270	990	1210	1250	896	605
20	440	528	631	882	1910	1060	1300	1220	1060	1230	851	595
21	465	492	615	1040	1330	987	1240	1590	890	1080	705	652
22	458	467	738	1370	1360	1120	1140	1160	1040	865	696	628
23	508	538	698	2060	1430	1130	1100	1060	924	863	692	611
24	509	550	666	2130	1460	947	1120	1280	848	927	617	509
25	478	565	1030	1390	1390	937	940	1390	959	1030	729	632
26	804	529	1630	1270	1360	924	1990	1360	953	941	893	590
27	1170	536	1140	1180	1400	1060	4340	2860	889	863	672	708
28	797	488	1060	1110	1730	837	3170	3110	1060	790	627	621
29	590	486	1030	1200	---	732	2410	2950	1240	879	629	656
30	511	565	840	1030	---	1250	2020	2320	1330	976	512	569
31	531	---	2130	1020	---	1070	---	1750	---	1660	631	---
TOTAL	15866	15664	27927	62507	69850	38807	41929	42730	37433	34299	30408	19596
MEAN	512	522	901	2016	2495	1252	1398	1378	1248	1106	981	653
MAX	1170	573	2130	11300	11000	2030	4340	3110	2340	3160	2610	844
MIN	391	460	549	872	1210	732	901	700	848	679	512	502
CFSM	.59	.60	1.03	2.30	2.85	1.43	1.60	1.58	1.43	1.26	1.12	.75
IN.	.67	.67	1.19	2.66	2.97	1.65	1.78	1.82	1.59	1.46	1.29	.83

CAL YR 1981 TOTAL 308727 MEAN 846 MAX 4110 MIN 316 CFSM .97 IN 13.13
WTR YR 1982 TOTAL 437016 MEAN 1197 MAX 11300 MIN 391 CFSM 1.37 IN 18.58

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-56, March 1959 to current year.

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

GAGE.--Water-stage recorder. Altitude of gage is 890 ft (271 m), from topographic map.

REMARKS.--Water-discharge records good.

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

AVERAGE DISCHARGE.--23 years, 94.0 ft³/s (2.662 m³/s), 21.10 in/yr (536 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.--Peak discharge 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)
Jan. 4	1030	1350	38.2	5.55	1.692	Feb. 3	1230	*2400	68.0	*7.76	2.365

Minimum discharge, 21 ft³/s (0.59 m³/s) Oct. 3, 8, 9, gage height, 0.61 ft (0.186 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	29	55	312	92	86	52	99	300	83	94	42
2	22	29	67	134	80	87	49	89	167	67	55	42
3	21	28	40	132	1300	82	61	84	98	61	48	38
4	22	28	35	712	406	76	56	77	83	57	44	35
5	22	28	32	231	189	76	52	71	138	53	65	34
6	22	31	30	128	138	71	54	69	86	51	68	33
7	22	27	30	96	111	104	49	66	70	51	50	33
8	21	26	30	77	96	104	55	67	61	51	61	32
9	21	26	28	67	98	91	68	63	56	53	52	32
10	22	26	28	58	94	83	60	59	70	60	98	32
11	24	26	28	70	82	77	56	57	113	107	147	32
12	24	26	29	70	76	75	53	55	110	73	95	33
13	24	26	29	70	76	72	52	54	197	60	80	34
14	24	26	38	70	75	71	50	52	114	56	68	37
15	25	26	89	68	80	74	52	51	87	129	60	38
16	24	26	93	68	98	74	50	50	76	94	55	37
17	24	26	54	65	158	71	79	54	71	80	52	31
18	24	26	50	65	159	67	112	58	65	62	53	31
19	27	26	45	65	124	63	85	51	61	57	62	59
20	25	26	40	64	102	63	76	74	56	54	48	38
21	25	26	39	67	92	61	69	70	52	50	45	35
22	25	26	38	85	81	60	64	53	60	53	42	35
23	30	26	36	139	73	57	59	53	60	50	41	32
24	33	29	39	142	68	57	57	84	58	50	40	30
25	29	30	149	106	66	57	60	61	79	47	41	31
26	67	28	121	86	62	55	150	57	146	45	38	33
27	94	28	74	74	77	52	395	68	90	42	37	38
28	43	31	57	69	81	51	284	61	82	48	38	33
29	33	28	48	62	---	51	148	61	167	55	36	31
30	31	28	42	59	---	51	114	86	115	50	35	31
31	29	---	279	64	---	52	---	82	---	72	38	---
TOTAL	901	818	1792	3575	4234	2171	2621	2036	2988	1921	1786	1052
MEAN	29.1	27.3	57.8	115	151	70.0	87.4	65.7	99.6	62.0	57.6	35.1
MAX	94	31	279	712	1300	104	395	99	300	129	147	59
MIN	21	26	28	58	62	51	49	50	52	42	35	30
CFSM	.48	.45	.96	1.90	2.50	1.16	1.45	1.09	1.65	1.03	.95	.58
IN.	.55	.50	1.10	2.20	2.60	1.33	1.61	1.25	1.84	1.18	1.10	.65

CAL YR 1981 TOTAL 17402 MEAN 47.7 MAX 279 MIN 21 CFSM .79 IN 10.70
WTR YR 1982 TOTAL 25895 MEAN 70.9 MAX 1300 MIN 21 CFSM 1.17 IN 15.92

02152100 FIRST BROAD RIVER NEAR CASAR, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	07 40	0000	0.64	23	43	7.50	10.0		10.7	95.0		120
81/11/16	08 00	0000	0.68	26		7.10	7.0	2.0	11.1	91.0	10.0K	60
81/12/16	09 00	0000	1.18	95		6.60	3.0		12.0	89.0		370
82/01/21	09 30	0000	0.97	70	35	6.90	4.0		11.6	89.0		90
82/02/22	08 15	0000	1.08	79	76	7.20	7.0	6.0	12.0	98.0	10.0K	60
82/03/09	09 40	0000	1.11	88	33	7.60	2.0		10.1	73.0		30
82/04/15	09 45	0000	0.90	53	71	6.90	14.0		9.8	94.0		60
82/05/25	07 30	0000	0.90	60	34	7.00	20.0	20.0	8.6	93.0	10.0K	570
82/06/30	07 30	0000	1.33	127	33	6.90	20.0		7.4	81.0		770
82/07/15	08 15	0000	1.56	164	31	6.50	21.0		8.1	88.0		3200
82/08/19	09 00	0000	0.90	60	38	6.90	20.0	130.0	8.4	91.0	10.0K	7000
82/09/29	07 45	0000	0.68	31	36	7.10	15.0		9.0	88.0		130

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	07 40	0000	17	5	54							
81/11/16	08 00	0000	15	2	50	0.05	0.050K	0.100	0.050K	0.050K	10K	50K
81/12/16	09 00	0000	7	16	52							
82/01/21	09 30	0000	11	8	51							
82/02/22	08 15	0000	11	5	49	0.12	0.050K	0.100	0.050K	0.050K	10K	50K
82/03/09	09 40	0000	10	3	58							
82/04/15	09 45	0000	17	1K	51							
82/05/25	07 30	0000	14	13	59	0.19	0.060	0.200	0.050K	0.050K	10K	50K
82/06/30	07 30	0000	12	51	89	0.10	0.050K	0.200	0.060	0.050K		
82/07/15	08 15	0000	7	454	530							
82/08/19	09 00	0000	11	72	174	0.17	0.050K	0.300	0.110	0.050K	10K	50K
82/09/29	07 45	0000	14	5	52							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/16	08 00	0000	50K	40K	100K	0.5K	100K	50K
82/02/22	08 15	0000	50K	40K	200	0.2K	100K	50K
82/05/25	07 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/19	09 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

02152610 SUGAR BRANCH NEAR BOILING SPRINGS, NC

LOCATION.--Lat 35°15'00", long 81°37'15", 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).

PERIOD OF RECORD.--Annual maximum, water years 1954-68, June 1968 to current year.

REVISED RECORDS.--WDR NC-70-1: 1968(M). WDR NC-81-1: Drainage area.

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.--14 years, 2.21 ft³/s (0.063 m³/s), 21.14 in/yr (537 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, 0.11 ft³/s (0.003 m³/s) Oct. 1, 2, 3, 1981, gage height, 0.88 ft (0.268 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.2 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. 31	1530	176	4.98	3.05	0.930	June 10	1630	190	5.38	3.17	0.966
Jan. 4	0530	*203	5.75	*3.28	1.000	July 16	1945	180	5.10	3.09	0.942

Minimum discharge, 0.11 ft³/s (0.003 m³/s) Oct. 1, 2, 3, gage height, 0.88 ft (0.268 m); minimum daily, 0.12 ft³/s (0.003 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.43	2.8	6.0	1.6	2.9	1.3	1.3	1.1	.66	.99	.48
2	.12	.42	1.4	2.5	1.4	2.5	1.3	1.2	.98	.64	.76	.46
3	.14	.42	.81	26	25	2.2	1.3	1.2	.91	.62	.68	.41
4	.17	.41	.69	34	4.4	2.1	1.1	1.1	1.9	.59	.65	.35
5	.16	.42	.62	3.8	2.9	2.0	1.3	1.0	1.1	.56	.69	.34
6	.16	.42	.60	2.5	2.5	1.9	1.2	1.0	.87	.56	.68	.34
7	.13	.40	.59	2.1	2.2	4.7	1.1	.99	.82	.57	.63	.32
8	.13	.40	.56	1.8	2.0	2.5	1.8	1.0	.79	.58	.63	.32
9	.16	.41	.53	1.6	3.1	2.2	1.6	.94	.77	.58	.94	.32
10	.22	.41	.52	1.4	2.4	2.1	1.3	.89	12	.60	.70	.33
11	.24	.41	.53	1.3	2.1	1.9	1.2	.86	2.7	2.5	.79	.38
12	.23	.41	.52	1.3	2.0	1.9	1.2	.83	1.4	.81	.66	.39
13	.21	.41	.52	1.3	2.0	1.8	1.2	.81	2.1	2.0	.66	.36
14	.21	.41	1.5	1.3	1.8	1.7	1.2	.78	1.2	7.8	.64	.39
15	.22	.41	12	1.2	2.4	2.1	1.2	.76	1.1	1.0	.60	.38
16	.21	.41	3.1	1.2	8.3	1.9	1.1	.76	1.0	13	.58	.33
17	.20	.42	1.7	1.2	6.7	1.8	1.4	.77	1.0	3.7	.58	.29
18	.23	.41	1.2	1.2	3.3	1.7	1.2	.76	.97	1.7	.57	.25
19	.24	.41	1.0	1.2	3.0	1.7	1.1	.90	.93	1.3	.54	.30
20	.23	.41	.93	1.4	2.5	1.6	1.2	1.3	.86	1.1	.52	.34
21	.25	.39	.90	4.4	2.3	1.6	1.1	.90	.81	.98	.50	.30
22	.26	.40	.87	5.0	2.0	1.5	1.1	2.2	.83	.94	.47	.34
23	.40	.41	.87	6.6	1.9	1.4	1.1	5.4	.81	.93	.48	.30
24	.29	.54	.89	3.0	1.8	1.4	1.0	6.5	.79	.91	.46	.28
25	.62	.42	6.8	2.2	1.7	1.4	1.4	1.7	.75	.84	.44	.29
26	2.4	.41	2.4	1.8	1.8	1.3	2.2	1.5	.72	.78	.40	.40
27	1.7	.45	1.7	1.7	2.9	1.3	3.9	3.4	1.1	.75	.42	.38
28	.56	.44	1.3	1.6	3.9	1.3	1.8	2.5	.93	.75	.43	.32
29	.47	.41	1.2	1.5	---	1.3	1.5	1.7	1.1	.76	.38	.28
30	.44	.54	1.1	1.5	---	1.3	1.4	1.2	.73	.98	.39	.27
31	.43	---	28	1.7	---	1.3	---	1.1	---	2.2	.46	---
TOTAL	11.57	12.66	78.15	125.3	99.9	58.3	41.8	47.25	43.07	51.69	18.32	10.24
MEAN	.37	.42	2.52	4.04	3.57	1.88	1.39	1.52	1.44	1.67	.59	.34
MAX	2.4	.54	28	34	25	4.7	3.9	6.5	12	13	.99	.48
MIN	.12	.39	.52	1.2	1.4	1.3	1.0	.76	.72	.56	.38	.25
CFSM	.26	.30	1.78	2.85	2.51	1.32	.98	1.07	1.01	1.18	.42	.24
IN.	.30	.33	2.05	3.28	2.62	1.53	1.09	1.24	1.13	1.35	.48	.27

CAL YR 1981 TOTAL 345.68 MEAN .95 MAX 28 MIN .12 CFSM .67 IN 9.05
WTR YR 1982 TOTAL 598.25 MEAN 1.64 MAX 34 MIN .12 CFSM 1.16 IN 15.66

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 STEAM-ELECTRIC GENERATING PLANT LAKE.--Lat 36°32'15", long 78°52'30", Person County, Hydrologic Unit 03010104, cooling water reservoir for Carolina Power and Light Company plant, on Mayo Creek near Bethel Hill. DRAINAGE AREA, 52.2 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 km³) 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)

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)

Lakes and Reservoirs in South Atlantic Slope basin--Continued

02093981 LAKE HIGGINS.--Lat 36°10'11", long 79°52'49", Guilford County, Hydrologic Unit 03030002, part of Greensboro's municipal water supply, on Brush Creek near Greensboro. DRAINAGE AREA, 12 mi^2 (31 km^2), approximately. Total capacity is 107,000,000 ft^3 (3,030,000 m^3). Reservoir first filled Mar. 1, 1957. (See sta 02094500)

02094117 LAKE BRANDT.--Lat 36°10'20", long 79°50'20", Guilford County, Hydrologic Unit 03030002, part of Greensboro's municipal water supply, on Reedy Fork and Horsepen Creek near Greensboro. DRAINAGE AREA, 70.0 mi^2 (181.3 km^2), approximately. Total capacity is 294,000,000 ft^3 (8,326,000 m^3). Dam completed February 1923 and raised to present level 1959-60. Reservoir first filled at present level on Oct. 8, 1960. (See sta 02094500)

02094305 LAKE TOWNSEND.--Lat 36°11'25", long 79°43'57", Guilford County, Hydrologic Unit 03030002, part of Greensboro's municipal water supply, on Reedy Fork near Greensboro. DRAINAGE AREA, 105 mi^2 (272 km^2). Total capacity is 869,000,000 ft^3 (24,600,000 m^3). 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 mi^2 (114 km^2), approximately. Prior to October 1971 published as "Stony Creek Reservoir". Total capacity is 427,800,000 ft^3 (12,120,000 m^3). Dam completed August 1960 and reservoir first filled Jan. 28, 1961. (See sta 02096500)

02096432 STONY CREEK RESERVOIR.--Lat 36°07'37", long 79°24'20", Alamance County, Hydrologic Unit 03030002, part of Burlington's water supply on Stony Creek near Burlington. DRAINAGE AREA, 95.0 mi^2 (246.0 km^2), approximately. Prior to October 1971 published as "Lake Burlington". Total capacity is 64,900,000 ft^3 (1,840,000 m^3). Dam completed and reservoir filled in 1928. (See sta 02096500)

02098495 OAK HOLLOW RESERVOIR.--Lat 36°00'42", long 79°59'11", Guilford County, Hydrologic Unit 03030003, part of High Point's municipal water supply, on West Fork Deep River, 1.8 mi (2.9 km) southwest of Deep River. DRAINAGE AREA, 32 mi^2 (83 km^2), approximately. Total capacity is 468,000,000 ft^3 (13,300,000 m^3). 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 mi^2 (159 m^2). Total capacity is 220,588,000 ft^3 (6,247,050 m^3). Dam completed in 1926 and reservoir first filled in 1927. (See sta 02099500)

02102178 BUCKHORN RESERVOIR.--Lat 35°31'35", long 78°59'22", Chatham County, Hydrologic Unit 03030004, on Cape Fear River near Corinth. DRAINAGE AREA, 3,200 mi^2 (8,290 km^2), approximately. Usable capacity is 69,700,000 ft^3 (19,700,000 m^3). Completed and filled in 1908. Hydroelectric power operation stopped Dec. 31, 1962.

02102190 SHEARON HARRIS MAIN RESERVOIR.--Lat 35°34'00", long 78°57'55", Chatham County, Hydrologic Unit 03030004, cooling water reservoir for Carolina Power and Light Co. plant, on Buckhorn Creek, near Corinth. DRAINAGE AREA, 71 mi^2 (184 km^2). Total capacity is 3,136,320,000 ft^3 (88,820,000 m^3) with a surface area of 4,150 acres (16.8 km^2) at a normal elevation of 220 ft (67.06 m), National Geodetic Vertical Datum of 1929. Dam completed December 23, 1981, and storage began December 1, 1980. (See sta 02102192)

02121461 LEXINGTON-THOMASVILLE RESERVOIR.--Lat 35°51'54", long 80°11'41", Davidson County, Hydrologic Unit 03050103, Lexington and Thomasville's municipal water supply on Abbotts Creek near Lexington. Drainage area, 70.3 mi^2 (182 km^2). Total capacity is 284,100,000 ft^3 (8,046,000 m^3) of which 281,400,000 ft^3 (7,969,000 m^3) is usable. Dam completed Aug. 8, 1957, and reservoir first filled Nov. 23, 1957.

02184122 LAKE TOXAWAY.--Lat 35°07'27", long 82°55'56", Transylvania County, Hydrologic Unit 03060101, recreation lake on Toxaway River at town of Lake Toxaway. DRAINAGE AREA, 7.79 mi^2 (20.18 km^2). Total surface area, about 640 acres (359 ha). Lake reached spillway elevation September 1961.

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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		239	-	10.11	3310	-	199.64	19289	-	127.8	2597	-
Oct. 31		268	+30	10.60	3386	+76	199.68	19324	+35	129.3	2844	+247
Nov. 30		249	-19	10.37	3350	-36	199.57	19228	-96	130.7	3102	+258
Dec. 31		270	+21	10.87	3428	+78	199.95	19558	+330	128.7	2744	-358
CAL YR 1981		-	+38		-	+504		-	+234		-	-172
Jan. 31		335	+65	-	-	-	199.52	19184	-374	128.5	2714	-30
Feb. 28		339	+4	-	-	-	199.68	19324	+140	129.9	2953	+239
Mar. 31		318	-21	10.56	3380	-	199.48	19149	-175	128.8	2760	-193
Apr. 30		348	+30	10.54	3376	-4	199.65	19298	+149	129.9	2953	+193
May 31		338	-10	10.52	3373	-3	199.41	19088	-210	127.9	2613	-340
June 30		324	-14	10.50	3370	-3	199.67	19315	+227	128.6	2729	+116
July 31		308	-16	10.64	3392	+22	199.46	19131	-184	127.5	2548	-181
Aug. 31		319	+11	-	-	-	199.41	19088	-43	129.3	2844	+296
Sept. 30		300	-19	-	-	-	199.94	19549	+461	128.1	2646	-198
WTR YR 1982		-	+61		-	-		-	+260		-	+49

Date	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	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)
	02098197 B. Everett Jordan Lake			02111391 W. Kerr Scott Reservoir			02122400 High Rock Lake			02122699 Tuckertown Reservoir		
Sept. 30	193.8	1417	-	1020.0	1215	-	649.69	7933	-	595.43	1793	-
Oct. 31	195.4	1697	+280	1021.0	1263	+48	645.72	5978	-1955	595.32	1782	-11
Nov. 30	195.3	1679	-18	1020.8	1253	-10	641.76	4427	-1551	595.65	1816	+34
Dec. 31	200.0	2707	+1028	1026.0	1546	+293	644.04	5250	+823	595.35	1785	-31
CAL YR 1981		-	-		-	+91		-	+1322		-	+106
Jan. 31	213.1	7726	+5019	1030.0	1786	+240	647.35	6769	+1519	595.01	1750	-35
Feb. 28	217.4	10256	+2530	1029.8	1773	-13	649.09	7616	+847	594.66	1715	-35
Mar. 31	216.0	9371	-885	1030.0	1786	+13	648.27	7212	-404	595.30	1780	+65
Apr. 30	216.8	9873	+502	1030.2	1803	+17	653.13	9880	+2668	595.14	1763	-17
May 31	219.8	11890	+2017	1030.2	1803	0	654.61	10813	+933	595.68	1819	+56
June 30	216.0	9371	-2519	1030.0	1786	-17	653.06	9880	-933	595.12	1761	-58
July 31	216.2	9497	+126	1030.2	1803	+17	652.01	9215	-665	594.60	1709	-52
Aug. 31	215.8	9253	-244	1028.5	1688	-115	650.46	8364	-851	595.25	1775	+66
Sept. 30	214.0	8216	-1037	1021.7	1294	-394	648.31	7212	-1152	594.82	1730	-45
WTR YR 1982		-	+6799		-	+79		-	-721		-	-63

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)	Gage height (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
	02122844 Badin Lake			02123736 Lake Tillery			02128800 Blewett Falls Lake		
Sept. 30	539.39	10101	-	237.4	5471	-	137.7	1714	-
Oct. 31	536.87	9529	-572	237.1	5406	-65	137.3	1672	-42
Nov. 30	536.65	9462	-67	237.0	5385	-21	137.7	1714	+42
Dec. 31	537.10	9574	+112	237.9	5578	+193	138.9	1840	+126
CAL YR 1981		-	+329		-	-237		-	+350
Jan. 31	539.16	10054	+480	239.3	5881	+303	137.7	1714	-126
Feb. 28	539.09	10031	-23	238.8	5772	-109	141.8	2130	+416
Mar. 31	539.40	10101	+70	239.3	5881	+109	137.0	1640	-490
Apr. 30	540.35	10334	+233	239.3	5881	0	139.4	1890	+250
May 31	541.10	10498	+164	239.1	5837	-44	138.5	1798	-92
June 30	539.84	10194	-304	239.0	5815	-22	138.2	1766	-32
July 31	539.80	10194	0	239.1	5837	+22	135.8	1520	-246
Aug. 31	539.14	10031	-163	239.2	5859	+22	137.9	1734	+214
Sept. 30	539.05	10007	-24	239.3	5881	+22	137.4	1682	-52
WTR YR 1982		-	-94		-	+410		-	-32

	02138519 Lake James			02141490 Rhodhiss Lake			02141961 Lake Hickory		
Sept. 30	94.9	11198	-	97.3	1325	-	97.1	1775	-
Oct. 31	92.8	10663	-535	96.8	1257	-68	95.7	1543	-232
Nov. 30	92.5	10589	-74	96.4	1203	-54	96.9	1741	+198
Dec. 31	92.6	10613	+24	96.6	1230	+27	97.5	1842	+101
CAL YR 1981		-	-303		-	-151		-	+151
Jan. 31	93.8	10916	+303	96.9	1270	+40	97.1	1775	-67
Feb. 28	93.0	10713	-203	95.0	1022	-248	96.9	1741	-34
Mar. 31	92.4	10564	-149	96.9	1270	+248	96.9	1741	0
Apr. 30	96.2	11540	+976	95.5	1085	-185	97.8	1893	+152
May 31	98.0	12025	+485	96.5	1216	+131	97.6	1859	-34
June 30	97.4	11862	-163	95.1	1035	-181	96.9	1741	-118
July 31	98.7	12218	+356	97.1	1298	+263	97.2	1791	+50
Aug. 31	97.6	11916	-302	97.0	1284	-14	97.0	1758	-33
Sept. 30	96.0	11487	-429	96.3	1190	-94	97.0	1758	0
WTR YR 1982		-	+289		-	-135		-	-17

	02142441 Lookout Shoals Lake			02142647 Lake Norman			02142676 Mountain Island Lake		
Sept. 30	98.0	121	-	95.0	40880	-	96.0	330	-
Oct. 31	97.9	117	-4	94.4	40130	-750	96.2	354	+24
Nov. 30	98.0	121	+4	93.7	39260	-870	96.3	366	+12
Dec. 31	98.4	138	+17	95.2	41140	+1880	96.8	426	+60
CAL YR 1981		-	+8		-	+1140		-	+96
Jan. 31	97.0	80	-58	94.7	40500	-640	96.2	354	-72
Feb. 28	97.5	100	+20	96.8	43210	+2710	96.0	330	-24
Mar. 31	97.6	105	+5	94.3	40000	-3210	96.4	378	+48
Apr. 30	98.3	138	+33	96.5	42820	+2820	96.2	354	-24
May 31	98.6	147	+9	97.4	44010	+1190	96.5	390	+36
June 30	97.0	80	-67	97.4	44010	0	96.6	402	+12
July 31	98.0	121	+41	97.4	44010	0	96.1	342	-60
Aug. 31	98.0	121	0	97.2	43740	-270	95.7	296	-46
Sept. 30	98.2	130	+9	96.9	43340	-400	95.8	307	+11
WTR YR 1982		-	+9		-	+2460		-	-23

KANAWHA RIVER BASIN

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC

LOCATION.--Lat 36°23'35", long 81°24'26", Ashe County, Hydrologic Unit 05050001, on right bank 600 ft (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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1925-26(M), 1928-30(M), 1931-32, 1933-35(M), 1941-42(m), 1944(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft (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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--58 years, 429 ft³/s (12.15 m³/s), 28.42 in/yr (722 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 discharge 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)
Feb. 3	1400	*2770	78.4	*5.48	1.670

Minimum discharge, 73 ft³/s (2.07 m³/s) Dec. 11, gage height, 1.40 ft (0.427 m), result of freezeup; minimum daily, 112 ft³/s (3.17 m³/s) Dec. 11, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	149	146	684	790	352	319	450	537	250	754	495
2	126	145	206	522	520	403	302	407	409	240	427	511
3	135	140	194	366	2130	520	332	378	359	235	329	318
4	129	138	157	1560	1530	500	342	355	372	225	291	263
5	125	138	149	1030	900	493	304	333	623	237	270	241
6	124	144	153	537	692	496	365	319	444	238	263	229
7	121	146	135	427	565	630	333	308	356	233	250	220
8	116	134	143	425	486	764	317	310	326	228	250	213
9	115	129	137	329	457	572	350	299	313	322	537	210
10	114	131	115	210	462	499	358	280	382	403	416	206
11	117	133	112	350	399	456	326	268	507	377	311	206
12	119	130	143	400	367	425	308	263	395	348	277	206
13	118	129	170	433	363	399	300	255	713	337	283	203
14	117	127	190	489	343	395	304	249	518	442	273	206
15	116	125	249	466	343	377	295	247	398	383	258	239
16	118	127	300	430	439	389	287	260	357	354	248	251
17	117	139	217	365	650	556	315	272	333	373	275	204
18	116	142	205	368	777	610	339	338	322	353	271	194
19	114	131	173	428	615	465	307	488	309	639	352	191
20	113	140	148	651	533	429	293	345	289	423	331	196
21	113	142	190	591	476	466	286	361	272	315	257	201
22	115	133	254	509	437	420	275	408	266	317	233	249
23	123	126	359	429	396	378	264	375	268	309	228	235
24	138	137	338	506	370	359	256	517	255	391	226	198
25	148	147	254	405	358	351	262	542	249	330	230	191
26	208	147	267	320	338	504	616	758	268	285	221	203
27	469	140	232	260	360	402	933	774	346	260	213	244
28	326	140	220	250	369	348	1040	570	366	252	211	232
29	198	143	205	280	---	335	662	519	323	245	210	196
30	169	133	281	293	---	328	523	507	286	251	202	189
31	156	---	285	354	---	321	---	526	---	441	285	---
TOTAL	4553	4105	6327	14667	16465	13942	11513	12281	11161	10036	9182	7140
MEAN	147	137	204	473	588	450	384	396	372	324	296	238
MAX	469	149	359	1560	2130	764	1040	774	713	639	754	511
MIN	113	125	112	210	338	321	256	247	249	225	202	189
CFSM	.72	.67	1.00	2.31	2.87	2.20	1.87	1.93	1.82	1.58	1.44	1.16
IN.	.83	.74	1.15	2.66	2.99	2.53	2.09	2.23	2.03	1.82	1.67	1.30

CAL YR 1981 TOTAL 107656 MEAN 295 MAX 2310 MIN 112 CFSM 1.44 IN 19.54
WTR YR 1982 TOTAL 121372 MEAN 333 MAX 2130 MIN 112 CFSM 1.62 IN 22.02

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/14	16 10	0000	1.69	117	37	7.10	17.0	2.0	10.4	107.0	10.0K	30
81/11/30	12 10	0000	1.74	136	36	7.00	3.0		11.6	86.0		30
81/12/29	14 00	0000	2.06	208	32	6.40	3.0		11.9	88.0		10K
82/01/07	13 10	0000	2.62	444	35	6.20	8.0	15.0	10.6	89.0	11.0	40
82/02/10	13 00	0000	2.58	470	32	6.50	5.0		10.4	81.0		20
82/03/23	14 00	0000	2.41	370	31	6.90	13.0		9.4	89.0		340
82/04/19	13 45	0000	2.30	303	34	7.00	12.0	4.0	9.2	85.0	15.0	70
82/05/19	11 50	0000	2.74	486	37	6.90	19.0		7.6	81.0		6100
82/06/02	12 30	0000	2.60	430	33	6.90	21.0		8.4	93.0		1800
82/07/26	11 15	0000	2.26	290	40	7.00	25.0	8.0	7.9	94.0	10.0K	60
82/08/12	14 10	0000	2.22	273	36	6.70	24.0		7.2	85.0		10
82/09/15	10 50	0000	2.10	235	35	7.10	21.0		8.3	92.0		180

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/14	16 10	0000	18	3	30	0.12	0.050K	0.200	0.050K	0.050K	10K	50K
81/11/30	12 10	0000	18	2	42							
81/12/29	14 00	0000	12	2	40							
82/01/07	13 10	0000	8	24	47	0.80	0.050K	0.300	0.050K	0.050K	10K	50K
82/02/10	13 00	0000	15	14	51							
82/03/23	14 00	0000	13	52	95							
82/04/19	13 45	0000	14	7	156	0.43	0.050K	0.200	0.050K	0.050K	10K	50K
82/05/19	11 50	0000	14	269	317							
82/06/02	12 30	0000	14	159	206							
82/07/26	11 15	0000	17	16	60	0.47	0.050K	0.200	0.060	0.050K	10K	50K
82/08/12	14 10	0000	15	16	88							
82/09/15	10 50	0000	17	3	73							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/10/14	16 10	0000	50K	40K	100K	0.5K		50K
82/01/07	13 10	0000	50K	40K	100K	0.2K	100K	50K
82/04/19	13 45	0000	50K	40K	100K	0.2K	100K	50K
82/07/26	11 15	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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.

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

AVERAGE DISCHARGE.--48 years (1907-8, 1935-82), 240 ft³/s (6.797 m³/s), 48.00 in/yr (1,219 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)
Feb. 3	0815	*2290	64.9	*7.06	2.152

Minimum discharge, 49 ft³/s (1.39 m³/s) Oct. 2, 7, 8, 9, gage height, 1.60 ft (0.488 m); minimum daily, 49 ft³/s (1.39 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	73	285	387	508	270	181	253	193	107	282	122
2	51	71	189	259	445	273	174	240	168	106	189	119
3	51	68	129	406	1560	279	246	229	156	109	161	98
4	51	67	111	972	806	271	193	219	172	102	144	91
5	51	66	99	487	578	260	191	211	176	112	135	88
6	51	65	92	351	480	250	193	205	151	115	132	85
7	51	62	87	288	411	479	177	199	141	103	125	83
8	49	61	84	246	369	355	226	223	137	100	129	81
9	50	61	79	221	418	310	249	194	132	118	132	79
10	63	60	76	186	371	286	218	190	148	136	145	82
11	60	60	80	185	332	271	203	180	141	123	174	98
12	56	58	75	180	309	257	193	175	329	121	173	100
13	54	58	75	180	295	245	203	171	322	154	134	93
14	54	58	134	175	276	235	202	166	208	125	125	90
15	54	58	159	170	283	296	197	161	176	138	118	88
16	54	58	134	160	417	274	357	170	161	141	115	82
17	53	60	112	155	498	276	354	170	152	152	152	79
18	57	57	104	150	404	263	306	172	148	126	133	78
19	57	57	105	165	358	248	265	183	139	122	133	78
20	54	140	105	187	323	237	246	246	131	114	117	78
21	54	75	150	389	301	236	231	220	126	108	110	82
22	54	67	173	331	280	221	216	198	122	411	107	83
23	68	64	152	385	265	213	204	194	120	222	104	76
24	67	78	127	319	254	209	197	228	116	193	100	75
25	68	72	267	263	243	205	274	207	160	186	97	74
26	440	67	199	230	241	204	538	199	130	160	92	77
27	206	72	162	209	294	194	372	225	122	155	91	80
28	111	84	144	197	273	188	338	213	124	167	91	76
29	90	72	131	187	---	186	293	208	118	152	89	74
30	81	89	119	179	---	184	270	184	111	167	90	74
31	75	---	464	614	---	166	---	171	---	258	94	---
TOTAL	2386	2058	4402	8813	11592	7861	7507	6204	4730	4623	4013	2563
MEAN	77.0	68.6	142	284	414	254	250	200	158	149	129	85.4
MAX	440	140	464	972	1560	479	538	253	329	411	282	122
MIN	49	57	75	150	241	184	174	161	111	100	89	74
CFSM	1.13	1.01	2.09	4.18	6.10	3.74	3.68	2.95	2.33	2.19	1.90	1.26
IN.	1.31	1.13	2.41	4.83	6.35	4.31	4.11	3.40	2.59	2.53	2.20	1.40

CAL YR 1981 TOTAL 48936 MEAN 134 MAX 1970 MIN 49 CFSM 1.97 IN 26.81
WTR YR 1982 TOTAL 66752 MEAN 183 MAX 1560 MIN 49 CFSM 2.70 IN 36.57

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/07	10 00	0000	1.60	49	20	6.90	15.0		9.7	95.0		20
81/11/13	12 00	0000	1.65	58		7.20	7.0	1.0K	12.6	103.0	10.0K	10K
81/12/04	08 30	0000	1.92	113		6.60	5.0		11.0	86.0		70
82/01/06	09 45	0000	2.75	356	20	6.20	3.0		11.6	86.0		10
82/02/11	12 15	0000	2.68	332	19	6.70	3.0	3.0	10.8	80.0	10.0K	10K
82/03/17	11 00	0000	2.46	262	27	6.60	10.0		10.2	90.0		60
82/04/13	12 00	0000	2.21	190	13	6.70	11.0		10.8	97.0		10K
82/05/12	10 00	0000	2.16	176	19	6.70	14.0	2.0	9.9	95.0	10.0K	620
82/06/02	10 30	0000	2.13	167	38	6.60	17.0		9.0	93.0		780
82/07/08	09 30	0000	1.86	100	13	6.60	22.0		8.0	91.0		190
82/08/11	11 10	0000	2.04	143	27	6.60	20.0	9.0	8.4	91.0	10.0K	1100
82/09/15	10 45	0000	1.79	89	21	7.00	19.0		9.0	96.0		40

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/07	10 00	0000	9	4	35							
81/11/13	12 00	0000	7	1K	13	0.25	0.050K	0.200	0.050	0.050K	10K	50K
81/12/04	08 30	0000	7	3	36							
82/01/06	09 45	0000	5	4	45							
82/02/11	12 15	0000		1	28	0.12	0.050K	0.200	0.050K	0.050K	10K	50K
82/03/17	11 00	0000	8	7	25							
82/04/13	12 00	0000	4	2	22							
82/05/12	10 00	0000	5	2	24	0.17	0.050K	0.200	0.090	0.050K	10K	50K
82/06/02	10 30	0000	7	4	31							
82/07/08	09 30	0000		3	35							
82/08/11	11 10	0000	8	13	47	0.26	0.050K	0.200	0.210	0.050K	10K	50K
82/09/15	10 45	0000	10	4	37							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/13	12 00	0000	50K	40K	100K	0.5K	100K	50K
82/02/11	12 15	0000	50K	40K	100K	0.2K	100K	50K
82/05/12	10 00	0000	50K	40K	100K	0.2K	100K	50K
82/08/11	11 10	0000	50K	40K	100K	0.3	100K	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.

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

AVERAGE DISCHARGE.--62 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)
Feb. 3	0745	*1560	44.2	*4.33	1.320

Minimum discharge, 19 ft³/s (0.54 m³/s) Oct. 1, 2, 5, 7, 8, 9, gage height, 0.35 ft (0.107 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	33	142	193	278	131	87	141	147	50	159	68
2	20	32	89	125	245	140	85	134	107	49	122	64
3	20	31	59	214	960	154	131	127	94	49	105	52
4	20	30	51	521	462	151	98	120	109	47	95	48
5	19	30	45	250	325	141	97	115	107	46	91	46
6	20	30	41	173	262	131	99	111	89	48	87	46
7	20	28	40	137	218	266	90	107	82	46	81	44
8	19	28	38	113	191	197	117	121	77	53	95	44
9	20	28	35	101	221	170	139	103	74	56	86	43
10	27	28	34	88	191	153	121	99	73	80	83	44
11	25	28	34	85	169	143	109	95	72	68	94	68
12	23	27	36	82	156	134	102	93	96	124	96	59
13	22	27	35	80	149	127	98	91	121	169	79	51
14	21	27	69	80	135	122	134	87	87	126	75	48
15	22	27	88	78	137	153	140	85	77	206	70	47
16	22	27	72	70	222	140	186	86	73	167	65	44
17	22	28	58	75	264	138	196	84	70	141	71	42
18	24	27	53	80	217	129	174	84	68	145	70	41
19	25	27	53	84	189	123	148	89	65	174	70	41
20	22	68	53	95	168	118	136	88	62	121	63	43
21	23	34	55	191	154	115	127	85	59	139	60	52
22	23	30	69	173	140	109	117	85	59	278	57	54
23	29	29	73	232	131	104	110	82	58	231	55	42
24	29	38	61	182	126	102	105	96	56	241	55	42
25	29	34	153	139	120	100	153	100	75	165	53	42
26	219	31	102	116	118	100	298	93	60	137	50	42
27	101	33	80	111	141	93	215	129	58	136	50	42
28	51	37	70	109	130	91	195	108	59	121	51	40
29	41	31	64	91	---	90	169	102	57	114	49	39
30	37	38	57	86	---	89	152	90	53	132	49	39
31	34	---	197	325	---	91	---	159	---	152	50	---
TOTAL	1049	946	2106	4479	6219	4045	4128	3189	2344	3811	2336	1417
MEAN	33.8	31.5	67.9	144	222	130	138	103	78.1	123	75.4	47.2
MAX	219	68	197	521	960	266	298	159	147	278	159	68
MIN	19	27	34	70	118	89	85	82	53	46	49	39
CFSM	.84	.78	1.68	3.56	5.50	3.22	3.42	2.55	1.93	3.05	1.87	1.17
IN.	.97	.87	1.94	4.12	5.73	3.72	3.80	2.94	2.16	3.51	2.15	1.30

CAL YR 1981 TOTAL 24705 MEAN 67.7 MAX 685 MIN 19 CFSM 1.68 IN 22.75
WTR YR 1982 TOTAL 36069 MEAN 98.8 MAX 960 MIN 19 CFSM 2.45 IN 33.21

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/06	09 30	0000	0.35	19	20	6.70	13.0		9.3	88.0		40
81/11/13	11 00	0000	0.40	26		7.30	5.0	1.0K	12.6	98.0	10.0K	10K
81/12/04	07 50	0000	0.60	54		6.60	5.0		11.1	87.0		90
82/01/06	08 45	0000	1.20	177	15	6.00	3.0		12.0	89.0		10
82/02/11	11 20	0000	1.17	168	13	6.70	2.0	1.0K	11.2	81.0	10.0K	10
82/03/17	10 30	0000	1.02	131	16	6.40	10.0		10.4	92.0		10
82/04/13	11 30	0000	0.87	98	13	6.40	11.0		10.6	95.0		10K
82/05/12	09 15	0000	0.85	94	13	6.60	13.0	1.0K	10.1	97.0	10.0K	20
82/06/02	10 00	0000	0.93	110	24	6.60	16.0		9.4	94.0		80
82/07/08	09 00	0000	0.61	50	32	6.70	18.0		8.0	84.0		120
82/08/11	10 40	0000	0.77	78	13	6.60	20.0	1.0	8.6	93.0	10.0K	40
82/09/15	09 45	0000	0.56	47	17	6.30	17.0		8.8	91.0	10.0K	

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/06	09 30	0000	9	5	32							
81/11/13	11 00	0000	9	1K	14	0.10	0.050K	0.200	0.050K	0.050K	10K	50K
81/12/04	07 50	0000		3	36							
82/01/06	08 45	0000	2	3	27							
82/02/11	11 20	0000		4	26	0.05K	0.050K	0.200	0.050K	0.050K	10K	50K
82/03/17	10 30	0000	4	1	20							
82/04/13	11 30	0000	4	1K	14							
82/05/12	09 15	0000	4	2	28	0.06	0.050K	0.100	0.050K	0.050K	10K	50K
82/06/02	10 00	0000	5	4	28							
82/07/08	09 00	0000		1	32							
82/08/11	10 40	0000	3	3	12	0.14	0.050K	0.200	0.050K	0.050K	10K	50K
82/09/15	09 45	0000	6	1K	44							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/13	11 00	0000	50K	40K	100K	0.5K	100K	50K
82/02/11	11 20	0000	50K	40K	100K	0.2K	100K	50K
82/05/12	09 15	0000	50K	40K	100K	0.2K	100K	50K
82/08/11	10 40	0000	50K	40K	100K	0.4	100K	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. 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.--20 years, 108 ft³/s (3.059 m³/s), 54.73 in/yr (1,390 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.--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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1015	720	20.4	3.09	0.942	Feb. 3	1530	*1010	28.6	*3.50	1.067

Minimum discharge, 7.8 ft³/s (0.22 m³/s) Oct. 3, 4, gage height 1.14 ft (0.347 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	19	120	269	187	99	63	110	165	55	304	52
2	9.9	19	90	158	179	103	61	100	126	57	225	50
3	8.1	18	48	216	757	112	100	97	107	69	161	45
4	8.5	18	37	571	388	112	80	94	98	54	125	42
5	10	20	31	269	235	105	74	90	93	56	100	38
6	10	20	27	176	188	96	78	85	81	55	94	37
7	9.6	16	26	133	151	173	69	80	75	48	86	40
8	8.7	15	25	107	132	148	84	90	70	46	98	34
9	9.1	14	22	92	149	124	114	78	66	52	91	33
10	15	15	20	78	139	111	92	72	89	70	83	34
11	16	15	19	63	121	100	80	69	90	60	99	44
12	14	14	19	62	111	96	78	67	98	88	91	43
13	13	14	19	60	103	89	72	64	141	254	82	39
14	13	13	59	60	95	82	70	62	98	137	76	37
15	13	13	91	58	93	102	72	60	84	125	70	35
16	14	13	79	58	157	107	72	57	72	107	67	34
17	13	14	55	55	193	95	110	60	66	106	87	32
18	14	13	44	53	161	89	110	68	71	89	74	31
19	15	14	34	61	137	84	100	73	62	80	66	31
20	13	21	27	69	121	82	95	63	58	74	62	32
21	13	16	31	126	108	78	90	62	55	68	58	34
22	14	15	40	128	96	76	84	57	53	75	55	38
23	22	14	51	158	93	70	80	57	52	81	57	31
24	23	20	49	140	89	68	78	94	55	103	58	29
25	21	17	132	108	80	66	100	86	103	76	49	30
26	113	16	102	90	81	68	200	101	88	67	51	29
27	74	16	74	79	106	62	170	198	67	66	45	30
28	35	21	60	74	97	59	150	145	64	67	44	28
29	26	17	52	69	---	59	130	190	68	114	44	27
30	23	23	45	67	---	59	120	181	59	119	44	27
31	21	---	212	149	---	64	---	147	---	260	45	---
TOTAL	621.5	493	1740	3856	4547	2638	2876	2857	2474	2778	2691	1066
MEAN	20.0	16.4	56.1	124	162	91.5	95.9	92.2	82.5	89.6	86.8	35.5
MAX	113	23	212	571	757	173	200	198	165	260	304	52
MIN	8.1	13	19	53	80	59	61	57	52	46	44	27
CFSM	.75	.61	2.09	4.63	6.05	3.41	3.58	3.44	3.08	3.34	3.24	1.33
IN.	.86	.68	2.42	5.35	6.31	3.94	3.99	3.97	3.43	3.86	3.74	1.48

CAL YR 1981 TOTAL 15983.9 MEAN 43.8 MAX 300 MIN 8.1 CFSM 1.63 IN 22.19
WTR YR 1982 TOTAL 28837.5 MEAN 79.0 MAX 757 MIN 8.1 CFSM 2.95 IN 40.03

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC

LOCATION.--Lat 35°17'56", long 82°37'26", Transylvania County, Hydrologic Unit 06010105, on left bank 40 ft (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.

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

AVERAGE DISCHARGE.--62 years, 993 ft³/s (28.12 m³/s), 45.56 in/yr (1,157 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.--Peak discharges above base of 4,300 ft³/s (120 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)
Jan. 5	0030	4400	125	16.47	5.020	Feb. 4	0330	*5890	167	*18.08	5.511

Minimum discharge, 140 ft³/s (3.96 m³/s) Oct. 8, gage height, 3.55 ft (1.082 m); minimum daily, 146 ft³/s (4.13 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	318	693	2680	2520	1210	806	1220	1200	566	2420	535
2	152	300	1060	1520	1800	1210	757	1140	1030	549	1480	595
3	149	260	667	1570	4860	1230	929	1080	891	590	1110	511
4	151	249	510	3980	5820	1210	979	1020	857	540	948	481
5	154	252	457	4090	4570	1150	848	977	913	511	843	442
6	152	253	392	2070	2620	1100	909	944	823	576	803	433
7	150	218	374	1380	1840	1780	854	926	733	526	762	436
8	146	205	364	1150	1590	1860	909	971	709	521	801	428
9	188	202	347	1010	1640	1440	1200	949	697	541	766	418
10	215	201	333	906	1740	1300	1040	869	683	579	756	417
11	243	204	308	718	1460	1210	945	837	836	599	794	460
12	225	206	316	734	1330	1150	903	767	887	651	921	516
13	214	202	294	735	1280	1100	882	749	1910	1630	781	461
14	207	204	391	720	1180	1070	919	752	1200	931	711	427
15	209	208	691	690	1150	1140	980	774	930	945	673	415
16	206	236	752	680	1510	1300	1040	715	828	861	652	405
17	199	243	636	640	2230	1150	1200	742	764	873	668	384
18	194	239	518	592	2030	1130	1340	743	787	782	854	379
19	211	241	451	664	1630	1070	1160	794	758	865	791	379
20	200	422	359	752	1460	1030	1060	809	692	729	683	380
21	180	424	358	1110	1340	1000	1000	931	667	671	632	372
22	178	301	474	1410	1230	992	953	859	636	1410	591	429
23	188	281	551	1620	1150	937	905	847	635	1030	571	375
24	252	298	624	1620	1100	914	875	941	616	1060	559	357
25	223	316	1000	1210	1060	898	859	861	674	887	563	351
26	754	285	1130	1040	1020	860	2320	970	842	795	516	351
27	1250	278	842	923	1150	812	2140	1160	665	750	495	356
28	620	313	717	869	1240	788	2040	1030	639	743	487	345
29	427	285	617	824	---	785	1550	1300	663	1000	490	340
30	371	284	576	807	---	842	1340	1070	612	1050	453	353
31	333	---	1110	1070	---	845	---	1090	---	1390	444	---
TOTAL	8495	7928	17912	39784	53550	34513	33642	28827	24777	25151	24018	12531
MEAN	274	264	578	1283	1913	1113	1121	930	826	811	775	418
MAX	1250	424	1130	4090	5820	1860	2320	1300	1910	1630	2420	595
MIN	146	201	294	592	1020	785	757	715	612	511	444	340
CFSM	.93	.89	1.95	4.33	6.46	3.76	3.79	3.14	2.79	2.74	2.62	1.41
IN.	1.07	1.00	2.25	5.00	6.73	4.34	4.23	3.62	3.11	3.16	3.02	1.57

CAL YR 1981 TOTAL 188100 MEAN 515 MAX 3190 MIN 146 CFSM 1.74 IN 23.64
WTR YR 1982 TOTAL 311128 MEAN 852 MAX 5820 MIN 146 CFSM 2.88 IN 39.10

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/07	10 45	0000	3.60	150	447	7.20	17.0		6.6	69.0		30
81/11/13	12 45	0000	3.96	202		7.40	9.0	10.0	9.6	83.0	27.0	50
81/12/04	09 15	0000	5.78	519		6.80	7.0		10.2	84.0		60
82/01/06	10 30	0000	12.16	2240	50	6.60	5.0		10.6	83.0		60
82/02/11	13 00	0000	9.75	1450	74	6.90	5.0	6.0	9.9	77.0	10.0K	10
82/03/17	11 30	0000	8.55	1140	96	6.80	10.0		9.7	86.0		150
82/04/13	12 30	0000	7.47	880	119	7.00	12.0		9.9	92.0		80
82/05/12	10 45	0000	6.97	769	120	7.00	16.0	3.0	8.5	85.0	11.0	280
82/06/02	11 00	0000	8.17	1040	98	6.90	19.0		7.7	82.0		670
82/07/08	10 15	0000	5.82	513	185	7.10	21.0		6.6	74.0		500
82/08/11	12 00	0000	6.97	769	100	7.00	22.0	10.0	7.1	81.0	13.0	400
82/09/15	12 00	0000	5.22	414	157	6.90	22.0		7.2	82.0		180

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/07	10 45	0000	60	10	354							
81/11/13	12 45	0000	46	4	253	0.22	0.160	0.600	0.130	0.050K	10K	50K
81/12/04	09 15	0000	24	11	141							
82/01/06	10 30	0000	9	19	93							
82/02/11	13 00	0000		11	75	0.27	0.050K	0.200	0.050K	0.050K	10K	50K
82/03/17	11 30	0000	13	10	76							
82/04/13	12 30	0000	16	6	101							
82/05/12	10 45	0000	16	10	101	0.18	0.060	0.400	0.070	0.050K	10K	50K
82/06/02	11 00	0000	15	25	110							
82/07/08	10 15	0000		19	203							
82/08/11	12 00	0000	16	25	109	0.23	0.050K	0.300	0.090	0.050K	10K	50K
82/09/15	12 00	0000	28	7	132							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/13	12 45	0000	50K	40K	100K	0.5K	100K	50K
82/02/11	13 00	0000	50K	40K	100K	0.2K	100K	50K
82/05/12	10 45	0000	50K	40K	100K	0.2K	100K	50K
82/08/11	12 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

03446000 MILLS RIVER NEAR MILLS RIVER, NC

LOCATION.--Lat 35°23'55", long 82°35'42", Henderson County, Hydrologic Unit 06010105, on right bank 1.5 mi (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 Horseshow, and at mile 4.6 (7.4 km).

DRAINAGE AREA.--66.7 mi² (172.8 km³).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good. City of Hendersonville diverted an average of 6.55 ft³/s (0.19 m³/s) from North Fork and Bradley Creek for municipal water supply.

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

AVERAGE DISCHARGE.--51 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 1976 is probably that of Aug. 30, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharge 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)
Feb. 3	1100	*2000	56.6	*5.55	1.692

Minimum discharge, 22 ft³/s (0.62 m³/s) Dec. 11, gage height, 1.36 ft (0.415 m), result of freezeup; minimum daily, 27 ft³/s (0.76 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	44	109	216	353	166	124	184	165	76	299	90
2	29	42	107	154	290	177	119	174	148	75	211	99
3	31	41	66	212	1320	196	167	164	137	81	174	83
4	31	40	56	610	665	203	140	156	159	74	155	77
5	29	40	53	317	433	198	132	149	160	69	142	74
6	30	40	48	213	340	188	134	148	134	71	136	69
7	29	39	45	168	282	331	124	142	122	72	127	68
8	27	38	45	141	246	274	138	157	115	81	124	66
9	28	37	42	125	253	239	155	139	111	86	128	65
10	33	37	36	98	225	217	144	131	113	104	124	66
11	35	37	37	98	202	203	134	126	113	142	167	74
12	33	37	38	98	187	191	127	123	123	136	168	82
13	32	36	38	100	184	186	123	120	142	338	132	72
14	31	37	61	100	168	178	123	116	114	263	126	70
15	31	36	92	96	164	186	132	123	105	219	116	66
16	32	34	79	95	222	181	159	123	98	190	110	62
17	33	35	60	95	280	176	162	120	98	183	108	60
18	34	34	54	100	255	166	164	118	95	184	116	60
19	32	33	47	130	228	160	147	160	92	252	116	61
20	32	46	48	160	207	157	143	153	88	176	101	62
21	32	42	48	180	192	156	140	139	84	168	97	62
22	32	38	60	160	176	147	131	166	83	274	93	69
23	37	35	67	240	166	142	124	192	83	184	87	58
24	43	45	60	229	161	140	123	215	81	218	87	56
25	42	44	132	172	155	138	148	181	112	169	85	57
26	194	39	111	144	152	136	363	235	96	149	81	57
27	130	41	85	128	183	130	265	288	90	136	80	57
28	69	46	75	125	172	127	269	240	87	182	83	54
29	56	41	68	120	---	123	223	211	88	205	80	52
30	48	43	63	108	---	123	199	183	80	224	76	51
31	45	---	153	262	---	124	---	165	---	241	76	---
TOTAL	1348	1177	2083	5196	7861	5459	4776	5041	3316	5022	3805	1999
MEAN	43.5	39.2	67.2	168	281	176	159	163	111	162	123	66.6
MAX	194	46	153	610	1320	331	363	288	165	338	299	99
MIN	27	33	36	95	152	123	119	116	80	69	76	51
CFSM	.65	.59	1.01	2.52	4.21	2.64	2.38	2.44	1.66	2.43	1.84	1.00
IN.	.75	.66	1.16	2.90	4.38	3.04	2.66	2.81	1.85	2.80	2.12	1.11

CAL YR 1981 TOTAL 32321 MEAN 88.6 MAX 541 MIN 27 CFSM 1.33 IN 18.03
WTR YR 1982 TOTAL 47083 MEAN 129 MAX 1320 MIN 27 CFSM 1.93 IN 26.26

03446000 MILLS RIVER NEAR MILLS RIVER, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/07	08 40	0000	1.45	30	20	6.90	13.0		8.9	84.0		100
81/11/13	13 15	0000	1.50	37		6.80	9.0	1.0K	11.4	98.0	10.0K	10K
81/12/04	09 50	0000	1.69	56		6.90	5.0		11.4	89.0		90
82/01/06	08 00	0000	2.41	221	20	6.10	2.0		12.2	90.0		50
82/02/11	10 30	0000	2.35	203	16	6.60	2.0	2.0	10.9	79.0	10.0K	30
82/03/17	10 00	0000	2.28	182	21	6.40	10.0		10.6	94.0		170
82/04/13	10 30	0000	2.05	123	13	6.80	9.0		10.6	91.0		30
82/05/12	08 30	0000	2.05	123	13	6.70	13.0	1.0K	9.7	92.0	10.0K	10K
82/06/02	11 30	0000	2.17	145	14	6.70	17.0		9.5	98.0		130
82/07/08	10 40	0000	1.89	89	11	7.20	20.0		8.6	93.0		540
82/08/11	12 35	0000	2.06	126	13	6.60	21.0	2.0	8.7	97.0	10.0K	280
82/09/15	09 00	0000	1.76	66	21	6.50	17.0		8.9	92.0		180

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/07	08 40	0000	9	3	31							
81/11/13	13 15	0000	5	1K	18	0.08	0.050K	0.100	0.050K	0.050K	10K	50K
81/12/04	09 50	0000	6	3	38							
82/01/06	08 00	0000	3	4	35							
82/02/11	10 30	0000		6	27	0.17	0.050K	0.100	0.050K	0.050K	10K	50K
82/03/17	10 00	0000	3	3	16							
82/04/13	10 30	0000	5	1K	17							
82/05/12	08 30	0000	5	4	19	0.09	0.050K	0.200	0.050K	0.050K	10K	50K
82/06/02	11 30	0000	5	5	38							
82/07/08	10 40	0000		8	37							
82/08/11	12 35	0000	4	8	32	0.11	0.050K	0.100	0.050K	0.050K	10K	50K
82/09/15	09 00	0000	6	5	24							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/13	13 15	0000	50K	40K	100K	0.5K	100K	50K
82/02/11	10 30	0000	50K	40K	100K	0.2	100K	50K
82/05/12	08 30	0000	50K	40K	100K	0.2K	100K	50K
82/08/11	12 35	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

03448000 FRENCH BROAD RIVER AT BENT CREEK, NC

LOCATION.--Lat 35°30'07", long 82°35'33", 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.--49 years, 1,694 ft³/s (47.97 m³/s), 34.03 in/yr (864 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.--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)
Jan. 4	1015	6390	181	6.39	1.948	Feb. 3	1700	*10200	289	*8.25	2.515

Minimum discharge, 248 ft³/s (7.02 m³/s) Oct. 8, 9, gage height, 2.05 ft (0.625 m); minimum daily, 253 ft³/s (7.16 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	469	734	3640	3100	1910	1180	1890	2130	941	3850	810
2	270	445	1420	2680	2900	1860	1100	1730	1700	882	2650	921
3	262	423	1080	2360	8670	1810	1210	1630	1440	916	1850	915
4	262	393	781	5650	8880	1780	1410	1520	1370	895	1520	798
5	257	385	673	5340	7320	1710	1190	1430	1400	836	1340	747
6	266	400	605	4180	5580	1630	1240	1370	1290	859	1240	710
7	266	379	554	2290	3260	2450	1190	1340	1160	875	1170	710
8	257	350	545	1740	2410	2890	1190	1380	1070	863	1200	699
9	253	344	511	1490	2380	2290	1610	1380	1060	856	1260	686
10	288	344	477	1250	2600	2020	1560	1270	1120	932	1360	681
11	331	338	486	1200	2190	1870	1330	1210	1390	1250	1330	692
12	344	338	445	1150	1960	1760	1260	1140	1240	1170	1800	782
13	325	344	438	1130	1870	1690	1220	1090	2740	3350	1360	764
14	315	350	511	1140	1730	1640	1200	1060	2100	2150	1180	722
15	310	338	904	1100	1630	1620	1330	1080	1490	1680	1090	701
16	310	344	1130	1050	2120	1870	1330	1080	1290	1680	1030	672
17	304	374	938	1000	3270	1750	1590	1030	1210	1470	1020	645
18	304	368	810	950	3300	1670	1800	1140	1230	1450	1150	629
19	299	368	681	904	2570	1590	1650	1150	1180	1650	1310	685
20	304	503	640	1040	2220	1530	1480	1290	1080	1340	1090	641
21	299	630	600	1410	2010	1480	1390	1300	1020	1160	993	635
22	288	511	605	2020	1830	1430	1320	1230	992	2050	938	680
23	299	423	707	2420	1690	1350	1250	1310	987	1890	887	670
24	350	453	781	2580	1600	1310	1200	1580	1000	1790	905	640
25	368	477	1400	1950	1540	1290	1200	1390	1010	1450	974	630
26	630	460	1760	1590	1490	1270	2740	1440	1240	1290	856	630
27	1670	438	1310	1340	1650	1200	3490	2070	1120	1160	816	625
28	1070	469	1080	1260	1910	1160	3660	1930	1050	1280	804	620
29	690	469	904	1200	---	1130	2620	2470	1160	3120	793	610
30	562	438	831	1150	---	1160	2140	1870	1040	1980	773	600
31	503	---	1430	1350	---	1190	---	2810	---	2370	725	---
TOTAL	12522	12365	25771	59554	83680	51310	48080	45610	39309	45585	39264	20950
MEAN	404	412	831	1921	2989	1655	1603	1471	1310	1470	1267	698
MAX	1670	630	1760	5650	8880	2890	3660	2810	2740	3350	3850	921
MIN	253	338	438	904	1490	1130	1100	1030	987	836	725	600
CFSM	.60	.61	1.23	2.84	4.42	2.45	2.37	2.18	1.94	2.18	1.87	1.03
IN.	.69	.68	1.42	3.28	4.60	2.82	2.65	2.51	2.16	2.51	2.16	1.15

CAL YR 1981 TOTAL 315247 MEAN 864 MAX 4830 MIN 253 CFSM 1.28 IN 17.35
WTR YR 1982 TOTAL 484000 MEAN 1326 MAX 8880 MIN 253 CFSM 1.96 IN 26.63

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 30.8 ft³/s (0.87 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. 439); an average of 33.4 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.--55 years (1920-26, 1933-82) 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, 3,220 ft³/s (91.2 m³/s) Feb. 3, gage height, 8.07 ft (2.460 m); minimum daily discharge, 13 ft³/s (0.37 m³/s) Oct. 1; minimum gage height, 1.10 ft (0.335 m) Oct. 1, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	29	60	171	209	147	86	184	653	58	298	65
2	19	27	48	105	274	135	85	165	386	56	196	83
3	18	23	35	259	1940	125	85	144	283	58	152	64
4	20	23	32	592	585	139	82	128	295	56	123	53
5	16	28	33	240	329	128	77	119	263	53	108	50
6	14	29	33	154	251	122	80	109	213	52	97	48
7	16	24	26	119	206	329	77	103	179	52	88	42
8	16	26	26	96	170	255	94	121	149	100	91	40
9	15	22	26	90	202	229	104	107	137	74	87	37
10	19	22	24	62	171	201	95	94	154	78	81	38
11	22	24	20	60	148	180	88	84	140	102	126	44
12	16	24	26	60	136	168	81	79	124	128	148	44
13	17	22	29	60	134	163	79	75	193	232	81	39
14	16	23	37	60	124	155	77	72	141	182	75	44
15	18	26	60	58	118	181	76	71	119	166	69	45
16	16	21	66	55	176	179	82	91	110	162	63	39
17	19	23	44	53	282	195	99	79	99	113	73	36
18	22	23	38	55	264	181	112	84	107	105	68	39
19	16	23	28	60	213	171	100	136	96	305	68	40
20	15	25	29	70	184	159	95	133	90	217	58	37
21	16	23	29	211	167	161	95	86	81	162	56	36
22	18	27	34	165	147	147	87	139	75	210	55	36
23	35	23	40	181	129	131	84	201	74	276	51	31
24	36	33	42	165	118	124	77	228	69	302	74	29
25	34	32	143	126	111	116	97	276	67	215	66	34
26	94	28	35	110	109	114	257	248	67	163	49	36
27	78	40	68	96	160	101	423	362	69	147	45	33
28	39	44	57	99	152	102	359	467	70	231	52	30
29	29	33	49	86	---	95	274	509	73	130	48	30
30	28	39	40	83	---	89	216	351	61	120	41	33
31	25	---	206	194	---	80	---	368	---	307	42	---
TOTAL	775	809	1539	3990	7209	4808	3725	5413	4637	4612	2729	1255
MEAN	25.0	27.0	49.6	129	257	155	124	175	155	149	88.0	41.8
MAX	94	44	206	592	1940	329	423	509	653	307	298	83
MIN	13	21	20	53	109	86	76	71	61	52	41	29

CAL YR 1981 TOTAL 23173 MEAN 63.5 MAX 893 MIN 10
WTR YR 1982 TOTAL 41501 MEAN 114 MAX 1940 MIN 13

03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC

LOCATION.--Lat 35°36'33", long 82°34'43", Buncombe County, Hydrologic Unit 06010105, on right bank 27 ft (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).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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 39 ft³/s (1.10 m³/s), see sta 03451000, of which 33.4 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.

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

AVERAGE DISCHARGE.--87 years, 2,090 ft³/s (59.19 m³/s), 30.03 in/yr (763 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.--Peak discharge above base of 9,000 ft³/s (250 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	1115	*15200	430	*7.84	2.390

Minimum discharge, 337 ft³/s (9.54 m³/s) Oct. 5, 8, 9, gage height, 0.78 ft (0.238 m); minimum daily, 346 ft³/s (9.80 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360	574	774	4040	3380	2240	1400	2200	3090	996	4600	896
2	383	557	1520	3140	3350	2180	1310	2020	2240	926	3130	1070
3	360	543	1310	2700	12300	2100	1370	1880	1860	937	2160	1040
4	347	508	949	6890	10900	2070	1580	1770	1800	941	1750	896
5	349	506	798	6240	8610	1990	1410	1670	1810	870	1530	840
6	355	503	722	4900	6630	1900	1410	1610	1630	862	1400	798
7	356	492	651	2820	3980	2970	1390	1560	1450	907	1310	790
8	349	457	634	2060	2810	3400	1410	1610	1320	937	1330	781
9	346	448	603	1770	2740	2780	1750	1600	1270	932	1370	765
10	386	454	568	1530	2990	2400	1770	1480	1320	997	1550	766
11	434	451	589	1460	2570	2200	1570	1390	1650	1160	1500	769
12	448	454	622	1430	2280	2080	1460	1330	1400	1410	2060	830
13	436	451	544	1390	2170	1980	1410	1260	2770	3220	1550	842
14	419	455	587	1340	2030	1930	1390	1220	2470	2480	1320	809
15	402	453	1010	1280	1920	1910	1530	1220	1740	1840	1210	782
16	407	452	1330	1220	2300	2150	1550	1280	1500	1890	1140	758
17	414	474	1130	1170	3760	2130	1750	1200	1360	1590	1120	731
18	417	483	968	1120	3880	2000	1980	1310	1420	1590	1200	710
19	404	459	812	1100	3030	1900	1860	1390	1340	1910	1420	793
20	407	524	800	1250	2600	1820	1700	1560	1240	1630	1190	740
21	408	692	675	1720	2350	1790	1630	1470	1140	1370	1060	730
22	398	635	781	2330	2150	1730	1540	1460	1090	2130	1010	776
23	419	531	818	2690	1970	1630	1460	1610	1050	2320	970	766
24	472	547	907	2990	1860	1580	1390	1910	1060	2150	991	701
25	492	577	1540	2300	1780	1540	1420	1810	1040	1750	1070	687
26	759	570	2090	1870	1730	1530	2870	1850	1260	1510	938	690
27	1800	563	1590	1600	1950	1430	4010	2750	1230	1340	890	691
28	1320	588	1290	1510	2230	1380	4400	2520	1090	1460	877	684
29	840	580	1100	1430	---	1340	3130	3210	1240	3310	867	666
30	669	573	988	1360	---	1360	2520	2450	1100	2250	841	660
31	609	---	1530	1630	---	1390	---	2990	---	2560	810	---
TOTAL	15965	15554	30230	70280	100250	60830	55370	54590	45980	50175	44164	23457
MEAN	515	518	975	2267	3580	1962	1846	1761	1533	1619	1425	782
MAX	1800	692	2090	6890	12300	3400	4400	3210	3090	3310	4600	1070
MIN	346	448	544	1100	1730	1340	1310	1200	1040	862	810	660
CFSM	.55	.55	1.03	2.40	3.79	2.08	1.95	1.86	1.62	1.71	1.51	.83
IN.	.63	.61	1.19	2.77	3.95	2.39	2.18	2.15	1.81	1.98	1.74	.92

CAL YR 1981 TOTAL 370346 MEAN 1015 MAX 5600 MIN 346 CFSM 1.07 IN 14.58
WTR YR 1982 TOTAL 566845 MEAN 1553 MAX 12300 MIN 346 CFSM 1.64 IN 22.31

03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/21	11 10	0000	0.88	410	256	7.60	9.0	8.0	10.0	86.0	22.0	1500
81/11/20	11 00	0000	0.97	481		7.20	9.0	8.0	10.9	94.0	17.0	830
81/12/03	11 15	0000	1.70	1320		7.00	6.0	30.0	11.6	93.0	20.0	2900
82/01/19	12 30	0000	1.51	1060	95	7.30	1.0	10.0	11.6	82.0	10.0	600
82/02/10	11 15	0000	2.81	3010	63	6.90	3.0	40.0	10.4	77.0	13.0	2300
82/03/02	11 20	0000	2.29	2180	91	7.10	5.0	8.0	10.7	84.0	10.0K	570
82/04/14	10 15	0000	1.75	1390	96	7.10	13.0	7.0	9.7	92.0	14.0	410
82/05/18	11 40	0000	1.72	1340	200	7.20	20.0	7.0	10.4	113.0	11.0	580
82/06/03	11 10	0000	2.08	1860	77	7.10	21.0	25.0	7.8	87.0	18.0	860
82/07/12	10 50	0000	1.69	1300	85	6.90	23.0	350.0	6.5	75.0	44.0	77000
82/08/23	10 00	0000	1.43	970	206	7.00	21.0	10.0	7.9	88.0	12.0	400
82/09/03	12 00	0000	1.51	1060	102	7.30	21.5	1.0	7.5	84.0	14.0	3500

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/21	11 10	0000	43	6	189	0.35	0.050	0.500	0.140	0.070		
81/11/20	11 00	0000		15	178	0.48	0.050K	0.400	0.160	0.090	10K	50K
81/12/03	11 15	0000	13	54	136	0.51	0.120	0.700	0.220	0.060		
82/01/19	12 30	0000		8	97	0.45	0.110	0.400	0.080	0.050K		
82/02/10	11 15	0000	11	53	108	0.55	0.060	0.400	0.100	0.050K	10K	50K
82/03/02	11 20	0000	13	15	63	0.54	0.080	0.400	0.100	0.050K		
82/04/14	10 15	0000	17	11	88	0.30	0.050K	0.300	0.080	0.050K		
82/05/18	11 40	0000	17	19	133	0.44	0.050	0.400	0.110	0.050K	10K	50K
82/06/03	11 10	0000	16	72	148	0.52	0.080	0.800	0.240	0.110		
82/07/12	10 50	0000	13	501	555	1.10	0.210	1.400	0.720	0.050		
82/08/23	10 00	0000	19	11	78	0.39	0.050K	0.300	0.080	0.050K	10K	50K
82/09/03	12 00	0000	22	24	123	0.51	0.050K	0.400	0.130	0.050		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/20	11 00	0000	50K	40K	100K	0.5K	100K	50K
82/02/10	11 15	0000	50K	40K	100K	0.2K	100K	50K
82/05/18	11 40	0000	50K	40K	100K	0.2K	100K	50K
82/08/23	10 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

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.--40 years, 2,462 ft³/s (69.72 m³/s), 25.10 in/yr (638 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.--Peak discharges above base of 10,000 ft³/s (280 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)
Jan. 4	0900	10400	295	5.44	1.658	May 27	0045	11200	317	5.66	1.725
Feb. 3	1015	*23200	657	*8.48	2.585						

Minimum discharge, 439 ft³/s (12.4 m³/s) Oct. 9, gage height, 0.62 ft (0.189 m); minimum daily, 448 ft³/s (12.7 m³/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SE
1	464	712	902	4340	3660	2760	1750	2560	3680	1220	5160	113
2	505	699	1530	3630	3820	2680	1680	2300	2660	1120	3740	149
3	500	697	1630	3250	16000	2600	1670	2200	2210	1090	2590	140
4	461	668	1190	8240	11400	2560	1860	2100	2070	1120	2090	116
5	448	655	993	6560	8700	2480	1790	1950	2150	1070	1830	106
6	461	662	897	5340	6860	2380	1720	1900	1940	1000	1680	101
7	471	643	829	3510	4680	4700	1710	1800	1730	1070	1550	93
8	462	608	805	2470	3300	4650	1730	1850	1580	1200	1520	93
9	451	584	780	2090	3190	3720	2020	1900	1500	1150	1650	92
10	456	593	740	1820	3470	3050	2120	1840	1620	1180	1790	90
11	501	591	695	1800	3030	2740	1890	1700	1930	1530	1940	91
12	553	589	709	1780	2670	2570	1760	1600	1650	1740	2310	92
13	557	590	701	1750	2550	2440	1720	1520	2840	3030	1880	100
14	540	585	743	1700	2380	2400	1690	1470	2910	2930	1590	98
15	525	588	1070	1620	2240	2450	1800	1470	2070	2240	1440	96
16	515	585	1570	1550	2720	2690	1870	1570	1770	2170	1360	89
17	519	609	1370	1500	4400	2810	2030	1480	1620	1960	1330	85
18	519	632	1180	1400	4570	2640	2290	1540	1660	1880	1350	84
19	511	605	979	1350	3690	2510	2210	1630	1550	2210	1620	88
20	509	614	900	1300	3140	2390	2030	1910	1470	2030	1440	88
21	515	775	880	2310	2810	2400	1950	1770	1360	1660	1290	84
22	514	808	942	2970	2540	2350	1860	1710	1310	2120	1210	84
23	524	695	990	3250	2340	2210	1750	1850	1270	2710	1170	89
24	587	700	1110	3620	2220	2100	1670	2100	1250	2460	1170	80
25	596	733	1630	2880	2120	2020	1670	2090	1220	2140	1310	78
26	777	721	2420	2350	2050	1990	2870	2250	1410	1790	1160	78
27	1780	710	1950	1990	2290	1870	4450	4650	1500	1590	1080	78
28	1580	781	1570	1840	2680	1780	4940	3350	1360	1610	1070	78
29	1070	741	1370	1750	---	1720	3680	3890	1500	3260	1010	78
30	836	731	1220	1660	---	1710	2930	2990	1340	2620	965	74
31	760	---	1630	1860	---	1760	---	3190	---	3320	957	---
TOTAL	19567	19904	35925	83480	115520	79130	65110	66130	54130	58220	52252	281
MEAN	631	663	1159	2693	4126	2553	2170	2133	1804	1878	1686	9
MAX	1780	808	2420	8240	16000	4700	4940	4650	3680	3320	5160	14
MIN	448	584	695	1300	2050	1710	1670	1470	1220	1000	957	7
CFSM	.47	.50	.87	2.02	3.10	1.92	1.63	1.60	1.35	1.41	1.27	.
IN.	.55	.56	1.00	2.33	3.23	2.21	1.82	1.85	1.51	1.63	1.46	.

CAL YR 1981 TOTAL 454900 MEAN 1246 MAX 5890 MIN 448 CFSM .94 IN 12.70
WTR YR 1982 TOTAL 677497 MEAN 1856 MAX 16000 MIN 448 CFSM 1.39 IN 18.92

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.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Station operated as part of NASQAN network from March 1979 to present. Daily records of specific conductance for water years 1958-64 are available in files of district office in Raleigh, NC.

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, 265 micromhos Oct. 18, 1981; minimum daily, 33 micromhos May 31, 1976.
WATER TEMPERATURES: Maximum, 31.5°C July 5, 1982; minimum daily, 0.0°C on several days during winter months of most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 265 micromhos Oct. 18; minimum, 42 micromhos Mar. 16.
WATER TEMPERATURES: Maximum, 31.5°C July 5; minimum, 0.5°C Jan. 11-17, 27, 29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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											
23...	0915	692	205	6.6	3.0	15	10.6	90	--	37	5
JAN											
05...	1445	6920	68	7.0	5.5	70	8.3	1900	61000	14	7
MAR											
22...	1140	2340	85	7.1	12.0	9.1	9.2	310	9000	19	3
MAY											
18...	1130	1530	97	6.8	19.0	23	6.6	1100	54000	20	0
JUL											
14...	1045	3030	98	6.8	25.5	110	6.9	13000	840000	16	3
SEP											
13...	1100	995	120	7.1	22.0	5.1	7.4	370	37000	25	4

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											
23...	12	1.7	29	61	2.2	2.5	39	0	32	15	40
JAN											
05...	3.7	1.2	3.7	33	.5	1.8	9	0	7	2.7	8.8
MAR											
22...	5.1	1.4	8.2	47	.9	1.3	20	0	16	2.6	14
MAY											
18...	5.9	1.3	11	52	1.1	1.4	28	0	23	6.5	17
JUL											
14...	4.7	1.1	8.0	48	.9	1.9	16	0	13	4.1	14
SEP											
13...	7.7	1.4	13	51	1.2	1.5	26	0	21	3.9	20

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV											
23...	7.7	<.1	12	137	123	.19	256	.77	.220	.28	.28
JAN											
05...	3.1	<.1	7.0	50	38	.07	934	.80	.120	.15	.71
MAR											
22...	3.4	.1	9.7	62	53	.08	392	.58	.100	.13	.24
MAY											
18...	5.7	.1	9.4	70	65	.10	289	.64	.110	.14	1.50
JUL											
14...	3.4	<.1	8.1	60	52	.08	491	.67	.150	.19	.60
SEP											
13...	5.4	.1	11	66	75	.09	177	.46	.060	.08	1.30

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	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)
NOV											
23...	.280	.86	.170	.170	.52	1	0	1	<100	--	24
JAN											
05...	.320	.98	.030	.020	.06	1	1	0	100	80	19
MAR											
22...	.060	.18	--	.060	.18	--	--	--	--	--	--
MAY											
18...	.260	.80	.140	.100	.31	1	--	<1	<100	--	21
JUL											
14...	.450	1.4	.060	.060	.18	--	--	--	--	--	--
SEP											
13...	.120	.37	.090	.080	.25	1	0	1	100	80	20

DATE	CADMIUM TOTAL 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)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
NOV										
23...	<1	2	20	10	10	1	--	<1	16	10
JAN										
05...	1	<1	10	--	<10	7	--	<1	14	7
MAR										
22...	--	--	--	--	--	--	--	--	--	--
MAY										
18...	1	<1	10	--	<10	3	2	1	11	7
JUL										
14...	--	--	--	--	--	--	--	--	--	--
SEP										
13...	1	<1	10	--	<10	1	--	<1	4	2

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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										
23...	6	680	450	230	4	--	<1	60	20	40
JAN										
05...	7	6200	6100	150	13	--	<1	210	170	40
MAR										
22...	--	--	--	--	--	--	--	--	--	--
MAY										
18...	4	960	800	160	5	3	2	50	40	11
JUL										
14...	--	--	--	--	--	--	--	--	--	--
SEP										
13...	2	620	410	210	4	--	<1	30	20	13

DATE	MERCURY TOTAL 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, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV												
23...	<.1	<.1	3	1	2	<1	<1	<1	<1	60	50	8
JAN												
05...	.3	<.1	5	--	<1	<1	<1	<1	<1	50	40	6
MAY												
18...	<.1	<.1	7	3	4	<1	<1	<1	<1	50	50	3
SEP												
13...	<.1	<.1	2	1	1	<1	<1	<1	<1	20	--	<4

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	254	223	170	150	164	145	95	85	102	96	83	78
2	259	230	190	160	169	150	90	80	112	103	77	75
3	231	227	176	155	157	115	90	80	113	56	75	72
4	234	229	197	178	115	110	85	80	58	50	72	71
5	231	218	213	196	118	113	80	76	53	47	76	70
6	219	216	218	209	122	118	97	77	57	53	82	75
7	229	220	222	207	129	122	127	97	59	57	79	73
8	242	228	221	207	144	127	154	125	62	59	76	71
9	248	241	222	203	150	137	161	144	66	61	80	73
10	251	248	214	191	157	138	161	135	72	67	77	63
11	249	236	213	186	165	148	144	125	74	71	71	63
12	243	232	222	202	166	157	123	113	72	69	68	61
13	250	241	229	209	167	157	121	113	69	66	58	56
14	249	244	233	217	165	157	124	117	68	65	53	51
15	258	249	224	190	169	156	125	115	69	68	49	46
16	259	256	211	191	146	126	120	117	73	69	55	42
17	262	254	205	183	135	96	119	112	75	71	69	52
18	265	262	212	190	143	98	115	109	74	65	80	66
19	264	253	221	204	160	136	122	112	64	63	94	78
20	256	243	228	217	160	153	120	108	67	64	102	83
21	243	239	230	214	170	150	106	102	68	65	103	89
22	244	241	222	208	165	145	103	100	69	68	100	82
23	249	244	224	181	160	140	118	105	72	69	97	79
24	249	242	185	153	140	125	134	118	76	72	93	76
25	242	238	165	152	120	110	130	90	79	76	95	76
26	240	230	171	156	110	100	91	87	81	78	96	77
27	135	75	174	165	100	90	90	86	88	81	88	68
28	90	60	172	164	90	80	94	87	89	83	77	65
29	110	105	172	164	100	80	97	88	---	---	78	66
30	130	110	168	157	95	85	90	87	---	---	81	67
31	160	130	---	---	90	80	96	89	---	---	92	72
MONTH	265	60	233	150	170	80	161	76	113	47	103	42

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	100	81	90	75	95	70	122	115	85	75	120	100
2	103	89	80	72	104	80	128	122	90	80	125	115
3	105	93	77	68	115	100	131	122	90	80	125	115
4	106	96	81	72	115	100	133	114	95	85	130	120
5	107	98	89	78	118	100	123	110	95	85	125	115
6	106	94	94	84	110	95	127	114	100	90	130	120
7	104	90	93	85	115	100	134	119	105	90	130	120
8	104	90	96	88	110	100	137	116	110	100	135	125
9	102	85	95	85	117	105	128	116	110	100	130	120
10	102	82	88	84	118	90	127	120	100	90	125	115
11	98	78	95	87	118	90	126	111	95	85	125	115
12	93	45	99	89	115	90	131	117	90	80	122	110
13	51	47	110	87	90	70	125	92	95	85	127	110
14	68	52	110	105	100	80	101	93	100	90	130	120
15	76	65	112	105	109	90	100	93	105	95	135	125
16	86	67	109	90	130	106	104	99	110	100	145	135
17	90	76	104	86	108	98	102	96	115	105	150	140
18	87	72	111	87	104	101	100	95	110	100	155	145
19	79	69	115	106	108	104	99	84	105	90	160	150
20	80	68	118	107	113	106	94	85	103	90	165	155
21	89	76	131	102	105	100	98	91	121	106	170	160
22	89	77	129	120	116	104	106	98	120	107	175	165
23	92	79	125	98	125	117	103	94	114	108	181	177
24	98	85	121	116	130	121	98	81	126	111	181	162
25	105	94	118	90	138	128	89	80	134	121	164	154
26	110	83	135	116	140	125	90	80	139	125	154	140
27	114	73	55	50	123	112	95	85	123	100	141	133
28	115	80	58	48	111	90	100	90	123	99	147	133
29	110	80	77	55	115	93	95	85	120	100	155	148
30	100	80	93	69	121	112	90	80	125	115	165	156
31	---	---	92	52	---	---	85	75	125	115	---	---
MONTH	115	45	135	48	140	70	137	75	139	75	181	100
YEAR	265	42										

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

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

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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					
23...	0915	692	19	35	93
JAN					
05...	1445	6920	375	7010	45
MAR					
22...	1140	2340	28	177	84
MAY					
18...	1130	1530	48	198	90
JUL					
14...	1045	3030	284	2320	94
SEP					
13...	1100	995	15	40	88

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/21	09 45	0000	0.74	523	250	7.60	9.0	7.0	10.4	90.0	22.0	10
81/11/19	13 00	0000	0.84	595		7.80	8.0	8.0	12.1	102.0	22.0	70
81/11/23	09 15	0000	0.97	692								90
81/12/03	10 00	0000	1.85	1700		7.30	6.0	40.0	11.2	90.0	33.0	5500
82/01/05	14 45	0000	4.18	6390			5.5					1900
82/01/19	11 30	0000	1.75	1350	95	7.40	1.0	15.0	11.8	83.0	11.0	130
82/02/10	10 20	0000	2.95	3560	74	7.20	0.0	30.0	12.3	84.0	11.0	2400
82/03/02	10 15	0000	2.49	2680	91	7.20	6.0	9.0	11.4	91.0	14.0	4400
82/03/22	13 00	0000	2.27	2320			12.0					310
82/04/14	09 30	0000	1.85	1700	91	7.20	12.0	10.0	9.9	92.0	12.0	40
82/05/18	10 10	0000	1.72	1520	220	7.20	19.0	10.0	8.6	91.0	12.0	540
	11 15	0000	1.73	1530								1100
82/06/03	09 45	0000	2.22	2250	85	7.20	22.0	30.0	8.4	95.0	20.0	570
82/07/12	10 15	0000	2.10	2060	120	7.10	24.0	80.0	7.7	91.0	33.0	3900
82/07/14	10 45	0000	2.67	3010								13000
82/08/23	09 00	0000	1.46	1180	109	7.20	21.0	15.0	8.2	91.0	10.0	740
82/09/03	09 50	0000	1.61	1370	246	7.40	21.5	30.0	8.4	98.0	18.0	5600
82/09/13	10 50	0000	1.31	1010			22.0					370

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/21	09 45	0000	43	10	197	0.90	0.180	0.900	0.420	0.320		
81/11/19	13 00	0000		13	182	0.58	0.050	0.800	0.370	0.220	22	50K
81/12/03	10 00	0000	25	76	185	0.67	0.240	1.100	0.390	0.130		
82/01/19	11 30	0000		21	106	0.61	0.390	0.700	0.170	0.080		
82/02/10	10 20	0000	10	36	112	0.73	0.120	0.600	0.140	0.050K	10K	50K
82/03/02	10 15	0000	17	22	80	0.84	0.140	0.600	0.150	0.050		
82/04/14	09 30	0000	17	10	76	0.42	0.130	0.400	0.220	0.120		
82/05/18	10 10	0000	24	30	154	0.72	0.110	0.600	0.240	0.100	10K	50K
82/06/03	09 45	0000	16	86	174	0.69	0.080	0.600	0.250	0.090		
82/07/12	10 15	0000	17	215	306	0.90	0.060	0.800	0.500	0.080		
82/08/23	09 00	0000	20	23	102	0.62	0.050K	0.500	0.150	0.060	10K	50K
82/09/03	09 50	0000	25	56	172	0.73	0.080	0.600	0.170	0.070		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/19	13 00	0000	50K	40K	100	0.5K	100K	50K
82/02/10	10 20	0000	50K	40K	100K	0.2K	100K	50K
82/05/18	10 10	0000	50K	40K	100K	0.2K	100K	50K
82/08/23	09 00	0000	50K	40K	100K	0.2K	100K	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.--28 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.--Maximum discharge, 1,930 ft³/s (54.7 m³/s) Jan. 31, gage height, 4.64 ft (1.414 m), no peak above base of 2,000 ft³/s (57 m³/s); minimum daily discharge, 17 ft³/s (0.48 m³/s) Oct. 14; minimum gage height, 0.96 ft (0.293 m) Oct. 1, 8, 9, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	35	160	179	194	105	76	94	67	30	132	72
2	30	33	75	111	237	105	70	90	57	29	82	48
3	21	31	53	393	990	107	106	86	53	29	69	34
4	19	28	48	656	328	116	74	81	53	30	62	29
5	19	32	41	222	246	133	73	77	60	28	58	28
6	19	30	40	175	206	111	76	74	50	28	54	26
7	19	26	40	152	177	306	66	71	46	28	50	25
8	18	25	42	129	162	154	91	106	43	64	49	25
9	19	24	32	109	255	134	106	74	42	84	56	24
10	26	24	33	101	190	123	84	69	45	56	52	26
11	23	23	30	100	160	116	79	65	45	36	50	47
12	19	22	38	98	147	108	76	64	44	145	54	35
13	18	22	37	95	137	106	75	63	83	128	43	29
14	17	21	96	90	125	100	93	60	50	189	40	27
15	18	21	100	85	145	161	91	62	43	159	37	26
16	18	22	63	82	306	129	274	66	40	124	36	24
17	18	26	56	81	272	167	178	65	40	157	42	24
18	29	22	48	81	192	135	143	91	39	103	39	23
19	26	21	45	95	175	119	118	99	37	102	39	23
20	19	25	39	115	152	109	110	78	35	69	35	24
21	19	21	39	357	142	121	105	69	34	61	33	24
22	19	19	52	177	127	105	94	64	34	82	31	23
23	40	20	173	297	120	96	87	66	34	70	30	22
24	28	26	84	161	112	92	80	79	32	74	31	22
25	28	22	95	134	107	90	138	72	46	68	29	21
26	391	25	76	109	101	88	180	64	44	64	28	24
27	138	71	74	100	119	79	154	72	38	71	27	25
28	60	55	68	95	112	76	138	95	35	67	28	22
29	48	35	78	91	---	74	112	85	34	62	27	21
30	42	52	61	89	---	73	101	67	32	72	26	21
31	38	---	303	497	---	84	---	62	---	156	33	---
TOTAL	1264	859	2219	5256	5736	3622	3248	2330	1335	2465	1402	844
MEAN	40.8	28.6	71.6	170	205	117	108	75.2	44.5	79.5	45.2	28.1
MAX	391	71	303	656	990	306	274	106	83	189	132	72
MIN	17	19	30	81	101	73	66	60	32	28	26	21
CFSM	1.48	1.04	2.59	6.16	7.43	4.24	3.91	2.73	1.61	2.88	1.64	1.02
IN.	1.70	1.16	2.99	7.08	7.73	4.88	4.38	3.14	1.80	3.32	1.89	1.14

CAL YR 1981 TOTAL 23707 MEAN 65.0 MAX 1240 MIN 17 CFSM 2.36 IN 31.95
WTR YR 1982 TOTAL 30580 MEAN 83.8 MAX 990 MIN 17 CFSM 3.04 IN 41.22

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 convluence 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 1981 to current year.

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. 439).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,390 ft³/s (124 m³/s) May 27, 1981, gage height, 7.09 ft (2.161 m); minimum daily, 21 ft³/s (0.59 m³/s) Oct. 15, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,040 ft³/s (86.1 m³/s) Feb. 3, gage height, 5.60 ft (1.707 m); minimum daily, 21 ft³/s (0.59 m³/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	36	58	278	320	179	157	161	109	52	215	84
2	46	36	55	170	290	180	120	148	94	50	118	91
3	46	36	47	453	1680	183	160	146	88	51	98	56
4	49	35	46	957	651	191	140	144	87	51	86	49
5	48	38	45	369	456	210	120	143	97	49	79	47
6	47	38	45	266	372	187	126	135	83	48	78	46
7	44	35	48	218	306	448	112	102	78	47	70	46
8	45	40	48	185	268	275	140	83	74	50	68	46
9	46	43	50	161	388	239	169	104	72	105	76	46
10	45	43	49	116	325	218	141	130	75	98	77	47
11	41	43	60	115	266	204	131	128	80	59	68	48
12	40	43	53	110	243	192	125	126	71	80	78	50
13	38	43	49	110	228	186	123	124	116	224	64	48
14	26	43	62	105	208	176	126	123	86	104	60	47
15	21	43	133	105	205	249	153	117	73	266	57	46
16	22	46	92	102	401	205	333	112	69	114	56	46
17	29	46	75	110	423	258	242	112	65	194	60	48
18	30	43	70	115	313	208	222	90	65	133	61	51
19	29	45	60	155	284	192	183	98	63	137	58	52
20	29	44	124	155	251	184	172	68	60	93	53	51
21	29	43	147	403	230	193	168	67	56	80	51	52
22	27	43	66	234	211	166	154	69	57	100	49	51
23	28	47	191	403	197	157	142	73	58	96	47	49
24	25	51	120	267	186	157	136	124	56	96	50	48
25	34	47	135	208	175	145	154	117	67	102	48	48
26	62	48	101	171	172	133	308	106	64	80	46	49
27	43	52	102	160	198	131	295	113	63	99	45	49
28	32	47	97	154	191	129	380	140	58	101	46	45
29	31	45	110	139	---	137	279	143	57	86	46	48
30	31	48	89	134	---	130	196	111	53	95	45	49
31	30	---	347	572	---	130	---	101	---	195	46	---
TOTAL	1138	1290	2777	7200	9438	5972	5407	3558	2194	3135	2099	1533
MEAN	36.7	43.0	89.6	232	337	193	180	115	73.1	101	67.7	51.1
MAX	62	52	347	957	1680	448	380	161	116	266	215	91
MIN	21	35	45	102	172	129	112	67	53	47	45	45
(†)	+412	-64	+223	+2	-9	-4	-275	+276	-5	+15	-19	-166
MEAN‡	50.0	40.9	96.8	232	337	193	171	124	73.0	102	67.1	45.6
CFSM‡	0.86	0.70	1.66	3.97	5.77	3.30	2.93	2.12	1.25	1.75	1.15	0.78
IN.‡	0.99	0.78	1.91	4.59	6.00	3.80	3.27	2.44	1.39	2.01	1.32	0.87

CAL YR 1981	TOTAL	33327	MEAN	91.3	MAX	1460	MIN 21	MEAN‡	91.4	CFSM‡	1.57	IN.‡	21.23
WTR YR 1982	TOTAL	45741	MEAN	125	MAX	1680	MIN 21	MEAN‡	126	CFSM‡	2.16	IN.‡	29.37

† 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", 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.--28 years, 144 ft³/s (4.078 m³/s), 37.97 in/yr (964 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 and Dec. 11, 1981, 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0745	1580	44.7	4.08	1.244	Feb. 3	0815	*2780	78.7	*5.37	1.637
Jan. 31	1815	1600	45.3	4.10	1.250						

Minimum discharge, 12 ft³/s (0.34 m³/s) Dec. 11, gage height, 0.98 ft (0.299 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	30	116	251	324	134	96	157	118	42	150	60
2	23	29	80	154	291	137	92	146	93	41	92	52
3	23	29	55	314	1580	147	135	136	86	42	78	41
4	21	28	51	868	748	161	103	126	82	41	70	37
5	21	29	46	372	498	191	98	119	85	39	66	36
6	22	30	42	248	382	176	101	113	75	38	63	34
7	22	27	42	193	300	381	92	109	71	38	59	34
8	21	27	42	154	256	268	103	126	67	45	59	33
9	21	27	39	132	305	231	117	105	65	47	60	33
10	24	27	31	96	256	206	106	99	68	58	65	37
11	25	26	36	95	218	188	99	95	67	54	72	50
12	25	26	45	95	198	173	95	91	63	67	69	40
13	24	25	42	92	187	164	92	89	75	169	57	37
14	23	25	65	90	165	154	93	86	69	114	54	35
15	23	25	82	85	162	174	108	83	61	202	52	34
16	24	25	65	83	247	160	210	86	58	103	50	32
17	24	28	57	85	269	168	162	85	56	102	55	31
18	25	26	55	88	226	153	152	93	55	130	54	31
19	28	26	41	90	206	143	133	96	53	170	54	32
20	25	28	49	93	191	136	127	85	51	101	47	32
21	24	28	57	166	176	139	123	80	49	86	45	31
22	25	26	61	133	162	129	114	83	48	91	43	30
23	31	26	76	268	148	121	106	111	48	92	42	30
24	36	33	62	208	139	116	102	134	46	104	42	30
25	29	31	79	162	129	114	122	107	61	95	40	30
26	200	30	69	132	128	112	323	102	58	76	38	31
27	100	39	71	124	147	105	230	153	51	71	38	30
28	46	50	70	113	138	101	233	132	49	81	39	29
29	37	34	85	103	---	99	194	120	47	75	37	29
30	34	36	63	98	---	98	174	103	44	73	36	29
31	31	---	229	425	---	99	---	108	---	130	38	---
TOTAL	1056	876	2008	5610	8176	4878	4035	3358	1919	2617	1764	1050
MEAN	34.1	29.2	64.8	181	292	157	135	108	64.0	84.4	56.9	35.0
MAX	200	50	229	868	1580	381	323	157	118	202	150	60
MIN	19	25	31	83	128	98	92	80	44	38	36	29
CFSM	.66	.57	1.26	3.52	5.67	3.05	2.62	2.10	1.24	1.64	1.11	.68
IN.	.76	.63	1.45	4.05	5.91	3.52	2.91	2.43	1.39	1.89	1.27	.76

CAL YR 1981 TOTAL 29772 MEAN 81.6 MAX 1060 MIN 19 CFSM 1.58 IN 21.50
WTR YR 1982 TOTAL 37347 MEAN 102 MAX 1580 MIN 19 CFSM 1.98 IN 26.98

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 fair. 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. 439). Town of Canton diverted above station an average of 1.83 ft³/s (0.052 m³/s) for municipal water supply.

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

AVERAGE DISCHARGE.--55 years (1907-8, 1928-82), 322 ft³/s (9.119 m³/s), 32.88 in/yr (835 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 discharge 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)
Feb. 3	0945	*5780	164	*8.22	2.505

Minimum daily discharge, 44 ft³/s (125 m³/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	68	180	638	678	349	269	386	258	93	467	105
2	80	68	140	406	519	351	233	354	186	91	241	131
3	74	70	105	871	3510	363	341	340	163	93	200	94
4	75	67	89	2050	1470	379	273	320	159	92	178	87
5	77	68	84	873	922	438	243	311	187	89	161	83
6	75	68	81	613	700	404	253	295	154	86	159	79
7	73	68	83	491	554	937	215	245	141	84	143	75
8	70	80	82	410	472	635	261	229	133	99	138	78
9	73	75	79	354	646	542	351	217	129	154	146	74
10	75	75	75	300	554	484	295	259	138	177	158	80
11	73	75	75	330	452	447	256	245	154	131	170	84
12	70	75	77	340	412	417	243	232	132	111	171	96
13	66	75	75	330	393	399	235	226	214	454	135	86
14	58	75	90	310	355	388	228	220	180	216	126	91
15	46	75	165	300	343	460	310	207	142	542	119	89
16	44	80	141	260	604	453	597	196	134	256	115	85
17	52	90	119	250	746	493	480	203	127	326	121	80
18	54	80	114	260	557	452	466	194	124	299	133	83
19	56	75	93	350	504	403	385	205	121	361	121	90
20	54	80	95	400	453	383	364	131	114	232	111	85
21	52	80	106	581	425	396	356	123	107	196	104	80
22	52	80	119	387	389	373	326	115	105	215	99	76
23	59	85	209	684	365	344	294	148	108	202	96	73
24	60	95	186	496	347	335	275	283	103	241	98	73
25	64	85	205	371	324	327	287	225	129	227	96	75
26	342	85	178	306	315	315	726	191	121	179	89	82
27	185	95	182	289	379	272	594	271	118	187	84	85
28	85	100	181	261	378	255	727	305	109	213	80	84
29	75	80	199	235	---	252	577	300	104	184	79	82
30	70	85	179	227	---	250	448	222	97	190	76	79
31	70	---	561	925	---	266	---	194	---	360	77	---
TOTAL	2432	2357	4347	14900	17766	12562	10908	7392	4191	6380	4291	2544
MEAN	78.5	78.6	140	481	635	405	364	238	140	206	138	84.8
MAX	342	100	561	2050	3510	937	727	386	258	542	467	131
MIN	44	67	75	227	315	250	215	115	97	84	76	73
(†)	475.4	-0.6	+283.8	+57.7	+38.7	+52.7	-221.0	+333.0	+47.8	+69.3	+31.8	-116.6
MEAN‡	93.8	78.5	149	483	636	407	356	249	141	208	139	80.9
CFSM‡	0.71	0.59	1.12	3.63	4.78	3.06	2.68	1.87	1.06	1.56	1.05	0.61
IN.‡	0.81	0.66	1.29	4.18	4.98	3.53	2.99	2.16	1.19	1.80	1.21	0.68

CAL YR 1981 TOTAL 66080 MEAN 181 MAX 2270 MIN 44 MEAN‡ 183 CFSM‡ 1.38 IN.‡ 18.68
WTR YR 1982 TOTAL 90070 MEAN 247 MAX 3510 MIN 44 MEAN‡ 250 CFSM‡ 1.88 IN.‡ 25.48

† 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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/28	09 30	0000	1.38	68	27	7.00	12.0		8.8	81.0		110
81/11/17	12 15	0000	1.56	68		7.10	7.0	1.0	11.8	99.0	10.0K	30
81/12/17	12 00	0000	1.80	125		6.60	2.0		11.8	86.0		10
82/01/27	13 30	0000	2.21	302	25	6.80	1.0		11.6	82.0		10K
82/02/23	13 00	0000	2.08	362	28	7.00	7.0	1.0	12.4	102.0	10.0K	10K
82/03/23	13 50	0000	1.95	346	25	6.70	12.0		9.8	91.0		10K
82/04/22	13 50	0000	1.91	316	40		9.0		10.8	93.0		20
82/05/27	13 00	0000	1.91	305	21	6.90	18.0	20.0	9.4	99.0	10.0K	1100
82/06/17	12 20	0000	1.17	128	22	7.00	21.0		8.9	99.0		60
82/07/20	09 00	0000	1.42	238	20	6.80	21.0		8.6	96.0		160
82/08/18	08 00	0000	1.10	134	22	6.70	19.0	2.0	8.0	85.0	10.0K	250
82/09/07	08 15	0000	2.13	76	57	6.60	17.0		8.3	86.0		40

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/28	09 30	0000	11	3	37							
81/11/17	12 15	0000		4	32	0.35	0.050K	0.100	0.050K	0.050K	10K	50K
81/12/17	12 00	0000	6	4	27							
82/01/27	13 30	0000	5	1K	41							
82/02/23	13 00	0000	6	3	36	0.41	0.050K	0.200	0.050K	0.050K	10K	50K
82/03/23	13 50	0000	6	1	32							
82/04/22	13 50	0000		1	29							
82/05/27	13 00	0000	7	25	56	0.29	0.050K	0.300	0.080	0.050K	10K	50K
82/06/17	12 20	0000	7	3	36							
82/07/20	09 00	0000	4	6	40							
82/08/18	08 00	0000	8	5	32	0.25	0.050K	0.200	0.050K	0.050K	10K	50K
82/09/07	08 15	0000	10	2	57							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/17	12 15	0000	50K	40K	100K	0.5K	100K	50K
82/02/23	13 00	0000	50K	40K	100K	0.2K	100K	50K
82/05/27	13 00	0000	50K	40K	100K	0.4	100K	50K
82/08/18	08 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

03459500 PIGEON RIVER NEAR HEPCO, NC

LOCATION.--Lat 35°38'05", long 82°59'21", Haywood County, Hydrologic Unit 06010106, on left bank 95 ft (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. 439).

AVERAGE DISCHARGE.--55 years, 676 ft³/s (19.14 m³/s), 26.23 in/yr (666 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0600	7500	212	7.80	2.377	Feb. 3	1200	*9660	274	*8.81	2.685

Minimum discharge, 99 ft³/s (2.80 m³/s) Oct.16, gage height, 0.97 ft (0.296 m); minimum daily, 110 ft³/s (3.12 m³/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	189	504	1280	1680	873	518	696	762	243	1070	384
2	176	181	665	759	1250	851	467	647	563	229	516	548
3	148	184	730	1770	6820	839	518	624	490	230	408	343
4	141	168	534	5080	3250	829	517	599	468	234	355	245
5	142	182	299	2010	2140	875	478	576	487	223	322	214
6	149	185	226	1330	1680	847	568	558	437	212	314	200
7	141	160	220	1050	1360	2300	536	540	404	242	289	192
8	130	156	253	867	1170	1580	601	567	384	256	284	186
9	131	153	238	751	1500	1240	722	500	370	339	316	180
10	143	154	207	602	1390	1070	630	522	394	348	344	187
11	146	160	190	472	1130	976	580	541	416	317	412	198
12	141	154	204	560	1020	905	538	564	383	264	400	211
13	145	149	213	566	980	876	534	400	533	531	297	203
14	142	150	291	545	878	848	549	439	469	361	267	196
15	119	147	405	477	847	921	600	466	382	633	246	184
16	112	153	416	484	1280	990	867	478	350	463	240	174
17	110	174	310	406	1800	1250	859	523	346	469	266	169
18	122	164	259	413	1390	1120	843	488	334	526	305	185
19	127	152	208	575	1200	954	712	456	320	567	245	207
20	121	175	160	649	1060	885	668	438	304	406	236	181
21	126	156	194	1340	972	945	667	399	290	342	214	175
22	117	149	267	1070	885	884	624	388	285	333	202	168
23	146	152	428	1580	825	795	581	422	285	331	197	162
24	160	209	492	1320	784	753	553	550	276	394	237	159
25	142	193	494	964	740	880	634	501	280	348	209	161
26	419	178	446	812	719	984	1150	522	300	307	188	176
27	563	293	428	691	861	796	906	766	311	299	180	180
28	277	345	460	691	902	762	1090	823	297	372	173	165
29	208	235	485	627	---	729	932	764	273	395	181	159
30	188	235	447	595	---	574	741	588	259	356	174	156
31	209	---	830	1130	---	510	---	657	---	899	183	---
TOTAL	5272	5435	11503	31467	40513	29641	20183	17002	11452	11469	9270	6248
MEAN	170	181	371	1015	1447	956	673	548	382	370	299	208
MAX	563	345	830	5080	6820	2300	1150	823	762	899	1070	548
MIN	110	147	160	406	719	510	467	388	259	212	173	156

CAL YR 1981 TOTAL 140907 MEAN 386 MAX 2950 MIN 110
WTR YR 1982 TOTAL 199455 MEAN 546 MAX 6820 MIN 110

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-73, 1979 to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1978 to September 1982.
WATER TEMPERATURES: October 1978 to September 1982.

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, 2000 micromhos Oct. 11, 1982; 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, Jan. 10, 11, 17, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2000 micromhos Oct. 11; minimum, 68 micromhos Feb. 3.
WATER TEMPERATURES: Maximum, 26.5°C Aug. 4; minimum, 0.5°C Jan. 10, 11, 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
DEC												
08...	1115	253	980	7.3	7.5	300	8.5	160	81	58	3.5	170
JAN												
22...	1115	1040	300	7.2	6.0	25	8.8	46	7	16	1.5	27
FEB												
03...	0800	8970	85	7.0	5.5	110	9.5	26	6	8.2	1.3	6.8
03...	1130	9640	78	6.9	5.5	110	9.0	20	4	5.9	1.2	6.0
03...	1615	7500	54	7.2	7.0	55	8.8	14	0	4.2	.9	4.6
04...	0845	3380	95	7.1	6.5	30	9.2	20	9	6.5	1.0	9.9
24...	1230	796	275	7.3	11.0	43	8.9	45	23	16	1.3	35
APR												
20...	1200	672	355	7.3	13.5	48	7.4	49	19	17	1.5	52
MAY												
17...	1115	471	440	7.3	19.0	81	6.8	84	51	30	2.1	52
JUL												
12...	1115	264	600	6.9	23.0	90	7.2	130	94	46	3.0	99
31...	1730	1390	300	6.9	20.0	60	6.0	44	17	15	1.7	27
31...	1830	1940	230	7.0	20.0	50	6.2	45	24	15	1.8	27
AUG												
02...	1030	523	460	7.1	21.5	40	6.2	92	59	33	2.4	53

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
DEC												
08...	69	6.0	5.8	96	0	79	7.6	86	210	.2	9.9	662
JAN												
22...	55	1.8	2.0	48	0	39	4.8	15	46	<.1	7.8	150
FEB												
03...	34	.6	2.2	24	0	20	4.3	6.7	8.4	.2	5.6	64
03...	37	.6	2.0	20	0	16	2.9	7.4	9.8	.1	5.9	58
03...	39	.6	1.4	18	0	15	1.5	5.4	7.3	<.1	5.6	46
04...	49	1.0	1.4	14	0	11	2.5	6.7	13	<.1	6.5	67
24...	62	2.3	1.7	27	0	22	2.2	19	55	.1	8.2	177
APR												
20...	68	3.3	2.8	37	0	30	3.4	29	74	<.1	8.5	210
MAY												
17...	57	2.5	2.8	40	0	33	.7	22	110	<.1	9.6	321
JUL												
12...	62	3.9	3.4	44	0	36	11	31	170	.2	8.8	500
31...	54	1.8	4.0	33	0	27	5.4	16	41	.1	9.1	166
31...	54	1.8	3.9	26	0	21	4.2	16	40	<.1	9.0	146
AUG												
02...	55	2.5	2.4	40	0	33	5.7	25	91	.1	10	311

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, 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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
DEC												
08...	591	.90	452	.59	.030	.62	.59	28	.130	.120	.15	.35
JAN												
22...	143	.20	421	.66	.010	.67	--	--	.160	--	--	.23
FEB												
03...	53	.09	1550	.72	.080	.80	.75	--	.170	.140	.18	.49
03...	46	.08	1510	.73	.070	.80	.73	--	.160	.120	.15	.60
03...	37	.06	931	.64	.030	.67	.59	--	.090	.070	.09	.66
04...	55	.09	611	.66	.020	.68	.72	--	.070	.130	.17	.60
24...	153	.24	380	.52	.010	.53	.57	--	.070	--	--	.31
APR												
20...	206	.29	381	.38	.020	.40	.36	--	.290	.070	.09	.13
MAY												
17...	233	.44	408	.32	.090	.41	.40	--	.130	.090	.12	.45
JUL												
12...	388	.68	356	.42	.020	.44	.39	--	.050	.050	.06	7.9
31...	128	.23	623	.77	.090	.86	.56	--	.690	.170	.22	2.4
31...	127	.20	765	.57	.130	.70	.56	--	.670	.130	.17	2.3
AUG												
02...	239	.42	439	.31	.020	.33	.33	--	.070	.050	.06	.43

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, 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-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
DEC												
08...	.44	.48	.00	.56	66	1.1	4.9	94	1.2	.390	1.2	.360
JAN												
22...	--	.39	--	--	--	1.1	4.7	--	--	.160	.49	.110
FEB												
03...	.34	.66	.18	.48	--	1.5	6.5	--	1.2	.810	2.5	.060
03...	.24	.76	.40	.36	--	1.6	6.9	--	1.1	.700	2.1	.060
03...	.30	.75	.38	.37	--	1.4	6.3	--	.96	.370	1.1	.040
04...	.56	.67	.00	.69	--	1.4	6.0	--	1.4	.180	.55	.050
24...	--	.38	.00	.38	--	.91	4.0	--	--	.140	.43	.120
APR												
20...	.27	.42	.08	.34	--	.82	3.6	--	.70	.250	.77	.190
MAY												
17...	.33	.58	.16	.42	--	.99	4.4	--	.82	.520	1.6	.430
JUL												
12...	.35	7.90	7.5	.40	--	8.3	37	--	.79	.440	1.4	.260
31...	.73	3.10	2.2	.90	--	4.0	18	--	1.5	1.00	3.1	.080
31...	.67	3.00	2.2	.80	--	3.7	16	--	1.4	.950	2.9	.080
AUG												
02...	--	.50	--	--	--	.83	3.7	--	--	.240	.74	.030

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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 (UG/L AS AS)	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)
DEC												
08...	.350	.330	1.0	250	11	7	4	1	<1	--	<1	<5
JAN												
22...	.110	.090	.28	--	1	1	0	--	1	--	<1	--
FEB												
03...	.150	.040	.12	--	1	1	<1	--	1	--	<1	--
03...	.150	.040	.12	--	1	1	<1	--	1	--	<1	--
03...	.070	.020	.06	--	1	1	<1	--	1	--	<1	--
04...	.050	.030	.09	--	1	1	<1	--	<1	--	<1	--
24...	.140	.120	.37	--	1	0	1	--	<1	--	<1	--
APR												
20...	.230	.210	.64	--	1	0	1	--	1	--	<1	--
MAY												
17...	.400	.380	1.2	--	2	0	2	--	1	--	<1	--
JUL												
12...	.270	.260	.80	--	2	0	4	--	<1	--	<1	--
31...	.300	.060	.18	--	1	0	1	--	2	0	2	--
31...	.270	.050	.15	--	1	0	1	--	2	--	<1	--
AUG												
02...	.060	.030	.09	--	--	--	--	--	--	--	--	--

DATE	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, 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)
DEC												
08...	10	7	3	10	<1	--	1	10	7	0	11	5
JAN												
22...	20	--	<1	--	1	--	<1	--	6	5	1	--
FEB												
03...	30	--	<1	--	8	--	<1	--	24	22	2	--
03...	30	--	<1	--	6	5	1	--	22	17	5	--
03...	20	--	<1	--	5	--	<1	--	16	14	2	--
04...	10	--	<1	--	<1	--	<1	--	9	7	2	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
20...	20	--	<1	--	3	0	3	--	4	3	1	--
MAY												
17...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	--	--	--	--	--	--	--	--	--	--	--	--
31...	20	--	<1	--	12	11	1	--	46	42	4	--
31...	20	--	<1	--	14	12	2	--	36	32	4	--
AUG												
02...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	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)	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)
DEC											
08...	530	320	210	7900	7	0	7	10	180	20	160
JAN											
22...	850	770	83	--	3	0	3	--	50	20	31
FEB											
03...	32000	--	<3	--	29	--	<1	--	750	740	15
03...	34000	34000	85	--	38	--	<1	--	830	790	36
03...	21000	21000	60	--	23	--	<1	--	470	440	27
04...	2900	2900	27	--	2	--	<1	--	130	100	30
24...	--	--	--	--	<1	--	<1	--	--	--	--
APR											
20...	620	--	<9	--	7	3	4	--	90	70	21
MAY											
17...	--	--	--	--	3	1	2	--	--	--	--
JUL											
12...	--	--	--	--	9	5	4	--	--	--	--
31...	42000	42000	330	--	43	39	4	--	1300	1200	53
31...	33000	33000	280	--	41	37	4	--	900	840	59
AUG											
02...	--	--	--	--	--	--	--	--	--	--	--

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
DEC									
08...	170	.1	--	<.1	<.10	<1	<1	<1	50
JAN									
22...	--	.1	--	<.1	--	<1	<1	--	40
FEB									
03...	--	.2	.1	.1	--	<1	<1	--	120
03...	--	.2	.0	.2	--	<1	<1	--	140
03...	--	.1	--	<.1	--	<1	<1	--	90
04...	--	.1	--	<.1	--	<1	<1	--	70
24...	--	<.1	--	<.1	--	<1	<1	--	--
APR									
20...	--	<.1	--	<.1	--	<1	<1	--	10
MAY									
17...	--	<.1	--	<.1	--	<1	<1	--	--
JUL									
12...	--	.2	.0	.2	--	<1	<1	--	--
31...	--	.3	--	<.1	--	<1	<1	--	210
31...	--	.1	--	<.1	--	<1	<1	--	170
AUG									
02...	--	--	--	--	--	--	--	--	--

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, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
DEC									
08...	40	8	33	20	1.3	<.1	3.1	<.01	.20
JAN									
22...	--	<4	--	4.3	1.3	--	--	--	.10
FEB									
03...	90	27	--	3.8	>8.0	--	--	--	<.10
03...	130	13	--	3.4	.1	--	--	--	.00
03...	80	12	--	3.6	>8.0	--	--	--	<.10
04...	60	7	--	4.0	1.9	--	--	--	<.10
24...	--	--	--	6.0	.8	--	--	<.01	.10
APR									
20...	0	11	--	6.5	1.6	--	--	--	<.01
MAY									
17...	--	--	--	11	1.3	--	--	<.01	.13
JUL									
12...	--	--	--	15	2.4	--	--	--	.15
31...	--	<4	--	7.2	<8.0	--	--	<.01	.05
31...	--	<4	--	7.7	<8.0	--	--	--	.05
AUG									
02...	--	--	--	9.3	--	--	--	--	.12

DATE	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	LENGTH OF EXPOSURE (DAYS)
DEC			
08...	.630	.472	27
APR			
20...	5.35	3.94	26
MAY			
17...	1.90	1.10	39

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	DEC 8,81		FEB 24,82		APR 20,82	
TIME	1115		1230		1200	
TOTAL CELLS/ML	14000		7200		1100	
DIVERSITY: DIVISION	0.2		0.3		1.2	
.CLASS	0.2		0.3		1.2	
..ORDER	0.2		0.7		2.4	
...FAMILY	0.2		0.8		2.7	
....GENUS	0.3		0.8		3.0	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....ACHNANTHES	*	0	*	0	100	9
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	*	0	*	0	43	4
..BIDDULPHIALES						
...BIDDULPHIACEAE						
....BIDDULPHIA	*	0	--	-	--	-
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	*	0	--	-
..FRAGILARIALES						
...FRAGILARIACEAE						
....FRAGILARIA	*	0	--	-	--	-
....HANNAEA	--	-	--	-	100	9
....SYNEDRA	*	0	*	0	260#	23
..NAVICULALES						
...CYMBELLACEAE						
....CYMBELLA	--	-	*	0	58	5
...GOMPHONEMACEAE						
....GOMPHONEMA	*	0	42	1	--	-
...NAVICULACEAE						
....NAVICULA	*	0	150	2	230#	21
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	200#	18
...OOCYSTACEAE						
....ANKISTRODESMUS	*	0	*	0	29	3
....KIRCHNERIELLA	*	0	--	-	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	*	0	--	-	--	-
..TETRASPORALES						
...GLOEOCYSTACEAE						
....GLOEOCYSTIS	*	0	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	*	0	42	1	14	1
CHRYSOPHYTA						
.CHRYSOPHYCEAE						
..OCHROMONADALES						
...DINOBRYACEAE						
....DINOBRYON	--	-	--	-	29	3

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO SEPTEMBER 1982

DATE	DEC 8,81		FEB 24,82		APR 20,82	
TIME	1115		1230		1200	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	--	-	130	2	--	-
....COCCOCHLORIS	--	-	42	1	--	-
..NOSTOCALES						
...NOSTOCACEAE						
....NODULARIA	--	-	6400#	89	--	-
..OSCILLATORIALES						
...OSCILLATORIACEAE						
....LYNGBYA	190	1	--	-	--	-
....OSCILLATORIA	14000#	97	240	3	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	14	1
....TRACHELOMONAS	--	-	*	0	--	-
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..DINOKONTAE						
...PERIDINIACEAE						
....PERIDINIUM	--	-	--	-	29	3

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 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1580	1360	1550			900	---	---	510	456	294	327
2	1590	1400	1490			920	---	---	440	381	306	333
3	1700	1610	1670			910	---	---	420	394	151	332
4	1660	1340	1510			980	---	---	500	164	122	147
5	1620	1410	1560			910	---	---	680	233	171	207
6	1640	1560	1600			900	---	---	790	267	236	259
7	1610	1380	1580			1010	---	---	800	317	267	294
8	1730	1480	1650			1040	960	764	855	315	302	309
9	1820	1610	1690			1050	832	793	816	357	301	329
10	1990	1840	1900			1050	945	819	879	401	356	379
11	2000	1820	1920			1020	1100	930	1010	468	374	414
12	1780	1500	1570			1040	1200	967	1090	676	385	501
13	1550	1350	1470			1080	1350	1140	1280	443	275	383
14	1780	1430	1570			1070	1350	839	1010	451	394	432
15	1970	1600	1860			1090	1360	851	1140	454	380	416
16	1970	671	1400			1060	798	715	760	488	355	415
17	637	421	472			940	742	681	703	422	290	367
18	1380	501	880			1000	1030	734	954	516	348	444
19	1890	1480	1790			1050	1110	997	1050	672	448	520
20	1910	1750	1830			950	1170	945	1050	551	354	437
21	1820	1660	1770			1040	1890	985	1410	487	251	381
22	1730	1550	1610			1060	1450	786	1130	359	252	309
23	1550	1200	1430			1060	1280	698	969	349	240	302
24	1430	1080	1270			820	1090	496	666	285	215	252
25	1120	1040	1070			870	704	491	593	365	275	311
26	1040	556	832			940	656	508	547	353	322	340
27	918	521	636			690	573	537	560	424	299	337
28	598	547	573			630	558	472	523	489	349	398
29	---	---	830			770	560	259	443	465	394	435
30	---	---	900			770	563	299	509	445	414	430
31	---	---	820				533	371	480	437	261	393
MONTH	2000	421	1380			954	1890	259	792	676	122	359

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	242	113	174	270	250	263	603	441	535	415	371	386
2	277	182	242	283	249	270	540	442	500	431	398	413
3	174	68	98	300	273	288	555	483	522	453	414	433
4	118	87	105	335	291	309	522	349	408	486	445	462
5	144	120	134	315	257	287	504	380	430	497	442	474
6	175	131	151	272	229	252	476	402	432	562	502	525
7	192	148	168	229	114	167	415	377	397	547	484	508
8	204	173	188	184	134	165	400	364	381	527	450	481
9	214	150	183	217	184	202	405	328	366	544	472	501
10	207	143	174	246	209	219	366	332	348	639	527	579
11	249	213	230	268	238	253	395	321	360	614	499	537
12	260	208	228	277	245	256	395	367	380	534	466	496
13	225	207	215	289	258	267	427	392	412	771	505	655
14	222	197	213	296	257	274	443	359	392	735	520	616
15	238	205	223	301	262	282	443	370	414	595	523	558
16	262	167	225	291	198	245	505	193	365	553	440	482
17	201	138	173	285	214	235	342	188	258	505	435	456
18	216	146	186	279	204	247	355	287	326	515	428	463
19	240	162	207	286	244	260	361	327	347	564	434	477
20	242	212	229	276	260	266	405	355	375	559	469	497
21	251	230	239	284	249	264	427	375	392	551	467	523
22	270	233	261	307	255	277	381	350	358	623	519	557
23	287	253	267	345	305	321	372	337	352	595	496	537
24	288	267	278	320	235	268	470	348	389	650	473	513
25	323	274	300	317	216	270	477	349	406	531	457	492
26	345	314	325	228	198	209	379	260	321	548	490	515
27	363	303	336	346	245	310	386	293	342	547	337	473
28	300	260	273	353	329	342	390	252	285	468	328	415
29	---	---	---	351	295	323	316	265	297	363	326	351
30	---	---	---	425	298	344	361	299	347	434	357	395
31	---	---	---	556	433	480	---	---	---	591	247	468
MONTH	363	68	215	556	114	271	603	188	381	771	247	492

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	499	370	439	888	743	810	334	223	260	1010	606	869
2	488	441	468	992	840	917	465	326	414	661	477	600
3	556	488	513	991	750	903	590	465	503	580	492	550
4	581	510	531	1010	821	937	691	607	642	703	586	651
5	622	514	565	945	764	893	657	544	602	1060	669	738
6	588	505	533	1100	848	978	825	644	726	1230	974	1110
7	551	474	513	1100	737	911	929	733	865	1270	1130	1230
8	567	485	536	915	517	739	871	784	823	1310	1160	1260
9	568	515	540	1010	759	872	843	618	783	1310	1060	1170
10	567	521	537	1000	594	743	761	657	719	1300	990	1110
11	576	510	541	762	501	586	816	376	680	1310	961	1200
12	568	509	531	885	524	654	663	461	549	1270	1100	1180
13	529	491	504	1660	296	729	770	534	657	1340	865	1160
14	503	442	484	648	347	491	843	770	808	960	756	903
15	541	456	494	933	257	492	834	765	818	1210	880	1080
16	571	527	550	584	375	496	834	673	745	1210	1010	1080
17	635	520	588	767	465	600	946	679	854	1280	976	1160
18	621	565	585	523	337	451	1050	679	929	1750	1040	1430
19	785	610	706	514	307	448	995	722	822	1350	920	1200
20	758	645	723	580	416	510	1130	870	1030	1340	1060	1170
21	825	648	732	609	531	570	1070	943	991	1190	963	1100
22	830	708	765	738	583	635	1160	965	1110	1310	960	1200
23	871	749	804	745	559	615	1180	1010	1070	1420	1160	1310
24	815	730	770	805	582	680	1200	1000	1090	1500	1080	1350
25	824	684	743	666	542	587	1250	1030	1120	1340	1150	1270
26	988	721	847	683	559	606	1250	1060	1170	1440	1210	1310
27	779	658	730	801	702	764	1170	932	1090	1410	1210	1310
28	767	493	649	800	638	731	1270	1080	1180	1350	1180	1260
29	827	651	745	756	517	648	1370	1040	1250	1260	1080	1200
30	859	781	820	797	529	720	1400	1180	1290	1310	1060	1250
31	---	---	---	577	212	449	1210	905	1080	---	---	---
MONTH	988	370	616	1660	212	683	1400	223	860	1750	477	1110
YEAR	2000	68	679									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.0	5.5	10.5	8.0	9.0	16.0	11.5	13.5	17.0	11.5	13.5
2	7.0	4.5	6.0	11.5	7.5	9.5	13.0	10.5	11.5	15.0	12.5	13.5
3	7.0	5.0	6.0	11.0	8.0	10.0	16.0	12.0	13.5	16.0	13.0	14.5
4	8.0	6.0	7.0	13.5	9.0	11.5	14.0	10.0	12.0	17.5	14.0	16.0
5	10.0	8.0	9.0	15.0	11.5	13.0	12.0	10.5	11.0	18.0	14.0	16.0
6	10.0	7.5	8.5	13.0	10.5	12.0	11.0	8.5	10.0	17.5	14.0	16.0
7	9.0	7.0	8.0	11.5	7.5	9.5	10.5	6.5	8.5	17.5	15.5	16.5
8	9.5	7.5	8.5	10.0	6.0	8.0	10.0	8.0	8.5	18.5	14.5	16.5
9	10.5	8.0	9.0	11.0	7.0	9.0	11.5	7.5	9.5	17.5	14.0	16.0
10	9.5	7.5	8.5	13.0	8.5	10.5	12.5	7.5	10.0	19.5	14.5	16.5
11	9.5	7.5	8.0	12.0	9.5	11.0	11.5	8.5	10.0	20.0	15.0	17.5
12	9.0	7.0	8.0	15.0	10.5	12.5	14.5	8.5	11.5	18.0	14.5	16.5
13	8.5	7.5	8.0	14.5	13.0	14.0	14.0	11.0	12.5	19.5	15.5	17.0
14	9.5	8.0	9.0	13.0	11.5	12.5	16.0	11.5	13.5	21.0	16.0	18.5
15	11.0	9.0	10.0	12.5	11.5	12.0	17.5	13.0	15.0	20.5	17.5	19.0
16	12.0	10.0	11.0	14.0	10.0	12.5	17.0	13.0	15.0	19.0	17.0	18.0
17	12.0	10.0	11.0	14.0	11.0	13.0	15.0	13.5	14.0	19.5	16.5	17.5
18	12.5	10.5	11.5	16.0	11.0	13.5	16.5	12.0	14.0	18.5	16.0	17.5
19	12.0	10.0	11.0	16.5	12.0	14.0	14.0	12.0	12.5	20.0	16.5	18.0
20	11.0	9.0	10.0	16.5	12.5	14.5	14.5	12.5	13.5	19.0	17.0	18.0
21	11.0	9.0	9.5	14.5	13.0	14.0	14.0	13.0	13.5	22.0	17.0	19.5
22	10.0	8.0	9.0	14.5	11.0	12.5	14.0	12.0	12.5	21.5	17.5	19.5
23	11.5	9.5	10.0	14.0	9.5	12.0	13.5	10.0	11.5	20.5	18.0	19.5
24	14.5	9.5	12.0	12.5	9.5	11.0	15.0	10.5	13.0	20.0	18.0	19.0
25	13.0	9.5	11.0	14.0	8.5	11.5	13.5	11.0	12.0	21.0	17.5	19.5
26	9.5	6.0	8.0	11.5	8.0	10.0	15.0	11.0	12.5	21.5	19.0	20.0
27	7.5	5.5	6.0	10.0	6.5	8.5	15.0	12.0	13.5	21.5	17.5	19.5
28	8.5	7.0	8.0	9.5	6.0	8.0	15.5	11.0	13.5	20.5	17.0	19.0
29	---	---	---	10.0	6.0	8.0	15.5	11.5	13.5	21.0	17.0	19.0
30	---	---	---	12.0	8.5	10.0	17.0	10.5	13.5	23.0	17.5	20.5
31	---	---	---	14.5	11.0	12.5	---	---	---	24.5	19.0	21.0
MONTH	14.5	4.5	9.0	16.5	6.0	11.5	17.5	6.5	12.5	24.5	11.5	17.5

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

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1215	124	13	4.4	78
NOV					
10...	1300	150	14	5.7	88
DEC					
08...	1115	253	11	7.5	71
JAN					
22...	1115	1040	24	67	62
FEB					
03...	0800	8970	743	18000	--
03...	0950	9410	686	17400	--
03...	1130	9640	679	17700	--
03...	1400	9190	408	10100	--
03...	1510	8330	340	7650	--
03...	1615	7500	282	5710	--
04...	0845	3380	65	593	86
24...	1230	796	7	15	95
APR					
20...	1200	672	16	29	78
MAY					
17...	1115	471	20	25	95
JUL					
12...	1115	264	58	41	91
31...	1730	1390	1110	4170	95
31...	1830	1940	1050	5500	97
AUG					
02...	1030	523	46	65	--

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC
(HYDROLOGIC BENCH-MARK STATION)

LOCATION.--Lat 35°40'02", long 83°04'22", Haywood County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park, on left bank 20 ft (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.--39 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.--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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0545	*2080	58.9	*5.82	1.774	Feb. 3	0600	1750	49.6	5.50	1.676

Minimum discharge, 26 ft³/s (0.74 m³/s) Oct. 18, gage height, 2.07 ft (0.631 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	35	145	201	146	124	113	132	93	50	170	113
2	45	34	118	169	218	126	104	123	82	47	93	128
3	33	33	89	568	1090	131	111	115	77	46	74	96
4	31	32	81	1280	538	134	99	108	79	52	65	75
5	32	38	69	529	358	138	97	104	80	46	60	66
6	33	36	62	336	281	134	95	100	70	44	58	61
7	33	32	60	254	229	321	90	96	68	55	54	57
8	30	31	59	200	198	260	106	112	66	60	66	53
9	30	30	53	167	284	215	108	92	64	57	126	51
10	31	30	49	115	249	188	99	88	84	55	115	50
11	31	30	50	115	221	169	96	85	73	50	136	49
12	29	29	50	105	201	154	94	82	69	50	139	47
13	29	29	70	100	182	150	92	80	168	47	105	46
14	28	29	79	95	161	138	96	78	97	43	90	45
15	28	28	70	90	162	160	91	80	84	47	79	43
16	28	30	61	85	255	150	93	91	78	48	73	41
17	28	39	65	80	321	308	121	87	76	63	77	39
18	33	31	60	85	288	278	113	81	72	51	71	38
19	31	29	58	90	252	231	107	82	69	46	61	39
20	27	35	60	98	219	202	104	78	65	43	57	38
21	27	30	70	429	198	217	103	75	63	40	54	37
22	27	29	90	289	174	186	96	74	62	39	51	36
23	46	29	225	389	158	172	91	82	60	45	50	35
24	34	39	190	350	147	160	88	80	59	46	68	35
25	30	35	167	257	137	151	118	73	57	48	54	35
26	69	33	141	197	129	141	172	81	60	40	47	37
27	81	84	130	179	140	128	183	89	60	39	47	39
28	49	71	122	150	128	120	185	134	57	43	51	34
29	42	52	119	133	---	115	161	116	53	54	45	33
30	38	57	109	124	---	110	145	98	51	104	42	32
31	36	---	185	181	---	125	---	94	---	231	50	---
TOTAL	1100	1099	2956	7440	7064	5336	3371	2890	2196	1729	2328	1528
MEAN	35.5	36.6	95.4	240	252	172	112	93.2	73.2	55.8	75.1	50.9
MAX	81	84	225	1280	1090	321	185	134	168	231	170	128
MIN	27	28	49	80	128	110	88	73	51	39	42	32
CFSM	.72	.74	1.94	4.88	5.12	3.50	2.28	1.89	1.49	1.13	1.53	1.04
IN.	.83	.83	2.23	5.63	5.34	4.03	2.55	2.19	1.66	1.31	1.76	1.16

CAL YR 1981 TOTAL 26746 MEAN 73.3 MAX 394 MIN 27 CFSM 1.49 IN 20.22
WTR YR 1982 TOTAL 39037 MEAN 107 MAX 1280 MIN 27 CFSM 2.18 IN 29.52

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, Dec. 17, 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, 26 micromhos Aug. 8, 11; minimum, 10 micromhos Dec. 17.
WATER TEMPERATURES: Maximum, 18.5°C July 5; minimum, 0.0°C Dec. 6, 9-14, 16, 18, 19, 22, Jan. 10-18, 26, 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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, 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)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV												
23...	1215	28	16	6.9	1.5	12.1	<1	--	5	0	1.2	.4
DEC												
29...	1315	122	14	6.8	4.0	10.6	<2	330	--	--	--	--
JAN												
20...	1130	91	14	6.8	3.5	9.6	4	680	4	2	.9	.3
FEB												
23...	1230	157	13	6.6	4.0	10.2	1	400	3	0	.8	.2
MAR												
19...	1200	231	12	6.9	11.0	9.5	4	790	--	--	--	--
APR												
19...	1100	108	13	6.3	9.0	12.8	2	850	--	--	--	--
MAY												
17...	1300	80	12	6.9	14.0	7.6	16	3100	4	0	1.0	.4
JUN												
15...	1200	86	11	6.6	14.0	7.4	8	2500	--	--	--	--
JUL												
12...	1235	47	16	6.9	17.0	7.7	4	3800	4	1	1.1	.3
AUG												
18...	1115	70	--	--	--	--	18	2900	--	--	--	--
SEP												
08...	1135	55	16	6.8	14.0	6.3	7	1300	4	0	1.1	.4

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV												
23...	1.7	42	.4	.5	7	0	6	2.2	1.4	.5	<.1	9.3
DEC												
29...	--	--	--	--	3	0	2	.8	--	--	--	--
JAN												
20...	.8	29	.2	.5	3	0	2	1.2	1.0	.5	<.1	7.0
FEB												
23...	1.0	38	.3	.5	5	0	4	2.0	.5	.7	<.1	6.7
MAR												
19...	--	--	--	--	5	0	4	1.0	--	--	--	--
APR												
19...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
17...	1.2	35	.3	.6	7	0	6	1.5	2.0	.7	<.1	7.5
JUN												
15...	--	--	--	--	4	0	3	1.6	--	--	--	--
JUL												
12...	1.3	38	.3	.4	4	0	3	.8	2.0	.5	<.1	8.9
AUG												
18...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
08...	1.0	30	.2	.7	5	0	4	1.3	<1.0	.7	<.1	8.3

DATE	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 DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)
NOV											
23...	18	20	.02	1.4	.16	.18	.030	.040	.05	--	--
DEC											
29...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	18	13	.02	4.4	.24	.24	.030	.040	.05	.45	.47
FEB											
23...	21	14	.03	8.9	.20	.22	.020	.060	.08	.36	.24
MAR											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	16	17	.02	3.5	.18	.21	.020	.100	.13	.40	.44
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	23	17	.03	2.9	.17	.15	.040	.030	.04	.46	.57
AUG											
18...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	18	--	.02	2.7	.20	.18	<.010	.010	.01	--	.39

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	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)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)
NOV											
23...	<.10	--	<.10	--	--	--	<.010	--	<.010	--	--
DEC											
29...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	.48	.00	.51	.72	3.2	.75	<.010	--	<.010	1	1
FEB											
23...	.38	.08	.30	.58	2.6	.52	.040	.12	--	--	--
MAR											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	.42	.00	.54	.60	2.7	.75	.020	.06	.020	--	--
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	.50	.00	.60	.67	3.0	.75	.040	.12	.030	--	--
AUG											
18...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	.20	.00	.40	.40	1.8	.58	.020	.06	.020	1	0

DATE	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)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	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)
NOV											
23...	--	--	--	--	--	--	--	--	--	--	--
DEC											
29...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	0	100	90	12	<1	1	0	2	10	9	1
FEB											
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	--	--	--	--	--	--	--	--	--	--	--
AUG											
18...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	1	<100	--	10	<1	1	--	<1	<10	--	<1

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	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, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV											
23...	--	--	--	--	--	--	--	--	--	--	--
DEC											
29...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	<3	5	<10	80	--	<3	5	<10	<4	10	<1
FEB											
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	--	--	--	--	--	--	--	--	--	--	--
AUG											
18...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	<3	5	<10	110	100	9	3	--	<4	<10	<1

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, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL 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)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
23...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	.1	<.1	<10	<1	<1	<1	<1	7	<6.0	50	<4
FEB											
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	<.1	<.1	<10	<1	<1	<1	<1	9	<6.0	20	<4

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM 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)
NOV											
23...	--	--	--	--	--	--	--	--	1.2	--	--
JAN											
20...	--	--	--	--	--	--	--	--	--	1.2	.1
FEB											
23...	--	--	--	--	--	--	--	--	.5	--	--
MAY											
17...	--	--	--	--	--	--	--	--	1.9	--	--
JUL											
12...	--	--	--	--	--	--	--	--	1.7	--	--
SEP											
08...	1.3	<.4	1.0	<.4	.9	<.4	.03	.04	--	1.6	.4

DATE	CYANIDE TOTAL (MG/L AS CN)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)
NOV										
23...	--	--	--	--	--	--	--	--	--	--
JAN										
20...	<.01	--	--	--	--	--	--	--	--	--
FEB										
23...	--	--	--	--	--	--	--	--	--	--
MAY										
17...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	<.01	<.10	<1	<.10	<1.0	<.01	<.1	<.10	<1.0	<.01

DATE	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV										
23...	--	--	--	--	--	--	--	--	--	--
JAN										
20...	--	--	--	--	--	--	--	--	--	--
FEB										
23...	--	--	--	--	--	--	--	--	--	--
MAY										
17...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	<.1	<.01	.7	<.01	<.1	<.01	<.01	<.1	<.01	<.1

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
NOV										
23...	--	--	--	--	--	--	--	--	--	--
JAN										
20...	--	--	--	--	--	--	--	--	--	--
FEB										
23...	--	--	--	--	--	--	--	--	--	--
MAY										
17...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	<.01	<.1	<.01	<.01	<.1	<.01	<.1	<.01	<.1	<.01

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)
SEP								
08...	<.01	<.1	<.01	<.01	<.01	<.1	<.01	<.10

DATE	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
SEP							
08...	<1.00	<1	<10	<.01	<.01	<.01	<.01

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

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

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	8.5	10.5	7.0	15.5	13.5	17.0	14.5	16.0	14.0	15.5	15.0
2	9.5	7.0	10.5	7.5	16.0	13.0	16.0	13.5	16.0	14.0	15.5	14.5
3	13.0	9.5	11.5	8.5	15.0	13.0	17.5	14.0	16.0	13.5	15.5	14.0
4	10.5	7.0	12.5	8.5	14.0	13.5	17.5	15.5	17.0	14.5	14.5	13.0
5	8.5	7.0	13.5	8.5	15.5	13.5	18.5	15.0	16.0	15.5	14.5	12.0
6	8.0	4.5	12.5	9.5	15.0	12.5	17.5	15.5	17.0	14.5	14.5	12.0
7	7.0	3.0	12.0	10.0	14.5	11.5	16.5	15.0	16.0	14.5	14.5	12.0
8	5.5	3.0	13.0	10.5	15.0	12.0	16.5	15.0	17.5	15.5	14.5	12.5
9	7.0	4.0	12.5	9.0	15.5	13.0	16.0	15.5	16.0	15.5	14.5	12.5
10	7.0	2.5	13.5	9.0	14.5	13.5	16.5	15.0	16.5	15.0	14.5	13.0
11	7.5	3.0	13.5	9.5	16.0	13.5	17.0	15.5	16.0	15.0	14.5	13.0
12	9.5	4.0	13.5	10.0	15.5	13.5	16.5	15.0	15.5	14.0	14.5	13.0
13	10.0	7.0	13.5	11.0	14.5	13.5	18.0	15.0	15.5	14.0	15.0	14.0
14	11.0	7.5	14.0	11.0	14.5	12.5	17.0	14.5	16.0	14.0	16.0	14.0
15	11.5	8.0	13.5	12.0	15.0	14.0	16.5	15.0	16.0	14.5	16.0	14.0
16	12.5	9.5	13.5	11.5	15.5	13.5	16.5	15.0	15.5	15.0	16.5	14.0
17	11.5	10.0	13.5	11.5	14.5	13.5	16.5	15.0	16.0	14.5	16.0	13.5
18	11.0	7.5	13.0	11.5	15.5	13.0	16.5	15.0	16.5	14.5	15.5	13.0
19	9.5	8.0	13.5	12.0	16.0	13.5	18.0	15.5	16.5	14.0	16.0	14.5
20	11.5	8.5	13.0	11.5	16.5	14.5	18.0	15.5	16.5	14.5	15.0	13.5
21	11.0	9.0	15.0	12.5	15.0	13.0	18.0	15.5	16.5	14.5	13.5	12.5
22	9.0	7.0	14.0	12.5	14.5	13.5	17.0	15.5	15.5	13.0	12.5	10.5
23	9.5	4.5	14.0	12.5	15.0	13.0	16.5	16.0	15.5	13.0	11.0	9.[illegible]
24	10.0	5.0	13.5	12.5	15.5	13.0	17.5	15.5	16.0	14.0	11.0	8.5
25	8.0	6.5	14.0	12.0	16.5	13.5	17.0	15.5	17.0	15.0	11.0	10.[illegible]
26	12.5	8.0	14.5	13.0	16.0	14.0	17.5	15.5	16.0	13.5	12.0	10.[illegible]
27	10.0	9.0	15.0	13.0	15.5	14.0	17.5	15.5	16.0	14.0	12.5	10.
28	11.5	8.5	14.5	13.0	15.5	14.0	18.0	16.0	17.0	15.0	12.0	9.
29	10.5	8.0	14.5	13.0	16.0	14.5	17.5	16.0	15.5	14.0	12.5	10.
30	11.5	7.0	15.5	13.5	16.5	14.5	16.5	16.0	16.5	14.0	13.0	11.
31	---	---	15.5	13.5	---	---	16.0	15.0	16.0	15.5	---	--
MONTH	13.0	2.5	15.5	7.0	16.5	11.5	18.5	13.5	17.5	13.0	16.5	8.
YEAR	18.5	.0										

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1450	30	2	.16	25
NOV					
23...	1215	28	1	.08	50
DEC					
29...	1315	122	2	.66	67
JAN					
20...	1130	91	2	.49	75
FEB					
23...	1230	157	1	.42	100
MAR					
19...	1200	231	4	2.5	60
MAY					
17...	1300	80	5	1.1	71
JUN					
15...	1200	86	6	1.4	83
JUL					
12...	1235	47	7	.89	79
AUG					
18...	1115	70	3	.57	90
SEP					
08...	1135	55	1	.15	67

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/28	08 30	0000	2.28	53	22	7.00	10.0	1.0K	10.0	88.0	10.0K	4
81/11/17	10 00	0000	2.22	41		6.80	7.0	1.0K	11.2	92.0	10.0K	25
81/11/23	12 15	0000	2.10	28								1K
81/12/29	13 30	0000	2.67	116								2K
81/12/30	11 10	0000	2.63	108		6.40	1.0	1.0K	12.0	85.0	10.0K	30
82/01/20	11 30	0000	2.55	93								4
82/01/25	10 45	0000	3.21	257	12	6.70	2.0	1.0K	12.0	87.0	10.0K	1
82/02/23	10 00	0000	2.85	157	19	6.80	4.0	1.0K	12.9	98.0	10.0K	1K
	12 30	0000	2.85	157								1
82/03/19	12 00	0000	3.12	231								4
82/03/23	11 00	0000	2.91	173	19	6.50	6.0	1.0K	10.9	87.0	10.0K	2
82/04/19	11 00	0000	2.63	108								2
82/04/22	11 10	0000	2.57	96	30		8.0	1.0K	10.9	92.0	10.0K	10K
82/05/17	13 00	0000	2.45	80			14.0					16
82/05/27	09 15	0000	2.45	82	15	6.50	9.5	1.0K	9.3	82.0	10.0K	40
82/06/17	10 40	0000	2.41	74	15	6.80	16.0	2.0	9.3	93.0	10.0K	170
82/07/12	12 45	0000	2.23	48								4
82/07/20	11 30	0000	2.21	44	14	6.40	17.0	1.0K	9.1	94.0	10.0K	8
82/08/18	11 00	0000	2.39	71	18	6.60	16.0	1.0K	9.0	90.0	10.0K	15
	11 15	0000	2.39	71								18
82/09/07	14 00	0000	2.34	58	18	6.90	14.5	1.0	9.5	92.0	10.0K	12
82/09/08	11 45	0000	2.32	55			14.0					7

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/28	08 30	0000	8	1K	15	0.16	0.050K	0.300	0.050K	0.050K		
81/11/17	10 00	0000	5	7	32	0.20	0.050K	0.100	0.050K	0.050K	10K	50K
81/12/30	11 10	0000	4	1K	45	0.25	0.050K	0.300	0.050K	0.050K		
82/01/25	10 45	0000	3	3	50	0.25	0.050K	0.100	0.050K	0.050K		
82/02/23	10 00	0000	4	3	36	0.20	0.050K	0.100	0.050K	0.050K	10K	50K
82/03/23	11 00	0000	4	2	27	0.18	0.050K	0.100K	0.050K	0.050K		
82/04/22	11 10	0000		6	29	0.14	0.050K	0.100	0.050K	0.050K		
82/05/27	09 15	0000	5	6	39	0.19	0.050K	0.200	0.050K	0.050K	10K	50K
82/06/17	10 40	0000	5	7	31	0.22	0.050K	0.100	0.050K	0.050K		
82/07/20	11 30	0000	5	1	43	0.21	0.050K	0.100	0.050K	0.050K		
82/08/18	11 00	0000	4	4	29	0.18	0.050K	0.200	0.050K	0.050K	10K	50K
82/09/07	14 00	0000	6	1K	40	0.19	0.050K	0.100	0.050K	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/17	10 00	0000	50K	40K	100K	0.5K	100K	50K
82/02/23	10 00	0000	50K	40K	100K	0.2K	100K	50K
82/05/27	09 15	0000	50K	40K	100K	0.2K	100K	50K
82/08/18	11 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

03463300 SOUTH TOE RIVER NEAR CELO, NC

LOCATION.--Lat 35°49'53", long 82°11'04", Yancey County, Hydrologic Unit 06010108, on right bank on Secondary Road 1168, 800 ft (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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1957 to current year.

REVISED RECORDS.--WSP 1910: 1958-59. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,658 ft (810.16 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good.

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

AVERAGE DISCHARGE.--25 years, 148 ft³/s (4.191 m³/s), 46.42 in/yr (1,179 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, 2,330 ft³/s (66.0 m³/s) Feb. 3, gage height, 3.69 ft (1.125 m), no peak above base of 2,800 ft³/s (79 m³/s); minimum, 19 ft³/s (0.54 m³/s) Oct. 1, gage height, 0.54 ft (0.165 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	30	81	257	256	112	88	140	206	56	232	63
2	39	29	76	160	280	120	84	128	163	52	151	66
3	27	27	46	324	1310	136	96	119	141	52	125	48
4	22	27	40	1070	486	146	82	110	164	51	109	40
5	22	27	37	326	330	200	81	104	173	50	95	38
6	22	27	32	222	268	195	84	99	135	48	88	36
7	22	24	32	187	223	423	76	95	120	55	93	34
8	21	25	37	153	196	234	81	105	109	128	85	33
9	21	24	34	125	247	193	93	92	101	88	81	31
10	22	24	33	123	213	171	83	86	102	80	78	32
11	22	24	39	120	178	158	81	82	101	139	76	31
12	22	23	38	120	163	153	79	79	100	88	74	31
13	22	22	35	115	154	158	82	77	125	167	68	31
14	21	22	111	115	139	148	82	73	103	116	64	56
15	21	22	149	115	137	190	81	80	91	126	60	54
16	21	21	98	110	242	174	97	89	86	98	81	49
17	21	25	70	106	273	236	119	80	81	92	82	37
18	21	23	59	95	217	182	128	87	79	175	67	33
19	21	21	55	92	189	164	99	94	76	208	60	33
20	22	22	52	100	166	153	95	83	69	123	56	35
21	22	22	51	276	152	168	91	86	66	102	50	36
22	22	20	63	168	138	148	85	77	65	145	48	41
23	28	20	94	329	128	131	80	101	64	275	47	32
24	35	27	77	199	122	122	77	111	61	204	48	30
25	29	25	93	154	115	117	89	97	63	147	46	30
26	171	23	72	130	109	112	296	152	81	121	43	34
27	148	37	70	120	122	103	280	388	86	128	41	35
28	58	53	69	110	111	97	288	223	73	124	42	30
29	42	32	82	99	---	95	191	253	66	104	39	29
30	36	29	69	93	---	93	158	263	60	109	38	27
31	33	---	163	357	---	93	---	211	---	239	41	---
TOTAL	1076	777	2057	6070	6664	4925	3426	3864	3010	3690	2308	1135
MEAN	34.7	25.9	66.4	196	238	159	114	125	100	119	74.5	37.8
MAX	171	53	163	1070	1310	423	296	388	206	275	232	66
MIN	20	20	32	92	109	93	76	73	60	48	38	27
CFSM	.80	.60	1.53	4.53	5.50	3.67	2.63	2.89	2.31	2.75	1.72	.87
IN.	.92	.67	1.77	5.21	5.73	4.23	2.94	3.32	2.59	3.17	1.98	.98

CAL YR 1981 TOTAL 34441 MEAN 94.4 MAX 1090 MIN 20 CFSM 2.18 IN 29.59
WTR YR 1982 TOTAL 39002 MEAN 107 MAX 1310 MIN 20 CFSM 2.47 IN 33.51

03463300 SOUTH TOE RIVER NEAR CELO, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/06	09 30 0000		0.57	22	20	6.50	13.0		9.8	92.0		10K
81/11/03	14 30 0000		0.61	27	13	6.50	14.0	1.0K	9.9	95.0	10.0K	10K
81/12/02	12 15 0000		0.84	70		7.10	6.0		11.4	91.0		10K
82/01/05	13 15 0000		1.46	304	15	6.00	3.0		11.6	86.0		10K
82/02/08	13 10 0000		1.22	193	42	6.80	4.0	2.0	11.2	85.0	10.0K	10K
82/03/25	14 30 0000		0.99	111	17	6.50	12.0		9.9	92.0		10K
82/04/27	11 30 0000		1.28	219	30	6.40	11.0		9.9	89.0		35
82/05/19	09 15 0000		0.93	96	35	6.60	15.0	1.0	9.4	92.0	10.0K	80
82/06/21	12 15 0000		0.83	68	14	6.60	19.0		8.4	89.0		20
82/07/14	13 30 0000		0.97	105	24	6.50	20.0		7.8	85.0		130
82/08/17	14 10 0000		0.89	75	19	6.40	18.0	2.0	8.5	89.0	10.0K	
82/09/21	13 15 0000		0.67	32	12		18.0		9.2	97.0		40

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/06	09 30 0000		7	1K	22							
81/11/03	14 30 0000		6	3	28	0.05K	0.050	0.200	0.050K	0.050K	10K	50K
81/12/02	12 15 0000			1K	31							
82/01/05	13 15 0000		1	4	32							
82/02/08	13 10 0000		3	1	23	0.17	0.050K	0.100	0.050K	0.050K	10K	50K
82/03/25	14 30 0000		3	5	21							
82/04/27	11 30 0000		2	3	16							
82/05/19	09 15 0000		4	6	26	0.13	0.050K	0.100	0.050K	0.050K	10K	50K
82/06/21	12 15 0000		4	2	27							
82/07/14	13 30 0000		3	3	14							
82/08/17	14 10 0000		3	4	31	0.12	0.050K	0.100	0.050K	0.050K	10K	50K
82/09/21	13 15 0000			2	22							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/03	14 30 0000		50K	40K	100K	0.5K		50K
82/02/08	13 10 0000		50K	40K	100K	0.2K	100K	50K
82/05/19	09 15 0000		50K	40K	100K	0.2K	100K	50K
82/08/17	14 10 0000		50K	40K	100K	0.3	100K	50K

K Less than noted value.

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).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1306.

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

GAGE.--Water-stage recorder. Datum of gage is 2,607.84 ft (794.870 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Slight diurnal fluctuation at low flow caused by small mills above station.

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

AVERAGE DISCHARGE.--43 years, 176 ft³/s (4,984 m³/s), 25.95 in/yr (659 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0930	2250	63.7	6.54	1.993	Feb. 3	1100	*2900	82.1	*7.38	2.249

Minimum discharge, 17 ft³/s (0.48 m³/s) Nov. 22, gage height, 1.28 ft (0.390 m), result of freezeup; minimum daily, 19 ft³/s (0.54 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	37	51	368	422	182	130	224	198	81	265	350
2	33	36	68	221	319	206	121	198	160	69	138	196
3	26	34	52	228	1990	231	137	178	141	71	106	125
4	23	33	46	1300	887	239	120	159	134	72	91	98
5	23	35	46	469	493	254	116	147	164	69	81	83
6	24	43	42	269	358	252	141	138	126	60	76	76
7	23	34	39	230	275	539	115	131	112	64	71	70
8	22	32	42	195	231	463	120	130	104	80	82	66
9	22	31	38	169	238	350	129	119	100	80	176	62
10	23	31	38	165	215	284	118	111	143	84	114	60
11	24	30	48	165	183	247	112	104	126	117	85	59
12	25	30	48	165	168	220	107	99	103	146	77	57
13	24	29	56	170	165	215	108	95	160	124	71	59
14	23	29	57	170	149	197	109	90	126	124	69	91
15	23	29	123	170	149	195	121	89	104	98	64	89
16	24	30	108	170	240	185	114	96	96	83	64	71
17	24	37	71	167	344	599	128	104	95	84	76	59
18	24	33	60	165	355	411	139	109	90	83	68	55
19	23	31	60	170	312	310	118	151	85	136	80	54
20	23	34	64	281	270	273	112	180	79	86	64	58
21	23	33	60	325	242	255	109	167	75	76	58	56
22	23	31	75	295	210	221	102	130	76	72	55	74
23	29	31	85	279	183	197	97	176	76	165	53	58
24	35	39	92	257	170	181	93	236	71	117	58	53
25	36	42	105	212	161	177	100	197	76	86	57	52
26	86	37	94	190	145	205	352	214	82	74	52	59
27	180	41	87	170	160	164	523	257	118	66	49	70
28	71	47	83	145	168	151	508	245	145	63	53	55
29	50	40	89	133	---	144	342	262	115	60	47	51
30	43	38	79	111	---	139	266	265	88	83	46	49
31	39	---	241	290	---	136	---	219	---	299	159	---
TOTAL	1090	1037	2247	7814	9202	7822	4907	5020	3368	2972	2605	2415
MEAN	35.2	34.6	72.5	252	329	252	164	162	112	95.9	84.0	80.5
MAX	180	47	241	1300	1990	599	523	265	198	299	265	350
MIN	19	29	33	111	145	136	93	89	71	60	46	49
CFSM	.38	.38	.79	2.74	3.57	2.74	1.78	1.76	1.22	1.04	.91	.87
IN.	.44	.42	.91	3.16	3.72	3.16	1.98	2.03	1.36	1.20	1.05	.98

CAL YR 1981 TOTAL 44583 MEAN 122 MAX 1630 MIN 19 CFSM 1.33 IN 18.01
WTR YR 1982 TOTAL 50499 MEAN 138 MAX 1990 MIN 19 CFSM 1.50 IN 20.40

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/06	12 45	0000	1.36	25	61	8.25	18.0	1.0	11.5	121.0	10.0K	40
81/11/03	11 30	0000	1.45	34	78	8.30	14.0	1.0	11.6	112.0	10.0K	20
81/12/02	10 15	0000	1.76	74		7.30	5.0	3.0	11.8	92.0	10.0K	250
82/01/05	11 00	0000	3.15	456	65	6.70	2.0	15.0	11.2	81.0	10.0K	260
82/02/08	10 50	0000	2.45	229	53	7.10	2.0	2.0	12.0	87.0	10.0K	10
82/03/03	12 00	0000	2.43	224	57	7.00	7.0	3.0	11.8	97.0	10.0K	100
82/04/28	11 30	0000	3.29	507	95	6.90	10.0	6.0	10.0	88.0	10.0K	450
82/05/06	10 20	0000	2.10	140	110	7.10	14.0	3.0	9.9	95.0	10.0K	100
82/06/21	09 30	0000	1.76	74	51	7.90	15.0	2.0	9.4	92.0	10.0K	240
82/07/14	10 10	0000	2.03	124	62	7.10	20.0	10.0	8.2	89.0	10.0K	1100
82/08/17	11 00	0000	1.77	75	65	7.60	20.0	3.0	9.0	98.0	10.0K	580
82/09/21	10 45	0000	1.62	54	74		15.0	2.0	9.7	95.0	10.0K	180

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/06	12 45	0000	27	4	51	0.13	0.160	0.200	0.050K	0.050K		
81/11/03	11 30	0000	24	4	61	0.20	0.050K	0.200	0.050K	0.050K	10K	50K
81/12/02	10 15	0000		5	68	0.60	0.050K	0.300	0.050K	0.050K		
82/01/05	11 00	0000	8	26	117	1.90	0.050K	0.400	0.050	0.050K		
82/02/08	10 50	0000	10	5	69	1.70	0.050K	0.200	0.050K	0.050K	10K	50K
82/03/03	12 00	0000	12	3	42	1.20	0.050K	0.300	0.090	0.050		
82/04/28	11 30	0000	11	29	75	0.68	0.050K	0.200	0.050	0.050K		
82/05/06	10 20	0000	16	4	53	0.64	0.050K	0.200	0.050K	0.050K	10K	50K
82/06/21	09 30	0000	23	12	69	0.43	0.050K	0.300	0.050K	0.050K		
82/07/14	10 10	0000	20	49	109	0.46	0.050K	0.300	0.100	0.050K		
82/08/17	11 00	0000	23	5	62	0.42	0.050K	0.200	0.050K	0.050K	10K	50K
82/09/21	10 45	0000		5	70	0.46	0.050K	0.200	0.050K	0.050K		

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/03	11 30	0000	50K	40K	100K	0.5K		50K
82/02/08	10 50	0000	50K	40K	100K	0.2K	100K	50K
82/05/06	10 20	0000	50K	40K	100K	0.2K	100K	50K
82/08/17	11 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC

LOCATION.--Lat 35°08'59", long 83°22'47", Macon County, Hydrologic Unit 06010202, on left bank 600 ft (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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good.

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

AVERAGE DISCHARGE.--39 years, 393 ft³/s (11.13 m³/s), 38.12 in/yr (968 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1800	2070	58.6	5.76	1.756	Feb. 3	1630	*3000	85.0	*7.60	2.316
Feb. 1	0030	1580	44.7	4.56	1.390						

Minimum discharge, 76 ft³/s (2.15 m³/s) Oct. 3, 8, 9, gage height, 1.31 ft (0.399 m); minimum daily, 76 ft³/s (2.15 m³/s) Oct. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	114	420	796	1030	571	327	382	280	172	358	422
2	79	110	372	467	733	559	311	364	244	160	232	498
3	77	105	238	762	2480	529	358	349	225	154	192	236
4	80	103	198	1850	1760	500	329	334	240	150	171	184
5	80	109	171	1110	1060	475	313	325	283	148	160	163
6	79	119	154	716	857	453	317	315	222	143	159	150
7	78	103	145	577	728	744	297	306	206	138	148	141
8	76	98	137	491	650	618	351	393	198	173	166	135
9	76	96	127	430	782	552	477	323	191	191	244	132
10	90	94	121	374	754	511	378	300	197	197	318	130
11	97	94	118	342	642	485	347	289	213	179	233	173
12	87	92	121	320	584	463	329	280	204	159	219	206
13	84	92	119	300	554	442	318	291	342	170	186	159
14	82	90	163	280	511	425	333	273	254	142	172	149
15	83	90	228	270	493	494	339	262	214	175	163	142
16	83	90	216	260	651	562	379	257	200	171	155	131
17	82	99	175	250	944	489	425	262	192	257	179	126
18	87	92	169	261	788	450	456	261	188	305	211	124
19	96	90	139	272	696	429	385	259	187	319	208	123
20	84	159	141	366	619	417	366	252	175	205	166	124
21	84	119	141	779	571	463	350	273	166	175	156	121
22	84	104	212	621	525	413	330	250	162	177	146	118
23	96	99	307	599	493	388	314	254	164	177	140	114
24	119	137	336	564	473	377	304	325	159	207	136	113
25	97	125	570	465	457	365	358	271	154	203	141	114
26	287	111	477	410	445	365	769	345	156	176	131	185
27	394	136	348	371	594	345	554	313	218	170	125	165
28	203	228	286	356	609	334	491	287	229	179	125	133
29	149	150	249	340	---	330	434	288	273	156	121	124
30	128	169	223	322	---	325	403	255	199	278	120	120
31	119	---	566	734	---	330	---	257	---	276	120	---
TOTAL	3421	3417	7367	16055	21483	14203	11442	9195	6335	5882	5501	4955
MEAN	110	114	238	518	767	458	381	297	211	190	177	165
MAX	394	228	570	1850	2480	744	769	393	342	319	358	498
MIN	76	90	118	250	445	325	297	250	154	138	120	113
CFSM	.79	.81	1.70	3.70	5.48	3.27	2.72	2.12	1.51	1.36	1.26	1.18
IN.	.91	.91	1.96	4.27	5.71	3.77	3.04	2.44	1.68	1.56	1.46	1.32

CAL YR 1981 TOTAL 76009 MEAN 208 MAX 1470 MIN 76 CFSM 1.49 IN 20.20
WTR YR 1982 TOTAL 109276 MEAN 299 MAX 2480 MIN 76 CFSM 2.14 IN 29.04

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/27	09 45	0000	2.67	480	33	6.80	13.0		8.7	82.0		7900
81/11/04	10 30	0000	1.47	103	33		13.0	7.0	9.1	86.0	10.0K	240
81/12/10	09 30	0000	1.57	121		6.90	1.0		12.4	87.0		40
82/01/27	10 45	0000	2.40	369	25	6.70	1.0		11.6	82.0		30
82/02/24	09 10	0000	2.66	476	22	6.60	9.0	9.0	10.4	91.0	10.0K	170
82/03/11	11 00	0000	2.68	485	22	6.80	9.0		10.2	88.0		150
82/04/29	08 00	0000	2.58	442	40	6.60	12.0		9.4	87.0		310
82/05/26	07 45	0000	2.53	421	51	7.20	17.0	270.0	7.7	79.0	57.0	39000
82/06/23	10 15	0000	1.76	163	46	6.60	18.0		8.6	91.0		590
82/07/21	10 05	0000	1.81	175	33	6.70	21.0		7.5	83.0		600
82/08/26	10 00	0000	1.62	131	25	6.80	19.0	15.0	8.1	86.0	10.0K	210
82/09/30	09 10	0000	1.56	119	24	6.70	16.0		8.5	85.0		250

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/27	09 45	0000	10	112	169							
81/11/04	10 30	0000		9	50	0.09	0.050K	0.200	0.090	0.050K	53	50K
81/12/10	09 30	0000	8	9	36						10K	
82/01/27	10 45	0000	6	13	33							
82/02/24	09 10	0000	5	18	47	0.23	0.050K	0.100	0.080	0.050K	10K	50K
82/03/11	11 00	0000	7	13	45							
82/04/29	08 00	0000	6	27	60							
82/05/26	07 45	0000	22	530	621	0.29	0.050K	1.500	0.830	0.050	10K	50K
82/06/23	10 15	0000	7	15	47							
82/07/21	10 05	0000	8	33	74							
82/08/26	10 00	0000	8	23	62	0.10	0.050K	0.200	0.120	0.050	10K	50K
82/09/30	09 10	0000	9	15	58							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/04	10 30	0000	50K	40K	100K	0.5K	100K	50K
82/02/24	09 10	0000	50K	40K	100K	0.2K	100K	50K
82/05/26	07 45	0000	50K	40K	100K	0.4	100K	80
82/08/26	10 00	0000	50K	40K	100K	0.2K	100K	50K

K Less than noted value.

03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC

LOCATION.--Lat 35°09'31", long 83°23'40", Macon County, Hydrologic Unit 06010202, on downstream side of center pier of bridge on Secondary Road 1152, 0.1 mi (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.--21 years, 146 ft³/s (4.135 m³/s), 34.72 in/yr (882 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, Oct. 8, 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 5	0215	1400	39.6	7.65	2.332	Feb. 3	0630	*1720	48.7	*8.88	2.707
Jan. 21	1130	1050	29.7	6.21	1.893	Sept. 1	2100	1280	36.2	7.18	2.188

Minimum discharge, 23 ft³/s (0.65 m³/s) Oct. 8, gage height, 1.09 ft (0.332 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	41	191	401	205	222	117	137	96	54	154	436
2	26	39	121	203	435	223	116	132	83	50	90	384
3	27	38	84	171	1290	206	141	124	78	50	72	158
4	28	37	73	755	583	188	120	120	87	52	64	111
5	28	48	63	902	395	176	117	116	121	48	60	91
6	28	47	57	365	309	169	115	112	85	46	60	77
7	28	39	55	238	254	296	110	110	77	44	55	71
8	26	37	52	183	220	224	158	145	74	48	66	68
9	28	38	49	146	282	199	173	115	72	48	95	63
10	36	38	46	126	283	190	145	106	76	57	124	61
11	35	37	48	120	237	180	133	103	76	81	90	95
12	33	36	47	115	210	180	125	101	71	60	102	88
13	31	36	44	110	197	175	121	99	112	52	77	71
14	29	36	89	105	177	170	139	96	82	46	70	69
15	30	36	98	105	166	250	138	94	73	45	65	64
16	31	37	82	100	223	215	131	97	70	73	62	61
17	31	52	80	95	331	220	160	106	69	103	64	58
18	41	41	76	100	295	190	154	105	68	89	68	56
19	37	38	68	105	252	185	139	103	64	71	58	56
20	31	45	63	112	219	180	134	95	62	58	55	54
21	32	40	65	574	200	210	132	97	60	52	53	53
22	32	39	99	316	181	180	122	92	60	51	51	50
23	49	36	192	298	166	170	115	97	60	69	48	49
24	42	60	178	270	157	165	112	136	57	96	48	49
25	41	48	260	213	155	160	168	104	55	71	48	50
26	102	44	213	180	152	155	295	101	54	59	46	71
27	91	93	154	153	248	150	208	103	73	63	45	71
28	57	92	124	140	228	145	177	97	65	75	45	56
29	47	63	108	130	---	135	157	93	65	67	43	51
30	43	105	95	122	---	120	145	88	59	110	41	50
31	41	---	93	306	---	120	---	83	---	134	44	---
TOTAL	1188	1416	3067	7261	8050	5748	4317	3307	2204	2022	2063	2742
MEAN	38.3	47.3	98.9	234	288	185	144	107	73.5	65.2	66.5	91.4
MAX	102	105	260	902	1290	296	295	145	121	134	154	436
MIN	26	36	44	95	152	120	110	83	54	44	41	49
CFSM	.67	.83	1.73	4.10	5.04	3.24	2.52	1.87	1.29	1.14	1.17	1.60
IN.	.77	.92	2.00	4.73	5.24	3.74	2.81	2.15	1.44	1.32	1.34	1.79

CAL YR 1981 TOTAL 29655 MEAN 81.2 MAX 654 MIN 25 CFSM 1.42 IN 19.32
WTR YR 1982 TOTAL 43387 MEAN 119 MAX 1290 MIN 26 CFSM 2.08 IN 28.27

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC

LOCATION.--Lat 35°07'37", long 83°37'09", Macon County, Hydrologic Unit 06010202, on right bank on Nantahala Forest Service Road 437, 300 ft (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).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good. Occasional slight diurnal fluctuation at low flow caused by small ponds on tributaries above station.

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

AVERAGE DISCHARGE.--42 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0545	*1840	52.1	*4.42	1.347	Feb. 3	0515	1790	50.7	4.35	1.326

Minimum discharge, 43 ft³/s (1.22 m³/s) Oct. 8, 9, gage height, 0.65 ft (0.198 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	62	274	291	371	243	167	176	167	92	246	575
2	46	60	200	244	440	235	161	171	140	86	166	394
3	45	57	159	543	1310	233	201	166	133	87	141	226
4	45	57	141	1120	791	227	164	161	150	90	126	179
5	45	74	119	618	607	223	164	156	144	83	118	158
6	45	66	110	459	514	219	161	152	125	80	111	143
7	45	57	103	384	445	365	152	151	119	89	103	132
8	44	55	99	323	399	269	228	227	114	97	118	124
9	44	54	93	285	504	250	249	159	110	140	197	116
10	60	54	90	254	424	237	200	151	145	156	196	112
11	50	53	90	240	377	230	184	147	119	217	165	167
12	47	52	95	210	350	220	174	145	122	139	154	138
13	46	51	95	195	325	220	169	142	229	111	136	122
14	45	51	146	185	297	210	174	135	140	98	126	116
15	45	51	144	179	309	327	170	131	123	107	119	108
16	45	62	119	175	434	272	172	131	115	110	114	103
17	45	87	131	170	466	256	218	138	114	190	131	99
18	76	59	124	185	395	237	198	163	120	135	125	96
19	58	56	95	220	369	227	181	143	113	164	110	95
20	47	92	95	253	330	220	175	151	103	134	102	92
21	45	63	110	676	308	264	174	162	97	114	99	90
22	45	59	223	415	283	224	163	216	96	109	94	87
23	92	57	339	456	264	213	157	207	94	109	91	85
24	63	81	247	386	245	205	153	207	91	108	89	84
25	62	68	332	335	232	201	224	174	89	100	101	85
26	194	61	267	298	231	196	281	200	85	101	86	136
27	176	201	227	272	300	183	231	218	136	118	83	124
28	96	168	197	251	255	177	208	186	115	108	83	92
29	78	112	178	235	---	174	194	167	138	114	80	86
30	69	166	162	223	---	170	183	156	102	210	78	84
31	65	---	347	490	---	175	---	147	---	270	91	---
TOTAL	1953	2246	5151	10570	11575	7102	5630	5136	3688	3866	3779	4248
MEAN	63.0	74.9	166	341	413	229	188	166	123	125	122	142
MAX	194	201	347	1120	1310	365	281	227	229	270	246	575
MIN	44	51	90	170	231	170	152	131	85	80	78	84
CFSM	1.21	1.44	3.20	6.57	7.96	4.41	3.62	3.20	2.37	2.41	2.35	2.74
IN.	1.40	1.61	3.69	7.58	8.30	5.09	4.04	3.68	2.64	2.77	2.71	3.04

CAL YR 1981 TOTAL 48205 MEAN 132 MAX 993 MIN 43 CFSM 2.54 IN 34.55
WTR YR 1982 TOTAL 64944 MEAN 178 MAX 1310 MIN 44 CFSM 3.43 IN 46.55

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/27	08 45	0000	1.42	216	22	6.90	11.0		9.6	86.0		10
81/11/04	09 30	0000	0.75	57	111		10.0	1.0K	10.1	89.0	10.0K	20
81/12/10	08 30	0000	0.98	89		7.10	0.0		12.8	88.0		10
82/01/27	09 45	0000	1.68	292	12	6.90	1.0-		12.4	84.0		10K
82/02/24	08 30	0000	1.60	249	13	6.80	7.0	1.0K	10.8	89.0	10.0K	10K
82/03/11	10 00	0000	1.51	225	17	7.20	8.0		10.8	91.0		10K
82/04/29	07 20	0000	1.40	197	30	6.80	9.0		10.0	86.0		10K
82/05/26	06 45	0000	1.30	168	13	6.80	13.0	1.0	9.4	89.0	10.0K	10K
82/06/23	11 15	0000	1.00	95	12	6.70	16.0		9.6	96.0		10
82/07/21	09 15	0000	1.10	117	12	6.50	17.0		9.2	95.0		50
82/08/26	09 00	0000	0.95	85	18	6.80	15.0	10.0	9.0	88.0	10.0K	110
82/09/30	10 00	0000	0.95	85	23	6.60	12.0		9.6	89.0		20

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/27	08 45	0000	8	7	51							
81/11/04	09 30	0000		3	45	0.05K	0.050K	0.100	0.050K	0.050K	48	50K
81/12/10	08 30	0000	5	1K	24						10K	
82/01/27	09 45	0000	3	1K	20							
82/02/24	08 30	0000	5	1K	30	0.05K	0.050K	0.100	0.050K	0.050K	10K	50K
82/03/11	10 00	0000	5	2	25							
82/04/29	07 20	0000	6	1	25							
82/05/26	06 45	0000	6	7	35	0.05K	0.050K	0.200	0.050K	0.050K	10K	50K
82/06/23	11 15	0000	6	2	34							
82/07/21	09 15	0000	5	2	34							
82/08/26	09 00	0000	7	3	30	0.05K	0.050K	0.100	0.050K	0.050K	10K	50K
82/09/30	10 00	0000	6	1K	45							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/04	09 30	0000	50K	40K	100K	0.5K	100K	50K
82/02/24	08 30	0000	50K	40K	100K	0.2	100K	50K
82/05/26	06 45	0000	50K	40K	100K	0.2K	100K	50K
82/08/26	09 00	0000	50K	40K	100	0.2K	100K	50K

K Less than noted value.

03512000 OCONALUFTEE RIVER AT BIRDTOWN, NC

LOCATION.--Lat 35°27'41", long 83°21'13", Swain County, Hydrologic Unit 06010203, in Cherokee Indian Reservation, on left bank 200 ft (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.--35 years, 520 ft³/s (14.73 m³/s), 38.38 in/yr (975 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0730	*9860	279	*8.90	2.713	Feb. 3	0815	6340	180	6.75	2.057
Jan. 21	1030	4060	115	5.17	1.576						

Minimum discharge, 132 ft³/s (3.74 m³/s) Oct. 16, 17, 18, 19, 24, gage height, 1.02 ft (0.311 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	252	1490	937	975	682	570	540	557	319	1100	1140
2	215	233	1000	794	1020	660	510	500	484	310	564	1320
3	169	218	664	2570	4210	649	583	480	443	303	431	876
4	157	207	559	5780	2380	645	530	460	430	283	365	580
5	155	250	463	2580	1630	704	508	435	441	285	327	460
6	159	240	409	1650	1290	691	501	430	395	276	308	394
7	160	225	380	1250	1060	1480	469	414	372	279	275	348
8	148	183	376	1000	924	1020	528	500	355	306	287	316
9	147	173	341	852	1280	875	546	412	341	357	440	291
10	160	170	311	686	1080	790	499	390	483	309	431	275
11	158	167	303	632	927	733	491	369	533	294	561	268
12	149	160	300	600	855	685	481	360	413	277	608	262
13	143	157	288	550	813	669	486	363	1270	274	393	252
14	140	158	464	530	730	676	480	347	686	266	344	252
15	135	156	481	510	719	776	466	338	534	298	311	245
16	132	161	427	490	1490	759	462	371	467	368	337	229
17	135	235	409	473	2020	1480	565	384	439	311	342	217
18	132	205	383	503	1510	1200	572	370	408	316	379	209
19	161	183	335	606	1220	982	494	450	380	284	295	210
20	164	219	339	662	1030	877	422	397	356	259	269	207
21	140	193	384	2420	927	955	408	395	335	237	256	202
22	137	181	497	1630	826	853	324	377	328	269	238	193
23	135	179	1120	2030	747	772	280	438	316	260	227	185
24	173	241	911	1530	694	725	267	440	303	260	269	183
25	221	216	891	1150	671	688	425	395	369	293	243	190
26	173	211	775	925	642	659	854	460	394	243	220	231
27	778	619	699	796	759	599	709	452	348	242	206	227
28	750	615	626	720	708	567	764	907	340	296	218	190
29	424	412	581	650	---	546	625	911	367	480	199	184
30	324	439	526	606	---	530	560	654	329	633	192	179
31	280	---	829	1140	---	591	---	577	---	1140	249	---
TOTAL	6610	7258	17561	37252	33137	24518	15379	14316	13216	10327	10884	10315
MEAN	213	242	566	1202	1183	791	513	462	441	333	351	344
MAX	778	619	1490	5780	4210	1480	854	911	1270	1140	1100	1320
MIN	132	156	288	473	642	530	267	338	303	237	192	179
CFSM	1.16	1.32	3.08	6.53	6.43	4.30	2.79	2.51	2.40	1.81	1.91	1.87
IN.	1.34	1.47	3.55	7.53	6.70	4.96	3.11	2.89	2.67	2.09	2.20	2.09

CAL YR 1981 TOTAL 145078 MEAN 397 MAX 2470 MIN 132 CFSM 2.16 IN 29.33
WTR YR 1982 TOTAL 200773 MEAN 550 MAX 5780 MIN 132 CFSM 2.99 IN 40.59

03548500 HIWASSEE RIVER ABOVE MURPHY, NC

LOCATION.--Lat 35°04'49", long 84°00'10", Cherokee County, Hydrologic Unit 06020002, on right bank on U.S. Highway 64, 600 ft (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).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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. 438).

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

AVERAGE DISCHARGE.--85 years (1897-1982), 921 ft³/s (26.08 m³/s), 30.81 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, 8,080 ft³/s (229 m³/s) Feb. 3, gage height, 9.06 ft (2.761 m); minimum, 91 ft³/s (2.58 m³/s) Nov. 12, gage height, 2.04 ft (0.622 m); minimum daily, 95 ft³/s (2.69 m³/s) Nov. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	106	744	1520	794	1340	409	420	294	643	755	1030
2	567	104	741	1340	1260	1260	375	398	251	312	754	1630
3	377	105	762	2530	5860	1160	404	380	517	234	1070	1140
4	106	101	435	5040	3230	1110	360	363	333	180	1040	1030
5	170	121	493	2360	2620	1080	774	351	255	183	1120	356
6	557	149	194	1510	2340	1000	1230	336	226	453	1110	301
7	618	110	378	945	2180	1580	1240	330	357	887	673	423
8	652	105	420	1420	2080	1310	583	505	769	1030	196	739
9	423	101	457	1180	2480	1310	573	369	729	1110	740	789
10	454	103	636	1490	2380	1250	444	337	777	838	1170	731
11	115	96	480	1570	2220	1260	416	322	618	359	1830	667
12	221	95	316	1830	2120	1260	396	307	220	560	1680	315
13	742	354	138	1610	1730	1060	372	303	394	1000	871	454
14	368	415	337	1330	1510	1060	372	297	660	942	662	802
15	651	100	528	1290	1150	1540	365	281	782	1050	390	955
16	518	338	538	835	1760	1590	349	286	623	1110	562	1170
17	384	509	423	1380	2300	1410	442	472	627	779	791	1200
18	105	330	904	1310	1950	1440	474	647	810	304	900	649
19	110	208	817	385	1620	1310	420	402	553	651	826	196
20	523	492	231	530	1490	1110	405	392	202	1000	1020	474
21	615	484	453	2180	703	802	728	334	355	1070	711	706
22	590	224	450	1740	871	1030	516	277	759	882	238	621
23	499	305	555	1070	1030	1080	361	292	535	585	409	405
24	510	222	965	1330	1100	754	350	444	853	558	854	504
25	115	497	1050	1340	1010	506	490	581	694	207	777	180
26	230	132	724	709	1090	484	1070	314	469	482	718	203
27	198	242	503	731	1470	441	697	366	180	767	746	465
28	159	687	607	497	1450	415	574	455	443	848	493	515
29	137	220	693	417	---	400	498	317	849	988	190	911
30	120	209	996	380	---	400	455	288	682	1060	270	475
31	111	---	1350	473	---	402	---	270	---	1170	892	---
TOTAL	11465	7264	18318	42272	51798	32174	16142	11436	15816	22242	24458	20036
MEAN	370	242	591	1364	1850	1038	538	369	527	717	789	668
MAX	742	687	1350	5040	5860	1590	1240	647	853	1170	1830	1630
MIN	105	95	138	380	703	400	349	270	180	180	190	180

CAL YR 1981 TOTAL 180784 MEAN 495 MAX 2470 MIN 88 **MEAN‡ 504** **CFSM‡ 1.24** **IN.‡ 16.83**
WTR YR 1982 TOTAL 273421 MEAN 749 MAX 5860 MIN 95 **MEAN‡ 755** **CFSM‡ 1.86** **IN.‡ 25.24**

‡ Adjusted for change in contents in Chatuge Lake.

03548500 HIWASSEE RIVER ABOVE MURPHY, NC--Continued

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	09 15	0000	2.11	109	31	6.90	15.0		8.8	86.0		150
81/11/05	09 10	0000	2.11	109		7.10	14.0	3.0	8.9	86.0	10.0K	150
81/12/07	10 15	0000	2.34	185		6.80	4.0		12.2	93.0		70
82/01/12	09 30	0000	4.55	1850	23	6.50	1.0		12.8	90.0		20
82/02/18	08 30	0000	4.05	1350	23	6.50	7.0	10.0	10.8	89.0	10.0K	140
82/03/30	11 00	0000	2.83	406	24	6.80	9.0		10.8	93.0		220
82/04/19	09 00	0000	2.84	412	25	6.60	13.0		10.0	94.0		450
82/05/11	09 50	0000	2.60	294	25	6.90	17.0	4.0	9.3	96.0	10.0K	210
82/06/29	08 45	0000	2.78	380	24	6.60	15.0		8.9	87.0		1000
82/07/26	10 10	0000	2.36	192	27	6.80	21.0		9.3	103.0		80
82/08/24	08 50	0000	2.81	395	54	6.60	15.0	5.0	9.0	88.0	10.0K	180
82/09/22	09 20	0000	2.70	340	25	6.70	15.0		9.4	92.0		60

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	09 15	0000	13	1	31							
81/11/05	09 10	0000	11	1K	31	0.08	0.050K	0.100	0.050K	0.050K	10K	50K
81/12/07	10 15	0000	8	1K	24							
82/01/12	09 30	0000	7	7	28							
82/02/18	08 30	0000	7	8	41	0.25	0.050K	0.100K	0.050K	0.050K	10K	50K
82/03/30	11 00	0000	7	2	28							
82/04/19	09 00	0000	7	14	36							
82/05/11	09 50	0000	8	6	42	0.13	0.050K	0.200	0.050K	0.050K	10K	50K
82/06/29	08 45	0000	8	5	31							
82/07/26	10 10	0000	8	4	40							
82/08/24	08 50	0000	7	8	30	0.21	0.050K	0.100	0.050K	0.050K	10K	50K
82/09/22	09 20	0000	8	1	48							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/05	09 10	0000	50K	40K	100K	0.6	100K	50K
82/02/18	08 30	0000	50K	40K	100K	0.2K	100K	50K
82/05/11	09 50	0000	50K	40K	100K	0.2K	100K	50K
82/08/24	08 50	0000	50K	40K	100K	9.0	100K	50K

K Less than noted value.

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.

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

AVERAGE DISCHARGE.--70 years (1904-9, 1914-16, 1919-82), 257 ft³/s (7.278 m³/s), 33.56 in/yr (852 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)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	0830	3240	91.8	10.21	3.112	Feb. 3	0945	3700	105	11.13	3.392
Jan. 21	1100	3080	87.2	9.84	2.999	Sept. 1	2130	*4980	141	*13.18	4.017

Minimum discharge, 34 ft³/s (0.96 m³/s) Oct. 8, 9, gage height, 1.65 ft (0.503 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	55	399	508	443	507	283	277	143	102	309	1750
2	37	54	328	373	617	455	263	260	132	91	163	1620
3	37	54	208	1190	2670	414	320	245	122	87	126	766
4	36	58	163	2430	1350	378	276	230	121	111	108	460
5	36	60	132	1090	866	369	265	219	171	94	99	338
6	35	56	116	633	649	350	254	208	128	94	95	275
7	36	53	106	462	518	746	237	204	118	146	87	234
8	34	50	99	363	444	571	326	309	113	118	89	205
9	34	49	91	309	742	473	369	221	108	117	305	183
10	44	48	85	256	677	417	317	203	139	123	634	167
11	42	48	81	197	552	381	292	190	124	129	567	189
12	39	47	79	190	477	350	272	181	119	119	635	174
13	38	47	77	180	447	332	259	172	358	101	330	177
14	36	47	135	170	390	316	249	167	197	91	243	173
15	36	50	143	160	373	678	250	159	151	88	195	151
16	37	70	131	155	818	646	230	163	145	105	168	138
17	36	90	142	152	1240	552	317	171	161	123	172	128
18	64	69	147	149	948	479	323	168	136	118	229	123
19	57	62	126	281	725	430	288	174	123	107	160	119
20	41	75	105	399	580	395	272	167	115	98	139	114
21	41	66	109	1810	504	573	277	167	108	89	128	110
22	69	61	234	1050	435	498	251	150	106	87	117	105
23	81	59	612	959	388	438	235	145	104	84	110	101
24	54	103	510	809	356	396	224	169	99	81	114	100
25	172	83	683	589	327	371	356	149	95	82	112	103
26	120	74	515	464	318	353	641	150	92	78	100	130
27	88	214	366	385	639	315	456	144	97	78	96	158
28	72	228	285	339	582	295	382	183	119	91	96	111
29	64	138	237	303	---	282	333	155	141	123	89	103
30	59	181	201	281	---	273	300	141	113	130	86	98
31	56	---	441	417	---	314	---	134	---	289	96	---
TOTAL	1667	2349	7085	17053	19075	13347	9117	5775	3998	3374	5997	8603
MEAN	53.8	78.3	229	550	681	431	304	186	133	109	193	287
MAX	172	228	683	2430	2670	746	641	309	358	289	635	1750
MIN	34	47	77	149	318	273	224	134	92	78	86	98
CFSM	.52	.75	2.20	5.29	6.55	4.14	2.92	1.79	1.28	1.05	1.86	2.76
IN.	.60	.84	2.53	6.10	6.82	4.77	3.26	2.07	1.43	1.21	2.15	3.08

CAL YR 1981 TOTAL 56638 MEAN 155 MAX 1360 MIN 34 CFSM 1.49 IN 20.26
WTR YR 1982 TOTAL 97441 MEAN 267 MAX 2670 MIN 34 CFSM 2.57 IN 34.85

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 1981 TO SEPTEMBER 1982

DATE FROM TO	TIME OF DAY	DEPTH FEET	STREAM STAGE FEET	STREAM FLOW, INST-CFS	CNDUCTVY FIELD MICROMHO	PH SU	WATER TEMP CENT	TURB TRBIDMTR HACH FTU	DO MG/L	DO SATUR PERCENT	COD LOWLEVEL MG/L	FEC COLI MFM-FCBR /100ML
81/10/12	09 00	0000	1.68	37	61	7.00	12.0		8.3	77.0		20
81/11/05	08 30	0000	1.78	50		7.20	14.0	2.0	8.7	84.0	10.0K	240
81/12/07	09 45	0000	2.10	103		6.70	5.0		11.8	92.0		240
82/01/12	09 00	0000	2.81	190	46	6.50	1.0-		13.0	87.0		60
82/02/18	08 10	0000	4.36	989	29	6.70	8.0	10.0	10.5	88.0	10.0K	280
82/03/30	10 30	0000	2.66	271	33	6.90	9.0		10.3	91.0		290
82/04/19	08 30	0000	2.70	286	25	6.80	11.0		9.8	88.0		450
82/05/11	09 20	0000	2.42	189	69	7.00	16.0	2.0	9.5	95.0	10.0K	1000
82/06/29	08 15	0000	2.32	158	44	6.80	20.0		7.5	82.0		6400
82/07/26	09 30	0000	1.95	75	44	6.90	23.0		7.7	89.0		520
82/08/24	08 20	0000	2.16	117	100	7.00	19.0	3.0	8.2	87.0	10.0K	1200
82/09/22	09 00	0000	2.10	103	48	7.00	16.0		8.8	88.0		470

DATE FROM TO	TIME OF DAY	DEPTH FEET	T ALK FIELD MG/L	RESIDUE TOT NFLT MG/L	RESIDUE TOTAL 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
81/10/12	09 00	0000	26	5	56							
81/11/05	08 30	0000	25	9	62	0.29	0.050K	0.200	0.050K	0.050K	10K	50
81/12/07	09 45	0000	19	1	48							
82/01/12	09 00	0000	18	2	43							
82/02/18	08 10	0000	7	27	56	0.23	0.050K	0.100	0.050K	0.050K	10K	50
82/03/30	10 30	0000	11	3	34							
82/04/19	08 30	0000	11	9	48							
82/05/11	09 20	0000	12	10	41	0.16	0.050K	0.100	0.050K	0.050K	10K	50
82/06/29	08 15	0000	17	21	71							
82/07/26	09 30	0000	16	12	50							
82/08/24	08 20	0000	17	7	42	0.18	0.050K	0.200	0.050K	0.050K	10K	50
82/09/22	09 00	0000	21	3	52							

DATE FROM TO	TIME OF DAY	DEPTH FEET	CHROMIUM CR,TOT UG/L	COPPER CU,TOT UG/L	LEAD PB,TOT UG/L	MERCURY HG,TOTAL UG/L	NICKEL NI,TOTAL UG/L	ZINC ZN,TOT UG/L
81/11/05	08 30	0000	50K	40K	100K	0.5K	100K	50K
82/02/18	08 10	0000	50K	40	100K	0.2K	100K	50K
82/05/11	09 20	0000	50K	40K	100	0.2K	100K	50K
82/08/24	08 20	0000	50K	40K	100K	1.6	100K	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, 12,800 ft³/s-day (31.32 hm³) Feb. 3, 4, 5, elevation, 2,258.6 ft (688.421 m); minimum observed, 5,590 ft³/s-day (13.68 hm³) Jan. 2, elevation, 2,207.9 ft (672.968 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.

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, 66,700 ft³/s-day (163.2 hm³) May 28, elevation, 2,886.73 ft (879.875 m); minimum, 51,100 ft³/s-day (125.0 hm³) Nov. 26, elevation, 2,865.18 ft (873.307 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, 32,900 ft³/s-day (80.51 hm³) June 7, elevation, 3,096.35 ft (943.767 m); minimum, 17,200 ft³/s-day (42.09 hm³) Dec. 24, elevation, 3,070.60 ft (935.919 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, 596,800 ft³/s-day (1,460 hm³) June 14, elevation, 1,683.74 ft (513.204 m); minimum, 373,300 ft³/s-day (913.5 hm³) Nov. 24, elevation, 1,625.50 ft (495.452 m).

Lakes and Reservoirs in Ohio River basin--Continued

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 (15.0 m). 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.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 81,100 ft³/s-day (198.5 hm³) Sept. 3, 1928, elevation, 1,817.90 ft (554.096 m); minimum, after first filling, 13,100 ft³/s-day (32.06 hm³) Feb. 6, 1940, elevation, 1,741.39 ft (530.776 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 77,600 ft³/s-day (189.9 hm³) Feb. 3, elevation, 1,816.09 ft (553.544 m); minimum, 35,900 ft³/s-day (87.85 hm³) Nov. 14, elevation, 1,778.79 ft (542.175 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 mi² (490 km²). 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 ft³/s-day (296.6 hm³), of which 61,700 ft³/s-day (151.0 hm³) 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 ft³/s-day (303.9 hm³) Apr. 20, 1943, elevation, 1,927.80 ft (587.593 m); minimum, after first filling, 9,400 ft³/s-day (23.0 hm³) Sept. 5, 1947, Jan. 27, 1956; minimum elevation, 1,860.11 ft (566.962 m) Sept. 5, 1947.

EXTREMES FOR CURRENT YEAR: Maximum contents, 105,600 ft³/s-day (258.4 hm³) June 7, elevation, 1,923.39 ft (586.249 m); minimum, 76,600 ft³/s-day (187.4 hm³) Jan. 18, elevation, 1,912.92 ft (583.058 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 mi² (2,507 km²). 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 ft³/s-day (535.4 hm³) of which 154,300 ft³/s-day (377.6 hm³) 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 ft³/s-day (546.7 hm³) May 28, 1973, elevation, 1,528.02 ft (465.740 m); minimum, after first filling, 35,800 ft³/s-day (87.60 hm³) Jan. 28, 1948, elevation, 1,413.41 ft (430.807 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 178,800 ft³/s-day (437.5 hm³) Aug. 13, elevation, 1,513.05 ft (461.178 m); minimum, 96,400 ft³/s-day (235.9 hm³) Dec. 23, elevation, 1,474.20 ft (449.336 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, TN, 9.8 mi (15.8 km) downstream from Hiwassee Dam, and at mile 66.0 (106.2 km). DRAINAGE AREA, 1,018 mi² (2,637 km²). 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 ft³/s-day (71.21 hm³), of which 4,400 ft³/s-day (10.77 hm³) 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 ft³/s-day (74.14 hm³) June 13, 1952, elevation, 1,281.40 ft (390.571 m); minimum, after first filling, 15,300 ft³/s-day (37.44 hm³) Apr. 25, 1971, elevation, 1,251.00 ft (381.305 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 28,700 ft³/s-day (70.23 hm³) Sept. 13, elevation, 1,279.21 ft (389.903 m); minimum, 24,700 ft³/s-day (60.44 hm³) Jan. 31, elevation, 1,272.05 ft (387.721 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 mi² (12.38 km²). Total capacity is 4,540 ft³/s-day (11.11 hm³), of which 2,120 ft³/s-day (5.188 hm³) 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.

Lakes and Reservoirs in Ohio River basin--Continued

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 03456100)

03458319 LAKE JUNALUSKA.--Lat 35°31'38", long 82°57'48", Haywood County, Hydrologic Unit 06010106, on Richland Creek at Lake Junaluska and at mile 2.4 (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.

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 mi^2 (37.3 km^2). Total capacity is 233 ft^3/s-day (570,000 m^3), spillway crest, of which approximately 116 ft^3/s-day (284,000 m^3) is usable. Storage began in 1926.

03507111; 03507131 EAST FORK LAKE AND WOLF CREEK LAKE.--These two reservoirs are operated as a unit for storage of water for the Tennnessee Creek Project. East Fork Dam DRAINAGE AREA, 24.9 mi^2 (64.5 km^2) on Tuckasegee River near Tuckasegee, Jackson County, Hydrologic Unit 06010203, is at lat 35°12'48", long 83°00'08", Wolf Creek Dam DRAINAGE AREA, 15.2 mi^2 (39.4 km^2) on Wolf Creek near Tuckasegee, is at lat 35°13'18", long 83°00'00". Total capacity of East Fork Lake is 671 ft^3/s-day (1.642 hm^3), of which 625 ft^3/s-day (1.529 hm^3) is controlled storage. Storage began Apr. 18, 1955. Total capacity of Wolf Creek Lake is 5,070 ft^3/s-day (12.41 hm^3), of which 3,850 ft^3/s-day (9.421 hm^3) is controlled storage. Storage began Mar. 22, 1955.

03507216 BEAR CREEK LAKE.--Lat 35°14'29", long 83°04'22", Jackson County, Hydrologic Unit 06010203, on Tuckasegee River near Tuckasegee. DRAINAGE AREA, 74.8 mi^2 (193.7 km^2). Total capacity is 17,500 ft^3/s-day (42.82 hm^3), of which 2,290 ft^3/s-day (5.604 hm^3) is controlled storage. Storage began Oct. 9, 1953.

03507289 CEDAR CLIFF LAKE.--Lat 35°15'12", long 83°05'58", Jackson County, Hydrologic Unit 06010203, on Tuckasegee River near Tuckasegee, and at mile 51.9 (83.5 km). DRAINAGE AREA, 80.3 mi^2 (208.0 km^2). Total capacity is 3,200 ft^3/s-day (7.830 hm^3) of which 350 ft^3/s-day (856,000 m^3) is controlled storage. Storage began Apr. 26, 1952.

03515152 CHEOAH LAKE.--Lat 35°26'54", long 83°56'11", Graham County, Hydrologic Unit 06010202, on Little Tennessee River at Cheoah, and at mile 51.4 (82.7 km). DRAINAGE AREA, 1,608 mi^2 (4,165 km^2). Total capacity is 17,700 ft^3/s-day (43.31 hm^3), of which 920 ft^3/s-day (2.251 hm^3) is controlled storage. Storage began Dec. 8, 1918.

Lakes and Reservoirs in Ohio River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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.....	2247.4	11050	-	2866.65	52100	-	3080.26	22400	-	1649.66	454000	-
Oct. 31.....	2247.8	11110	+60	2869.52	54000	+1900	3075.55	19700	-2700	1630.24	389000	-65000
Nov. 30.....	2238.9	9740	-1370	2866.48	52000	-2000	3072.72	18200	-1500	1626.95	378100	-10900
Dec. 31.....	2218.8	6910	-2830	2869.62	54100	+2100	3071.44	17600	-600	1632.20	395500	+17400
CAL YR 1981	-	-	+930	-	-	+8600	-	-	-2900	-	-	+81300
Jan. 31.....	2233.1	8870	+1960	2875.30	58100	+4000	3076.78	20400	+2800	1646.88	443600	+48100
Feb. 28.....	2227.3	8040	-830	2881.90	62900	+4800	3084.88	25200	+4800	1642.32	428200	-15400
Mar. 31.....	2227.3	8040	0	2879.36	61000	-1900	3089.13	28000	+2800	1653.04	467300	+39100
Apr. 30.....	2233.9	8990	+950	2883.85	64400	+3400	3092.83	30400	+2400	1668.92	532000	+64700
May 31.....	2233.8	8970	-20	2886.53	66500	+2100	3095.80	32500	+2100	1681.36	585900	+53900
June 30.....	2244.1	10540	+1570	2883.15	63900	-2600	3094.05	31300	-1200	1680.94	584000	-1900
July 31.....	2251.0	11620	+1080	2877.61	61200	-2700	3090.60	28900	-2400	1672.41	546700	-37300
Aug. 31.....	2244.2	10550	-1070	2873.81	57000	-4200	3085.55	25600	-3300	1663.94	511500	-35200
Sept. 30.....	2248.8	11270	+720	2871.67	55500	-1500	3083.76	24500	-1100	1657.57	485700	-25800
WTR YR 1982	-	-	+220	-	-	+3400	-	-	+2100	-	-	+31700

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	Apalachia Lake	
Sept. 30.....	1789.93	46100	-	1915.43	83100	-	1491.07	126700	-	1277.24	27600	-
Oct. 31.....	1782.69	37300	-8800	1913.61	78400	-4700	1478.09	103100	-23600	1276.70	27200	-400
Nov. 30.....	1781.88	38600	+1300	1913.90	79100	+700	1476.45	100200	-2900	1276.55	27200	0
Dec. 31.....	1793.03	49300	+10700	1913.98	79300	+200	1476.26	99900	-300	1275.90	26800	-400
CAL YR 1981	-	-	+11300	-	-	+3000	-	-	+100	-	-	-700
Jan. 31.....	1813.55	74100	+24800	1915.01	82000	+2700	1479.00	104600	+4700	1275.60	26600	-200
Feb. 28.....	1815.77	77200	+3100	1915.83	84200	+2200	1482.68	111000	+6400	1276.75	27300	+700
Mar. 31.....	1813.14	73500	-3700	1917.26	87900	+3700	1489.10	122800	+11800	1276.76	27300	0
Apr. 30.....	1814.10	74800	+1300	1920.46	96700	+8800	1500.16	146600	+23800	1276.95	27400	+100
May 31.....	1813.14	73500	-1300	1923.06	104600	+7900	1507.18	163700	+17100	1276.15	26900	-500
June 30.....	1808.33	67000	-6500	1922.20	101900	-2700	1509.30	169100	+5400	1276.17	26900	0
July 31.....	1803.38	60900	-6100	1920.06	95500	-6400	1511.06	173600	+4500	1275.87	26800	-100
Aug. 31.....	1799.03	55800	-5100	1918.24	90500	-5000	1509.09	168600	-5000	1275.80	26700	-100
Sept. 30.....	1800.18	57100	+1300	1916.25	85200	-5300	1500.60	147600	-21000	1277.15	27500	+800
WTR YR 1982	-	-	+11000	-	-	+2100	-	-	+20900	-	-	-100

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 stations

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 date 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	1976-82	1-4-82	24.04	158
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	1976-82	8-1-82	22.02	665

a Approximately.

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 1982

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Chowan River basin				
02050170 Chowan River tributary	Chowan River	Lat 36°30'27", long 76°56'58", Hertford County, on right bank 15 ft upstream of culvert on unnamed road 1.5 miles south-southwest of Riddicksville, 2.2 miles east-southeast of Mill Neck.	1.18		8- 3-79	0.07
					8-24-79	0.04
					10- 5-79	0.08
					11- 6-79	0.43
					1-10-80	1.87
					2-20-80	2.13
					4- 2-80	2.46
					5-13-80	0.02
					6-23-80	0.03
					8-12-80	0.01
					10- 7-80	0.02
					11-18-80	0.38
					1- 6-81	0.02
					2-18-81	0.12
					3-30-81	0.17
					4-28-81	0.03
					6-10-81	0.24
					8- 5-81	0.003
					9- 2-81	0.002
					10- 5-81	0.03
					11-17-81	0.01
					12-17-81	0.39
					2- 1-82	2.02
					3-15-82	2.43
					5- 3-82	0.09
					6-17-82	0.05
					7-27-82	0.02
					9- 1-82	0.01
					10- 5-82	0.02
c02053050 Cypress Creek	Meherrin River	Lat 36°31'01", long 77°27'02", Northampton County, at bridge on Secondary Road 1324, 1.2 miles upstream from Ivy Creek, and 2.0 miles north of Seaboard.	a7.6		4- 2-75	14.4
					7-11-75	1.07
					5-31-79	13.3
					7- 2-79	2.59
					7-17-79	0.51
					8-24-79	0
					10- 1-79	16.8
					11- 5-79	14.8
					1-14-80	8.2
					2-25-80	7.18
					4- 3-80	10.7
					5-13-80	0.64
					6-23-80	0.06
					8-19-80	0.02
					10- 7-80	0.01
					11-18-80	6.12
					1- 5-81	1.15
					2-18-81	3.17
					3-30-81	2.13
					4-29-81	0.59
					6-10-81	4.57
					8- 4-81	0.02
					9- 2-81	0.27
					10- 5-81	0.21
					11-17-81	1.50
					12-17-81	11.0
					2- 1-82	9.79
					3-15-82	8.79
					5- 3-82	3.98
					6-17-82	2.0
					7-27-82	0.40
					9- 1-82	0.05
					10- 5-82	0.29

a Approximately.
c Previously published as 0205304920.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Chowan River basin (Continued)				
02053163 Panther Swamp	Potecasi Creek	Lat 36°23'21", long 77°07'57", Hertford County, on right bank on upstream side of bridge on Secondary Road 1164, 2.1 miles southwest of Murfreesboro.	11.4		8-17-79	0
					8-23-79	3.74
					10- 4-79	4.07
					11- 6-79	10.1
					1-10-80	12.7
					2-19-80	13.9
					4- 3-80	17.6
					5-13-80	1.15
					6-23-80	0
					8-13-80	0
					10- 7-80	0
					11-18-80	7.22
					1- 6-81	1.16
					2-18-81	4.65
02053172 Cutawhiskie Creek tributary	Cutawhiskie Creek	Lat 36°18'48", long 77°08'34", Hertford County, on left bank 200 ft downstream of bridge on Secondary Road 1150, 1.9 miles southwest of Menola, 3.3 miles northeast of Mintons Store.	1.12		11- 6-79	0.003
					1-14-80	2.09
					1-28-80	1.30
					2-19-80	0.83
					4- 3-80	0.68
					5-13-80	0
					6-24-80	0
					8-15-80	0
					10- 7-80	0.001
					11-18-80	0.02
					1- 5-81	0.001
					2-18-81	0.02
					3-31-81	0.15
					4-23-81	0.005
					6-11-81	0.01
					8- 4-81	0
					9- 2-81	0
					10- 5-81	0
					11-17-81	0
					12-17-81	0.08
					2- 1-82	1.98
					3-15-82	1.20
					5- 3-82	0.005
					6-17-82	0
					7-27-82	0
					9- 1-82	0
					10- 5-82	0
02053205 Bells Branch	Potecasi Creek	Lat 36°23'10", long 77°02'41", Hertford County, on left bank on downstream side of bridge on Secondary Road 1167, 1.7 miles upstream of Potecasi Creek, and 4.0 miles southeast of Murfreesboro.	0.6		5-31-79	1.32
					7-19-79	0.20
					8-23-79	0.
					10- 4-79	0.64
					11- 6-79	0.14
					1-11-80	0.62
					2-20-80	0.80
					4- 2-80	1.12
					5-13-80	0.05
					6-23-80	0.006
					8-13-80	0.004
					10- 7-80	0.02
					11-18-80	0.05
					1- 6-81	0.07
					2-18-81	0.16
					3-30-81	0.34
					4-28-81	0.06
					6-10-81	0.38
					8- 5-81	0.008
					9- 2-81	0.17
					10- 7-81	0.04
					11-17-81	0.05
					12-17-81	0.26
					2- 3-82	1.15
					3-15-82	1.83
					5- 3-82	0.14
					6-17-82	0.06
					7-27-82	0.06
					9- 1-82	0.04
					10- 5-82	0.09

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Roanoke River basin				
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.	501	†1923-26, 1975-81	10-28-81	945
					11-30-81	154
					2-12-82	351
					3-29-82	408
					5- 3-82	683
					6- 1-82	1170
					7- 7-82	379
					8- 9-82	2230
					9-13-82	172
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.	68.7	1954, 1956-64, 1966, 1968, 1970, 1974-79, 1981	12- 2-81	21.3
					1- 5-82	267
					3-30-82	36.5
					7- 8-82	25.6
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.	138	1974-81	10- 2-81	3.37
					11-10-81	25.9
					2- 9-82	120
					3-12-82	140
					4-26-82	54.5
					7-12-82	31.1
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.	10.50	1968, 1976, 1978-81	10- 1-81	0.64
					11- 9-81	2.18
					1-28-82	11.0
					3-12-82	12.5
					4-26-82	14.2
					7-12-82	3.26
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.	17.80	1970, 1974, 1976, 1978, 1980-81	10- 1-81	4.03
					11- 9-81	6.11
					12-14-81	5.50
					1-28-82	19.4
					3-10-82	34.1
					4-19-82	11.9
					7-12-82	10.9
					8-24-82	10.9
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	1981	‡10- 2-81	0.40
					11-18-81	2.76
					2- 8-82	48.2
					3-16-82	52.4
					4-23-82	21.2
					7-16-82	23.8
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.	13.80	1974-76, 1978-81	10- 2-81	0
					11-18-81	0.26
					2- 8-82	9.03
					3-16-82	9.43
					4-23-82	4.58
					7-16-82	6.20
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.	6.0	1970, 1974, 1976, 1978-81	10- 2-81	9.23
					11-18-81	2.79
					2- 8-82	6.33
					3-16-82	6.87
					4-23-82	5.06
					7-16-82	5.05
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.	52	1954, 1961-63, 1966, 1976, 1979-81	10- 2-81	3.67
					11-18-82	11.0
					2- 8-82	47.4
					3-16-82	49.6
					4-23-82	29.1
					7-16-82	66.8
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.	19.20	1961, 1974-76, 1981	11-18-81	0.02
					12-18-81	15.6
					2- 3-82	28.3
					3-17-82	43.8
					5- 5-82	4.85
					7-28-82	0.26
					9- 2-82	0.02

† Operated as a continuous-record gaging station.
‡ Not previously published.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Pamlico River basin				
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, 1980-81	10- 3-81	0.50
					11-18-81	0.66
					12-21-81	3.63
					2- 4-82	146
					3-17-82	228
					5- 5-82	64
					6-15-82	51.9
					8- 4-82	4.47
					9- 2-82	18.8
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	1975-81	11-30-81	0.00
					4-19-82	1.34
					6- 1-82	0
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	1975-81	11-30-81	0.77
					4-19-82	2.63
					6- 1-82	0.54
		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.	6.22	1974-76, 1978-81	10- 1-81	0.30
					11- 9-81	0.33
					1-28-82	3.96
					3-12-82	9.39
					4-26-82	7.80
					7-12-82	1.20
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, 1980-81	10- 2-81	4.49
					11-18-81	4.39
					2- 8-82	36.8
					3-17-82	31.6
					4-23-82	18.3
					7-19-82	4.02
					9-27-82	4.13
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.	21.9	1972-73, 1976, 1978, 1980-81	10- 7-81	5.47
					11-19-81	6.77
					2- 4-82	71.2
					3-17-82	26.6
					4-26-82	344
					7-15-82	15.2
					8-30-82	10.9
02087251 Crabtree Creek	Neuse River	Lat 35°50'15", long 78°46'52", Wake County, at bridge on Secondary Road 1795, 0.3 mile downstream from Hayleys Branch, and 3.5 miles north of Cary.	52.2		4-29-82	58.9
					7- 6-82	30.0
					8-23-82	1.06
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.	129	1949-55, 1958, 1974, 1976, 1978, 1980-81	10- 6-81	1.75
					11-12-81	18.4
					12-16-81	180
					1-26-82	459
					3-23-82	204
					5- 3-82	91.4
					6- 3-82	106
					7-27-82	25.6
					9- 2-82	17.0
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.	127	1974, 1976, 1978-81	10- 8-81	7.99
					11-17-81	19.9
					12-21-81	129
					2- 1-82	585
					3-23-82	342
					4-29-82	1010
					7-29-82	85.6
					9- 8-82	7.64
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, 1980-81	11-17-81	267
					12-21-81	1360
					2- 1-82	4260
					4-29-82	4000
					7-29-82	674
					9- 8-82	323

a Approximately.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Neuse River basin (Continued)				
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.	389	1969-70, 1972-74, 1978, 1980-81	10-15-81	6.57
					12-14-81	25.8
					3-17-82	870
					6- 7-82	1790
					7-19-82	466
					8-30-82	101
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, 1980-81	10-20-81	274
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, 1980-81	10-19-81	0.75
					12-15-81	3.51
					1-27-82	3.21
					3-16-82	4.02
					4-27-82	5.40
					6- 9-82	0.77
					7-22-82	0.86
					8-31-82	0.70
		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.	94	†1949-73, 1978, 1981	12- 2-81	16.9
					1-20-82	131
					3-10-82	158
					4-22-82	34.3
					7-13-82	13.4
		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.	7.93	1962, 1966, 1971, 1973-81	10-28-81	10.5
					12-18-81	6.84
					2-24-82	8.0
					4- 2-82	5.41
					4- 9-82	6.08
					5- 6-82	5.72
					7- 8 82	3.83
					8-12-82	3.8
					8-30-82	2.19
					9-17-82	1.33
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.	91.9	1969-71, 1973, 1976-81	1-14-82	32.8
					3-30-82	54.9
					7-20-82	23.4
					8-12-82	104
					9-15-82	59.5
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.	256	1969-70, 1973, 1976-81	12- 3-81	93.8
					3-31-82	120
					8-11-82	84
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.	242	1974-77, 1979-81	12- 3-81	50.3
					3- 4-82	431
					4- 1-82	149
					5- 5-82	119
					8-30-82	22.3
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.	1083	1974-75, 1979-81	12- 3-81	332
					3-31-82	651
					8-11-82	795
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, 1980-81	10- 2-81	0.27
					11-10-81	1.26
					12-22-81	6.49

† Operated as a continuous-record gaging station.
a Approximately.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Cape Fear River basin (Continued)				
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.	22.4	1962, 1966, 1968, 1971, 1973, 1976, 1978, 1979-81	10- 6-81 2- 9-82 3-18-82 4-27-82 7-15-82	1.28 20.1 16.4 51.1 7.88
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, 1980-81	10- 6-81 11-17-81 2- 5-82 3-17-82 4-30-82 7- 6-82	3.94 4.85 34.9 16.9 20.7 23.4
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	1981	‡10- 6-81 11-17-81 2- 5-82 3-18-82 4-30-82 7- 6-82	19.0 21.4 568 86.3 173 53.3
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.	10.7	1973, 1974-76, 1978, 1980-81	10- 6-81 11-17-81 2- 9-82 3-18-82 4-28-82 7-19-82	0.97 2.60 12.7 7.44 45.6 3.95
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, 1980-81	10- 7-81 11-17-81 2- 5-82 3-18-82 4-30-82 7-19-82 8-23-82	2.05 3.33 104 26.1 21.3 4.05 2.35
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, 1980-81	10- 7-81 11-17-81 2- 5-82 3-18-82 4-30-82 7-19-82	5.67 7.15 116 46.7 66.0 22.8
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.	16.2	1971, 1973-76, 1978-81	1-21-82 4- 1-82 5- 7-82 8-13-82	97 22.2 19.9 16.8
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.	347	†1939-50, 1978, 1980-81	10-13-81 11-10-81 12-29-81 3- 2-82 4-13-82 7- 7-82	38.4 171 982 1420 371 122
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, 1980-81	10-13-81 12- 3-81 12-31-81 3- 3-82 4-15-82 7- 7-82	61.3 160 186 308 178 118
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.	32.6	1961-65, 1968, 1973-75, 1979-81	10-13-81 12- 3-81 12-31-81 3- 3-82 4-14-82 5-26-82 7- 8-82	7.85 35.5 32.3 42.8 22.1 24.4 13.2

† Operated as a continuous-record gaging station.
‡ Not previously published.
a Approximately.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Cape Fear River (Continued)				
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, 1979-81	10-13-81	96.4
					11-30-81	165
					12-30-81	395
					3- 3-82	555
					4-14-82	280
					7- 8-82	176
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.	48.3	1973, 1977-81	10- 9-81	0.75
					11-30-81	32.3
					12-29-81	100
					3- 1-82	153
					4-12-82	31.4
					7- 6-82	25.8
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.	50.4	1955, 1957-64, 1973, 1976, 1979-81	10- 9-81	0.25
					11-30-81	6.28
					1-22-82	141
					3- 1-82	170
					4-12-82	24.8
					5-25-82	24.0
					7- 6-82	3.16
02108500 Rockfish Creek	Northeast Cape Fear River	Lat 34°44'32", long 78°02'22", Duplin County, on right bank at downstream side of bridge on State Highway 41, 1.5 miles upstream from Doctors Creek, and 2.5 miles west of Wallace.	69.3	†1955-80, 1981	10- 8-81	4.33
					3-11-82	69.9
					4-23-82	33.1
					5-24-82	6.76
					7-12-82	13.1
		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.	21.8	1959, 1971-72, 1975-76, 1980-81	10- 6-81	0
					11-18-81	0.61
					1- 6-82	174
					3- 9-82	48.8
					4-20-82	3.14
		Pee Dee River basin				
02115841 Tar Branch tributary	Tar Branch	Lat 36°06'07", long 80°15'26", Forsyth County, 50 ft northeast of intersection of First Avenue and Trade Street, Winston-Salem.	0.047		‡‡1- 8-80	0.007
					2- 7-80	0.03
					3-24-80	1.64
					3-24-80	2.99
					3-24-80	1.89
					5-15-80	0.004
					12-12-80	0.006
					12-15-81	2.92
02115854 Salem Creek tributary	Salem Creek	Lat 36°04'32", long 80°17'09", Forsyth County, 400 ft southeast of intersection of Hawthorne and Knollwood Roads, Winston-Salem.	0.5		‡2- 7-80	0.49
					2-21-80	0.49
					3-24-80	15.9
					5-15-80	0.38
					12-12-80	0.18
					8- 6-81	1.24
					12-10-81	14.4
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.	186	1964-81	11- 6-81	137
					3-31-82	157
					5-11-82	123
					9- 3-82	96.6
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.	124	1970-77, 1978, 1980	10- 6-81	13.9
					1-27-82	100
					2-24-82	81.9
					3-30-82	56.7
					8- 2-82	51.0
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.	185	1952-53, 1963-69, 1978-81	10- 6-81	55.9
					3-31-82	139
					8- 2-82	154
					8-31-82	71.8

† Operated as a continuous-record gaging station.
‡ Not previously published.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Pee Dee River basin (Continued)				
c02120845 Flat Rock Branch	Grants Creek	Lat 35°33'46", long 80°37'18", Rowan County, at bridge on Secondary Road 1210, 1.4 miles north of Landis, and 3.4 miles upstream from North Branch Grants Creek.	1.02		9-10-81 9-17-81 9-23-81 10- 6-81	0.60 0.40 0.26 0.32
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.	35.0	1948-57, 1961-63, 1970-71, 1973, 1975-81	10-15-81 3- 5-82 3-31-82 7-13-82	4.67 29.7 19.4 19.6
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.	26.6	1970-75, 1981	10- 1-81 11-19-81 3- 5-82 3-31-82 4-27-82 9- 3-82	2.81 5.7 32.4 14.6 118 2.92
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.	176	†1940-57, 1970-81	10-15-81 12-10-81 3-31-82 9- 3-82	9.76 21.2 73.4 17.2
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, 1981	11- 4-81 5-11-82 8-18-82	65.4 134 62.6
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	1970-81	2-26-82 6-30-82 8-13-82	13.1 9.33 9.98
02124194 Coddle Creek	Rocky River	Lat 35°28'51", long 80°42'58", Cabarrus County, at bridge on Secondary Road 1609, 1.7 miles northeast of Deweese, and 2.7 miles upstream from Mill Creek.	32.2		6-18-82	419
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.	45.4	1974-81	11- 6-81 3-18-82 8-12-82	27.7 26.6 24.3
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.	392	1970-71, 1973-81	11- 6-81 3-18-81 8-12-82	93.1 317 165
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.	5.29	1974-81	11- 2-81 2- 4-82 7-12-82	1.20 31.6 0.68
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, 1973-81	11- 5-81 7-15-82 8-12-82 8-25-82 9-14-82	35.1 72.3 243 47.2 37.2
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.	153	‡1961-62, 1981	10- 1-81 12-16-81 3-30-82 5-11-82 6- 9-82 8-26-82 9- 3-82	33.9 165 24.8 21.0 35.5 9.73 6.21
02125591 Richardson Creek	Rocky River	Lat 35°09'27", long 80°14'07", Anson County, at bridge on Secondary Road 1600, 0.5 miles above mouth, and 3.8 miles southwest of Burnsville.	233		‡11- 5-81 3-18-82 5-11-82 7-15-82	7.66 295 24.5 32.6
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.	134	1970-71, 1974, 1979-81	11- 5-81 3-23-82 7-13-82	71.6 212 300

† Operated as a continuous-record gaging station.
‡ Not previously published.
c Previously named South Branch Grants Creek above SEO near Landis.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

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.	12.9	1970-71, 1979-81	11- 3-81 3-23-82 7-13-82	8.72 19.4 20.6
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.	55.4	1973-75, 1979-81	2-18-82 7-13-82	141 52.6
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.	21.8	1973-75, 1979-81	11- 3-81 3-23-82 8-13-82	10.1 24.4 28.9
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.	7.06	1973, 1975, 1981	11-17-81 5-24-82	0.34 1.23
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, 1979-81	11- 3-81 3-23-82 7-14-82	263 447 402
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.	365	1974, 1980-81	1- 8-82	1580
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.	60.2	1973-75, 1978, 1980-81	3- 5-82 4-16-82 5-26-82	127 38.3 76.0
02134338 Little Marsh Swamp	Calberry Swamp	Lat 34°51'48", long 78°58'33", Robeson County, at bridge on U.S. Highway 301, 3.2 miles southeast of Parkton, and 7.5 miles upstream from mouth.	36.3	1959-60, 1962, 1968, 1974-75, 1980	3- 5-82	85.0
0213433855 Little Marsh Swamp	Calberry Swamp	Lat 34°49'07", long 78°55'46", Robeson County, at bridge on Secondary Road 1907, 2.6 miles northeast of St. Pauls.	42.9		5-26-82 7- 8-82	49.9 5.72
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.	15.6	1966-67, 1973, 1975, 1978, 1980-81	10- 5-81 11-16-81 1- 7-82 3- 4-82 4-19-82 5-24-82 7-15-82	1.34 1.30 42.0 20.0 4.97 1.68 8.53
		Santee River basin				
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, 1981	4-15-82 9- 1-82	70.0 44.3
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.	.72	1964, 1969-70, 1978-81	4-22-82 9- 3-82	2.00 1.2
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.	201	1974-81	4-22-82 9- 1-82	221 267
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.	89.5	1949-50, 1964-69, 1972-73, 1975-81	4-22-82	63.7

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Santee River basin (Continued)				
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, 1980-81	2-26-82 6-30-82 8-13-82	16.6 13.1 7.25
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.	31.8	1969-73, 1975-79, 1981	2-26-82 6-30-82 8-13-82	17.2 16.5 11.1
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, 1979-81	10- 9-81 2- 5-82 5-19-82 8-31-82	63.6 847 201 149
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.	91.2	1947, 1949-57, 1962-64, 1970-72, 1975, 1978-81	11-17-81 3-11-82 7-29-82	41.0 107 42.7
02145000 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, 1981	10- 9-81 2- 2-82 5-19-82 8-31-82	108 685 410 240
02145640 Crowders Creek	Catawba River	Lat 35°08'15", long 81°08'15", York County, S.C. at bridge on Ridge Road, 3.4 miles upstream from Beaver Dam Creek, and 3.2 miles east-southeast of Bowling Green, S.C.	89	1970-77, 1979-81	11-17-81 3-10-82 5-18-82 8-31-82	33 111 54 28.4
0214620750 Irwin Creek	Catawba River	Lat 35°16'51", long 80°49'10", Mecklenburg County, at culvert on Dalecrest Road, 0.7 mile upstream of Interstate 85, and 3.5 miles northeast of Charlotte.	3.51		‡10-22-79 10-30-79	1.33 1.40
0214620810 Irwin Creek tributary	Irwin Creek	Lat 35°16'51", long 80°49'10", Mecklenburg County, at culvert on Statesville Road, 0.6 mile downstream of Interstate 85, and 2.0 miles northeast of Charlotte.	0.12		‡10-22-79 10-29-79	0.06 0.07
02146222 Kennedy Branch	Irwin Creek	Lat 35°16'23", long 80°50'48", Mecklenburg County, at culvert on Interstate 85, 1.0 mile upstream from mouth, and 3.6 miles north of County Courthouse at Charlotte.	2.27	1969	‡10-22-79 10-30-79	0.36 0.46
0214624375 Irwin Creek tributary	Irwin Creek	Lat 35°13'44", long 80°51'30", Mecklenburg County, at culvert on Morehead Street, 0.1 mile upstream from mouth, and 0.6 mile west of Post Office at Charlotte.	0.34		‡10-29-79	0.14
02146261 Stewart Creek	Irwin Creek	Lat 35°16'33", long 80°52'01", Mecklenburg County, at bridge on Secondary Road 1718, at Charlotte, and 4.1 miles above mouth.	2.65	1956-57	‡10-22-79 10-30-79	0.71 0.78
0214626145 Stewart Creek tributary	Stewart Creek	Lat 35°16'06", long 80°52'14", Mecklenburg County, at culvert at access road to Interstate 85, 0.2 mile above mouth, and 2.8 miles northwest of Charlotte.	1.31		‡11- 1-79	1.36
0214627500 Stewart Creek tributary	Stewart Creek	Lat 35°14'32", long 80°52'35", Mecklenburg County, at culvert on Parkway Avenue, 2.3 miles upstream of mouth, and 2.1 miles northwest of Post Office at Charlotte.	1.91		‡10-31-79	0.67
0214628050 Stewart Creek tributary	Stewart Creek	Lat 35°13'55", long 80°52'36", Mecklenburg County, at culvert on Berryhill Road, 0.6 mile upstream of U.S. Highway 29, and 1.7 miles west of Post Office at Charlotte.	1.33		‡10-31-79	0.35

† Operated as a continuous-record gaging station.
‡ Not previously published.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Santee River basin (Continued)				
0214629170 Irwin Creek tributary	Irwin Creek	Lat 35°12'37", long 80°52'44", Mecklenburg County, at culvert in Revolution Park, at mouth, and 2.1 miles southwest of Post Office at Charlotte.	0.41		‡10-31-79	0.19
0214632330 Sugar Creek tributary	Sugar Creek	Lat 35°10'34", long 80°54'54", Mecklenburg County, at culvert on road to Austin Power Company, 0.4 mile above mouth, and 5.0 miles southwest of Post Office at Charlotte.	0.37		‡10-23-79 11- 1-79	0.19 0.13
0214632340 Sugar Creek tributary	Sugar Creek	Lat 35°09'58", long 80°54'42", at culvert on York Road, 0.1 mile upstream of mouth, and 5.1 miles southwest of Post Office at Charlotte.	1.02		10-23-79 11- 1-79	1.00 0.38
0214633405 Coffey Creek	Sugar Creek	Lat 35°12'20", long 80°56'55", Mecklenburg County, at bridge on State Highway 160, and 0.7 mile east of Dixie.	2.46		11- 1-79	0.95
0214636400 Kings Branch	Sugar Creek	Lat 35°08'12", long 80°53'11", Mecklenburg County, at bridge on Secondary Road 1138, 2.0 miles upstream from mouth, and 7.4 miles south of Charlotte.	2.72	1962, 1969	11- 1-79	0.74
0214637850 Taggart Creek	Sugar Creek	Lat 35°13'45", long 80°55'03", Mecklenburg County, at culvert on Wilkinson Boulevard, 0.1 mile upstream from U.S. Highways 29 and 74, and 4.0 miles west of Post Office at Charlotte.	2.66		10-31-79	0.61
02146381 Sugar Creek	Catawba River	Lat 35°05'26", long 80°53'58", Mecklenburg County, at bridge on U.S. Highway 21, 0.5 mile upstream from McCullough Branch, and 0.8 mile west of Pineville.	65.3	1969-74	4- 1-82 6-28-82	47.6 75.2
0214638155 McCullough Branch	Sugar Creek	Lat 35°05'45", long 80°55'08", Mecklenburg County, at culvert on Secondary Road 1126, 1.5 miles upstream from mouth, and 1.5 miles northwest of Pineville.	1.52		11- 1-79	0.06
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.	49.5	1969-81	3-30-82 6-28-82 6-30-82	32.5 142 38.6
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 Fort Mill, S.C.	262	1969, †1974-78	11- 1-78 12- 7-78 12- 8-81 1-21-82 2-25-82 6-28-82 7-29-82 9-16-82	80.9 196 132 3060 238 204 121 112
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, 1981	10-21-81 2-25-82 6-28-82	1.16 20.8 4.90
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.	99.7	1970-71, 1973-75, 1979-81	4-15-82 9- 2-82	178 170
02150031 White Oak Creek	Green River	Lat 35°16'08", long 82°08'23", Polk County, at bridge on Secondary Road 1519, 3.5 miles northeast of Columbus, and 4.2 miles upstream from Machine Creek.	11.3		10-16-81	*6.81
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.	627	1974-76, 1979-81	4-23-82 9- 2-82	722 652
02152580 Brushy Creek	First Broad River	Lat 35°17'41", long 81°34'51", Cleveland County, at bridge on U.S. Highway 74, 0.7 mile west of Shelby, and 1.0 mile above mouth.	27.5		4-16-82 9- 2-82	23.5 16.3

† Operated as a continuous-record gaging station.
‡ Not previously published.
a Approximately.
* Base flow.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Santee River basin (Continued)				
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.	296	1968-77, 1980-81	4-23-82 9- 1-82	252 162
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 N.C.-S.C. state line, and 4 miles west of Grover.	161	1968-77, 1979-81	4-16-82 9- 1-82	130 56.4
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, 1979-81	10-16-82 4-16-82 9- 2-82	*23.6 112 42.6

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982, 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.	34.8	1925, 1955-56, 1960, 1962, 1974-81	4-22-82 9- 3-82	63.4 51.7
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.	298	1974-75, 1977, 1981	10-15-81 2- 5-82 8- 4-82	171 1340 440
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, 1981	10-15-81 3-12-82 8- 4-82	84.4 488 210
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 north-northeast of Amelia.	820	1968-69, 1971-75, 1979-81	10-14-81 12-29-81 5-18-82 9- 7-82	374 979 834 621
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.	99.2	1974-75, 1978-81	10-14-81 4-14-82	58.6 0.53
		Tennessee River basin				
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, 1980-81	4-16-82 9-10-82	307 81.3
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	1969-81	4-16-82 9-10-82	336 84.8
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	1981	4-16-82 9- 1-82	125 78.5
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 1978-81	4-15-82 9- 1-82	104 87.6
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	1968-81	4-16-82 9- 9-82	515 122
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, 1980-81	4-15-82 9- 1-82	14.7 32.7

† Operated as a continuous-record gaging station.
* Base flow.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Tennessee River basin (Continued)				
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	1969-81	4-15-82 9-10-82	520 172
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, 1980-81	4-15-82 9- 9-82	1820 110
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, 1976-81	4-21-82 9- 3-82	124 77.2
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, 1981	4-21-82 9- 7-82	222 97.9
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, 1980-81	4-21-82 9- 7-82	167 85.3
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, 1980-81	9- 7-82	374
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, 1981	4-21-82 9- 2-82	798 1430
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, 1973-81	4-21-82 9- 2-82	106 639

† Operated as a continuous-record gaging station.

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	78.86	80.81	80.57	79.61	81.73	80.35	79.87	80.35	80.58	80.55	73.84	72.66
10	79.61	82.29	80.16	78.96	82.23	80.90	80.32	80.30	80.57	80.55	73.49	72.59
15	79.94	80.03	80.29	79.46	80.92	80.71	80.50	80.38	80.67	80.54	73.34	70.97
20	79.82	80.28	80.87	79.99	80.40	80.53	80.49	80.44	80.36	80.44	73.14	71.25
25	81.13	80.27	80.81	80.16	80.54	80.45	80.50	80.43	80.58	76.91	72.90	71.93
EOM	79.61	80.42	79.75	81.62	80.79	80.48	80.42	80.43	80.55	73.27	72.89	70.25

WTR YR 1982 MEAN 79.00 HIGH 68.35 SEP 16 LOW 82.30 FEB 8

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.52	9.93	10.99	9.22	10.69	10.51	10.53	10.12	10.87	10.12	10.62	10.90
2	11.55	10.67	11.27	8.76	10.89	10.57	10.52	9.29	11.34	10.58	10.54	11.13
3	11.62	11.13	11.45	8.49	10.92	10.63	10.49	10.06	10.81	10.50	10.57	11.19
4	11.19	11.25	11.48	9.50	10.98	10.51	10.18	10.38	10.81	9.64	10.59	11.05
5	10.80	11.34	10.82	10.52	10.98	10.27	10.34	10.53	10.57	9.50	10.63	10.16
6	11.54	11.43	10.18	10.73	10.97	10.50	10.57	10.59	9.72	9.14	10.68	9.83
7	11.61	10.27	10.64	10.90	10.15	10.44	10.77	10.63	10.38	8.89	10.59	10.70
8	11.65	10.04	11.35	10.96	10.56	10.51	10.67	9.97	10.74	8.88	9.72	10.94
9	11.66	10.56	11.61	10.71	10.80	10.46	10.62	8.88	10.75	8.71	10.08	11.05
10	11.36	11.19	11.68	9.92	10.88	10.50	10.69	9.95	10.86	8.39	10.54	11.03
11	10.43	11.35	11.71	10.64	10.88	10.49	9.86	10.46	10.76	8.28	10.69	11.14
12	10.76	11.40	11.67	10.95	10.88	10.52	9.37	10.64	10.49	9.10	10.60	11.18
13	11.20	11.41	11.66	10.96	10.64	10.52	10.18	10.74	9.54	10.01	10.52	10.95
14	11.27	11.15	11.62	11.02	9.45	10.54	10.53	10.75	10.10	10.23	9.69	10.86
15	11.34	9.77	11.58	11.16	10.26	10.42	10.62	10.51	10.42	10.32	9.10	10.90
16	11.39	10.44	11.68	10.58	10.62	10.44	10.63	9.80	10.76	10.36	9.85	11.19
17	10.85	11.05	11.59	10.69	10.70	10.47	10.69	10.16	10.77	10.42	10.34	11.15
18	9.59	11.31	11.59	10.81	10.75	10.49	9.85	10.61	10.65	9.39	10.46	11.13
19	10.96	11.37	11.28	11.02	10.75	10.46	10.22	10.73	10.53	10.13	10.55	11.13
20	11.30	11.43	10.47	10.94	10.51	10.40	10.61	10.71	10.13	10.49	10.60	11.10
21	11.42	11.54	9.82	10.69	9.93	9.69	10.69	10.76	10.26	10.57	10.67	11.14
22	11.48	10.62	9.17	11.05	10.34	10.20	10.68	10.40	10.51	10.59	9.77	11.13
23	11.50	11.17	8.95	10.89	10.56	10.30	10.72	9.56	10.60	10.65	10.03	11.14
24	11.08	11.41	9.02	10.24	10.61	10.34	10.73	10.20	10.58	10.46	10.50	11.08
25	9.70	11.59	8.68	10.65	10.67	10.37	9.85	10.59	10.60	9.39	10.62	11.15
26	10.61	10.29	8.73	10.90	10.59	10.45	10.17	10.63	10.65	9.92	10.71	10.37
27	11.08	9.46	8.58	11.00	10.49	10.50	10.29	10.65	10.74	10.48	10.68	10.75
28	11.26	9.13	9.57	11.02	10.43	10.45	10.47	10.92	10.71	10.64	10.74	10.97
29	11.17	8.92	10.47	11.06	---	10.39	10.50	10.76	10.65	10.73	10.74	10.98
30	10.70	10.19	10.76	11.03	---	10.44	10.49	9.76	10.03	10.80	10.75	11.01
31	10.25	---	10.61	9.86	---	10.46	---	10.03	---	10.82	10.79	---
MEAN	11.09	10.76	10.67	10.54	10.60	10.43	10.42	10.32	10.54	9.94	10.42	10.95

WTR YR 1982 MEAN 10.55 HIGH 8.28 LOW 11.71

353227076374001. Local number, NC-15.
LOCATION.--Lat 35°32'27", long 76°37'30", 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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 14	13.32	Jan. 26	13.74	Apr. 21	13.09	June 3	13.03	July 13	13.35	Aug. 24	12.89
Dec. 3	13.77	Mar. 10	13.27								

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), 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.84	11.31	11.47	9.78	9.72	9.63	9.79	10.04	9.61	10.13	9.76	9.77
10	11.34	11.59	11.59	9.66	9.58	9.66	9.90	10.15	9.79	10.24	9.87	10.44
15	11.38	11.33	11.37	11.86	9.12	9.89	9.90	10.52	10.32	10.25	9.31	10.76
20	11.92	11.58	11.46	10.13	9.33	9.48	10.25	9.73	9.10	10.02	10.20	10.41
25	13.08	11.84	11.04	9.74	9.69	9.25	10.38	9.26	9.47	9.95	9.81	10.41
EOM	11.46	11.76	10.41	9.09	9.78	9.34	10.10	9.06	9.71	10.28	9.92	9.95

WTR YR 1982 MEAN 10.29 HIGH 8.90 MAY 30 LOW 13.49 OCT 24

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.46	32.14	31.45	31.92	34.11	35.30	35.56	34.85	34.04	33.72	33.51	33.64
10	33.20	31.96	31.31	32.25	34.42	35.34	35.45	34.79	33.92	33.67	33.56	33.54
15	32.98	31.87	31.39	32.71	34.59	35.48	35.34	34.61	33.83	33.64	33.65	33.46
20	32.61	31.81	31.22	33.06	34.92	35.58	35.22	34.47	33.85	33.62	33.72	33.38
25	32.49	31.62	31.37	33.44	34.99	35.64	35.03	34.34	33.78	33.57	33.78	33.35
EOM	32.23	31.47	31.53	33.81	35.16	35.60	34.96	34.15	33.83	33.53	33.66	33.44

WTR YR 1982 MEAN 33.62 MAX 35.66 MAR 21 AND OTHERS MIN 31.19 DEC 13

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.38	52.64	52.52	56.51	56.84	56.79	56.38	55.67	54.32	54.88	55.50	55.21
10	53.13	52.55	52.46	56.52	56.83	56.88	56.36	55.80	55.09	54.45	55.85	54.59
15	52.93	52.47	52.45	56.57	56.87	56.87	55.89	54.88	54.70	55.36	56.47	54.16
20	52.78	52.41	52.94	56.65	56.91	56.86	55.55	54.57	55.65	54.95	56.09	54.48
25	52.68	52.37	53.26	56.80	56.72	56.84	55.34	54.74	55.90	55.15	55.35	55.81
EOM	52.72	52.34	54.34	56.71	56.95	56.67	56.28	53.98	55.49	54.97	54.80	56.57

WTR YR 1982 MEAN 55.02 MAX 57.02 MAR 21 MIN 52.34 NOV 29 AND OTHERS

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), 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 (since 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.95	32.04	31.28	31.12	31.97	31.20	31.15	31.23	32.62	32.06	32.68	32.20
10	32.84	31.77	31.20	31.16	32.01	31.13	31.28	30.77	32.24	32.34	32.55	32.51
15	33.03	31.73	31.07	32.59	31.66	31.05	31.30	31.73	32.22	32.19	32.22	32.81
20	32.57	31.47	31.27	32.64	31.45	31.01	31.50	31.60	32.21	32.14	32.07	32.61
25	32.42	31.48	31.57	32.29	31.46	30.81	31.60	31.88	31.40	32.83	32.02	32.21
EOM	32.16	31.33	31.44	32.22	31.25	31.04	31.19	31.89	31.32	32.64	32.06	31.85

WTR YR 1982 MEAN 31.85 HIGH 30.77 MAY 10 LOW 33.17 OCT 2 AND OTHERS

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), 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.15	20.68	20.70	20.24	20.31	19.55	20.04	20.68	21.44	21.21	21.09	20.17
10	21.04	20.57	20.85	20.11	20.15	19.55	20.12	20.82	21.39	19.94	21.42	20.12
15	20.57	20.24	20.50	20.75	20.03	19.55	20.52	21.70	20.98	20.48	20.75	20.25
20	20.81	20.49	20.83	20.67	19.73	19.77	20.47	22.01	20.61	20.39	20.53	20.23
25	20.60	20.86	20.70	20.45	19.83	19.52	20.34	21.35	20.53	20.47	20.87	20.04
EOM	20.74	20.66	20.39	20.52	19.67	19.84	19.85	21.82	21.36	21.11	20.36	19.95

WTR YR 1982 MEAN 20.55 HIGH 18.93 JUL 9 LOW 22.13 MAY 23

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, 9.98 ft (3.04 m) below land-surface datum, July 10, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.25	7.73	7.16	7.06	6.99	6.28	6.49	6.69	8.04	8.88	8.98	8.74
10	8.22	7.49	7.11	6.94	6.80	6.63	6.74	7.05	7.97	9.57	9.38	8.74
15	7.80	6.92	6.89	7.42	6.96	6.39	6.76	7.54	8.16	9.05	9.03	8.66
20	8.19	7.07	7.57	7.48	6.40	6.29	6.88	7.82	8.17	9.06	9.17	8.66
25	7.69	7.24	7.30	7.17	6.54	6.02	6.87	7.80	8.25	9.05	9.15	8.39
EOM	7.73	7.33	7.00	7.08	6.60	6.56	6.67	8.11	8.67	9.13	9.03	8.14

WTR YR 1982 MEAN 7.68 HIGH 5.97 MAR 7 LOW 9.57 JUL 10

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), cased to 232 ft (70.7 m), screened from 232 ft (70.7 m) to 242 ft (73.8 m).
DATUM.--Landsurface datum is 37.50 ft (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, 19.17 ft (5.84 m) below land-surface datum, Aug. 31, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	18.38	Dec. 16	19.12	Mar. 16	18.89	June 16	19.07	July 29	18.09	Aug. 31	19.17
Nov. 16	19.08	Feb. 2	19.03	May 4	19.03						

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.--Beaufort Formation of Paleocene age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (0.20 m), depth 310 ft (94.5 m), 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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	12.89	Dec. 16	12.95	Mar. 16	12.45	June 16	12.45	July 29	12.48	Aug. 31	12.60
Nov. 16	12.70	Feb. 2	12.89	May 4	12.50						

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.94	5.50	6.33	.81	.76	1.18	2.71	2.84	1.50	4.01	2.29	4.52
10	6.22	4.92	6.41	1.31	.76	1.06	2.23	3.84	3.86	1.33	3.32	4.98
15	6.48	5.57	5.37	.92	.90	1.07	3.05	4.25	4.32	.63	1.37	5.40
20	6.69	5.88	4.04	1.00	.89	1.03	3.58	4.65	1.14	1.38	2.22	4.58
25	4.51	6.18	1.68	.90	1.30	1.49	3.95	2.07	2.62	1.19	3.38	3.87
EOM	4.81	6.41	1.46	1.24	.59	2.09	2.01	4.05	2.27	2.64	4.14	1.62

WTR YR 1982 MEAN 3.11 HIGH .50 FEB 13 LOW 6.85 OCT 24

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, 25.66 ft (7.82 m) below land-surface datum, Aug. 25, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 15	25.41	Jan. 20	25.50	Apr. 22	25.65	June 3	25.53	July 13	25.64	Aug. 25	25.66
Dec. 3	25.49	Mar. 9	25.58								

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	85.19	83.12	82.63	82.81	83.68	83.31	83.51	86.29	85.62	86.14	87.72	87.85
10	85.32	84.31	82.23	82.85	84.99	83.26	82.74	86.19	86.23	86.24	87.22	87.22
15	84.16	82.84	83.23	84.77	83.20	81.51	84.18	87.38	86.22	86.15	86.86	89.33
20	83.32	82.93	83.25	84.46	83.50	83.29	84.27	86.97	86.01	86.50	87.68	86.89
25	82.98	82.50	83.45	84.02	83.80	82.36	85.18	87.98	85.56	86.33	87.99	87.14
EOM	82.95	83.33	83.02	84.11	83.14	83.49	85.03	86.83	86.99	83.83	87.26	87.10

WTR YR 1982 MEAN 84.93 HIGH 81.21 DEC 4 LOW 89.64 SEP 14

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 recorded, 0.55 ft (0.17 m) above land-surface datum, June 24, 1963; lowest recorded, 10.35 ft (3.15 m) below land-surface datum, Aug. 29-31, 1982, possibly lower during period of lost record for the month of September 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5						---	9.69	9.88	9.95	---	10.17	
10						---	9.73	9.90	10.02	---	10.16	
15						---	9.76	9.97	10.12	---	10.18	
20						9.61	---	10.00	9.94	---	10.22	
25						9.62	---	10.01	---	10.10	10.24	
EOM						9.73	9.84	9.98	---	10.12	10.34	

WTR YR 1982 MEAN 9.96 HIGH 9.59 MAR 21 LOW 10.35 AUG 30

CUMBERLAND COUNTY

345803078564901. Local number, NC-84.
LOCATION.--Lat 34°58'03", long 78°56'49", 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 117 ft (35.7 m) (revised), 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 (since July 12, 1974).
REMARKS.--Water levels after Apr. 14, 1982 are adversely affected by withdrawals from nearby new deep well owned by Dixie Mills. Records not published after Apr. 13, 1982.
PERIOD OF RECORD.--April 1966 to April 1982 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.38 ft (0.56 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.14	36.39	36.61	36.51	36.65	36.55	36.63					
10	36.22	36.48	36.61	36.56	36.63	36.61	36.57					
15	36.29	36.44	36.54	36.50	36.66	36.56						
20	36.40	36.57	36.70	36.62	36.54	36.49						
25	36.39	36.61	36.61	36.52	36.66	36.63						
EOM	36.43	36.63	36.60	36.58	36.61	36.74						

WTR YR 1982 MEAN 36.53 HIGH 36.00 OCT 2 LOW 36.78 APR 2

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.
REMARKS.--Continuous recorder installed Jan. 23, 1982.
PERIOD OF RECORD.--January 1932 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.93 ft (2.11 m) below land-surface datum, Feb. 3, 1982; 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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3	22.79	Oct. 28	21.07	Nov. 13	22.47	Dec. 1	21.60	Dec. 17	21.76	Jan. 2	19.82
Oct. 9	22.96	Nov. 1	22.07	Nov. 15	22.54	Dec. 5	23.06	Dec. 20	22.36	Jan. 4	12.73
Oct. 11	23.16	Nov. 2	22.21	Nov. 22	22.83	Dec. 9	23.68	Dec. 27	21.06	Jan. 12	19.41
Oct. 17	23.43	Nov. 7	22.10	Nov. 23	22.90	Dec. 13	24.27	Dec. 28	21.24	Jan. 17	19.54
Oct. 25	23.08										

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5				---	17.19	17.10	17.63	18.36	19.05	19.22	19.74	20.46
10				---	17.69	17.03	17.77	18.48	18.01	19.34	19.00	20.62
15				---	17.84	17.13	17.95	18.63	18.52	18.67	19.93	20.74
20				---	17.27	17.20	18.06	17.93	18.71	19.51	20.03	20.91
25				18.81	17.84	17.31	18.20	18.82	18.89	19.65	20.15	21.04
EOM				18.76	17.46	17.50	18.22	19.00	19.00	17.74	20.35	21.08

WTR YR 1982 MEAN 18.70 HIGH 13.15 FEB 3 LOW 21.08 SEP 30

DAVIE COUNTY--Continued

355359080331701. Local number, NC-142.
LOCATION.--Lat 35°53'59", long 80°33'17", Hydrologic Unit 03040102, at Mocksville. Owner: U.S. Geological Survey.
AQUIFER.--Weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 30.8 ft (9.39 m), cased to 30.8 ft (9.39 m), screen from 5.0 ft (1.52 m) to 30.8 ft (9.39 m).
DATUM.--Altitude of land-surface datum is 835 ft (255 m) from topographic map. Measuring point: Top of casing, 1.0 ft (0.30 m) above land-surface datum.
REMARKS.--Well constructed to eventually replace nearby NC-110.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--High water level, 18.01 ft (5.49 m) below land-surface datum, March 11-12, 1982; lowest, 20.98 ft (6.40 m) below land-surface datum, Oct. 24-26, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.76	20.73	20.91	19.47	18.95	18.18	18.56	18.96	19.26	19.37	19.66	20.03
10	20.83	20.77	20.91	19.32	18.83	18.06	18.63	19.02	19.34	19.48	19.67	20.18
15	20.89	20.78	20.86	19.39	18.77	18.06	18.63	19.11	19.03	19.53	19.53	20.28
20	20.94	20.82	20.53	19.51	18.49	18.14	18.88	19.19	19.00	19.59	19.65	20.40
25	20.98	20.88	20.43	19.19	18.54	18.26	18.87	19.17	19.11	19.66	19.74	20.49
EOM	20.70	20.92	20.00	19.20	18.41	18.46	18.91	19.25	19.21	19.63	19.90	20.60

WTR YR 1982 MEAN 19.59 HIGH 18.03 MAR 11 AND OTHERS LOW 20.98 OCT 25

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.63	48.00	48.26	48.15	47.87	46.56	46.54	45.75	46.40	46.28	46.41	46.05
2	47.59	47.94	48.22	48.18	47.91	46.66	46.54	45.74	46.37	46.40	46.22	45.95
3	47.64	47.92	48.21	48.13	47.86	46.63	46.45	45.80	46.42	46.31	46.19	45.89
4	47.66	47.99	48.24	48.00	47.86	46.70	46.40	45.78	46.38	46.21	46.20	46.13
5	47.67	48.04	48.30	48.04	47.85	46.58	46.58	45.74	46.33	46.21	46.15	46.50
6	47.64	47.96	48.38	48.04	47.79	46.50	46.70	45.66	46.63	46.27	46.10	46.47
7	47.65	47.78	48.43	48.00	47.80	46.48	46.87	45.59	46.31	46.38	46.17	46.46
8	47.69	47.95	48.45	48.03	47.77	46.54	47.06	45.90	46.33	46.42	46.48	46.20
9	47.75	47.98	48.47	48.04	47.73	46.62	46.76	46.41	46.34	46.44	46.50	46.09
10	47.80	48.00	48.42	48.06	47.75	47.07	46.49	46.63	46.18	46.42	46.43	46.08
11	47.81	48.04	48.41	48.08	47.75	47.08	46.31	46.28	46.27	46.44	46.32	46.12
12	47.79	48.14	48.42	48.08	47.43	47.49	46.23	46.25	46.35	46.34	46.54	46.41
13	47.83	48.59	48.49	48.07	47.03	47.09	46.33	46.51	46.17	46.41	46.45	46.50
14	47.86	48.38	48.50	48.05	46.90	46.78	46.92	46.83	46.18	46.59	46.82	46.30
15	47.86	48.28	48.37	48.13	46.84	46.59	46.80	46.64	46.32	46.43	46.96	46.14
16	47.83	48.22	48.36	48.18	46.85	46.48	46.44	46.30	46.35	46.26	46.94	46.06
17	47.86	48.22	48.38	48.21	46.83	46.69	46.55	46.24	46.54	46.25	46.64	46.02
18	47.84	48.44	48.35	48.20	46.78	46.76	46.47	46.59	47.11	46.81	46.33	46.23
19	47.86	48.47	48.36	48.16	46.76	46.72	46.25	46.60	47.01	47.14	46.18	46.59
20	47.92	48.44	48.37	48.21	46.64	46.66	46.16	46.39	46.68	47.03	46.12	46.79
21	47.94	48.44	48.45	48.44	46.80	46.47	46.05	46.54	46.46	46.61	45.99	46.45
22	47.94	48.42	48.71	48.21	46.72	46.39	46.31	46.36	46.37	46.43	46.08	46.20
23	47.95	48.39	48.61	48.17	46.80	46.39	46.22	46.13	46.30	46.26	46.40	46.09
24	47.98	48.32	48.58	48.07	46.85	46.28	45.96	46.20	46.28	46.18	46.37	46.00
25	47.97	48.30	48.46	48.03	46.81	46.22	45.83	46.39	46.26	46.48	46.23	46.13
26	47.91	48.31	48.37	48.01	46.92	46.22	45.79	45.28	46.28	46.44	46.08	46.36
27	47.85	48.26	48.30	48.03	46.68	46.33	45.76	46.15	46.26	46.27	45.97	46.40
28	47.83	48.23	48.28	47.95	46.54	46.28	46.07	46.07	46.36	46.22	46.09	46.17
29	47.93	48.26	48.25	47.88	---	46.30	45.95	46.12	46.45	46.30	46.71	46.04
30	48.06	48.26	48.26	47.91	---	46.37	45.85	46.25	46.35	46.18	46.49	45.94
31	48.07	---	48.22	47.86	---	46.48	---	46.26	---	46.31	46.21	---
MEAN	47.83	48.20	48.38	48.08	47.22	46.59	46.35	46.21	46.40	46.41	46.35	46.23

WTR YR 1982 MEAN 47.02 HIGH 45.59 LOW 48.71

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 (since 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	10.68	10.73	9.91	8.72	8.11	8.37	---	---		9.41	9.12
10	---	10.69	10.86	9.68	8.52	8.12	8.47	8.94	---		9.50	9.15
15	10.63	10.79	10.75	9.44	8.65	8.13	8.51	9.41	---		9.34	9.19
20	10.86	10.71	10.83	9.33	8.26	7.99	8.55	9.40	---		9.32	9.15
25	10.81	10.76	10.86	8.95	8.34	7.98	8.72	9.26	---		9.49	9.19
EOM	10.70	10.92	10.42	8.91	8.17	8.09	---	9.15	---		9.27	9.05

WTR YR 1982 MEAN 9.41 HIGH 7.98 MAR 25 AND OTHERS LOW 10.94 DEC 13

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), 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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	24.18	Dec. 16	24.12	Mar. 16	24.91	June 16	24.10	July 29	24.14	Aug. 31	24.22
Nov. 16	24.08	Feb. 2	24.04	May 4	24.05						

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 (since 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.15	18.09	18.17	17.91	18.08	17.96	18.21	18.16	17.78	17.89	18.17	18.07
10	18.11	18.12	18.23	18.04	17.96	18.04	18.20	18.10	17.84	18.01	18.13	18.21
15	18.16	18.13	18.35	18.30	18.21	18.15	18.13	18.21	17.87	17.86	17.98	18.19
20	18.33	18.22	18.29	18.32	18.29	18.03	18.18	18.19	17.69	17.92	18.00	18.25
25	18.24	18.21	18.24	18.19	18.12	18.05	18.17	17.79	17.75	18.03	18.01	18.13
EOM	18.10	18.24	18.06	18.17	18.04	18.21	18.10	17.94	17.75	18.32	18.10	18.16

WTR YR 1982 MEAN 18.10 HIGH 17.46 JUN 6 LOW 18.69 JAN 18

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, 6.64 ft (2.02 m) below land-surface datum, Nov. 23, 24, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.55	6.31	6.13	4.77	3.88	4.87	4.90	5.16	5.08	6.00	5.90	6.11
10	6.57	6.47	6.37	5.62	4.40	4.82	4.90	5.25	5.19	6.00	6.00	6.18
15	6.59	6.56	6.38	---	4.71	4.96	5.16	5.52	5.29	5.40	6.04	6.17
20	6.62	6.62	6.27	6.22	4.82	4.98	5.03	5.51	5.38	5.52	6.05	6.26
25	6.61	6.62	6.32	5.57	5.01	5.01	5.17	5.23	5.85	5.78	6.01	6.32
EOM	6.04	6.59	5.36	---	5.05	5.04	4.98	4.99	5.91	5.92	6.12	6.37

WTR YR 1982 MEAN 5.68 HIGH 3.13 FEB 3 LOW 6.64 NOV 23

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, 94.77 ft (28.89 m) below land-surface datum, Oct. 5, Nov. 17, Dec. 17, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 5	94.77	Dec. 17	94.77	Mar. 15	94.13	June 17	94.41	July 27	94.60	Sept. 1	94.58
Nov. 17	94.77	Feb. 1	94.28	May 3	94.35						

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 (since Jan. 1, 1970).
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, 5.64 ft (1.72 m) below land-surface datum, Sept. 1, 1982.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 5	-3.99	Dec. 17	-4.03	Mar. 15	-3.81	June 17	-4.31	July 27	-5.05	Sept. 1	-5.64
Nov. 17	-3.91	Feb. 1	-4.13	May 3	-4.02						

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 casing, 0.35 ft (0.11 m) (revised), 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, 30.47 ft (9.29 m) below land-surface datum, Aug. 31, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	30.04	Dec. 16	30.08	Mar. 16	29.70	June 16	29.92	July 27	30.27	Aug. 31	30.47
Nov. 16	30.04	Feb. 2	29.93	May 4	29.82						

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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Nov. 3	7.98	Jan. 12	7.04	Mar. 23	6.13	June 8	7.32	Aug. 17	7.87	Sept. 23	8.16
Dec. 9	8.05	Feb. 18	6.51	Apr. 26	6.69	July 13	7.77				

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 (since 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.67	8.52	9.04	8.88	8.43	7.52	7.88	8.60	9.11	9.11	9.38	9.54
10	7.92	8.68	9.16	8.25	8.26	7.54	8.10	8.70	9.13	9.20	9.45	9.40
15	8.02	8.63	9.22	8.17	8.08	7.60	8.27	8.82	9.07	9.28	9.43	9.45
20	8.16	8.73	9.28	8.33	7.80	7.58	8.40	8.93	9.05	9.28	9.43	9.48
25	8.32	8.88	9.39	8.42	7.61	7.55	8.51	9.04	8.91	9.32	9.49	9.43
EOM	8.44	8.97	9.35	8.45	7.53	7.67	8.53	9.08	8.99	9.38	9.49	9.34

WTR YR 1982 MEAN 8.69 HIGH 7.45 OCT 1 LOW 9.57 SEP 4

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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 19	56.59	Jan. 27	55.90	Apr. 27	54.92	June 9	55.37	July 22	55.55	Aug. 31	55.76
Dec. 14	57.96	Mar. 16	54.94								

LENOIR COUNTY--Continued

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 m), 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, 75.31 ft (22.95 m) below land-surface datum, Oct. 23, 24, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.27	74.21	73.42	71.04	71.63	71.35	70.16	69.86	---	69.90	---	69.85
10	74.31	73.58	73.55	70.97	70.93	71.22	---	69.70	70.94	71.23	---	69.76
15	74.74	73.96	73.24	71.69	69.97	69.93	---	70.48	70.31	71.59	---	69.75
20	74.31	74.19	73.01	72.69	70.35	70.88	---	70.80	69.16	70.73	---	---
25	74.21	73.84	71.63	71.31	71.02	70.91	---	70.84	68.95	70.13	---	---
EOM	74.55	72.77	71.99	70.80	70.28	70.96	70.58	---	70.63	70.40	69.97	---

WTR YR 1982 MEAN 71.56 HIGH 68.19 JUN 23 LOW 75.04 OCT 23

MARTIN COUNTY

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), 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 (since 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.59	16.43	16.83	14.26	12.80	12.44	12.99	13.60	14.15	14.57	15.59	14.36
10	15.86	16.46	16.88	13.69	12.59	12.47	13.19	13.66	14.05	14.78	15.74	14.28
15	16.17	16.48	16.88	13.45	12.51	12.56	13.31	13.85	14.00	14.98	15.63	14.39
20	16.38	16.56	16.52	13.34	12.34	12.54	13.52	14.11	14.03	15.13	15.25	14.53
25	16.50	16.67	16.03	13.00	12.41	12.53	13.52	14.24	14.14	15.31	14.95	14.61
EOM	16.46	16.80	15.10	12.87	12.45	12.76	13.52	14.22	14.29	15.51	14.69	14.26

WTR YR 1982 MEAN 14.50 HIGH 12.32 FEB 21 AND OTHERS LOW 16.98 DEC 13

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) above land-surface datum (since 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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Nov. 3	(f)	Jan. 12	37.61	Mar. 23	32.62	June 8	33.32	Aug. 17	39.57	Sept. 23	42.11
Dec. 9	(f)	Feb. 18	32.28	Apr. 26	32.82	July 14	36.90				

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) above land-surface datum (since 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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	16.50	Jan. 22	14.98	Apr. 21	16.54	May 25	19.77	July 14	19.58	Aug. 19	15.35
Nov. 19	15.74	Mar. 10	13.90								

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 26 ft (7.9 m) (revised), 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.
REMARKS.--Water levels after May 31, 1982 are adversely affected by withdrawals from nearby quarry operations. Well dewatered by quarry operations from May 31 to July 14, 1982. Records not published after May 31, 1982.
PERIOD OF RECORD.--September 1966 to May 1982 (discontinued).
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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.32	21.01	21.99	22.56	21.38	20.32	19.99	20.43				
10	20.43	21.26	22.19	22.18	21.10	19.50	20.15	20.44				
15	20.53	21.37	22.30	22.01	21.01	19.61	20.22	20.90				
20	20.73	21.49	22.50	21.89	20.60	19.64	20.39	21.08				
25	20.75	21.69	22.55	21.74	20.43	19.69	20.40	21.17				
EOM	20.90	21.88	22.69	21.52	20.35	19.82	20.40	21.30				

WTR YR 1982 MEAN 21.02 HIGH 19.44 MAR 11 LOW 22.73 JAN 3

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.10	14.40	14.62	14.06	13.17	11.37	10.95	11.64	12.21	12.53	12.94	13.17
10	14.17	14.44	14.65	13.90	12.92	10.91	11.17	11.78	12.14	12.57	13.03	13.25
15	14.22	14.47	14.63	13.85	12.51	10.94	11.32	11.97	12.27	12.65	12.90	13.33
20	14.28	14.49	14.63	13.74	12.01	10.58	11.43	12.09	12.24	12.72	---	13.35
25	14.30	14.55	14.59	13.43	12.15	10.24	11.57	12.16	12.36	12.79	---	13.35
EOM	14.37	14.58	14.37	13.28	11.73	10.66	11.59	12.27	12.41	12.85	---	13.09

WTR YR 1982 MEAN 12.90 HIGH 10.24 MAR 25 LOW 14.68 DEC 12 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 datum, Jan. 3, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.41	7.68	8.65	4.34	3.15	3.71	---	5.60	6.40	5.44	4.09	5.57
10	6.71	7.90	8.67	4.81	3.67	3.39	---	5.81	6.67	5.33	4.62	5.80
15	6.95	7.99	8.51	4.77	3.01	3.53	---	6.05	6.87	3.68	4.26	6.02
20	7.26	8.14	8.43	4.95	2.90	3.65	---	6.28	4.43	3.15	4.81	6.28
25	7.32	8.44	8.29	3.82	4.03	3.73	5.65	6.46	4.46	4.03	5.18	5.34
EOM	7.65	8.52	7.29	4.42	3.46	---	5.34	6.25	4.94	3.41	5.60	4.65

WTR YR 1982 MEAN 5.62 HIGH 2.28 FEB 17 LOW 8.62 DEC 13

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), 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.04	13.93	14.46	15.90	15.97	14.27	13.15	12.75	14.91	15.65	15.90	
10	13.72	13.87	14.98	16.02	15.56	14.53	14.08	12.74	14.55	15.50	16.25	
15	13.33	13.82	14.96	17.56	15.68	13.76	13.60	13.43	14.67	15.33	15.80	
20	14.30	13.75	16.15	17.74	14.73	13.35	13.01	13.47	14.70	15.99	---	
25	14.79	14.58	15.51	17.09	14.90	12.81	13.09	13.72	14.63	16.24	---	
EOM	14.21	14.49	16.09	16.91	15.25	13.17	12.88	14.44	15.36	16.02	---	

WTR YR 1982 MEAN 14.73 HIGH 12.61 APR 27 LOW 17.91 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 (since 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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	45.13	Jan. 27	45.21	Mar. 18	43.74	May 13	42.50	July 8	40.21	Aug. 26	40.19
Oct. 27	45.38	Feb. 3	45.14	Mar. 25	43.45	May 19	42.46	July 15	40.13	Aug. 30	40.31
Nov. 17	45.70	Feb. 5	45.04	Mar. 31	43.29	May 26	42.29	July 19	40.08	Sept. 2	40.25
Dec. 10	46.08	Feb. 10	44.96	Apr. 9	43.01	June 3	42.16	July 22	40.10	Sept. 9	40.46
Dec. 22	46.08	Feb. 17	44.71	Apr. 14	42.97	June 9	41.77	July 29	40.07	Sept. 16	40.55
Jan. 6	45.70	Feb. 24	44.56	Apr. 21	42.85	June 16	41.22	Aug. 4	40.08	Sept. 22	40.69
Jan. 15	45.61	Mar. 4	44.26	Apr. 28	42.68	June 23	40.85	Aug. 11	40.10	Sept. 30	40.90
Jan. 23	45.43	Mar. 11	43.94	May 5	42.60	July 2	40.38	Aug. 18	40.13		

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), 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 (since 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.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND SURFACE DATUM , WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-3.76	-4.09	-4.22	.59	.69	.39	-1.05	-2.05	-1.74	-1.67	-2.18	-2.78
10	-3.90	-4.14	-4.25	-0.26	.84	.57	-1.03	-2.36	-2.01	-2.02	.47	-3.14
15	-3.97	-4.14	-4.21	-0.04	.81	.01	-1.40	-2.75	-2.36	-0.70	-0.41	-3.38
20	-4.06	-4.11	-3.89	.10	.88	.60	-1.70	-3.03	-0.33	-1.15	-1.08	-3.57
25	-4.08	-4.18	-3.58	.70	-0.07	-0.02	-2.04	-0.42	-1.05	-0.66	-1.70	-1.37
EOM	-4.07	-4.23	-1.64	.11	.92	-0.63	-1.75	-1.53	-1.26	-1.59	-2.27	-0.13

WTR YR 1982 MEAN -1.73 MAX .95 FEB 13 MIN -4.30 DEC 13

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).
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 (since 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, 8.74 ft (2.66 m), below land-surface datum, Nov. 13, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.86	8.08	8.08	6.42	6.51					---	7.29	7.95
10	8.00	8.15	8.38	6.85	6.24					---	7.28	7.95
15	8.39	8.63	8.03	7.15	6.19					---	7.31	8.03
20	8.01	7.81	8.05	7.12	6.28					---	7.43	7.77
25	8.16	8.27	8.08	6.78	6.46					---	7.46	7.24
EOM	8.34	8.13	7.66	7.01	6.45					7.08	7.71	6.81

WTR YR 1982 MEAN 7.52 HIGH 6.19 FEB 15 AND OTHERS LOW 8.73 NOV 14

361828076163401. Local number, NC-143.
LOCATION.--Lat 36°18'28", long 76°16'34", Hydrologic Unit 03010205, near Elizabeth City. Owner: U.S. Geological Survey.
AQUIFER.--Sands of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 3 in (0.08 m), depth 10.2 ft (3.11 m), cased to 10.2 ft (3.11 m), screen from 5.0 ft (1.52 m) to 10.2 ft (3.11 m).
DATUM.--Altitude of land-surface datum is 13 ft (4 m) from topographic map. Measuring point: Top of casing, 2.35 ft (0.72 m) above land-surface datum.
REMARKS.--Well constructed to eventually replace nearby NC-86.
PERIOD OF RECORD.--November 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.35 ft (0.11 m) below land-surface datum, Jan. 23, 1982; lowest, 5.42 ft (1.65 m) below land-surface datum, Dec. 13, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		---	5.24	.88	1.10	1.35	2.42	2.75	2.61	3.07	3.35	3.49
10		---	5.23	1.62	.77	1.26	2.49	2.89	2.56	3.29	3.70	3.76
15		---	4.85	1.61	.82	1.77	2.68	3.27	2.87	2.46	1.73	3.93
20		5.03	4.51	1.51	.70	1.27	2.81	3.59	1.33	2.76	1.91	4.10
25		5.27	3.34	.90	1.80	1.64	2.94	1.86	2.10	2.24	2.39	1.72
EOM		5.33	2.18	1.46	.72	2.06	2.86	2.08	2.44	2.87	3.08	1.08

WTR YR 1982 MEAN 2.55 HIGH .50 FEB 6 LOW 5.41 DEC 13

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), 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.10	2.72	3.04	1.23	1.31	1.51	1.95	1.70	2.79	1.84	1.59	2.33
10	2.26	2.79	2.97	1.23	1.31	1.48	2.04	1.89	3.00	2.03	1.79	2.22
15	2.38	2.87	2.87	1.43	1.26	1.57	2.07	2.10	3.04	1.53	1.93	2.27
20	2.50	2.95	2.20	1.50	1.11	1.61	2.13	2.28	2.59	1.32	2.04	2.35
25	2.60	3.03	2.01	1.37	1.29	1.69	2.12	2.44	1.79	1.52	2.16	1.60
EOM	2.65	3.09	1.57	1.51	1.43	1.86	1.64	2.61	1.70	1.60	2.30	1.31

WTR YR 1982 MEAN 2.03 HIGH 1.11 FEB 19 AND OTHERS LOW 3.10 DEC 1 AND OTHERS

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.76	22.02	22.08	23.09	22.98	22.95	22.78	22.68	22.38	22.10	22.88	22.57
10	21.65	22.02	22.02	22.82	23.00	23.04	22.76	22.50	22.23	22.04	22.62	22.39
15	21.68	22.00	22.17	22.76	23.19	23.03	22.64	22.33	22.29	22.86	23.07	22.33
20	21.64	22.05	22.14	22.74	23.26	23.11	22.64	22.23	22.49	22.50	22.77	22.65
25	21.90	22.09	22.33	23.10	22.97	23.10	22.58	22.47	22.37	22.42	22.57	22.62
EOM	22.02	22.06	22.36	22.84	23.08	22.89	22.87	22.16	22.12	22.73	22.56	22.99

WTR YR 1982 MEAN 22.51 MAX 23.96 AUG 1 MIN 21.62 OCT 9

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.05	26.77	26.58	28.69	28.81	28.48	28.10	27.95	27.58	27.30	28.22	27.87
10	26.93	26.70	26.53	28.18	28.85	28.74	27.94	27.82	27.50	27.25	28.01	27.80
15	26.88	26.63	26.64	27.98	29.42	28.56	27.87	27.73	27.46	27.94	28.39	27.73
20	26.79	26.66	26.60	28.02	29.57	28.73	27.86	27.70	27.58	27.78	28.14	27.86
25	26.84	26.61	27.06	28.99	28.55	28.75	27.76	27.75	27.43	27.65	27.99	27.94
EOM	26.76	26.59	27.20	28.33	28.85	28.28	28.17	27.63	27.35	27.82	27.92	28.44

WTR YR 1982 MEAN 27.77 MAX 30.48 FEB 17 MIN 26.53 DEC 10 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 (2.98 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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.80	42.92	42.26	45.63	46.45	46.22	45.66	45.55	45.12	44.55	46.33	45.52
10	43.54	42.78	42.16	45.68	46.48	46.44	45.55	45.31	44.58	44.30	45.90	45.20
15	43.34	42.65	42.44	45.55	46.60	46.39	45.38	45.04	44.71	45.73	46.57	45.00
20	43.09	42.57	42.60	45.86	46.82	46.65	45.30	44.88	44.96	45.68	46.04	45.54
25	43.08	42.44	43.20	46.39	46.14	46.36	45.13	45.26	44.62	45.39	45.69	45.45
EOM	43.00	42.33	43.95	45.99	46.63	45.93	45.85	44.77	44.41	45.67	45.60	45.90

WTR YR 1982 MEAN 44.94 MAX 47.02 FEB 17 MIN 42.11 DEC 13

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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 14	45.66	Jan. 20	48.62	Apr. 23	48.30	June 4	46.73	July 16	48.82	Aug. 25	48.33
Dec. 2	44.61	Mar. 11	49.73								

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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 14	52.95	Jan. 20	53.87	Apr. 23	54.78	June 4	53.80	July 16	53.26	Aug. 25	54.90
Dec. 2	50.83	Mar. 11	55.51								

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	49.93	48.81	48.26	53.55	53.74	53.43	52.45	52.36	51.16	50.46	53.31	51.96
10	49.56	48.66	48.16	53.30	53.85	53.69	52.20	51.92	50.70	50.17	52.70	51.50
15	49.30	48.54	48.49	53.10	53.96	53.63	51.92	51.49	50.76	53.25	53.62	51.14
20	48.97	48.47	48.55	53.26	54.00	53.65	51.75	51.25	51.19	52.44	53.02	52.06
25	49.33	48.39	49.22	53.88	53.38	53.46	51.52	51.28	50.67	51.87	52.40	51.87
EOM	48.98	48.28	50.31	53.44	53.90	52.87	52.72	50.79	50.33	52.64	52.01	53.10

WTR YR 1982 MEAN 51.51 MAX 54.47 AUG 1 MIN 48.15 DEC 13

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.71	47.00	46.64	51.04	50.43	50.06	49.50	49.70	48.57	48.35	50.30	49.13
10	47.44	46.92	46.56	50.44	50.53	50.33	49.30	49.34	48.34	48.16	49.70	48.74
15	47.25	46.81	46.78	50.00	50.86	50.27	49.16	49.06	48.68	50.08	50.65	48.47
20	47.10	46.77	46.77	50.01	50.90	50.20	49.05	48.87	49.00	49.43	49.98	48.93
25	47.19	46.73	47.77	50.78	50.19	50.13	48.92	48.81	48.50	48.99	49.45	49.06
EOM	47.09	46.65	48.35	50.11	50.56	49.69	49.92	48.59	48.21	49.55	49.10	50.32

WTR YR 1982 MEAN 48.93 MAX 51.34 AUG 12 MIN 46.55 DEC 12 AND OTHERS

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 recorded, 27.79 ft (8.47 m) NGVD, Sept. 3, 1980.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.64			---	32.18	31.72	---	30.47	28.64	28.69	30.37	31.17
10	28.46			---	32.31	---	---	29.87	28.47	28.98	31.29	30.03
15	28.32			---	32.13	---	---	29.41	28.87	31.22	---	29.61
20	28.20			32.19	32.21	---	29.79	29.17	29.18	30.16	---	31.63
25	---			32.18	31.41	---	29.70	29.06	29.13	29.63	29.89	30.92
EOM	---			31.68	32.33	---	31.08	28.83	28.84	29.43	30.23	31.38

WTR YR 1982 MEAN 30.19 MAX 32.39 FEB 17 MIN 28.19 OCT 21

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, 31.32 ft (9.55 m) below land-surface datum, July 31, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.79	27.11	27.21	26.71	26.22	28.31	28.07	28.44	29.47	29.77	30.80	30.06
10	26.82	27.19	27.55	26.68	26.10	28.34	28.47	28.05	29.47	30.05	30.10	30.49
15	26.89	27.26	27.51	26.67	26.21	28.11	28.39	28.79	29.20	29.99	30.18	30.14
20	27.08	27.33	27.34	26.64	26.78	28.06	28.14	29.14	29.36	30.29	29.79	30.09
25	27.09	27.40	27.18	26.45	28.78	28.27	28.23	29.27	29.19	30.15	30.03	29.80
EOM	27.07	27.47	27.09	26.35	28.40	28.40	28.29	28.97	30.02	31.28	30.26	29.81

WTR YR 1982 MEAN 28.36 HIGH 25.95 FEB 13 LOW 31.28 JUL 31

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 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	35.05	Oct. 26	35.75	Nov. 12	36.32	Nov. 30	36.65	Dec. 21	37.20	Jan. 4	36.80
Oct. 13	35.20	Nov. 3	36.00	Nov. 18	36.50	Dec. 6	37.00	Dec. 28	37.20	Jan. 13	36.60
Oct. 18	35.40	Nov. 10	36.30	Nov. 23	36.65	Dec. 13	37.10				

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5				---	33.30	32.70	30.64	29.63	29.10	29.37	29.79	29.64
10				---	34.17	32.31	30.43	29.52	29.11	29.48	29.77	29.75
15				---	34.02	31.94	30.24	29.42	29.10	29.33	29.72	29.87
20				36.13	33.62	31.59	30.07	29.30	29.13	29.62	29.66	30.03
25				35.72	33.32	31.27	29.91	29.21	29.22	29.62	29.57	30.24
EOM				35.27	33.10	30.94	29.72	29.13	29.25	29.77	29.60	30.50

WTR YR 1982 MEAN 30.68 HIGH 28.91 JUL 13 LOW 36.19 JAN 19

351808082374302. Local number, NC-144.
LOCATION.--Lat 35°18'08", long 82°37"43", Hydrologic Unit 06010105, at Blantyre. Owner: U.S. Geological Survey.
AQUIFER.--Granite of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in (0.10 m), depth 58 ft (17.7 m), cased to 58 ft (17.7 m), screen from 5.0 ft (1.52 m) to 58 ft (17.7 m).
DATUM.--Altitude of land-surface datum is 2,146 ft (654 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.
REMARKS.--Well constructed to eventually replace nearby NC-127.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.65 ft (9.04 m) below land-surface datum, June 1, 1982; lowest, 37.95 ft (11.57 m) below land-surface datum, Dec. 23-24, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.84	36.92	37.77	37.30	34.73	32.86	30.83	30.07	29.67	30.09	30.46	30.36
10	36.03	37.07	37.83	37.16	34.65	32.45	30.74	29.97	29.71	30.21	30.39	30.46
15	36.21	37.27	37.86	36.88	34.30	32.08	30.57	29.87	29.74	30.27	30.31	30.62
20	36.43	37.42	37.93	36.53	33.88	31.74	30.39	29.78	29.80	30.40	30.23	30.81
25	36.60	37.56	37.88	36.05	33.56	31.40	30.29	29.71	29.90	30.48	30.16	31.03
EOM	36.80	37.66	37.64	35.58	33.30	31.07	30.20	29.68	29.94	30.51	30.24	31.32

WTR YR 1982 MEAN 32.94 HIGH 27.29 NOV 16 LOW 37.93 DEC 18 AND OTHERS

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.
REMARKS.--Well filled in with debris by landowner in Late March 1982.
PERIOD OF RECORD.--March 1967 to March 1982 (discontinued, well destroyed).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.29 ft (0.09 m) above land-surface datum, May 3, 1972; lowest measured, 3.85 ft (1.17 m) below land-surface datum, Nov. 2, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6	3.64	Nov. 2	3.85	Dec. 2	3.63	Jan. 5	3.66	Feb. 2	3.73	Mar. 1	3.65

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 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.04	10.18	10.79	9.84	7.58	6.81	8.01	8.42	10.48	9.28	10.14	10.43
10	10.43	10.29	10.84	7.92	6.54	6.59	8.42	8.95	9.53	9.38	10.06	10.23
15	10.09	10.34	10.59	7.36	6.18	5.45	8.89	10.45	8.02	9.84	9.18	10.27
20	10.29	10.46	10.77	8.25	6.22	6.32	8.90	10.63	7.15	9.85	9.45	10.15
25	10.18	10.61	10.39	9.01	6.51	6.77	9.02	10.63	7.45	10.30	9.66	10.10
EOM	10.21	10.33	10.14	7.33	6.87	7.56	8.74	10.27	8.77	10.47	10.20	10.10

WTR YR 1982 MEAN 9.16 HIGH 5.39 MAR 16 LOW 10.93 JUL 29

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, 0.20 ft (0.06 m) below land-surface datum, Feb. 17-18, 1982; lowest, 7.68 ft (2.34 m) below land-surface datum, Aug. 6, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.79	4.60	5.32	.71	.67	1.08	2.10	1.80	3.24	3.95	3.28	5.79
10	4.16	4.84	5.31	1.07	.45	.88	2.00	2.39	3.02	4.14	3.83	6.10
15	4.49	5.02	5.22	1.18	.52	1.00	2.41	2.96	3.17	3.65	3.92	6.35
20	4.85	5.16	4.24	.61	.35	1.09	2.49	2.89	2.92	3.82	4.37	6.58
25	5.08	5.25	3.95	.34	1.08	1.42	2.63	3.31	3.24	4.32	4.84	6.71
EOM	4.60	5.34	2.86	.88	.51	1.76	1.05	3.33	3.69	3.55	5.39	6.59

WTR YR 1982 MEAN 3.26 HIGH .22 FEB 18 LOW 6.71 SEP 25 AND OTHERS

INDEX

Page

Abbotts Creek, at Lexington..... 449
Acre-foot, definition of..... 6
Ahoskie, Ahoskie Creek at..... 25,26
Ahoskie Creek at Ahoskie..... 25,26
Algae, definition of..... 6
All Healing Springs, Lower Little River near..... 339
Amelia, New River at..... 453
Appalachia Lake, change in contents in..... 438,440
Aquifer, definition of..... 6
Arabia, Rockfish Creek near..... 447
Ararat, Ararat River at..... 279,280
Ararat River, at Ararat..... 279,280
Arneys Store, Johns River at..... 450
Artesian, definition of..... 7
Ash mass, definition of..... 7
Asheville, French Broad River at..... 386,387
Atwood, Salem Creek near..... 284

Bacteria, definition of..... 7
Badin Lake, change in contents in..... 368,372
Bahama, Flat River at..... 125
Barber, Second Creek near..... 299
Batts Crossroads, Black Swamp near..... 113-119
Bear Creek Lake..... 439
Bear Creek near Parkstown..... 151,152
Beaufort County, ground-water records in..... 455-457
Beaver Creek, at Cumberland..... 447
Beaverdam Creek near Grantham..... 141,142
Bed material, definition of..... 7
Beetree Reservoir..... 439
Bellemont, Big Alamance Creek near..... 446
Bells Branch, near Murfreesboro..... 443
Bent Creek, French Broad River at..... 384
Bertie County, ground-water records in..... 457
Bessemer City, Long Creek near..... 347,348
Bethel, Conetoe Creek near..... 92
Bethel Hill, Mayo Creek near..... 59
Bethel, West Fork Pigeon River at..... 397
Big Alamance Creek, near Bellemont..... 446
Big Bear Creek near Richfield..... 309
Big Ditch at Retha Street at Goldsboro..... 147,148
Big Marsh Swamp, near Oakland..... 450
Biltmore, Swannanoa River at..... 385
Biochemical oxygen demand, definition of..... 7
Biomass, definition of..... 7
Birdtown, Oconaluftee River at..... 432
Black River (tributary to Cape Fear River), near Tomahawk..... 258,259
Black River (tributary to South River), near Dunn..... 448
Black Swamp near Batts Crossroads..... 113-119
Blackwood, New Hope Creek near..... 447
Bland, New Hope Creek at Secondary Road 1107 near..... 447
  Third Fork Creek near..... 447
Blantyre, French Broad River at..... 380-381
Blevins Crossroads, Little River near..... 453
Blewett Falls Lake, change in contents in..... 368,372
Boardman, Lumber River at..... 333,334
Boiling Springs, Broad River near..... 363
  Sugar Branch near..... 366
Bolin Creek, near Chapel Hill..... 447
Boone, South Fork New River at U.S. Highway 421 near..... 453
Bottom material, definition of..... 7
Bowling Green, SC, Crowders Creek near..... 451
Brevard, Davidson River near..... 377,378
Broad River, at Uree..... 452
  at U.S. Highway 221A near Cliffside..... 452
  near Boiling Springs..... 363

Page

Brunswick County, ground-water records in..... 457
Brushy Creek, near Shelby..... 452
Bryant Swamp, near Butters..... 450
Buckhorn Creek near Corinth..... 238,239
Buckhorn Reservoir (Cape Fear River basin)..... 370
Buckhorn Reservoir (Neuse River basin)..... 369
Buffalo Creek (tributary to Broad River), near Grover..... 453
Buffalo Creek (tributary to Reedy Fork), near McLeansville..... 446
Burnett Lake..... 439
Burnsville, Richardson Creek near..... 449
Butner, Knap of Reeds Creek near..... 445
Butters, Bryant Swamp near..... 450
Bynum, Haw River near..... 201-211

Cane River, near Sioux..... 454
Canton, East Fork Pigeon River near..... 398
  Pigeon River at..... 399,400
Cape Fear River, at Lillington..... 240,241
  at Lock 1 near Kelly..... 246-255
  at William O. Huske Lock near Tarheel..... 244,245
Cape Fear River basin, gaging-station records in..... 193-264
  lakes and reservoirs in..... 367,370
  measurements at miscellaneous sites in..... 446-448
Carteret County, ground-water records in..... 458
Cartoogechaye Creek near Franklin..... 429
Cary, Crabtree Creek near..... 445
Casar, First Broad River near..... 364,365
Cashie River, at State Highway 11 near Lewiston..... 444
Cataloochee, Cataloochee Creek near..... 412-422
Cataloochee Creek near Cataloochee..... 412-422
Catawba River, at Interstate 40 near Old Fort..... 450
  near Pleasant Gardens..... 335,336
  South Fork, near Lowell..... 451
  South Fork, near Startown..... 451
Cedar Cliff Lake..... 439
Cedar Mountain, Little River above High Falls near..... 379
Cells/volume, definition of..... 7
Celo, South Toe River near..... 423,424
Cfs-day, definition of..... 7
Chapel Hill, Bolin Creek near..... 447
Charlotte, Irwin Creek at Dalecrest Road near..... 451
  Irwin Creek near..... 349,350
  Irwin Creek tributary at Morehead Street at..... 451
  Irwin Creek tributary at Revolution Park at..... 452
  Irwin Creek tributary at Statesville Road at..... 451
  Kennedy Branch at Interstate 85 at..... 451
  Kings Branch at Secondary Road 1138 at..... 452
  Little Sugar Creek at Archdale Drive at..... 351,352
  McAlpine Creek at Sardis Road near..... 353,354
  McDowell Creek near..... 451
  McMullen Creek at Sharon View Road near..... 355
  Stewart Creek at..... 451
  Stewart Creek tributary at Berryhill Road at..... 451
  Stewart Creek tributary at Parkway Avenue at..... 451
  Stewart Creek tributary near Interstate 85 at..... 451
  Sugar Creek tributary at York Road at..... 452
  Sugar Creek tributary near Austin Power Co. at..... 452
  Taggert Creek at Wilkerson Boulevard at..... 452

Page
Chatuge Lake, change in contents in..... 438,440
Chemical oxygen demand, definition of..... 7
Cheoah Lake..... 439
Cheoah River, near Robbinsville..... 454
Chicod Creek, at Secondary Road 1565 near Grimesland.....95-97,441,445
at Secondary Road 1760 near Simpson..... 101-108
Chinquapin, Northeast Cape Fear River near.... 262,263
Chlorophyll, definition of..... 7
Chowan County, ground-water records in..... 458,459
Chowan River basin, gaging-station records in..... 23-26
measurements at miscellaneous sites in..... 442,443
Chowan River tributary near Mill Neck..... 442
Clark Creek, at Lincolnton..... 451
Clayton, Middle Creek near..... 139,140
Neuse River near..... 135,136
Cliffside, Broad River at U.S. Highway 221A near..... 452
Second Broad River at..... 361,362
Clyde, Pigeon River at..... 453
Pigeon River near..... 453
Richland Creek near..... 453
Coddle Creek, near Deweese..... 449
Coffey Creek, at Dixie..... 452
Color unit, definition of..... 7
Columbus, White Oak Creek near..... 452
Conetoe Creek near Bethel..... 92
Contentnea Creek, at Hookerton..... 172-181
near Lucama..... 164,165
near Stantonsburg..... 446
Contents, definition of..... 7
Control, definition of..... 8
Cooleemee, Third Creek at..... 448
Cooperation, record of..... 1
Copeland, Fisher River near..... 276
Cordova, Hitchcock Creek at..... 449
Corinth, Buckhorn Creek near..... 238,239
Cornwall, Grassy Creek near..... 444
Country Line Creek, at State Highway 57 at Milton..... 444
Cove Creek near Lake Lure..... 360
Cow Swamp near Grimesland.....98-100,441,445
Cox Mill, Mill Creek at..... 445
Crabtree, Crabtree Creek near..... 453
Pigeon River near..... 454
Crabtree Creek (Neuse River basin), near Cary..... 445
Crabtree Creek (Tennessee River basin), near Crabtree..... 453
Craven County, ground-water records in..... 459,460
Creeping Swamp near Vanceboro..... 185-187
Crowders Creek, near Bowling Green, SC..... 451
Crumpler, North Fork New River at..... 453
Cubic foot per second, definition of..... 8
Cubic feet per second per square mile, definition of..... 8
Cumberland, Beaver Creek at..... 447
Cumberland County, ground-water records in.... 460
Cutawhiskie Creek tributary near Menola..... 443
Cypress Creek, near Seaboard..... 442

Dalton, Little Yadkin River at..... 281
Dan River, at Pine Hall..... 444
near Francisco..... 27,28
near Mayfield..... 33-41
near Wentworth..... 29,30
Data accuracy of..... 15
collected by other agencies..... 15
ground-water level records, collection of... 16
other available..... 15
surface-water records, collection and computation of..... 13
water quality, collection and examination of..... 15
Davidson River near Brevard..... 377,378
Davidson, Rocky River near..... 449
Davie County, ground-water records in..... 460,461
Deep Creek, near Tarboro..... 445
Deep River, at Moncure..... 227-237
at Ramseur..... 225,226
East Fork near High Point..... 222
near Randleman..... 223,224
Deep Run, Trent River at State Highway 11 near..... 446
Definition of terms..... 6
Deweese, Coddle Creek near..... 449
Discharge, definition of..... 8
Dissolved, definition of..... 8
Dixie, Coffey Creek at..... 452
Double Creek near Roseville..... 45,46
Downstream order and station numbering, explanation of..... 11
Drainage area, definition of..... 8
Drainage basin, definition of..... 8
Drowning Creek, at U.S. Highway 15 near Hoffman..... 450
near Hoffman..... 331,332
Dry mass, definition of..... 7
Dunn, Black River near..... 448
Mingo Swamp near..... 448
Duplin County, ground-water records in..... 461
Durham Creek at Edward..... 120
Durham, Eno River near..... 122,123
Dutchmans Creek (tributary to Uwharrie River), near Uwharrie..... 301-308
Dutchmans Creek (tributary to Yadkin River), at State Highway 801 near Fork..... 448

Earl, First Broad River near..... 453
East Fork Lake..... 439
Eden, Smith River at..... 31,32
Edgecombe County, ground-water records in..... 462
Edward, Durham Creek at..... 120
Eldorado, Uwharrie River near..... 449
Elk Creek at Elkville..... 268
Elkin, Yadkin River at..... 273,274
Elkville, Elk Creek at..... 268
Ellerbe Creek, near Gorman..... 445
Enfield, Fishing Creek near..... 81,82
Eno River near Durham..... 122,123
Enon, Yadkin River at..... 282,283
Eureka, Turner Swamp near..... 168,169

Faggarts Crossroads, Irish Buffalo Creek near..... 449
Rocky River near..... 449
Fairfield, Richardson Creek near..... 449
Falls Lake..... 126,367
Falls, Neuse River near..... 126-134
Farmville, Little Contentnea Creek near..... 182,183
Farrington, Morgan Creek near..... 447
Fecal coliform bacteria, definition of..... 7
Fecal streptococcal bacteria, definition of... 7
First Broad River, near Casar..... 364,365
near Earl..... 453
Fisher River near Copeland..... 276
Fishing Creek near Enfield..... 81,82
Flat Creek near Inverness..... 242,243
Flat River at Bahama..... 125
Flat Rock Branch, near Landis..... 449
Fontana Lake, change in contents in..... 437,440
Fork, Dutchmans Creek at State Highway 801 near..... 448
Humpy Creek near..... 293,294
Fort Barnwell, Neuse River near..... 446
Fort Mill, SC, Sugar Creek at State Highway 160 near..... 452
Franklin, Cartoogechaye Creek near..... 429
Francisco, Dan River near..... 27,28
Freeland, Waccamaw River at..... 265,266
French Broad River, at Asheville..... 386,387
at Bent Creek..... 384
at Blantyre..... 380,381
at Marshall..... 388-395
at Rosman..... 375,376

Gage height, definition of..... 8
Gaging station, definition of..... 8

Page
Gates County, ground-water records in..... 462
Gibsonville, Reedy Fork near..... 195,196
Goldsboro, Big Ditch at Retha Street at..... 147,148
Neuse River near..... 149,150
Gordonton, South Hyco Creek near..... 444
Gorman, Ellerbe Creek near..... 445
Gourdvine Creek at Secondary Road 1715 near
Olive Branch..... 310,311
Gragg, Wilson Creek near..... 450
Grantham, Beaverdam Creek near..... 141,142
Grassy Creek, near Cornwall..... 444
Green Mill Run at Arlington Boulevard at
Greenville..... 93,94
Greensboro, North Buffalo Creek near..... 197,198
Greenville, Green Mill Run at Arlington
Boulevard at..... 93,94
Grimesland, Chicod Creek at Secondary Road
1565 near.....95-97,441,445
Cow Swamp near.....98-100,441,445
Grissett Swamp, near Iron Hill..... 448
Groomtown, Richland Creek near..... 447
Ground-water level records, explanation of.... 16
Ground-water records..... 455-473
Grover, Buffalo Creek near..... 453
Gum Branch, New River near..... 446
Gum Swamp, near Old Hundred..... 450

Hamlet, Marks Creek at Secondary Road 1812
near..... 450
Hardness, definition of..... 8
Harmony, Hunting Creek near..... 297,298
Haw River, at Haw River..... 199,200
below B. Everett Jordan Dam near
Moncure..... 212-221
near Bynum..... 201-211
near Oak Ridge..... 446
near Terrells..... 446
Haywood County, ground-water records in..... 463
Hazelwood, West Fork Pigeon River above Lake
Logan near..... 396
Henderson, Nutbush Creek below SEO near..... 444
Henry Fork near Henry River..... 341,342
Henry River, Henry Fork near..... 341,342
Hepco, Pigeon River near..... 401-411
Hertford County, ground-water records in..... 463
Hewletts Creek at Secondary Road 1102 near
Wilmington..... 192
High Point, East Fork Deep River near..... 222
Municipal Lake..... 370
High Rock Lake, change in contents in..... 367,371
Hilliardston, Swift Creek at..... 77,78
Hitchcock Creek, at Cordova..... 449
Hiwassee Lake, change in contents in..... 438,440
Hiwassee River above Murphy..... 433,434
Hoffman, Drowning Creek at U.S. Highway 15
near..... 450
Drowning Creek near..... 331,332
Hoke County, ground-water records in..... 464
Hoke, Van Swamp near..... 121
Hominy Swamp at Phillips Street at Wilson..... 166,167
Hookerton, Contentnea Creek at..... 172-181
Hope Mills, Rockfish Creek at U.S. Highway
301 near..... 447
Humpy Creek near Fork..... 293,294
Hunting Creek near Harmony..... 297,298
Hurdle Mills, South Flat River at Secondary
Road 1112 near..... 445
Hyco Creek near Leasburg..... 42-44
Hyco Lake, change in contents in..... 367,371
Hyco River, below Afterbay Dam near McGehees
Mill..... 47-58
Hydrologic bench-mark station, definition
of..... 12
Hydrologic conditions, summary of..... 2
Hydrologic unit, definition of..... 8

Indian Creek near Laboratory..... 345,346
Ingalls, North Toe River near..... 454
Instantaneous discharge, definition of..... 8

Page
Introduction..... 1
Inverness, Flat Creek near..... 242,243
Iotla, Little Tennessee River at..... 454
Irish Buffalo Creek, near Faggarts
Crossroads..... 449
Iron Hill, Grissett Swamp near..... 448
Irwin Creek, at Dalecrest Road near
Charlotte..... 451
near Charlotte..... 349,350
tributary at Morehead Street at Charlotte... 451
tributary at Revolution Park at Charlotte... 452
tributary at Statesville Road at Charlotte.. 451
Island Creek at Secondary Road 1430 near
Stovall..... 444

Jacob Fork at Ramsey..... 343,344
Jefferson, South Fork New River near..... 373,374
Johns River, at Arneys Store..... 450
Jones County, ground-water records in..... 464
Jordan, B. Everett, Lake, change in contents
in.....212,367,371
Juniper Branch near Simpson..... 109-112

Kanawha River basin, gaging-station records
in..... 373
measurements at miscellaneous sites in..... 453
Kelly, Cape Fear River at Lock 1 near..... 246-255
Kenly, Little River near..... 143,144
Kennedy Branch at Interstate 85, at
Charlotte..... 451
Kerr, John H., Reservoir..... 367
Kings Branch at Secondary Road 1138, at
Charlotte..... 452
Kinston, Neuse River at..... 153-163
Knap of Reeds Creek, near Butner..... 445

Laboratory, Indian Creek near..... 345,346
Lakes and reservoirs:
Ohio River basin..... 437-440
Appalachia Lake, change in contents in.... 438,440
Bear Creek Lake..... 439
Beetree Reservoir..... 439
Burnett Lake..... 439
Cedar Cliff Lake..... 439
Chatuge Lake, change in contents in..... 438,440
Cheoah Lake..... 439
East Fork Lake..... 439
Fontana Lake, change in contents in..... 437,440
Hiwassee Lake, change in contents in..... 438,440
Julian, Lake..... 438
Junaluska, Lake..... 439
Logan, Lake..... 397,439
Nantahala Lake, change in contents in..... 437,440
Santeetlah Lake, change in contents in.... 438,440
Sequoyah Lake..... 439
Tennessee Creek Project lakes..... 439
Thorpe Reservoir, change in contents in... 437,440
Waterville Lake, change in contents in.... 437,440
Wolf Creek Lake..... 439
South Atlantic Slope basins..... 367-372
Badin Lake, change in contents in..... 368,372
Benson, Lake..... 369
Blewett Falls Lake, change in contents
in.....283,368,372
Brandt, Lake..... 370
Buckhorn Reservoir (Cape Fear River
basin)..... 370
Buckhorn Reservoir (Neuse River basin).... 369
Burlington, Lake..... 370
Falls Lake..... 126,367
Gaston, Lake, change in contents in.....60,367,371
Hickory, Lake, change in contents in..... 368,372
Higgins, Lake..... 370
High Point Municipal Lake..... 370
High Rock Lake, change in contents in..... 367,371
Hyco Lake, change in contents in..... 367,371
James, Lake, change in contents in..... 368,372
Johnson, Lake..... 369

Page

Jordan, B. Everett, Lake, change in contents in....212,367,371
Kerr, John H., Reservoir.... 60
Lexington-Thomasville Reservoir.... 370
Lookout Shoals Lake, change in contents in.... 369,372
Mayo Steam-Electric Generating Plant Lake.... 59,369
Michie, Lake.... 369
Mountain Island Lake, change in contents in.... 369,372
Norman, Lake, change in contents in.... 369,372
Oak Hollow Reservoir.... 370
Philpott Reservoir.... 31
Raleigh, Lake.... 369
Rhodhiss Lake, change in contents in.... 368,372
Roanoke Rapids Lake, change in contents in....60,367,371
Roxboro, Lake.... 369
Roxboro Steam-Electric Generating Plant Afterbay Reservoir.... 47,369
Scott, W. Kerr, Reservoir, change in contents in.... 369,371
Shearon Harris Main Reservoir.... 238,370
Stony Creek Reservoir.... 370
Talbott Reservoir, change in contents in.... 367,371
Tillery, Lake, change in contents in.... 368,372
Townes Reservoir, change in contents in... 367,371
Townsend, Lake.... 370
Toxaway, Lake.... 370
Tuckertown Reservoir, change in contents in.... 368,371
Wheeler, Lake.... 369
Lake Benson.... 369
Lake Brandt.... 370
Lake Burlington.... 370
Lake Gaston, change in contents in....60,367,371
Lake Hickory, change in contents in.... 368,372
Lake Higgins.... 370
Lake James, change in contents in.... 368,372
Lake Johnson.... 369
Lake Julian.... 438
Lake Junaluska.... 439
Pigeon River near.... 453
Lake Logan.... 397,439
Lake Lure, Cove Creek near.... 360
Lake Michie.... 369
Lake Norman, change in contents in.... 369,372
Lake Raleigh.... 369
Lake Roxboro.... 369
Lake Tillery, change in contents in.... 368,372
Lake Townsend.... 370
Lake Toxaway.... 370
Lake Wheeler.... 369
Landis, Flat Rock Branch near.... 449
Lane Creek at Secondary Road 2115 near Trinity.... 312,313
Leasburg, Hyco Creek near.... 42-44
Leith Creek, near Maxton.... 450
Lenoir County, ground-water records in.... 464,465
Lewiston, Cashie River at State Highway 11 near.... 444
Lexington, Abbotts Creek at.... 449
Lexington-Thomasville Reservoir.... 370
Lillington, Cape Fear River at.... 240,241
Lincolnton, Clark Creek at.... 451
Linville River near Nebo.... 337,338
Linwood, North Potts Creek at.... 300
Swearing Creek at.... 449
Little Coharie Creek near Roseboro.... 256,257
Little Contentnea Creek near Farmville.... 182,183
Little Fishing Creek near White Oak.... 79,80
Little Marsh Swamp, near Parkton.... 450
near Saint Pauls.... 450
Little River (Kanawha River basin), near Blevins Crossroads.... 453
Little River (tributary to Cape Fear River), at Manchester.... 447

Page

Little River (tributary to Eno River), near Orange Factory.... 124
Little River (tributary to French Broad River), above High Falls near Cedar Mountain.... 379
Little River (tributary to Neuse River), near Kenly.... 143,144
near Princeton.... 145,146
Little River (tributary to Pee Dee River), near Star.... 318,319
Little Rockfish Creek at Wallace.... 264
Little Sugar Creek, at Archdale Drive at Charlotte.... 351,352
near Pineville.... 452
Little Tennessee River, at Iotla.... 454
near Prentiss.... 427,428
Little Yadkin River at Dalton.... 281
Long Creek (tributary to Catawba River), near Paw Creek.... 340
near Thrift.... 451
Long Creek (tributary to Rocky River), at Secondary Road 1454 near Richfield.... 449
near Oakboro.... 449
Long Creek (tributary to South Fork Catawba River), near Bessemer City.... 347,348
Lookout Shoals Lake, change in contents in.... 369,372
Louisburg, Tar River at U.S. Highway 401 at... 71,72
Lowell, South Fork Catawba River near.... 451
Lower Creek, at Secondary Road 1501 near Morganton.... 450
Lower Little River near All Healing Springs... 339
Lucama, Contentnea Creek near.... 164,165
Lumber River, at Boardman.... 333,334
near Maxton.... 450

Manchester, Little River at.... 447
Map showing location of continuous gaging stations.... 18,19
Map showing location of observation well sites.... 20,21
Map showing location of water-quality stations.... 20,21
Marks Creek, at Secondary Road 1812 near Hamlet.... 450
Marlowe Creek, near Woodsdale.... 444
Marshall, French Broad River at.... 388-395
Martin County, ground-water records in.... 465
Maxton, Leith Creek near.... 450
Lumber River near.... 450
Mayfield, Dan River near.... 33-41
Mayo Creek near Bethel Hill.... 59
Mayo Steam-Electric Generating Plant Lake.... 59,369
McAlpine Creek, at Sardis Road near Charlotte.... 353,354
below McMullen Creek near Pineville.... 356,357
McCullough Branch at Secondary Road 1126, at Pineville.... 452
McDowell Creek, near Charlotte.... 451
McGehees Mill, Hyco River below Afterbay Dam near.... 47-58
McLeansville, Buffalo Creek (tributary to Reedy Fork) near.... 446
McMullen Creek at Sharon View Road near Charlotte.... 355
Mean concentration, definition of.... 10
Mean discharge, definition of.... 8
Menola, Cutawhiskie Creek tributary near.... 443
Methylene blue active substance, definition of.... 8
Micrograms per liter, definition of.... 8
Middle Creek, near Clayton.... 139,140
near Smithfield.... 445
Mill Creek, at Cox Mill.... 445
Mill Neck, Chowan River tributary near.... 442
Milligrams per liter, definition of.... 8
Mills River near Mills River.... 382,383
Milton, Country Line Creek at State Highway 57 at.... 444
Mingo Swamp, near Dunn.... 448

Page
Mitchell River near State Road..... 275
Mitchell Swamp, near Rowland..... 450
Mocksville, South Yadkin River near..... 295,296
Moncure, Deep River at..... 227-237
Haw River below B. Everett Jordan Dam near..... 212-221
Moore County, ground-water records in..... 465
Morgan Creek, near Farrington..... 447
Morganton, Lower Creek at Secondary Road 1501 near..... 450
Mountain Island Lake, change in contents in... 369,372
Muddy Creek, near Muddy Creek..... 448
Murfreesboro, Bells Branch near..... 443
Panthers Swamp near..... 443
Murphy, Hiwassee River above..... 443,434

Nahunta Swamp near Shine..... 170,171
Nantahala Lake, change in contents in..... 437,440
Nantahala River, near Rainbow Springs..... 430
National Geodetic Vertical Datum of 1929, definition of..... 8
National stream-quality accounting network, definition of..... 12
Nebo, Linville River near..... 337,338
Neuse River, at Kinston..... 153-163
at Smithfield..... 137,138
at Streets Ferry near Vanceboro..... 184
near Clayton..... 135,136
near Falls..... 126-134
near Fort Barnwell..... 446
near Goldsboro..... 149,150
near Stevens Mill..... 445
Neuse River basin, gaging station records in.. 120-191
lakes and reservoirs in..... 367,369
measurements at miscellaneous sites in..... 445,446
New Hanover County, ground-water records in... 466
New Hope Creek, at Secondary Road 1107 near Bland..... 447
near Blackwood..... 447
New River (Kanawha River basin), at Amelia.... 453
North Fork, at Crumpler..... 453
South Fork, at Scottville..... 453
South Fork, at U.S. Highway 421 near Boone..... 453
South Fork, near Jefferson..... 373,374
New River (New River basin), near Gum Branch.. 446
Nolichucky River, at Poplar..... 454
North Buffalo Creek near Greensboro..... 197,198
North Pacolet River, near Sandy Plains..... 453
North Potts Creek at Linwood..... 300
North Toe River, near Ingalls..... 454
near Penland..... 454
North Wilkesboro, Reddies River at..... 269
Northampton County, ground-water records in... 466
Northeast Cape Fear River near Chinquapin..... 263
Northeast Creek, near O'Kellys Church..... 447
Norwood, Rocky River near..... 316,317
Numbering system for wells..... 12
Nutbush Creek, below SEO near Henderson..... 444

Oak Hollow Reservoir..... 370
Oak Ridge, Haw River near..... 446
Reedy Fork near..... 193,194
Oakboro, Long Creek near..... 449
Oakland, Big Marsh Swamp near..... 450
Oconaluftee River at Birdtown..... 432
Ohio River basin, gaging-station records in... 373-436
lakes and reservoirs in..... 437-440
measurements at miscellaneous sites in..... 453
O'Kellys Church, Northeast Creek near..... 447
Old Fort, Catawba River at Interstate 40 near..... 450
Old Hundred, Gum Swamp near..... 450
Olive Branch, Gourdvine Creek at Secondary Road 1715 near..... 310,311
Onslow County, ground-water records in..... 467
Orange County, ground-water records in..... 467
Orange Factory, Little River near..... 124
Organic mass, definition of..... 7

Page
Organism count/area, definition of..... 8
Organism count/volume, definition of..... 9
Organism, definition of..... 8
Ossipee, Reedy Fork at..... 446

Pamlico River basin, crest-stage partial-record station in..... 441
gaging-station records in..... 69-119
measurements at miscellaneous sites in..... 445
Panther Swamp, near Murfreesboro..... 443
Parkersburg, South River near..... 260,261
Parkstown, Bear Creek near..... 151,152
Parkton, Little Marsh Swamp near..... 450
Partial-record station, definition of..... 9
Particle-size classification, definition of... 9
Particle-size, definition of..... 9
Paschall, Smith Creek near..... 444
Pasquotank County, ground-water records in.... 468
Patterson, Yadkin River at..... 267
Paw Creek, Long Creek near..... 340
Pee Dee River basin, gaging-station records in..... 267-334
lakes and reservoirs in..... 367,368,372
measurements at miscellaneous sites in..... 448-450
Pee Dee River near Rockingham..... 320-330
Pelham, Wolf Island Creek near..... 444
Pender County, ground-water records in..... 469
Penland, North Toe River near..... 454
Percent composition, definition of..... 9
Periphyton, definition of..... 9
Pesticide program..... 9
Pesticides, definition of..... 9
Philpott Reservoir..... 31
Phytoplankton, definition of..... 9
Picocurie, definition of..... 9
Pigeon River, at Canton..... 399,400
at Clyde..... 453
at Waterville..... 454
near Clyde..... 453
near Crabtree..... 454
near Hepco..... 401-411
near Lake Junaluska..... 453
East Fork, near Canton..... 398
West Fork, above Lake Logan near Hazelwood..... 396
West Fork, at Bethel..... 397
Pine Hall, Dan River at..... 444
Pineville, Little Sugar Creek near..... 452
McAlpine Creek below McMullen Creek near.... 356,357
McCullough Branch at Secondary Road 1126 at..... 452
Sugar Creek at U.S. Highway 521 at..... 452
Pitt County, ground-water records in..... 469-471
Plankton, definition of..... 9
Pleasant Gardens, Catawba River near..... 335,336
Poplar, Nolichucky River at..... 454
Potecasi Creek near Union..... 23,24
Prentiss, Little Tennessee River near..... 427,428
Princeton, Little River near..... 145,146
Publications on Techniques of Water-resources Investigations..... 17

Radiochemical program, definition of..... 12
Rainbow Springs, Nantahala River near..... 430,431
Ramseur, Deep River at..... 225,226
Ramsey, Jacob Fork at..... 343,344
Randleman, Deep River near..... 223,224
Reddies River at North Wilkesboro..... 269
Reedy Fork, at Ossipee..... 446
near Gibsonville..... 195,196
near Oak Ridge..... 193,194
Reservoir. See lakes and reservoirs.
Rhodhiss Lake, change in contents in..... 368,372
Rich Fork Creek, near Thomasville..... 449
Richardson Creek, near Burnsville..... 449
near Fairfield..... 449
Richfield, Big Bear Creek near..... 309
Long Creek at Secondary Road 1454 near..... 449

Page
Richland Creek (tributary to Deep River), near Groomtown..... 447
Richland Creek (tributary to Pigeon River), near Clyde..... 453
near Waynesville..... 453
Roanoke Rapids Lake, change in contents in..60,367,371
Roanoke Rapids, Roanoke River at..... 60-68
Roanoke River, at Roanoke Rapids..... 60-68
Roanoke River basin, gaging-station records in..... 27-68
lakes and reservoirs in..... 367,369,371
measurements at miscellaneous sites in..... 444
Roaring River near Roaring River..... 271,272
Robbinsville, Cheoah River near..... 454
Robeson Creek, near Seaforth..... 446
Rockfish Creek (tributary to Cape Fear River), at U.S. Highway 301 near Hope Mills..... 448
near Arabia..... 447
Rockfish Creek (tributary to Northeast Cape Fear River), near Wallace..... 448
Rockingham, Pee Dee River near..... 320-330
Rocky Mount, Tar River at N.C. 97 at..... 75,76
Tar River below Tar River Reservoir near.... 73,74
Rocky River, near Davidson..... 449
near Faggarts Crossroads..... 449
near Norwood..... 316,317
Roseboro, Little Coharie Creek near..... 256,257
Roseville, Double Creek near..... 45,46
Rosman, French Broad River at..... 375,376
Rowland, Mitchell Swamp near..... 450
Roxboro Steam-Electric Generating Plant Afterbay Reservoir..... 47,369
Runoff in inches, definition of..... 9

Saint Pauls, Little Marsh Swamp near..... 450
Salem Creek tributary, at Winston-Salem..... 448
Salem Creek near Atwood..... 284
Sampson County, ground-water records in..... 472
Sandy Plains, North Pacolet River near..... 453
Santee River basin, gaging-station records in. 335-366
lakes and reservoirs in.....368,369,372
measurements at miscellaneous sites in..... 450-453
Santeetlah Lake, change in contents in..... 438,440
Scott, W. Kerr, Reservoir, change in contents in..... 369,371
Scottville, South Fork New River at..... 453
Seaboard, Cypress Creek near..... 442
Seaforth, Robeson Creek near..... 446
Second Broad River, at Cliffside..... 361,362
Second Creek near Barber..... 299
Sediment, definition of..... 9
Sediment, explanation of..... 9,10,16
Sequoyah Lake..... 439
Shearon Harris Main Reservoir..... 238,370
Shelby, Brushy Creek near..... 452
Shine, Nahunta Swamp near..... 170,171
Siloam, Yadkin River at..... 277,278
Simpson, Chicod Creek at Secondary Road 1760 near..... 101-108
Juniper Branch near..... 109-112
Sioux, Cane River near..... 454
Smith Creek, near Paschall..... 444
Smith River at Eden..... 31,32
Smithfield, Middle Creek near..... 445
Neuse River at..... 137,138
Solute, definition of..... 10
South Atlantic Slope basins, crest-stage partial-record stations in..... 441
gaging-station records in..... 23-366
lakes and reservoirs in..... 367-372
measurements at miscellaneous sites in..... 442-453
South Flat River at Secondary Road 1112 near Hurdle Mills..... 445
South Hyco Creek, near Gordonton..... 444
South River near Parkersburg..... 260,261
South Toe River near Celo..... 423,424

Page
South Yadkin River near Mocksville..... 295,296
Special networks and programs..... 12
Specific conductance, definition of..... 10
Stage and water-discharge records, explanation of..... 13
Stage-discharge relation..... 10
Stantonsburg, Contentnea Creek near..... 446
Star, Little River near..... 318,319
Startown, South Fork Catawba River near..... 451
State Road, Mitchell River near..... 275
Stevens Mill, Neuse River near..... 445
Stewart Creek, at Charlotte..... 451
tributary at Berryhill Road, at Charlotte... 451
tributary at Parkway Avenue, at Charlotte... 451
tributary near Interstate 85, at Charlotte.. 451
Stony Creek Reservoir..... 370
Stovall, Island Creek at Secondary Road 1430 near..... 444
Streamflow, definition of..... 10
Sugar Branch near Boiling Springs..... 366
Sugar Creek, at State Highway 160, near Fort Mill, SC..... 452
at U.S. Highway 521, at Pineville..... 452
tributary at York Road, at Charlotte..... 452
tributary near Austin Power Co., at Charlotte..... 452
Sugar Grove, Watauga River near..... 425,426
Summary of hydrologic conditions..... 2
Suspended, recoverable, definition of..... 11
Suspended-sediment concentration, definition of..... 10
Suspended sediment, definition of..... 9
Suspended-sediment discharge, definition of... 10
Suspended-sediment load, definition of..... 10
Suspended, total, definition of..... 11
Swannanoa River, at Biltmore..... 385
Swearing Creek, at Linwood..... 449
Swift Creek near Vanceboro..... 188,189
Swift Creek (tributary to Tar River), at Hilliardston..... 77,78

Taggert Creek at Wilkerson Boulevard, at Charlotte..... 452
Talbott Reservoir, change in contents in..... 367,371
Tar Branch tributary, at Winston-Salem..... 448
Tar River, at N.C. 97 at Rocky Mount..... 75,76
at Tarboro..... 83-91
at U.S. Highway 401 at Louisburg..... 71,72
below Tar River Reservoir near Rocky Mount..... 73,74
near Tar River..... 69,70
Tarboro, Deep Creek near..... 445
Tar River at..... 83-91
Tarheel, Cape Fear River at William O. Huske Lock near..... 244,245
Taxonomy, definition of..... 10
Tennessee Creek Project lakes..... 439
Tennessee River basin, gaging-station records in..... 375-436
lakes and reservoirs in..... 437-439
measurements at miscellaneous sites in..... 453,454
Terms, definition of..... 6
Terrells, Haw River near..... 446
Third Creek, at Cooleemee..... 448
Third Fork Creek, near Bland..... 447
Thomasville, Rich Fork Creek near..... 449
Thorpe Reservoir, change in contents in..... 437,440
Thrift, Long Creek near..... 451
Tomahawk, Black River near..... 258,259
Tomotla, Valley River at..... 435,436
Tons per acre-foot, definition of..... 10
Tons per day, definition of..... 10
Total coliform bacteria, definition of..... 7
Total, definition of..... 11
in bottom material, definition of..... 11
load, definition of..... 11
recoverable, definition of..... 11
recoverable from bottom material, definition of..... 11

Page
Total organism count, definition of..... 9
Townes Reservoir, change in contents in..... 367,371
Transylvania County, ground-water records in..... 472
Trent River, at State Highway 11 near Deep Run..... 446
near Trenton..... 190,191
Trenton, Trent River near..... 190,191
Trinity, Lane Creek at Secondary Road 2115 near..... 312,313
Wicker Branch at Secondary Road 1940 near... 314,315
Tritium network, definition of..... 12
Tuckertown Reservoir, change in contents in... 368,371
Turner Swamp near Eureka..... 168,169
Twelve Mile Creek near Waxhaw..... 358,359

Union, Potecasi Creek near..... 23,24
Uree, Broad River at..... 452
Uwharrie, Dutchmans Creek near..... 301-308
Uwharrie River, near Eldorado..... 449

Valley River, at Tomotla..... 435,436
Van Swamp near Hoke..... 121
Vanceboro, Creeping Swamp near..... 185-187
Neuse River at Streets Ferry near..... 184
Swift Creek near..... 188,189

Waccamaw River, at Freeland..... 265,266
Waccamaw River basin, gaging-station records in..... 265,266
measurements at miscellaneous sites in..... 448
Wallace, Little Rockfish Creek at..... 264
Rockfish Creek near..... 448
Washington County, ground-water records in..... 473
Watauga River, near Sugar Grove..... 425,426
Water analysis, explanation of..... 15

Page
Water-quality records, explanation of..... 15
Water temperature, explanation of..... 16
Water year, definition of..... 11
Waterville Lake..... 437,440
Waterville, Pigeon River at..... 454
Waxhaw Creek, near Waxhaw..... 452
Waxhaw, Twelve Mile Creek near..... 358,359
Waxhaw Creek near..... 452
Wayne County, ground-water records in..... 473
Waynesville, Richland Creek near..... 453
Wentworth, Dan River near..... 29,30
Wet mass, definition of..... 7
White Oak Creek, near Columbus..... 452
White Oak, Little Fishing Creek near..... 79,80
Wicker Branch at Secondary Road 1940 near Trinity..... 314,315
Wilkesboro, Yadkin River at..... 270
Wilmington, Hewletts Creek at Secondary Road 1102 near..... 192
Wilson Creek, near Gragg..... 450
Wilson, Hominy Swamp at Phillips Street at.... 166,167
Winston-Salem, Salem Branch tributary at..... 448
Tar Branch tributary at..... 448
Wolf Creek Lake..... 439
Wolf Island Creek, near Pelham..... 444
Woodsdale, Marlowe Creek near..... 444
WRD, definition of..... 11
WSP, definition of..... 11

Yadkin College, Yadkin River at..... 285-292
Yadkin River, at Elkin..... 273,274
at Enon..... 282,283
at Patterson..... 267
at Siloam..... 277,278
at Wilkesboro..... 270
at Yadkin College..... 285-292

Zooplankton, definition of..... 9

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

USGS LIBRARY - RESTON
3 1818 00453521 5

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTE
INT 413

U.S. MAIL

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
P.O. Box 2857
Raleigh, NC 27602

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

SPECIAL 4TH CLASS BOOK RATE