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# Water Resources Data North Carolina Water Year 1992

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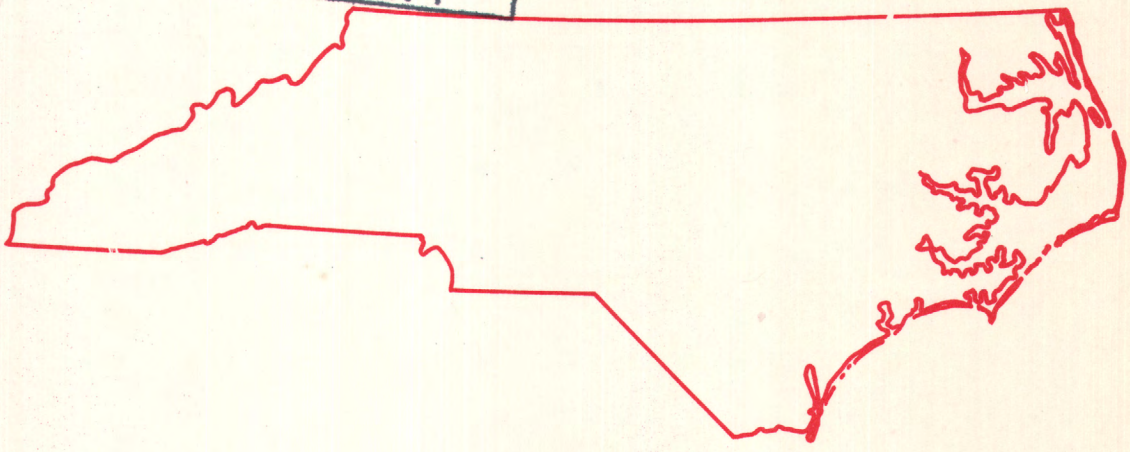

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-92-1
Prepared in cooperation with the North Carolina Department of Environment, Health, and Natural Resources, and with other State, municipal, and Federal agencies

# CALENDAR FOR WATER YEAR 1992

## 1991

### OCTOBER

| S | M | T | W | T | F | S |
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| | | 1 | 2 | 3 | 4 | 5 |
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### NOVEMBER

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### DECEMBER

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## 1992

### JANUARY

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### FEBRUARY

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### MARCH

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### APRIL

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### MAY

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### JUNE

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### JULY

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### AUGUST

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| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

### SEPTEMBER

| S | M | T | W | T | F | S |
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| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
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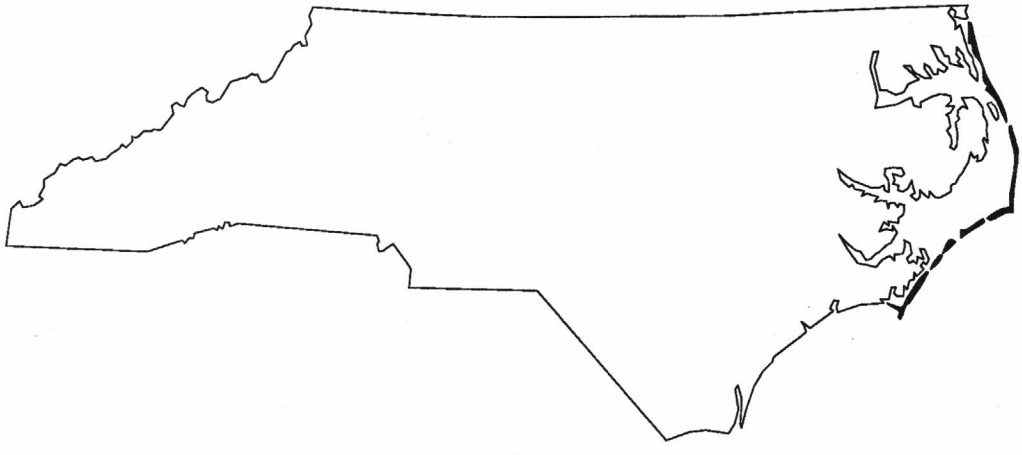
# Water Resources Data North Carolina Water Year 1992

by H.C. Gunter, J.F. Rinehardt, W.H. Eddins, and R.G. Barker



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-92-2
Prepared in cooperation with the North Carolina Department of Environment, Health, and Natural Resources, and with other State, municipal, and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, 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
P.O. Box 30728
Raleigh, NC 27622-0728

1993

## PREFACE

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

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

Thomas J. Zembrzuski
Jerad D. Bales
Ronald W. Coble
Carolyn J. O. Childress
Herman C. Gunter
Robert R. Mason, Jr.
Bernice A. Allen
Rufus J. Allen
Bruce A. Billstein
Herbert L. Blue
Pam Breton
Paul M. Brigham
William S. Caldwell
Geoffrey D. Cartano
Moses Daniel
Donna G. Coates
Michael L. Cox
Michael D. Cranford
Lloyd A. Edwards
Amy E. Fogleman
C. David Fowler
Ronald G. Garrett
Edwin D. George
Herbert O. Harris III
William F. Hazell
Stewart J. Johnson
Donald P. McGeary
Marc L. Lineberger
Tammy K. Manning
Terry L. Middleton
Andrew J. Padyk
Michael D.Penley
Mike Pollard
Benjamin F. Pope III
Jerald B. Robinson
Stanley C. Skrobialowski
Douglas G. Smith
Bruce C. Steiner
Raymond E. Strain
Jack M. Tankard
John E. Taylor
John C. Weaver

Amy E. Fogleman and Donna G. Coates edited much of the text of this report. Amy E. Fogleman and Robert R. Mason, Jr. assembled the report.

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

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16. Abstract (Limit: 200 words)

Water resources data for the 1992 water year for North Carolina consists 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 163 gaging stations and stage and contents for 56 lakes and reservoirs; water quality for 38 gaging stations and 3 miscellaneous sites; continuous daily tide stage for 16 sites; and water levels for 66 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 part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

17. Document Analysis a. Descriptors

*North Carolina, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses

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| Station number | Station name | Drainage area ($mi^2$) | Period of record |
|---|---|---|---|
| | **Chowan River Basin** | | |
| 02053400 | Ahoskie Creek near Rich Square (d) | 3.70 | 1964-73 |
| 02053450 | Ahoskie Creek at Mintons Store (d) | 24.0 | 1964-73 |
| 02053510 | Ahoskie Creek Tributary at Poortown (d) | 2.60 | 1963-73 |
| | **Roanoke River Basin** | | |
| 02068000 | Dan River near Asbury (d) | 71.4 | 1924-26 |
| 02069000 | Dan River at Pine Hall (d) | 501 | 1924-26, 1986-90 |
| 02070500 | Mayo River near Price (d) | 260 | 1929-71 |
| 02071500 | Dan River at Leaksville (d) | 1,150 | 1929-49 |
| 02074218 | Dan River near Mayfield (d) | 1,778 | 1976-84 |
| 02075160 | Moon Creek near Yanceyville (d) | 32.8 | 1961-74, 1988-89 |
| 02077230 | South Hyco Creek near Hesters Store (d) | 29.9 | 1964-67 |
| 02077240 | Double Creek near Roseville (d) | 7.47 | 1964-75, 1977-82 |
| 02077250 | South Hyco Creek near Roseville (d) | 56.5 | 1966-78 |
| 02077300 | Hyco River at McGhees Mill (d) | 191 | 1964-73 |
| 02077660 | Mayo Creek near Woodsdale (d) | 52.7 | 1975-77 |
| | **Pamlico River Basin** | | |
| 02081800 | Cedar Creek near Louisburg (d) | 47.8 | 1956-75 |
| 02082000 | Tar River near Nashville (d) | 701 | 1928-71 |
| 02082500 | Sapony Creek near Nashville (d) | 64.8 | 1950-70 |
| 0208273070 | Devils Cradle Creek at NC 39 near Kearney (d) | 2.9 | 1984-85 |
| 02084070 | Green Mill Run at Arlington Blvd at Greenville (d) | 9.10 | 1980-85 |
| 02084164 | Juniper Branch near Simpson (d) | 7.5 | 1975-86 |
| 0208423100 | Flat Swamp at SR 1157 near Robersonville (d) | 21.3 | 1986-88 |
| 02084317 | Black Swamp near Batts Crossroads (d) | 1.02 | 1982 |
| 02084500 | Herring Run near Washington (d) | 9.59 | 1950-80 |
| 02084556 | North Lake Canal above Pungo Lake near Wenona (d) | .29 | 1976-80 |
| 02084558 | Albemarle Canal near Swindell (d) | 68.0 | 1977-81 |
| | **Neuse River Basin** | | |
| 02084903 | Sevenmile Creek Trib at SR 1120 near Buckhorn (d) | 1.34 | 1981-82 |
| 02084904 | Sevenmile Creek Trib at I-85 near Miles (d) | .004 | 1981-82 |
| 02084905 | Sevenmile Creek Trib at SR 1144 near Miles (d) | 1.57 | 1981-82 |
| 02084908 | Sevenmile Creek Trib at I-85 near Efland (d) | .29 | 1981-82 |
| 02085220 | Little River near Orange Factory (d) | 80.4 | 1962-87 |
| 0208650112 | Flat River tributary near Willardsville (d) | 1.14 | 1988-90 |
| 02086000 | Dial Creek near Bahama (d) | 4.71 | 1925-71, 1989-91 |
| 02086849 | Ellerbe Creek near Gorman (d) | 21.9 | 1982-89 |
| 02087000 | Neuse River near Northside (d) | 535 | 1927-80 |
| 0208705200 | Smith Creek at Grissom (d) | 6.2 | 1984-85 |
| 0208721055 | Perry Creek at SR 2012 near Millbrook (d) | 2.43 | 1986-89 |
| 0208721290 | Perry Creek tributary at Neuse (d) | 1.07 | 1985-89 |
| 0208732810 | Marsh Creek at SR 2030 at Millbrook (d) | 1.44 | 1986-89 |
| 02087570 | Neuse River at Smithfield (d) | 1,206 | 1959-80 |
| 02088315 | Beaverdam Creek near Grantham (d) | 5.01 | 1978-82 |
| 02088470 | Little River near Kenly (d) | 191 | 1964-89 |
| 02088682 | Big Ditch at Retha St at Goldsboro (d) | 2.17 | 1980-84 |
| 02089216 | Daileys Creek near Liddell (d) | 3.80 | 1978-81 |
| 02089222 | Bear Creek near Parkstown (d) | 4.27 | 1978-82 |
| 02090500 | Contentnea Creek near Wilson (d) | 236 | 1930-54 |
| 02090512 | Hominy Swamp at Phillips Street at Wilson (d) | 7.90 | 1978-85 |
| 02090625 | Turner Swamp near Eureka (d) | 2.1 | 1968-87 |
| 02091700 | Little Contentnea Creek near Farmville (d) | 93.3 | 1956-87 |
| 02091960 | Creeping Swamp near Calico (d) | 9.80 | 1971-77 |
| 02091970 | Creeping Swamp near Vanceboro (d) | 27.0 | 1971-85 |
| 02092000 | Swift Creek near Vanceboro (d) | 182 | 1950-89 |
| 02092020 | Palmetto Swamp near Vanceboro (d) | 24.0 | 1971-76 |
| 0209257120 | W. P. Brice Creek below SR 1101 near Riverdald (d) | 11.2 | 1986-91 |
| | **Hewletts Creek Basin** | | |
| 02093229 | Hewletts Creek at SR 102 near Wilmington (d) | 1.98 | 1977-90 |

| Station number | Station name | Drainage area ($mi^2$) | Period of record |
|---|---|---|---|
| | **Cape Fear River Basin** | | |
| 0209330990 | Brooks Lake tributary near Browns Summit (d) | 0.06 | 1985-90 |
| 0209331325 | Candy Creek at SR 2700 near Monticello (d) | 1.10 | 1985-90 |
| 02093500 | Haw River near Benaja (d) | 168 | 1928-71 |
| 02094000 | Horsepen Creek at Battle Ground (d) | 15.9 | 1925-31 |
| | | | 1934-59 |
| 02095000 | S Buffalo Creek near Greensboro (d) | 33.6 | 1928-58 |
| 0209509100 | S Buffalo Creek at SR 2821 at McLeansville (d) | 43.5 | 1986-88 |
| 02095500 | North Buffalo Creek near Greensboro (d) | 37.1 | 1929-90 |
| 0209555450 | Buffalo Creek at SR 2719 near Osceola (d) | 97.4 | 1986-87 |
| 0209560800 | Reedy Fork Creek at NC 61 near Osceola (d) | 243 | 1986-88 |
| 02096000 | Stony Creek near Burlington (d) | 44.2 | 1952-59 |
| 02096700 | Big Alamance Creek near Elon College (d) | 116 | 1957-80 |
| 02096842 | Cane Creek 0.1 m upst SR 1126 near Buckhorn (d) | .64 | 1979-81 |
| 02096850 | Cane Creek near Teer (d) | 33.7 | 1959-73 |
| 02097000 | Haw River near Pittsboro (d) | 1,310 | 1928-73 |
| 02097243 | Third Fork Creek at Durham (d) | 16.7 | 1968-73 |
| 02097500 | Morgan Creek near Chapel Hill (d) | 30.1 | 1923-32 |
| 0209782150 | New Hope River Trib at SR 1716 nr Farrington (d) | 2.05 | 1986-88 |
| 02098000 | New Hope River near Pittsboro (d) | 285 | 1949-73 |
| 02098500 | West Fork Deep River near High Point (d) | 32.1 | 1923-26 |
| | | | 1928-58 |
| 02100000 | Muddy Creek near Archdale (d) | 16.7 | 1934-41 |
| 02101000 | Bear Creek at Robbins (d) | 134 | 1939-71 |
| 0210108450 | Suck Creek Trib near Zion Grove (d) | .67 | 1986-88 |
| 02101800 | Tick Creek near Mount Vernon Springs (d) | 15.5 | 1958-81 |
| 02103000 | Little River at Manchester (d) | 348 | 1938-50 |
| 02103500 | Little River at Linden (d) | 460 | 1928-71 |
| 02104000 | Cape Fear River at Fayetteville | 4,395 | 1889-1903 |
| | | | 1928-40 |
| 02104387 | Buckhead Creek near Owens (d) | 2.62 | 1976-80 |
| 02104500 | Rockfish Creek near Hope Mills (d) | 284 | 1929-31 |
| | | | 1939-54 |
| 02105524 | Ellis Creek Trib at SR 1325 near White Oak (d) | 1.81 | 1979-81 |
| 02105900 | Hood Creek near Leland (d) | 21.6 | 1956-73 |
| 02106000 | Little Coharie Creek near Roseboro (d) | 92.8 | 1950-92 |
| 02106681 | Black River near Dunn (d) | 48.3 | 1976-77 |
| 02107000 | South River near Parkersburg (d) | 379 | 1951-86 |
| 02107500 | Colly Creek near Kelly (d) | 103 | 1950-71 |
| 02107600 | Northeast Cape Fear River near Seven Springs (d) | 47.5 | 1958-75 |
| 0210782005 | Nahunga Creek at SR 1301 near Warsaw (d) | 8.28 | 1983-90 |
| 0210789100 | Grove Creek at Kenansvile (d) | 22.6 | 1983-90 |
| 0210797940 | Limestone Creek at NC 24 near Hadley (d) | 1.61 | 1986-88 |
| 02108500 | Rockfish Creek near Wallace (d) | 69.3 | 1955-81 |
| | **Pee Dee River Basin** | | |
| 02112500 | Fisher River near Dobson (d) | 109 | 1920-32 |
| 02113500 | Yadkin River at Siloam (d) | 1,226 | 1976-87 |
| 02115500 | Forbush Creek near Yadkinville (d) | 21.7 | 1940-71 |
| 02115750 | Muddy Creek near Lewisville (d) | 82.8 | 1964-70 |
| 02115800 | Silas Creek near Clemmons (d) | 11.8 | 1964-70 |
| 02115841 | Tar Br Trib at First St at Winston-Salem (d) | .05 | 1979-82 |
| 02115850 | Salem Creek at Winston-Salem (d) | 51.3 | 1964-70 |
| 02115854 | Salem Creek Trib at Hawthorne Rd, Winston-Salem (d) | .50 | 1979-82 |
| 02115856 | Salem Creek near Atwood (d) | 65.6 | 1971-82 |
| 02115860 | Muddy Creek near Muddy Creek (d) | 178 | 1964-79 |
| | | | 1988-91 |
| 02115900 | South Fork Muddy Creek near Clemmons (d) | 42.2 | 1964-79 |
| | | | 1988-91 |
| 02117030 | Humpy Creek near Fork (d) | 1.05 | 1968-83 |
| 02117500 | Rocky Creek at Turnersburg (d) | 102 | 1940-71 |
| 02119000 | South Yadkin River at Cooleemee (d) | 569 | 1928-65 |
| 02119400 | Third Creek near Stony Point (d) | 4.84 | 1956-69 |
| 02120500 | Third Creek at Cleveland (d) | 87.4 | 1940-71 |
| 02121000 | Yadkin River near Salisbury (d) | 3,470 | 1895-1927 |
| 02121180 | North Potts Creek at Linwood (d) | 9.62 | 1980-90 |
| 02121493 | Leonard Creek near Bethesda (d) | 5.16 | 1978-81 |
| 02122500 | Yadkin River at High Rock (d) | 4,000 | 1919-27 |
| 02123000 | Uwharrie River near Trinity (d) | 11.3 | 1934-41 |
| 02123500 | Uwharrie River near Eldorado (d) | 347 | 1938-71 |
| 02124471 | Dutch Buffalo Creek at NC 49 nr Mt Pleasant (d) | 45.1 | 1985-87 |
| 02125500 | Richardson Creek near Marshville (d) | 170 | 1940-44 |
| 02125557 | Gourdvine Creek at SR 1715 near Olive Branch (d) | 8.75 | 1978-82 |
| 02125696 | Lane Creek at SR 2115 near Trinity (d) | 3.98 | 1969-79 |
| 02125699 | Wicker Branch at SR 1940 near Trinity (d) | 5.83 | 1978-82 |
| 02125816 | Lane's Creek near Marshville (d) | 87.8 | 1985-87 |
| 02126500 | Little Brown Creek near Polkton (d) | 13.5 | 1935-41 |
| 02127000 | Brown Creek near Polkton (d) | 110 | 1937-71 |
| 02127500 | Pee Dee River near Ansonville (d) | 6,330 | 1938-42 |
| 02129500 | N Fork Jones Creek near Wadesboro (d) | 9.43 | 1935-41 |

| Station number | Station name | Drainage area ($mi^2$) | Period of record |
|---|---|---|---|
| | **Santee River Basin** | | |
| 02137000 | Mill Creek at Old Fort (d) | 20.7 | 1960-75 |
| 02138000 | Catawba River near Marion (d) | 172 | 1941-81 |
| 0213875850 | High Shoals Creek near Dysartsville (d) | 2.38 | 1986-88 |
| 02139200 | Bailey Fork near Morganton (d) | 7.86 | 1966-70 |
| 02139650 | East Prong near Morganton (d) | 8.94 | 1966-74 |
| 0214042720 | North Harper Creek mear Kawana (d) | 1.25 | 1986-88 |
| 02141150 | Lower Creek at Mulberry St at Lenoir (d) | 31.8 | 1966-78 |
| 02142500 | Catawba River at Catawba (d) | 1,535 | 1896-99 |
| | | | 1935-62 |
| 02142600 | Mountain Creek near Terrell (d) | 42.4 | 1957-62 |
| 02146450 | Briar Creek at Sharon Road, Charlotte (d) | 18.5 | 1962-73 |
| 02146470 | Little Hope Creek at Seneca Place, Charlotte (d) | 2.63 | 1983-90 |
| 02146500 | Little Sugar Creek near Charlotte (d) | 41.0 | 1924-78 |
| 02146579 | Irvin's Creek at Lebanon Road near Mint HIll (d) | 5.27 | 1983-90 |
| 02148500 | Broad River near Chimney Rock (d) | 97.0 | 1927-58 |
| 02149702 | Green River near Saluda (d) | 104 | 1972-75 |
| 02150000 | Green River near Mill Spring (d) | 174 | 1940-54 |
| 02152000 | Sandy Run Creek near Boiling Springs (d) | 67.0 | 1925-28 |
| 02152500 | First Broad River near Lawndale (d) | 200 | 1940-71 |
| 02152610 | Sugar Branch near Boiling Springs (d) | 1.42 | 1968-87 |
| | **Kanawha River Basin** | | |
| 03161500 | South Fork New River near Crumpler (d) | 325 | 1908-16 |
| 03162500 | North Fork New River at Crumpler (d) | 277 | 1908-16 |
| | | | 1928-58 |
| | **Tennessee River Basin** | | |
| 03439500 | French Broad at Calvert (d) | 103 | 1924-55 |
| 03440500 | Davidson River near Davidson River (d) | 31.0 | 1904-09 |
| 03441000 | Davidson River near Brevard (d) | 40.4 | 1921-90 |
| 03441440 | Little River ab High Falls nr Cedar Mountain (d) | 26.8 | 1963-90 |
| 03441500 | Little River near Penrose (d) | 41.4 | 1942-55 |
| 03442000 | Crab Creek near Penrose (d) | 10.9 | 1942-55 |
| 03444000 | Boylston Creek near Horseshoe (d) | 14.8 | 1942-55 |
| 03444500 | South Fork Mills River at the Pink Beds (d) | 9.99 | 1926-49 |
| | | | 1965-73 |
| 03445000 | South Fork Mills River near Sitton (d) | 40.0 | 1904-09 |
| | | | 1925-26 |
| 03445500 | North Fork Mills River at Pinkbed (d) | 23.1 | 1904-09 |
| 03446500 | Clear Creek near Hendersonville (d) | 42.2 | 1945-55 |
| 03447000 | Mud Creek at Naples (d) | 109 | 1938-55 |
| 03447500 | Cane Creek at Fletcher (d) | 63.1 | 1942-58 |
| 03448000 | French Broad River at Bent Creek (d) | 676 | 1933-86 |
| 03448500 | Hominy Creek at Candler (d) | 79.8 | 1942-77 |
| 03448960 | N Fk Swannanoa Rv bl Burnett Res nr Black Mtn (d) | 22.1 | 1976-77 |
| 03449000 | North Fork Swannanoa River near Black Mountain (d) | 23.8 | 1926-58 |
| 03449500 | Swannanoa River at Swannanoa (d) | 58.8 | 1907-09 |
| | | | 1926-31 |
| 0345092550 | Ross Creek at Beaucatcher Rd at Asheville (d) | 2.46 | 1986-89 |
| 0345112600 | Nasty Branch at Asheville (d) | 1.19 | 1986-89 |
| 03451510 | Reed Creek above Barnard Ave at Asheville (d) | 2.13 | 1986-89 |
| 03452000 | Sandymush Creek near Alexander (d) | 79.5 | 1942-55 |
| 03452001 | Sandymush Creek 1.1 mile above mouth near Alexander (d) | .5 | 1975-77 |
| 03453000 | Ivy River near Marshall (d) | 158 | 1934-73 |
| 03454000 | Big Laurel Creek near Stackhouse (d) | 126 | 1934-71 |
| 03454500 | French Broad River at Hot Springs (d) | 1,567 | 1934-49 |
| 03456000 | W Fk Pigeon Rv bl Lake Logan nr Waynesville (d) | 55.3 | 1954-80 |
| 03457000 | Pigeon River at Canton (d) | 133 | 1907-09 |
| | | | 1928-83 |
| 03457500 | Allen Creek near Hazelwood (d) | 14.4 | 1949-72 |
| 03458500 | Pigeon River near Crabtree (d) | 243 | 1920-29 |
| 03459000 | Jonathan Creek near Cove Creek (d) | 65.3 | 1930-72 |
| 03460500 | Pigeon River near Mount Sterling (d) | 460 | 1924-30 |
| 03462000 | North Toe River at Altapass (d) | 104 | 1938-57 |
| 03462500 | North Toe River above Spruce Pine (d) | 111 | 1934-38 |
| 03463500 | South Toe River at Newdale (d) | 60.8 | 1934-52 |
| 03464000 | Cane River near Sioux (d) | 157 | 1934-71 |
| 03464500 | Nolichucky River at Poplar (d) | 608 | 1925-55 |
| 03480500 | Elk River near Banner Elk (d) | 17.8 | 1934-40 |
| 03481000 | Elk River near Elk Park (d) | 42.0 | 1934-55 |
| 03500500 | Cullasaja River at Highlands (d) | 14.9 | 1931-71 |
| 03501000 | Cullasaja River at Cullasaja (d) | 86.5 | 1907-09 |
| | | | 1921-71 |
| 03501500 | Little Tennessee River at Franklin (d) | 295 | 1909-10 |
| | | | 1921-25 |
| 03502000 | Little Tennessee River at Iotla (d) | 323 | 1929-45 |
| 03502500 | Little Tennessee River at Etna (d) | 374 | 1926-29 |
| 03503500 | Little Tennessee River at Almond (d) | 451 | 1912-17 |
| 03505500 | Nantahala River at Nantahala (d) | 144 | 1942-81 |
| 03506500 | Nantahala River at Almond (d) | 174 | 1912-17 |

| Station number | Station name | Drainage area ($mi^2$) | Period of record |
|---|---|---|---|
| | Tennessee River Basin--Continued | | |
| 03507000 | Little Tennessee River at Judson (d) | 664 | 1912-44 |
| 03508000 | Tuckasegee River at Tuckasegee (d) | 143 | 1934-76 |
| 03508136 | Caney Fork near Cowarts (d) | 32.0 | 1975-76 |
| 03509000 | Scott Creek above Sylva (d) | 50.7 | 1941-75 |
| 03509500 | Scott Creek at Sylva (d) | 55.0 | 1928-41 |
| 03510500 | Tuckasegee River at Dillsboro (d) | 347 | 1933-81 |
| 03511000 | Oconaluftee River at Cherokee (d) | 131 | 1921-49 |
| 03513500 | Noland Creek near Bryson City (d) | 13.8 | 1935-71 |
| 03514000 | Hazel Creek at Proctor (d) | 44.4 | 1942-52 |
| 03515000 | Little Tennessee River at Fontana Dam (d) | 1,571 | 1938-55 |
| 03016000 | Snowbird Creek near Robbinsville (d) | 42.0 | 1942-52 |
| 03517000 | Cheoah River at Johnson (d) | 177 | 1912-18 |
| | | | 1920-26 |
| 03517500 | Cheoah River at Tapoco (d) | 215 | 1924-27 |
| 03546000 | Shooting Creek near Hayesville (d) | 37.6 | 1922-24 |
| | | | 1942-45 |
| | | | 1946-55 |
| 03547000 | Hiwassee River bl Chatuge Dam nr Hayesville (d) | 190 | 1942-74 |
| 03548000 | Hiwassee River below Hayesville (d) | 252 | 1934-45 |
| 03554000 | Nottely River near Ranger (d) | 272 | 1901-05 |
| | | | 1914-17 |
| | | | 1919-29 |
| | | | 1932-45 |
| 03555000 | Hiwassee River at Hiwassee Dam (d) | 968 | 1934-43 |

The following continuous-record water-quality stations in North Carolina have been discontinued. Records of (t) temperature, (c) chloride, (o) dissolved oxygen, (s) sediment, (p) pH, and (z) specific conductance were collected on various days for the period of record shown for each station.

| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | **Chowan River Basin** | | | |
| 02043852 | Pasquotank River near Elizabeth City | 280 | t | 1957-67 |
| | | | c | 1958-59 |
| | | | | 1961-62 |
| | | | z | 1957-62 |
| | | | | 1965-67 |
| 02043862 | Pasquotank River at Elizabeth City | 300 | t | 1957-67 |
| | | | c | 1957-62 |
| | | | z | 1965-67 |
| 02043892 | Perquimans River at U.S. 17 at Hertford | 94.0 | t | 1957-60 |
| | | | c | 1957-59 |
| | | | z | 1957-60 |
| 02050160 | Chowan River near Eure | 2,570 | t | 1967-73 |
| | | | o | 1967-73 |
| | | | p | 1971-72 |
| | | | z | 1967-73 |
| 02053244 | Chowan River at Winton | 4,212 | t | 1954-67 |
| | | | c | 1958-59 |
| | | | z | 1954-67 |
| 02053652 | Chowan River near Edenhouse | 4,885 | t | 1957-67 |
| | | | c | 1957-62 |
| | | | z | 1957-67 |
| | **Roanoke River Basin** | | | |
| 02070500 | Mayo River near Price | 261 | t | 1949-50 |
| 02071000 | Dan River near Wentworth | 1,053 | t | 1950-51 |
| 02071500 | Dan River at Leaksville | 1,150 | t | 1961-67 |
| | | | z | 1964-67 |
| 02074000 | Smith River at Eden | 538 | t | 1984-86 |
| | | | z | 1984-86 |
| 02074082 | Dan River at Eden | 1,720 | t | 1968-72 |
| 02074218 | Dan River near Mayfield | 1,778 | t | 1977-85 |
| | | | z | 1976-82 |
| 02077200 | Hyco Creek near Leasburg | 45.9 | t | 1964-89 |
| 02077230 | South Hyco Creek near Hesters Store | 29.9 | t | 1964-66 |
| 02077240 | Double Creek near Roseville | 7.47 | t | 1964-75 |
| 02077250 | South Hyco Creek near Roseville | 56.5 | t | 1967-80 |
| 02077280 | Hyco Lake at dam near Roxboro | 189 | t | 1984-87 |
| | | | | 1989 |
| 02077300 | Hyco River at McGehees Mill | 191 | t | 1964-73 |
| | | | s | 1970-73 |
| 02077303 | Hyco River below afterbay dam near McGehees Mill | 202 | t | 1948 |
| | | | | 1974-89 |
| | | | z | 1981-83 |
| 02081000 | Roanoke River near Scotland Neck | 8,671 | t | 1944-45 |
| | | | | 1953-54 |
| | | | | 1974-76 |
| | | | z | 1953-54 |
| | | | | 1974-76 |
| 02081094 | Roanoke River at Jamesville | 9,250 | t | 1955-61 |
| | | | z | 1955-67 |

| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | Pamlico River Basin | | | |
| 02081153 | Chapel Swamp at Skinnersville | 5.70 | t | 1957-62 |
| | | | c | 1957-62 |
| 02081155 | Albemarle Sound near Edenton | 14,800 | t | 1959-67 |
| | | | z | 1965-67 |
| 02081166 | Scuppernong River near Creswell | 120 | t | 1959-67 |
| | | | c | 1961-62 |
| | | | z | 1959-67 |
| 02081172 | Scuppernong River at Columbia | 180 | t | 1963-67 |
| | | | z | 1964-67 |
| 0208273070 | Devils Cradle Creek at NC 39 near Kearney | 2.89 | t | 1983-85 |
| | | | z | 1984-85 |
| 02083000 | Fishing Creek near Enfield | 526 | t | 1948-49 |
| | | | | 1955-67 |
| 02084000 | Tar River at Greenville | 2,620 | t | 1955-56 |
| | | | z | 1955-56 |
| 02084124 | Tar River near Pactolus | 2,680 | t | 1956-60 |
| | | | z | 1956-60 |
| 02084160 | Chicod Creek at SR 1760 near Simpson | 45.0 | t | 1975-86 |
| | | | s | 1975-86 |
| | | | z | 1975-86 |
| 02084171 | Tar River at Grimesland | 2,740 | t | 1955-58 |
| | | | z | 1955-59 |
| | | | | 1963-67 |
| 02084317 | Black Swamp near Batts Crossroads | 1.02 | t | 1982-83 |
| | | | z | 1982-83 |
| 02084392 | Tranters Creek near Washington | 240 | t | 1960-67 |
| | | | c | 1960-61 |
| | | | z | 1960-67 |
| 02084472 | Pamlico River at Washington | 3,080 | t | 1962-67 |
| | | | c | 1961-62 |
| | | | z | 1965-67 |
| 0208450100 | Pamlico River at Channel light 16 | ----- | t | 1989 |
| | | | z | 1989 |
| 0208453300 | Pamlico River at light 5 | ----- | t | 1989 |
| 02084540 | Durham Creek at Edward | 26.0 | t | 1965-74 |
| 0208455500 | Pamlico River at Pamlico Beach | ----- | z | 1988-89 |
| 02084556 | North Lake Canal above Pungo Lake near Wenona | 0.29 | t | 1976-79 |
| | | | s | 1976-79 |
| | | | z | 1976-79 |
| 0208455600 | Goose Creek near Lowland | ----- | z | 1988-89 |
| 02084557 | Van Swamp near Hoke | 23.0 | t | 1977-80 |
| | | | s | 1977-79 |
| | | | z | 1977-80 |
| 02084558 | Albemarle Canal near Swindell | 68.0 | t | 1978-80 |
| 02084903 | Sevenmile Creek trib. at SR 1120 near Buckhorn | 1.34 | t | 1981-82 |
| | | | z | 1981-82 |
| 02084905 | Sevenmile Creek trib. at SR 1144 near Miles | 1.57 | t | 1981-82 |
| | | | z | 1981-82 |
| 02085070 | Eno River near Durham | 141 | t | 1982 |
| | | | z | 1982 |
| | | | s | 1977-79 |
| | | | z | 1978-80 |

| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | **Neuse River Basin** | | | |
| 02085220 | Little River near Orange Factory | 80.4 | t | 1961-67 |
| | | | | 1984-85 |
| | | | s | 1961-76 |
| | | | z | 1984-85 |
| 02086624 | Knap of Reeds Creek near Butner | 43.0 | t | 1982-85 |
| | | | z | 1982-85 |
| 02086849 | Ellerbe Creek near Gorman | 21.9 | t | 1982-85 |
| | | | s | 1982-85 |
| | | | z | 1982-85 |
| 0208700780 | Little Lick Creek above SR 1814 near Oak Grove | 10.1 | t | 1982-85 |
| | | | z | 1982-85 |
| 0208705200 | Smith Creek at Grissom | 6.23 | t | 1984-85 |
| | | | z | 1984-85 |
| 02087182 | Neuse River at Falls | 770 | t | 1953-54 |
| | | | | 1960-67 |
| | | | z | 1953-54 |
| | | | | 1960-67 |
| 02087183 | Neuse River near Falls | 772 | t | 1978-84 |
| | | | z | 1978-84 |
| 02087224 | Neuse River at Buffalo Road near Raleigh | 860 | t | 1968-73 |
| | | | o | 1968-73 |
| | | | p | 1968-73 |
| | | | z | 1968-73 |
| 02087229 | Neuse River near Raleigh | 876 | t | 1956-57 |
| | | | z | 1956-57 |
| 0208732885 | Marsh Creek near New Hope | 6.80 | t | 1984-85 |
| | | | z | 1984-85 |
| 02087500 | Neuse River near Clayton | 1,150 | t | 1943-44 |
| | | | | 1955-58 |
| | | | | 1973-78 |
| | | | | 1982-84 |
| | | | z | 1955-58 |
| | | | | 1963-67 |
| | | | | 1973-78 |
| | | | | 1982-84 |
| 02087530 | Neuse River near Selma | 1,180 | t | 1955-58 |
| 02088500 | Little River near Princeton | 232 | t | 1955-56 |
| | | | z | 1955-56 |
| 02088821 | Neuse River at Goldsboro | 2,370 | t | 1930 |
| | | | | 1960-67 |
| | | | z | 1960-67 |
| 02089000 | Neuse River near Goldsboro | 2,399 | t | 1948-49 |
| | | | | 1958-60 |
| | | | z | 1958-60 |
| 02090625 | Turner Swamp near Eureka | 2.10 | t | 1973-75 |
| 02091814 | Neuse River near Fort Barnwell | 3,900 | t | 1955-60 |
| 02091831 | Neuse River at Cowen Landing near Vanceboro | 4,030 | t | 1955-67 |
| | | | z | 1964-67 |
| 02091836 | Neuse River at Streets Ferry near Vanceboro | 4,040 | t | 1957-64 |
| | | | c | 1957-58 |
| | | | z | 1965-66 |
| 02091970 | Creeping Swamp near Vanceboro | 27.0 | t | 1972-75 |
| | | | z | 1974-75 |

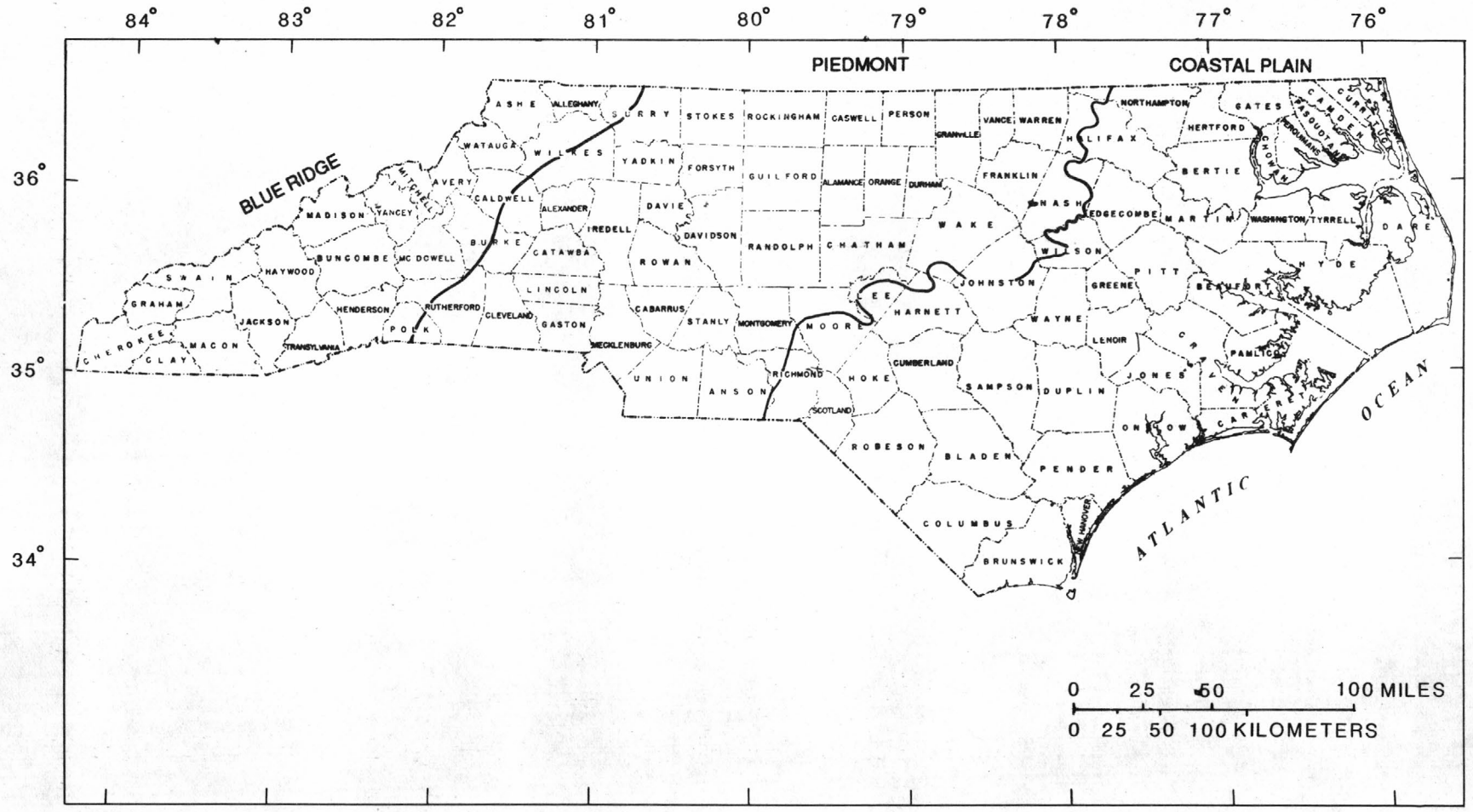
| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | **Neuse River Basin--Continued** | | | |
| 02091971 | Creeping Swamp near Vanceboro | 27.0 | c | 1974-75 |
| 02092000 | Swift Creek near Vanceboro | 182 | t | 1955-64 |
| | | | z | 1955-59 |
| 02092162 | Neuse River at New Bern | 4,470 | t | 1956-67 |
| | | | c | 1956-62 |
| | | | z | 1965-66 |
| 02092500 | Trent River near Trenton | 168 | t | 1951-53 |
| | | | | 1955-62 |
| | | | | 1964-67 |
| | | | | 1978-81 |
| | | | z | 1953 |
| | | | | 1955-62 |
| | | | | 1978-81 |
| 02092554 | Trent River at Pollocksville | 370 | t | 1955-59 |
| | | | | 1961-67 |
| | | | z | 1955-59 |
| | | | | 1961-67 |
| 02092556 | Trent River below Mill Creek near Pollocksville | 400 | t | 1958-59 |
| | | | c | 1958-59 |
| | | | z | 1958-59 |
| 02092557 | Trent River near Rhems | 420 | t | 1956-58 |
| | | | c | 1956-58 |
| | | | z | 1956-58 |
| 02092558 | Trent River near New Bern | 430 | t | 1958-61 |
| | | | c | 1958-61 |
| | | | z | 1958-61 |
| | **New River Basin** | | | |
| 02093032 | New River at Jacksonville | 160 | t | 1960-61 |
| | | | c | 1960-61 |
| | | | z | 1960-61 |
| | **Cape Fear River Basin** | | | |
| 0209330990 | Brooks Lake trib. near Browns Summit | 0.06 | t | 1984-86 |
| | | | z | 1984-86 |
| 0209331325 | Candy Creek at SR 2700 near Monticello | 1.10 | t | 1984-86 |
| | | | z | 1984-86 |
| 02093500 | Haw River near Benaja | 168 | t | 1952-53 |
| | | | | 1955-67 |
| 02094500 | Reedy Creek near Gibsonville | 131 | t | 1951-52 |
| 02096842 | Cane Creek 0.1 mi upstream SR 1126 near Buckhorn | 0.64 | t | 1979-81 |
| | | | z | 1979-81 |
| 02096959 | Haw River at Bynum | 1,280 | t | 1955-60 |
| | | | z | 1955-67 |
| 02096960 | Haw River near Bynum | 1,275 | t | 1981-84 |
| | | | z | 1981-84 |
| 02097314 | New Hope Creek near Blands | 75.9 | t | 1982-85 |
| | | | z | 1982-85 |
| 02097419 | Northeast Creek near Nelson | 19.6 | t | 1982 |
| | | | z | 1982 |
| 0209741955 | Northeast Creek at SR 1100 near Genlee | 21.1 | t | 1982-85 |
| | | | z | 1982-85 |
| 02097517 | Morgan Creek near Chapel Hill | 41.0 | t | 1982-85 |
| | | | z | 1982-85 |
| 02098198 | Haw River below B. Everett Jordan Dam near Moncure | 1,689 | t | 1980-84 |
| | | | z | 1980-84 |
| 02098200 | Haw River near Haywood | 1,689 | t | 1973-75 |
| | | | z | 1973-75 |

| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | Cape Fear River Basin--Continued | | | |
| 02100500 | Deep River at Ramseur | 349 | t | 1946-47, 1978-81 |
| | | | z | 1978-81 |
| 02102000 | Deep River at Moncure | 1,434 | t | 1955-56, 1961-65, 1981-83 |
| | | | z | 1955-56, 1961-65, 1981-83 |
| 02102049 | Deep River at U.S. Highway 1 at Moncure | 1,420 | t | 1965-67 |
| | | | z | 1965-67 |
| 02102500 | Cape Fear River at Lillington | 3,464 | t | 1944-45, 1954-55, 1959-67, 1974-76, 1982-83 |
| | | | z | 1954-55, 1974-76, 1982-83 |
| 02103500 | Little River at Linden | 460 | t | 1946-47 |
| 02105500 | Cape Fear River at Wilm O Huske Lock near Tarheel | 4,852 | t | 1954-55 |
| | | | z | 1954-55 |
| 02105524 | Ellis Creek trib. at SR 1325 near White Oak | 1.81 | t | 1979-81 |
| | | | z | 1979-81 |
| 02105771 | Cape Fear River near Acme | 5,230 | t | 1956-61 |
| 02107000 | South River near Parkersburg | 379 | t | 1961-67 |
| 02107544 | Black River near Currie | 1,400 | t | 1955-56 |
| | | | z | 1955-56 |
| 02107569 | Cape Fear River at CP&L plant at Royster | 7,050 | t | 1960-61 |
| | | | c | 1960-61 |
| | | | z | 1960-61 |
| 02107570 | Cape Fear River near Phoenix | 7,040 | t | 1965-68 |
| | | | c | 1965-67 |
| | | | z | 1965-69 |
| 02107571 | Cape Fear River near Navassa | 7,050 | t | 1967-73 |
| | | | o | 1968-73 |
| | | | z | 1966-73 |
| 02107572 | Cape Fear River at Royster | 7,060 | t | 1960-73 |
| | | | z | 1960-73 |
| 02107576 | Cape Fear River at Navassa | 7,060 | t | 1959-67 |
| | | | c | 1960-62 |
| | | | z | 1959-61, 1965-67 |
| 0210782005 | Nahunga Creek at SR 1301 near Warsaw | 8.30 | t | 1983-88 |
| | | | z | 1983-88 |
| 0210788875 | Grove Creek at SR 1301 near Kenansville | 20.1 | t | 1983-88 |
| | | | z | 1983-88 |
| 0210789100 | Grove Creek at Kenansville | 22.6 | t | 1983-88 |
| | | | z | 1983-88 |
| 02108000 | Northeast Cape Fear River near Chinquapin | 599 | t | 1950-51, 1956-62 |
| | | | z | 1956-62 |
| 02108566 | Northeast Cape Fear River near Burgaw | 920 | t | 1963-67 |
| | | | z | 1964-67 |
| 02108619 | Northeast Cape Fear River at Castle Hayne | 1,500 | t | 1954-67 |
| | | | z | 1954-67 |
| 02108622 | Prince George Creek near Wrightsboro | 11.0 | t | 1958-65 |
| | | | z | 1964-65 |

| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | **Cape Fear River Basin--Continued** | | | |
| 02108637 | Northeast Cape Fear River near Castle Hayne | 1,690 | t | 1959-67 |
| | | | c | 1961-62 |
| | | | z | 1959-67 |
| 02108638 | Northeast Cape Fear River near Wrightsboro | 1,700 | t | 1962-63 |
| | | | z | 1962-63 |
| 02108850 | Cape Fear River at Sunny Point | 9,070 | t | 1967-68 |
| | | | | 1970-72 |
| | | | o | 1968 |
| | | | | 1970-72 |
| | | | p | 1970-71 |
| | | | z | 1970-72 |
| | **Waccamaw River Basin** | | | |
| 02109500 | Waccamaw River at Freeland | 680 | t | 1960-67 |
| 02109610 | Waccamaw River at Wards Landing | 683 | t | 1963-64 |
| | **Pee Dee River Basin** | | | |
| 02111500 | Reddies River at North Wilkesboro | 89.2 | t | 1954-55 |
| | | | z | 1954-55 |
| 02112000 | Yadkin River at Wilkesboro | 504 | t | 1947-48 |
| | | | | 1957-73 |
| 02117030 | Humpy Creek near Fork | 1.05 | t | 1973-74 |
| | | | z | 1973-74 |
| 02118000 | South Yadkin River near Mocksville | 306 | t | 1961-69 |
| | | | | 1971-73 |
| | | | s | 1957-67 |
| | | | z | 1960-67 |
| 02119000 | Yadkin River at Cooleemee | 569 | t | 1947-48 |
| | | | | 1955-56 |
| | | | z | 1955-56 |
| 02119400 | Third Creek near Stony Point | 4.84 | s | 1957-69 |
| 02120500 | Third Creek at Cleveland | 87.4 | t | 1949-50 |
| 02121500 | Abbots Creek at Lexington | 174 | t | 1947-48 |
| 02122500 | Yadkin River at High Rock | 4,000 | t | 1947-48 |
| 02123567 | Dutchmans Creek near Uwharrie | 3.44 | t | 1981-83 |
| | | | z | 1981-83 |
| 02125681 | Rocky River at Gaddy near Norwood | 1,230 | t | 1956-64 |
| | | | z | 1962-64 |
| 02129000 | Pee Dee River near Rockingham | 6,863 | t | 1947-48 |
| | | | | 1957-67 |
| | | | | 1973-84 |
| | | | z | 1957-67 |
| | | | | 1973-84 |
| 02133500 | Drowning Creek near Hoffman | 183 | t | 1946-47 |
| | | | | 1955-67 |
| 02134500 | Lumber River at Boardman | 1,228 | t | 1974-78 |
| | | | z | 1974-78 |
| | **Santee River Basin** | | | |
| 02138000 | Catawba River near Marion | 172 | t | 1945-46 |
| 02142441 | Catawba River at Lookout Shoals Dam | 1,454 | t | 1961-67 |
| | | | z | 1961-67 |
| 02142500 | Catawba River at Catawba | 1,535 | t | 1945-46 |
| | | | | 1954-55 |
| | | | z | 1954-55 |
| 02143040 | Jacob Fork at Ramsey | 25.7 | t | 1974-76 |
| | | | z | 1974-76 |

| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | **Santee River Basin--Continued** | | | |
| 02143500 | Indian Creek near Laboratory | 69.2 | t | 1955-73 |
| 02145000 | South Fork Catawba River at Lowell | 630 | t | 1949-50 |
| 02145442 | South Fork Catawba River near Elmores Crossroads | 660 | t | 1968-73 |
| | | | o | 1968-69 |
| | | | p | 1968-69 |
| | | | z | 1971-73 |
| 02146211 | Irwin Creek at Statesville Ave. at Charlotte | 5.90 | t | 1982-88 |
| | | | z | 1982-88 |
| 02146470 | Little Hope Creek at Seneca Place, Charlotte | 2.72 | t | 1982-88 |
| | | | z | 1982-88 |
| 02146500 | Little Sugar Creek near Charlotte | 41.0 | z | 1972 |
| 02146579 | Irvin's Creek at Lebanon Rd. near Mint Hill | 5.20 | t | 1982-88 |
| | | | z | 1982-88 |
| 02149540 | Pulliam Creek near Tryon | 2.27 | t | 1972-75 |
| 02149702 | Green River near Saluda | 104 | t | 1972-75 |
| 02151000 | Second Broad River at Cliffside | 220 | t | 1948-49 |
| | | | | 1956-60 |
| | | | | 1974-76 |
| | | | z | 1956-60 |
| | | | | 1974-76 |
| 02151500 | Broad River near Boiling Springs | 875 | t | 1945-46 |
| | | | | 1956-67 |
| | | | | 1978-81 |
| | | | z | 1956-67 |
| | | | | 1978-81 |
| 02152500 | First Broad River near Lawndale | 200 | t | 1948-49 |
| | **Kanawha River Basin** | | | |
| 03161000 | South Fork New River near Jefferson | 205 | t | 1949-50 |
| | **Tennessee River Basin** | | | |
| 03439000 | French Broad River at Rosman | 67.9 | t | 1945-46 |
| | | | | 1968-72 |
| 03441500 | Little River near Penrose | 41.4 | t | 1953-54 |
| | | | z | 1953-54 |
| 03443000 | French Broad River at Blantyre | 296 | t | 1952-53 |
| | | | z | 1953 |
| 03446000 | Mills River near Mills River | 66.7 | t | 1951-52 |
| 03447861 | French Broad River near Arden | 662 | t | 1953-54 |
| | | | z | 1953-54 |
| 03448000 | French Broad River at Bent Creek | 676 | t | 1968-78 |
| | | | s | 1935-37 |
| | | | | 1962-65 |
| 03450000 | Beetree Creek near Swannanoa | 5.46 | t | 1979-81 |
| | | | z | 1979-81 |
| 03451000 | Swannanoa River at Biltmore | 130 | s | 1934-37 |
| 03451500 | French Broad River at Asheville | 945 | t | 1950-51 |
| | | | s | 1934-35 |
| | | | | 1938 |
| 03453000 | Ivy Creek near Marshall | 158 | t | 1968-72 |
| 03454000 | Big Laurel Creek near Stackhouse | 126 | t | 1951-52 |
| 03454500 | French Broad River at Hot Springs | 1,567 | t | 1945-46 |
| 03456500 | East Fork Pigeon River near Canton | 51.5 | t | 1955-60 |
| 03459500 | Pigeon River near Hepco | 350 | t | 1978-82 |
| | | | z | 1978-82 |

| Station number | Station name | Drainage area ($mi^2$) | Type of record | Period of record |
|---|---|---|---|---|
| | Tennessee River Basin--Continued | | | |
| 03462000 | North Toe River at Altapass | 104 | t | 1948-49 |
| 03463300 | South Toe River near Celo | 43.3 | t | 1958-67 |
| 03463500 | South Toe River at Newdale | 60.8 | t | 1961-62 |
| 03464000 | Cane River near Sioux | 157 | t | 1951-52 |
| 03464500 | Nolichucky River at Poplar | 608 | t | 1953-54 |
| 03479000 | Watauga River near Sugar Grove | 92.1 | t | 1952-53 |
| 03479269 | Watauga River at Beech Creek | 128 | t | 1971-76 |
| 03500000 | Little Tennessee River near Prentiss | 140 | t | 1968-74 |
| 03507000 | Little Tennessee River at Judson | 664 | s | 1935-38 |
| 03513000 | Tuckasegee River at Bryson City | 655 | s | 1935-38 |
| 03516500 | Santeetlah Lake near Robbinsville | 176 | t | 1961-62 |
| 03517000 | Cheoah River at Johnson | 177 | t | 1961-62 |
| 03548500 | Hiwassee River above Murphy | 406 | s | 1934-42 |
| 03550000 | Valley River at Tomotla | 104 | t<br>s | 1961-67<br>1934-42<br>1962-65 |
| 03554000 | Nottely River near Ranger | 272 | s | 1934-42 |
| 03555000 | Hiwassee River at Hiwassee Dam | 968 | s | 1935-38<br>1941 |




COUNTIES AND PHYSIOGRAPHIC PROVINCES OF NORTH CAROLINA

# WATER RESOURCES DATA FOR NORTH CAROLINA, 1992

## INTRODUCTION

Water-resources data for the 1992 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 163 gaging stations and stage and contents for 56 lakes and reservoirs; water quality for 36 gaging stations and 3 miscellaneous sites; continuous daily tide stage at 16 sites; and water levels for 66 observation wells. Additional water data were collected at various sites not involved in the systematic data-collection program, and are published as miscellaneous measurements in this report. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

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

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

Streamflow and water-quality data beginning with the 1971 water year, and the ground-water data beginning with the 1975 water year are published only in reports on a State-boundary basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report NC-92-1". 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) 571-4000.

## 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 8 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:

North Carolina Cooperative Extension Service
State Department of Environment, Health, and Natural Resources
State Board of Transportation, Division of Highways
City of Asheville
City of Brevard
City of Charlotte
City of Danville, Virginia
City of Durham
City of Lexington
City of Morganton
City of Greensboro
City of Raleigh
City of Rocky Mount
Town of Bethel
Town of Chapel Hill
Mecklenburg County
Orange County
Orange Water and Sewer Authority

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

Corps of Engineers, U.S. Army
Tennessee Valley Authority
National Weather Service, NOAA, U.S. Department of Commerce

The following organizations aided in collecting records:

Carolina Power and Light Co.; Champion International Corp.; Piedmont Triad Regional Water Authority; Duke Power Co.; North Carolina Power Co.; and Yadkin, Inc.

## SUMMARY OF SURFACE-WATER CONDITIONS

### Rainfall and Surface Water

Below- or near-average rainfall in the opening months of the 1992 water year sustained flow in North Carolina streams at normal levels throughout most of the State. Total precipitation during the fall of 1991 was below average at key weather stations across the State (figs. 1 and 2), and remained that way during the winter. Total spring and summer precipitation was above average, which increased flow to above-normal levels in the eastern and western parts of the State; however, below-normal flow remained in parts of the Piedmont and Coastal Plain Provinces.

Total rainfall at most index weather stations for the 1992 water year ranged from less than 1 to 5 in. below average with the greatest departures from average being 4.25 and 5.05 in. at Greensboro and Raleigh, respectively. In contrast, Charlotte and Wilmington were the only weather stations to record above-average total rainfall with accumulations of 2.03 and 7.48 in. above normal for the 1992 water year (fig. 2).

Mean-flow conditions due to rainfall patterns in North Carolina are depicted in two sets of maps that show regions of normal, deficient (below normal), and excessive (above normal) streamflow (figs. 3 and 4). Data from the 30-year base period 1961-90 for 34 gaging stations were used as the basis for monthly flow statistics. The descriptors "below normal" refers to flow in the lower quartile; "above normal" to the upper quartile, and "normal" to the middle quartiles.

During October, rainfall across the State was below average except in Wilmington and Elizabeth City (fig. 2). Asheville recorded the driest October since 1964, which was 3.10 in. below normal. Decreased rainfall caused flow conditions to decrease into the normal and below-normal range in the Blue Ridge and Piedmont Provinces (fig. 3A). Above-average rainfall in the Coastal Plain Province caused flow conditions to increase into the excessive range.

Decreased rainfall in the northern Piedmont Province and the entire Coastal Plain Province for November caused streamflow to fall into the below-average and normal ranges, respectively (fig. 3B). Rainfall in Charlotte and Asheville increased but total accumulations were near normal. Streamflow in the northern and northwestern Blue Ridge and Piedmont Provinces, respectively, remained in the deficient range. Monthly mean streamflow at Elk Creek at Elkville increased slightly but was the third lowest streamflow for the period of record.

Asheville and Elizabeth City were the only index weather stations that reported above-average rainfall for December (fig. 2). Flow increased across the entire State except for Black River near Tomahawk and Northeast Cape Fear River near Chinquapin. However, the increase in streamflow was insignificant because flow for the entire eastern half of the State was below-normal (fig. 3C). Streamflow was elevated into the excessive range for only a small part of the southern Blue Ridge Province.

January rainfall was near average across the State. Streamflow increased across the entire State except in the southern Blue Ridge Province, which decreased into the normal range (fig. 3D). Deficient flow occurred in the southern parts of the Piedmont and Coastal Plain Provinces while streamflow to the north increased to the excessive range.

Although near-average rainfall continued throughout most of the State in February, streamflow in the eastern half of the Piedmont Province and the entire Coastal Plain Province decreased into the deficient range (fig. 3E). Streamflow in the northwest part of the State also decreased into the below-normal range. The central Piedmont Province and southern Blue Ridge Province were the only areas in the State to have increased streamflow for February, which remained in the normal range.

Rainfall for March was slightly below-average across the State but streamflow increased at more than 75 percent of the gaging stations. Normal flow was sustained throughout most of the State except the southeast and the extreme northwest where streamflow was deficient (fig. 3F).

Total rainfall accumulations for April were near average across the State except for Greensboro, which was 2.67 in. above average (fig. 2). The results of the heavy rains toward the end of April propelled streamflow into the above-normal range in the northwestern parts of the State (fig. 4A). Fisher River near Copeland had the second highest monthly mean streamflow for the period of record. Below-normal streamflow was observed at only three stations, Cataloochee Creek near Cataloochee, Oconaluftee River at Birdtown (Blue Ridge Province), and Lumber River near Boardman (Coastal Plain Province).

On April 20-22, heavy rainfall in western North Carolina brought streams in the Blue Ridge and Piedmont Provinces out of their banks. Storm totals in some of the most severely affected areas exceeded 7 in. at some National Weather Service rain gages. The resulting flooding was responsible for the loss of five lives. Hundreds of people were evacuated from low-lying areas along the Watauga River near Sugar Grove below a weakened earthen dam.

The North Carolina State Emergency Management Office indicate damages exceeded $2 million, including more than $700,000 to State owned bridges. More than 75 bridges, many of them low privately owned stream crossings, were destroyed or severely damaged. Mitchell and Avery Counties, along the North Carolina-Tennessee border sustained the most property damages. Approximately $317,000 was allocated for private bridge repair and(or) replacement. Gage readings and high-water marks taken at several active and discontinued gages in these and adjacent counties put the maximum flooding at the 5- to 10-year recurrence level. These streams include the Watauga, Elk, and North Toe Rivers. Observations by USGS hydrographers indicated severe damage to roads and bridges along Beaver Creek in Spruce Pine and Crabtree Creek at Estatoe in Mitchell County. Much of the damage they reported was caused by debris jams at culverts.

Despite the reported damages, floodwaters in most streams rose only to the 2- to 5-year recurrence interval. However, the Fisher and Ararat Rivers in Surry County rose to the 100-year recurrence interval level. Other Yadkin River tributaries that recorded floods near the 10-year recurrence interval include Hunting Creek and Mitchell River. Flooding in the main stem of the Yadkin River itself was at the 2- to 5-year recurrence interval. Other areas that reported flooding in the 10-year recurrence interval range included tributaries to the Rocky and Pee Dee Rivers in Cabarras, Stanley, and Montgomery Counties. These included the Uharrie and Little Rivers and Dutch Buffalo and Dutchman's Creeks. A new daily maximum flow was recorded on April 23, for South Yadkin River near Mocksville (fig. 5).

Rainfall for May was below or near average for most of the State, which caused streamflow to decrease into the normal or deficient range for most of the Piedmont and Coastal Plain Provinces (fig. 4B). However, above-average rains in the Blue Ridge Province produced excessive flows for most of the province. South Toe River near Celo had the second highest monthly mean flow for the period of record.

June rainfall was excessive across the State ranging from 1.35 to 2.96 in. above average causing increased flow at 85 percent of the recording sites. Excessive flows were recorded throughout most of the Blue Ridge and Piedmont Provinces (fig. 4C). Monthly mean flows were the highest for the period of record at South Fork New River near Jefferson and Watauga River near Sugar Grove (Blue Ridge Province), and Yadkin River at Patterson, Elk Creek at Elkville, and Twelve Mile Creek near Waxhaw (Piedmont Province). Monthly mean flows were second highest for period of record at Linville River near Nebo, East Fork Pigeon River near Canton, and South Toe River near Celo (Blue Ridge Province), and Rocky River near Norwood (Piedmont Province). Black River near Tomahawk (Coastal Plain Province) was the only site with below-normal streamflow.

SUMMARY OF WATER-RESOURCES CONDITIONS--Continued

Rainfall was well below average across the State except for in Greensboro and Elizabeth City (fig. 2). Streamflow at more than 90 percent of the gaging stations decreased. The monthly mean flow at Northeast Cape Fear River near Chinquapin (Coastal Plain Province) was the second lowest for the period of record. All of the Blue Ridge Province streamflow and most of the Piedmont Province flow decreased into the normal range (fig. 4D). Even though streamflow decreased in the Haw River at Haw River, it still remained in the above-normal range. Due to decreasing streamflow in the Coastal Plain Province, the below-normal area increased slightly to the south but remained in the normal range to the north.

Above-average rainfall for August in the Blue Ridge and Coastal Plain Provinces increased streamflow into the above-normal range throughout most of these provinces (fig. 4E). On August 17, flooding was heaviest in Wayne and Wilson Counties in the central Coastal Plain Province. Extreme flooding occurred on small streams and many rural roads and urban streets became impassable. Twelve families were evacuated from their homes along Stone Creek in Goldsboro (Wayne County).

On August 18, flooding was heaviest in the northeastern counties of Hertford, Bertie, and Pitt. Potecasi Creek near Union (Coastal Plain Province) crested with the highest flow for the period of record and has a recurrence interval greater than 50 years. Potecasi Creek also reached the highest monthly mean flow for the period of record. Nearby at Ahoskie, the peak flow in Ahoskie Creek had a recurrence of approximately 25 years. The peak flow at Cashie River near Windsor also set a new high for the period of record which corresponds to a recurrence interval greater than 10 years.

On August 19, flows on most gaged streams in the northeast receded while flows in the south and central Coastal Plain Province continued to rise. Gaged streams in Duplin, Sampson, and Bladen Counties crested on August 20. Flow in Black River at Tomahawk reached a recurrence interval greater than 25 years. The stage at Little Rockfish Creek at Wallace set a new maximum for the period of record. The Northeast Cape Fear River near Chinquapin peaked on this date having a flow recurrence interval greater than 10 years. The Lumber River at Boardman peaked on August 22 with a less than 5-year recurrence interval for flow. Also in the Coastal Plain Province, monthly mean stream flow was the second highest at Trent River near Trenton, and third highest at Contentnea Creek at Hookerton (fig. 7) and Northeast Cape Fear River near Chinquapin, for the period of record. In the Blue Ridge Province, the East Fork Pigeon River near Canton had a mean monthly flow that was the third highest for the period of record. Near-average rainfall in the Piedmont Province caused some streamflow to decrease slightly in August, but overall conditions remained nearly unchanged from the previous month.

September rainfall was below average across the State except in Charlotte, which was 4.69 in. above average (fig. 2). Streamflow decreased across the State except for areas in and close to the southern Blue Ridge Province, which remained in the excessive range (fig. 4F).

On September 10, the Raven Fork Creek on the Cherokee Indian Reservation in Cherokee County received an estimated 5 to 7 in. of rain in 2 to 3 hr (according to the National Weather Service radar). Streamflow exceeded the 100-yr recurrence interval. The flood resulted in 500 people being evacuated from their homes on the Cherokee Indian Reservation and from numerous campgrounds along the stream. Flow in the central part of the Piedmont Province decreased into the below-normal range while flow in a small area in the northeastern part of the State decreased but was above normal. The flow in the remaining areas of the Coastal Plain Province decreased into the normal range.

## Water Quality

Concentrations of constituents vary with stream discharge. For example, total phosphorus and suspended sediment concentrations tend to increase with increasing discharge, whereas dissolved residue concentration tends to decrease with increasing discharge. For Neuse and Yadkin Rivers, median instantaneous discharges during sample collection in the 1992 water year were near the long-term median instantaneous discharges. For French Broad River, the median discharge during sample collection was significantly higher in the 1992 water year compared to the long-term median.

Median concentrations of selected constituents for the 1992 water year and long-term (1973-92) median concentrations in samples from three sites in each of the major physiographic provinces of North Carolina are presented in the following table. These sites are the (1) French Broad River at Marshall in the Blue Ridge, (2) Yadkin River at Yadkin College in the Piedmont, and (3) Neuse River at Kinston in the Coastal Plain (fig. 1).

| Station name | Water year | Median instantaneous discharge (cfs) | Median concentration: Total phosphorus (mg/L) | Median concentration: Nitrate + Nitrite (mg/L) | Median concentration: Suspended sediment (mg/L) | Median concentration: Dissolved residue (mg/L) |
|---|---|---|---|---|---|---|
| Neuse River | 1992 | 1,020 | 0.11 | 0.96 | 19 | 85 |
| at Kinston | 1973-92 | 1,520 | .21 | .76 | 26 | 75 |
| Yadkin River | 1992 | 2,520 | .16 | .78 | 76 | 65 |
| at Yadkin College | 1973-92 | 2,665 | .21 | .61 | 62 | 55 |
| French Broad River | 1992 | 6,930 | .36 | .67 | 69 | 42 |
| at Marshall | 1973-92 | 2,370 | .16 | .53 | 32 | 59 |

Daily concentrations of suspended sediment at the long-term sediment station on the Yadkin River at Yadkin college are used to indicate sediment transport trends in the Piedmont. The sediment transport load for the 1992 water year was approximately 95 percent of the long-term average annual load for the reference period 1951-91.

## Ground Water

Ground-water levels in the surficial aquifer in the Coastal Plain and in the regolith in the Piedmont and Blue Ridge respond to climatic influences, as continual discharge to streamflow from the ground-water reservoir is offset by periodic recharge by rainfall. Water levels in these unconfined aquifers are typically highest in the winter months, when evapotranspiration losses are minimal, and lowest in the summer months when evapotranspiration losses are highest.

Ground-water level fluctuations were, for the most part, typical during the 1992 water year. Statewide, water levels in climatic- and terrane-effect wells were at about the same level at the end of the water as they were at the beginning, indicating recharge to the ground-water reservoir was nearly equal to discharge from it during this year of near average rainfall.

Water levels in the Blue Ridge and Piedmont index wells (fig. 10) were above average throughout the water year. In the Coastal Plain well, water levels were above average at the beginning of the water year, but fell to slightly below average levels in the winter and spring. Above average rainfall in the summer months caused water levels in the Coastal Plain well to rise to near average for the rest of the water year.

SUMMARY OF WATER-RESOURCES CONDITIONS--Continued

Rains in late April resulted in water-level rises in climatic-affects wells in Cherokee and Haywood Counties. Heavy rains in early August caused water levels to rise in several climatic-affects wells in the eastern and northern Coastal Plain during the middle of the growing season when water levels usually decline; rises ranging from 2.5 to 6.5 ft were recorded in Pasquotank, Bertie, Washington, Pitt, Jones, and Brunswick Counties. A small rise in August was seen in Transylvania county; whereas none was recorded in other wells in the Blue Ridge and Piedmont.

Coastal Plain aquifers are composed of unconsolidated sand, silt, and clay, and partially consolidated limestone. The uppermost aquifer is the surficial aquifer, which is unconfined and contains the water-table. Below the surficial aquifer, a number of confined aquifers have been identified, the most important of which are shown in figure 11. Ground-water withdrawals in the Coastal Plain province have resulted in declining water levels in some of the confined aquifers for a number of years. This declining trend is evidenced by the long-term record from observation wells that tap five of the major aquifers in eastern North Carolina (fig. 12), the Castle Hayne, Peedee, Black Creek, upper Cape Fear, and lower Cape Fear aquifers.

The record of observation well NC-13, in Beaufort County, shows a continuing decline in water levels in the Castle Hayne aquifer due to pumping at a large mining and manufacturing operation in the eastern part of the county. Withdrawals began here in 1965 and continue through the present (Strickland and others, 1992). Changes in the rate of decline seen in the record from this well (fig. 12) reflect changes in the amount and location of pumping activity. Other Castle Hayne aquifer observation wells that show either the effect of this pumping or the areal limit of the effect are in Beaufort, Hyde, Pitt, Pamlico, and Washington Counties.

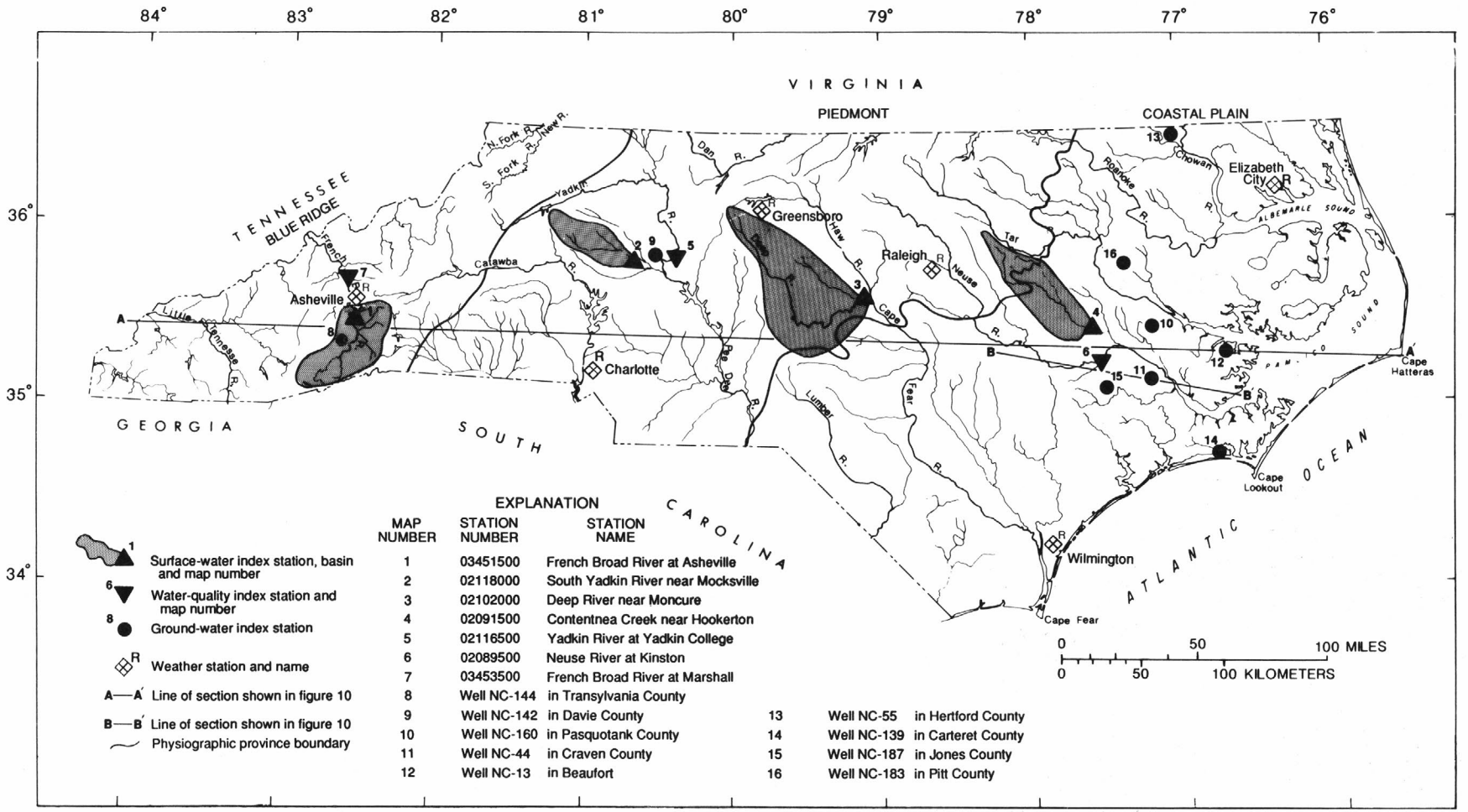
The record of observation well NC-139, in Carteret County, shows the effects of seasonal pumping from the Castle Hayne aquifer used to meet the increased demand for water in the coastal area during the summer months (fig. 12). The slight decline as seen in the long-term record indicates that annual recharge to the aquifer is less than the amount of water withdrawn. A Castle Hayne observation well in New Hanover County shows a similar gradual water-level decline.

An example of the long-term effect of pumpage in the central Coastal Plain is seen in the record of observation well NC-44, which is in Craven County and is near the city of New Bern well field where water has been withdrawn from the Black Creek and upper Cape Fear aquifers since 1968. Well NC-183 also shows the effects of the central Coastal Plain withdrawals in northern Pitt County. Water-level records of several other wells in the central Coastal Plain show the effects of pumping from these two aquifers; examples include wells in Beaufort, Craven, Duplin, Jones, Lenoir, and Onslow Counties. Pumpage in Onslow County is also from the Peedee aquifer and the resultant decline is seen in well NC-187 (fig. 12) in adjacent Jones County. Water-level records of other observation wells tapping the Peedee aquifer generally show only seasonal fluctuations.

Water-level decline in the lower Cape Fear aquifer shown for well NC-55 in Hertford County results primarily from major withdrawals in Virginia which began in the 1940s. Other observation wells in that aquifer showing similar declines are in Hertford and Perquimans Counties.

## Reference

Strickland, A. G., Coble, R. W., Edwards, L. A., and Pope, B. F., 1992, Ground-water level data for North Carolina, 1988-90: U.S. Geological Survey Open-file Report 92-57, 167 p.




EXPLANATION

- Surface-water index station, basin and map number
- Water-quality index station and map number
- Ground-water index station
- Weather station and name
- A—A' Line of section shown in figure 10
- B—B' Line of section shown in figure 10
- Physiographic province boundary

| MAP NUMBER | STATION NUMBER | STATION NAME |
|---|---|---|
| 1 | 03451500 | French Broad River at Asheville |
| 2 | 02118000 | South Yadkin River near Mocksville |
| 3 | 02102000 | Deep River near Moncure |
| 4 | 02091500 | Contentnea Creek near Hookerton |
| 5 | 02116500 | Yadkin River at Yadkin College |
| 6 | 02089500 | Neuse River at Kinston |
| 7 | 03453500 | French Broad River at Marshall |
| 8 | Well NC-144 | in Transylvania County |
| 9 | Well NC-142 | in Davie County |
| 10 | Well NC-160 | in Pasquotank County |
| 11 | Well NC-44 | in Craven County |
| 12 | Well NC-13 | in Beaufort |
| 13 | Well NC-55 | in Hertford County |
| 14 | Well NC-139 | in Carteret County |
| 15 | Well NC-187 | in Jones County |
| 16 | Well NC-183 | in Pitt County |

Figure 1.--Location of index stations.

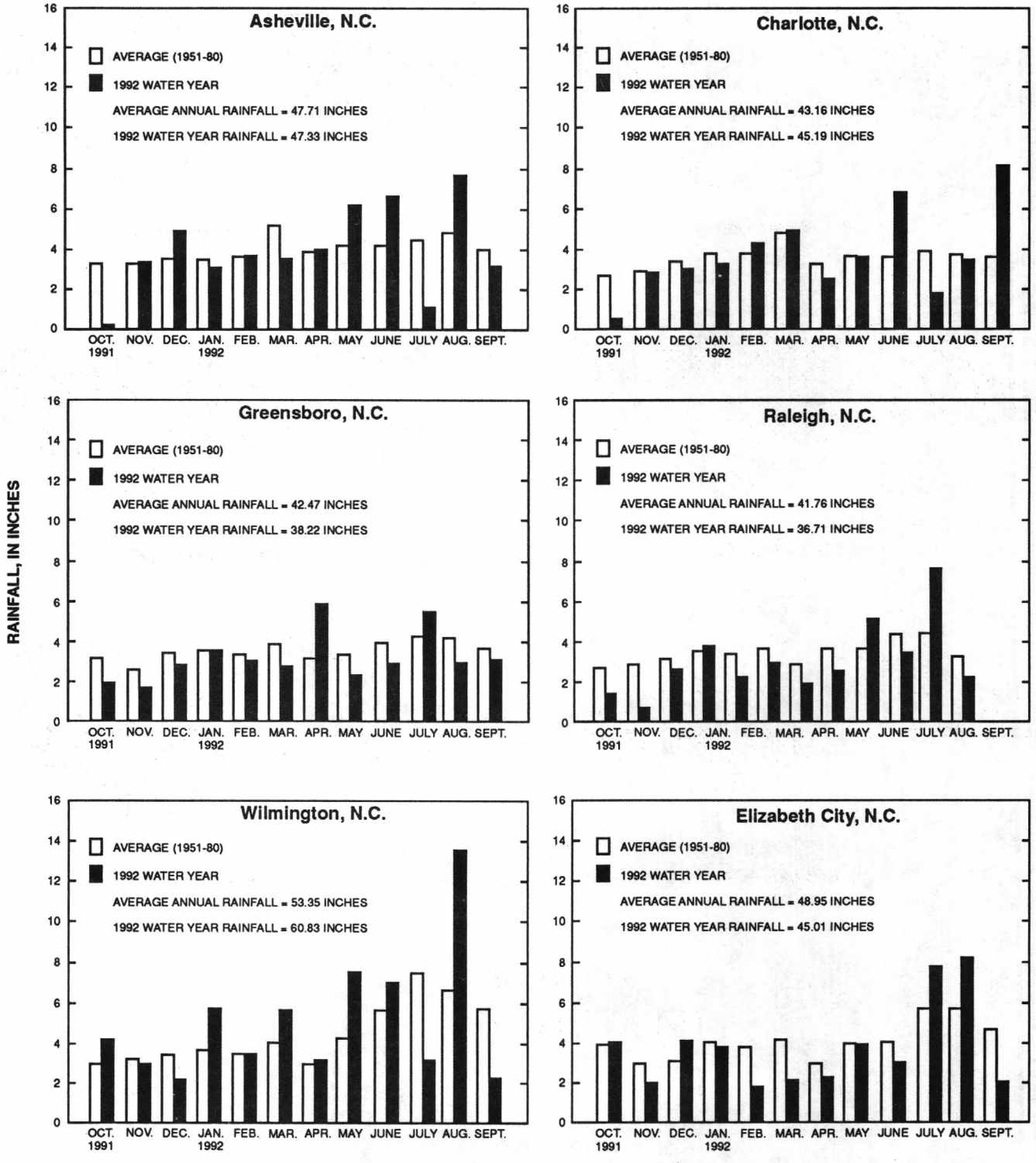



Figure 2.--Monthly rainfall at index weather stations for 1992 water year and average monthly rainfall for the period 1951-80 (Data from National Oceanic Atmospheric Administration reports).

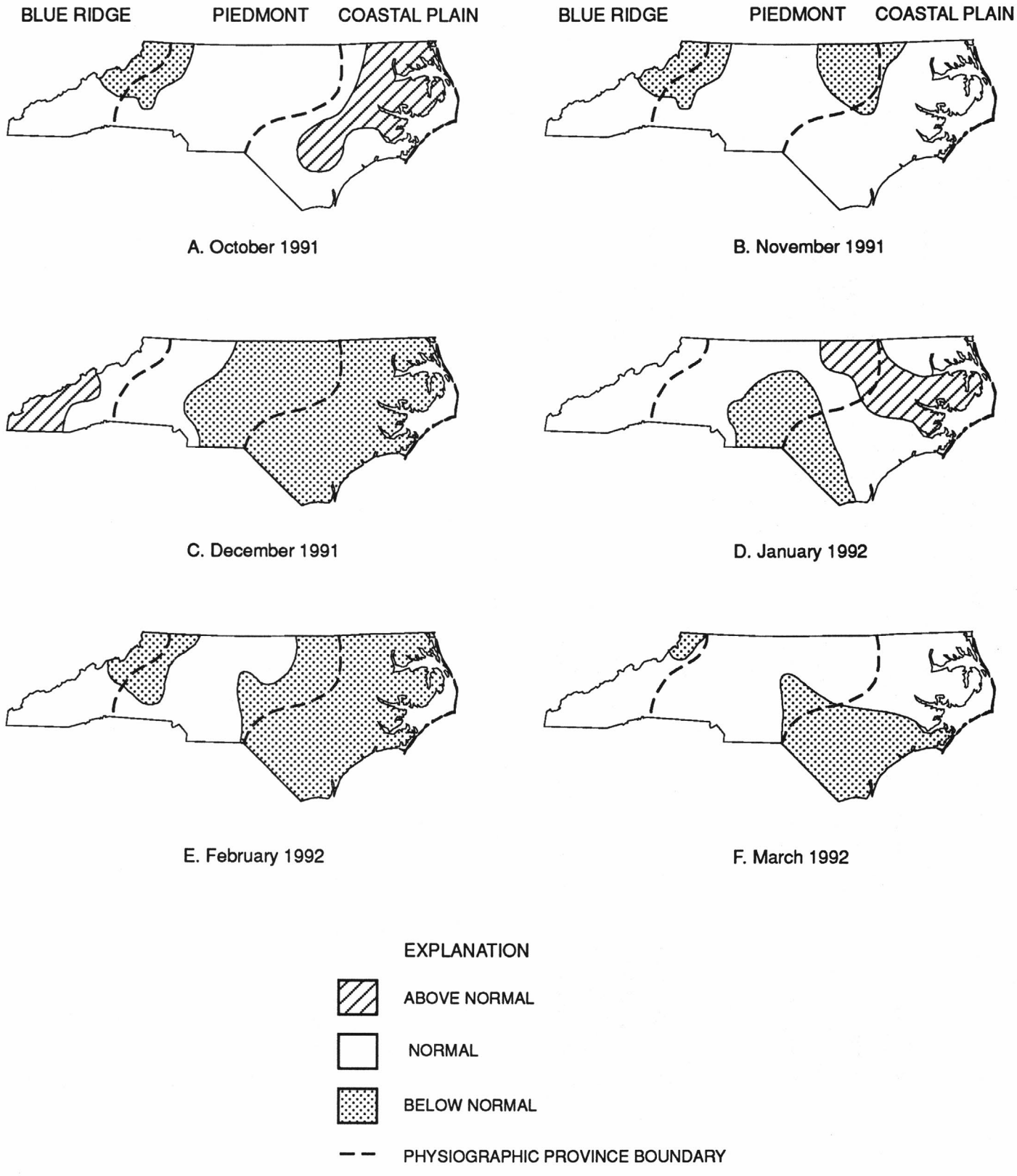



Figure 3.--Monthly streamflow, October - March, during 1992 water year.

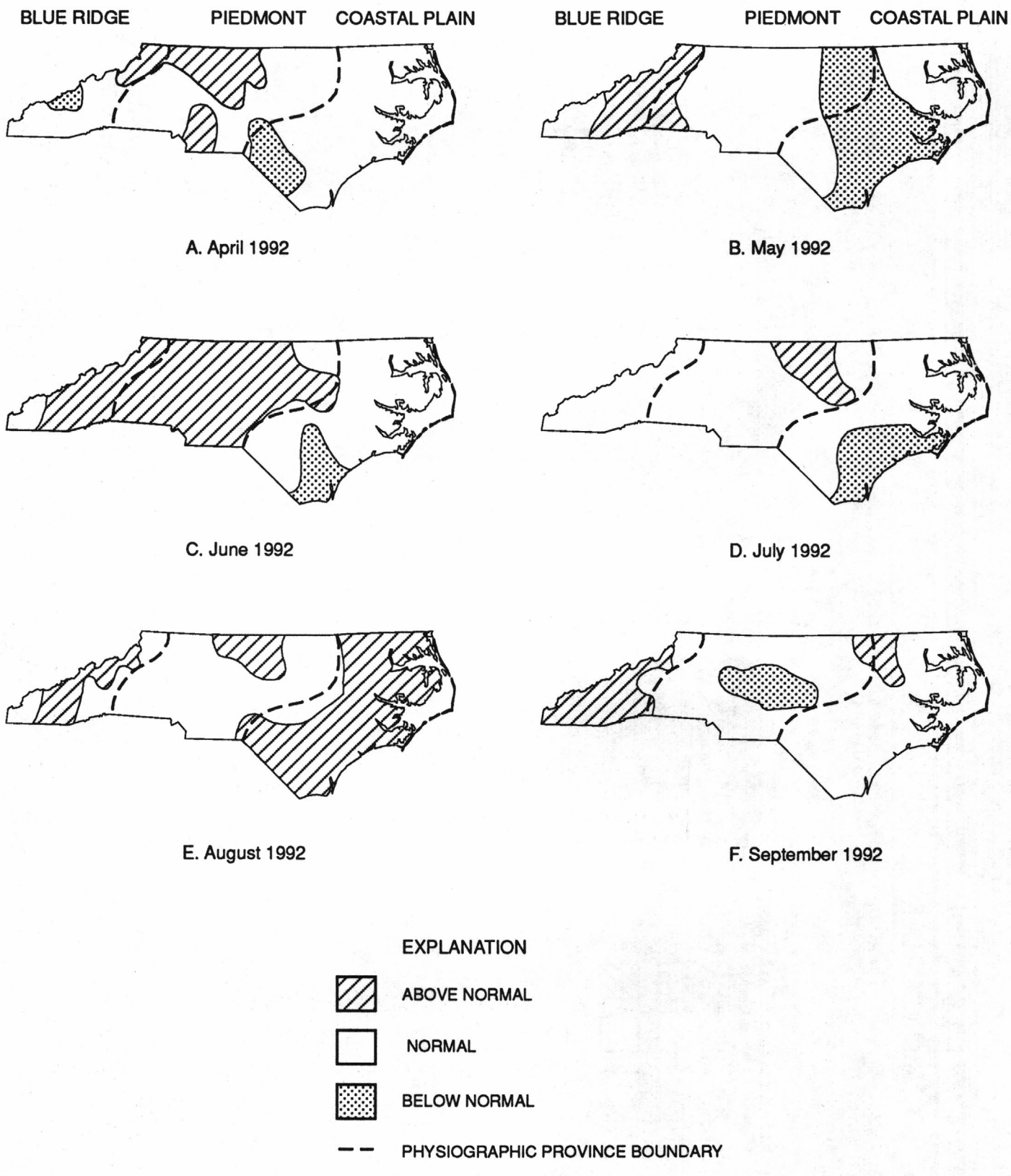



Figure 4.--Monthly streamflow, April - September, during 1992 water year.

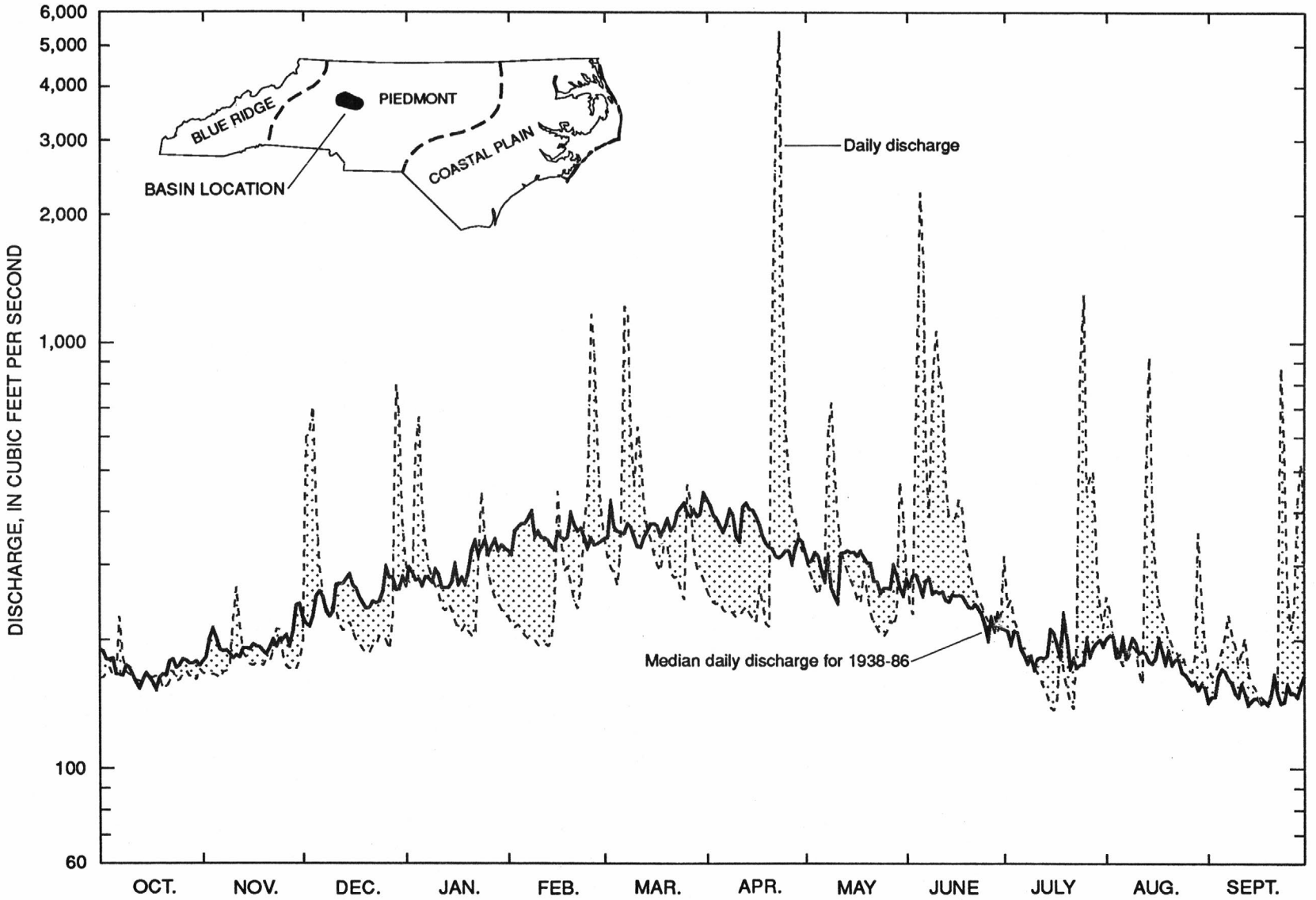



Figure 5.--Daily and median discharge for South Yadkin River at Mocksville (02118000), 1992 water year. Located in figure 1.

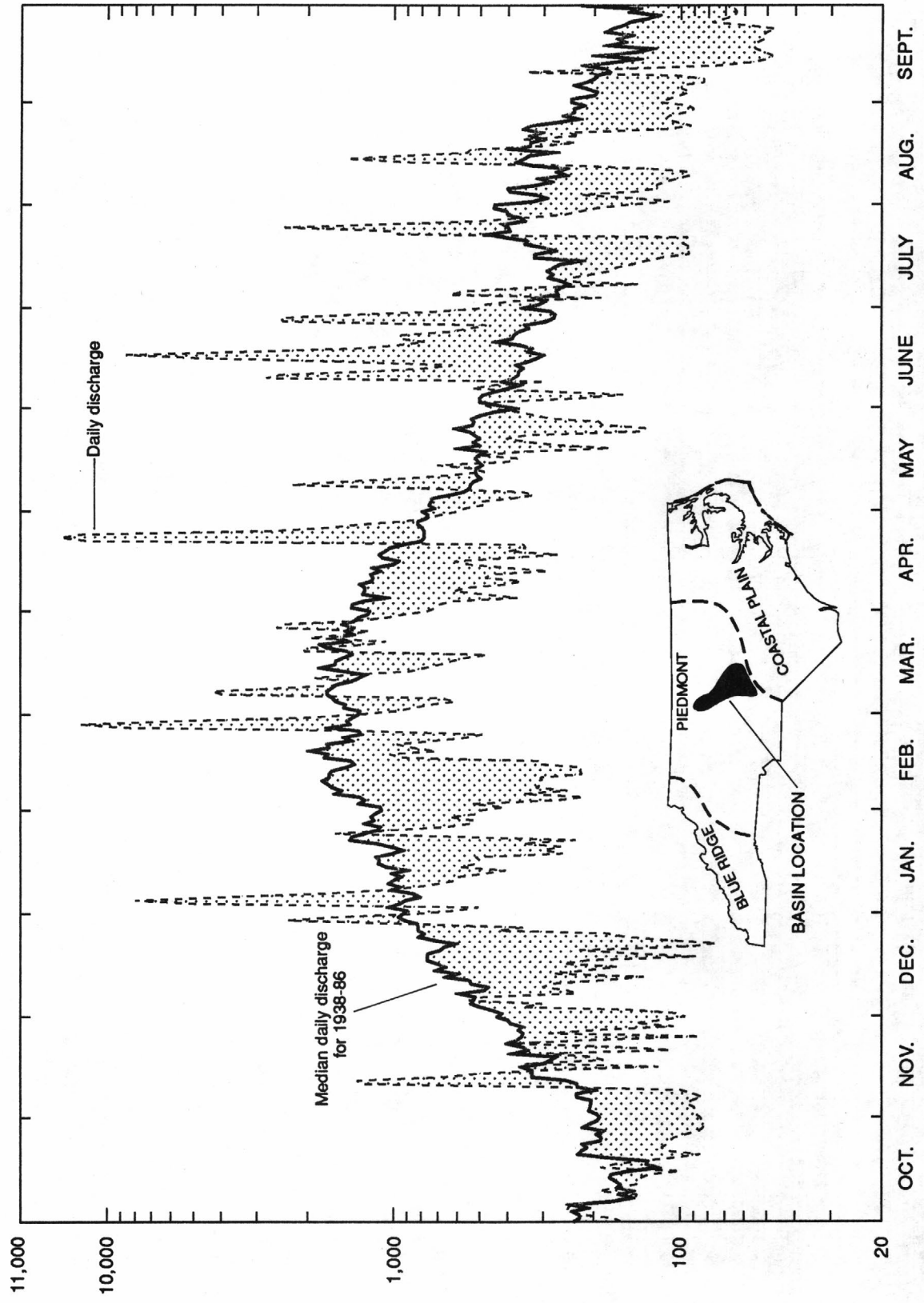



Figure 6.--Daily and median discharge for Deep River at Moncure (02102000), 1992 water year. Located in figure 1.

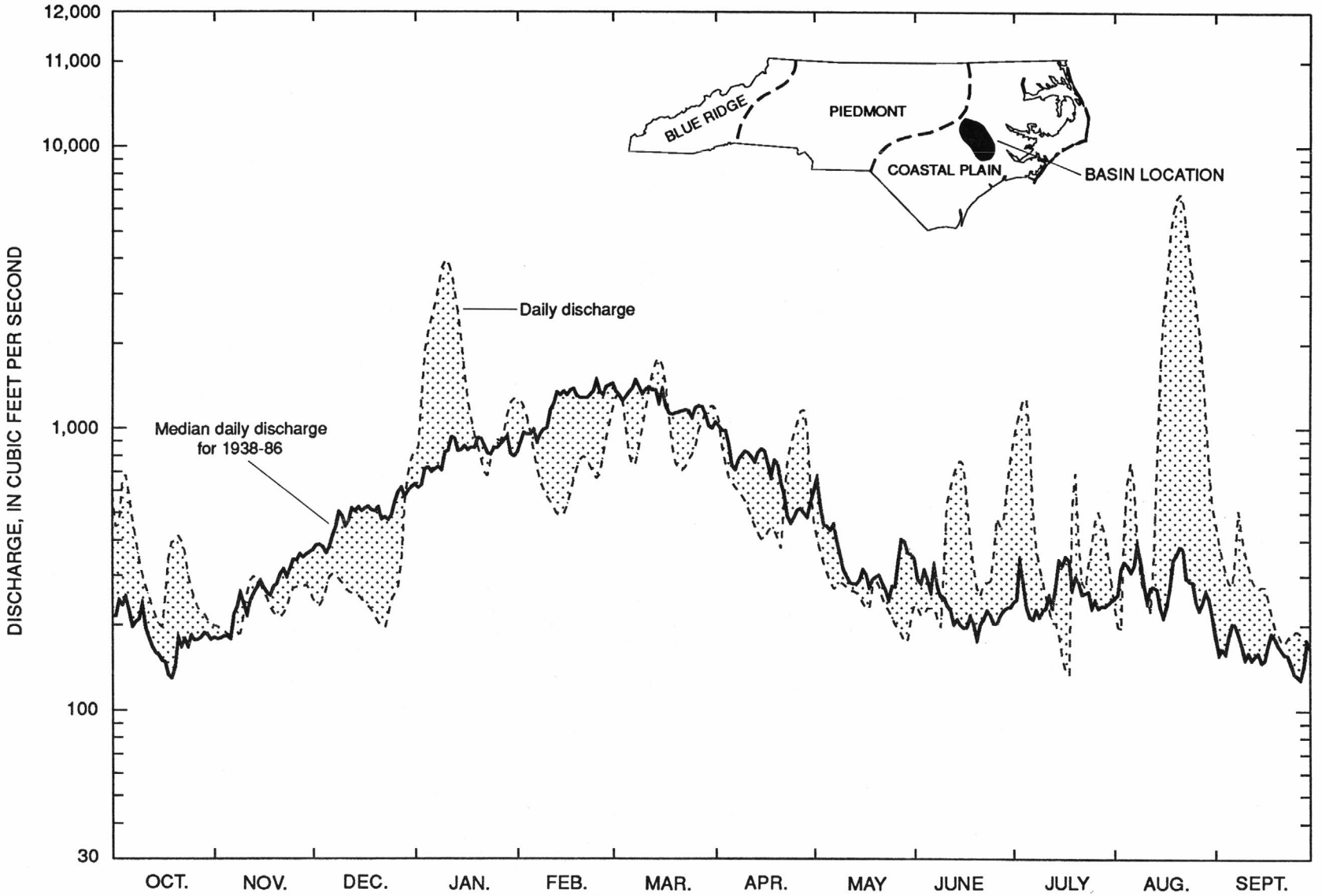



Figure 7.--Daily and median discharge for Contentnea Creek at Hookerton (02091500), 1992 water year. Located in figure 1.

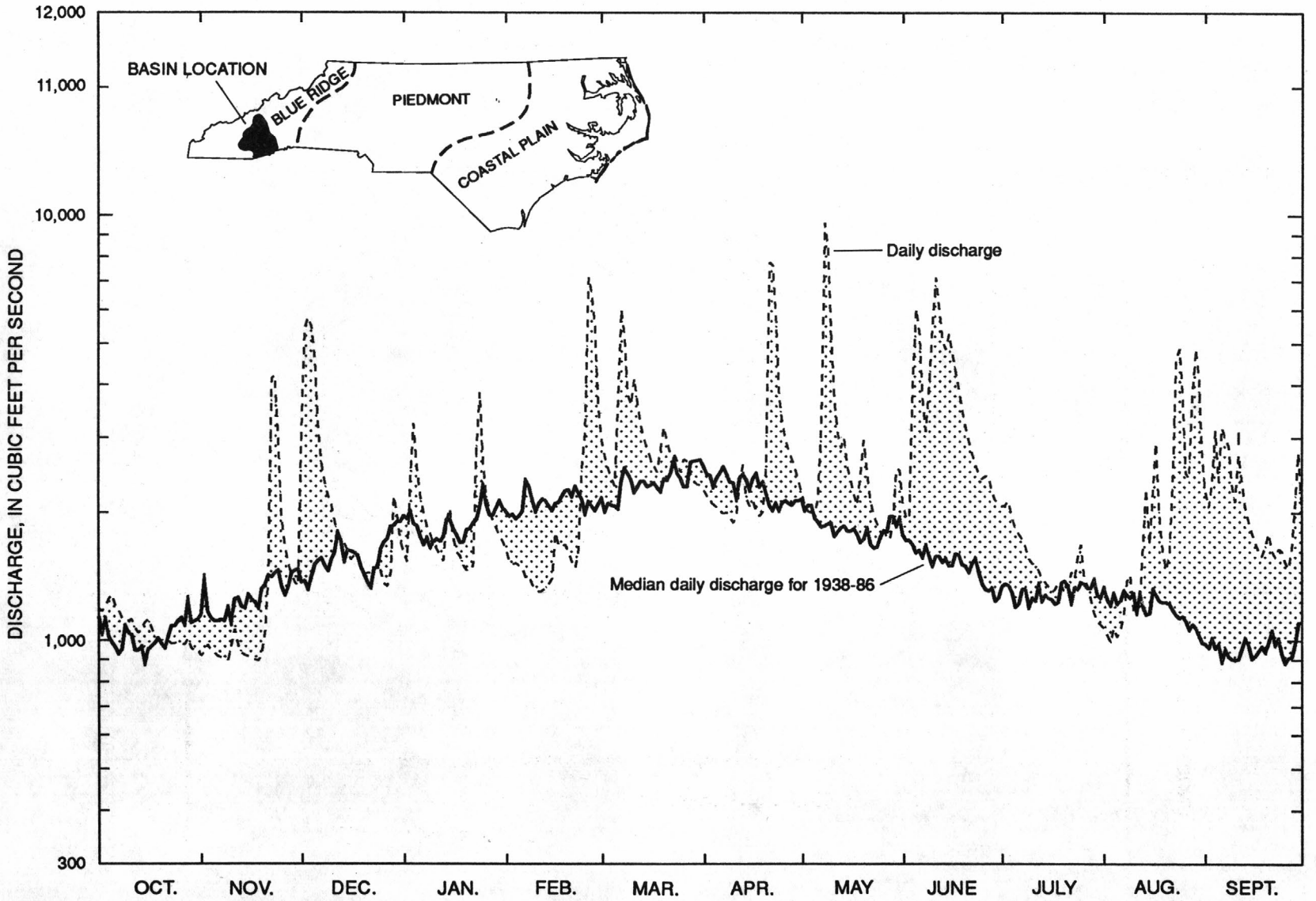



Figure 8.--Daily and median discharge for French Broad River at Asheville (03451500), 1992 water year. Located in figure 1.

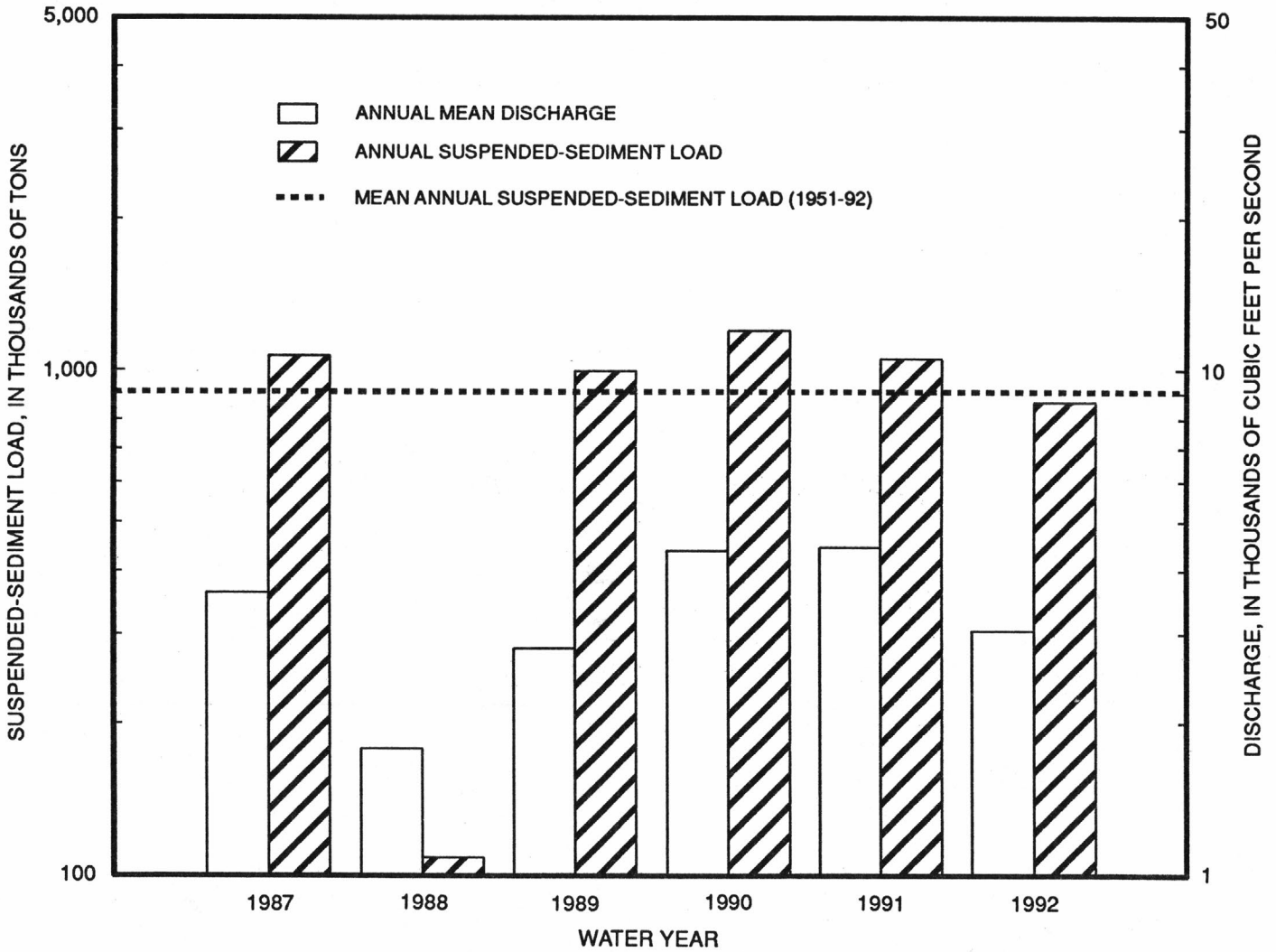



Figure 9.--Annual total suspended-sediment loads and mean annual discharge at Yadkin River at Yadkin College, N.C. (02116500), 1987-92.

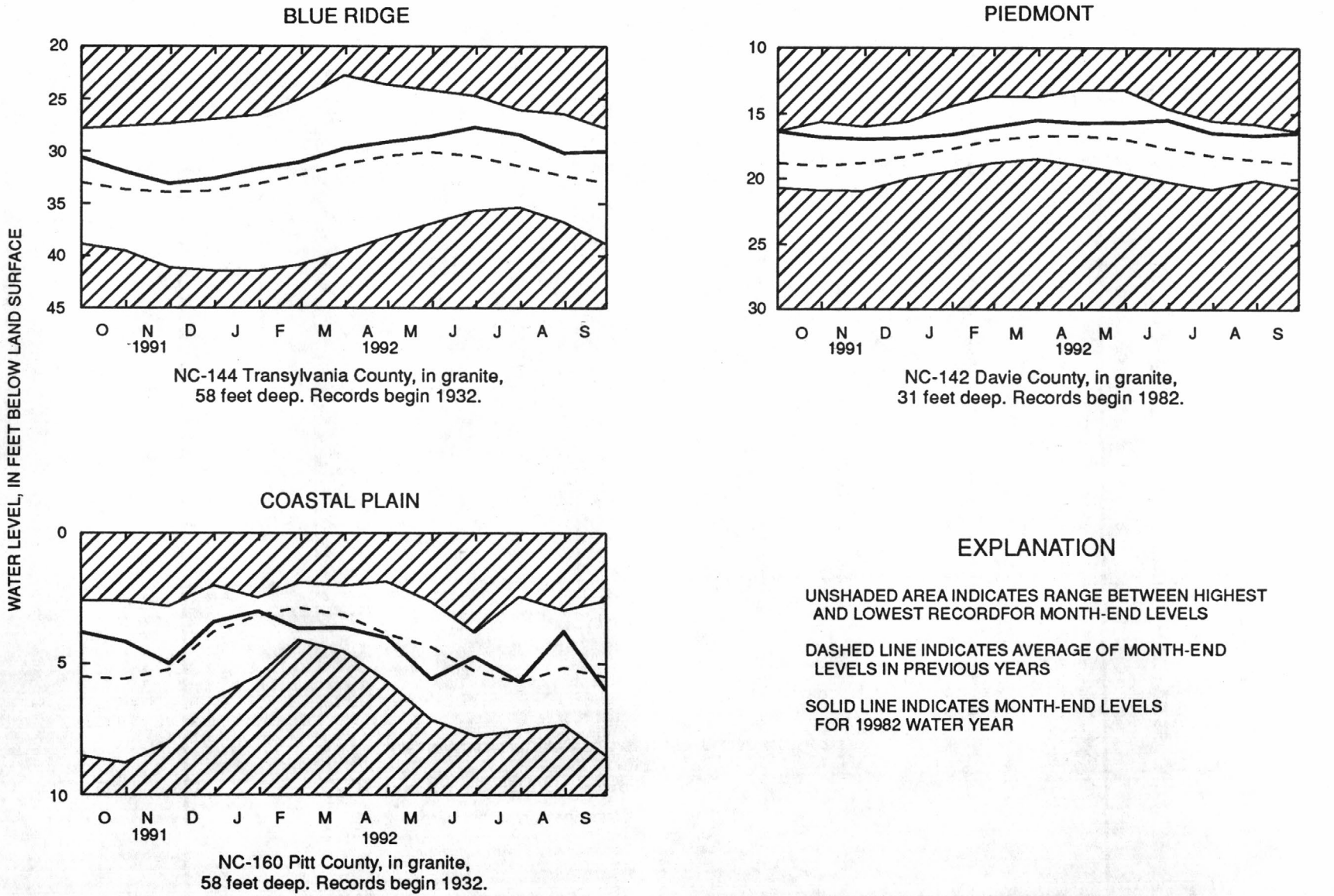
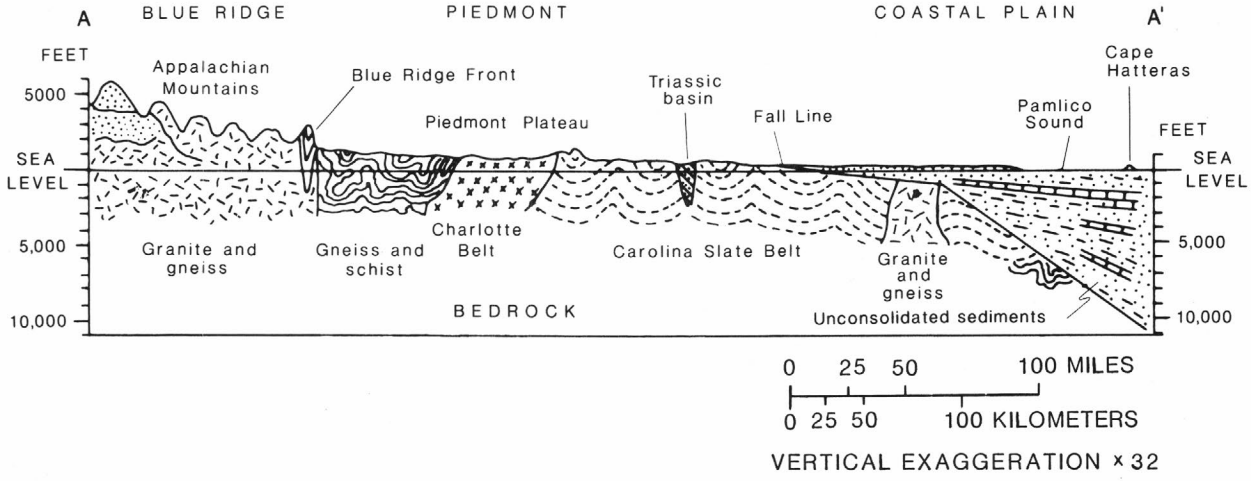



Figure 10.--Water levels in index observation wells in the Blue Ridge, Piedmont, and Coastal Plain Provinces of North Carolina, 1992 water year. Located in figure 1.



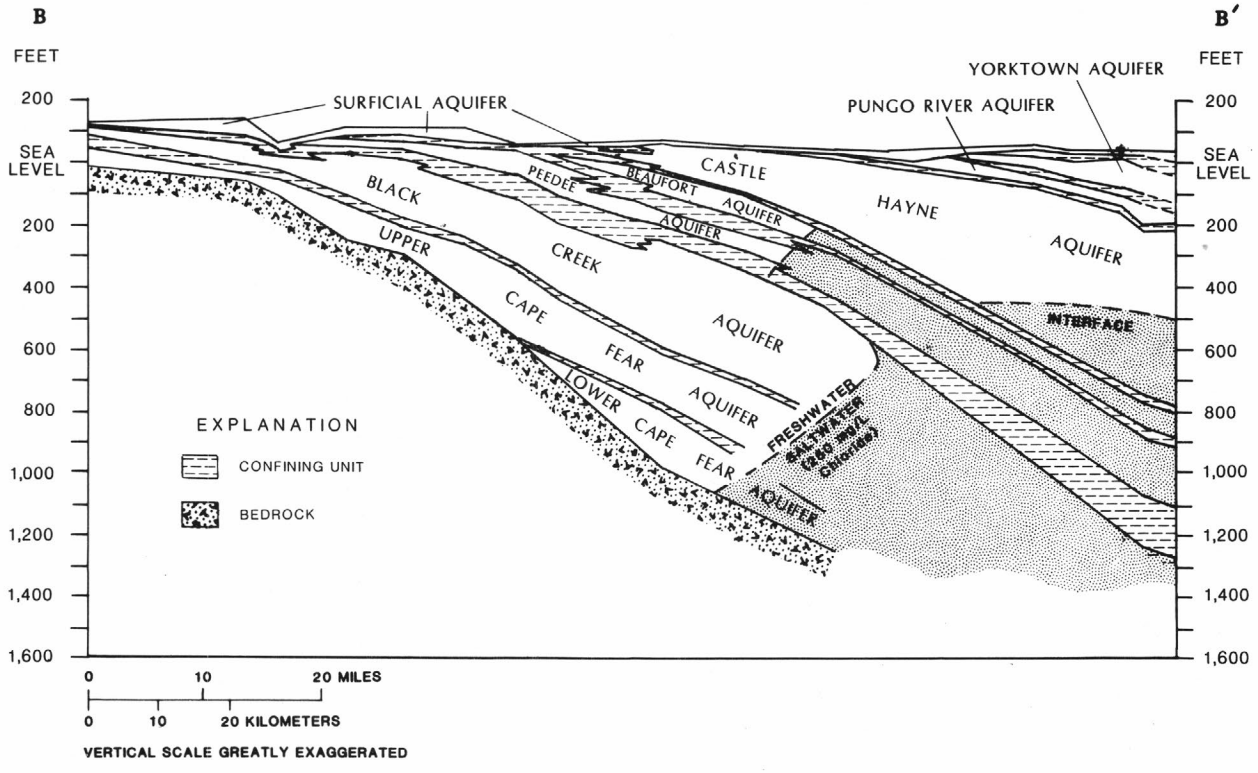




Figure 11.--Geologic section across North Carolina and hydrogeologic section of the Coastal Plain of North Carolina (from Coble and Strickland, 1989).

. Sections located in figure 1.

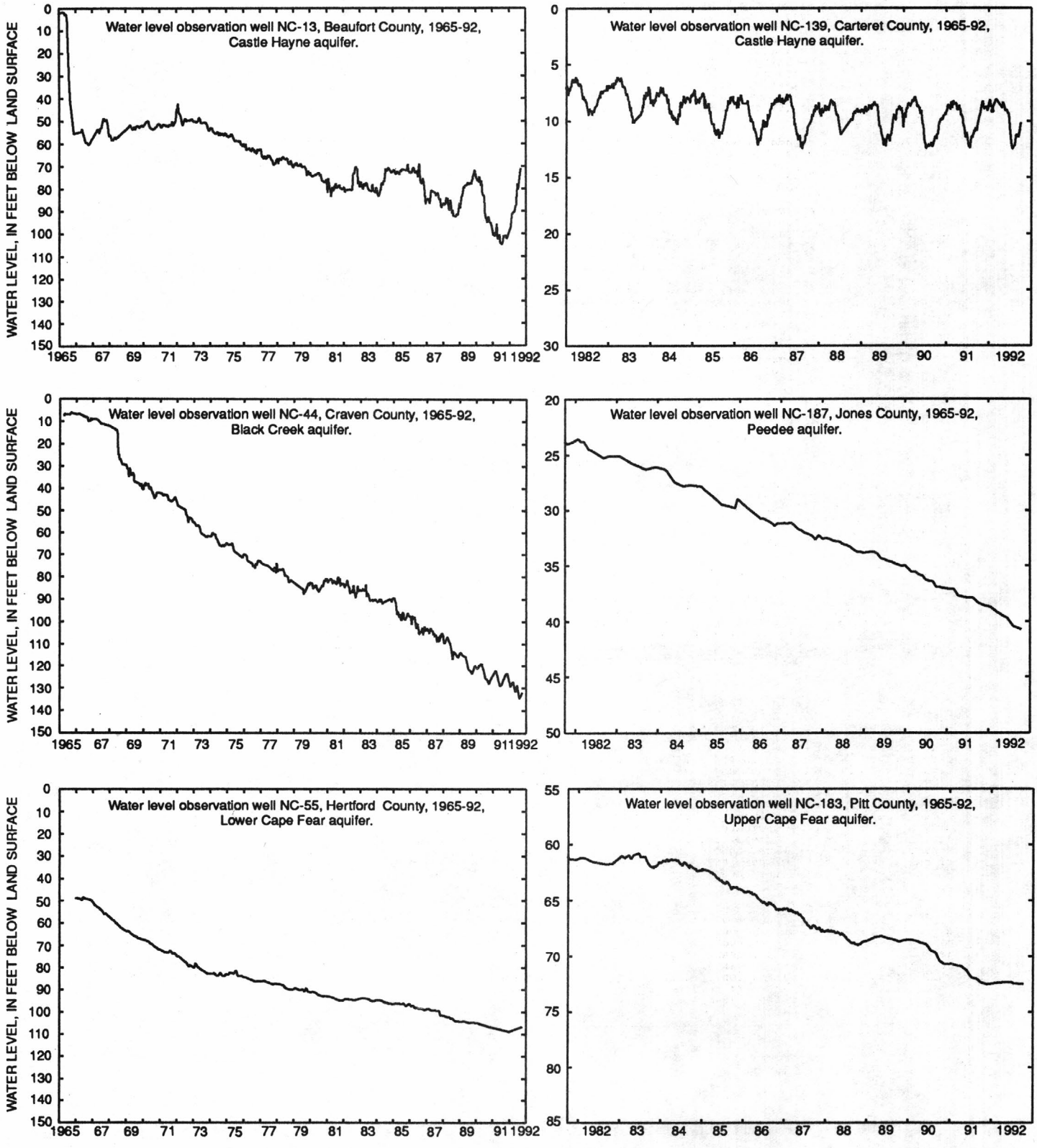



Figure 12.--Water levels in selected observation wells in the Castle Hayne, Peedee, upper Cape Fear, and lower Cape Fear aquifers in the Coastal Plain of North Carolina. Located in figure 1.

## SPECIAL NETWORKS AND PROGRAMS

**Hydrologic Bench-Mark Network** is a network of 75 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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

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

**The National Water-Quality Assessment (NAWQA) Program** of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resoures, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in more than one-third of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streamed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resoures managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

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

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1992 water year that began October 1, 1991, and ended September 30, 1992. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 14, 15, 16, and 17. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

### Station Identification Numbers

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

#### Downstream Order System

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

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

#### Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See fig. 13.)

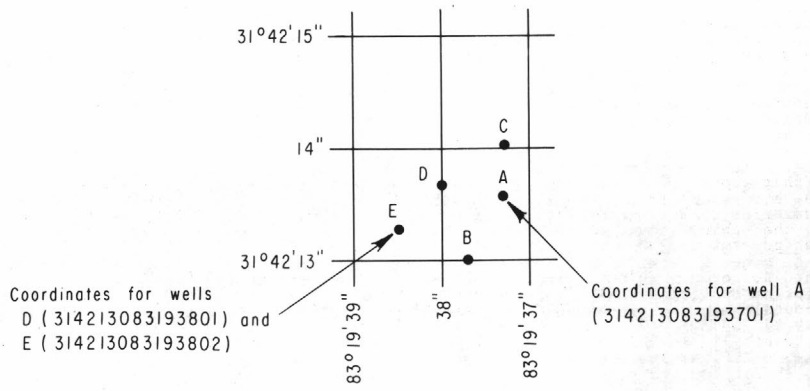



**Figure 13.--System for numbering wells (latitude and longitude).**

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

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

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

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

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

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

Data Collection and Computation--Continued

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

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flow as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments that follow clarify information presented under the various heading of the station description.

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

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

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

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

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

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

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

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

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

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

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

Data Presentation--Continued

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

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

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first ocurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS ____-____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "FOR WATER YEARS ____-____," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge occurring for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1 - March 31). The date shown in the summary statistics table is in the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in district computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

Data Presentation--Continued

ANNUAL RUNOFF (AC-FT).--Indicates the depth, in acre-feet, to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

ANNUAL RUNOFF (CFSM).--Indicates 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 for the year.

ANNUAL RUNOFF (INCHES).--Indicates the depth to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that is exceeded by 10 percent of the flow for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded by 50 percent of the flow for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow for the designated period.

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Records Available

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

Records of Discharge Collected by Agencies Other Than the Geological Survey

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

## Records of Surface-Water Quality

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

Classification of Records

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

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

## Arrangement of Records

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

## On-Site Measurements and Sample Collection

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

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

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

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

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

## Water Temperature

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

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

## Sediment

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

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

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

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

## Laboratory Measurements

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

Laboratory Measurements--Continued

In March 1990 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1990. Sulfate values in this report have not been corrected for this bias.

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Present data above the micrograms per liter level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U. S. Geological Survey will begin using new trace-element protocols in the near future.

Data Presentation

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

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

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

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

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

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

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

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

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

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

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

Remark Codes

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

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

Dissolved Trace-Element Concentrations

**NOTE:** Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter. Present data above the microgram per liter level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes. However, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in water year 1994.

## Records of Ground-Water Levels

### Data Collection and Computation

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

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs and which is used to identify the wells on figures 16 and 17. Local numbers for wells in the statewide network have a prefix of NC followed by a sequential number; example, NC-139. Local numbers for special project wells have a county abbreviation prefix followed by a sequential number; examples, Du-122, ME-252, On-10, and PA-3 for wells in Duplin, Mecklenburg, Onslow, and Pamlico Counties, respectively.

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

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

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

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

### Data Presentation

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

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

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

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

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

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

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

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

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

Data Presentation--Continued

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

## ACCESS TO WATSTORE DATA

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

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

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

U.S. Geological Survey
National Water Data Exchange
National Center, Mail Stop 421
Reston, VA 22092

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

District Chief
U.S. Geological Survey
P.O. Box 30728
Raleigh, NC 27622-0728

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

## DEFINITION OF TERMS

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

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

**Annual runoff** indicates the total quantity of water in runoff for a drainage area for the year.

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

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

**Inches (IN.,in.)** indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

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

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

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

**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 plus or minus 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

**Fecal coliform bacteria** are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 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 plus or minus 0.5°C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

**Dry mass** refers to the mass of residue present after drying in an oven at 60°C for zooplankton and at not more than 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.

DEFINITION OF TERMS--Continued

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

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

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

**Cubic 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.

**Annual 7-day minimum** is the lowest mean discharge for 7 consecutive days for a calender year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

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

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

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

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

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

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

**Hardness** of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCo_3$).

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

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

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

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

**Micrograms per liter (UG/L, µg/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 1 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 dry sediment per liter of water-sediment mixture.

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

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

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

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

DEFINITION OF TERMS--Continued

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

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

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

**Particle-size** is the diameter, in millimeters (mm), of suspended sediment or bed material determined by

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

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

The classification is as follows:

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

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

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

**Periphyton** is the assemblage of micro-organisms attached to and growing upon submerged 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 ($1 \times 10^{-12}$) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields $3.7 \times 10^{10}$ 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.

**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.

**Suspended-sediment discharge (tons/day)** is the rate at which dry mass 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 milligrams per liter times 0.0027.

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

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

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

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

DEFINITION OF TERMS--Continued

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Water year** in the Geological Survey reports is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ended September 30, 1992, is called the "1992 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.

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for 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. Ficken, 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-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

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

2-E2. *Borehole geophysics applied to ground-water investigations,* by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 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-A9. *Measurement of time of travel in streams by dye tracing,* by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

**PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS**--Continued

3-Al0. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 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-A12. *Fluorometric procedures for dye tracing,* by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 41 pages.

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

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

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

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

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

3-A18. *Determination of stream reaeration coefficients by use of tracers,* by F. A. Kilpatrick, R. E. Rathburn, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels of streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 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 programmed text for self-instruction,* by G. D. Bennett: USGS-- TWRI Book 3, Chapter B2. 1976. 172 pages.

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

3-B4. *Regression modeling of ground-water flow,* by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction,* by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics,* by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 90 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-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. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 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 the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 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-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

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

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

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 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.

7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 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-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

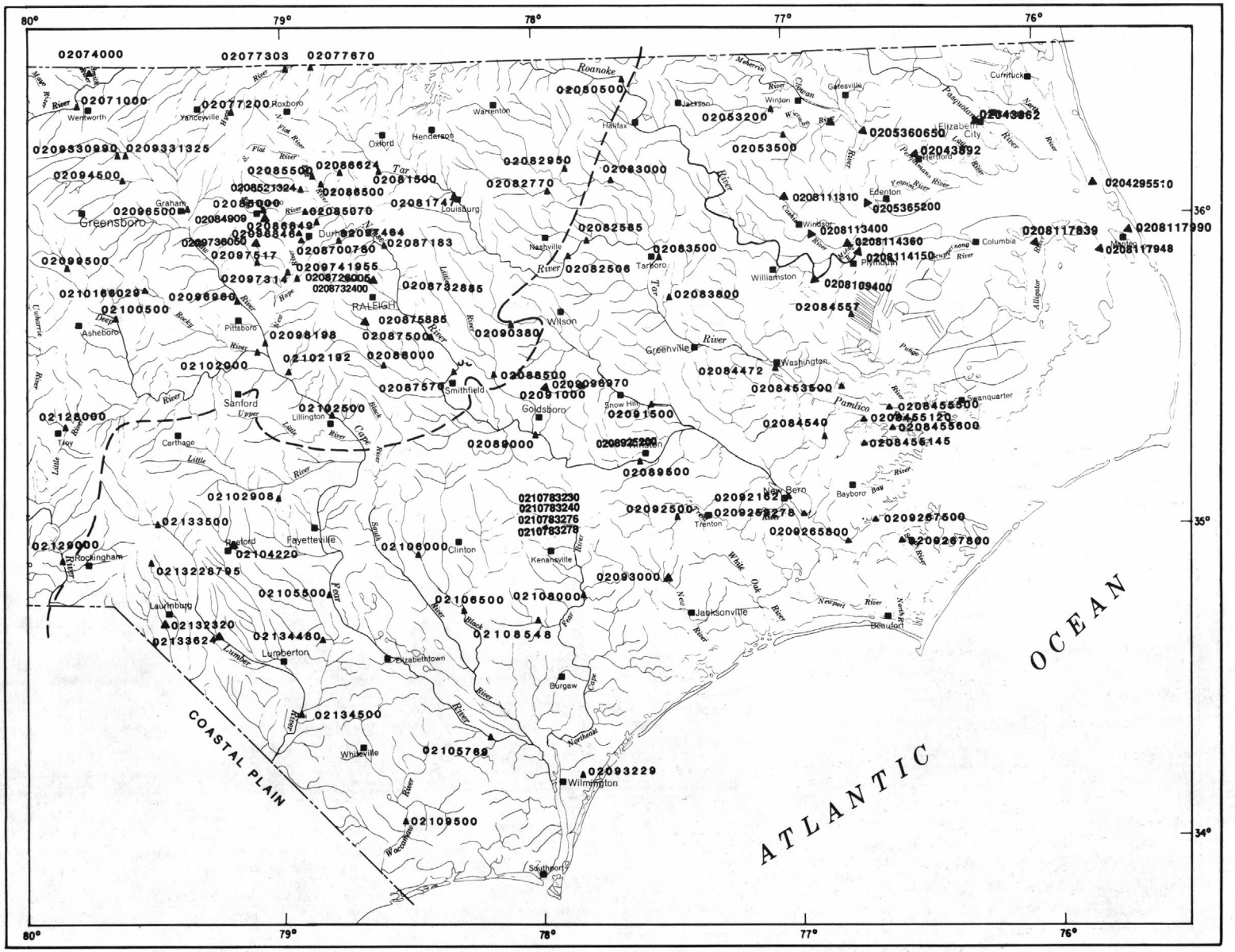



Figure 14.--Map of eastern part of North Carolina showing locations of gaging stations.

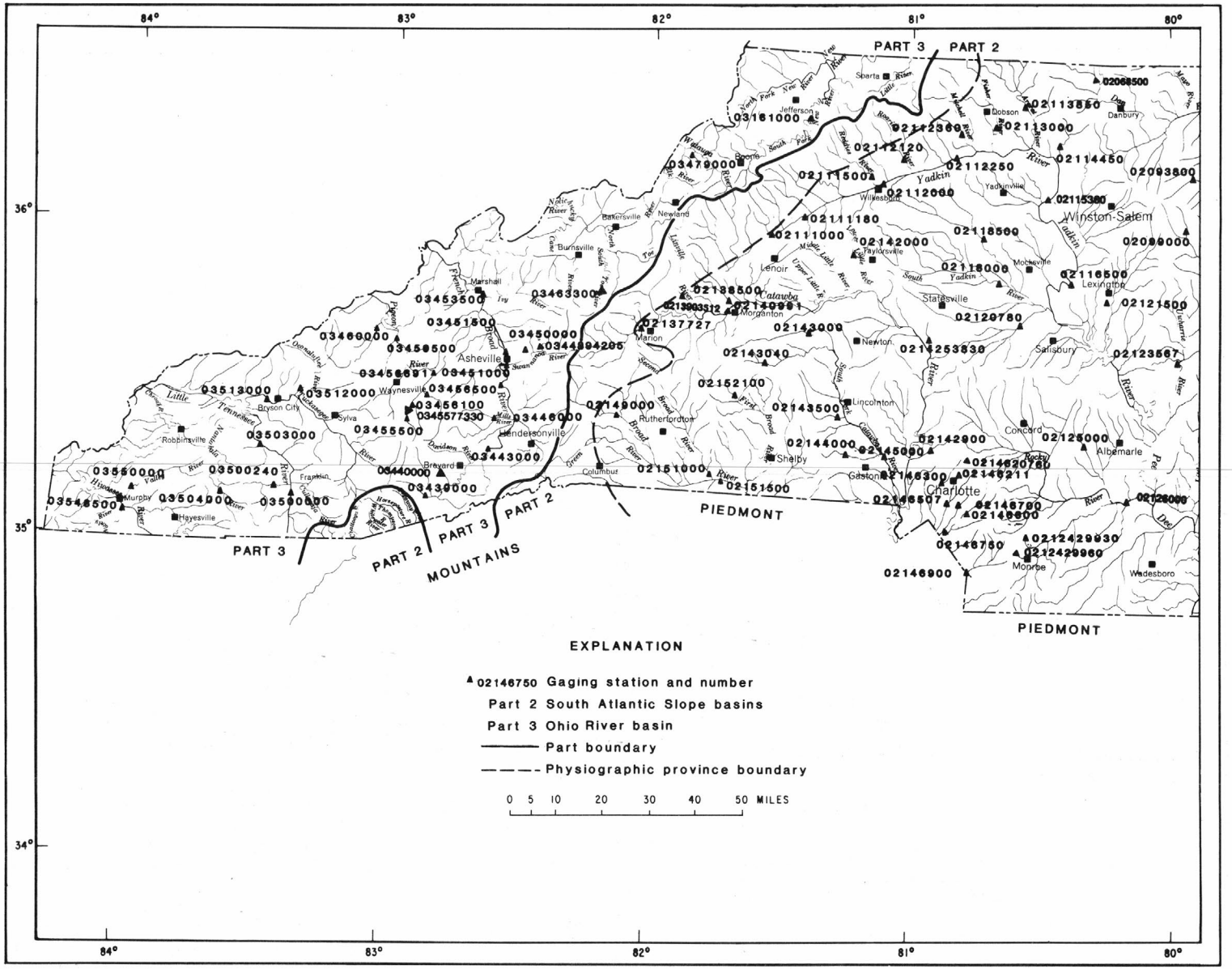
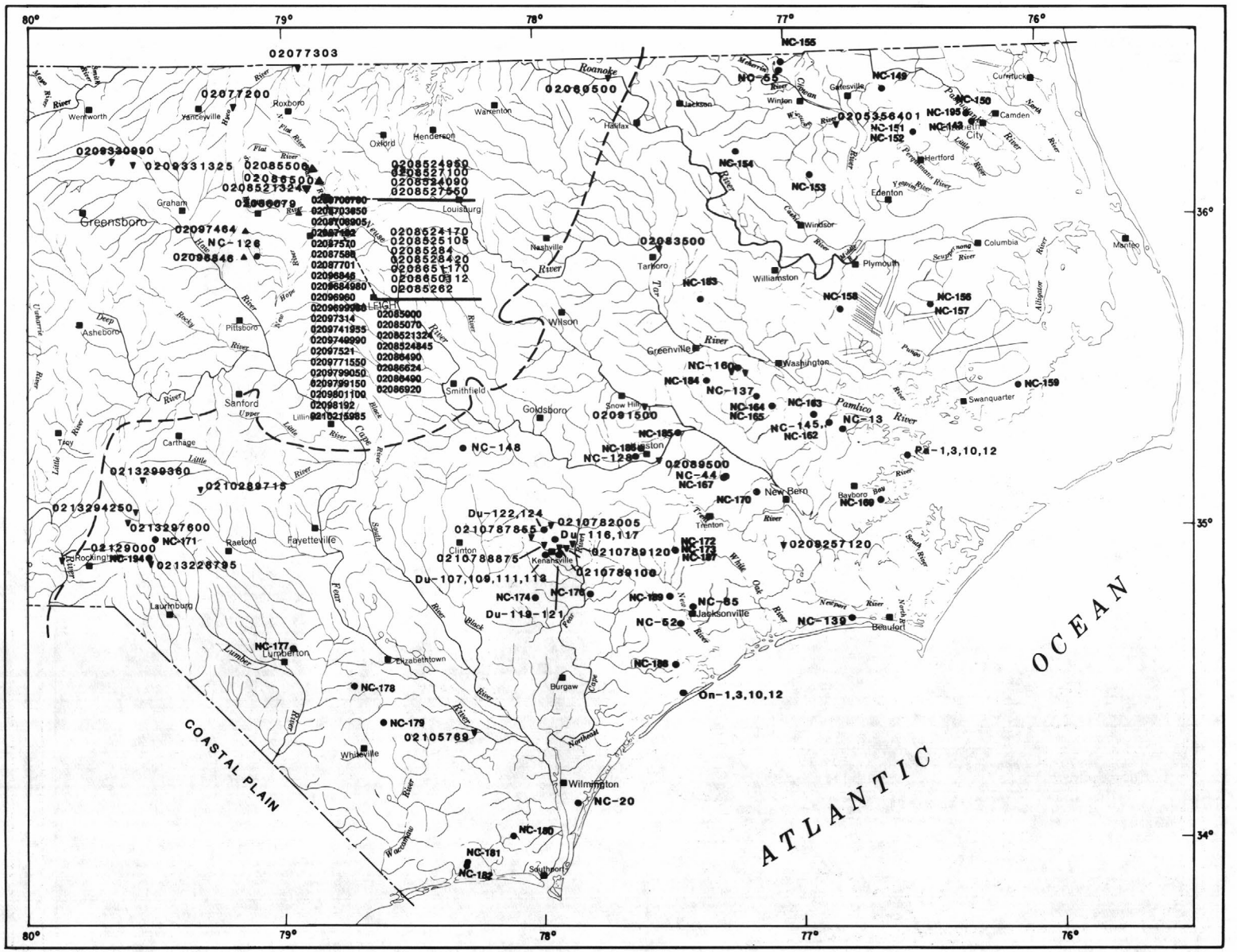



Figure 15.--Map of western part of North Carolina showing locations of gaging stations.


80°
79°
78°
77°
76°
36°
35°
34°
02077303
02077200
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02085273
02086079
02097464
NC-126
02096846
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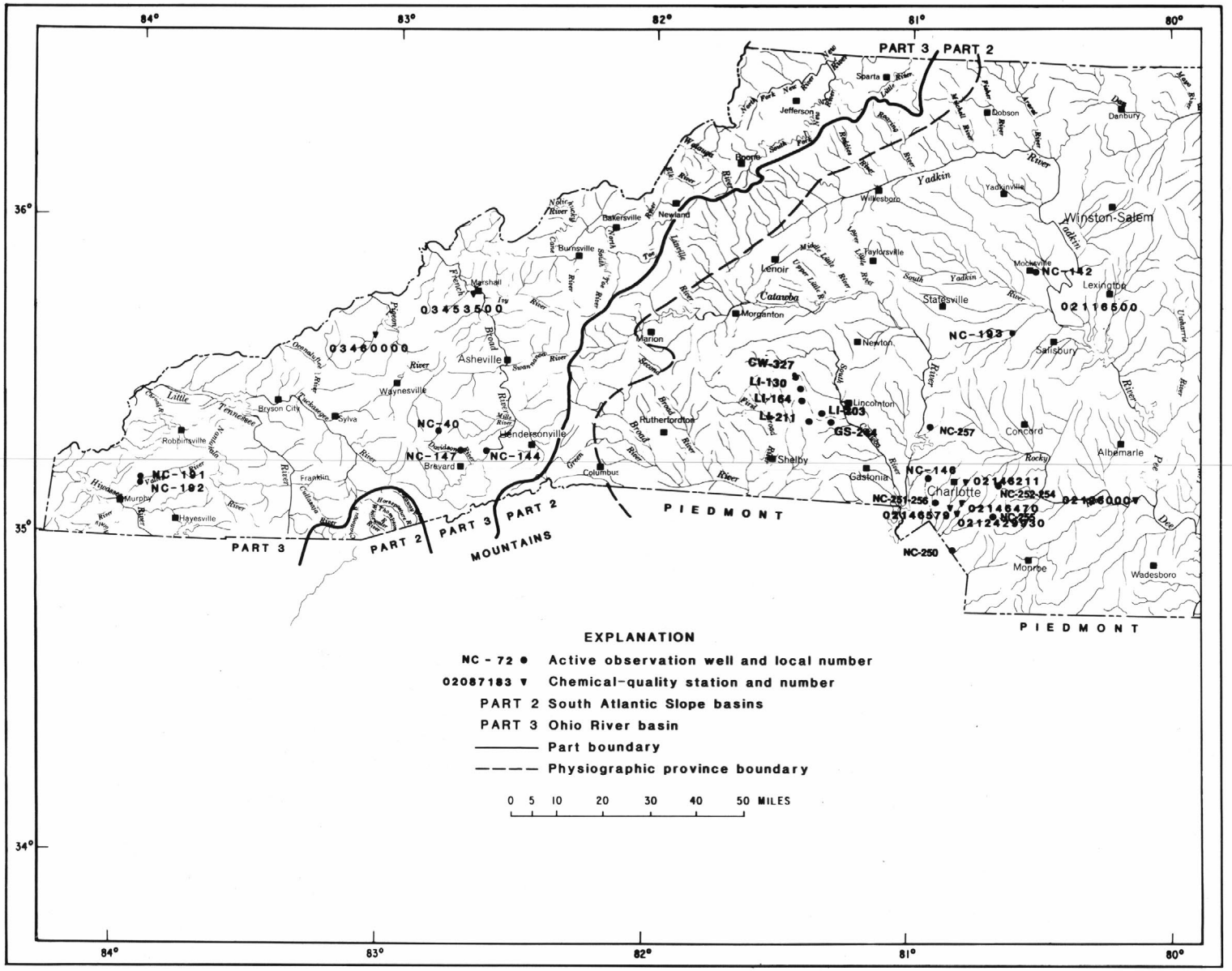



Figure 17.--Map of western part of North Carolina showing locations of water quality stations and observation well sites.

SOUTH ATLANTIC SLOPE BASINS

CURRITUCK SOUND

0204295510 CURRITUCK SOUND AT POINT HARBOR, NC

LOCATION.--Lat 36°04'46", long 75°47'24", Currituck County, Hydrologic Unit 03010205, on private pier on west bank, 150 ft east of Secondary Road 1100, 400 ft south of Point Harbor, 600 ft north of Sampson Point, and 1.4 mi west of station 0204295500.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.33 ft, Mar. 30, 1991; minimum elevation, -1.01 ft, May 7, 1992.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.33 ft, March 30; minimum elevation, -0.62 ft, February 23.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.28 ft, November 3; minimum elevation -1.01 ft, May 7.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | .82 | .47 | .19 | .60 | .53 | 1.26 | 1.36 | 1.11 | 1.33 | 1.34 | .75 |
| 2 | --- | .85 | .60 | .31 | .69 | .89 | 1.14 | 1.37 | 1.04 | 1.45 | 1.34 | .46 |
| 3 | --- | .83 | .65 | .44 | .65 | .92 | .68 | 1.11 | 1.05 | 1.31 | 1.50 | .83 |
| 4 | --- | .81 | 1.31 | .20 | .52 | 1.54 | .65 | .80 | 1.04 | 1.31 | 1.33 | 1.15 |
| 5 | --- | .81 | .98 | .06 | .41 | 1.11 | .86 | .84 | .52 | 1.55 | 1.04 | 1.25 |
| 6 | --- | .79 | .76 | .49 | .36 | 1.13 | .70 | 1.34 | .28 | 1.35 | 1.00 | 1.20 |
| 7 | --- | .65 | .67 | .40 | .43 | 1.36 | .65 | 1.16 | .24 | 1.34 | 1.28 | .90 |
| 8 | --- | .54 | .34 | -.09 | .18 | .74 | .74 | .73 | .55 | 1.37 | 1.16 | .76 |
| 9 | --- | .45 | .21 | .35 | .10 | .43 | .90 | .63 | .93 | 1.20 | 1.44 | .90 |
| 10 | --- | 1.57 | .72 | .38 | .44 | .30 | .92 | .61 | .98 | 1.27 | 1.51 | 1.21 |
| 11 | --- | 1.53 | .52 | .63 | .70 | .24 | .28 | .39 | 1.20 | 1.34 | 1.12 | 1.36 |
| 12 | --- | 1.35 | .61 | 1.25 | .38 | .20 | .05 | .78 | 1.32 | 1.10 | 1.11 | .99 |
| 13 | --- | .96 | .67 | .99 | .85 | .65 | .18 | 1.00 | .99 | 1.56 | 1.19 | 1.02 |
| 14 | --- | .61 | .27 | 1.11 | 1.25 | .91 | .43 | 1.04 | .88 | 1.50 | 1.35 | 1.21 |
| 15 | --- | .84 | .41 | 1.11 | 1.31 | .56 | .68 | .88 | 1.18 | 1.18 | 1.54 | .97 |
| 16 | --- | .91 | .65 | 1.19 | .82 | .49 | .77 | .61 | 1.31 | 1.10 | 1.10 | 1.15 |
| 17 | --- | .89 | .29 | 1.38 | .68 | .97 | .74 | .96 | 1.20 | 1.13 | 1.03 | 1.17 |
| 18 | --- | .29 | .57 | 1.17 | .51 | 1.33 | .48 | .86 | 1.27 | 1.23 | .90 | 1.13 |
| 19 | --- | .49 | .59 | .92 | .48 | 1.25 | -.01 | .12 | 1.28 | 1.26 | 1.05 | 1.23 |
| 20 | --- | .89 | .11 | .93 | .67 | 1.14 | .58 | .32 | 1.03 | 1.33 | 1.50 | .62 |
| 21 | --- | .83 | .51 | 1.19 | .37 | 1.25 | .91 | .74 | 1.07 | 1.16 | 1.43 | .26 |
| 22 | --- | 1.02 | .61 | .63 | .28 | 1.38 | 1.50 | 1.01 | 1.12 | 1.00 | 1.00 | .35 |
| 23 | --- | 1.18 | .79 | .96 | -.26 | 1.36 | 1.29 | 1.03 | 1.11 | 1.10 | .97 | .85 |
| 24 | --- | 1.18 | 1.02 | 1.17 | -.24 | 1.48 | 1.26 | .98 | .49 | 1.23 | .95 | .91 |
| 25 | .46 | 1.19 | .30 | .62 | -.14 | .98 | .99 | 1.02 | .59 | 1.28 | .54 | 1.40 |
| 26 | -.07 | .89 | .02 | .54 | .06 | .85 | 1.02 | .96 | .86 | 1.30 | .74 | 1.40 |
| 27 | .02 | .67 | -.39 | .83 | .26 | 1.34 | 1.12 | 1.13 | .98 | 1.31 | 1.03 | .85 |
| 28 | .80 | .78 | .15 | .91 | .58 | 1.72 | 1.16 | 1.20 | .99 | 1.12 | 1.07 | .63 |
| 29 | .65 | .82 | .33 | .87 | --- | 1.64 | 1.03 | .74 | 1.21 | 1.34 | 1.06 | .85 |
| 30 | .63 | .24 | .75 | 1.01 | --- | 1.86 | 1.24 | .94 | 1.34 | 1.30 | 1.08 | .80 |
| 31 | .90 | --- | .74 | 1.18 | --- | 1.18 | --- | 1.21 | --- | 1.41 | 1.26 | --- |
| TOTAL | --- | 25.68 | 16.23 | 23.32 | 12.94 | 31.73 | 24.20 | 27.87 | 29.16 | 39.76 | 35.96 | 28.56 |
| MEAN | --- | .86 | .52 | .75 | .46 | 1.02 | .81 | .90 | .97 | 1.28 | 1.16 | .95 |
| MAX | --- | 1.57 | 1.31 | 1.38 | 1.31 | 1.86 | 1.50 | 1.37 | 1.34 | 1.56 | 1.54 | 1.40 |
| MIN | --- | .24 | -.39 | -.09 | -.26 | .20 | -.01 | .12 | .24 | 1.00 | .54 | .26 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .63 | 1.40 | .60 | .31 | .33 | .74 | .64 | .85 | 1.08 | 1.32 | 1.29 | 1.05 |
| 2 | .76 | 2.04 | .72 | .53 | .08 | .66 | .71 | 1.15 | 1.05 | 1.19 | .91 | .89 |
| 3 | .69 | 1.92 | .98 | .72 | .28 | .49 | .45 | 1.20 | .98 | 1.07 | 1.09 | 1.15 |
| 4 | .92 | 1.66 | 1.21 | 1.57 | .74 | .20 | .56 | .71 | 1.15 | 1.52 | 1.21 | 1.01 |
| 5 | 1.17 | 1.21 | .30 | 1.38 | .61 | .26 | .47 | .43 | 1.44 | 1.36 | .86 | .81 |
| 6 | 1.15 | 1.13 | .51 | 1.52 | .03 | .51 | .35 | -.19 | 1.43 | 1.53 | .58 | .73 |
| 7 | .74 | 1.15 | .39 | 1.39 | -.16 | .89 | .64 | -.64 | 1.49 | 1.29 | .45 | .73 |
| 8 | .71 | .70 | .34 | 1.40 | .45 | .88 | .62 | .77 | 1.51 | 1.13 | .54 | .89 |
| 9 | .75 | -.25 | .42 | 1.44 | .76 | .75 | .63 | 1.44 | 1.54 | 1.40 | .94 | .94 |
| 10 | .81 | .31 | .30 | 1.25 | .40 | 1.01 | .85 | 1.27 | 1.07 | 1.06 | .98 | .97 |
| 11 | .95 | 1.65 | .11 | 1.11 | .60 | 1.68 | .79 | .72 | .77 | 1.03 | 1.10 | .84 |
| 12 | 1.08 | 1.34 | .30 | 1.18 | .27 | .98 | .72 | .35 | .82 | 1.01 | 1.19 | .40 |
| 13 | .76 | 1.33 | .58 | 1.15 | .15 | .79 | -.18 | .73 | .97 | 1.34 | 1.10 | .27 |
| 14 | .77 | 1.27 | .73 | 1.68 | .53 | .62 | -.09 | 1.16 | 1.01 | 1.16 | 1.39 | .32 |
| 15 | 1.05 | 1.07 | .48 | 1.21 | .68 | .55 | .34 | 1.08 | 1.11 | 1.48 | 1.62 | .26 |
| 16 | .75 | 1.01 | .28 | 1.36 | .90 | .16 | .71 | .95 | .95 | 1.54 | 1.60 | .40 |
| 17 | .92 | .43 | .28 | .95 | .34 | .60 | 1.09 | .60 | .81 | 1.57 | 1.69 | .83 |
| 18 | 1.06 | .51 | .29 | .71 | .54 | .56 | .86 | .91 | .99 | 1.55 | 1.67 | 1.01 |
| 19 | 1.10 | .78 | -.35 | .21 | .86 | .78 | .57 | .69 | 1.17 | 1.22 | 1.72 | 1.10 |
| 20 | .67 | .80 | -.56 | .41 | .86 | .31 | .68 | .12 | 1.21 | 1.09 | 1.72 | .68 |
| 21 | .61 | .81 | .01 | .56 | .82 | .27 | 1.05 | .12 | .86 | 1.06 | 1.36 | .93 |
| 22 | .82 | .87 | -.06 | .57 | .67 | .65 | 1.21 | .38 | .64 | 1.09 | 1.16 | 1.15 |
| 23 | .86 | .89 | .26 | .78 | .53 | .75 | .77 | .73 | .96 | 1.24 | 1.08 | .77 |
| 24 | .79 | 1.02 | .32 | 1.39 | .49 | .50 | .81 | .86 | 1.15 | 1.32 | 1.01 | -.18 |
| 25 | .84 | .76 | .29 | .60 | .39 | .69 | .81 | .52 | 1.34 | 1.18 | 1.15 | -.05 |
| 26 | .88 | .40 | .31 | .40 | .81 | 1.00 | .54 | .57 | 1.40 | 1.03 | 1.22 | .81 |
| 27 | .77 | .19 | .22 | .13 | .90 | 1.22 | .67 | .60 | 1.31 | 1.35 | 1.24 | 1.34 |
| 28 | .37 | .36 | .19 | .15 | 1.07 | .92 | .52 | .76 | .98 | 1.19 | 1.66 | 1.25 |
| 29 | -.24 | .52 | .89 | .04 | 1.15 | .61 | -.09 | .55 | 1.02 | 1.17 | 1.54 | .93 |
| 30 | .24 | .49 | .83 | .39 | --- | .66 | .56 | 1.05 | 1.09 | 1.30 | 1.15 | .43 |
| 31 | .80 | --- | .22 | .52 | --- | .54 | --- | 1.39 | --- | 1.45 | 1.26 | --- |
| TOTAL | 24.18 | 27.77 | 11.39 | 27.01 | 16.08 | 21.23 | 18.26 | 21.83 | 33.30 | 39.24 | 37.48 | 22.66 |
| MEAN | .78 | .93 | .37 | .87 | .55 | .68 | .61 | .70 | 1.11 | 1.27 | 1.21 | .76 |

PASQUOTANK RIVER BASIN

02043862 PASQUOTANK RIVER AT ELIZABETH CITY, NC

LOCATION.--Lat 36°18'00", long 76°13'00", Pasquotank County, Hydrologic Unit 03010205, at south end of private pier of Jennette Food Service, and at west bank 50 ft upstream from U.S. Highway 158 and State Highway 34.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to September 1992 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.29 ft, Mar. 7, 1992; minimum elevation, -1.34 ft, Aug. 19, 1991.

EXTREMES FOR 1991 WATER YEAR.--Maximum recorded elevation, 2.15 ft, March 29; minimum recorded elevation, -1.34 ft, August 19.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.29 ft, March 7; minimum elevation, -1.32 ft, December 19.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | .59 | .53 | 1.08 | 1.32 | --- | --- | 1.32 | .81 |
| 2 | --- | --- | --- | --- | .68 | .96 | 1.15 | 1.17 | --- | --- | 1.31 | .61 |
| 3 | --- | --- | --- | --- | .61 | 1.00 | .75 | .98 | --- | 1.28 | 1.49 | .91 |
| 4 | --- | --- | --- | --- | .49 | 1.42 | .76 | .85 | --- | 1.37 | 1.23 | 1.21 |
| 5 | --- | --- | --- | --- | .39 | .99 | .86 | 1.01 | --- | 1.49 | 1.02 | 1.22 |
| 6 | --- | --- | --- | --- | .33 | 1.18 | .68 | 1.34 | --- | 1.31 | 1.07 | 1.23 |
| 7 | --- | --- | --- | --- | .40 | 1.12 | .62 | 1.13 | --- | 1.32 | 1.37 | .98 |
| 8 | --- | --- | --- | --- | .00 | .62 | .71 | .76 | --- | 1.31 | 1.23 | .77 |
| 9 | --- | --- | --- | --- | -.02 | .36 | .84 | .64 | --- | 1.18 | 1.58 | .90 |
| 10 | --- | --- | --- | --- | .36 | .09 | .79 | .60 | --- | 1.39 | 1.48 | 1.23 |
| 11 | --- | --- | --- | --- | .63 | -.46 | .18 | .50 | --- | 1.34 | 1.12 | 1.35 |
| 12 | --- | --- | --- | --- | .25 | .04 | .06 | .72 | --- | 1.25 | 1.14 | 1.08 |
| 13 | --- | --- | --- | --- | .89 | .70 | .28 | .87 | --- | 1.56 | 1.28 | 1.10 |
| 14 | --- | --- | --- | --- | 1.06 | .65 | .37 | .96 | --- | 1.44 | 1.33 | 1.23 |
| 15 | --- | --- | --- | --- | .55 | .30 | .64 | .86 | --- | 1.24 | 1.49 | 1.05 |
| 16 | --- | --- | --- | --- | -.04 | .43 | .77 | .66 | --- | 1.22 | 1.11 | 1.20 |
| 17 | --- | --- | --- | --- | .58 | 1.02 | .72 | .98 | --- | 1.19 | 1.06 | 1.21 |
| 18 | --- | --- | --- | --- | .52 | 1.34 | .43 | .87 | --- | 1.19 | 1.01 | 1.20 |
| 19 | --- | --- | --- | --- | .50 | .86 | .04 | .22 | --- | 1.23 | .72 | 1.21 |
| 20 | --- | --- | --- | --- | .57 | .99 | .20 | .30 | --- | 1.26 | 1.55 | .42 |
| 21 | --- | --- | --- | --- | .35 | 1.28 | .50 | .83 | --- | 1.09 | 1.38 | .23 |
| 22 | --- | --- | --- | --- | .20 | 1.33 | 1.22 | 1.05 | --- | .92 | 1.03 | .38 |
| 23 | --- | --- | --- | --- | -.48 | 1.35 | 1.32 | --- | --- | 1.04 | .98 | .88 |
| 24 | --- | --- | --- | --- | -.37 | 1.27 | 1.13 | --- | --- | 1.17 | 1.00 | .98 |
| 25 | --- | --- | --- | --- | -.22 | 1.01 | .89 | --- | --- | 1.33 | .61 | 1.38 |
| 26 | --- | --- | --- | .51 | -.13 | .95 | 1.05 | --- | --- | 1.35 | .79 | 1.38 |
| 27 | --- | --- | --- | .82 | -.03 | 1.38 | 1.11 | --- | --- | 1.33 | 1.18 | .84 |
| 28 | --- | --- | --- | .87 | .56 | 1.60 | 1.19 | --- | --- | 1.12 | 1.15 | .67 |
| 29 | --- | --- | --- | .82 | --- | 1.63 | 1.01 | --- | --- | 1.33 | 1.07 | .91 |
| 30 | --- | --- | --- | .98 | --- | 1.63 | 1.20 | --- | --- | 1.31 | 1.04 | .83 |
| 31 | --- | --- | --- | .85 | --- | 1.12 | --- | --- | --- | 1.41 | 1.18 | --- |
| TOTAL | --- | --- | --- | --- | 9.22 | 28.69 | 22.55 | --- | --- | --- | 36.32 | 29.40 |
| MEAN | --- | --- | --- | --- | .33 | .93 | .75 | --- | --- | --- | 1.17 | .98 |
| MAX | --- | --- | --- | --- | 1.06 | 1.63 | 1.32 | --- | --- | --- | 1.58 | 1.38 |
| MIN | --- | --- | --- | --- | -.48 | -.46 | .04 | --- | --- | --- | .61 | .23 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .70 | 1.36 | .58 | .21 | -.24 | .69 | .60 | .82 | .98 | 1.26 | 1.18 | --- |
| 2 | .82 | 2.02 | .66 | .53 | -.43 | .64 | .23 | 1.17 | 1.08 | 1.14 | .95 | --- |
| 3 | .60 | 1.85 | .94 | .96 | .23 | .50 | .13 | 1.21 | 1.03 | 1.23 | 1.09 | --- |
| 4 | .97 | 1.42 | .27 | 1.45 | .70 | .21 | .51 | .55 | 1.29 | 1.53 | 1.15 | --- |
| 5 | 1.26 | .96 | .03 | 1.21 | .56 | .25 | .09 | .46 | 1.55 | 1.36 | .86 | --- |
| 6 | 1.00 | 1.03 | .32 | 1.45 | .02 | .57 | .30 | -.33 | 1.41 | 1.49 | .62 | --- |
| 7 | .45 | 1.05 | .31 | 1.29 | -.35 | 1.18 | .59 | -.58 | 1.50 | 1.27 | .47 | --- |
| 8 | .70 | .26 | .28 | 1.41 | .31 | .78 | .59 | .85 | 1.49 | 1.20 | .60 | --- |
| 9 | .83 | -.62 | .36 | 1.44 | .65 | .79 | .72 | 1.46 | 1.44 | 1.32 | .93 | --- |
| 10 | .83 | .30 | .10 | 1.13 | .49 | 1.11 | .87 | 1.15 | 1.08 | 1.01 | .95 | --- |
| 11 | .89 | 1.27 | .03 | .81 | .53 | .93 | .77 | .61 | .80 | .95 | 1.09 | --- |
| 12 | 1.01 | 1.20 | .25 | 1.17 | .26 | .64 | .63 | .29 | .89 | 1.00 | 1.18 | --- |
| 13 | .66 | 1.21 | .52 | 1.15 | .13 | .72 | -.15 | .72 | 1.05 | 1.16 | 1.12 | --- |
| 14 | .81 | 1.19 | .49 | 1.32 | .46 | .43 | -.05 | 1.20 | 1.04 | 1.03 | 1.33 | --- |
| 15 | 1.11 | 1.03 | .01 | .90 | .76 | .39 | .42 | 1.14 | 1.11 | 1.30 | 1.63 | --- |
| 16 | .55 | .90 | -.13 | .36 | .71 | -.18 | .80 | .97 | 1.11 | 1.36 | 1.69 | --- |
| 17 | .24 | .26 | .21 | .77 | .35 | .56 | 1.07 | .61 | .94 | 1.46 | 1.71 | --- |
| 18 | .95 | .45 | .03 | .60 | .48 | .61 | .86 | .90 | 1.11 | 1.42 | 1.61 | --- |
| 19 | 1.04 | .73 | -1.03 | .09 | .84 | .53 | .61 | .62 | 1.19 | 1.20 | 1.67 | --- |
| 20 | .52 | .77 | -.75 | .30 | .69 | .18 | .73 | .01 | 1.19 | 1.04 | 1.69 | --- |
| 21 | .57 | .76 | -.18 | .48 | .75 | .14 | 1.30 | .10 | .80 | 1.02 | 1.38 | --- |
| 22 | .81 | .95 | -.17 | .55 | .67 | .70 | 1.25 | .36 | .52 | 1.06 | 1.21 | --- |
| 23 | .86 | .81 | .19 | .90 | .52 | .60 | .77 | .71 | 1.09 | 1.20 | 1.12 | --- |
| 24 | .77 | .72 | .14 | .69 | .46 | .52 | .76 | .81 | 1.20 | 1.24 | 1.06 | --- |
| 25 | .82 | .38 | .22 | .47 | .35 | .85 | .80 | .46 | 1.27 | 1.14 | --- | --- |
| 26 | .87 | .18 | .24 | .14 | .69 | 1.01 | .49 | .53 | 1.39 | 1.08 | --- | --- |
| 27 | .73 | .08 | .15 | .11 | .77 | .92 | .59 | .59 | 1.26 | 1.19 | --- | --- |
| 28 | .20 | .30 | .22 | .07 | .98 | .49 | .49 | .79 | 1.00 | 1.12 | --- | --- |
| 29 | -.19 | .46 | .80 | -.03 | .84 | .48 | -.20 | .75 | 1.12 | 1.20 | --- | --- |
| 30 | -.15 | .46 | .56 | .37 | --- | .67 | .67 | 1.32 | 1.15 | 1.33 | --- | --- |
| 31 | .58 | --- | .03 | .41 | --- | .39 | --- | 1.43 | --- | 1.51 | --- | --- |
| TOTAL | 21.81 | 23.74 | 5.68 | 22.71 | 13.18 | 18.30 | 17.24 | 21.68 | 34.08 | 37.82 | --- | --- |
| MEAN | .70 | .79 | .18 | .73 | .45 | .59 | .57 | .70 | 1.14 | 1.22 | --- | --- |

PERQUIMANS RIVER BASIN

02043892 PERQUIMANS RIVER AT U.S. 17 AT HERTFORD, NC

LOCATION.--Lat 36°11'40", long 76°28'00", Perquimans County, Hydrologic Unit 03010205, south side of U.S. 17 Business bridge, 50 ft west of east bank, and 0.5 mi northeast of Hertford.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to September 1992 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.30 ft, Nov. 2, 1991; minimum elevation, -1.04 ft, Jan. 16, 1992.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.21 ft, March 30; minimum elevation, -0.82 ft, October 26.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.30 ft, November 2; minimum elevation -1.04 ft, January 16.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .68 | 1.20 | .43 | .38 | .78 | .66 | 1.10 | 1.41 | 1.20 | 1.24 | 1.39 | 1.23 |
| 2 | .78 | 1.23 | .57 | .30 | .80 | 1.01 | 1.35 | 1.26 | 1.18 | 1.37 | 1.34 | .87 |
| 3 | .89 | 1.19 | .82 | .51 | .73 | 1.11 | 1.06 | 1.14 | 1.18 | 1.37 | 1.55 | 1.05 |
| 4 | 1.07 | 1.14 | .92 | .40 | .60 | 1.31 | .93 | 1.05 | 1.08 | 1.43 | 1.28 | 1.27 |
| 5 | .83 | 1.22 | .28 | .20 | .49 | 1.08 | .95 | 1.14 | .85 | 1.54 | 1.19 | 1.29 |
| 6 | .81 | 1.02 | .66 | .53 | .45 | 1.22 | .78 | 1.34 | .71 | 1.35 | 1.22 | 1.32 |
| 7 | .94 | 1.05 | .64 | .62 | .51 | 1.16 | .69 | 1.34 | .54 | 1.36 | 1.46 | 1.17 |
| 8 | .93 | .90 | .24 | .14 | .31 | .84 | .75 | .92 | .73 | 1.33 | 1.37 | .94 |
| 9 | .97 | .95 | -.02 | -.09 | .14 | .59 | .85 | .81 | .98 | 1.29 | 1.62 | 1.03 |
| 10 | 1.14 | 1.41 | .54 | .52 | .48 | .29 | .85 | .75 | 1.02 | 1.47 | 1.59 | 1.29 |
| 11 | 1.52 | 1.02 | .62 | .96 | .72 | -.31 | .49 | .76 | 1.14 | 1.44 | 1.30 | 1.37 |
| 12 | 1.30 | 1.23 | .72 | 1.25 | .46 | .16 | .38 | .76 | 1.18 | 1.38 | 1.31 | 1.26 |
| 13 | 1.33 | .85 | .69 | 1.04 | .89 | .87 | .43 | .92 | 1.17 | 1.56 | 1.50 | 1.20 |
| 14 | 1.34 | .60 | .54 | 1.16 | 1.02 | .78 | .58 | 1.00 | 1.06 | 1.49 | 1.43 | 1.30 |
| 15 | 1.24 | .83 | .45 | 1.23 | .39 | .46 | .70 | 1.05 | 1.22 | 1.42 | 1.54 | 1.14 |
| 16 | .96 | .88 | .62 | 1.30 | -.16 | .59 | .94 | .84 | 1.31 | 1.39 | 1.21 | 1.25 |
| 17 | 1.13 | .62 | .40 | 1.12 | .57 | 1.13 | .82 | 1.08 | 1.22 | 1.26 | 1.16 | 1.22 |
| 18 | 1.56 | .10 | .59 | .93 | .64 | 1.44 | .81 | 1.21 | 1.35 | 1.18 | 1.28 | 1.23 |
| 19 | .99 | .32 | .70 | .91 | .58 | .90 | .50 | .76 | 1.38 | 1.19 | .83 | 1.26 |
| 20 | .78 | .91 | .37 | 1.01 | .61 | 1.08 | .60 | .58 | 1.27 | 1.21 | 1.54 | .81 |
| 21 | .76 | .83 | .65 | .86 | .50 | 1.36 | .55 | 1.05 | 1.25 | 1.10 | 1.44 | .46 |
| 22 | .88 | 1.07 | .71 | .67 | .29 | 1.42 | 1.15 | 1.14 | 1.26 | .95 | 1.13 | .57 |
| 23 | 1.23 | 1.11 | .85 | 1.04 | .13 | 1.44 | 1.42 | 1.15 | 1.22 | 1.03 | 1.09 | .95 |
| 24 | 1.09 | .97 | .69 | 1.18 | -.15 | 1.30 | 1.24 | 1.12 | .83 | 1.18 | 1.13 | 1.10 |
| 25 | 1.06 | 1.10 | .45 | .77 | -.07 | 1.20 | 1.07 | 1.10 | .92 | 1.33 | .93 | 1.38 |
| 26 | -.22 | .88 | .13 | .66 | .05 | 1.20 | 1.20 | 1.09 | 1.25 | 1.34 | .99 | 1.43 |
| 27 | .19 | .66 | -.08 | .91 | -.02 | 1.34 | 1.22 | 1.15 | 1.27 | 1.35 | 1.36 | 1.02 |
| 28 | 1.05 | .77 | .10 | .99 | .62 | 1.58 | 1.33 | 1.10 | 1.16 | 1.25 | 1.25 | .84 |
| 29 | .94 | .68 | .40 | .96 | --- | 1.53 | 1.20 | .82 | 1.23 | 1.35 | 1.12 | 1.01 |
| 30 | .93 | .10 | .75 | 1.09 | --- | 1.88 | 1.31 | 1.03 | 1.24 | 1.37 | 1.06 | .96 |
| 31 | 1.22 | --- | .90 | .93 | --- | 1.41 | --- | 1.12 | --- | 1.46 | 1.18 | --- |
| TOTAL | 30.32 | 26.84 | 16.33 | 24.48 | 12.36 | 32.03 | 27.25 | 31.99 | 33.40 | 40.98 | 39.79 | 33.22 |
| MEAN | .98 | .89 | .53 | .79 | .44 | 1.03 | .91 | 1.03 | 1.11 | 1.32 | 1.28 | 1.11 |
| MAX | 1.56 | 1.41 | .92 | 1.30 | 1.02 | 1.88 | 1.42 | 1.41 | 1.38 | 1.56 | 1.62 | 1.43 |
| MIN | -.22 | .10 | -.08 | -.09 | -.16 | -.31 | .38 | .58 | .54 | .95 | .83 | .46 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .81 | 1.47 | .69 | .44 | -.03 | .79 | .68 | .99 | 1.09 | 1.37 | 1.35 | 1.22 |
| 2 | .95 | 2.12 | .77 | .70 | -.28 | .75 | .35 | 1.15 | 1.27 | 1.33 | 1.11 | 1.12 |
| 3 | .78 | 2.04 | .93 | 1.25 | .38 | .76 | .16 | 1.31 | 1.23 | 1.38 | 1.16 | 1.28 |
| 4 | 1.03 | 1.73 | .22 | 1.60 | .79 | .46 | .70 | .76 | 1.46 | 1.60 | 1.22 | 1.09 |
| 5 | 1.34 | 1.24 | .20 | 1.42 | .86 | .44 | .22 | .76 | 1.65 | 1.45 | 1.10 | .91 |
| 6 | 1.14 | 1.27 | .37 | 1.59 | .52 | .75 | .40 | .40 | 1.52 | 1.61 | .95 | .85 |
| 7 | .62 | 1.26 | .42 | 1.46 | .02 | 1.22 | .69 | .13 | 1.59 | 1.40 | .71 | .85 |
| 8 | .84 | .75 | .40 | 1.56 | .45 | .91 | .76 | .99 | 1.56 | 1.29 | .73 | 1.03 |
| 9 | .97 | .21 | .45 | 1.56 | .79 | .96 | .82 | 1.52 | 1.48 | 1.34 | .98 | 1.09 |
| 10 | .95 | .53 | .37 | 1.27 | .83 | 1.15 | .94 | 1.25 | 1.33 | 1.08 | 1.03 | 1.13 |
| 11 | .95 | 1.31 | .20 | .88 | .67 | .72 | .85 | .93 | 1.04 | 1.02 | 1.11 | .92 |
| 12 | 1.12 | 1.38 | .41 | 1.28 | .64 | .63 | .81 | .55 | 1.12 | 1.08 | 1.35 | .52 |
| 13 | .81 | 1.40 | .65 | 1.28 | .31 | .86 | .51 | .87 | 1.26 | 1.12 | 1.17 | .53 |
| 14 | .94 | 1.34 | .56 | 1.19 | .57 | .53 | .20 | 1.31 | 1.21 | 1.05 | 1.48 | .57 |
| 15 | 1.17 | 1.17 | .07 | 1.00 | .85 | .50 | .63 | 1.31 | 1.23 | 1.21 | 1.67 | .44 |
| 16 | .84 | 1.04 | -.03 | .25 | .78 | .07 | .90 | 1.13 | 1.37 | 1.34 | 1.79 | .59 |
| 17 | .24 | .61 | .15 | .71 | .59 | .54 | 1.07 | .84 | 1.18 | 1.39 | 1.80 | .97 |
| 18 | .99 | .65 | .15 | .72 | .62 | .86 | .96 | 1.02 | 1.23 | 1.41 | 1.69 | 1.10 |
| 19 | 1.10 | .90 | -.64 | .44 | .96 | .67 | .86 | 1.04 | 1.26 | 1.26 | 1.74 | 1.09 |
| 20 | .83 | .91 | -.59 | .36 | .79 | .46 | .88 | .49 | 1.30 | 1.10 | 1.86 | .97 |
| 21 | .72 | .90 | -.17 | .58 | .85 | .33 | 1.33 | .37 | 1.05 | 1.07 | 1.61 | 1.16 |
| 22 | .92 | 1.04 | -.02 | .70 | .78 | .82 | 1.33 | .52 | .70 | 1.13 | 1.42 | 1.27 |
| 23 | 1.00 | .96 | .29 | .94 | .68 | .89 | .96 | .84 | 1.17 | 1.21 | 1.34 | .96 |
| 24 | .91 | .77 | .38 | .58 | .64 | .70 | .85 | .91 | 1.25 | 1.27 | 1.26 | .28 |
| 25 | .96 | .49 | .38 | .56 | .55 | 1.02 | .97 | .83 | 1.33 | 1.24 | 1.27 | -.13 |
| 26 | 1.03 | .42 | .42 | .41 | .81 | 1.12 | .66 | .82 | 1.48 | 1.18 | 1.22 | .96 |
| 27 | .90 | .30 | .38 | .30 | .84 | .92 | .73 | .80 | 1.40 | 1.28 | 1.26 | 1.51 |
| 28 | .65 | .44 | .44 | .26 | 1.02 | .54 | .83 | 1.00 | 1.19 | 1.24 | 1.67 | 1.46 |
| 29 | .30 | .59 | .88 | .13 | .91 | .61 | .23 | 1.05 | 1.27 | 1.26 | 1.54 | .96 |
| 30 | .02 | .60 | .75 | .49 | --- | .76 | .72 | 1.44 | 1.27 | 1.39 | 1.30 | .60 |
| 31 | .71 | --- | .35 | .56 | --- | .58 | --- | 1.53 | --- | 1.52 | 1.22 | --- |
| TOTAL | 26.54 | 29.84 | 9.83 | 26.47 | 18.19 | 22.32 | 22.00 | 28.86 | 38.49 | 39.62 | 41.11 | 27.30 |
| MEAN | .86 | .99 | .32 | .85 | .63 | .72 | .73 | .93 | 1.28 | 1.28 | 1.33 | .91 |

CHOWAN RIVER BASIN

02053200 POTECASI CREEK NEAR UNION, NC

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

DRAINAGE AREA.--225 $mi^2$.

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

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

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

REMARKS.--Records fair except those for estimated daily discharge and those below 50 $ft^3/s$, which are poor. Maximum discharge and stage for period of record and current water year from floodmark.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 30 | 29 | 291 | 230 | 329 | 499 | 81 | 220 | 240 | 59 | 55 |
| 2 | 16 | 29 | 30 | 270 | 204 | 293 | 395 | 65 | 247 | 211 | 46 | 45 |
| 3 | 27 | 27 | 47 | 248 | 174 | 256 | 314 | 55 | 258 | 151 | 40 | 39 |
| 4 | 49 | 27 | 45 | 416 | 149 | 219 | 255 | 47 | 246 | 92 | 40 | 36 |
| 5 | 35 | 25 | 32 | 845 | 127 | 178 | 218 | 43 | 224 | 59 | 54 | e35 |
| 6 | 24 | 24 | 32 | 863 | 110 | 146 | 192 | 41 | 224 | 51 | 71 | e71 |
| 7 | 21 | 24 | 32 | 816 | 98 | 165 | 164 | 39 | 171 | 73 | 77 | e67 |
| 8 | 18 | 24 | 31 | 775 | 88 | 330 | 144 | 58 | 140 | 78 | 61 | e44 |
| 9 | 17 | 24 | 32 | 699 | 80 | 460 | 128 | 90 | 123 | 57 | 44 | 39 |
| 10 | 16 | 29 | 36 | 581 | 73 | 525 | 112 | 84 | 117 | 44 | 63 | 33 |
| 11 | 15 | 31 | 37 | 453 | 67 | 638 | 98 | 73 | 107 | 35 | 55 | 29 |
| 12 | 16 | 33 | 36 | 341 | 64 | 683 | 86 | 75 | 71 | 30 | 53 | 28 |
| 13 | 17 | 32 | 34 | 261 | 63 | 567 | 77 | 69 | 52 | 25 | 105 | 26 |
| 14 | 16 | 30 | 34 | 212 | 74 | 435 | 69 | 58 | 45 | 22 | 340 | 26 |
| 15 | 15 | 30 | 33 | 181 | 94 | 330 | 62 | 47 | 38 | 19 | 892 | 25 |
| 16 | 16 | 29 | 30 | 155 | 252 | 261 | 58 | 42 | 32 | 17 | 1680 | 24 |
| 17 | 114 | 29 | 28 | 129 | 390 | 211 | 62 | 43 | 27 | 16 | 3700 | 23 |
| 18 | 379 | 27 | 27 | 110 | 373 | 170 | 59 | 40 | 22 | 15 | e5380 | 22 |
| 19 | 289 | 26 | 26 | 95 | 414 | 145 | 55 | 47 | 23 | 18 | e5310 | 24 |
| 20 | 176 | 26 | 25 | 83 | 417 | 140 | 51 | 69 | 26 | 80 | e4510 | 43 |
| 21 | 175 | 26 | 26 | 76 | 371 | 135 | 49 | 70 | 42 | 79 | e3760 | 33 |
| 22 | 182 | 27 | 26 | 71 | 319 | 120 | 73 | 65 | 40 | 36 | 2720 | 33 |
| 23 | 166 | 30 | 26 | 72 | 263 | 131 | 147 | 100 | 39 | 179 | 1950 | 26 |
| 24 | 134 | 34 | 34 | 153 | 219 | 212 | 152 | 114 | 44 | 155 | 1290 | 22 |
| 25 | 98 | 33 | 67 | 187 | 182 | 214 | 211 | 83 | 94 | 134 | 788 | 20 |
| 26 | 69 | 32 | 68 | 137 | 219 | 229 | 288 | 58 | 166 | 174 | 465 | 20 |
| 27 | 51 | 31 | 78 | 121 | 382 | 527 | 285 | 54 | 215 | 85 | e240 | 19 |
| 28 | 40 | 30 | 118 | 143 | 378 | 647 | 230 | 51 | 277 | 194 | e600 | 19 |
| 29 | 36 | 29 | 184 | 267 | 352 | 654 | 158 | 44 | 251 | 265 | e400 | 18 |
| 30 | 33 | 29 | 337 | 269 | --- | 655 | 107 | 64 | 241 | 148 | e190 | 16 |
| 31 | 31 | --- | 317 | 241 | --- | 598 | --- | 159 | --- | 69 | 78 | --- |
| TOTAL | 2308 | 857 | 1937 | 9561 | 6226 | 10603 | 4798 | 2028 | 3822 | 2851 | 35061 | 960 |
| MEAN | 74.5 | 28.6 | 62.5 | 308 | 215 | 342 | 160 | 65.4 | 127 | 92.0 | 1131 | 32.0 |
| MAX | 379 | 34 | 337 | 863 | 417 | 683 | 499 | 159 | 277 | 265 | 5380 | 71 |
| MIN | 15 | 24 | 25 | 71 | 63 | 120 | 49 | 39 | 22 | 15 | 40 | 16 |
| CFSM | .33 | .13 | .28 | 1.37 | .95 | 1.52 | .71 | .29 | .57 | .41 | 5.03 | .14 |
| IN. | .38 | .14 | .32 | 1.58 | 1.03 | 1.75 | .79 | .34 | .63 | .47 | 5.80 | .16 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 123 | 104 | 210 | 414 | 498 | 461 | 322 | 162 | 118 | 104 | 184 | 90.1 |
| MAX | 1108 | 619 | 619 | 957 | 1135 | 1439 | 994 | 925 | 700 | 531 | 1131 | 809 |
| (WY) | 1960 | 1986 | 1990 | 1987 | 1960 | 1989 | 1983 | 1979 | 1979 | 1975 | 1992 | 1960 |
| MIN | 2.15 | 5.64 | 19.6 | 51.3 | 54.9 | 46.7 | 34.7 | 10.1 | 4.71 | 2.32 | 2.50 | 2.24 |
| (WY) | 1962 | 1982 | 1966 | 1981 | 1991 | 1988 | 1985 | 1985 | 1986 | 1983 | 1987 | 1961 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1959 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 55173.9 | | 81012 | | | |
| ANNUAL MEAN | 151 | | 221 | | 231 | |
| HIGHEST ANNUAL MEAN | | | | | 458 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 73.0 | 1981 |
| HIGHEST DAILY MEAN | 1520 | Aug 9 | 5380 | Aug 18 | 5380 | Aug 18 1992 |
| LOWEST DAILY MEAN | 6.0 | Jun 18 | 15 | Oct 11 | .30 | Jun 30 1959 |
| ANNUAL SEVEN-DAY MINIMUM | 7.8 | Jun 12 | 16 | Oct 10 | .51 | Jun 25 1959 |
| INSTANTANEOUS PEAK FLOW | | | 5650* | Aug 19 | 5650* | Aug 19 1992 |
| INSTANTANEOUS PEAK STAGE | | | 21.77* | Aug 19 | 21.77* | Aug 19 1992 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .20 | Jul 1 1959 |
| ANNUAL RUNOFF (CFSM) | .67 | | .98 | | 1.03 | |
| ANNUAL RUNOFF (INCHES) | 9.12 | | 13.39 | | 13.96 | |
| 10 PERCENT EXCEEDS | 427 | | 396 | | 660 | |
| 50 PERCENT EXCEEDS | 42 | | 73 | | 79 | |
| 90 PERCENT EXCEEDS | 11 | | 25 | | 6.1 | |

* See REMARKS.

CHOWAN RIVER BASIN

02053500 AHOSKIE CREEK AT AHOSKIE, NC

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

DRAINAGE AREA.--63.3 $mi^2$.

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

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

GAGE.--Water-stage recorder. Datum of gage is 17.46 ft above National Geodetic Vertical Datum of 1929 (Soil Conservation Service bench mark). Prior to Jan. 4, 1963, present site at 21.46 ft. Jan. 20, 1950, to May 24, 1951, nonrecording gage.

REMARKS.--No estimated daily discharges. Records fair except those below 20 $ft^3/s$, which are poor. Entire basin above station canalized since July 1964. Excavation began downstream in July 1962 and reached the station in December 1962. Stretch was recanalized beginning in September 1984 and completed October 1984. Minimum discharge since canalization also occurred Oct. 9, 1988. Prior to canalization, no flow occurred periodically.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.8 | 11 | 6.8 | 40 | 50 | 45 | 39 | 13 | 17 | 7.1 | 7.3 | 29 |
| 2 | 8.5 | 10 | 6.4 | 33 | 42 | 39 | 36 | 12 | 12 | 4.8 | 6.4 | 23 |
| 3 | 31 | 9.8 | 7.4 | 35 | 37 | 34 | 33 | 11 | 9.3 | 3.8 | 8.0 | 20 |
| 4 | 41 | 9.8 | 8.2 | 408 | 34 | 30 | 29 | 9.9 | 8.7 | 3.9 | 15 | 17 |
| 5 | 25 | 9.2 | 7.5 | 277 | 31 | 27 | 30 | 9.8 | 21 | 4.1 | 41 | 16 |
| 6 | 17 | 9.0 | 6.9 | 136 | 28 | 26 | 29 | 9.4 | 77 | 10 | 31 | 30 |
| 7 | 13 | 8.9 | 6.7 | 85 | 26 | 82 | 26 | 9.9 | 34 | 13 | 18 | 30 |
| 8 | 11 | 9.0 | 6.6 | 63 | 25 | 81 | 24 | 25 | 21 | 7.9 | 13 | 21 |
| 9 | 9.7 | 9.8 | 6.4 | 53 | 23 | 59 | 22 | 25 | 30 | 5.2 | 30 | 19 |
| 10 | 8.4 | 11 | 8.1 | 50 | 21 | 47 | 19 | 19 | 112 | 4.0 | 64 | 16 |
| 11 | 7.3 | 11 | 7.6 | 48 | 20 | 128 | 18 | 15 | 54 | 3.1 | 42 | 14 |
| 12 | 7.1 | 10 | 7.3 | 42 | 20 | 79 | 17 | 12 | 30 | 2.3 | 82 | 13 |
| 13 | 6.8 | 9.2 | 6.9 | 38 | 20 | 54 | 15 | 12 | 20 | 2.0 | 220 | 12 |
| 14 | 6.4 | 8.9 | 6.9 | 39 | 23 | 43 | 15 | 11 | 14 | 1.7 | 486 | 11 |
| 15 | 6.1 | 8.4 | 6.5 | 37 | 32 | 36 | 15 | 11 | 11 | 1.4 | 655 | 10 |
| 16 | 8.6 | 8.1 | 6.0 | 32 | 104 | 31 | 19 | 9.5 | 9.3 | 1.2 | 907 | 10 |
| 17 | 299 | 8.1 | 6.0 | 29 | 66 | 28 | 18 | 9.4 | 8.1 | 1.3 | 1210 | 9.6 |
| 18 | 157 | 7.9 | 6.0 | 27 | 51 | 25 | 15 | 9.0 | 7.0 | 1.3 | 1810 | 9.4 |
| 19 | 73 | 8.7 | 5.7 | 25 | 49 | 27 | 13 | 9.2 | 7.0 | 3.9 | 2110 | 9.9 |
| 20 | 48 | 7.4 | 5.6 | 23 | 51 | 30 | 12 | 10 | 7.1 | 1.8 | 1820 | 22 |
| 21 | 35 | 6.9 | 5.7 | 23 | 42 | 27 | 12 | 9.3 | 7.4 | 1.1 | 1140 | 13 |
| 22 | 28 | 7.1 | 5.8 | 22 | 36 | 25 | 41 | 8.5 | 6.8 | 43 | 323 | 11 |
| 23 | 24 | 7.8 | 5.8 | 36 | 32 | 38 | 47 | 7.9 | 6.5 | 74 | 118 | 10 |
| 24 | 20 | 9.0 | 24 | 117 | 30 | 47 | 31 | 8.0 | 7.0 | 40 | 70 | 9.6 |
| 25 | 18 | 7.3 | 24 | 69 | 31 | 38 | 24 | 7.4 | 22 | 51 | 50 | 8.9 |
| 26 | 16 | 7.0 | 14 | 53 | 133 | 120 | 23 | 7.4 | 29 | 29 | 39 | 8.6 |
| 27 | 14 | 7.3 | 29 | 44 | 122 | 226 | 19 | 7.6 | 78 | 14 | 43 | 8.5 |
| 28 | 13 | 7.2 | 38 | 83 | 77 | 109 | 17 | 7.5 | 41 | 21 | 220 | 8.2 |
| 29 | 12 | 6.9 | 122 | 107 | 57 | 69 | 15 | 7.1 | 22 | 15 | 138 | 7.9 |
| 30 | 12 | 6.6 | 88 | 74 | --- | 51 | 14 | 12 | 12 | 12 | 65 | 7.9 |
| 31 | 12 | --- | 53 | 60 | --- | 44 | --- | 21 | --- | 7.7 | 39 | --- |
| TOTAL | 997.7 | 258.3 | 544.8 | 2208 | 1313 | 1745 | 687 | 355.8 | 741.2 | 391.6 | 11820.7 | 435.5 |
| MEAN | 32.2 | 8.61 | 17.6 | 71.2 | 45.3 | 56.3 | 22.9 | 11.5 | 24.7 | 12.6 | 381 | 14.5 |
| MAX | 299 | 11 | 122 | 408 | 133 | 226 | 47 | 25 | 112 | 74 | 2110 | 30 |
| MIN | 6.1 | 6.6 | 5.6 | 22 | 20 | 25 | 12 | 7.1 | 6.5 | 1.1 | 6.4 | 7.9 |
| CFSM | .51 | .14 | .28 | 1.13 | .72 | .89 | .36 | .18 | .39 | .20 | 6.02 | .23 |
| IN. | .59 | .15 | .32 | 1.30 | .77 | 1.03 | .40 | .21 | .44 | .23 | 6.95 | .26 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 39.7 | 23.8 | 50.9 | 107 | 127 | 126 | 77.8 | 51.6 | 35.1 | 35.1 | 54.1 | 23.2 |
| MAX | 297 | 120 | 177 | 260 | 262 | 303 | 243 | 238 | 112 | 126 | 381 | 132 |
| (WY) | 1972 | 1986 | 1990 | 1979 | 1971 | 1989 | 1983 | 1979 | 1979 | 1975 | 1992 | 1964 |
| MIN | 3.01 | 3.21 | 5.18 | 7.66 | 18.9 | 17.3 | 8.73 | 4.21 | 5.43 | 3.55 | 3.59 | 3.41 |
| (WY) | 1977 | 1982 | 1989 | 1981 | 1968 | 1988 | 1985 | 1986 | 1986 | 1987 | 1983 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 13473.9 | | 21498.6 | | | |
| ANNUAL MEAN | 36.9 | | 58.7 | | 62.4 | |
| HIGHEST ANNUAL MEAN | | | | | 109 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 14.7 | 1981 |
| HIGHEST DAILY MEAN | 553 | Apr 29 | 2110 | Aug 19 | 2490 | Oct 6 1964 |
| LOWEST DAILY MEAN | 3.2 | Jun 14 | 1.1 | Jul 21 | .61 | Oct 8 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 3.5 | Jun 8 | 1.6 | Jul 12 | .85 | Sep 27 1988 |
| INSTANTANEOUS PEAK FLOW | | | 2140 | Aug 19 | 2580 | Oct 5 1964 |
| INSTANTANEOUS PEAK STAGE | | | 12.40 | Aug 19 | 12.49 | Jun 1 1984 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .45* | Oct 8 1988 |
| ANNUAL RUNOFF (CFSM) | .58 | | .93 | | .99 | |
| ANNUAL RUNOFF (INCHES) | 7.92 | | 12.63 | | 13.39 | |
| 10 PERCENT EXCEEDS | 81 | | 78 | | 141 | |
| 50 PERCENT EXCEEDS | 16 | | 18 | | 18 | |
| 90 PERCENT EXCEEDS | 6.0 | | 6.8 | | 4.7 | |

* Canalized period only (1964-1992). See REMARKS.

## CHOWAN RIVER BASIN

### 0205360650 CHOWAN RIVER AT CANNON FERRY, NC

LOCATION.--Lat 36°16'16", long 76°40'22", Chowan County, Hydrologic Unit 03010203, at end of private pier of Edwards Fish Company, 100 ft west of Secondary Road 1232, and 0.7 mi from south end of Holiday Island.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to September 1992 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.44 ft, Mar. 30 and Nov. 2, 1991; minimum elevation, -1.18 ft, Jan. 16, 1992.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.44 ft, March 30; minimum elevation, -1.03 ft, October 26.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.44 ft, November 2; minimum elevation, -1.18 ft, January 16.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .77 | 1.37 | .60 | .61 | 1.00 | .86 | 1.25 | 1.56 | 1.34 | 1.38 | 1.52 | 1.54 |
| 2 | .89 | 1.41 | .74 | .48 | 1.00 | 1.17 | 1.53 | 1.36 | 1.31 | 1.46 | 1.50 | 1.11 |
| 3 | 1.10 | 1.36 | 1.03 | .72 | .92 | 1.28 | 1.40 | 1.31 | 1.32 | 1.52 | 1.71 | 1.24 |
| 4 | 1.19 | 1.31 | 1.06 | .65 | .78 | 1.46 | 1.18 | 1.27 | 1.22 | 1.58 | 1.37 | 1.42 |
| 5 | .96 | 1.41 | .33 | .38 | .67 | 1.23 | 1.12 | 1.34 | 1.05 | 1.66 | 1.34 | 1.45 |
| 6 | .95 | 1.17 | .80 | .71 | .63 | 1.40 | .95 | 1.45 | .97 | 1.47 | 1.39 | 1.44 |
| 7 | 1.06 | 1.22 | .80 | .84 | .69 | 1.35 | .86 | 1.56 | .73 | 1.48 | 1.58 | 1.40 |
| 8 | 1.08 | 1.06 | .37 | .31 | .51 | 1.05 | .93 | 1.11 | .88 | 1.45 | 1.52 | 1.13 |
| 9 | 1.12 | 1.13 | .10 | .04 | .32 | .78 | 1.02 | .99 | 1.11 | 1.44 | 1.75 | 1.19 |
| 10 | 1.29 | 1.59 | .66 | .74 | .64 | .45 | 1.00 | .91 | 1.16 | 1.62 | 1.71 | 1.43 |
| 11 | 1.69 | 1.09 | .80 | 1.21 | .87 | -.18 | .70 | 1.03 | 1.28 | 1.60 | 1.41 | 1.47 |
| 12 | 1.46 | 1.31 | .90 | 1.41 | .62 | .32 | .66 | .86 | 1.29 | 1.57 | 1.43 | 1.46 |
| 13 | 1.46 | .99 | .88 | 1.25 | 1.10 | 1.05 | .69 | 1.05 | 1.36 | 1.68 | 1.66 | 1.37 |
| 14 | 1.44 | .77 | .81 | 1.38 | 1.18 | .95 | .76 | 1.12 | 1.22 | 1.62 | 1.53 | 1.45 |
| 15 | 1.31 | 1.00 | .64 | 1.44 | .46 | .60 | .82 | 1.24 | 1.36 | 1.66 | 1.63 | 1.31 |
| 16 | 1.13 | 1.04 | .81 | 1.51 | -.14 | .74 | 1.15 | 1.02 | 1.45 | 1.62 | 1.32 | 1.41 |
| 17 | 1.30 | .71 | .60 | 1.27 | .72 | 1.31 | .99 | 1.20 | 1.35 | 1.41 | 1.31 | 1.36 |
| 18 | 1.69 | .20 | .81 | 1.10 | .82 | 1.61 | 1.08 | 1.44 | 1.49 | 1.33 | 1.48 | 1.38 |
| 19 | 1.09 | .46 | .91 | 1.08 | .75 | 1.02 | .85 | 1.10 | 1.53 | 1.32 | .94 | 1.39 |
| 20 | .97 | 1.08 | .56 | 1.23 | .80 | 1.22 | .80 | .78 | 1.48 | 1.34 | 1.68 | .99 |
| 21 | .93 | 1.01 | .84 | 1.02 | .68 | 1.55 | .63 | 1.25 | 1.40 | 1.22 | 1.58 | .65 |
| 22 | 1.02 | 1.24 | .92 | .85 | .46 | 1.59 | 1.16 | 1.28 | 1.42 | 1.07 | 1.30 | .80 |
| 23 | 1.31 | 1.28 | 1.05 | --- | .47 | 1.62 | 1.60 | 1.33 | 1.37 | 1.14 | 1.26 | 1.10 |
| 24 | 1.22 | 1.11 | .83 | --- | -.01 | 1.47 | 1.37 | 1.29 | 1.04 | 1.32 | 1.34 | 1.28 |
| 25 | 1.24 | 1.25 | .68 | --- | .09 | 1.39 | 1.25 | 1.26 | 1.18 | 1.44 | 1.17 | 1.51 |
| 26 | -.20 | 1.04 | .35 | .85 | .22 | 1.49 | 1.42 | 1.28 | 1.47 | 1.51 | 1.23 | 1.55 |
| 27 | .30 | .83 | .14 | 1.10 | .10 | 1.47 | 1.38 | 1.31 | 1.49 | 1.51 | 1.56 | 1.18 |
| 28 | 1.18 | .93 | .26 | 1.17 | .79 | 1.75 | 1.50 | 1.24 | 1.32 | 1.43 | 1.43 | 1.02 |
| 29 | 1.07 | .86 | .60 | 1.14 | --- | 1.63 | 1.38 | .98 | 1.37 | 1.48 | 1.25 | 1.18 |
| 30 | 1.07 | .23 | .96 | 1.28 | --- | 2.05 | 1.44 | 1.15 | 1.35 | 1.53 | 1.20 | 1.13 |
| 31 | 1.37 | --- | 1.17 | 1.08 | --- | 1.68 | --- | 1.22 | --- | 1.60 | 1.29 | --- |
| TOTAL | 34.46 | 31.46 | 22.01 | --- | 17.14 | 37.36 | 32.87 | 37.29 | 38.31 | 45.46 | 44.39 | 38.34 |
| MEAN | 1.11 | 1.05 | .71 | --- | .61 | 1.21 | 1.10 | 1.20 | 1.28 | 1.47 | 1.43 | 1.28 |
| MAX | 1.69 | 1.59 | 1.17 | --- | 1.18 | 2.05 | 1.60 | 1.56 | 1.53 | 1.68 | 1.75 | 1.55 |
| MIN | -.20 | .20 | .10 | --- | -.14 | -.18 | .63 | .78 | .73 | 1.07 | .94 | .65 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .97 | 1.57 | .85 | .57 | .09 | .97 | .82 | 1.14 | 1.20 | 1.50 | 1.48 | 1.39 |
| 2 | 1.12 | 2.25 | .94 | .85 | -.18 | .91 | .48 | 1.27 | 1.47 | 1.49 | 1.30 | 1.28 |
| 3 | .90 | 2.18 | 1.06 | 1.43 | .54 | 1.02 | .24 | 1.46 | 1.43 | 1.58 | 1.30 | 1.42 |
| 4 | 1.19 | 1.87 | .22 | 1.74 | .95 | .68 | .87 | .85 | 1.63 | 1.72 | 1.37 | 1.24 |
| 5 | 1.48 | 1.39 | .32 | 1.56 | 1.09 | .61 | .30 | .98 | 1.79 | 1.56 | 1.30 | 1.05 |
| 6 | 1.28 | 1.46 | .49 | 1.73 | .77 | .95 | .53 | .72 | 1.65 | 1.75 | 1.17 | 1.00 |
| 7 | .74 | 1.43 | .58 | 1.60 | .20 | 1.38 | .84 | .42 | 1.73 | 1.52 | .90 | .99 |
| 8 | 1.02 | .87 | .55 | 1.73 | .60 | 1.07 | .94 | 1.14 | 1.70 | 1.46 | .89 | 1.17 |
| 9 | 1.17 | .41 | .61 | 1.74 | 91 | 1.12 | .95 | 1.64 | 1.55 | 1.45 | 1.11 | 1.25 |
| 10 | 1.11 | .63 | .54 | 1.43 | 1.11 | 1.30 | 1.09 | 1.40 | 1.56 | 1.20 | 1.17 | 1.29 |
| 11 | 1.08 | 1.37 | .34 | .97 | .81 | .76 | 1.00 | 1.13 | 1.24 | 1.13 | 1.22 | 1.04 |
| 12 | 1.26 | 1.49 | .57 | 1.44 | .91 | .70 | .94 | .71 | 1.34 | 1.22 | 1.49 | .67 |
| 13 | .95 | 1.55 | .80 | 1.43 | .44 | 1.01 | .94 | 1.02 | 1.47 | 1.18 | 1.33 | .73 |
| 14 | 1.12 | 1.49 | .74 | 1.29 | .73 | .67 | .37 | 1.45 | 1.37 | 1.14 | 1.64 | .75 |
| 15 | 1.31 | 1.32 | .13 | 1.13 | .98 | .65 | .84 | 1.47 | 1.36 | 1.26 | 1.78 | .61 |
| 16 | 1.01 | 1.19 | .05 | .28 | .96 | .21 | 1.05 | 1.31 | 1.62 | 1.41 | 1.96 | .74 |
| 17 | .23 | .85 | .27 | .80 | .81 | .70 | 1.22 | 1.04 | 1.41 | 1.48 | 1.97 | 1.10 |
| 18 | 1.10 | .82 | .19 | .84 | .80 | 1.15 | 1.13 | 1.15 | 1.41 | 1.50 | 1.84 | 1.23 |
| 19 | 1.24 | 1.06 | -.59 | .68 | 1.14 | .81 | 1.12 | 1.29 | 1.40 | 1.42 | 1.88 | 1.21 |
| 20 | 1.05 | 1.07 | -.47 | .51 | .94 | .61 | 1.06 | .72 | 1.41 | 1.22 | 2.05 | 1.20 |
| 21 | .86 | 1.07 | -.04 | .72 | 1.01 | .50 | 1.53 | .56 | 1.22 | 1.20 | 1.83 | 1.29 |
| 22 | 1.08 | 1.16 | .12 | .87 | .94 | .99 | 1.50 | .65 | .81 | 1.25 | 1.66 | 1.42 |
| 23 | 1.19 | 1.12 | .45 | 1.08 | .86 | 1.06 | 1.13 | .97 | 1.34 | 1.33 | 1.58 | 1.11 |
| 24 | 1.08 | .87 | .51 | .62 | .79 | .87 | .97 | 1.03 | 1.39 | 1.35 | 1.46 | .46 |
| 25 | 1.11 | .53 | .52 | .72 | .74 | 1.21 | 1.15 | 1.06 | 1.43 | 1.36 | 1.38 | -.16 |
| 26 | 1.17 | .53 | .60 | .60 | .94 | 1.22 | .75 | 1.00 | 1.62 | 1.36 | 1.34 | 1.08 |
| 27 | 1.06 | .45 | .52 | .52 | .94 | 1.05 | .87 | .96 | 1.53 | 1.38 | 1.41 | 1.66 |
| 28 | .86 | .58 | .58 | .43 | 1.17 | .61 | 1.08 | 1.22 | 1.37 | 1.37 | 1.75 | 1.65 |
| 29 | .59 | .75 | 1.00 | .28 | .97 | .75 | .42 | 1.40 | 1.43 | 1.42 | 1.68 | 1.05 |
| 30 | .07 | .76 | .88 | .65 | --- | .92 | .86 | 1.63 | 1.43 | 1.54 | 1.48 | .71 |
| 31 | .82 | --- | .54 | .73 | --- | .73 | --- | 1.67 | --- | 1.65 | 1.32 | --- |
| TOTAL | 31.22 | 34.09 | 13.87 | 30.97 | 22.96 | 27.19 | 26.99 | 34.46 | 43.31 | 43.40 | 46.04 | 31.63 |
| MEAN | 1.01 | 1.14 | .45 | 1.00 | .79 | .88 | .90 | 1.11 | 1.44 | 1.40 | 1.49 | 1.05 |

CHOWAN RIVER BASIN

0205365200 CHOWAN RIVER NEAR EDENHOUSE, NC

LOCATION.--Lat 36°02'52", long 76°41'42", Bertie-Chowan County line, Hydrologic Unit 03010203, at U.S. Highway 17 bridge, under drawbridge attendant's parking area.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.33 ft, Nov. 2, 1991; minimum elevation, -1.14 ft, May 21, 1992.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.25 ft, March 30; minimum elevation, -0.74 ft, February 15, 16.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.33 ft, November 2; minimum elevation, -1.14 ft, May 21.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22.2 | 15.5 | --- | 10.7 | 7.3 | 9.3 | 14.1 | 22.0 | 25.7 | 29.4 | 29.3 | 25.6 |
| 2 | 22.3 | 16.3 | --- | 10.4 | 7.3 | 9.7 | 14.5 | 21.8 | 25.4 | 29.7 | 29.2 | 24.5 |
| 3 | 22.2 | 16.3 | --- | 10.4 | 8.1 | 10.2 | 14.1 | 20.5 | 25.3 | 30.8 | 29.6 | 22.6 |
| 4 | 22.1 | 16.1 | --- | 10.2 | 8.7 | 10.9 | 14.4 | 19.9 | 25.7 | 30.6 | 30.3 | 23.3 |
| 5 | 22.5 | 16.2 | --- | 9.9 | 9.8 | 11.4 | 14.3 | 19.2 | 23.6 | 30.4 | 30.8 | 24.3 |
| 6 | 22.9 | 16.1 | --- | 10.0 | 10.2 | 11.1 | 15.2 | 19.5 | 22.7 | 30.8 | 31.3 | 23.6 |
| 7 | 23.2 | 16.1 | --- | 9.9 | 9.8 | 11.4 | 16.2 | 20.4 | 23.7 | 31.5 | 30.3 | 24.7 |
| 8 | 23.7 | 15.6 | --- | 8.7 | 9.3 | 11.5 | 16.1 | 18.3 | 26.1 | 32.5 | 30.9 | 24.6 |
| 9 | 23.7 | 14.9 | --- | 7.7 | 9.2 | 11.1 | 16.4 | 19.2 | 23.7 | 32.5 | 32.5 | 23.9 |
| 10 | 23.4 | 15.0 | --- | 7.7 | 9.4 | 10.9 | 17.7 | 18.8 | 24.4 | 31.7 | 30.8 | 26.6 |
| 11 | 23.3 | 14.6 | --- | 8.1 | 9.0 | 10.4 | 17.7 | 19.7 | 23.6 | 29.8 | 31.6 | 27.2 |
| 12 | 23.5 | 14.0 | --- | 8.4 | 8.7 | 9.9 | --- | 19.4 | 23.5 | 30.8 | 31.6 | 26.5 |
| 13 | 23.9 | 13.7 | 10.2 | 8.6 | 8.7 | 9.8 | 17.2 | 20.2 | 25.1 | 31.4 | 31.2 | 24.9 |
| 14 | 24.6 | 13.2 | 10.3 | 8.2 | 9.2 | 9.9 | 16.9 | 20.5 | 25.3 | 32.2 | 31.3 | 24.2 |
| 15 | 24.1 | 13.2 | 10.0 | 8.3 | 9.1 | 9.5 | 17.1 | 22.5 | 26.2 | 30.0 | 31.3 | 24.4 |
| 16 | 23.2 | 12.9 | 10.2 | 8.7 | 7.6 | 9.4 | 17.7 | 23.3 | 26.3 | 29.9 | 31.5 | 26.1 |
| 17 | 22.9 | 12.8 | 10.2 | 8.7 | 6.8 | 9.8 | 18.6 | 22.1 | 27.4 | 31.7 | 32.0 | 24.7 |
| 18 | 22.5 | 12.1 | 10.4 | 8.7 | 7.1 | --- | 18.0 | 23.3 | 26.8 | 31.6 | 31.8 | 25.8 |
| 19 | 21.6 | 11.6 | 11.1 | 8.7 | 7.5 | --- | 17.1 | 21.1 | 27.7 | 30.9 | 26.7 | 25.4 |
| 20 | 20.7 | 11.4 | 11.0 | 8.5 | 8.6 | --- | 14.6 | 19.4 | 28.0 | 29.2 | 27.0 | 24.8 |
| 21 | 20.4 | 11.4 | 11.4 | 7.9 | 9.8 | --- | 13.4 | 21.9 | 28.5 | 30.1 | 27.3 | 24.1 |
| 22 | 20.4 | 11.5 | 11.9 | 7.4 | 10.2 | --- | 13.0 | 23.2 | 28.5 | 30.9 | 26.6 | 22.9 |
| 23 | 20.2 | 11.6 | 12.2 | 6.8 | 9.6 | 12.2 | 13.6 | 23.3 | 27.1 | 29.9 | 27.5 | 22.5 |
| 24 | 20.4 | 11.7 | 12.7 | 6.2 | 9.3 | 12.5 | 15.2 | 24.9 | 27.1 | 29.6 | 27.8 | 23.2 |
| 25 | 20.4 | 11.7 | 11.9 | 6.5 | 8.9 | 14.2 | 14.5 | 25.8 | 27.2 | 29.1 | 28.2 | 23.2 |
| 26 | 18.5 | 12.2 | 11.1 | 6.1 | 9.1 | 13.8 | 15.0 | 27.0 | 27.5 | 30.0 | 31.2 | --- |
| 27 | 16.7 | 12.5 | 10.3 | 6.2 | 8.9 | 13.9 | 15.7 | 25.2 | 27.2 | 30.9 | 30.7 | 22.5 |
| 28 | 16.0 | --- | 9.9 | 6.6 | 8.8 | 14.5 | 17.6 | 24.8 | 28.3 | 29.9 | 27.3 | 22.2 |
| 29 | 15.5 | --- | 9.6 | 6.8 | --- | 15.1 | 20.0 | --- | 29.1 | 29.6 | 26.4 | 21.9 |
| 30 | 15.3 | --- | 10.2 | 6.9 | --- | 15.0 | 21.2 | 25.8 | 29.0 | 27.8 | 25.7 | 21.9 |
| 31 | 15.2 | --- | 11.0 | 7.1 | --- | 14.4 | --- | 25.3 | --- | 27.8 | 25.9 | --- |
| TOTAL | 657.5 | --- | --- | 255.0 | 246.0 | --- | --- | --- | 785.7 | 943.0 | 915.6 | --- |
| MEAN | 21.2 | --- | --- | 8.2 | 8.8 | --- | --- | --- | 26.2 | 30.4 | 29.5 | --- |
| MAX | 24.6 | --- | --- | 10.7 | 10.2 | --- | --- | --- | 29.1 | 32.5 | 32.5 | --- |
| MIN | 15.2 | --- | --- | 6.1 | 6.8 | --- | --- | --- | 22.7 | 27.8 | 25.7 | --- |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22.2 | 15.8 | 11.8 | 7.6 | 6.3 | --- | 11.4 | 18.3 | 20.6 | 26.4 | 28.3 | 26.0 |
| 2 | 22.0 | 16.5 | 12.7 | 7.7 | 5.8 | --- | 11.3 | 18.5 | 21.7 | 26.7 | 28.3 | 25.6 |
| 3 | 21.7 | 16.4 | 13.9 | 8.3 | 5.7 | --- | 10.9 | 19.6 | 22.2 | 26.7 | 28.5 | 26.0 |
| 4 | 22.1 | 16.0 | 13.5 | 8.8 | 6.0 | --- | 10.4 | 19.4 | 21.5 | 27.3 | 28.4 | 26.6 |
| 5 | 22.1 | 14.8 | --- | 8.9 | 6.1 | --- | 10.1 | 18.9 | 22.0 | 28.2 | 28.2 | 26.6 |
| 6 | 21.9 | 13.8 | --- | 8.8 | --- | --- | 10.4 | 17.9 | 23.0 | 28.1 | 27.6 | 27.0 |
| 7 | 20.7 | 13.6 | --- | 8.6 | --- | --- | 11.1 | 16.5 | 24.6 | 27.7 | 26.8 | 26.6 |
| 8 | 20.1 | 13.3 | --- | 8.3 | --- | --- | 12.0 | 16.2 | --- | 27.7 | 27.3 | 27.0 |
| 9 | 20.0 | 12.2 | --- | 8.4 | --- | --- | 12.6 | 16.3 | 24.5 | 27.8 | 27.3 | 27.6 |
| 10 | 20.1 | 11.9 | --- | 8.6 | --- | --- | 13.4 | 17.0 | 24.3 | 28.6 | 27.9 | 28.1 |
| 11 | 19.8 | 11.9 | --- | 8.1 | --- | --- | 14.3 | 17.5 | 24.3 | 29.5 | 27.7 | 27.3 |
| 12 | 19.9 | 11.5 | --- | 8.0 | --- | --- | 14.7 | 17.7 | 23.9 | 30.0 | 27.7 | 26.4 |
| 13 | 19.6 | 11.4 | --- | 8.3 | --- | --- | 14.3 | 18.8 | 23.8 | 29.2 | 27.5 | 25.5 |
| 14 | 19.3 | 11.2 | --- | 9.0 | --- | --- | 14.1 | 20.2 | 24.3 | 29.0 | 27.1 | 24.9 |
| 15 | 19.3 | 11.2 | --- | 8.7 | --- | --- | 13.8 | 20.8 | 25.3 | 29.0 | 26.6 | 24.6 |
| 16 | 19.2 | 11.5 | --- | 7.8 | --- | --- | 14.0 | 21.7 | 24.9 | 28.8 | 26.3 | 25.2 |
| 17 | --- | 11.9 | --- | 6.5 | --- | 11.0 | 15.0 | 22.0 | 24.6 | 28.7 | 26.3 | 25.9 |
| 18 | --- | 11.7 | --- | 6.6 | --- | 11.2 | 16.7 | 22.7 | 24.9 | 28.5 | --- | 25.7 |
| 19 | --- | 11.9 | --- | 6.1 | --- | 11.8 | 17.7 | 22.2 | 24.9 | 28.3 | --- | 25.8 |
| 20 | --- | 12.1 | --- | 5.5 | --- | 11.3 | 17.7 | 20.5 | 25.2 | 28.4 | --- | 25.6 |
| 21 | --- | 12.4 | 6.3 | 5.6 | --- | 11.0 | 17.9 | 20.0 | 24.7 | 28.6 | --- | 25.8 |
| 22 | --- | --- | 6.4 | 6.0 | --- | 10.8 | 18.6 | 20.8 | 24.2 | 28.9 | --- | 25.9 |
| 23 | --- | 13.9 | 6.5 | 6.0 | --- | 10.7 | 19.8 | 22.7 | 24.3 | 28.5 | --- | 25.4 |
| 24 | --- | 14.1 | 7.0 | 6.5 | --- | 10.8 | 19.8 | 23.6 | 24.4 | 28.3 | --- | 23.9 |
| 25 | --- | 13.0 | 6.9 | 6.2 | --- | 10.5 | 19.9 | 22.3 | 25.0 | 28.3 | --- | 22.4 |
| 26 | --- | 11.8 | 6.8 | 6.0 | --- | 10.8 | 18.9 | 20.8 | 25.0 | 28.0 | 26.4 | 22.3 |
| 27 | --- | 10.9 | 6.9 | 6.1 | --- | 10.7 | 18.5 | 20.3 | 25.5 | 28.4 | 26.9 | 23.4 |
| 28 | --- | 10.5 | 7.1 | 6.3 | --- | 10.4 | 18.0 | 20.2 | 26.0 | 28.3 | 25.7 | 23.9 |
| 29 | 18.6 | 10.5 | 7.8 | 6.3 | --- | 11.0 | --- | 20.0 | 26.5 | 28.5 | 25.6 | 22.6 |
| 30 | 17.3 | 11.2 | 7.7 | 6.2 | --- | 11.3 | 17.9 | 19.7 | 26.7 | 28.6 | 25.7 | 22.0 |
| 31 | 16.3 | --- | 7.5 | 6.5 | --- | 11.4 | --- | 20.3 | --- | 28.4 | 25.8 | --- |
| TOTAL | --- | --- | --- | 226.3 | --- | --- | --- | 613.4 | --- | 877.4 | --- | 761.6 |
| MEAN | --- | --- | --- | 7.3 | --- | --- | --- | 19.8 | --- | 28.3 | --- | 25.4 |

ROANOKE RIVER BASIN

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 upstream from bridge on State Highway 704, 700 ft downstream of remains of Georges Mill, 0.2 mi downstream of Elk Creek, 3 mi east of Francisco, and 7.9 mi downstream of Little Dan River.

DRAINAGE AREA.--129 $mi^2$.

PERIOD OF RECORD.--August 1924 to September 1987. December 1991 to September 1992. 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 above National Geodetic Vertical Datum of 1929. Prior to Nov. 15, 1929, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Since 1938, considerable diurnal fluctuation and regulation by Talbott and Townes Reservoirs (stations 02067800 and 02067820) and Pinnacles Hydroelectric Plant in Virginia, 28 mi upstream. Minimum discharge for current water year also occurred on Dec. 28.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 15 ft, from information by local residents, discharge, 16,000 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | 167 | 130 | 123 | 197 | 176 | 271 | 163 | 146 | 170 | 117 |
| 2 | --- | --- | 191 | 120 | 129 | 187 | 168 | 250 | 149 | 215 | 145 | 155 |
| 3 | --- | --- | 468 | 186 | 137 | 183 | 173 | 233 | 136 | 233 | 128 | 143 |
| 4 | --- | --- | 322 | 903 | 122 | 188 | 140 | 226 | 684 | 219 | 107 | 131 |
| 5 | --- | --- | 186 | 372 | 117 | 191 | 160 | 247 | 1040 | 192 | 104 | 551 |
| 6 | --- | --- | 159 | 239 | 132 | 179 | 135 | 253 | 607 | 161 | 106 | 202 |
| 7 | --- | --- | 116 | 174 | 140 | 499 | 133 | 236 | 426 | 127 | 120 | 175 |
| 8 | --- | --- | 109 | 156 | 105 | 240 | 143 | 315 | 414 | 122 | 123 | 174 |
| 9 | --- | --- | 109 | 156 | 121 | 209 | 147 | 340 | 610 | 121 | 135 | 190 |
| 10 | --- | --- | 119 | 140 | 141 | 306 | 125 | 266 | 604 | 157 | 97 | 179 |
| 11 | --- | --- | 112 | 126 | 111 | 435 | 135 | 225 | 460 | 167 | 92 | 288 |
| 12 | --- | --- | 107 | 127 | 98 | 295 | 141 | 206 | 420 | 154 | 142 | 169 |
| 13 | --- | --- | 104 | 147 | 105 | 229 | 138 | 197 | 386 | 128 | 234 | 159 |
| 14 | --- | --- | 123 | 204 | 131 | 211 | 115 | 231 | 352 | 156 | 181 | 147 |
| 15 | --- | --- | 120 | 152 | 183 | 185 | 123 | 306 | 303 | 148 | 145 | 128 |
| 16 | --- | --- | 122 | 171 | 218 | 183 | 146 | 315 | 272 | 142 | 152 | 119 |
| 17 | --- | --- | 168 | 173 | 143 | 165 | 127 | 246 | 255 | 136 | 120 | 116 |
| 18 | --- | --- | 110 | 114 | 143 | 160 | 153 | 356 | 250 | 140 | 119 | 115 |
| 19 | --- | --- | 152 | 137 | 148 | 232 | 138 | 278 | 289 | 138 | 123 | 133 |
| 20 | --- | --- | 149 | 114 | 131 | 175 | 165 | 192 | 277 | 106 | 115 | 148 |
| 21 | --- | --- | 104 | 106 | 125 | 152 | 4490 | 174 | 231 | 105 | 109 | 108 |
| 22 | --- | --- | 98 | 111 | 125 | 160 | 2730 | 177 | 206 | 123 | 108 | 116 |
| 23 | --- | --- | 99 | 198 | 139 | 161 | 808 | 146 | 185 | 192 | 141 | 118 |
| 24 | --- | --- | 104 | 235 | 209 | 193 | 537 | 165 | 203 | 199 | 110 | 113 |
| 25 | --- | --- | 94 | 150 | 193 | 149 | 470 | 142 | 182 | 215 | 107 | 111 |
| 26 | --- | --- | 86 | 147 | 467 | 203 | 412 | 166 | 194 | 158 | 109 | 114 |
| 27 | --- | --- | 83 | 139 | 314 | 168 | 356 | 191 | 225 | 169 | 116 | 160 |
| 28 | --- | --- | 102 | 134 | 185 | 144 | 320 | 200 | 199 | 146 | 375 | 140 |
| 29 | --- | --- | 268 | 131 | 182 | 159 | 308 | 343 | 184 | 118 | 337 | 121 |
| 30 | --- | --- | 163 | 117 | --- | 179 | 299 | 340 | 147 | 99 | 202 | 113 |
| 31 | --- | --- | 129 | 116 | --- | 145 | --- | 220 | --- | 150 | 137 | --- |
| TOTAL | --- | --- | 4543 | 5625 | 4617 | 6462 | 13611 | 7453 | 10053 | 4782 | 4509 | 4753 |
| MEAN | --- | --- | 147 | 181 | 159 | 208 | 454 | 240 | 335 | 154 | 145 | 158 |
| MAX | --- | --- | 468 | 903 | 467 | 499 | 4490 | 356 | 1040 | 233 | 375 | 551 |
| MIN | --- | --- | 83 | 106 | 98 | 144 | 115 | 142 | 136 | 99 | 92 | 108 |
| † | | | +9 | +27 | +5 | -1 | +11 | -10 | +5 | -7 | +1 | -8 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 157 | 156 | 179 | 201 | 215 | 253 | 265 | 215 | 189 | 161 | 166 | 148 |
| MAX | 543 | 327 | 354 | 472 | 463 | 553 | 677 | 405 | 438 | 373 | 697 | 630 |
| (WY) | 1938 | 1980 | 1928 | 1937 | 1960 | 1975 | 1980 | 1949 | 1972 | 1938 | 1928 | 1979 |
| MIN | 49.7 | 61.3 | 79.5 | 76.2 | 68.9 | 94.2 | 120 | 109 | 78.3 | 54.8 | 52.4 | 50.4 |
| (WY) | 1964 | 1954 | 1934 | 1956 | 1934 | 1981 | 1967 | 1986 | 1967 | 1986 | 1930 | 1968 |

| SUMMARY STATISTICS | FOR 1992 WATER YEAR | | WATER YEARS 1924 - 1992 | |
|---|---|---|---|---|
| ANNUAL MEAN | | | 193 | |
| HIGHEST ANNUAL MEAN | | | 300 | 1960 |
| LOWEST ANNUAL MEAN | | | 97.5 | 1956 |
| HIGHEST DAILY MEAN | 4490 | Apr 21 | 6830 | Sep 22 1979 |
| LOWEST DAILY MEAN | 83 | Dec 27 | 27 | Aug 24 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 95 | Dec 22 | 28 | Aug 24 1981 |
| INSTANTANEOUS PEAK FLOW | 12300 | Apr 21 | 21200 | Aug 17 1985 |
| INSTANTANEOUS PEAK STAGE | 13.21 | Apr 21 | 19.50 | Aug 17 1985 |
| INSTANTANEOUS LOW FLOW | 82* | Dec 27 | 7.1 | Sep 8 1932 |
| ANNUAL RUNOFF (CFSM) | | | 1.49 | |
| ANNUAL RUNOFF (INCHES) | | | 20.29 | |
| 10 PERCENT EXCEEDS | 338 | | 310 | |
| 50 PERCENT EXCEEDS | 157 | | 154 | |
| 90 PERCENT EXCEEDS | 110 | | 79 | |

† Change in contents, equivalent in cubic feet per second, in Talbott and Townes Reservoirs; provided by city of Danville, Va.
* See REMARKS.

ROANOKE RIVER BASIN

02071000 DAN RIVER NEAR WENTWORTH, NC

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

DRAINAGE AREA.--1,053 mi².

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

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

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

REMARKS.--No estimated daily discharges. Records fair. Slight fluctuation and regulation at low flow caused by Talbott and Townes Reservoirs (stations 02067800 and 02067820). Maximum gage height: 31.60 ft, from floodmark in well. Minimum discharge for current water year also occurred October 21, August 12, 13.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 432 | 432 | 612 | 742 | 666 | 990 | 769 | 1030 | 1080 | 677 | 569 | 503 |
| 2 | 477 | 427 | 1570 | 696 | 636 | 921 | 786 | 954 | 881 | 769 | 573 | 462 |
| 3 | 492 | 423 | 1360 | 810 | 636 | 873 | 757 | 900 | 804 | 775 | 510 | 496 |
| 4 | 460 | 419 | 3190 | 11100 | 626 | 836 | 737 | 839 | 895 | 953 | 481 | 538 |
| 5 | 465 | 416 | 1240 | 5120 | 617 | 836 | 739 | 859 | 11100 | 752 | 448 | 2340 |
| 6 | 874 | 468 | 860 | 2060 | 600 | 904 | 730 | 1320 | 4650 | 719 | 442 | 1430 |
| 7 | 772 | 495 | 748 | 1330 | 601 | 1780 | 684 | 1030 | 2350 | 776 | 462 | 975 |
| 8 | 511 | 460 | 662 | 1060 | 609 | 1970 | 685 | 1240 | 1700 | 630 | 480 | 752 |
| 9 | 467 | 441 | 621 | 954 | 571 | 1300 | 677 | 1660 | 2360 | 596 | 482 | 668 |
| 10 | 454 | 629 | 672 | 907 | 560 | 1350 | 666 | 1340 | 3210 | 572 | 488 | 627 |
| 11 | 445 | 996 | 666 | 835 | 586 | 1960 | 651 | 1060 | 2000 | 581 | 415 | 839 |
| 12 | 426 | 679 | 603 | 784 | 568 | 1800 | 653 | 931 | 1640 | 566 | 391 | 869 |
| 13 | 414 | 547 | 588 | 752 | 551 | 1240 | 663 | 873 | 1390 | 544 | 2370 | 629 |
| 14 | 401 | 509 | 584 | 773 | 554 | 1040 | 628 | 1330 | 1270 | 503 | 5200 | 575 |
| 15 | 402 | 485 | 624 | 805 | 699 | 960 | 607 | 1030 | 1250 | 514 | 1720 | 534 |
| 16 | 416 | 469 | 591 | 716 | 1410 | 881 | 621 | 1440 | 1140 | 544 | 920 | 498 |
| 17 | 421 | 461 | 568 | 681 | 1010 | 838 | 684 | 1280 | 1060 | 549 | 775 | 474 |
| 18 | 404 | 454 | 607 | 737 | 849 | 808 | 707 | 1120 | 996 | 530 | 677 | 459 |
| 19 | 400 | 453 | 559 | 666 | 834 | 823 | 708 | 1480 | 968 | 518 | 624 | 446 |
| 20 | 395 | 458 | 535 | 651 | 790 | 880 | 664 | 1120 | 981 | 502 | 589 | 704 |
| 21 | 392 | 462 | 587 | 646 | 719 | 775 | 5940 | 922 | 913 | 449 | 540 | 583 |
| 22 | 402 | 599 | 549 | 636 | 690 | 733 | 18000 | 829 | 844 | 467 | 514 | 490 |
| 23 | 424 | 647 | 535 | 898 | 682 | 741 | 7280 | 790 | 793 | 769 | 500 | 548 |
| 24 | 424 | 588 | 559 | 1870 | 874 | 717 | 2750 | 736 | 765 | 854 | 516 | 540 |
| 25 | 425 | 509 | 544 | 1140 | 1290 | 727 | 2140 | 733 | 786 | 866 | 481 | 472 |
| 26 | 429 | 481 | 510 | 897 | 4230 | 1060 | 1680 | 738 | 765 | 717 | 468 | 465 |
| 27 | 433 | 469 | 505 | 810 | 2960 | 1650 | 1330 | 784 | 902 | 603 | 475 | 479 |
| 28 | 423 | 514 | 520 | 773 | 1620 | 1090 | 1180 | 930 | 796 | 663 | 538 | 610 |
| 29 | 420 | 516 | 1450 | 742 | 1170 | 864 | 1110 | 1470 | 723 | 568 | 973 | 733 |
| 30 | 411 | 470 | 1460 | 711 | --- | 829 | 1050 | 1630 | 700 | 491 | 726 | 627 |
| 31 | 412 | --- | 900 | 686 | --- | 827 | --- | 1670 | --- | 462 | 572 | --- |
| TOTAL | 14123 | 15376 | 25579 | 41988 | 28208 | 33003 | 56276 | 34068 | 49712 | 19479 | 24919 | 20365 |
| MEAN | 456 | 513 | 825 | 1354 | 973 | 1065 | 1876 | 1099 | 1657 | 628 | 804 | 679 |
| MAX | 874 | 996 | 3190 | 11100 | 4230 | 1970 | 18000 | 1670 | 11100 | 953 | 5200 | 2340 |
| MIN | 392 | 416 | 505 | 636 | 551 | 717 | 607 | 733 | 700 | 449 | 391 | 446 |
| CFSM | .43 | .49 | .78 | 1.29 | .92 | 1.01 | 1.78 | 1.04 | 1.57 | .60 | .76 | .64 |
| IN. | .50 | .54 | .90 | 1.48 | 1.00 | 1.17 | 1.99 | 1.20 | 1.76 | .69 | .88 | .72 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 932 | 922 | 1160 | 1374 | 1641 | 1840 | 1712 | 1325 | 1102 | 923 | 848 | 857 |
| MAX | 3676 | 2963 | 2433 | 3274 | 4308 | 5345 | 4951 | 3149 | 4220 | 2345 | 3067 | 3667 |
| (WY) | 1960 | 1958 | 1974 | 1978 | 1960 | 1975 | 1987 | 1972 | 1972 | 1949 | 1940 | 1979 |
| MIN | 237 | 297 | 422 | 392 | 771 | 661 | 592 | 515 | 333 | 268 | 218 | 166 |
| (WY) | 1954 | 1954 | 1956 | 1956 | 1941 | 1985 | 1985 | 1981 | 1986 | 1986 | 1981 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 494472 | | 363096 | | | |
| ANNUAL MEAN | 1355 | | 992 | | 1219 | |
| HIGHEST ANNUAL MEAN | | | | | 1985 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 587 | 1981 |
| HIGHEST DAILY MEAN | 24900 | Mar 30 | 18000 | Apr 22 | 47800 | Jun 22 1972 |
| LOWEST DAILY MEAN | 392 | Oct 21 | 391 | Aug 12 | 107 | Oct 2 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 404 | Oct 15 | 404 | Oct 15 | 126 | Oct 6 1954 |
| INSTANTANEOUS PEAK FLOW | | | 19500 | Apr 22 | 54200 | Jun 22 1972 |
| INSTANTANEOUS PEAK STAGE | | | 21.03 | Apr 22 | 31.60 | Jun 22 1972 |
| INSTANTANEOUS LOW FLOW | | | 389 | Oct 20 | 65 | Oct 8 1954 |
| ANNUAL RUNOFF (CFSM) | 1.29 | | .94 | | 1.16 | |
| ANNUAL RUNOFF (INCHES) | 17.47 | | 12.83 | | 15.72 | |
| 10 PERCENT EXCEEDS | 2080 | | 1470 | | 2050 | |
| 50 PERCENT EXCEEDS | 1010 | | 699 | | 832 | |
| 90 PERCENT EXCEEDS | 462 | | 454 | | 413 | |

ROANOKE RIVER BASIN

02074000 SMITH RIVER AT EDEN, NC

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

DRAINAGE AREA.--538 $mi^2$.

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

REVISED RECORDS.--WSP 1433: 1946.

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

REMARKS.--No estimated daily discharges. Records good. Flow regulated since August 1950 by Philpott Lake 40 mi upstream (usable capacity, 6,325,000,000 $ft^3$). Additional regulation by hydroelectric plant at Martinsville, Virginia, 18 mi upstream. Maximum discharge prior to regulation: 45,600 $ft^3/s$, Aug. 15, 1940, from rating curve extended above 12,000 $ft^3/s$ on the basis of computation of peak flow over dam 1.5 mi downstream; gage height: 19.28 ft. Minimum discharge for current water year also occurred Oct. 14, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 355 | 297 | 564 | 234 | 338 | 290 | 421 | 1170 | 337 | 1030 | 657 | 479 |
| 2 | 269 | 190 | 687 | 403 | 135 | 467 | 420 | 980 | 593 | 1150 | 187 | 441 |
| 3 | 286 | 217 | 789 | 801 | 322 | 945 | 408 | 328 | 859 | 1040 | 304 | 452 |
| 4 | 277 | 283 | 1330 | 6210 | 326 | 936 | 329 | 332 | 1040 | 1080 | 529 | 447 |
| 5 | 314 | 287 | 524 | 2810 | 263 | 914 | 203 | 619 | 5260 | 217 | 517 | 1400 |
| 6 | 277 | 210 | 414 | 2280 | 281 | 937 | 413 | 704 | 2730 | 424 | 532 | 710 |
| 7 | 232 | 203 | 360 | 1580 | 351 | 1060 | 489 | 786 | 2070 | 640 | 527 | 400 |
| 8 | 397 | 324 | 204 | 1330 | 306 | 474 | 512 | 1170 | 2150 | 610 | 562 | 572 |
| 9 | 365 | 198 | 372 | 1280 | 126 | 506 | 520 | 1020 | 2200 | 594 | 214 | 1000 |
| 10 | 398 | 397 | 387 | 1230 | 306 | 517 | 511 | 354 | 2800 | 608 | 192 | 918 |
| 11 | 392 | 531 | 338 | 1020 | 351 | 818 | 393 | 393 | 3880 | 597 | 535 | 970 |
| 12 | 369 | 363 | 317 | 225 | 351 | 670 | 232 | 665 | 2040 | 246 | 497 | 1030 |
| 13 | 215 | 306 | 313 | 386 | 345 | 544 | 368 | 643 | 2000 | 291 | 845 | 216 |
| 14 | 280 | 278 | 307 | 545 | 356 | 374 | 400 | 649 | 1250 | 606 | 1000 | 273 |
| 15 | 396 | 283 | 215 | 505 | 357 | 258 | 392 | 1280 | 394 | 615 | 673 | 676 |
| 16 | 400 | 213 | 341 | 457 | 436 | 467 | 389 | 1400 | 1690 | 788 | 280 | 702 |
| 17 | 385 | 227 | 303 | 491 | 440 | 731 | 390 | 881 | 2080 | 749 | 284 | 701 |
| 18 | 391 | 299 | 286 | 433 | 472 | 736 | 383 | 884 | 1970 | 354 | 749 | 699 |
| 19 | 329 | 280 | 281 | 191 | 447 | 764 | 179 | 1770 | 1940 | 236 | 745 | 769 |
| 20 | 230 | 280 | 252 | 311 | 416 | 743 | 404 | 1280 | 1200 | 320 | 757 | 293 |
| 21 | 199 | 285 | 270 | 371 | 402 | 601 | 3400 | 1200 | 377 | 515 | 682 | 227 |
| 22 | 266 | 498 | 141 | 368 | 319 | 199 | 4210 | 1160 | 375 | 546 | 783 | 506 |
| 23 | 263 | 375 | 297 | 562 | 167 | 415 | 4100 | 1100 | 873 | 895 | 219 | 476 |
| 24 | 266 | 288 | 209 | 876 | 508 | 568 | 6360 | 312 | 846 | 867 | 192 | 466 |
| 25 | 273 | 340 | 263 | 487 | 693 | 579 | 4290 | 198 | 841 | 1170 | 655 | 462 |
| 26 | 239 | 295 | 351 | 250 | 2170 | 841 | 1980 | 372 | 844 | 343 | 631 | 549 |
| 27 | 226 | 290 | 185 | 393 | 1400 | 818 | 1880 | 695 | 1030 | 326 | 734 | 223 |
| 28 | 236 | 203 | 313 | 423 | 795 | 525 | 873 | 752 | 351 | 604 | 764 | 295 |
| 29 | 263 | 313 | 645 | 408 | 495 | 278 | 1180 | 1040 | 317 | 583 | 899 | 510 |
| 30 | 255 | 255 | 604 | 388 | --- | 425 | 1170 | 1260 | 806 | 557 | 220 | 516 |
| 31 | 307 | --- | 362 | 396 | --- | 453 | --- | 575 | --- | 562 | 219 | --- |
| TOTAL | 9350 | 8808 | 12224 | 27644 | 13674 | 18853 | 37199 | 25972 | 45143 | 19163 | 16584 | 17378 |
| MEAN | 302 | 294 | 394 | 892 | 472 | 608 | 1240 | 838 | 1505 | 618 | 535 | 579 |
| MAX | 400 | 531 | 1330 | 6210 | 2170 | 1060 | 6360 | 1770 | 5260 | 1170 | 1000 | 1400 |
| MIN | 199 | 190 | 141 | 191 | 126 | 199 | 179 | 198 | 317 | 217 | 187 | 216 |
| † | -42 | +32 | +105 | +20 | +89 | +3 | +18 | -13 | +16 | -24 | -42 | -77 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 523 | 505 | 597 | 665 | 719 | 835 | 858 | 716 | 622 | 535 | 512 | 543 |
| MAX | 1572 | 1530 | 1237 | 1453 | 1521 | 2329 | 3016 | 1567 | 2026 | 1477 | 2434 | 1794 |
| (WY) | 1990 | 1986 | 1949 | 1979 | 1960 | 1975 | 1987 | 1978 | 1972 | 1949 | 1940 | 1979 |
| MIN | 167 | 203 | 273 | 291 | 325 | 331 | 294 | 266 | 213 | 214 | 194 | 239 |
| (WY) | 1942 | 1942 | 1981 | 1989 | 1968 | 1967 | 1967 | 1964 | 1964 | 1981 | 1953 | 1941 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 277985 | | 251992 | | | |
| ANNUAL MEAN | 762 | ‡ 757 | 689 | ‡ 696 | 635 | ‡ 601 |
| HIGHEST ANNUAL MEAN | | | | | 1010 | 1987 |
| LOWEST ANNUAL MEAN | | | | | 309 | 1981 |
| HIGHEST DAILY MEAN | 6310 | Mar 29 | 6360 | Apr 24 | 23300 | Aug 15 1940 |
| LOWEST DAILY MEAN | 140 | Sep 29 | 126 | Feb 9 | 46 | Aug 14 1967 |
| ANNUAL SEVEN-DAY MINIMUM | 241 | Nov 1 | 241 | Nov 1 | 119 | Sep 5 1944 |
| INSTANTANEOUS PEAK FLOW | | | 10700 | Jun 5 | 24800* | Jun 21 1972 |
| INSTANTANEOUS PEAK STAGE | | | 10.37 | Jun 5 | 16.24* | Jun 21 1972 |
| INSTANTANEOUS LOW FLOW | | | 110* | Oct 13 | 38 | Aug 7 1967 |
| ANNUAL RUNOFF (CFSM) | 1.42 | | 1.28 | | 1.18 | |
| ANNUAL RUNOFF (INCHES) | 19.22 | | 17.42 | | 16.04 | |
| 10 PERCENT EXCEEDS | 1270 | | 1240 | | 1140 | |
| 50 PERCENT EXCEEDS | 615 | | 447 | | 450 | |
| 90 PERCENT EXCEEDS | 258 | | 229 | | 229 | |

† Change in contents, equivalent in cubic feet per second, in Philpott Lake; provided by the U.S. Army Corps of Engineers.
‡ Adjusted for change in contents.
* For regulated period (1951-1992) only. See REMARKS.

ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC

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

DRAINAGE AREA.--45.9 $mi^2$.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records fair except those for estimated daily discharges and those below 5 $ft^3/s$, which are poor. Maximum discharge for period of record, from rating curve extended above 1,200 $ft^3/s$. Periods of no flow occur most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | 10 | 7.5 | 24 | 20 | 44 | 21 | e18 | 14 | e13 | e4.2 | e2.7 |
| 2 | 1.2 | 9.2 | 12 | 18 | 19 | 37 | 19 | e17 | 9.6 | e51 | e3.4 | e2.3 |
| 3 | 1.8 | e4.5 | 12 | 187 | 18 | 33 | 18 | e16 | 6.9 | e23 | e2.9 | e2.6 |
| 4 | 3.5 | e3.2 | 15 | 1880 | 18 | 29 | 17 | e15 | 7.5 | e19 | e2.5 | e5.7 |
| 5 | 4.1 | e2.4 | 13 | 539 | 17 | 26 | 18 | e14 | 11 | e14 | e3.1 | e7.0 |
| 6 | 44 | e2.0 | 9.2 | 149 | 18 | 26 | 17 | e14 | 9.2 | e15 | e2.9 | e4.5 |
| 7 | 41 | e4.0 | 7.7 | 77 | 17 | 234 | 16 | 13 | 6.9 | e14 | e3.3 | e3.7 |
| 8 | 15 | 9.5 | 6.8 | 53 | 16 | 145 | 16 | 24 | 5.6 | e8.5 | e3.1 | e3.2 |
| 9 | 8.0 | 10 | 13 | 43 | 15 | 74 | 16 | 21 | 13 | e6.4 | e2.7 | e2.9 |
| 10 | 5.5 | 20 | 7.4 | 36 | 14 | 64 | 15 | 15 | 23 | e5.0 | e2.1 | e2.4 |
| 11 | 4.7 | 24 | 8.3 | 31 | 14 | 133 | 14 | 13 | 16 | e4.4 | e1.5 | e2.0 |
| 12 | 3.9 | 16 | 6.9 | 27 | 14 | 76 | 14 | 11 | 12 | e3.8 | e1.6 | e1.7 |
| 13 | 3.3 | 8.5 | 6.6 | 26 | 14 | 52 | 14 | 11 | 8.8 | e3.1 | e5.7 | e1.3 |
| 14 | 2.8 | 6.7 | 5.5 | 25 | 14 | 42 | 13 | 16 | 7.6 | e2.5 | e46 | e1.1 |
| 15 | 3.3 | 5.7 | 5.5 | 23 | 19 | 36 | 12 | 12 | 7.8 | e2.4 | e17 | e1.0 |
| 16 | 5.5 | 5.3 | 5.1 | 21 | 57 | 32 | 12 | 11 | e12 | e2.2 | e16 | e.90 |
| 17 | 10 | 5.0 | 4.9 | 21 | 36 | 29 | 13 | 10 | e24 | e1.7 | e14 | e.90 |
| 18 | 13 | 4.4 | 4.7 | 20 | 30 | 27 | 13 | 8.8 | e14 | e1.6 | e10 | e.80 |
| 19 | 9.4 | 4.6 | 4.4 | 20 | 32 | 29 | 14 | 7.4 | e12 | e1.6 | e8.1 | e.80 |
| 20 | 7.4 | 4.3 | 3.8 | 19 | 32 | 33 | 12 | 7.7 | e17 | e1.5 | e6.2 | e.90 |
| 21 | 6.4 | 4.3 | 3.6 | 18 | 27 | 27 | 163 | 7.5 | e11 | e1.4 | e4.9 | e1.1 |
| 22 | 6.4 | 5.0 | 4.6 | 18 | 25 | 24 | 612 | 5.8 | e8.5 | e2.2 | e4.0 | e1.8 |
| 23 | 6.6 | 6.6 | 4.9 | 27 | 23 | 24 | 149 | 5.3 | e6.7 | e18 | e3.7 | e2.3 |
| 24 | 7.1 | 7.0 | 5.0 | 52 | 30 | 24 | 68 | 5.0 | e6.1 | e14 | e2.9 | 11 |
| 25 | e5.8 | 5.9 | 5.2 | 33 | 74 | 22 | e52 | 4.7 | e12 | e13 | e2.6 | 7.3 |
| 26 | e4.0 | 5.4 | 5.1 | 28 | 460 | 26 | e40 | 4.6 | e40 | e8.1 | e2.4 | 33 |
| 27 | e3.2 | 5.0 | 4.7 | 24 | 274 | 31 | e32 | 8.8 | e260 | e10 | e2.2 | 15 |
| 28 | e2.7 | 5.4 | 7.9 | 23 | 96 | 26 | e27 | 7.1 | e126 | e66 | e6.5 | 33 |
| 29 | e2.3 | 7.4 | 177 | 23 | 62 | 23 | e23 | 7.8 | e29 | e23 | e8.1 | 17 |
| 30 | e3.1 | 6.7 | 109 | 22 | --- | 23 | e20 | 21 | e9.5 | e11 | e5.1 | 9.5 |
| 31 | 9.3 | --- | 41 | 21 | --- | 21 | --- | 25 | --- | e6.4 | e3.5 | --- |
| TOTAL | 246.2 | 218.0 | 527.3 | 3528 | 1505 | 1472 | 1490 | 377.5 | 746.7 | 366.8 | 202.2 | 179.40 |
| MEAN | 7.94 | 7.27 | 17.0 | 114 | 51.9 | 47.5 | 49.7 | 12.2 | 24.9 | 11.8 | 6.52 | 5.98 |
| MAX | 44 | 24 | 177 | 1880 | 460 | 234 | 612 | 25 | 260 | 66 | 46 | 33 |
| MIN | 1.2 | 2.0 | 3.6 | 18 | 14 | 21 | 12 | 4.6 | 5.6 | 1.4 | 1.5 | .80 |
| CFSM | .17 | .16 | .37 | 2.48 | 1.13 | 1.03 | 1.08 | .27 | .54 | .26 | .14 | .13 |
| IN. | .20 | .18 | .43 | 2.86 | 1.22 | 1.19 | 1.21 | .31 | .61 | .30 | .16 | .15 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 24.0 | 27.4 | 48.5 | 85.0 | 92.7 | 87.4 | 55.8 | 37.2 | 21.5 | 25.8 | 17.0 | 19.3 |
| MAX | 113 | 137 | 144 | 278 | 244 | 266 | 172 | 184 | 109 | 274 | 96.5 | 132 |
| (WY) | 1965 | 1973 | 1973 | 1978 | 1979 | 1975 | 1978 | 1978 | 1982 | 1975 | 1985 | 1974 |
| MIN | 0 | 2.63 | 4.77 | 6.15 | 19.7 | 23.1 | 9.59 | 5.53 | 1.80 | .11 | .026 | 0 |
| (WY) | 1969 | 1968 | 1966 | 1981 | 1968 | 1976 | 1985 | 1981 | 1986 | 1966 | 1987 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 13720.33 | | 10859.10 | | | |
| ANNUAL MEAN | 37.6 | | 29.7 | | 44.9 | |
| HIGHEST ANNUAL MEAN | | | | | 92.3 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 15.2 | 1981 |
| HIGHEST DAILY MEAN | 1470 | Mar 30 | 1880 | Jan 4 | 2610 | Jul 14 1975 |
| LOWEST DAILY MEAN | 0 | Sep 3 | .80 | Sep 18 | 0 | Jul 9 1966 |
| ANNUAL SEVEN-DAY MINIMUM | 0 | Sep 3 | .91 | Sep 14 | 0 | Jul 9 1966 |
| INSTANTANEOUS PEAK FLOW | | | 2370 | Jan 4 | 6720* | Jul 14 1975 |
| INSTANTANEOUS PEAK STAGE | | | 35.76 | Jan 4 | 39.84 | Jul 14 1975 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0* | Jul 8 1966 |
| ANNUAL RUNOFF (CFSM) | .82 | | .65 | | .98 | |
| ANNUAL RUNOFF (INCHES) | 11.12 | | 8.80 | | 13.30 | |
| 10 PERCENT EXCEEDS | 72 | | 41 | | 88 | |
| 50 PERCENT EXCEEDS | 9.2 | | 12 | | 15 | |
| 90 PERCENT EXCEEDS | .59 | | 2.6 | | .90 | |

* See REMARKS.

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER-QUALITY RECORDS

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

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

INSTRUMENTATION.--Temperature recorder since May 1964.

REMARKS.--Miscellaneous chemical data published for water years, 1959, 1965-67; 1959 data published as North Hyco Creek near Leasburg (station 02077202). Prior to Oct. 1967, daily water-temperature data published as North Hyco Creek near Leasburg.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 30.0°C, July 2, 1991; minimum, 0.0°C, several days during winter months in most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE 1991: Maximum, 30.0°C, July 2; minimum, 1.3°C, Feb. 16.
WATER TEMPERATURE 1992: Maximum, 28.5°C, July 13; minimum, 0.0°C, Jan. 17, 20.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | --- | --- | --- | 12.6 | 10.1 | 11.3 | 6.8 | 5.2 | 6.1 | 10.3 | 6.8 | 8.0 |
| 2 | --- | --- | --- | 13.4 | 10.8 | 12.0 | 8.2 | 5.2 | 6.8 | 7.2 | 6.2 | 6.8 |
| 3 | --- | --- | --- | 13.9 | 11.0 | 12.5 | 11.8 | 7.9 | 9.3 | 6.8 | 5.5 | 6.1 |
| 4 | --- | --- | --- | 14.0 | 11.1 | 12.7 | 12.9 | 10.7 | 12.2 | 7.0 | 6.1 | 6.4 |
| 5 | --- | --- | --- | 15.0 | 12.0 | 13.6 | 10.4 | 6.0 | 7.7 | 5.8 | 4.5 | 5.1 |
| 6 | --- | --- | --- | 14.9 | 13.0 | 14.1 | 5.9 | 4.5 | 5.2 | 6.6 | 4.2 | 5.2 |
| 7 | --- | --- | --- | 12.9 | 10.5 | 11.5 | 5.5 | 4.8 | 5.1 | 7.0 | 6.6 | 6.8 |
| 8 | --- | --- | --- | 10.7 | 8.8 | 10.0 | 7.0 | 5.5 | 6.1 | 6.6 | 3.9 | 5.3 |
| 9 | --- | --- | --- | 9.7 | 8.4 | 9.1 | 5.9 | 4.7 | 5.3 | 5.7 | 3.6 | 4.3 |
| 10 | --- | --- | --- | 10.4 | 9.2 | 9.9 | 5.6 | 4.0 | 4.9 | 6.3 | 5.7 | 6.0 |
| 11 | 21.6 | 20.1 | 20.8 | 9.9 | 8.6 | 9.3 | 5.5 | 4.2 | 4.9 | 6.2 | 5.6 | 6.0 |
| 12 | 21.7 | 20.5 | 21.1 | 10.2 | 8.0 | 9.1 | 5.6 | 3.9 | 4.8 | 7.5 | 5.5 | 6.2 |
| 13 | 21.4 | 20.9 | 21.2 | 9.3 | 7.5 | 8.2 | 7.6 | 4.7 | 6.0 | 7.5 | 6.6 | 6.9 |
| 14 | 21.7 | 20.3 | 21.0 | 7.4 | 5.9 | 6.8 | 7.8 | 7.3 | 7.6 | 6.3 | 4.1 | 4.7 |
| 15 | 20.7 | 18.7 | 19.9 | 7.8 | 5.9 | 6.8 | 7.6 | 6.9 | 7.2 | 5.6 | 3.8 | 4.5 |
| 16 | 19.0 | 16.4 | 17.6 | 9.3 | 7.0 | 8.0 | 8.8 | 7.6 | 8.2 | 10.0 | 5.9 | 8.1 |
| 17 | 17.6 | 15.0 | 16.5 | 10.1 | 8.5 | 9.2 | 7.7 | 6.8 | 7.3 | 9.8 | 8.1 | 8.7 |
| 18 | 18.7 | 17.1 | 17.7 | 8.3 | 6.7 | 7.4 | 11.2 | 7.6 | 9.2 | 8.0 | 6.0 | 6.7 |
| 19 | 16.7 | 14.2 | 15.4 | 6.9 | 5.0 | 6.1 | 11.4 | 10.1 | 11.0 | 6.2 | 5.3 | 5.7 |
| 20 | 14.4 | 12.2 | 13.4 | 8.3 | 5.6 | 6.8 | 9.9 | 8.4 | 8.8 | 8.8 | 5.7 | 7.2 |
| 21 | 14.6 | 11.8 | 13.3 | 7.7 | 5.6 | 6.8 | 8.9 | 8.1 | 8.5 | 8.7 | 7.1 | 7.9 |
| 22 | 16.6 | 13.7 | 14.6 | 8.4 | 5.6 | 7.0 | 10.7 | 8.8 | 9.8 | 6.7 | 3.1 | 4.6 |
| 23 | 18.4 | 17.1 | 17.9 | 11.1 | 8.0 | 9.4 | 13.3 | 10.8 | 12.2 | 3.0 | 1.6 | 2.2 |
| 24 | 18.3 | 16.6 | 17.2 | 10.1 | 8.6 | 9.5 | 13.5 | 9.2 | 12.3 | 3.1 | 2.3 | 2.6 |
| 25 | 16.3 | 14.2 | 15.1 | 10.3 | 8.0 | 9.2 | 9.2 | 5.5 | 6.9 | 3.7 | 2.9 | 3.3 |
| 26 | 14.2 | 12.3 | 13.3 | 10.2 | 7.7 | 9.1 | 5.4 | 3.7 | 4.2 | 3.4 | 1.9 | 2.4 |
| 27 | 12.2 | 10.6 | 11.5 | 10.6 | 7.6 | 9.3 | 3.8 | 2.9 | 3.3 | 3.9 | 1.6 | 2.5 |
| 28 | 12.2 | 10.1 | 11.1 | 13.1 | 10.2 | 11.6 | 4.2 | 2.9 | 3.3 | 6.3 | 3.9 | 5.0 |
| 29 | 11.3 | 9.2 | 10.4 | 13.3 | 10.8 | 12.9 | 6.6 | 4.2 | 5.4 | 7.5 | 5.1 | 6.3 |
| 30 | 10.8 | 8.6 | 9.8 | 10.5 | 6.9 | 8.4 | 11.3 | 6.8 | 8.7 | 9.5 | 7.7 | 8.3 |
| 31 | 12.0 | 9.4 | 10.6 | --- | --- | --- | 12.2 | 10.6 | 11.8 | 9.7 | 7.7 | 9.2 |
| MONTH | --- | --- | --- | 15.0 | 5.0 | 9.6 | 13.5 | 2.9 | 7.4 | 10.3 | 1.6 | 5.8 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 7.6 | 4.8 | 5.9 | 11.1 | 6.0 | 8.3 | 13.9 | 11.0 | 12.6 | 21.4 | 18.3 | 20.1 |
| 2 | 5.7 | 3.4 | 4.8 | 13.8 | 11.3 | 12.6 | 14.3 | 11.8 | 13.3 | 21.2 | 18.5 | 19.9 |
| 3 | 6.6 | 4.1 | 5.4 | 13.8 | 12.0 | 12.8 | 14.8 | 11.9 | 13.5 | 20.3 | 16.0 | 18.4 |
| 4 | 7.0 | 4.5 | 5.9 | 12.7 | 11.6 | 12.2 | 15.9 | 12.7 | 14.4 | 21.3 | 18.1 | 19.8 |
| 5 | 8.5 | 5.3 | 6.9 | 11.9 | 9.2 | 10.6 | 15.9 | 15.0 | 15.4 | 20.5 | 19.0 | 19.9 |
| 6 | 9.8 | 8.7 | 9.2 | 11.3 | 9.9 | 10.6 | 18.6 | 14.5 | 16.4 | 21.5 | 19.8 | 20.4 |
| 7 | 11.9 | 9.8 | 10.9 | 13.4 | 11.0 | 12.1 | 21.0 | 16.6 | 18.7 | 21.3 | 18.8 | 20.1 |
| 8 | 11.7 | 10.2 | 11.2 | 12.5 | 8.8 | 10.9 | 21.6 | 17.7 | 20.0 | 21.1 | 17.3 | 19.2 |
| 9 | 9.9 | 7.2 | 8.9 | 8.9 | 6.3 | 7.8 | 22.9 | 20.3 | 21.5 | 19.6 | 18.7 | 19.3 |
| 10 | 9.1 | 7.0 | 8.3 | 8.2 | 6.7 | 7.4 | 22.1 | 19.7 | 20.8 | 22.0 | 18.1 | 19.7 |
| 11 | 8.2 | 6.3 | 7.2 | 8.1 | 4.7 | 6.6 | 19.5 | 16.1 | 17.8 | 21.2 | 19.3 | 20.5 |
| 12 | 6.2 | 4.5 | 5.5 | 7.7 | 5.0 | 6.6 | 16.6 | 14.2 | 15.7 | 22.8 | 19.4 | 20.9 |
| 13 | 6.9 | 5.1 | 5.8 | 7.9 | 7.4 | 7.7 | 16.0 | 13.9 | 14.8 | 23.8 | 20.7 | 21.9 |
| 14 | 9.5 | 7.1 | 8.3 | 9.3 | 7.3 | 8.2 | 13.8 | 13.5 | 13.7 | 23.6 | 21.4 | 22.5 |
| 15 | 8.3 | 4.5 | 6.8 | 11.3 | 7.9 | 9.6 | 15.0 | 13.2 | 13.9 | 25.5 | 21.6 | 23.3 |
| 16 | 4.1 | 1.3 | 2.5 | 11.5 | 7.1 | 9.7 | 19.6 | 14.6 | 16.9 | 25.7 | 22.9 | 24.1 |
| 17 | 3.0 | 1.5 | 2.1 | 11.8 | 8.4 | 10.3 | 22.0 | 17.1 | 19.3 | 25.4 | 22.9 | 24.1 |
| 18 | 4.8 | 3.1 | 4.1 | 14.8 | 11.3 | 12.7 | 22.3 | 18.7 | 20.5 | 25.4 | 22.8 | 24.2 |
| 19 | 9.6 | 4.8 | 6.8 | 14.8 | 11.7 | 12.8 | 20.4 | 15.0 | 17.7 | 24.3 | 17.8 | 21.1 |
| 20 | 12.6 | 9.8 | 11.4 | 12.8 | 9.5 | 11.2 | 15.0 | 13.6 | 14.0 | 17.6 | 16.0 | 16.8 |
| 21 | 13.4 | 11.4 | 12.5 | 15.7 | 12.1 | 13.7 | 14.1 | 13.3 | 13.7 | 17.9 | 16.3 | 17.0 |
| 22 | 12.9 | 11.3 | 12.3 | 16.7 | 14.5 | 15.5 | 13.7 | 11.8 | 12.8 | 20.4 | 17.9 | 19.1 |
| 23 | 12.4 | 8.7 | 10.8 | 16.4 | 15.3 | 16.0 | 15.1 | 12.4 | 13.7 | 22.0 | 19.3 | 20.5 |
| 24 | 8.5 | 6.5 | 7.6 | 16.3 | 13.9 | 15.2 | 17.4 | 14.5 | 15.9 | 23.3 | 20.2 | 21.6 |
| 25 | 9.2 | 6.8 | 8.1 | 16.4 | 14.1 | 15.3 | 17.6 | 14.5 | 16.2 | 25.0 | 21.1 | 22.7 |
| 26 | 9.2 | 6.3 | 7.9 | 16.1 | 12.9 | 14.8 | 17.4 | 15.8 | 16.7 | 25.6 | 21.6 | 23.6 |
| 27 | 7.3 | 4.1 | 5.8 | 18.2 | 14.3 | 16.2 | 19.1 | 16.3 | 17.6 | 26.1 | 23.3 | 24.7 |
| 28 | 8.5 | 4.8 | 6.8 | 20.8 | 17.6 | 19.0 | 20.3 | 18.2 | 19.2 | 25.9 | 24.6 | 25.3 |
| 29 | --- | --- | --- | 20.2 | 14.5 | 16.8 | 20.7 | 19.4 | 20.0 | 27.0 | 23.5 | 25.2 |
| 30 | --- | --- | --- | 14.6 | 13.6 | 14.1 | 20.6 | 19.6 | 20.2 | 27.3 | 23.7 | 25.5 |
| 31 | --- | --- | --- | 13.3 | 11.3 | 12.4 | --- | --- | --- | 27.9 | 24.7 | 26.3 |
| MONTH | 13.4 | 1.3 | 7.5 | 20.8 | 4.7 | 11.9 | 22.9 | 11.0 | 16.6 | 27.9 | 16.0 | 21.5 |

ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 28.6 | 25.6 | 27.0 | 29.5 | 24.8 | 26.8 | 24.1 | 22.4 | 23.1 | 26.1 | 23.4 | 24.7 |
| 2 | 27.6 | 25.3 | 26.5 | 30.0 | 23.1 | 26.8 | 25.6 | 22.9 | 24.1 | 23.2 | 21.2 | 22.2 |
| 3 | 26.7 | 24.1 | 25.4 | 25.6 | 23.1 | 24.5 | 27.5 | 24.4 | 25.6 | 22.7 | 19.8 | 21.2 |
| 4 | 26.9 | 24.1 | 25.3 | 27.4 | 24.6 | 25.9 | 28.5 | 24.8 | 26.2 | 23.7 | 19.4 | 21.4 |
| 5 | 24.6 | 21.2 | 22.7 | 26.7 | 25.5 | 26.1 | 27.3 | 24.8 | 25.9 | --- | --- | --- |
| 6 | 22.0 | 19.0 | 20.5 | 28.3 | 24.7 | 26.1 | 26.8 | 25.1 | 25.8 | --- | --- | --- |
| 7 | 21.2 | 17.3 | 19.4 | 28.4 | 24.7 | 26.3 | 26.4 | 25.2 | 25.6 | --- | --- | --- |
| 8 | 21.8 | 17.1 | 19.3 | 29.0 | 25.1 | 26.8 | 27.1 | 25.0 | 25.9 | --- | --- | --- |
| 9 | 22.5 | 18.9 | 20.5 | 27.4 | 23.8 | 25.9 | 26.8 | 25.3 | 25.9 | --- | --- | --- |
| 10 | 23.4 | 19.3 | 21.1 | 28.1 | 24.1 | 25.7 | 26.0 | 24.9 | 25.5 | --- | --- | --- |
| 11 | 23.9 | 20.2 | 21.8 | 26.6 | 24.0 | 25.0 | 25.5 | 24.2 | 24.9 | --- | --- | --- |
| 12 | 24.8 | 22.3 | 23.3 | 25.4 | 24.0 | 24.8 | 24.8 | 23.1 | 24.0 | --- | --- | --- |
| 13 | 25.5 | 22.1 | 23.6 | 27.4 | 23.7 | 25.3 | 23.3 | 22.2 | 22.9 | --- | --- | --- |
| 14 | 25.5 | 22.6 | 23.9 | 28.0 | 23.7 | 25.3 | 23.0 | 22.1 | 22.7 | --- | --- | --- |
| 15 | 27.0 | 23.1 | 24.8 | 27.3 | 23.9 | 25.4 | 24.2 | 21.5 | 22.6 | --- | --- | --- |
| 16 | 27.3 | 24.5 | 25.5 | 27.1 | 23.5 | 25.0 | 24.9 | 21.8 | 23.3 | --- | --- | --- |
| 17 | 27.1 | 22.9 | 24.7 | 26.2 | 22.8 | 24.4 | 25.0 | 22.1 | 23.5 | --- | --- | --- |
| 18 | 25.8 | 24.8 | 25.3 | 28.1 | 23.1 | 25.0 | 25.6 | 22.7 | 23.9 | --- | --- | --- |
| 19 | 25.2 | 24.0 | 24.5 | 27.7 | 24.0 | 25.5 | 26.1 | 23.9 | 25.0 | --- | --- | --- |
| 20 | 24.8 | 23.4 | 24.1 | 28.3 | 24.6 | 26.0 | 26.1 | 24.4 | 25.1 | --- | --- | --- |
| 21 | 26.5 | 23.2 | 24.6 | 28.3 | 24.8 | 26.3 | 24.4 | 21.6 | 23.2 | --- | --- | --- |
| 22 | 27.1 | 24.5 | 25.6 | 27.2 | 24.3 | 25.6 | 23.4 | 21.5 | 22.5 | --- | --- | --- |
| 23 | 25.9 | 23.5 | 24.7 | 29.0 | 25.1 | 26.6 | 23.7 | 21.4 | 22.5 | --- | --- | 17.0 |
| 24 | 25.2 | 22.1 | 23.3 | 29.8 | 25.1 | 26.9 | 24.8 | 21.7 | 23.0 | 22.2 | 14.0 | 17.8 |
| 25 | 24.0 | 20.7 | 22.5 | 28.9 | 25.3 | 27.0 | 25.3 | 23.1 | 24.0 | 19.9 | 18.3 | 18.9 |
| 26 | 23.7 | 20.1 | 21.7 | 27.5 | 25.6 | 26.6 | 24.1 | 23.2 | 23.5 | 19.9 | 19.0 | 19.6 |
| 27 | 24.3 | 20.7 | 22.3 | 25.9 | 24.4 | 25.2 | 25.0 | 22.8 | 23.8 | 18.6 | 16.6 | 17.5 |
| 28 | 26.1 | 21.3 | 23.5 | 24.3 | 23.2 | 23.8 | 26.2 | 23.9 | 24.8 | 16.6 | 14.0 | 15.5 |
| 29 | 27.2 | 22.7 | 24.8 | 23.2 | 22.3 | 22.9 | 26.5 | 24.2 | 25.2 | 16.8 | 14.0 | 15.4 |
| 30 | 28.5 | 24.2 | 26.0 | 22.2 | 20.6 | 21.5 | 27.7 | 24.1 | 25.5 | 17.8 | 14.8 | 16.2 |
| 31 | --- | --- | --- | 22.9 | 20.8 | 21.7 | 26.9 | 24.1 | 25.4 | --- | --- | --- |
| MONTH | 28.6 | 17.1 | 23.6 | 30.0 | 20.6 | 25.4 | 28.5 | 21.4 | 24.4 | --- | --- | --- |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 19.2 | 15.6 | 17.0 | 13.3 | 10.3 | 11.9 | 13.5 | 11.1 | 12.4 | 5.4 | 4.4 | 4.9 |
| 2 | 18.3 | 17.1 | 17.7 | 15.2 | 12.7 | 13.7 | 16.3 | 13.6 | 15.2 | 6.5 | 5.1 | 5.7 |
| 3 | 20.5 | 17.4 | 18.9 | 14.2 | 11.3 | 12.2 | 17.6 | 16.1 | 16.9 | 10.0 | 6.5 | 8.1 |
| 4 | 21.2 | 18.4 | 19.6 | 12.8 | 9.4 | 10.5 | 16.3 | 9.9 | 13.6 | 10.3 | 10.0 | 10.2 |
| 5 | 21.3 | 18.8 | 20.1 | 10.0 | 7.5 | 8.6 | 9.9 | 6.9 | 8.3 | 10.6 | 10.0 | 10.3 |
| 6 | 20.9 | 18.9 | 20.2 | 8.3 | 6.0 | 7.5 | 7.5 | 5.7 | 6.6 | 10.1 | 5.0 | 8.8 |
| 7 | 18.6 | 15.2 | 16.6 | 8.0 | 6.2 | 7.2 | 7.7 | 5.6 | 6.7 | 7.9 | 5.8 | 6.5 |
| 8 | 17.7 | 12.0 | 14.1 | 7.5 | 6.5 | 7.0 | 8.8 | 6.2 | 7.5 | 5.7 | 4.6 | 5.3 |
| 9 | 15.0 | 11.8 | 13.3 | 7.2 | 5.9 | 6.7 | 11.4 | 8.9 | 10.2 | 7.2 | 5.5 | 6.4 |
| 10 | 15.5 | 12.8 | 14.2 | 6.9 | 6.2 | 6.4 | 11.7 | 9.9 | 11.0 | 7.9 | 7.2 | 7.5 |
| 11 | 16.2 | 13.9 | 15.1 | 8.3 | 6.5 | 7.3 | 9.8 | 7.9 | 9.0 | 7.1 | 5.3 | 6.0 |
| 12 | 16.4 | 14.5 | 15.5 | 8.1 | 6.4 | 7.4 | 9.5 | 8.0 | 8.9 | 6.2 | 4.2 | 5.2 |
| 13 | 15.9 | 13.8 | 14.8 | 8.3 | 6.3 | 7.4 | 12.0 | 9.4 | 10.8 | 8.1 | 6.3 | 7.1 |
| 14 | 14.8 | 12.1 | 13.5 | 8.4 | 6.2 | 7.4 | 13.3 | 11.6 | 12.5 | 9.9 | 8.2 | 9.2 |
| 15 | 15.7 | 12.8 | 14.2 | 10.3 | 8.0 | 8.9 | 11.5 | 7.2 | 9.5 | 8.5 | 4.8 | 6.3 |
| 16 | 15.5 | 14.2 | 15.0 | 11.8 | 9.2 | 10.3 | 6.9 | 5.3 | 6.0 | 4.5 | 1.3 | 3.2 |
| 17 | 14.5 | 13.1 | 13.9 | 11.6 | 10.0 | 11.0 | 5.0 | 3.9 | 4.5 | 1.3 | .0 | .8 |
| 18 | 14.5 | 10.6 | 12.8 | 9.7 | 8.1 | 8.9 | 4.4 | 3.8 | 4.2 | 3.1 | 1.3 | 2.2 |
| 19 | 15.6 | 12.6 | 14.0 | 12.7 | 9.1 | 10.8 | 4.1 | 2.6 | 3.2 | 3.1 | 1.7 | 2.8 |
| 20 | 15.4 | 13.8 | 14.7 | 14.1 | 12.0 | 13.0 | 4.1 | 1.8 | 2.6 | 2.0 | .0 | 1.3 |
| 21 | 13.6 | 10.8 | 12.7 | 16.2 | 12.4 | 15.0 | 2.9 | 1.8 | 2.2 | 3.2 | 1.0 | 1.9 |
| 22 | 15.2 | 10.6 | 13.0 | 17.4 | 16.3 | 16.9 | 3.5 | 2.0 | 2.8 | 3.8 | 2.3 | 3.0 |
| 23 | 16.1 | 13.5 | 14.6 | 16.4 | 14.1 | 15.4 | 5.4 | 3.4 | 4.1 | 6.2 | 3.2 | 4.4 |
| 24 | 17.6 | 15.0 | 15.8 | 14.5 | 11.5 | 13.5 | 7.7 | 5.5 | 6.6 | 6.2 | 4.5 | 5.4 |
| 25 | 17.8 | 14.5 | 16.5 | 11.1 | 8.6 | 9.9 | 6.3 | 4.8 | 5.5 | 4.3 | 2.5 | 3.1 |
| 26 | 18.5 | 14.9 | 17.1 | 8.0 | 6.2 | 6.9 | 4.7 | 3.3 | 3.8 | 3.7 | 2.5 | 3.1 |
| 27 | 18.8 | 15.4 | 17.5 | 6.1 | 5.3 | 5.7 | 5.8 | 3.8 | 4.8 | 4.2 | 2.9 | 3.4 |
| 28 | 18.3 | 16.5 | 17.5 | 6.5 | 4.7 | 5.5 | 5.3 | 5.0 | 5.2 | 6.7 | 4.3 | 5.6 |
| 29 | 17.4 | 14.4 | 15.4 | 7.9 | 5.2 | 6.4 | 6.9 | 5.3 | 6.1 | 6.5 | 5.8 | 6.0 |
| 30 | 14.0 | 11.7 | 13.0 | 11.2 | 7.6 | 9.4 | 6.9 | 6.0 | 6.4 | 6.2 | 5.0 | 5.7 |
| 31 | 13.7 | 10.6 | 12.3 | --- | --- | --- | 6.0 | 5.0 | 5.7 | 6.9 | 5.1 | 5.9 |
| MONTH | 21.3 | 10.6 | 15.5 | 17.4 | 4.7 | 9.6 | 17.6 | 1.8 | 7.5 | 10.6 | .0 | 5.3 |

ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 5.8 | 4.6 | 5.3 | 9.2 | 7.0 | 8.4 | 12.7 | 9.9 | 11.5 | 16.3 | 12.8 | 14.5 |
| 2 | 4.5 | 3.3 | 3.9 | 10.7 | 7.1 | 8.9 | 11.7 | 9.5 | 10.7 | 19.2 | 14.4 | 16.6 |
| 3 | 4.9 | 2.7 | 3.7 | 12.8 | 9.5 | 11.2 | 9.5 | 9.3 | 9.4 | 21.5 | 17.9 | 19.2 |
| 4 | 6.3 | 3.9 | 4.9 | 12.3 | 10.8 | 11.2 | 9.3 | 6.4 | 8.4 | 19.6 | 16.7 | 18.2 |
| 5 | 6.5 | 4.8 | 5.6 | 11.4 | 10.0 | 10.7 | 10.1 | 5.4 | 7.6 | 16.6 | 14.9 | 15.7 |
| 6 | 5.8 | 4.3 | 5.1 | 12.5 | 10.5 | 11.4 | 10.8 | 7.1 | 8.9 | 14.7 | 13.2 | 14.0 |
| 7 | 5.2 | 3.6 | 4.3 | 14.6 | 11.9 | 13.1 | 12.0 | 9.2 | 10.7 | 13.0 | 11.2 | 12.0 |
| 8 | 5.5 | 3.8 | 4.5 | 14.8 | 13.2 | 14.1 | 15.0 | 10.0 | 12.4 | 12.5 | 10.5 | 11.4 |
| 9 | 4.2 | 2.7 | 3.5 | 14.6 | 12.3 | 13.6 | 16.9 | 12.1 | 14.4 | 14.1 | 12.2 | 13.1 |
| 10 | 7.3 | 3.4 | 4.7 | 14.2 | 13.5 | 13.9 | 19.6 | 14.4 | 16.7 | 16.5 | 12.6 | 14.4 |
| 11 | 5.7 | 3.0 | 4.1 | 13.7 | 9.9 | 11.7 | 20.9 | 16.4 | 18.6 | 18.7 | 14.1 | 16.2 |
| 12 | 6.0 | 4.0 | 4.9 | 9.8 | 3.7 | 7.5 | 20.9 | 17.6 | 19.4 | 19.4 | 15.5 | 17.4 |
| 13 | 4.7 | 4.0 | 4.4 | 9.0 | 7.7 | 8.4 | 19.8 | 15.9 | 17.7 | 19.8 | 17.2 | 18.6 |
| 14 | 7.2 | 4.0 | 5.4 | 8.8 | 6.5 | 7.9 | 18.0 | 12.7 | 15.4 | 21.3 | 18.2 | 19.6 |
| 15 | 8.2 | 6.4 | 7.3 | 6.3 | 4.6 | 5.5 | 19.7 | 14.9 | 17.1 | 21.1 | 19.1 | 20.0 |
| 16 | 10.4 | 8.2 | 9.3 | 5.6 | 4.6 | 5.1 | 19.0 | 16.4 | 17.6 | 22.0 | 19.0 | 20.3 |
| 17 | 9.4 | 7.7 | 8.2 | 9.4 | 4.3 | 6.6 | 22.0 | 16.5 | 19.1 | 21.5 | 19.7 | 20.6 |
| 18 | 7.8 | 7.1 | 7.4 | 10.7 | 7.6 | 9.2 | 23.6 | 19.1 | 21.3 | 22.1 | 19.1 | 20.6 |
| 19 | 10.5 | 7.5 | 8.9 | 13.5 | 10.6 | 12.0 | 22.9 | 19.6 | 21.2 | 21.3 | 19.3 | 20.2 |
| 20 | 10.6 | 8.6 | 9.7 | 12.8 | 9.9 | 11.3 | 22.2 | 20.1 | 21.1 | 19.2 | 16.8 | 18.3 |
| 21 | 9.6 | 6.9 | 8.5 | 10.9 | 7.6 | 9.3 | 21.1 | 17.9 | 19.4 | 19.8 | 16.1 | 17.9 |
| 22 | 9.6 | 7.4 | 8.7 | 9.5 | 7.2 | 8.2 | 19.8 | 17.4 | 18.5 | 19.8 | 15.2 | 17.5 |
| 23 | 10.0 | 8.7 | 9.3 | 11.2 | 8.4 | 9.6 | 19.4 | 16.7 | 18.1 | 20.7 | 15.9 | 18.2 |
| 24 | 11.2 | 10.1 | 10.7 | 10.4 | 4.5 | 8.6 | 19.9 | 17.1 | 18.7 | 21.2 | 17.1 | 19.2 |
| 25 | 11.1 | 9.5 | 10.5 | 9.8 | 7.4 | 8.9 | 19.5 | 17.5 | 18.7 | 20.3 | 18.2 | 19.0 |
| 26 | 9.4 | 8.7 | 9.1 | 10.2 | 9.7 | 10.0 | 16.9 | 14.4 | 15.4 | 18.1 | 16.3 | 17.0 |
| 27 | 9.1 | 7.4 | 8.3 | 10.2 | 8.2 | 9.3 | 14.8 | 12.3 | 13.5 | 17.7 | 15.8 | 16.5 |
| 28 | 9.3 | 7.4 | 8.4 | 11.1 | 7.0 | 9.1 | 15.3 | 12.9 | 14.1 | 16.2 | 15.2 | 15.8 |
| 29 | 10.5 | 9.1 | 9.7 | 10.8 | 8.1 | 9.8 | 15.5 | 12.0 | 13.9 | 15.2 | 14.8 | 15.0 |
| 30 | --- | --- | --- | 12.5 | 10.6 | 11.5 | 14.6 | 13.0 | 13.9 | 15.3 | 14.3 | 14.9 |
| 31 | --- | --- | --- | 13.7 | 11.5 | 12.5 | --- | --- | --- | 18.1 | 15.3 | 16.5 |
| MONTH | 11.2 | 2.7 | 6.8 | 14.8 | 3.7 | 10.0 | 23.6 | 5.4 | 15.4 | 22.1 | 10.5 | 17.0 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 18.0 | 15.6 | 16.8 | 24.3 | 23.0 | 23.7 | 24.7 | 23.2 | 24.0 | 22.0 | 19.5 | 20.6 |
| 2 | 19.3 | 16.3 | 17.8 | 24.8 | 23.0 | 24.0 | 22.7 | 20.6 | 21.5 | 22.5 | 20.0 | 21.2 |
| 3 | 19.5 | 17.3 | 18.6 | 24.6 | 23.8 | 24.2 | 23.0 | 20.0 | 21.4 | 23.4 | 21.2 | 22.1 |
| 4 | 19.1 | 18.8 | 19.0 | 26.2 | 23.6 | 24.6 | 24.3 | 22.0 | 23.0 | 23.2 | 21.5 | 22.3 |
| 5 | 20.5 | 18.8 | 19.6 | 25.1 | 22.1 | 23.7 | 23.4 | 22.0 | 22.6 | 23.5 | 22.0 | 22.7 |
| 6 | 22.2 | 19.1 | 20.6 | 24.8 | 23.5 | 24.1 | 22.0 | 21.4 | 21.7 | 23.7 | 22.3 | 23.1 |
| 7 | 23.3 | 20.1 | 21.6 | 24.7 | 22.2 | 23.6 | 21.8 | 20.8 | 21.4 | 23.5 | 22.3 | 23.0 |
| 8 | 24.8 | 22.0 | 23.3 | 24.3 | 22.1 | 23.2 | 23.2 | 21.1 | 22.0 | 23.8 | 22.0 | 22.9 |
| 9 | 23.4 | 22.4 | 22.7 | 26.2 | 23.5 | 24.7 | 24.5 | 22.1 | 23.2 | 23.9 | 21.9 | 23.0 |
| 10 | 22.6 | 21.9 | 22.4 | 27.7 | 24.3 | 25.8 | 25.2 | 22.3 | 23.7 | 24.1 | 22.2 | 23.2 |
| 11 | 21.8 | 20.4 | 21.1 | 28.0 | 24.7 | 26.3 | 26.0 | 23.6 | 24.5 | 23.5 | 22.0 | 22.9 |
| 12 | 22.0 | 19.8 | 20.7 | 28.3 | 25.4 | 26.7 | 23.8 | 21.5 | 22.8 | 21.8 | 19.8 | 20.8 |
| 13 | 21.3 | 19.5 | 20.3 | 28.5 | 25.3 | 26.7 | 23.5 | 21.4 | 22.6 | 19.8 | 18.1 | 19.0 |
| 14 | 21.3 | 19.8 | 20.5 | 28.1 | 24.5 | 26.2 | 21.5 | 20.8 | 21.1 | 19.1 | 16.7 | 18.0 |
| 15 | 22.5 | 19.6 | 21.1 | 27.9 | 25.0 | 26.4 | 21.2 | 20.2 | 20.6 | 18.9 | 16.1 | 17.5 |
| 16 | 22.2 | 21.6 | 21.9 | 26.7 | 25.0 | 26.0 | 20.6 | 19.9 | 20.2 | 18.9 | 16.0 | 17.5 |
| 17 | 22.0 | 20.3 | 21.3 | 26.8 | 24.6 | 25.6 | 20.2 | 20.0 | 20.1 | 20.2 | 18.0 | 19.0 |
| 18 | 22.3 | 20.5 | 21.5 | 26.3 | 24.2 | 25.1 | 22.5 | 20.1 | 21.1 | 21.5 | 19.2 | 20.2 |
| 19 | 23.2 | 21.6 | 22.3 | 27.0 | 24.2 | 25.4 | 23.3 | 20.8 | 22.1 | 21.7 | 20.3 | 21.0 |
| 20 | 24.4 | 21.6 | 22.9 | 26.4 | 24.0 | 25.1 | 22.9 | 21.6 | 22.2 | 21.4 | 20.1 | 20.5 |
| 21 | 22.7 | 20.5 | 22.0 | 25.8 | 24.0 | 24.8 | 23.3 | 21.4 | 22.3 | 21.4 | 20.1 | 20.7 |
| 22 | 21.5 | 18.5 | 19.8 | 24.7 | 23.7 | 24.2 | 22.2 | 21.4 | 21.9 | 22.3 | 20.6 | 21.5 |
| 23 | 20.0 | 17.0 | 18.8 | 24.0 | 23.1 | 23.5 | 22.2 | 20.2 | 21.3 | 22.1 | 19.3 | 21.4 |
| 24 | 21.5 | 19.2 | 20.3 | 24.6 | 24.0 | 24.3 | 22.1 | 20.4 | 21.4 | 19.2 | 16.5 | 17.5 |
| 25 | 22.6 | 20.2 | 21.5 | 25.9 | 23.8 | 24.7 | 23.5 | 20.6 | 21.9 | 16.3 | 15.6 | 15.8 |
| 26 | 23.8 | 21.7 | 22.5 | 26.4 | 24.3 | 25.4 | 22.5 | 21.6 | 22.1 | 16.3 | 15.6 | 16.0 |
| 27 | 24.4 | 21.8 | 22.9 | 27.5 | 24.7 | 26.0 | 22.7 | 21.6 | 22.1 | 18.8 | 16.3 | 17.6 |
| 28 | 24.0 | 21.0 | 22.6 | 25.9 | 24.1 | 24.9 | 22.6 | 21.7 | 22.1 | 19.3 | 18.7 | 19.0 |
| 29 | 23.9 | 21.6 | 22.8 | 25.5 | 22.4 | 24.4 | 21.8 | 19.6 | 20.7 | 19.3 | 17.8 | 18.7 |
| 30 | 24.2 | 21.9 | 23.1 | 25.8 | 23.3 | 24.5 | 21.3 | 18.3 | 19.6 | 17.3 | 14.8 | 15.9 |
| 31 | --- | --- | --- | 26.2 | 24.1 | 25.1 | 21.5 | 19.0 | 20.1 | --- | --- | --- |
| MONTH | 24.8 | 15.6 | 21.1 | 28.5 | 22.1 | 24.9 | 26.0 | 18.3 | 21.8 | 24.1 | 14.8 | 20.2 |
| YEAR | 28.5 | .0 | 14.6 | | | | | | | | | |

ROANOKE RIVER BASIN

## 02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR McGEHEES MILL, NC

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

DRAINAGE AREA.--202 $mi^2$.

### WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--No estimated daily discharges. Records good except those above 150 $ft^3/s$, which are fair. Flow regulated by Roxboro Steam-Electric Generating Plant afterbay reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 17 | 17 | 19 | 47 | 706 | 63 | 99 | 102 | 18 | 42 | 21 |
| 2 | 12 | 17 | 26 | 19 | 46 | 400 | 59 | 98 | 101 | 18 | 32 | 21 |
| 3 | 12 | 17 | 34 | 35 | 44 | 102 | 54 | 97 | 44 | 21 | 18 | 21 |
| 4 | 22 | 17 | 34 | 2000 | 39 | 80 | 50 | 98 | 16 | 18 | 18 | 21 |
| 5 | 28 | 17 | 34 | 3010 | 38 | 80 | 82 | 99 | 15 | 32 | 18 | 21 |
| 6 | 29 | 18 | 32 | 1900 | 38 | 80 | 108 | 98 | 15 | 59 | 18 | 22 |
| 7 | 31 | 18 | 32 | 702 | 39 | 346 | 99 | 98 | 15 | 17 | 18 | 22 |
| 8 | 31 | 18 | 33 | 639 | 38 | 443 | 97 | 97 | 15 | 17 | 18 | 22 |
| 9 | 30 | 18 | 33 | 292 | 38 | 432 | 97 | 97 | 15 | 17 | 18 | 21 |
| 10 | 22 | 18 | 33 | 49 | 38 | 426 | 97 | 54 | 15 | 15 | 18 | 21 |
| 11 | 17 | 17 | 33 | 49 | 38 | 445 | 61 | 23 | 15 | 13 | 18 | 21 |
| 12 | 17 | 16 | 26 | 49 | 38 | 422 | 14 | 23 | 16 | 13 | 18 | 21 |
| 13 | 17 | 16 | 22 | 50 | 38 | 206 | 15 | 23 | 16 | 13 | 18 | 21 |
| 14 | 17 | 15 | 22 | 154 | 38 | 16 | 15 | 19 | 17 | 13 | 117 | 21 |
| 15 | 17 | 15 | 22 | 143 | 38 | 15 | 15 | 15 | 18 | 13 | 577 | 21 |
| 16 | 17 | 15 | 22 | 143 | 38 | 15 | 15 | 15 | 18 | 13 | 527 | 21 |
| 17 | 17 | 15 | 23 | 141 | 38 | 15 | 15 | 15 | 18 | 13 | 109 | 20 |
| 18 | 17 | 15 | 23 | 140 | 38 | 15 | 15 | 15 | 18 | 13 | 111 | 20 |
| 19 | 17 | 14 | 23 | 76 | 39 | 15 | 15 | 15 | 18 | 13 | 111 | 20 |
| 20 | 17 | 14 | 23 | 46 | 39 | 14 | 15 | 15 | 18 | 13 | 110 | 20 |
| 21 | 17 | 13 | 22 | 45 | 39 | 15 | 55 | 15 | 18 | 13 | 110 | 20 |
| 22 | 17 | 13 | 22 | 45 | 39 | 15 | 1140 | 15 | 18 | 14 | 109 | 20 |
| 23 | 17 | 13 | 22 | 46 | 39 | 14 | 1450 | 15 | 18 | 14 | 108 | 20 |
| 24 | 17 | 16 | 20 | 46 | 39 | 15 | 1030 | 14 | 18 | 14 | 107 | 20 |
| 25 | 17 | 18 | 19 | 46 | 637 | 15 | 605 | 14 | 18 | 16 | 106 | 21 |
| 26 | 17 | 18 | 19 | 46 | 548 | 15 | 192 | 14 | 18 | 27 | 105 | 21 |
| 27 | 17 | 18 | 18 | 46 | 777 | 22 | 115 | 14 | 18 | 26 | 104 | 20 |
| 28 | 17 | 17 | 18 | 46 | 940 | 48 | 99 | 14 | 18 | 27 | 29 | 20 |
| 29 | 17 | 17 | 19 | 46 | 749 | 60 | 99 | 14 | 18 | 20 | 21 | 20 |
| 30 | 17 | 17 | 18 | 46 | --- | 65 | 98 | 36 | 18 | 14 | 21 | 21 |
| 31 | 17 | --- | 18 | 46 | --- | 66 | --- | 102 | --- | 15 | 21 | --- |
| TOTAL | 586 | 487 | 762 | 10160 | 4594 | 4623 | 5884 | 1380 | 705 | 562 | 2775 | 622 |
| MEAN | 18.9 | 16.2 | 24.6 | 328 | 158 | 149 | 196 | 44.5 | 23.5 | 18.1 | 89.5 | 20.7 |
| MAX | 31 | 18 | 34 | 3010 | 940 | 706 | 1450 | 102 | 102 | 59 | 577 | 22 |
| MIN | 12 | 13 | 17 | 19 | 38 | 14 | 14 | 14 | 15 | 13 | 18 | 20 |
| CFSM | .09 | .08 | .12 | 1.62 | .78 | .74 | .97 | .22 | .12 | .09 | .44 | .10 |
| IN. | .11 | .09 | .14 | 1.87 | .85 | .85 | 1.08 | .25 | .13 | .10 | .51 | .11 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 49.1 | 59.9 | 121 | 411 | 346 | 412 | 240 | 132 | 72.7 | 125 | 72.4 | 130 |
| MAX | 224 | 334 | 361 | 1201 | 926 | 1135 | 692 | 864 | 456 | 1058 | 294 | 675 |
| (WY) | 1990 | 1986 | 1983 | 1978 | 1979 | 1975 | 1983 | 1978 | 1982 | 1975 | 1982 | 1974 |
| MIN | 6.56 | 6.78 | 12.1 | 18.9 | 11.0 | 18.3 | 12.9 | 7.90 | 3.96 | 9.60 | 1.43 | 1.55 |
| (WY) | 1974 | 1974 | 1985 | 1981 | 1981 | 1981 | 1985 | 1981 | 1974 | 1985 | 1977 | 1977 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1974 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 46420 | | 33140 | | | |
| ANNUAL MEAN | 127 | | 90.5 | | 180 | |
| HIGHEST ANNUAL MEAN | | | | | 392 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 17.9 | 1981 |
| HIGHEST DAILY MEAN | 4370 | Mar 30 | 3010 | Jan 5 | 9280 | Jul 14 1975 |
| LOWEST DAILY MEAN | 12 | Oct 1 | 12 | Oct 1 | .31 | Sep 21 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 13 | May 25 | 13 | Jul 11 | .48 | Sep 16 1977 |
| INSTANTANEOUS PEAK FLOW | | | 3110 | Jan 5 | 11300 | Jul 14 1975 |
| INSTANTANEOUS PEAK STAGE | | | 15.24 | Jan 5 | 24.40 | Jul 14 1975 |
| INSTANTANEOUS LOW FLOW | | | 2.7 | Dec 12 | 0 | Jun 26 1980 |
| ANNUAL RUNOFF (CFSM) | .63 | | .45 | | .89 | |
| ANNUAL RUNOFF (INCHES) | 8.55 | | 6.10 | | 12.12 | |
| 10 PERCENT EXCEEDS | 186 | | 110 | | 418 | |
| 50 PERCENT EXCEEDS | 15 | | 21 | | 35 | |
| 90 PERCENT EXCEEDS | 13 | | 15 | | 11 | |

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

WATER-QUALITY RECORDS

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

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

INSTRUMENTATION.--Temperature recorder since June 1974. Water-quality monitor from Oct. 1981 to Sept. 1983.

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

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE 1991: Maximun, 23.9°C, Sept. 14; minimum, 6.9°C, Feb. 16.
WATER TEMPERATURE 1992: Maximum, 24.6°C, Aug. 16; minimum, 6.4°C, Feb. 13.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 22.4 | 21.8 | 22.2 | 17.5 | 16.1 | 16.6 | 12.7 | 11.6 | 12.2 | 10.5 | 10.1 | 10.3 |
| 2 | 22.5 | 21.5 | 22.0 | 17.7 | 15.6 | 16.5 | 12.8 | 12.0 | 12.4 | 10.4 | 10.1 | 10.2 |
| 3 | 22.3 | 21.1 | 21.9 | 17.8 | 16.2 | 16.7 | 12.9 | 12.2 | 12.5 | 10.5 | 10.1 | 10.3 |
| 4 | 22.4 | 21.8 | 22.2 | 17.7 | 16.0 | 16.8 | 12.9 | 11.5 | 12.6 | 10.6 | 10.1 | 10.3 |
| 5 | 22.4 | 21.5 | 22.0 | 17.9 | 16.1 | 17.0 | 12.0 | 10.9 | 11.4 | 10.2 | 10.0 | 10.1 |
| 6 | 22.5 | 20.7 | 21.9 | 17.6 | 16.1 | 16.9 | 12.0 | 10.6 | 11.1 | 10.5 | 10.1 | 10.3 |
| 7 | 22.6 | 21.7 | 22.2 | 16.7 | 15.7 | 16.1 | 11.1 | 10.5 | 10.9 | 10.5 | 10.1 | 10.3 |
| 8 | 23.1 | 22.3 | 22.6 | 16.2 | 15.5 | 15.9 | 11.7 | 10.5 | 11.2 | 10.1 | 9.7 | 9.9 |
| 9 | 22.8 | 22.3 | 22.5 | 15.8 | 14.9 | 15.4 | 11.8 | 10.7 | 11.1 | 9.9 | 9.7 | 9.8 |
| 10 | 22.5 | 22.2 | 22.4 | 16.0 | 15.1 | 15.6 | 11.7 | 10.6 | 11.1 | 10.2 | 9.9 | 10.1 |
| 11 | 22.3 | 21.5 | 22.1 | 15.0 | 14.4 | 14.7 | 11.3 | 10.5 | 10.8 | 10.1 | 9.9 | 10.0 |
| 12 | 22.6 | 22.2 | 22.3 | 15.2 | 14.3 | 14.6 | 11.7 | 10.5 | 11.0 | 11.5 | 9.9 | 10.5 |
| 13 | 22.3 | 21.4 | 22.1 | 14.4 | 13.2 | 14.1 | 11.7 | 10.7 | 11.2 | 12.0 | 11.5 | 11.8 |
| 14 | 22.7 | 22.0 | 22.2 | 14.1 | 13.0 | 13.4 | 11.0 | 10.6 | 10.8 | 12.0 | 11.7 | 11.9 |
| 15 | 22.4 | 21.3 | 22.1 | 14.2 | 12.9 | 13.3 | 10.8 | 10.3 | 10.7 | 11.9 | 11.6 | 11.8 |
| 16 | 22.1 | 21.1 | 21.8 | 14.3 | 12.9 | 13.5 | 11.0 | 10.5 | 10.8 | 11.9 | 11.6 | 11.8 |
| 17 | 21.8 | 20.8 | 21.4 | 14.2 | 13.0 | 13.5 | 10.6 | 10.4 | 10.5 | 11.8 | 11.4 | 11.7 |
| 18 | 21.9 | 21.0 | 21.7 | 13.6 | 12.6 | 13.0 | 11.7 | 10.5 | 11.1 | 11.6 | 11.2 | 11.4 |
| 19 | 20.9 | 19.9 | 20.4 | 13.3 | 12.5 | 12.7 | 11.4 | 10.8 | 11.1 | 11.1 | 10.8 | 10.9 |
| 20 | 20.1 | 19.1 | 19.6 | 13.4 | 12.5 | 12.8 | 11.0 | 10.6 | 10.7 | 11.5 | 10.9 | 11.2 |
| 21 | 20.1 | 18.7 | 19.3 | 12.9 | 12.2 | 12.6 | 10.9 | 10.3 | 10.6 | 11.2 | 10.3 | 10.8 |
| 22 | 19.8 | 18.5 | 19.2 | 13.0 | 12.2 | 12.6 | 11.9 | 10.3 | 11.3 | 10.3 | 10.0 | 10.2 |
| 23 | 20.0 | 19.0 | 19.4 | 13.3 | 12.8 | 13.0 | 12.3 | 11.1 | 12.0 | 10.1 | 9.8 | 9.9 |
| 24 | 20.7 | 18.7 | 19.6 | 13.0 | 12.7 | 12.9 | 12.3 | 11.2 | 11.9 | 9.8 | 9.7 | 9.7 |
| 25 | 20.9 | 19.9 | 20.5 | 13.4 | 12.6 | 12.9 | 11.2 | 10.5 | 10.9 | 9.7 | 9.3 | 9.5 |
| 26 | 20.2 | 18.2 | 19.3 | 13.1 | 12.3 | 12.6 | 10.6 | 10.2 | 10.5 | 9.3 | 9.0 | 9.2 |
| 27 | 19.0 | 18.4 | 18.7 | 13.2 | 12.2 | 12.7 | 10.3 | 10.0 | 10.2 | 9.3 | 8.6 | 8.9 |
| 28 | 19.0 | 18.4 | 18.8 | 14.1 | 12.7 | 13.5 | 10.1 | 10.0 | 10.0 | 9.5 | 8.9 | 9.1 |
| 29 | 18.6 | 18.0 | 18.2 | 13.9 | 12.5 | 13.3 | 10.2 | 10.0 | 10.1 | 9.6 | 8.7 | 9.1 |
| 30 | 18.2 | 16.6 | 17.8 | 12.7 | 12.1 | 12.4 | 10.9 | 10.2 | 10.4 | 9.6 | 9.3 | 9.5 |
| 31 | 17.9 | 16.1 | 16.9 | --- | --- | --- | 11.0 | 10.4 | 10.6 | 9.8 | 9.2 | 9.6 |
| MONTH | 23.1 | 16.1 | 20.8 | 17.9 | 12.1 | 14.3 | 12.9 | 10.0 | 11.1 | 12.0 | 8.6 | 10.3 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 9.6 | 8.7 | 9.1 | 9.5 | 8.5 | 9.0 | 17.1 | 16.0 | 16.4 | 19.3 | 17.7 | 18.2 |
| 2 | 9.6 | 8.6 | 9.0 | 10.0 | 9.0 | 9.5 | 17.1 | 15.9 | 16.5 | 20.7 | 18.7 | 19.5 |
| 3 | 9.6 | 8.7 | 9.1 | 9.9 | 9.7 | 9.8 | 16.7 | 15.5 | 16.2 | 20.4 | 18.8 | 19.4 |
| 4 | 9.5 | 8.7 | 9.1 | 10.7 | 9.7 | 10.2 | 16.2 | 15.5 | 16.0 | 18.9 | 17.9 | 18.4 |
| 5 | 9.6 | 8.7 | 9.2 | 11.5 | 10.1 | 10.7 | 16.7 | 15.8 | 16.4 | 19.0 | 18.1 | 18.5 |
| 6 | 9.6 | 9.4 | 9.5 | 11.6 | 10.6 | 10.9 | 17.0 | 16.2 | 16.6 | 19.4 | 18.1 | 18.5 |
| 7 | 9.9 | 9.5 | 9.7 | 12.4 | 11.5 | 11.9 | 16.9 | 16.0 | 16.4 | 19.0 | 17.5 | 18.2 |
| 8 | 9.6 | 9.1 | 9.5 | 12.1 | 11.7 | 12.0 | 17.8 | 16.0 | 16.8 | 19.0 | 16.7 | 17.7 |
| 9 | 9.8 | 8.8 | 9.3 | 12.1 | 11.6 | 11.8 | 18.6 | 16.9 | 17.6 | 18.2 | 17.5 | 17.8 |
| 10 | 9.8 | 9.1 | 9.5 | 11.9 | 11.6 | 11.8 | 18.6 | 17.3 | 18.0 | 19.3 | 17.6 | 18.3 |
| 11 | 9.8 | 9.1 | 9.5 | 11.7 | 11.4 | 11.6 | 17.9 | 16.6 | 17.1 | 18.7 | 17.8 | 18.1 |
| 12 | 9.5 | 8.8 | 9.1 | 11.5 | 11.0 | 11.3 | 17.2 | 16.6 | 16.8 | 20.1 | 17.8 | 18.8 |
| 13 | 9.5 | 8.8 | 9.2 | 11.5 | 11.2 | 11.3 | 17.4 | 16.6 | 17.1 | 19.7 | 18.2 | 18.7 |
| 14 | 10.0 | 9.3 | 9.5 | 11.2 | 10.9 | 11.0 | 17.6 | 16.5 | 17.2 | 19.6 | 18.2 | 18.6 |
| 15 | 9.3 | 7.8 | 8.7 | 11.5 | 10.1 | 11.1 | 17.6 | 16.8 | 17.2 | 19.7 | 17.8 | 18.6 |
| 16 | 8.3 | 6.9 | 7.5 | 11.2 | 10.4 | 10.8 | 17.9 | 17.4 | 17.7 | 19.7 | 18.0 | 18.7 |
| 17 | 8.0 | 7.1 | 7.5 | 11.3 | 10.5 | 10.9 | 18.0 | 17.5 | 17.8 | 19.7 | 18.0 | 18.7 |
| 18 | 8.2 | 7.6 | 8.0 | 12.5 | 11.1 | 11.9 | 17.8 | 17.4 | 17.6 | 19.5 | 17.9 | 18.7 |
| 19 | 9.0 | 8.2 | 8.6 | 12.7 | 12.3 | 12.5 | 17.4 | 16.9 | 17.1 | 18.3 | 17.3 | 17.7 |
| 20 | 9.1 | 8.8 | 8.9 | 12.8 | 12.0 | 12.5 | 17.7 | 17.1 | 17.4 | 17.6 | 17.3 | 17.4 |
| 21 | 9.0 | 8.4 | 8.7 | 13.0 | 12.1 | 12.5 | 17.6 | 17.3 | 17.4 | 18.9 | 17.4 | 18.1 |
| 22 | 9.0 | 8.3 | 8.6 | 14.0 | 13.0 | 13.4 | 17.7 | 16.9 | 17.3 | 19.4 | 18.0 | 18.6 |
| 23 | 8.6 | 7.7 | 8.4 | 13.9 | 12.7 | 13.2 | 17.6 | 16.9 | 17.2 | 19.7 | 17.9 | 18.7 |
| 24 | 8.5 | 7.8 | 8.2 | 15.4 | 12.8 | 13.9 | 18.6 | 17.2 | 17.9 | 19.7 | 18.0 | 18.7 |
| 25 | 8.8 | 8.1 | 8.5 | 15.1 | 14.1 | 14.4 | 18.2 | 17.7 | 17.9 | 20.2 | 18.3 | 19.0 |
| 26 | 8.6 | 8.3 | 8.5 | 14.3 | 13.5 | 14.1 | 18.1 | 17.6 | 17.9 | 20.0 | 18.1 | 19.0 |
| 27 | 8.8 | 8.2 | 8.5 | 15.0 | 13.5 | 14.4 | 18.1 | 17.8 | 18.0 | 20.6 | 18.8 | 19.4 |
| 28 | 9.1 | 8.4 | 8.8 | 16.1 | 14.8 | 15.6 | 18.0 | 17.7 | 17.9 | 20.7 | 19.1 | 19.6 |
| 29 | --- | --- | --- | 16.0 | 15.5 | 15.8 | 17.9 | 17.7 | 17.8 | 20.5 | 18.9 | 19.6 |
| 30 | --- | --- | --- | 15.9 | 15.6 | 15.8 | 18.4 | 17.8 | 18.1 | 20.6 | 18.8 | 19.5 |
| 31 | --- | --- | --- | 17.0 | 15.9 | 16.3 | --- | --- | --- | 20.9 | 19.0 | 19.8 |
| MONTH | 10.0 | 6.9 | 8.8 | 17.0 | 8.5 | 12.3 | 18.6 | 15.5 | 17.2 | 20.9 | 16.7 | 18.7 |

ROANOKE RIVER BASIN

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 20.9 | 19.2 | 19.9 | 22.4 | 21.5 | 22.0 | 22.6 | 21.9 | 22.2 | 22.2 | 21.7 | 22.0 |
| 2 | 20.7 | 19.0 | 19.6 | 22.5 | 20.7 | 22.0 | 22.9 | 22.0 | 22.3 | 22.2 | 21.4 | 21.8 |
| 3 | 20.5 | 18.9 | 19.5 | 22.5 | 20.9 | 22.0 | 23.2 | 22.0 | 22.5 | 22.0 | 21.4 | 21.7 |
| 4 | 20.4 | 18.9 | 19.6 | 22.7 | 21.6 | 22.2 | 23.2 | 22.0 | 22.5 | 22.4 | 21.4 | 21.8 |
| 5 | 19.8 | 18.3 | 18.9 | 22.5 | 20.8 | 22.1 | 22.8 | 21.9 | 22.2 | 22.8 | 21.7 | 22.2 |
| 6 | 19.8 | 18.1 | 18.8 | 22.8 | 21.8 | 22.2 | 22.7 | 21.9 | 22.1 | 22.8 | 22.0 | 22.3 |
| 7 | 20.1 | 18.2 | 19.0 | 22.8 | 21.0 | 22.2 | 22.6 | 22.0 | 22.2 | 22.8 | 21.9 | 22.2 |
| 8 | 21.7 | 18.2 | 19.2 | 22.9 | 20.9 | 22.3 | 23.1 | 21.9 | 22.3 | 22.7 | 21.7 | 22.1 |
| 9 | 21.3 | 18.4 | 19.4 | 22.6 | 21.1 | 22.2 | 23.1 | 22.0 | 22.4 | 22.7 | 21.5 | 22.0 |
| 10 | 20.7 | 18.7 | 19.6 | 22.8 | 21.8 | 22.3 | 22.7 | 21.9 | 22.2 | 22.6 | 21.6 | 22.0 |
| 11 | 20.6 | 18.9 | 19.8 | 22.5 | 21.9 | 22.3 | 22.7 | 21.7 | 22.1 | 23.2 | 22.1 | 22.5 |
| 12 | 21.1 | 19.4 | 20.2 | 22.5 | 21.9 | 22.2 | 22.0 | 21.7 | 21.9 | 23.2 | 22.0 | 22.4 |
| 13 | 20.5 | 19.6 | 20.1 | 23.1 | 22.1 | 22.4 | 22.5 | 21.6 | 21.9 | 23.2 | 22.0 | 22.5 |
| 14 | 21.0 | 19.6 | 20.2 | 22.7 | 22.0 | 22.3 | 22.1 | 21.7 | 21.9 | 23.9 | 22.3 | 22.7 |
| 15 | 21.6 | 20.1 | 20.7 | 22.5 | 21.5 | 22.0 | 22.7 | 21.6 | 22.0 | 23.1 | 22.3 | 22.6 |
| 16 | 21.7 | 20.2 | 20.8 | 22.5 | 21.7 | 22.1 | 22.7 | 21.6 | 22.0 | 23.5 | 22.6 | 22.9 |
| 17 | 21.8 | 19.8 | 20.9 | 22.4 | 21.7 | 22.0 | 22.5 | 21.5 | 22.0 | 23.7 | 22.7 | 23.1 |
| 18 | 21.6 | 20.4 | 20.8 | 22.7 | 22.0 | 22.3 | 22.7 | 21.6 | 22.1 | 23.6 | 22.8 | 23.1 |
| 19 | 20.8 | 20.3 | 20.6 | 23.1 | 22.1 | 22.5 | 22.9 | 21.8 | 22.2 | 23.2 | 22.5 | 22.9 |
| 20 | 21.5 | 20.3 | 20.7 | 23.2 | 22.2 | 22.6 | 22.4 | 21.6 | 22.0 | 22.8 | 21.9 | 22.3 |
| 21 | 21.8 | 19.8 | 20.9 | 23.2 | 22.1 | 22.5 | 22.5 | 21.5 | 21.9 | 22.7 | 21.8 | 22.1 |
| 22 | 22.0 | 19.9 | 21.1 | 23.2 | 22.2 | 22.5 | 22.4 | 21.4 | 21.8 | 22.7 | 21.7 | 22.1 |
| 23 | 20.9 | 20.2 | 20.6 | 23.0 | 22.1 | 22.5 | 22.5 | 21.5 | 21.9 | 22.8 | 22.0 | 22.2 |
| 24 | 21.8 | 20.2 | 20.7 | 23.2 | 22.2 | 22.5 | 22.7 | 21.5 | 22.0 | 22.7 | 22.1 | 22.3 |
| 25 | 21.7 | 18.9 | 20.6 | 23.3 | 22.2 | 22.6 | 22.6 | 21.6 | 22.0 | 22.5 | 22.2 | 22.3 |
| 26 | 21.6 | 20.0 | 20.7 | 22.9 | 22.2 | 22.4 | 21.9 | 21.6 | 21.7 | 22.8 | 22.0 | 22.3 |
| 27 | 21.8 | 20.2 | 20.9 | 22.2 | 22.0 | 22.1 | 22.5 | 21.7 | 22.0 | 22.6 | 21.8 | 22.0 |
| 28 | 22.2 | 20.3 | 21.3 | 22.1 | 21.9 | 22.0 | 22.7 | 21.7 | 22.1 | 22.4 | 21.4 | 21.9 |
| 29 | 22.2 | 20.6 | 21.6 | 22.1 | 21.9 | 22.0 | 22.9 | 21.7 | 22.2 | 22.3 | 21.6 | 22.0 |
| 30 | 22.4 | 20.6 | 21.8 | 22.1 | 21.8 | 22.0 | 23.0 | 21.7 | 22.2 | 22.9 | 21.8 | 22.2 |
| 31 | --- | --- | --- | 22.6 | 22.0 | 22.2 | 23.0 | 21.8 | 22.3 | --- | --- | --- |
| MONTH | 22.4 | 18.1 | 20.3 | 23.3 | 20.7 | 22.2 | 23.2 | 21.4 | 22.1 | 23.9 | 21.4 | 22.3 |
| YEAR | 23.9 | 6.9 | 16.7 | | | | | | | | | |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 22.2 | 21.7 | 21.9 | 16.3 | 15.6 | 16.0 | 11.8 | 11.5 | 11.7 | 7.6 | 6.9 | 7.2 |
| 2 | 22.0 | 21.5 | 21.8 | 17.4 | 16.1 | 16.6 | 12.0 | 11.7 | 11.9 | 8.0 | 7.1 | 7.5 |
| 3 | 22.4 | 21.7 | 21.9 | 16.0 | 15.3 | 15.8 | 12.5 | 11.8 | 12.2 | 8.5 | 7.7 | 8.1 |
| 4 | 22.4 | 21.6 | 21.9 | 15.6 | 14.5 | 15.1 | 12.1 | 11.2 | 11.9 | 9.4 | 8.2 | 8.5 |
| 5 | 22.4 | 21.9 | 22.1 | 14.7 | 13.7 | 14.3 | 11.0 | 10.2 | 10.6 | 11.6 | 9.6 | 10.8 |
| 6 | 22.4 | 21.9 | 22.1 | 14.2 | 13.0 | 13.5 | 10.6 | 10.1 | 10.3 | 11.9 | 11.6 | 11.8 |
| 7 | 21.9 | 21.5 | 21.7 | 13.7 | 12.9 | 13.2 | 10.7 | 9.9 | 10.3 | 11.8 | 11.5 | 11.7 |
| 8 | 21.6 | 20.8 | 21.3 | 13.1 | 12.8 | 13.0 | 11.0 | 9.9 | 10.4 | 11.5 | 11.3 | 11.4 |
| 9 | 21.4 | 20.5 | 20.8 | 12.8 | 12.0 | 12.6 | 11.4 | 10.5 | 11.0 | 11.4 | 10.8 | 11.3 |
| 10 | 21.5 | 20.1 | 20.7 | 12.3 | 11.9 | 12.0 | 11.5 | 10.2 | 11.1 | 11.0 | 10.1 | 10.7 |
| 11 | 20.8 | 19.6 | 20.2 | 12.2 | 11.2 | 11.8 | 10.8 | 10.1 | 10.3 | 10.2 | 9.9 | 10.1 |
| 12 | 20.7 | 19.6 | 20.1 | 11.8 | 10.8 | 11.2 | 10.6 | 10.0 | 10.3 | 10.2 | 9.8 | 10.0 |
| 13 | 20.4 | 19.3 | 19.8 | 12.1 | 10.8 | 11.2 | 11.5 | 10.2 | 10.9 | 10.5 | 10.0 | 10.2 |
| 14 | 19.9 | 18.4 | 19.1 | 12.0 | 10.7 | 11.1 | 11.7 | 11.2 | 11.6 | 10.8 | 10.2 | 10.5 |
| 15 | 20.1 | 18.8 | 19.4 | 12.2 | 11.0 | 11.6 | 10.8 | 9.8 | 10.3 | 10.2 | 9.9 | 10.0 |
| 16 | 19.7 | 18.8 | 19.2 | 12.6 | 11.1 | 12.1 | 9.9 | 9.2 | 9.6 | 9.9 | 9.2 | 9.5 |
| 17 | 18.9 | 18.1 | 18.5 | 12.5 | 10.8 | 11.9 | 9.5 | 9.0 | 9.3 | 9.2 | 8.9 | 9.1 |
| 18 | 18.6 | 17.8 | 18.1 | 11.1 | 10.4 | 10.8 | 9.4 | 8.7 | 9.1 | 8.9 | 8.7 | 8.8 |
| 19 | 19.0 | 17.4 | 18.1 | 11.6 | 10.9 | 11.3 | 8.7 | 7.9 | 8.4 | 8.7 | 7.7 | 8.3 |
| 20 | 18.1 | 17.1 | 17.8 | 11.9 | 11.3 | 11.6 | 8.3 | 7.5 | 7.9 | 8.3 | 7.6 | 8.0 |
| 21 | 17.8 | 16.5 | 17.0 | 12.3 | 11.8 | 12.1 | 8.4 | 7.9 | 8.2 | 8.4 | 7.5 | 8.0 |
| 22 | 18.0 | 16.5 | 17.3 | 12.8 | 12.0 | 12.3 | 8.4 | 7.3 | 7.9 | 8.2 | 7.6 | 8.0 |
| 23 | 18.2 | 16.9 | 17.6 | 12.8 | 11.9 | 12.2 | 8.7 | 7.8 | 8.3 | 8.6 | 7.7 | 8.2 |
| 24 | 18.4 | 17.4 | 17.8 | 12.2 | 11.8 | 12.0 | 8.8 | 8.1 | 8.6 | 8.3 | 7.0 | 7.8 |
| 25 | 18.2 | 17.1 | 17.7 | 11.8 | 11.3 | 11.6 | 8.3 | 7.5 | 7.9 | 7.1 | 6.7 | 7.0 |
| 26 | 18.3 | 17.1 | 17.6 | 11.4 | 10.2 | 10.9 | 8.2 | 7.1 | 7.6 | 7.3 | 6.9 | 7.1 |
| 27 | 18.3 | 17.0 | 17.6 | 10.7 | 10.0 | 10.2 | 8.2 | 7.2 | 7.7 | 7.3 | 6.9 | 7.1 |
| 28 | 18.0 | 17.0 | 17.5 | 10.4 | 9.9 | 10.1 | 7.5 | 7.2 | 7.3 | 7.7 | 7.0 | 7.3 |
| 29 | 17.5 | 16.2 | 16.6 | 11.4 | 10.1 | 10.7 | 8.0 | 7.2 | 7.6 | 7.7 | 7.0 | 7.3 |
| 30 | 16.9 | 15.7 | 16.1 | 11.7 | 11.1 | 11.4 | 8.1 | 7.2 | 7.5 | 8.0 | 6.9 | 7.4 |
| 31 | 16.7 | 15.8 | 16.1 | --- | --- | --- | 7.9 | 6.9 | 7.3 | 8.3 | 7.0 | 7.7 |
| MONTH | 22.4 | 15.7 | 19.2 | 17.4 | 9.9 | 12.3 | 12.5 | 6.9 | 9.5 | 11.9 | 6.7 | 8.9 |

ROANOKE RIVER BASIN

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 8.1 | 7.1 | 7.7 | 11.0 | 10.1 | 10.5 | 13.6 | 11.9 | 12.6 | 17.7 | 17.3 | 17.5 |
| 2 | 7.6 | 6.8 | 7.1 | 11.1 | 10.2 | 10.6 | 12.7 | 12.1 | 12.4 | 19.0 | 17.4 | 18.1 |
| 3 | 8.1 | 6.8 | 7.2 | 11.2 | 10.4 | 10.8 | 12.5 | 11.8 | 12.1 | 19.1 | 18.2 | 18.7 |
| 4 | 8.1 | 6.8 | 7.4 | 10.5 | 10.1 | 10.3 | 12.1 | 11.5 | 11.9 | 19.6 | 18.0 | 18.5 |
| 5 | 8.1 | 7.0 | 7.4 | 11.1 | 10.2 | 10.6 | 12.3 | 11.5 | 11.8 | 18.3 | 17.7 | 17.9 |
| 6 | 7.2 | 6.7 | 6.9 | 11.1 | 10.4 | 10.8 | 12.0 | 11.5 | 11.8 | 18.0 | 17.6 | 17.8 |
| 7 | 7.6 | 6.8 | 7.0 | 12.0 | 10.7 | 11.3 | 12.1 | 11.6 | 11.9 | 17.7 | 17.0 | 17.4 |
| 8 | 7.6 | 6.8 | 7.1 | 13.8 | 11.7 | 12.6 | 12.9 | 12.0 | 12.3 | 17.2 | 16.7 | 16.9 |
| 9 | 7.0 | 6.5 | 6.8 | 13.0 | 12.1 | 12.4 | 12.5 | 11.4 | 12.1 | 17.7 | 16.8 | 17.3 |
| 10 | 7.0 | 6.5 | 6.7 | 14.0 | 12.2 | 13.2 | 12.6 | 12.1 | 12.4 | 18.4 | 16.9 | 17.7 |
| 11 | 7.3 | 6.7 | 6.9 | 14.2 | 13.3 | 13.6 | 13.2 | 12.2 | 12.5 | 18.2 | 16.3 | 17.2 |
| 12 | 7.4 | 6.5 | 6.8 | 13.3 | 12.7 | 13.0 | 13.6 | 12.3 | 12.7 | 18.0 | 16.5 | 17.1 |
| 13 | 6.7 | 6.4 | 6.6 | 12.8 | 11.6 | 12.3 | 12.9 | 11.2 | 12.3 | 17.9 | 16.7 | 17.2 |
| 14 | 7.8 | 6.7 | 7.1 | 11.9 | 11.4 | 11.6 | 12.9 | 11.0 | 11.9 | 18.2 | 16.6 | 17.3 |
| 15 | 7.9 | 6.9 | 7.4 | 11.8 | 10.6 | 11.3 | 12.9 | 12.0 | 12.4 | 17.8 | 16.7 | 17.3 |
| 16 | 8.7 | 7.7 | 8.2 | 11.8 | 10.2 | 10.8 | 13.1 | 12.1 | 12.5 | 18.5 | 16.6 | 17.4 |
| 17 | 8.3 | 7.7 | 8.1 | 11.9 | 10.2 | 11.0 | 14.2 | 12.5 | 13.3 | 18.0 | 16.9 | 17.4 |
| 18 | 8.1 | 7.7 | 8.0 | 11.6 | 10.5 | 11.2 | 14.2 | 12.7 | 13.3 | 18.7 | 16.5 | 17.5 |
| 19 | 8.6 | 8.1 | 8.3 | 12.4 | 11.4 | 11.8 | 13.8 | 12.5 | 13.0 | 17.4 | 16.5 | 17.1 |
| 20 | 8.7 | 8.0 | 8.4 | 11.7 | 10.7 | 11.2 | 14.0 | 12.5 | 13.0 | 18.0 | 16.2 | 16.8 |
| 21 | 9.1 | 8.2 | 8.6 | 12.1 | 10.5 | 11.2 | 18.8 | 12.9 | 14.2 | 18.2 | 16.0 | 16.9 |
| 22 | 8.8 | 8.2 | 8.5 | 11.6 | 10.6 | 11.1 | 19.5 | 15.8 | 17.7 | 18.4 | 16.2 | 17.1 |
| 23 | 9.1 | 8.5 | 8.8 | 12.0 | 10.7 | 11.2 | 18.4 | 17.2 | 17.8 | 18.6 | 16.5 | 17.3 |
| 24 | 8.9 | 8.7 | 8.9 | 12.0 | 10.2 | 10.9 | 20.7 | 18.3 | 19.2 | 18.5 | 16.5 | 17.4 |
| 25 | 8.8 | 8.7 | 8.7 | 11.6 | 10.2 | 10.9 | 20.1 | 18.9 | 19.5 | 17.5 | 16.6 | 17.0 |
| 26 | 9.2 | 8.8 | 9.0 | 11.7 | 10.8 | 11.2 | 19.2 | 18.7 | 18.9 | 16.8 | 16.5 | 16.7 |
| 27 | 9.7 | 8.9 | 9.3 | 11.8 | 10.6 | 11.2 | 18.7 | 17.2 | 17.9 | 18.0 | 16.6 | 17.1 |
| 28 | 10.7 | 9.4 | 10.0 | 12.1 | 10.5 | 11.4 | 17.8 | 17.0 | 17.4 | 16.8 | 16.6 | 16.7 |
| 29 | 10.8 | 10.3 | 10.5 | 13.1 | 11.4 | 12.1 | 17.4 | 16.8 | 17.2 | 16.9 | 16.5 | 16.7 |
| 30 | --- | --- | --- | 12.6 | 12.1 | 12.4 | 17.6 | 17.1 | 17.4 | 18.0 | 16.6 | 17.0 |
| 31 | --- | --- | --- | 12.7 | 12.1 | 12.4 | --- | --- | --- | 19.3 | 18.0 | 18.6 |
| MONTH | 10.8 | 6.4 | 7.9 | 14.2 | 10.1 | 11.5 | 20.7 | 11.0 | 14.2 | 19.6 | 16.0 | 17.4 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 18.9 | 18.2 | 18.5 | 20.4 | 19.1 | 19.5 | 22.4 | 21.8 | 22.0 | 22.9 | 21.9 | 22.3 |
| 2 | 18.6 | 18.0 | 18.4 | 20.2 | 18.9 | 19.5 | 22.4 | 21.6 | 21.9 | 23.0 | 21.9 | 22.4 |
| 3 | 19.2 | 17.9 | 18.5 | 20.5 | 19.1 | 19.7 | 22.9 | 21.5 | 22.1 | 23.2 | 22.2 | 22.6 |
| 4 | 18.1 | 17.8 | 18.0 | 20.5 | 19.0 | 19.7 | 23.4 | 22.1 | 22.6 | 23.2 | 22.3 | 22.6 |
| 5 | 18.8 | 17.8 | 18.2 | 20.5 | 18.7 | 19.4 | 22.2 | 21.6 | 21.9 | 23.0 | 22.2 | 22.6 |
| 6 | 19.3 | 17.7 | 18.4 | 20.3 | 19.2 | 19.7 | 22.0 | 21.5 | 21.8 | 23.2 | 22.5 | 22.7 |
| 7 | 19.4 | 17.8 | 18.5 | 20.4 | 19.0 | 19.7 | 22.3 | 21.6 | 21.9 | 23.3 | 22.5 | 22.7 |
| 8 | 19.8 | 18.2 | 18.8 | 20.8 | 19.1 | 19.8 | 22.9 | 21.7 | 22.3 | 23.4 | 22.4 | 22.8 |
| 9 | 18.5 | 18.1 | 18.3 | 21.1 | 19.9 | 20.4 | 24.0 | 22.2 | 22.9 | 23.5 | 22.3 | 22.8 |
| 10 | 19.0 | 18.0 | 18.3 | 21.2 | 19.7 | 20.5 | 23.4 | 22.0 | 22.7 | 24.0 | 22.5 | 23.1 |
| 11 | 18.6 | 17.9 | 18.2 | 21.1 | 19.8 | 20.5 | 23.9 | 22.0 | 22.9 | 23.1 | 22.3 | 22.7 |
| 12 | 19.1 | 17.8 | 18.2 | 21.3 | 19.8 | 20.6 | 23.1 | 22.4 | 22.7 | 23.0 | 22.0 | 22.3 |
| 13 | 18.6 | 17.6 | 18.1 | 21.3 | 20.0 | 20.6 | 22.4 | 21.8 | 22.3 | 22.9 | 21.7 | 22.1 |
| 14 | 18.8 | 17.9 | 18.3 | 21.2 | 19.5 | 20.5 | 22.7 | 21.8 | 22.2 | 22.9 | 21.6 | 22.1 |
| 15 | 19.5 | 17.8 | 18.4 | 21.1 | 20.2 | 20.7 | 24.5 | 22.9 | 23.9 | 22.7 | 21.5 | 22.0 |
| 16 | 19.0 | 18.0 | 18.4 | 21.2 | 20.0 | 20.6 | 24.6 | 23.0 | 24.0 | 22.9 | 21.5 | 22.1 |
| 17 | 19.2 | 17.9 | 18.4 | 21.2 | 20.2 | 20.7 | 23.1 | 22.8 | 22.9 | 23.0 | 21.9 | 22.3 |
| 18 | 19.0 | 18.0 | 18.4 | 21.1 | 20.2 | 20.6 | 23.4 | 22.8 | 23.0 | 23.0 | 22.0 | 22.4 |
| 19 | 19.6 | 18.0 | 18.7 | 21.2 | 20.2 | 20.7 | 23.5 | 22.6 | 23.0 | 23.1 | 22.4 | 22.6 |
| 20 | 19.4 | 18.0 | 18.6 | 21.2 | 19.9 | 20.6 | 23.8 | 22.7 | 23.1 | 22.4 | 22.1 | 22.2 |
| 21 | 18.6 | 17.9 | 18.2 | 21.2 | 20.2 | 20.6 | 23.9 | 22.8 | 23.3 | 22.7 | 22.2 | 22.4 |
| 22 | 19.0 | 17.6 | 18.1 | 21.2 | 20.2 | 20.6 | 24.0 | 23.0 | 23.4 | 23.1 | 22.3 | 22.6 |
| 23 | 19.2 | 17.4 | 18.3 | 21.1 | 20.3 | 20.8 | 23.7 | 23.0 | 23.4 | 22.6 | 21.5 | 22.2 |
| 24 | 19.6 | 18.2 | 18.8 | 21.2 | 20.7 | 20.9 | 24.0 | 23.3 | 23.6 | 21.7 | 21.2 | 21.4 |
| 25 | 19.6 | 18.5 | 18.9 | 21.3 | 20.3 | 20.8 | 24.3 | 23.3 | 23.7 | 21.2 | 21.1 | 21.2 |
| 26 | 19.9 | 18.6 | 19.1 | 20.9 | 19.9 | 20.5 | 23.9 | 23.5 | 23.7 | 21.4 | 21.1 | 21.2 |
| 27 | 20.3 | 18.6 | 19.4 | 21.2 | 20.2 | 20.7 | 24.2 | 23.6 | 23.8 | 21.6 | 21.2 | 21.3 |
| 28 | 19.8 | 17.9 | 18.8 | 21.0 | 20.0 | 20.5 | 23.8 | 22.5 | 22.9 | 21.3 | 21.0 | 21.2 |
| 29 | 20.1 | 18.5 | 19.2 | 21.4 | 19.9 | 20.6 | 23.0 | 22.0 | 22.4 | 21.3 | 20.6 | 21.1 |
| 30 | 20.4 | 18.7 | 19.4 | 21.3 | 20.4 | 20.9 | 22.9 | 21.6 | 22.2 | 21.0 | 20.2 | 20.5 |
| 31 | --- | --- | --- | 22.0 | 21.0 | 21.3 | 23.0 | 21.9 | 22.4 | --- | --- | --- |
| MONTH | 20.4 | 17.4 | 18.5 | 22.0 | 18.7 | 20.4 | 24.6 | 21.5 | 22.8 | 24.0 | 20.2 | 22.1 |
| YEAR | 24.6 | 6.4 | 15.4 | | | | | | | | | |

ROANOKE RIVER BASIN

02077670 MAYO CREEK NEAR BETHEL HILL, NC

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

DRAINAGE AREA.--53.5 $mi^2$.

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Mayo Steam Electric Generating Plant. Minimum discharge, no flow, occurred periodically in 1977, 1980, 1981, and 1982. Minimum discharge for current water year and period of record, result of regulation.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.9 | e2.9 | 2.9 | 2.7 | 12 | 72 | 33 | 44 | 25 | 14 | 21 | 7.8 |
| 2 | 2.9 | e2.9 | 2.9 | 2.7 | 10 | 64 | 29 | 40 | 23 | 14 | 16 | 6.7 |
| 3 | e2.9 | e2.9 | 3.0 | 12 | 9.2 | 58 | 25 | 34 | 21 | 15 | 13 | 5.8 |
| 4 | e2.9 | e2.9 | 3.3 | 30 | 8.6 | 52 | 24 | 27 | 22 | 36 | 10 | 5.1 |
| 5 | e2.9 | e2.9 | 3.1 | 56 | 7.9 | 47 | 23 | 24 | 25 | 33 | 7.9 | 4.7 |
| 6 | e2.9 | e2.9 | 2.9 | 63 | 7.0 | 48 | 21 | 20 | 29 | 31 | 27 | 10 |
| 7 | e2.9 | e2.9 | 2.9 | 62 | 6.4 | 124 | 20 | 16 | 28 | 27 | 27 | 9.4 |
| 8 | e2.9 | e2.9 | 2.8 | 58 | 6.0 | 140 | 18 | 20 | 28 | 23 | 24 | 8.1 |
| 9 | e2.9 | e2.9 | e2.9 | 55 | 5.1 | 125 | 17 | 19 | 37 | 20 | 21 | 7.1 |
| 10 | e2.9 | e2.9 | e2.8 | 51 | 4.4 | 120 | 17 | 17 | 35 | 16 | 17 | 6.1 |
| 11 | e2.9 | e2.8 | e2.8 | 47 | 4.3 | 126 | 16 | 15 | 32 | 13 | 15 | 4.6 |
| 12 | e2.9 | 2.7 | 2.7 | 42 | 3.9 | 112 | 18 | 13 | 28 | 11 | 20 | 3.8 |
| 13 | e2.9 | 2.8 | 2.7 | 39 | 3.7 | 99 | 26 | 12 | 25 | 9.0 | 33 | 3.5 |
| 14 | e2.9 | 3.0 | 2.7 | 39 | 3.8 | 89 | 26 | 11 | 24 | 6.4 | 72 | 3.5 |
| 15 | e2.9 | 2.7 | 2.7 | 32 | 5.9 | 77 | 24 | 11 | 21 | 5.0 | 73 | 3.4 |
| 16 | e2.9 | 2.9 | 2.7 | 27 | 8.8 | 68 | 23 | 9.5 | 22 | 3.5 | 75 | 3.5 |
| 17 | e2.9 | 2.8 | 2.9 | 23 | 8.4 | 61 | 24 | 8.6 | 30 | 2.9 | 69 | 3.6 |
| 18 | e2.9 | 3.0 | 2.7 | 20 | 8.9 | 54 | 21 | 8.7 | 27 | .64 | 64 | 3.7 |
| 19 | e2.9 | 2.9 | 3.4 | 17 | 11 | 54 | 19 | 12 | 24 | .51 | 57 | 4.0 |
| 20 | e2.9 | 2.8 | 2.7 | 16 | 10 | 49 | 17 | 11 | 21 | .45 | 49 | 5.1 |
| 21 | e2.9 | 2.8 | 2.7 | 14 | 10 | 44 | 49 | 9.6 | 17 | .46 | 42 | 3.5 |
| 22 | e2.9 | 2.9 | 2.7 | 13 | 9.7 | 41 | 116 | 9.0 | 14 | .58 | 35 | 3.5 |
| 23 | e2.9 | e2.9 | 2.7 | 16 | 9.7 | 37 | 116 | 8.9 | 13 | 1.2 | 29 | 3.5 |
| 24 | e2.9 | e2.9 | 2.7 | 19 | 11 | 33 | 107 | 8.8 | 11 | 4.1 | 24 | 3.5 |
| 25 | e2.9 | e2.9 | 2.7 | 17 | 17 | 30 | 95 | 8.1 | 10 | 10 | 21 | 4.0 |
| 26 | e2.9 | e2.9 | 2.8 | 15 | 66 | 39 | 82 | 7.6 | 18 | 9.7 | 18 | 3.8 |
| 27 | e2.9 | e2.9 | 2.7 | 14 | 90 | 48 | 70 | 7.2 | 23 | 14 | 17 | 3.6 |
| 28 | e2.9 | e2.9 | 3.0 | 15 | 89 | 46 | 61 | 6.8 | 20 | 41 | 20 | 3.5 |
| 29 | e4.0 | e2.9 | 4.0 | 14 | 80 | 41 | 54 | 6.6 | 18 | 36 | 16 | 3.5 |
| 30 | e2.9 | 2.9 | 2.9 | 14 | --- | 40 | 49 | 29 | 16 | 30 | 13 | 3.5 |
| 31 | e2.9 | --- | 2.8 | 13 | --- | 35 | --- | 28 | --- | 26 | 10 | --- |
| TOTAL | 91.0 | 86.3 | 89.2 | 858.4 | 527.7 | 2073 | 1240 | 502.4 | 687 | 454.44 | 955.9 | 145.4 |
| MEAN | 2.94 | 2.88 | 2.88 | 27.7 | 18.2 | 66.9 | 41.3 | 16.2 | 22.9 | 14.7 | 30.8 | 4.85 |
| MAX | 4.0 | 3.0 | 4.0 | 63 | 90 | 140 | 116 | 44 | 37 | 41 | 75 | 10 |
| MIN | 2.9 | 2.7 | 2.7 | 2.7 | 3.7 | 30 | 16 | 6.6 | 10 | .45 | 7.9 | 3.4 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 10.3 | 15.2 | 21.3 | 67.8 | 58.4 | 88.8 | 62.8 | 41.8 | 14.9 | 15.2 | 12.7 | 11.7 |
| MAX | 62.2 | 76.0 | 65.4 | 254 | 190 | 247 | 173 | 210 | 35.6 | 83.6 | 56.1 | 112 |
| (WY) | 1990 | 1980 | 1978 | 1978 | 1979 | 1987 | 1978 | 1978 | 1979 | 1984 | 1984 | 1979 |
| MIN | .011 | .011 | .016 | .003 | .28 | .14 | .20 | .12 | .075 | .24 | .038 | 0 |
| (WY) | 1981 | 1981 | 1981 | 1981 | 1981 | 1981 | 1981 | 1981 | 1981 | 1981 | 1981 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1977 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 10399.0 | | 7710.74 | | | |
| ANNUAL MEAN | 28.5 | | 21.1 | | 35.1 | |
| HIGHEST ANNUAL MEAN | | | | | 87.8 | 1978 |
| LOWEST ANNUAL MEAN | | | | | .11 | 1981 |
| HIGHEST DAILY MEAN | 402 | Jan 12 | 140 | Mar 8 | 2080 | Apr 26 1978 |
| LOWEST DAILY MEAN | 2.7 | Nov 12 | .45 | Jul 20 | 0 | Jul 31 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 2.7 | Dec 20 | .96 | Jul 17 | 0 | Jul 31 1977 |
| INSTANTANEOUS PEAK FLOW | | | 146 | Mar 8 | 3950 | Apr 26 1978 |
| INSTANTANEOUS PEAK STAGE | | | 3.34 | Mar 8 | 10.83 | Apr 26 1978 |
| INSTANTANEOUS LOW FLOW | | | .37* | Jul 21 | 0* | Aug 1 1977 |
| ANNUAL RUNOFF (CFSM) | .53 | | .39 | | .66 | |
| ANNUAL RUNOFF (INCHES) | 7.23 | | 5.36 | | 8.90 | |
| 10 PERCENT EXCEEDS | 74 | | 54 | | 89 | |
| 50 PERCENT EXCEEDS | 3.7 | | 12 | | 6.0 | |
| 90 PERCENT EXCEEDS | 2.9 | | 2.9 | | .19 | |

* See REMARKS.

ROANOKE RIVER BASIN

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

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

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--No estimated daily discharges. Records good. Flow regulated since August 1950 by Philpott Lake on Smith River, usable capacity, 6,325,000,000 $ft^3$; since September 1950 by John H. Kerr Reservoir, usable capacity, 101,247,000,000$ft^3$; since June 1955 by Roanoke Rapids Lake (station 02080100); since September 1962 by Leesville Lake; since October 1962 by Lake Gaston (station 02079964); and since September 1963 by Smith Mountain Lake. Prior to regulation, maximum discharge: 261,000 $ft^3/s$, Aug. 18, 1940; gage height: 39.0 ft, from floodmarks; minimum discharge: about 250 $ft^3/s$, Dec. 16, 1955. Maximum discharge and gage-height for current year also occurred on January 14.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1990 | 4580 | 1880 | 9070 | 2100 | 6500 | 7420 | 20300 | 5340 | 9460 | 1940 | 2990 |
| 2 | 2920 | 2440 | 4430 | 9780 | 4310 | 5600 | 6900 | 20500 | 5230 | 6820 | 2130 | 4160 |
| 3 | 5360 | 3060 | 4150 | 7640 | 5760 | 11200 | 8410 | 20500 | 5260 | 3180 | 1950 | 3240 |
| 4 | 5510 | 3350 | 9880 | 13000 | 2750 | 11400 | 8550 | 20400 | 5270 | 3650 | 2520 | 2930 |
| 5 | 2210 | 1530 | 12400 | 13500 | 4540 | 7890 | 7550 | 14300 | 7120 | 3980 | 1960 | 2340 |
| 6 | 2510 | 1180 | 5650 | 14600 | 4870 | 10700 | 7020 | 9270 | 9320 | 5930 | 2030 | 2200 |
| 7 | 1980 | 1110 | 3670 | 20300 | 1090 | 10600 | 6960 | 9260 | 9250 | 8690 | 3170 | 7770 |
| 8 | 3110 | 1050 | 1200 | 20300 | 1090 | 10700 | 6890 | 8510 | 11600 | 4890 | 2810 | 3960 |
| 9 | 2180 | 1040 | 1260 | 20700 | 1080 | 11600 | 6060 | 6780 | 14900 | 10900 | 2090 | 5550 |
| 10 | 1970 | 1050 | 2430 | 20900 | 3540 | 12800 | 5440 | 6750 | 17500 | 10600 | 3000 | 6360 |
| 11 | 1970 | 1040 | 6580 | 20900 | 3430 | 20400 | 4160 | 7690 | 19900 | 3400 | 4200 | 2820 |
| 12 | 2000 | 1940 | 3610 | 8690 | 1080 | 12600 | 4220 | 8800 | 19800 | 4930 | 4510 | 2050 |
| 13 | 2380 | 4940 | 1170 | 15900 | 1780 | 12800 | 4250 | 8760 | 19800 | 5580 | 2130 | 2050 |
| 14 | 2090 | 1960 | 1030 | 21000 | 3860 | 9510 | 4230 | 8780 | 19800 | 11200 | 2380 | 2270 |
| 15 | 2770 | 1070 | 1460 | 20700 | 1090 | 1070 | 4260 | 8720 | 16200 | 7580 | 2110 | 2370 |
| 16 | 2190 | 1060 | 4200 | 20600 | 1580 | 13100 | 4220 | 8810 | 12000 | 2000 | 2300 | 4310 |
| 17 | 7350 | 3110 | 4690 | 20000 | 9360 | 10100 | 4220 | 8220 | 11900 | 2020 | 4360 | 4720 |
| 18 | 6840 | 6210 | 1980 | 1740 | 9090 | 4360 | 4210 | 7230 | 11800 | 1990 | 12300 | 5350 |
| 19 | 2740 | 2340 | 7130 | 1660 | 1980 | 6940 | 4230 | 9690 | 16900 | 2170 | 13900 | 3930 |
| 20 | 2590 | 2790 | 4340 | 2640 | 2030 | 5890 | 4210 | 9690 | 9520 | 2120 | 13300 | 2150 |
| 21 | 4430 | 4680 | 1450 | 5220 | 6010 | 3160 | 4510 | 9750 | 3660 | 3180 | 13300 | 3320 |
| 22 | 1770 | 7120 | 1480 | 5590 | 1790 | 1080 | 15000 | 9600 | 4100 | 4980 | 10900 | 5650 |
| 23 | 1780 | 4640 | 2700 | 3350 | 4300 | 3210 | 20400 | 9570 | 3490 | 6720 | 2260 | 5360 |
| 24 | 1790 | 4730 | 1530 | 3770 | 1570 | 2710 | 20400 | 9590 | 4470 | 1980 | 2460 | 2050 |
| 25 | 1850 | 4890 | 3950 | 3150 | 9680 | 2750 | 20500 | 9580 | 8500 | 1970 | 7110 | 2040 |
| 26 | 1780 | 11500 | 7100 | 1260 | 10500 | 1700 | 20500 | 9540 | 2480 | 3100 | 3990 | 2060 |
| 27 | 1770 | 9310 | 2550 | 4510 | 8980 | 1110 | 20400 | 9390 | 5920 | 7150 | 2910 | 2060 |
| 28 | 1760 | 4680 | 3910 | 8680 | 7100 | 1110 | 20400 | 9250 | 5160 | 3180 | 2650 | 2850 |
| 29 | 1760 | 1210 | 3320 | 9540 | 13600 | 1070 | 20400 | 9260 | 4720 | 3340 | 2060 | 2450 |
| 30 | 3190 | 1520 | 5010 | 6520 | --- | 7280 | 20400 | 9310 | 2050 | 4250 | 2740 | 2390 |
| 31 | 3160 | --- | 9080 | 1140 | --- | 5000 | --- | 8760 | --- | 3150 | 2240 | --- |
| TOTAL | 87700 | 101130 | 125220 | 336350 | 129940 | 225940 | 296320 | 326560 | 292960 | 154090 | 137710 | 103750 |
| MEAN | 2829 | 3371 | 4039 | 10850 | 4481 | 7288 | 9877 | 10530 | 9765 | 4971 | 4442 | 3458 |
| MAX | 7350 | 11500 | 12400 | 21000 | 13600 | 20400 | 20500 | 20500 | 19900 | 11200 | 13900 | 7770 |
| MIN | 1760 | 1040 | 1030 | 1140 | 1080 | 1070 | 4160 | 6750 | 2050 | 1970 | 1940 | 2040 |
| † | -1018 | -1076 | +452 | +285 | +2904 | +1635 | +2931 | -3141 | -32 | -1169 | -313 | -124 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 5709 | 6667 | 7188 | 9726 | 10050 | 10240 | 10460 | 10690 | 7447 | 5697 | 5271 | 5080 |
| MAX | 20360 | 17690 | 18380 | 17850 | 19590 | 23950 | 30700 | 31750 | 15260 | 20560 | 9755 | 12490 |
| (WY) | 1980 | 1986 | 1973 | 1991 | 1978 | 1979 | 1975 | 1978 | 1982 | 1972 | 1975 | 1987 |
| MIN | 2031 | 1987 | 3417 | 3540 | 2613 | 2259 | 2527 | 3974 | 2365 | 2581 | 2544 | 2186 |
| (WY) | 1971 | 1987 | 1981 | 1989 | 1981 | 1981 | 1985 | 1981 | 1977 | 1970 | 1977 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2847360 | | 2317670 | | | |
| ANNUAL MEAN | 7801 | | 6332 ‡ 6424 | | 7841 | (UNADJUSTED) |
| HIGHEST ANNUAL MEAN | | | | | 12920 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 3117 | 1981 |
| HIGHEST DAILY MEAN | 20400 | Jan 14 | 21000 | Jan 14 | 35600 | Apr 14 1975 |
| LOWEST DAILY MEAN | 1030 | Dec 14 | 1030 | Dec 14 | 818 | Nov 15 1970 |
| ANNUAL SEVEN-DAY MINIMUM | 1140 | Nov 5 | 1140 | Nov 5 | 989 | Nov 5 1986 |
| INSTANTANEOUS PEAK FLOW | | | 21200* | Jan 13 | 37400 | May 1 1978 |
| INSTANTANEOUS PEAK STAGE | | | 8.90* | Jan 13 | 11.74 | May 1 1978 |
| INSTANTANEOUS LOW FLOW | | | 996 | Dec 14 | 760 | Nov 23 1970 |
| ANNUAL RUNOFF (CFSM) | .93 | | .76 | | .94 | |
| ANNUAL RUNOFF (INCHES) | 12.63 | | 10.28 | | 12.70 | |
| 10 PERCENT EXCEEDS | 19900 | | 13500 | | 18700 | |
| 50 PERCENT EXCEEDS | 6150 | | 4430 | | 6020 | |
| 90 PERCENT EXCEEDS | 2000 | | 1750 | | 1970 | |

† Change in contents, equivalent in cubic feet per second, in Leesville and Smith Mountain Lakes, furnished by Appalachian Power Co.; Philpott and Kerr Reservoirs, furnished by U.S. Army Corps of Engineers; and Lake Gaston and Roanoke Rapids Lake, furnished by North Carolina Power Company.
‡ Adjusted for change in contents.
* Regulated period only (1964-1992). See REMARKS.

ROANOKE RIVER BASIN

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

WATER-QUALITY RECORDS

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

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

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 01... | 1245 | 17900 | 112 | 7.6 | 15.5 | 3.7 | -- | 10.6 | -- | -- | 6.7 |
| JUL | | | | | | | | | | | |
| 10... | 1015 | 14900 | 113 | 7.7 | 26.0 | -- | 759 | 6.4 | 79 | -- | -- |
| SEP | | | | | | | | | | | |
| 16... | 1100 | 2060 | 111 | 7.3 | 24.5 | 1.6 | 773 | 9.1 | 108 | K1 | 7.8 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 01... | 2.9 | 8.7 | 38 | 0.7 | 2.0 | 27 | 22 | 9.9 | 10 | 0.20 | 7.5 |
| JUL | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 16... | 3.4 | 8.4 | 34 | 0.6 | 2.1 | 34 | 28 | 7.7 | 10 | 0.20 | 9.5 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 01... | 69 | 62 | <0.010 | <0.010 | 0.160 | 0.170 | 0.040 | 0.040 | 0.05 | 0.05 | -- |
| JUL | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 16... | 69 | 66 | <0.010 | <0.010 | <0.050 | <0.050 | 0.050 | 0.050 | 0.06 | 0.06 | 0.25 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) | BARIUM, DIS-SOLVED (UG/L AS BA) | COBALT, DIS-SOLVED (UG/L AS CO) | IRON, DIS-SOLVED (UG/L AS FE) | LITHIUM DIS-SOLVED (UG/L AS LI) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 01... | <0.20 | <0.010 | <0.010 | <0.010 | <0.010 | -- | 40 | 20 | <3 | 56 | <4 |
| JUL | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 16... | 0.30 | 0.020 | 0.020 | <0.010 | 0.020 | 0.06 | <10 | 18 | <3 | 9 | <4 |

| DATE | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 01... | 4 | <10 | <1 | <1 | <1.0 | 48 | <6 | 27 | 1300 | 35 |
| JUL | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | 4 | 160 | 81 |
| SEP | | | | | | | | | | |
| 16... | 4 | <10 | <1 | <1 | <1.0 | 55 | <6 | 6 | 33 | 41 |

ROANOKE RIVER BASIN

0208109400 ROANOKE RIVER AT JAMESVILLE, NC

LOCATION.--Lat 35°48'48", 76°53'37", Martin County, Hydrologic Unit 03010107, at private pier on right bank, 50 ft downstream of boat ramp at end of Water Street, and 0.5 mi northeast of Jamesville.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 3.10 ft, Nov. 10, 1990; minimum elevation, -0.61 ft, Dec. 20, 1991.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 3.10 ft, November 10; minimum elevation -0.07 ft, December 5.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.89 ft, May 10; minimum elevation, -0.61 ft, December 20.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .82 | 2.47 | .87 | 1.33 | 2.89 | 1.28 | 2.43 | 2.34 | 1.54 | 1.53 | 1.69 | 1.64 |
| 2 | .83 | 2.56 | 1.04 | 1.08 | 2.85 | 1.37 | 2.49 | 2.22 | 1.56 | 1.50 | 1.70 | 1.25 |
| 3 | 1.02 | 2.62 | .92 | --- | 2.82 | 1.49 | 2.58 | 2.05 | 1.56 | 1.53 | 1.85 | 1.17 |
| 4 | .90 | 2.65 | .83 | --- | 2.75 | 1.42 | 2.50 | 2.01 | 1.62 | 1.43 | 1.68 | 1.24 |
| 5 | .86 | 2.72 | .17 | --- | 2.70 | 1.54 | 2.49 | 1.92 | 1.52 | 1.47 | 1.54 | 1.26 |
| 6 | .78 | 2.72 | .75 | --- | 2.67 | 1.65 | 2.48 | 1.85 | 1.45 | 1.35 | 1.42 | 1.32 |
| 7 | .88 | 2.73 | 1.17 | --- | 2.69 | 1.76 | 2.46 | 2.00 | 1.23 | 1.40 | 1.49 | 1.35 |
| 8 | .88 | 2.81 | .98 | --- | 2.77 | 1.77 | 2.50 | 1.73 | 1.18 | 1.29 | 1.51 | 1.09 |
| 9 | .90 | 2.80 | .35 | --- | 2.57 | 1.63 | 2.53 | 1.54 | 1.32 | 1.32 | 1.68 | 1.10 |
| 10 | 1.08 | 3.05 | .48 | --- | 2.55 | 1.51 | 2.62 | 1.48 | 1.33 | 1.52 | 1.79 | 1.27 |
| 11 | 1.40 | 2.95 | .79 | --- | 2.60 | 1.20 | 2.64 | 1.56 | 1.31 | 1.59 | 1.54 | 1.29 |
| 12 | 1.42 | 2.90 | .83 | --- | 2.43 | 1.43 | 2.61 | 1.27 | 1.28 | 1.56 | 1.43 | 1.40 |
| 13 | 1.43 | 2.89 | .96 | --- | 2.26 | 1.89 | 2.60 | 1.36 | 1.48 | 1.50 | 1.61 | 1.23 |
| 14 | 1.60 | 2.77 | 1.26 | --- | 2.07 | 2.05 | 2.64 | 1.39 | 1.24 | 1.54 | 1.41 | 1.32 |
| 15 | 1.59 | 2.69 | .81 | --- | 1.76 | 2.00 | 2.64 | 1.57 | 1.25 | 1.74 | 1.46 | 1.23 |
| 16 | 1.61 | 2.64 | 1.12 | --- | 1.04 | 2.00 | 2.77 | 1.47 | 1.29 | 1.62 | 1.20 | 1.20 |
| 17 | 1.60 | 2.50 | 1.05 | --- | 1.32 | 2.22 | 2.75 | 1.49 | 1.35 | 1.30 | 1.18 | 1.14 |
| 18 | 1.79 | 2.13 | .77 | --- | 1.45 | 2.40 | 2.82 | 1.76 | 1.47 | 1.11 | 1.50 | 1.27 |
| 19 | 1.68 | 1.85 | .99 | --- | 1.12 | 2.24 | 2.88 | 1.83 | 1.45 | 1.02 | 1.06 | 1.38 |
| 20 | 1.63 | 1.98 | .64 | --- | .98 | 2.07 | 2.93 | 1.40 | 1.36 | 1.12 | 1.50 | 1.46 |
| 21 | 1.56 | 1.86 | .73 | --- | .94 | 2.17 | 2.83 | 1.58 | 1.26 | 1.01 | 1.59 | .87 |
| 22 | 1.61 | 1.87 | 1.02 | --- | .56 | 2.18 | 2.84 | 1.50 | 1.30 | .83 | 1.36 | .83 |
| 23 | 1.87 | 1.80 | 1.03 | --- | 1.16 | 2.25 | 3.02 | 1.51 | 1.55 | .89 | 1.29 | .97 |
| 24 | 1.92 | 1.53 | .69 | --- | .68 | 2.19 | 3.03 | 1.50 | 1.25 | 1.13 | 1.33 | 1.19 |
| 25 | 2.11 | 1.35 | .68 | --- | .56 | 2.20 | 2.94 | 1.46 | 1.21 | 1.24 | 1.33 | 1.30 |
| 26 | 1.73 | 1.08 | .42 | 2.86 | .69 | 2.24 | 2.85 | 1.44 | 1.40 | 1.31 | 1.32 | 1.56 |
| 27 | 1.48 | .74 | .46 | 2.84 | .47 | 2.02 | 2.73 | 1.44 | 1.48 | 1.36 | 1.50 | 1.28 |
| 28 | 1.91 | .69 | .59 | 2.91 | 1.12 | 2.09 | 2.71 | 1.43 | 1.34 | 1.41 | 1.32 | 1.01 |
| 29 | 2.13 | 1.01 | .99 | 2.91 | --- | 2.09 | 2.59 | 1.29 | 1.39 | 1.37 | 1.27 | 1.05 |
| 30 | 2.13 | .47 | 1.16 | 2.93 | --- | 2.62 | 2.42 | 1.36 | 1.44 | 1.48 | 1.18 | 1.04 |
| 31 | 2.32 | --- | 1.54 | 2.95 | --- | 2.69 | --- | 1.40 | --- | 1.56 | 1.12 | --- |
| TOTAL | 45.47 | 64.83 | 26.09 | --- | 50.47 | 59.66 | 80.32 | 50.15 | 41.41 | 42.03 | 44.85 | 36.71 |
| MEAN | 1.47 | 2.16 | .84 | --- | 1.80 | 1.92 | 2.68 | 1.62 | 1.38 | 1.36 | 1.45 | 1.22 |
| MAX | 2.32 | 3.05 | 1.54 | --- | 2.89 | 2.69 | 3.03 | 2.34 | 1.62 | 1.74 | 1.85 | 1.64 |
| MIN | .78 | .47 | .17 | --- | .47 | 1.20 | 2.42 | 1.27 | 1.18 | .83 | 1.06 | .83 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .86 | 1.43 | .62 | .89 | .58 | 1.38 | .84 | 2.17 | 1.67 | 1.44 | 1.49 | 1.35 |
| 2 | 1.06 | 2.03 | .69 | 1.19 | -.04 | 1.35 | .89 | 2.24 | 1.73 | 1.59 | 1.20 | 1.12 |
| 3 | .98 | 2.17 | .55 | 1.75 | .51 | 1.41 | .49 | 2.51 | 1.63 | 1.63 | 1.11 | 1.23 |
| 4 | 1.07 | 1.97 | .31 | 2.05 | .90 | 1.25 | 1.15 | 2.52 | 1.65 | 1.72 | 1.16 | 1.15 |
| 5 | 1.49 | 1.51 | .51 | 2.06 | 1.27 | 1.17 | .81 | 2.59 | 1.77 | 1.53 | 1.28 | 1.01 |
| 6 | 1.38 | 1.41 | .72 | 2.09 | 1.19 | 1.41 | .89 | 2.71 | 1.66 | 1.62 | 1.24 | .95 |
| 7 | .81 | 1.40 | .82 | 2.17 | .54 | 1.70 | .99 | 2.81 | 1.77 | 1.57 | .86 | .98 |
| 8 | .94 | 1.15 | .64 | 2.21 | .59 | 1.58 | 1.17 | 2.74 | 1.77 | 1.43 | .75 | 1.17 |
| 9 | 1.06 | 1.04 | .46 | 2.26 | .81 | 1.62 | 1.07 | 2.84 | 1.76 | 1.42 | .86 | 1.29 |
| 10 | 1.01 | .81 | .58 | 2.25 | 1.19 | 1.62 | 1.10 | 2.81 | 1.96 | 1.28 | 1.02 | 1.29 |
| 11 | .91 | 1.15 | .23 | 2.06 | .70 | 1.37 | .99 | 2.56 | 1.78 | 1.33 | .94 | 1.26 |
| 12 | 1.15 | 1.35 | .52 | 2.31 | 1.06 | 1.36 | .96 | 2.20 | 1.85 | 1.32 | 1.41 | .91 |
| 13 | .89 | 1.43 | .71 | 2.47 | .48 | 1.73 | 1.43 | 1.97 | 1.99 | 1.06 | 1.18 | .83 |
| 14 | .98 | 1.34 | .53 | 2.44 | .55 | 1.57 | .46 | 2.06 | 1.98 | 1.00 | 1.70 | .78 |
| 15 | 1.14 | 1.18 | .02 | 2.48 | .79 | 1.58 | .80 | 2.06 | 1.99 | 1.16 | 1.85 | .64 |
| 16 | 1.12 | 1.03 | -.07 | 2.23 | .78 | 1.51 | .91 | 1.91 | 2.21 | 1.44 | 2.04 | .65 |
| 17 | .32 | .89 | -.12 | 2.24 | .78 | 1.34 | .91 | 1.71 | 2.33 | 1.29 | 2.10 | .93 |
| 18 | 1.04 | .67 | .26 | 2.42 | .82 | 1.84 | .99 | 1.61 | 2.29 | 1.24 | 2.15 | 1.05 |
| 19 | 1.28 | .97 | -.20 | 2.47 | 1.33 | 1.56 | 1.08 | 1.94 | 2.31 | 1.23 | 2.17 | 1.14 |
| 20 | 1.34 | .93 | -.46 | 2.29 | 1.12 | 1.46 | 1.03 | 1.63 | 2.34 | 1.02 | 2.41 | 1.28 |
| 21 | .87 | .88 | -.12 | 2.25 | .92 | 1.12 | 1.22 | 1.31 | 2.38 | .94 | 2.52 | 1.25 |
| 22 | .99 | .91 | .07 | 2.11 | .89 | 1.19 | 1.37 | 1.18 | 2.15 | 1.06 | 2.49 | 1.26 |
| 23 | 1.11 | 1.06 | .20 | 1.88 | .86 | 1.34 | 1.35 | 1.38 | 2.12 | 1.10 | 2.51 | 1.39 |
| 24 | 1.00 | .84 | .53 | 1.42 | .73 | .86 | 1.29 | 1.45 | 2.00 | 1.27 | 2.45 | 1.07 |
| 25 | 1.02 | .57 | .41 | 1.08 | .75 | 1.11 | 1.61 | 1.66 | 1.79 | 1.35 | 2.31 | .17 |
| 26 | 1.10 | .70 | .55 | .99 | 1.03 | 1.23 | 1.50 | 1.52 | 1.85 | 1.20 | 2.06 | .97 |
| 27 | .99 | .71 | .72 | .67 | 1.22 | .97 | 1.51 | 1.50 | 1.94 | 1.20 | 1.92 | 1.49 |
| 28 | .95 | .85 | .70 | .59 | 1.42 | .53 | 1.91 | 1.60 | 1.72 | 1.36 | 1.82 | 1.58 |
| 29 | .73 | .91 | .91 | .59 | 1.34 | .68 | 1.72 | 1.82 | 1.62 | 1.33 | 1.86 | 1.22 |
| 30 | .14 | .70 | .97 | 1.04 | --- | .70 | 1.75 | 1.86 | 1.54 | 1.38 | 1.50 | .90 |
| 31 | .77 | --- | .86 | 1.16 | --- | .77 | --- | 1.94 | --- | 1.44 | 1.22 | --- |
| TOTAL | 30.50 | 33.99 | 13.12 | 56.11 | 25.11 | 40.31 | 34.19 | 62.81 | 57.55 | 40.95 | 51.58 | 32.31 |
| MEAN | .98 | 1.13 | .42 | 1.81 | .87 | 1.30 | 1.14 | 2.03 | 1.92 | 1.32 | 1.66 | 1.08 |

ROANOKE RIVER BASIN

## 0208111310 CASHIE RIVER AT SECONDARY ROAD 1527 NEAR WINDSOR, NC

LOCATION.--Lat 36°02'51", long 76°59'07", Bertie County, Hydrologic Unit 03010107, at downstream side of bridge on Secondary Road 1257, 2.0 miles upstream from State Highway 13 near Windsor.

DRAINAGE AREA.--108 $mi^2$.

PERIOD OF RECORD.--June 3, 1987, to current year.

GAGE.--Water-stage recorder. Datum of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those below 10 $ft^3/s$, which are poor. Minimum discharge for period of record occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 65 | 7.2 | 19 | 192 | 195 | 234 | 155 | 24 | 2.3 | 223 | 9.1 | 290 |
| 2 | 40 | 11 | 17 | 169 | 169 | 175 | 124 | 19 | 2.5 | 103 | 4.2 | 188 |
| 3 | 46 | 10 | 16 | 142 | 132 | 129 | 109 | 14 | 2.0 | 47 | 2.0 | 114 |
| 4 | 82 | 11 | 18 | 181 | 106 | 100 | 101 | 9.7 | 1.8 | 19 | 1.7 | 74 |
| 5 | 92 | 9.4 | 16 | e336 | 88 | 83 | 92 | 6.5 | 2.3 | 7.8 | 2.0 | 58 |
| 6 | 80 | 9.6 | 16 | e445 | 75 | 73 | 84 | 5.0 | 2.7 | 4.7 | 2.2 | 97 |
| 7 | 82 | 9.7 | 16 | e457 | 65 | 76 | 76 | 4.5 | 2.5 | 15 | 2.2 | 180 |
| 8 | 75 | 9.9 | 17 | e366 | 57 | 76 | 68 | 8.6 | 5.8 | 7.6 | 2.1 | 135 |
| 9 | 59 | 12 | 21 | 287 | 51 | 85 | 61 | 17 | 90 | 3.4 | 2.4 | 116 |
| 10 | 40 | 17 | 24 | 206 | 45 | 118 | 56 | 23 | 135 | 2.5 | 7.3 | 101 |
| 11 | 26 | 18 | 24 | 156 | 42 | 154 | 51 | 19 | 99 | 2.4 | 29 | 87 |
| 12 | 17 | 20 | 24 | 125 | 40 | 146 | 43 | 16 | 62 | 3.0 | 22 | 68 |
| 13 | 9.5 | 21 | 24 | 108 | 37 | 138 | 36 | 14 | 78 | 2.6 | 39 | 45 |
| 14 | 5.0 | 20 | 24 | 100 | 37 | 133 | 29 | 12 | 101 | 2.4 | 77 | 26 |
| 15 | 3.1 | 19 | 21 | 94 | 41 | 119 | 25 | 9.3 | 74 | 2.1 | 257 | 13 |
| 16 | 3.1 | 18 | 21 | 111 | 55 | 99 | 24 | 6.0 | 40 | 1.9 | 670 | 8.8 |
| 17 | 19 | 16 | 17 | 110 | 78 | 83 | 23 | 3.5 | 19 | 1.7 | 1500 | 5.5 |
| 18 | 90 | 14 | 14 | 95 | 94 | 70 | 20 | 2.6 | 8.3 | 1.6 | 2900 | 3.7 |
| 19 | 102 | 13 | 12 | 78 | 107 | 63 | 18 | 2.0 | 3.9 | 1.6 | 3000 | 3.7 |
| 20 | 85 | 12 | 11 | 66 | 120 | 57 | 15 | 2.8 | 2.4 | 1.6 | 2310 | 5.4 |
| 21 | 107 | 11 | 11 | 57 | 110 | 51 | 13 | 3.4 | 2.2 | 1.6 | 1490 | 8.1 |
| 22 | 109 | 11 | 9.9 | 50 | 93 | 46 | 34 | 3.2 | 2.8 | 1.5 | 938 | 23 |
| 23 | 86 | 13 | 9.9 | 48 | 83 | 51 | 61 | 2.5 | 2.6 | 1.4 | 570 | 45 |
| 24 | 62 | 18 | 14 | 59 | 78 | 64 | 77 | 2.0 | 2.5 | 1.5 | 356 | 37 |
| 25 | 42 | 21 | 17 | 78 | 76 | 74 | 74 | 1.6 | 3.2 | 1.7 | 236 | 23 |
| 26 | 26 | 19 | 24 | 91 | 114 | 103 | 75 | 1.1 | 96 | 1.7 | 157 | 16 |
| 27 | 15 | 17 | 46 | 112 | 199 | 203 | 69 | 1.1 | 585 | 1.9 | 102 | 11 |
| 28 | 9.7 | 15 | 70 | 154 | 252 | 303 | 54 | 1.2 | 1130 | 62 | 64 | 11 |
| 29 | 7.9 | 19 | 121 | 188 | 272 | 303 | 39 | 1.0 | 839 | 79 | 37 | 7.0 |
| 30 | 6.7 | 19 | 193 | 213 | --- | 257 | 30 | 1.8 | 458 | 42 | 64 | 4.8 |
| 31 | 6.5 | --- | 213 | 204 | --- | 198 | --- | 2.2 | --- | 21 | 289 | --- |
| TOTAL | 1498.5 | 440.8 | 1100.8 | 5078 | 2911 | 3864 | 1736 | 239.6 | 3855.8 | 669.2 | 15142.2 | 1805.0 |
| MEAN | 48.3 | 14.7 | 35.5 | 164 | 100 | 125 | 57.9 | 7.73 | 129 | 21.6 | 488 | 60.2 |
| MAX | 109 | 21 | 213 | 457 | 272 | 303 | 155 | 24 | 1130 | 223 | 3000 | 290 |
| MIN | 3.1 | 7.2 | 9.9 | 48 | 37 | 46 | 13 | 1.0 | 1.8 | 1.4 | 1.7 | 3.7 |
| CFSM | .45 | .14 | .33 | 1.52 | .93 | 1.15 | .54 | .07 | 1.19 | .20 | 4.52 | .56 |
| IN. | .52 | .15 | .38 | 1.75 | 1.00 | 1.33 | .60 | .08 | 1.33 | .23 | 5.22 | .62 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 47.7 | 34.1 | 78.9 | 168 | 139 | 230 | 184 | 106 | 52.5 | 40.6 | 155 | 22.9 |
| MAX | 181 | 123 | 254 | 259 | 201 | 663 | 326 | 321 | 129 | 102 | 488 | 60.2 |
| (WY) | 1990 | 1990 | 1990 | 1991 | 1989 | 1989 | 1989 | 1989 | 1992 | 1991 | 1992 | 1992 |
| MIN | .13 | .89 | 15.1 | 73.4 | 64.1 | 58.3 | 57.9 | 7.73 | 5.41 | .64 | .65 | 2.75 |
| (WY) | 1988 | 1988 | 1989 | 1989 | 1991 | 1988 | 1992 | 1992 | 1987 | 1987 | 1987 | 1989 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1987 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 38042.70 | | 38340.9 | | | |
| ANNUAL MEAN | 104 | | 105 | | 109 | |
| HIGHEST ANNUAL MEAN | | | | | 156 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 57.1 | 1988 |
| HIGHEST DAILY MEAN | 995 | Jul 31 | 3000 | Aug 19 | 3000 | Aug 19 1992 |
| LOWEST DAILY MEAN | .28 | Jun 15 | 1.0 | May 29 | 0 | Jul 30 1987 |
| ANNUAL SEVEN-DAY MINIMUM | .31 | Jun 12 | 1.4 | May 24 | 0 | Oct 8 1987 |
| INSTANTANEOUS PEAK FLOW | | | 3150 | Aug 18 | 3150 | Aug 18 1992 |
| INSTANTANEOUS PEAK STAGE | | | 11.51 | Aug 18 | 11.51 | Aug 18 1992 |
| INSTANTANEOUS LOW FLOW | | | .94 | May 29 | 0* | Jul 29 1987 |
| ANNUAL RUNOFF (CFSM) | .97 | | .97 | | 1.01 | |
| ANNUAL RUNOFF (INCHES) | 13.10 | | 13.21 | | 13.77 | |
| 10 PERCENT EXCEEDS | 301 | | 196 | | 255 | |
| 50 PERCENT EXCEEDS | 41 | | 37 | | 30 | |
| 90 PERCENT EXCEEDS | 1.2 | | 2.4 | | .83 | |

* See REMARKS.

ROANOKE RIVER BASIN

## 0208113400 CASHIE RIVER AT SANS SOUCI FERRY, NC

LOCATION.--Lat 35°54'42", long 76°49'04", Bertie County, Hydrologic Unit 03010107, on private pier, south bank, 100 ft upstream from ferry landing on Secondary Road 1500.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.22 ft, Aug. 20, 1992; minimum elevation, -0.79 ft, Dec. 4, 1991.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.21 ft, March 30; minimum elevation -0.64 ft, December 16.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.22 ft, August 20; minimum elevation, -0.79 ft, December 4.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .66 | 1.27 | .35 | .64 | 1.10 | .69 | 1.29 | 1.43 | 1.14 | 1.11 | 1.39 | 1.51 |
| 2 | .72 | 1.29 | .55 | .37 | 1.04 | .83 | 1.52 | 1.34 | 1.16 | 1.12 | 1.33 | 1.12 |
| 3 | .94 | 1.26 | .71 | .53 | .97 | 1.03 | 1.50 | 1.22 | 1.15 | 1.32 | 1.50 | 1.07 |
| 4 | .86 | 1.21 | .73 | .66 | .84 | 1.06 | 1.17 | 1.20 | 1.21 | 1.33 | 1.26 | 1.16 |
| 5 | .80 | 1.29 | .08 | .32 | .73 | 1.07 | 1.05 | 1.16 | 1.06 | 1.40 | 1.19 | 1.17 |
| 6 | .73 | 1.16 | .52 | .50 | .69 | 1.10 | .91 | 1.16 | .98 | 1.24 | 1.22 | 1.23 |
| 7 | .84 | 1.19 | .63 | .94 | .73 | 1.15 | .79 | 1.41 | .73 | 1.24 | 1.37 | 1.25 |
| 8 | .84 | 1.25 | .43 | .64 | .84 | 1.03 | .79 | .98 | .72 | 1.19 | 1.35 | .98 |
| 9 | .86 | 1.22 | .02 | .05 | .48 | .76 | .83 | .84 | .88 | 1.24 | 1.44 | 1.00 |
| 10 | 1.03 | 1.54 | --- | .66 | .68 | .45 | .94 | .81 | .90 | 1.36 | 1.54 | 1.18 |
| 11 | 1.35 | 1.16 | --- | 1.06 | .91 | -.10 | .86 | .93 | .93 | 1.43 | 1.31 | 1.21 |
| 12 | 1.31 | 1.27 | --- | 1.28 | .73 | .24 | .83 | .64 | .98 | 1.39 | 1.28 | 1.31 |
| 13 | 1.28 | 1.12 | --- | 1.27 | .84 | .92 | .73 | .77 | 1.22 | 1.37 | 1.51 | 1.14 |
| 14 | 1.28 | .92 | .85 | 1.23 | .83 | .94 | .86 | .86 | .99 | 1.41 | 1.31 | 1.20 |
| 15 | 1.15 | .95 | .40 | 1.34 | .48 | .71 | .79 | 1.08 | 1.04 | 1.54 | 1.36 | 1.12 |
| 16 | 1.12 | .97 | .55 | 1.37 | -.21 | .71 | 1.16 | .93 | 1.12 | 1.49 | 1.09 | 1.12 |
| 17 | 1.11 | .84 | .43 | 1.22 | .41 | 1.16 | .97 | 1.01 | 1.11 | 1.20 | 1.06 | 1.04 |
| 18 | 1.32 | .40 | .37 | 1.05 | .67 | 1.44 | 1.22 | 1.38 | 1.26 | 1.03 | 1.34 | 1.08 |
| 19 | 1.07 | .38 | .72 | 1.02 | .49 | 1.09 | 1.21 | 1.29 | 1.33 | .95 | .85 | 1.16 |
| 20 | .98 | .95 | .45 | 1.27 | .46 | 1.09 | 1.27 | .82 | 1.28 | 1.02 | 1.36 | 1.13 |
| 21 | .86 | .88 | .59 | 1.08 | .51 | 1.38 | .85 | 1.15 | 1.20 | .93 | 1.37 | .63 |
| 22 | .89 | 1.04 | .66 | 1.12 | .22 | 1.41 | 1.10 | 1.07 | 1.22 | .78 | 1.11 | .69 |
| 23 | 1.15 | 1.03 | .71 | 1.17 | .71 | 1.48 | 1.54 | 1.07 | 1.37 | .84 | 1.07 | .88 |
| 24 | 1.13 | .87 | .52 | 1.36 | .02 | 1.30 | 1.49 | 1.07 | 1.07 | 1.03 | 1.15 | 1.09 |
| 25 | 1.40 | .95 | .54 | 1.28 | -.05 | 1.30 | 1.41 | 1.03 | 1.10 | 1.13 | 1.17 | 1.22 |
| 26 | .52 | .81 | .20 | 1.01 | .16 | 1.45 | 1.42 | 1.01 | 1.33 | 1.21 | 1.17 | 1.41 |
| 27 | .30 | .58 | .18 | 1.09 | -.14 | 1.13 | 1.32 | 1.01 | 1.34 | 1.26 | 1.39 | 1.10 |
| 28 | .97 | .57 | .06 | 1.21 | .50 | 1.35 | 1.46 | .98 | 1.10 | 1.28 | 1.21 | .86 |
| 29 | 1.11 | .79 | .39 | 1.19 | --- | 1.25 | 1.40 | .82 | 1.11 | 1.25 | 1.02 | .95 |
| 30 | .98 | .14 | .59 | 1.26 | --- | 2.03 | 1.37 | .92 | 1.05 | 1.36 | .93 | .93 |
| 31 | 1.23 | --- | 1.04 | 1.18 | --- | 1.87 | --- | .96 | --- | 1.41 | .98 | --- |
| TOTAL | 30.79 | 29.30 | --- | 30.37 | 15.64 | 33.32 | 34.05 | 32.35 | 33.08 | 37.86 | 38.63 | 32.94 |
| MEAN | .99 | .98 | --- | .98 | .56 | 1.07 | 1.13 | 1.04 | 1.10 | 1.22 | 1.25 | 1.10 |
| MAX | 1.40 | 1.54 | --- | 1.37 | 1.10 | 2.03 | 1.54 | 1.43 | 1.37 | 1.54 | 1.54 | 1.51 |
| MIN | .30 | .14 | --- | .05 | -.21 | -.10 | .73 | .64 | .72 | .78 | .85 | .63 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .76 | 1.34 | .53 | .55 | .14 | .78 | .58 | 1.08 | 1.11 | 1.28 | 1.39 | 1.26 |
| 2 | .95 | 1.93 | .63 | .78 | -.26 | .76 | .49 | .99 | 1.33 | 1.41 | 1.12 | 1.03 |
| 3 | .85 | 2.05 | .51 | 1.42 | .35 | .94 | .09 | 1.31 | 1.31 | 1.35 | 1.06 | 1.15 |
| 4 | .94 | 1.84 | .11 | 1.66 | .69 | .67 | .77 | .98 | 1.44 | 1.50 | 1.11 | 1.05 |
| 5 | 1.28 | 1.34 | .20 | 1.58 | 1.05 | .50 | .29 | 1.10 | 1.58 | 1.38 | 1.23 | .89 |
| 6 | 1.16 | 1.29 | .23 | 1.62 | .96 | .82 | .42 | 1.18 | 1.46 | 1.54 | 1.17 | .83 |
| 7 | .64 | 1.30 | .35 | 1.61 | .23 | 1.19 | .59 | 1.13 | 1.50 | 1.41 | .81 | .85 |
| 8 | .82 | 1.04 | .33 | 1.64 | .43 | .95 | .80 | 1.10 | 1.44 | 1.20 | .69 | .99 |
| 9 | .95 | .92 | .31 | 1.58 | .73 | .99 | .74 | 1.47 | 1.37 | 1.19 | .81 | 1.06 |
| 10 | .89 | .70 | .46 | 1.38 | 1.10 | .98 | .81 | 1.44 | 1.54 | 1.00 | .96 | 1.09 |
| 11 | .81 | 1.10 | .14 | .91 | .63 | .54 | .74 | 1.23 | 1.20 | .95 | .90 | 1.00 |
| 12 | 1.05 | 1.28 | .37 | 1.28 | .92 | .51 | .76 | .81 | 1.29 | .99 | 1.33 | .69 |
| 13 | .79 | 1.36 | .54 | 1.32 | .35 | .94 | 1.21 | .91 | 1.41 | .87 | 1.09 | .70 |
| 14 | .88 | 1.25 | .41 | 1.01 | .49 | .57 | .27 | 1.29 | 1.27 | .85 | 1.56 | .69 |
| 15 | 1.05 | 1.07 | -.09 | 1.08 | .70 | .57 | .66 | 1.35 | 1.23 | .90 | 1.67 | .56 |
| 16 | .98 | .95 | -.14 | .39 | .69 | .37 | .78 | 1.22 | 1.53 | 1.11 | 1.84 | .58 |
| 17 | .16 | .79 | -.20 | .58 | .70 | .36 | .81 | .98 | 1.43 | 1.10 | 1.89 | .86 |
| 18 | .87 | .61 | .10 | .85 | .64 | 1.09 | .87 | 1.01 | 1.28 | 1.16 | 1.91 | .95 |
| 19 | 1.00 | .83 | -.42 | .83 | .95 | .71 | .96 | 1.40 | 1.23 | 1.16 | 1.93 | .99 |
| 20 | 1.08 | .80 | -.62 | .45 | .78 | .70 | .90 | .91 | 1.32 | .99 | 2.14 | 1.14 |
| 21 | .70 | .79 | -.38 | .66 | .77 | .40 | 1.12 | .60 | 1.28 | .91 | 2.11 | 1.14 |
| 22 | .85 | .80 | -.09 | .81 | .73 | .71 | 1.24 | .54 | .87 | 1.03 | 1.86 | 1.19 |
| 23 | .97 | .88 | .13 | .82 | .69 | 1.09 | .99 | .82 | 1.15 | 1.02 | 1.71 | 1.26 |
| 24 | .89 | .58 | .42 | .48 | .62 | .69 | .76 | .90 | 1.20 | 1.13 | 1.53 | .81 |
| 25 | .93 | .35 | .32 | .49 | .61 | .97 | 1.06 | 1.12 | 1.24 | 1.21 | 1.37 | -.02 |
| 26 | 1.00 | .49 | .45 | .57 | .81 | 1.09 | .77 | 1.00 | 1.45 | 1.15 | 1.23 | .88 |
| 27 | .90 | .33 | .50 | .39 | .76 | .82 | .77 | .90 | 1.47 | 1.15 | 1.27 | 1.44 |
| 28 | .84 | .39 | .50 | .34 | .92 | .41 | 1.19 | 1.13 | 1.31 | 1.27 | 1.36 | 1.53 |
| 29 | .60 | .53 | .76 | .16 | .86 | .58 | .60 | 1.38 | 1.29 | 1.17 | 1.59 | 1.16 |
| 30 | .03 | .51 | .80 | .46 | --- | .64 | .67 | 1.42 | 1.26 | 1.28 | 1.30 | .81 |
| 31 | .67 | --- | .63 | .59 | --- | .63 | --- | 1.51 | --- | 1.35 | 1.09 | --- |
| TOTAL | 26.29 | 29.44 | 7.79 | 28.29 | 19.04 | 22.97 | 22.71 | 34.21 | 39.79 | 36.01 | 43.03 | 28.56 |
| MEAN | .85 | .98 | .25 | .91 | .66 | .74 | .76 | 1.10 | 1.33 | 1.16 | 1.39 | .95 |

ROANOKE RIVER BASIN

## 0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC

LOCATION.--Lat 35°54'53", long 76°43'23", Bertie County, Hydrologic Unit 03010107, near center of river on south bridge fender of shipping channel, 10 ft upstream from State Highway 45 bridge, and 2.7 mi west of Westover.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.38 ft, Mar. 30, 1991; minimum elevation, -0.65 ft, Dec. 20, 1991.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.38 ft, March 30; minimum elevation -0.60 ft, February 16.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.27 ft, November 3; minimum elevation, -0.65 ft, December 20.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .70 | 1.27 | .40 | .65 | 1.01 | .73 | 1.21 | 1.43 | 1.20 | 1.19 | 1.37 | 1.59 |
| 2 | .78 | 1.29 | .60 | .40 | .97 | .90 | 1.55 | 1.39 | 1.23 | 1.21 | 1.32 | 1.15 |
| 3 | .96 | 1.25 | .75 | .56 | .90 | 1.09 | 1.42 | 1.15 | 1.22 | 1.40 | 1.54 | 1.15 |
| 4 | .91 | 1.20 | .79 | .66 | .76 | 1.10 | 1.14 | 1.25 | 1.28 | 1.41 | 1.27 | 1.25 |
| 5 | .84 | 1.28 | .17 | .33 | .66 | 1.11 | 1.06 | 1.19 | 1.10 | 1.46 | 1.24 | 1.27 |
| 6 | .78 | 1.15 | .59 | .53 | .62 | 1.14 | .90 | 1.17 | 1.02 | 1.32 | 1.28 | 1.33 |
| 7 | .89 | 1.19 | .68 | .96 | .67 | 1.20 | .79 | 1.46 | .78 | 1.31 | 1.43 | 1.33 |
| 8 | .89 | 1.23 | .46 | .59 | .74 | 1.03 | .80 | 1.14 | .78 | 1.27 | 1.39 | 1.06 |
| 9 | .91 | 1.19 | .07 | .06 | .40 | .78 | .85 | .86 | .95 | 1.32 | 1.50 | 1.08 |
| 10 | 1.07 | 1.49 | .45 | .66 | .64 | .46 | .96 | .88 | .97 | 1.44 | 1.58 | 1.27 |
| 11 | 1.39 | 1.06 | .69 | 1.04 | .87 | -.04 | .82 | .98 | 1.01 | 1.51 | 1.32 | 1.31 |
| 12 | 1.35 | 1.26 | .69 | 1.27 | .69 | .29 | .80 | .66 | 1.07 | 1.46 | 1.34 | 1.38 |
| 13 | 1.32 | 1.05 | .66 | 1.22 | .85 | .97 | .70 | .83 | 1.27 | 1.47 | 1.58 | 1.22 |
| 14 | 1.32 | .84 | .86 | 1.20 | .85 | .97 | .86 | .96 | 1.05 | 1.50 | 1.39 | 1.30 |
| 15 | 1.19 | .93 | .45 | 1.29 | .44 | .73 | .78 | 1.11 | 1.12 | 1.59 | 1.44 | 1.19 |
| 16 | 1.13 | .93 | .61 | 1.33 | -.14 | .73 | 1.14 | .96 | 1.21 | 1.54 | 1.17 | 1.21 |
| 17 | 1.15 | .82 | .47 | 1.18 | .46 | 1.20 | .96 | 1.09 | 1.18 | 1.27 | 1.14 | 1.14 |
| 18 | 1.35 | .36 | .43 | .99 | .70 | 1.48 | 1.22 | 1.49 | 1.35 | 1.12 | 1.45 | 1.17 |
| 19 | 1.10 | .42 | .78 | .97 | .54 | 1.06 | 1.13 | 1.25 | 1.40 | 1.05 | .80 | 1.26 |
| 20 | .99 | .98 | .50 | 1.19 | .54 | 1.14 | 1.25 | .86 | 1.37 | 1.11 | 1.45 | 1.18 |
| 21 | .87 | .91 | .66 | 1.02 | .56 | 1.41 | .78 | 1.20 | 1.27 | 1.01 | 1.43 | .71 |
| 22 | .92 | 1.08 | .71 | 1.00 | .30 | 1.46 | 1.08 | 1.13 | 1.30 | .87 | 1.17 | .76 |
| 23 | 1.17 | 1.06 | .76 | 1.09 | .71 | 1.50 | 1.52 | 1.13 | 1.42 | .93 | 1.14 | .97 |
| 24 | 1.14 | .92 | .61 | 1.27 | .08 | 1.34 | 1.41 | 1.13 | 1.10 | 1.12 | 1.22 | 1.16 |
| 25 | 1.43 | 1.02 | .59 | 1.15 | .02 | 1.32 | 1.33 | 1.09 | 1.15 | 1.22 | 1.23 | 1.31 |
| 26 | .40 | .85 | .27 | .89 | .21 | 1.46 | 1.39 | 1.07 | 1.39 | 1.27 | 1.23 | 1.46 |
| 27 | .31 | .63 | .21 | 1.02 | -.05 | 1.20 | 1.29 | 1.08 | 1.39 | 1.34 | 1.45 | 1.18 |
| 28 | 1.02 | .65 | .14 | 1.14 | .57 | 1.47 | 1.43 | 1.05 | 1.17 | 1.34 | 1.28 | .94 |
| 29 | 1.11 | .83 | .44 | 1.12 | --- | 1.31 | 1.38 | .87 | 1.19 | 1.31 | 1.10 | 1.03 |
| 30 | .99 | .19 | .65 | 1.21 | --- | 2.11 | 1.35 | .99 | 1.13 | 1.39 | 1.02 | 1.01 |
| 31 | 1.24 | --- | 1.08 | 1.13 | --- | 1.76 | --- | 1.04 | --- | 1.45 | 1.08 | --- |
| TOTAL | 31.62 | 29.33 | 17.22 | 29.12 | 15.57 | 34.41 | 33.30 | 33.89 | 35.07 | 40.20 | 40.35 | 35.37 |
| MEAN | 1.02 | .98 | .56 | .94 | .56 | 1.11 | 1.11 | 1.09 | 1.17 | 1.30 | 1.30 | 1.18 |
| MAX | 1.43 | 1.49 | 1.08 | 1.33 | 1.01 | 2.11 | 1.55 | 1.49 | 1.42 | 1.59 | 1.58 | 1.59 |
| MIN | .31 | .19 | .07 | .06 | -.14 | -.04 | .70 | .66 | .78 | .87 | .80 | .71 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .85 | 1.45 | .62 | .60 | .19 | .80 | .65 | 1.11 | 1.18 | 1.34 | 1.40 | 1.26 |
| 2 | 1.04 | 2.05 | .73 | .83 | -.18 | .79 | .53 | 1.05 | 1.38 | 1.46 | 1.13 | 1.06 |
| 3 | .93 | 2.10 | .63 | 1.45 | .42 | .96 | .16 | 1.34 | 1.34 | 1.41 | 1.10 | 1.21 |
| 4 | 1.02 | 1.91 | .22 | 1.67 | .77 | .68 | .83 | 1.00 | 1.51 | 1.58 | 1.17 | 1.08 |
| 5 | 1.35 | 1.41 | .29 | 1.58 | 1.08 | .54 | .36 | 1.12 | 1.64 | 1.44 | 1.24 | .94 |
| 6 | 1.23 | 1.37 | .30 | 1.67 | .99 | .85 | .48 | 1.17 | 1.53 | 1.63 | 1.18 | .90 |
| 7 | .73 | 1.39 | .43 | 1.60 | .30 | 1.23 | .67 | 1.05 | 1.57 | 1.47 | .83 | .90 |
| 8 | .91 | 1.14 | .41 | 1.65 | .52 | .99 | .84 | 1.11 | 1.50 | 1.26 | .74 | 1.06 |
| 9 | 1.04 | 1.00 | .40 | 1.60 | .83 | 1.02 | .79 | 1.52 | 1.42 | 1.27 | .86 | 1.11 |
| 10 | .99 | .76 | .55 | 1.37 | 1.14 | 1.02 | .88 | 1.41 | 1.56 | 1.07 | .98 | 1.15 |
| 11 | .91 | 1.20 | .24 | .93 | .71 | .58 | .80 | 1.21 | 1.22 | 1.02 | .95 | 1.04 |
| 12 | 1.15 | 1.38 | .45 | 1.33 | .95 | .57 | .85 | .81 | 1.32 | 1.06 | 1.36 | .73 |
| 13 | .89 | 1.45 | .63 | 1.34 | .41 | .96 | 1.18 | .95 | 1.44 | .97 | 1.10 | .77 |
| 14 | .97 | 1.34 | .52 | 1.02 | .57 | .60 | .33 | 1.34 | 1.31 | .94 | 1.57 | .76 |
| 15 | 1.15 | 1.15 | .02 | 1.11 | .77 | .62 | .72 | 1.38 | 1.28 | .99 | 1.62 | .62 |
| 16 | 1.07 | 1.05 | -.04 | .38 | .79 | .39 | .84 | 1.25 | 1.59 | 1.20 | 1.78 | .66 |
| 17 | .24 | .86 | -.09 | .61 | .76 | .42 | .91 | 1.00 | 1.40 | 1.19 | 1.80 | .96 |
| 18 | .94 | .70 | .20 | .86 | .70 | 1.10 | .94 | 1.06 | 1.31 | 1.25 | 1.71 | 1.04 |
| 19 | 1.09 | .91 | -.32 | .79 | 1.00 | .77 | 1.00 | 1.43 | 1.27 | 1.23 | 1.72 | 1.07 |
| 20 | 1.12 | .89 | -.53 | .45 | .84 | .71 | .95 | .92 | 1.34 | 1.04 | 1.97 | 1.19 |
| 21 | .79 | .88 | -.28 | .67 | .83 | .46 | 1.18 | .61 | 1.29 | .95 | 1.81 | 1.22 |
| 22 | .93 | .89 | .00 | .82 | .79 | .77 | 1.30 | .60 | .91 | 1.07 | 1.63 | 1.27 |
| 23 | 1.05 | .95 | .23 | .85 | .75 | 1.13 | 1.03 | .88 | 1.20 | 1.06 | 1.55 | 1.29 |
| 24 | .97 | .68 | .50 | .53 | .69 | .74 | .83 | .97 | 1.25 | 1.18 | 1.41 | .84 |
| 25 | 1.01 | .44 | .41 | .56 | .67 | 1.03 | 1.08 | 1.15 | 1.32 | 1.25 | 1.29 | .06 |
| 26 | 1.09 | .58 | .54 | .60 | .87 | 1.13 | .81 | 1.05 | 1.47 | 1.16 | 1.20 | .99 |
| 27 | .98 | .41 | .56 | .43 | .81 | .88 | .83 | .94 | 1.47 | 1.22 | 1.26 | 1.52 |
| 28 | .92 | .46 | .55 | .39 | .95 | .50 | 1.19 | 1.17 | 1.30 | 1.25 | 1.43 | 1.58 |
| 29 | .66 | .61 | .84 | .21 | .92 | .65 | .60 | 1.40 | 1.31 | 1.20 | 1.56 | 1.21 |
| 30 | .14 | .59 | .86 | .50 | --- | .71 | .74 | 1.46 | 1.29 | 1.30 | 1.31 | .87 |
| 31 | .77 | --- | .68 | .63 | --- | .69 | --- | 1.56 | --- | 1.40 | 1.13 | --- |
| TOTAL | 28.93 | 32.00 | 10.55 | 29.03 | 20.84 | 24.29 | 24.30 | 35.02 | 40.92 | 37.86 | 41.79 | 30.36 |
| MEAN | .93 | 1.07 | .34 | .94 | .72 | .78 | .81 | 1.13 | 1.36 | 1.22 | 1.35 | 1.01 |

## 0208114360 CASHIE RIVER AT NC 45 NEAR CASHOKE LANDING, NC

LOCATION.--Lat 35°55'24", long 76°44'01", Bertie County, Hydrologic Unit 03010107, attached to pile bent No. 93 of State Highway 45 bridge, 100 ft south of north shore, and 1.3 mi southeast of Cashoke Landing.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

RECORDS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.30 ft, Mar. 30, 1991; minimum elevation, -0.72 ft, Feb. 16, 1991.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.30 ft, March 30; minimum elevation -0.72 ft, February 16.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 2.24 ft, November 2; minimum recorded elevation, -0.61 ft, January 16.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .73 | 1.24 | .40 | .65 | .92 | .71 | 1.09 | 1.36 | 1.19 | 1.18 | 1.37 | 1.59 |
| 2 | .80 | 1.26 | .60 | .39 | .88 | .88 | 1.48 | 1.25 | 1.22 | 1.21 | 1.31 | 1.15 |
| 3 | 1.00 | 1.21 | .77 | .56 | .80 | 1.07 | 1.36 | 1.16 | 1.20 | 1.39 | 1.53 | 1.15 |
| 4 | .94 | 1.15 | .79 | .66 | .66 | 1.06 | 1.06 | 1.15 | 1.26 | 1.41 | 1.25 | 1.24 |
| 5 | .87 | 1.23 | .17 | .32 | .55 | 1.08 | .96 | 1.16 | 1.09 | 1.48 | 1.23 | 1.26 |
| 6 | .80 | 1.08 | .60 | .52 | .52 | 1.11 | .81 | 1.17 | 1.02 | 1.34 | 1.27 | 1.31 |
| 7 | .91 | 1.13 | .68 | .96 | .57 | 1.16 | .68 | 1.42 | .77 | 1.32 | 1.43 | 1.32 |
| 8 | .91 | 1.16 | .45 | .56 | .63 | .98 | .69 | .96 | .77 | 1.29 | 1.38 | 1.05 |
| 9 | .94 | 1.14 | .07 | .02 | .28 | .72 | .74 | .87 | .93 | 1.33 | 1.48 | 1.07 |
| 10 | 1.10 | 1.42 | .47 | .66 | .56 | .38 | .84 | .82 | .96 | 1.45 | 1.56 | 1.25 |
| 11 | 1.42 | .96 | .71 | 1.05 | .78 | -.14 | .70 | .93 | 1.00 | 1.51 | 1.30 | 1.30 |
| 12 | 1.37 | 1.17 | .71 | 1.26 | .61 | .21 | .69 | .68 | 1.06 | 1.47 | 1.34 | 1.37 |
| 13 | 1.34 | .96 | .66 | 1.21 | .80 | .92 | .57 | .81 | 1.26 | 1.48 | 1.56 | 1.21 |
| 14 | 1.33 | .75 | .87 | 1.18 | .79 | .89 | .75 | .91 | 1.07 | 1.51 | 1.37 | 1.28 |
| 15 | 1.19 | .85 | .46 | 1.28 | .36 | .64 | .66 | 1.11 | 1.12 | 1.59 | 1.41 | 1.18 |
| 16 | 1.14 | .86 | .60 | 1.30 | -.20 | .65 | 1.03 | .94 | 1.21 | 1.54 | 1.16 | 1.20 |
| 17 | 1.15 | .74 | .46 | 1.12 | .44 | 1.14 | .83 | 1.05 | 1.17 | 1.26 | 1.14 | 1.12 |
| 18 | 1.36 | .29 | .43 | .93 | .68 | 1.42 | 1.12 | 1.46 | 1.34 | 1.12 | 1.44 | 1.15 |
| 19 | 1.10 | .36 | .79 | .92 | .53 | .96 | 1.03 | 1.27 | 1.39 | 1.05 | .75 | 1.24 |
| 20 | .99 | .96 | .53 | 1.14 | .51 | 1.07 | 1.11 | .84 | 1.37 | 1.11 | 1.45 | 1.13 |
| 21 | .87 | .89 | .68 | .93 | .54 | 1.36 | .60 | 1.19 | 1.28 | 1.02 | 1.41 | .69 |
| 22 | .91 | 1.07 | .72 | .92 | .28 | 1.40 | .96 | 1.11 | 1.30 | .88 | 1.16 | .76 |
| 23 | 1.16 | 1.05 | .77 | 1.03 | .70 | 1.44 | 1.42 | 1.11 | 1.41 | .94 | 1.14 | .96 |
| 24 | 1.13 | .91 | .61 | 1.20 | .05 | 1.26 | 1.28 | 1.11 | 1.11 | 1.12 | 1.22 | 1.15 |
| 25 | 1.44 | 1.02 | .61 | 1.07 | -.01 | 1.24 | 1.18 | 1.07 | 1.17 | 1.22 | 1.23 | 1.29 |
| 26 | .33 | .87 | .28 | .79 | .18 | 1.39 | 1.28 | 1.05 | 1.40 | 1.27 | 1.23 | 1.43 |
| 27 | .27 | .65 | .23 | .95 | -.08 | 1.11 | 1.19 | 1.06 | 1.39 | 1.34 | 1.45 | 1.15 |
| 28 | .99 | .66 | .14 | 1.06 | .54 | 1.38 | 1.37 | 1.03 | 1.18 | 1.35 | 1.28 | .92 |
| 29 | 1.08 | .84 | .44 | 1.04 | --- | 1.22 | 1.27 | .85 | 1.20 | 1.32 | 1.07 | 1.01 |
| 30 | .96 | .20 | .64 | 1.14 | --- | 2.02 | 1.28 | .98 | 1.13 | 1.40 | .99 | .99 |
| 31 | 1.22 | --- | 1.09 | 1.02 | --- | 1.66 | --- | 1.03 | --- | 1.45 | 1.06 | --- |
| TOTAL | 31.75 | 28.08 | 17.43 | 27.84 | 13.87 | 32.39 | 30.03 | 32.91 | 34.97 | 40.35 | 39.97 | 34.92 |
| MEAN | 1.02 | .94 | .56 | .90 | .50 | 1.04 | 1.00 | 1.06 | 1.17 | 1.30 | 1.29 | 1.16 |
| MAX | 1.44 | 1.42 | 1.09 | 1.30 | .92 | 2.02 | 1.48 | 1.46 | 1.41 | 1.59 | 1.56 | 1.59 |
| MIN | .27 | .20 | .07 | .02 | -.20 | -.14 | .57 | .68 | .77 | .88 | .75 | .69 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .83 | 1.42 | --- | --- | .14 | .76 | .62 | 1.06 | 1.14 | 1.31 | --- | --- |
| 2 | 1.03 | 2.03 | --- | --- | -.21 | .75 | .47 | .98 | 1.36 | 1.43 | --- | --- |
| 3 | .90 | 2.05 | --- | --- | .41 | .93 | .11 | 1.28 | 1.33 | 1.38 | --- | --- |
| 4 | 1.00 | 1.86 | --- | --- | .75 | .65 | .80 | .90 | 1.50 | 1.55 | --- | 1.05 |
| 5 | 1.31 | 1.36 | --- | --- | 1.07 | .50 | .30 | 1.05 | 1.62 | 1.41 | --- | .90 |
| 6 | 1.18 | 1.33 | --- | --- | .98 | .82 | .43 | 1.10 | 1.51 | 1.60 | --- | .86 |
| 7 | .69 | 1.34 | --- | --- | .27 | 1.19 | .63 | .96 | 1.55 | 1.43 | --- | .85 |
| 8 | .89 | 1.09 | --- | --- | .50 | .95 | .81 | 1.02 | 1.48 | 1.23 | --- | 1.02 |
| 9 | 1.02 | .96 | --- | --- | .81 | .99 | .77 | 1.44 | 1.39 | 1.23 | --- | 1.04 |
| 10 | .96 | .71 | --- | --- | 1.13 | .98 | .85 | 1.32 | 1.54 | 1.03 | --- | 1.07 |
| 11 | .90 | 1.16 | --- | --- | .70 | .49 | .78 | 1.13 | 1.19 | .97 | --- | .94 |
| 12 | 1.14 | 1.34 | --- | --- | .95 | .51 | .82 | .73 | 1.31 | 1.02 | --- | .63 |
| 13 | .88 | 1.40 | --- | --- | .40 | .91 | 1.18 | .91 | 1.42 | .93 | --- | .69 |
| 14 | .97 | 1.30 | --- | --- | .55 | .54 | .31 | 1.30 | 1.27 | .90 | --- | .68 |
| 15 | 1.14 | 1.12 | --- | --- | .76 | .56 | .71 | 1.34 | 1.24 | .95 | --- | .54 |
| 16 | 1.05 | 1.01 | --- | .23 | .75 | .30 | .82 | 1.21 | 1.57 | 1.15 | --- | .58 |
| 17 | .22 | .84 | --- | .51 | .76 | .35 | .88 | .96 | 1.36 | 1.14 | --- | .88 |
| 18 | .92 | .68 | --- | .76 | .68 | 1.06 | .91 | 1.03 | 1.26 | 1.21 | --- | .96 |
| 19 | 1.06 | --- | --- | .69 | .97 | .69 | 1.00 | 1.40 | 1.21 | 1.20 | --- | .98 |
| 20 | 1.10 | --- | --- | .33 | .81 | .65 | .94 | .88 | 1.29 | 1.04 | --- | 1.12 |
| 21 | .77 | --- | --- | .57 | .81 | .40 | 1.18 | .58 | 1.23 | .97 | --- | 1.14 |
| 22 | .91 | --- | --- | .76 | .77 | .73 | 1.29 | .57 | .84 | 1.08 | --- | 1.19 |
| 23 | 1.03 | --- | --- | .80 | .73 | 1.10 | 1.00 | .85 | 1.16 | --- | --- | 1.21 |
| 24 | .94 | --- | --- | .44 | .68 | .71 | .80 | .94 | 1.20 | --- | --- | .75 |
| 25 | .99 | --- | --- | .52 | .66 | 1.01 | 1.05 | 1.13 | 1.28 | --- | --- | -.04 |
| 26 | 1.07 | --- | --- | .57 | .85 | 1.10 | .76 | 1.03 | 1.43 | --- | --- | .93 |
| 27 | .96 | --- | --- | .42 | .77 | .83 | .79 | .91 | 1.43 | --- | --- | 1.46 |
| 28 | .90 | --- | --- | .37 | .91 | .46 | 1.15 | 1.16 | 1.27 | --- | --- | 1.51 |
| 29 | .64 | --- | --- | .18 | .86 | .62 | .53 | 1.40 | 1.28 | --- | --- | 1.13 |
| 30 | .11 | --- | --- | .47 | --- | .68 | .69 | 1.45 | 1.26 | --- | --- | .79 |
| 31 | .75 | --- | --- | .60 | --- | .65 | --- | 1.53 | --- | --- | --- | --- |
| TOTAL | 28.26 | --- | --- | --- | 20.22 | 22.87 | 23.38 | 33.55 | 39.92 | --- | --- | --- |
| MEAN | .91 | --- | --- | --- | .70 | .74 | .78 | 1.08 | 1.33 | --- | --- | --- |

ALLIGATOR RIVER BASIN

## 0208117839 ALLIGATOR RIVER AT HIGHWAY 64 NEAR SOUTHSHORE LANDING, NC

LOCATION.--Lat 35°54'16", long 76°01'39", Tyrrell County, Hydrologic Unit 03010205, west bank, 20 ft south of Highway 74, 1.6 mi southeast of Southshore Landing, and 14.5 mi east of Columbia.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to September 1992 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

RECORDS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.40 ft, Mar. 30, 1991; minimum elevation, -0.51 ft, Dec. 20, 1991.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.40 ft, March 30; minimum elevation -0.12 ft, December 27.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 2.35 ft, November 3; minimum elevation, -0.51 ft, December 20.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .80 | --- | .39 | .57 | .82 | .62 | 1.27 | 1.37 | 1.16 | 1.26 | 1.37 | 1.35 |
| 2 | .78 | --- | .57 | .48 | .78 | .79 | 1.35 | 1.44 | 1.15 | 1.28 | 1.30 | .81 |
| 3 | .71 | --- | .56 | .54 | .74 | .94 | 1.00 | 1.18 | 1.17 | 1.39 | 1.51 | .93 |
| 4 | --- | --- | 1.07 | .61 | .59 | 1.26 | .81 | .95 | 1.31 | 1.34 | 1.36 | 1.18 |
| 5 | --- | --- | .80 | .30 | .49 | 1.17 | .88 | .95 | .89 | 1.56 | 1.16 | 1.29 |
| 6 | --- | --- | .63 | .53 | .44 | 1.05 | .76 | 1.19 | .69 | 1.39 | 1.13 | 1.29 |
| 7 | --- | --- | .67 | .82 | .49 | 1.30 | .65 | 1.30 | .58 | 1.35 | 1.37 | 1.16 |
| 8 | --- | --- | .62 | .64 | .62 | 1.01 | .65 | .86 | .69 | 1.37 | 1.28 | .99 |
| 9 | --- | .89 | .31 | .44 | .28 | .66 | .72 | .74 | .95 | 1.30 | 1.40 | 1.01 |
| 10 | --- | 1.53 | .60 | .57 | .54 | .55 | .88 | .73 | .96 | 1.31 | 1.58 | 1.24 |
| 11 | --- | 1.42 | .67 | .72 | .86 | .40 | .58 | .60 | 1.07 | 1.46 | 1.25 | 1.38 |
| 12 | --- | 1.28 | .68 | 1.29 | .62 | .33 | .34 | .74 | 1.19 | 1.26 | 1.24 | 1.24 |
| 13 | --- | 1.09 | .70 | 1.23 | .77 | .74 | .25 | .95 | 1.13 | 1.50 | 1.38 | 1.10 |
| 14 | --- | .73 | .72 | 1.14 | 1.05 | 1.03 | .60 | .92 | .94 | 1.56 | 1.38 | 1.28 |
| 15 | --- | .82 | .46 | 1.20 | 1.14 | .80 | .61 | 1.00 | 1.09 | 1.40 | 1.52 | 1.09 |
| 16 | --- | .86 | .68 | 1.22 | .69 | .67 | .89 | .77 | 1.18 | 1.29 | 1.16 | 1.16 |
| 17 | --- | .96 | .42 | 1.37 | .52 | 1.06 | .75 | 1.00 | 1.20 | 1.21 | 1.10 | 1.13 |
| 18 | --- | .62 | .45 | 1.14 | .61 | 1.36 | .89 | 1.16 | 1.28 | 1.19 | 1.16 | 1.12 |
| 19 | --- | .49 | .73 | .95 | .47 | 1.28 | .49 | .82 | 1.35 | 1.14 | 1.12 | 1.21 |
| 20 | --- | .92 | .37 | 1.08 | .59 | 1.18 | 1.06 | .62 | 1.19 | 1.18 | 1.39 | 1.31 |
| 21 | --- | .88 | .59 | 1.22 | .51 | 1.28 | .97 | .91 | 1.20 | 1.07 | 1.50 | .64 |
| 22 | --- | 1.02 | .67 | .96 | .31 | 1.39 | 1.34 | 1.07 | 1.19 | .94 | 1.11 | .53 |
| 23 | --- | 1.10 | .76 | .97 | .47 | 1.37 | 1.37 | 1.08 | 1.41 | 1.01 | 1.04 | .88 |
| 24 | --- | 1.06 | .91 | 1.22 | .08 | 1.47 | 1.33 | 1.02 | .95 | 1.17 | 1.08 | 1.01 |
| 25 | --- | 1.08 | .61 | 1.01 | .02 | 1.16 | 1.18 | 1.04 | .85 | 1.17 | .99 | 1.27 |
| 26 | --- | .85 | .29 | .70 | .28 | 1.05 | 1.14 | .98 | 1.05 | 1.19 | .91 | --- |
| 27 | --- | .63 | .07 | .88 | .23 | 1.11 | 1.14 | 1.06 | 1.17 | 1.29 | 1.16 | 1.14 |
| 28 | --- | .65 | .22 | 1.00 | .55 | 1.53 | 1.25 | 1.16 | 1.07 | 1.24 | 1.16 | .82 |
| 29 | --- | .93 | .41 | .97 | --- | 1.23 | 1.15 | .83 | 1.19 | 1.30 | 1.10 | .94 |
| 30 | --- | .48 | .68 | 1.06 | --- | 2.09 | 1.27 | .95 | 1.23 | 1.34 | 1.08 | --- |
| 31 | --- | --- | 1.02 | 1.24 | --- | 1.57 | --- | 1.17 | --- | 1.43 | 1.19 | --- |
| TOTAL | --- | --- | 18.33 | 28.07 | 15.56 | 33.45 | 27.57 | 30.56 | 32.48 | 39.89 | 38.48 | --- |
| MEAN | --- | --- | .59 | .91 | .56 | 1.08 | .92 | .99 | 1.08 | 1.29 | 1.24 | --- |
| MAX | --- | --- | 1.07 | 1.37 | 1.14 | 2.09 | 1.37 | 1.44 | 1.41 | 1.56 | 1.58 | --- |
| MIN | --- | --- | .07 | .30 | .02 | .33 | .25 | .60 | .58 | .94 | .91 | --- |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | 1.46 | .58 | .53 | .51 | .77 | .63 | 1.02 | 1.21 | 1.39 | 1.47 | 1.19 |
| 2 | .89 | 2.03 | .69 | .71 | .19 | .73 | .89 | 1.04 | 1.23 | 1.42 | 1.01 | .94 |
| 3 | .95 | 2.13 | .79 | .98 | .41 | .67 | .50 | 1.26 | 1.14 | 1.20 | 1.12 | 1.12 |
| 4 | .97 | 1.97 | 1.09 | 1.65 | .74 | .46 | .72 | .97 | 1.28 | 1.54 | 1.18 | 1.03 |
| 5 | 1.25 | 1.51 | .44 | 1.62 | 1.00 | .42 | .64 | .82 | 1.53 | 1.44 | 1.05 | .88 |
| 6 | --- | 1.31 | .42 | 1.64 | .64 | .62 | .47 | .72 | 1.51 | 1.60 | .94 | .81 |
| 7 | --- | 1.37 | .42 | 1.60 | .35 | .86 | .68 | .43 | 1.54 | 1.44 | .70 | .84 |
| 8 | --- | 1.31 | .38 | 1.55 | .55 | .96 | .74 | .85 | 1.48 | 1.21 | .65 | .96 |
| 9 | --- | 1.07 | .39 | 1.50 | .90 | .88 | .66 | 1.42 | 1.52 | 1.37 | .91 | 1.02 |
| 10 | --- | .73 | .54 | 1.37 | .85 | .93 | .85 | 1.40 | 1.36 | 1.10 | .99 | 1.03 |
| 11 | --- | 1.49 | .24 | 1.14 | .70 | 1.32 | .79 | 1.09 | 1.03 | 1.08 | 1.00 | 1.04 |
| 12 | --- | 1.51 | .41 | 1.24 | .70 | .88 | .82 | .74 | 1.04 | 1.03 | 1.30 | .71 |
| 13 | --- | 1.51 | .58 | 1.22 | .35 | .94 | .70 | .86 | 1.17 | 1.22 | 1.10 | .57 |
| 14 | --- | 1.33 | .67 | 1.40 | .58 | .72 | .16 | 1.27 | 1.19 | 1.07 | 1.43 | .57 |
| 15 | --- | 1.12 | .50 | 1.27 | .66 | .65 | .49 | 1.23 | 1.22 | 1.16 | 1.59 | .53 |
| 16 | --- | 1.07 | .29 | 1.16 | .91 | .53 | .72 | 1.12 | 1.21 | 1.32 | 1.66 | .54 |
| 17 | --- | .79 | .01 | .73 | .57 | .41 | .92 | .84 | 1.07 | 1.30 | 1.74 | --- |
| 18 | --- | .64 | .35 | .80 | .64 | .74 | .89 | 1.01 | 1.10 | 1.35 | 1.74 | --- |
| 19 | 1.09 | .86 | .14 | .60 | .93 | .82 | .74 | 1.22 | 1.19 | 1.22 | 1.72 | --- |
| 20 | 1.07 | .83 | -.43 | .40 | .93 | .73 | .80 | .88 | 1.26 | 1.08 | 1.86 | --- |
| 21 | .74 | .83 | -.13 | .61 | .84 | .46 | .94 | .48 | 1.16 | .99 | 1.62 | --- |
| 22 | .89 | .78 | .01 | .67 | .73 | .69 | 1.20 | .53 | .88 | 1.07 | 1.39 | --- |
| 23 | .96 | .91 | .23 | .65 | .66 | 1.11 | .93 | .85 | 1.05 | 1.16 | 1.28 | --- |
| 24 | .89 | .95 | .54 | 1.21 | .63 | .70 | .80 | .94 | 1.19 | 1.29 | 1.18 | --- |
| 25 | .93 | .79 | .38 | .64 | .56 | .82 | .98 | .98 | 1.36 | 1.27 | 1.22 | --- |
| 26 | 1.00 | .63 | .44 | .62 | .90 | 1.06 | .80 | .88 | 1.43 | 1.08 | 1.24 | --- |
| 27 | .95 | .39 | .46 | .27 | .92 | 1.20 | .79 | .88 | 1.43 | 1.32 | 1.25 | --- |
| 28 | .90 | .44 | .39 | .36 | 1.00 | .86 | 1.02 | .95 | 1.17 | 1.33 | 1.41 | --- |
| 29 | .52 | .58 | .91 | .20 | 1.22 | .71 | .64 | .84 | 1.16 | 1.17 | 1.66 | --- |
| 30 | .45 | .55 | .96 | .44 | --- | .69 | .60 | 1.14 | 1.21 | 1.28 | 1.23 | --- |
| 31 | .90 | --- | .69 | .62 | --- | .72 | --- | 1.49 | --- | 1.33 | 1.24 | --- |
| TOTAL | --- | 32.89 | 13.38 | 29.40 | 20.57 | 24.06 | 22.51 | 30.15 | 37.32 | 38.83 | 39.88 | --- |
| MEAN | --- | 1.10 | .43 | .95 | .71 | .78 | .75 | .97 | 1.24 | 1.25 | 1.29 | --- |

CROATAN SOUND

0208117948 CROATAN SOUND NEAR MANNS HARBOR, NC

LOCATION.--Lat 35°54'24", long 75°46'07", Dare County, Hydrologic Unit 03010205, at west bank, east end of Old Ferry Dock Road, and 1.2 mi north-northeast of Manns Harbor.

TIDAL ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

RECORDS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 2.33 ft, Mar. 30, 1991; minimum elevation, -0.87 ft, Feb. 23, 1991.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.33 ft, March 30; minimum elevation -0.87 ft, February 23.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 2.32 ft, November 2; minimum recorded elevation, -0.82 ft, April 13.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .52 | --- | .40 | --- | .48 | .44 | 1.35 | 1.26 | 1.09 | 1.22 | --- | .64 |
| 2 | .67 | --- | .43 | --- | .61 | .74 | 1.09 | 1.17 | .97 | 1.32 | --- | .47 |
| 3 | .47 | --- | .56 | --- | .54 | .76 | .60 | 1.15 | 1.02 | 1.19 | --- | .84 |
| 4 | .80 | --- | 1.07 | --- | .40 | 1.38 | .69 | .73 | 1.08 | 1.25 | --- | 1.08 |
| 5 | .57 | --- | .88 | --- | .32 | .98 | .82 | .79 | .63 | 1.46 | --- | 1.17 |
| 6 | .55 | --- | .60 | --- | .28 | .93 | .63 | 1.23 | .44 | 1.29 | --- | 1.17 |
| 7 | .67 | --- | .49 | --- | .35 | 1.12 | .66 | .87 | .33 | 1.28 | --- | .90 |
| 8 | .62 | --- | .21 | --- | -.01 | .56 | .70 | .61 | .56 | 1.31 | --- | .82 |
| 9 | .65 | .81 | .34 | --- | .21 | .40 | .81 | .58 | .85 | 1.15 | --- | .91 |
| 10 | .71 | 1.65 | .75 | --- | .55 | .34 | .76 | .58 | .88 | 1.23 | --- | 1.13 |
| 11 | --- | 1.39 | --- | --- | .68 | .42 | .15 | .36 | 1.04 | 1.28 | --- | 1.28 |
| 12 | --- | 1.19 | --- | --- | .34 | .43 | .07 | .82 | 1.13 | 1.08 | --- | .99 |
| 13 | --- | .79 | --- | --- | .84 | .70 | .37 | .90 | 1.07 | 1.50 | --- | .96 |
| 14 | --- | .52 | --- | --- | 1.13 | .88 | .47 | .92 | .74 | 1.42 | --- | 1.13 |
| 15 | --- | .74 | --- | --- | 1.19 | .58 | .84 | .74 | .95 | 1.14 | --- | .92 |
| 16 | --- | .76 | --- | --- | .84 | .71 | .74 | .60 | 1.13 | 1.08 | --- | 1.04 |
| 17 | --- | .61 | --- | --- | .63 | .97 | .80 | .93 | 1.09 | 1.10 | --- | 1.04 |
| 18 | --- | .31 | --- | --- | .36 | 1.26 | .48 | .70 | 1.05 | 1.14 | --- | 1.00 |
| 19 | --- | .68 | --- | --- | .34 | 1.21 | .20 | .17 | 1.22 | 1.14 | --- | 1.13 |
| 20 | --- | .83 | --- | --- | .50 | 1.17 | .78 | .49 | 1.07 | 1.18 | --- | .50 |
| 21 | --- | .77 | --- | --- | .17 | 1.18 | 1.10 | .79 | 1.09 | 1.00 | --- | .39 |
| 22 | --- | .86 | --- | --- | .21 | 1.28 | 1.50 | .94 | .96 | .91 | .93 | .42 |
| 23 | --- | .99 | --- | --- | -.49 | 1.32 | 1.15 | .82 | 1.19 | 1.02 | .91 | .87 |
| 24 | --- | .99 | --- | --- | -.09 | 1.33 | 1.21 | .84 | .60 | 1.11 | .90 | .86 |
| 25 | --- | .95 | --- | --- | .03 | .90 | .86 | .92 | .64 | 1.12 | .57 | 1.30 |
| 26 | --- | .71 | --- | --- | .16 | .82 | .95 | .85 | .90 | 1.12 | .85 | 1.32 |
| 27 | --- | .51 | --- | --- | .46 | 1.32 | 1.00 | .93 | .92 | 1.17 | .98 | .89 |
| 28 | --- | .55 | --- | --- | .48 | 1.53 | 1.03 | 1.14 | .93 | 1.00 | 1.01 | .67 |
| 29 | --- | .45 | --- | --- | --- | 1.46 | .95 | .77 | 1.12 | 1.24 | .98 | .80 |
| 30 | --- | .09 | --- | --- | --- | 1.61 | 1.17 | .76 | 1.20 | 1.20 | 1.01 | .76 |
| 31 | --- | --- | --- | --- | --- | .96 | --- | 1.10 | --- | --- | 1.17 | --- |
| TOTAL | --- | --- | --- | --- | 11.51 | 29.69 | 23.93 | 25.46 | 27.89 | --- | --- | 27.40 |
| MEAN | --- | --- | --- | --- | .41 | .96 | .80 | .82 | .93 | --- | --- | .91 |
| MAX | --- | --- | --- | --- | 1.19 | 1.61 | 1.50 | 1.26 | 1.22 | --- | --- | 1.32 |
| MIN | --- | --- | --- | --- | -.49 | .34 | .07 | .17 | .33 | --- | --- | .39 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .61 | 1.74 | .53 | .47 | --- | --- | .71 | .95 | --- | --- | .15 | --- |
| 2 | .71 | 2.10 | .60 | .59 | --- | --- | .70 | 1.26 | --- | --- | -.02 | --- |
| 3 | .71 | 1.92 | .86 | .81 | --- | --- | .63 | 1.17 | --- | --- | .12 | --- |
| 4 | .90 | 1.71 | 1.05 | 1.68 | --- | --- | .61 | .77 | --- | --- | .44 | --- |
| 5 | 1.08 | 1.28 | .29 | 1.49 | --- | --- | .53 | .48 | --- | --- | .33 | --- |
| 6 | 1.03 | 1.23 | .47 | 1.57 | --- | --- | .46 | -.03 | --- | --- | .56 | --- |
| 7 | .76 | 1.22 | .33 | 1.41 | --- | --- | .69 | --- | --- | --- | .43 | --- |
| 8 | .76 | .73 | .28 | 1.40 | --- | --- | .59 | --- | --- | --- | .70 | --- |
| 9 | .72 | .10 | .36 | 1.34 | --- | --- | .67 | --- | --- | --- | .55 | --- |
| 10 | .78 | 1.23 | .14 | --- | --- | --- | .78 | --- | --- | --- | .85 | --- |
| 11 | .94 | 1.80 | .17 | --- | --- | --- | .76 | --- | --- | --- | .86 | --- |
| 12 | 1.00 | 1.40 | .32 | --- | --- | .93 | .69 | --- | --- | --- | 1.00 | --- |
| 13 | .73 | 1.33 | .49 | --- | --- | .71 | -.40 | --- | --- | --- | .93 | --- |
| 14 | .76 | 1.21 | .60 | --- | --- | .62 | .11 | --- | --- | --- | 1.03 | --- |
| 15 | .94 | 1.01 | .32 | --- | --- | .54 | .48 | --- | --- | --- | .87 | --- |
| 16 | .65 | .93 | .21 | --- | --- | .13 | .71 | --- | --- | --- | .59 | --- |
| 17 | 1.06 | .39 | .24 | --- | --- | .76 | .95 | --- | --- | --- | .58 | --- |
| 18 | 1.04 | .57 | .07 | --- | --- | .50 | .77 | --- | --- | --- | .53 | --- |
| 19 | 1.01 | .75 | -.58 | --- | --- | .78 | .60 | --- | --- | --- | .58 | --- |
| 20 | .53 | .72 | -.35 | --- | --- | .23 | .71 | --- | --- | --- | .67 | --- |
| 21 | .66 | .71 | .10 | --- | --- | .47 | .90 | --- | --- | --- | --- | --- |
| 22 | .80 | .76 | -.06 | --- | --- | .83 | 1.07 | --- | --- | --- | --- | --- |
| 23 | .80 | .76 | .24 | --- | --- | .67 | .73 | --- | --- | --- | --- | --- |
| 24 | .76 | .96 | .27 | --- | --- | .61 | .88 | --- | --- | --- | --- | --- |
| 25 | .80 | .73 | .31 | --- | --- | .69 | .78 | --- | --- | --- | --- | --- |
| 26 | .85 | .44 | .28 | --- | --- | .99 | .69 | --- | --- | --- | --- | --- |
| 27 | .80 | .25 | .21 | --- | --- | 1.14 | .85 | --- | --- | --- | --- | --- |
| 28 | .44 | .40 | .33 | --- | --- | .90 | .48 | --- | --- | --- | --- | --- |
| 29 | .04 | .47 | .92 | --- | --- | .65 | .09 | --- | --- | 1.05 | --- | --- |
| 30 | .74 | .43 | .77 | --- | --- | .62 | .97 | --- | --- | 1.00 | --- | --- |
| 31 | 1.29 | --- | .24 | --- | --- | .47 | --- | --- | --- | .68 | --- | --- |
| TOTAL | 24.70 | 29.28 | 10.01 | --- | --- | --- | 19.19 | --- | --- | --- | --- | --- |
| MEAN | .80 | .98 | .32 | --- | --- | --- | .64 | --- | --- | --- | --- | --- |

ROANOKE SOUND

0208117990 ROANOKE SOUND AT U.S. 64/264 AT HEADQUARTERS ISLAND, NC

LOCATION.--Lat 35°53'55", long 75°36'56", Dare County, Hydrologic Unit 03010205, on north seawall, 45 ft east of Melvin R. Daniels Bridge on Highway 64/264, and 0.9 mi north of Headquarters Island.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to September 1992 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevation NGVD.

RECORDS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 3.25 ft, Jan. 16, 1992; minimum elevation, -0.84 ft, Nov. 9, 1991, and Mar. 7, 1992.

EXTREMES FOR 1991 WATER YEAR.--Maximum elevation, 2.83 ft, August 19; minimum elevation -0.72 ft, February 23.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 3.25 ft, January 16; minimum elevation, -0.84 ft, November 9 and March 7.

ELEVATION, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .56 | --- | .60 | .25 | .69 | .48 | 1.35 | 1.29 | 1.11 | 1.35 | 1.28 | .66 |
| 2 | .72 | --- | .61 | .68 | .78 | .76 | .98 | 1.28 | .95 | 1.39 | 1.29 | .33 |
| 3 | .42 | --- | .62 | .70 | .73 | .75 | .50 | 1.06 | 1.01 | 1.18 | 1.44 | .79 |
| 4 | .83 | --- | 1.48 | .33 | .59 | 1.58 | .52 | .66 | 1.10 | 1.24 | 1.30 | 1.09 |
| 5 | .62 | --- | 1.51 | .34 | .50 | 1.06 | .72 | .70 | .49 | 1.51 | .98 | 1.22 |
| 6 | .58 | --- | .84 | .75 | .45 | .98 | .57 | 1.24 | .21 | 1.31 | .95 | 1.21 |
| 7 | .68 | --- | .71 | .57 | .52 | 1.28 | .60 | .91 | .23 | 1.30 | 1.15 | .86 |
| 8 | .61 | --- | .53 | .22 | .34 | .62 | .64 | .58 | .55 | 1.35 | 1.06 | .80 |
| 9 | .65 | .88 | .65 | 1.10 | .38 | .42 | .77 | .54 | .91 | 1.15 | 1.32 | .93 |
| 10 | .60 | 1.87 | .99 | .71 | .71 | .42 | .76 | .54 | .94 | 1.20 | 1.41 | 1.16 |
| 11 | .76 | 1.88 | .61 | .72 | .83 | .76 | .17 | .24 | 1.11 | 1.28 | 1.06 | 1.37 |
| 12 | .80 | 1.46 | .75 | 1.47 | .58 | .50 | -.11 | .86 | 1.26 | .98 | 1.02 | .97 |
| 13 | 1.08 | 1.07 | .84 | 1.29 | .96 | .65 | .16 | 1.02 | 1.05 | 1.52 | 1.15 | .97 |
| 14 | 1.22 | .78 | .33 | 1.31 | 1.40 | 1.01 | .37 | .96 | .72 | 1.47 | 1.33 | 1.19 |
| 15 | 1.24 | .95 | .58 | 1.17 | 1.74 | .70 | .69 | .75 | 1.01 | 1.06 | 1.44 | .90 |
| 16 | .63 | .98 | .81 | 1.29 | 1.48 | .70 | .65 | .54 | 1.16 | .97 | 1.00 | 1.06 |
| 17 | .77 | 1.02 | .44 | 1.58 | .84 | .95 | .64 | .89 | 1.13 | 1.06 | .96 | 1.09 |
| 18 | 1.17 | .80 | .68 | 1.41 | .49 | 1.23 | .40 | .68 | 1.06 | 1.19 | .75 | 1.00 |
| 19 | 1.21 | .96 | .67 | 1.08 | .45 | 1.37 | -.09 | -.07 | 1.21 | 1.21 | 1.53 | 1.19 |
| 20 | .49 | 1.05 | .19 | 1.03 | .68 | 1.22 | .76 | .38 | .98 | 1.24 | 1.48 | .70 |
| 21 | .54 | .98 | .58 | 1.46 | .33 | 1.13 | 1.40 | .68 | 1.00 | 1.07 | 1.36 | .34 |
| 22 | .64 | 1.08 | .68 | .93 | .35 | 1.25 | 1.71 | .94 | .89 | .97 | .95 | .38 |
| 23 | 1.00 | 1.25 | .86 | 1.22 | -.23 | 1.24 | 1.17 | .85 | 1.24 | 1.10 | .91 | .90 |
| 24 | .96 | 1.30 | 1.15 | 1.28 | .03 | 1.40 | 1.26 | .82 | .45 | 1.17 | .90 | .82 |
| 25 | .62 | 1.22 | .36 | .74 | .18 | .82 | .92 | .90 | .52 | 1.15 | .52 | 1.32 |
| 26 | --- | .88 | .20 | .74 | .41 | .67 | .94 | .80 | .77 | 1.15 | .78 | 1.40 |
| 27 | --- | .69 | -.21 | 1.02 | .78 | 1.27 | 1.01 | .97 | .85 | 1.18 | .92 | .88 |
| 28 | --- | .76 | .52 | 1.05 | .60 | 1.62 | 1.02 | 1.21 | .92 | 1.00 | 1.00 | .61 |
| 29 | --- | .86 | .54 | 1.03 | --- | 1.39 | .98 | .74 | 1.16 | 1.28 | 1.03 | .79 |
| 30 | --- | .56 | .89 | 1.15 | --- | 1.70 | 1.22 | .79 | 1.32 | 1.21 | 1.10 | .79 |
| 31 | --- | --- | .82 | 1.37 | --- | .94 | --- | 1.21 | --- | 1.32 | 1.29 | --- |
| TOTAL | --- | --- | 20.83 | 29.99 | 17.59 | 30.87 | 22.68 | 24.96 | 27.31 | 37.56 | 34.66 | 27.72 |
| MEAN | --- | --- | .67 | .97 | .63 | 1.00 | .76 | .81 | .91 | 1.21 | 1.12 | .92 |
| MAX | --- | --- | 1.51 | 1.58 | 1.74 | 1.70 | 1.71 | 1.29 | 1.32 | 1.52 | 1.53 | 1.40 |
| MIN | --- | --- | -.21 | .22 | -.23 | .42 | -.11 | -.07 | .21 | .97 | .52 | .33 |

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .61 | 1.78 | .57 | .45 | --- | .70 | .68 | --- | 1.07 | 1.31 | .99 | .90 |
| 2 | .68 | 2.12 | .65 | .51 | --- | .59 | .97 | --- | .95 | 1.09 | .80 | .74 |
| 3 | .75 | 1.95 | .93 | .57 | --- | .40 | .81 | --- | .88 | .98 | 1.05 | .94 |
| 4 | .94 | 1.74 | 1.63 | 1.75 | --- | .18 | .57 | --- | .96 | 1.42 | 1.10 | .87 |
| 5 | 1.09 | 1.31 | .47 | 1.59 | --- | .34 | .65 | --- | 1.27 | 1.25 | .58 | .67 |
| 6 | 1.15 | 1.25 | .60 | 1.60 | --- | .43 | .46 | --- | 1.32 | 1.46 | .43 | .63 |
| 7 | .96 | 1.23 | .39 | 1.45 | --- | .45 | .67 | --- | 1.35 | 1.17 | .37 | .68 |
| 8 | .81 | .88 | .32 | 1.39 | --- | .86 | .56 | --- | 1.39 | 1.04 | .54 | .81 |
| 9 | .73 | .08 | .43 | 1.35 | --- | .68 | .56 | --- | 1.48 | 1.33 | .89 | .79 |
| 10 | .80 | .89 | .31 | 1.24 | --- | .92 | .75 | --- | .89 | .99 | .86 | .81 |
| 11 | 1.02 | 2.06 | .20 | 1.32 | --- | 1.95 | .72 | --- | .70 | .96 | 1.10 | .74 |
| 12 | 1.09 | 1.52 | .35 | 1.14 | --- | 1.12 | .66 | --- | .76 | .97 | .98 | .39 |
| 13 | .80 | 1.39 | .54 | 1.08 | --- | .72 | -.47 | --- | .88 | 1.34 | 1.17 | .22 |
| 14 | .78 | 1.28 | .76 | 1.86 | --- | .64 | -.03 | --- | .97 | 1.16 | 1.20 | .29 |
| 15 | .97 | 1.05 | .68 | 1.30 | --- | .58 | .34 | --- | 1.07 | 1.45 | 1.50 | .28 |
| 16 | .74 | 1.00 | .46 | --- | --- | .30 | .61 | --- | .76 | 1.45 | 1.38 | .44 |
| 17 | 1.47 | .43 | .34 | --- | --- | .75 | .96 | --- | .66 | 1.47 | 1.57 | .76 |
| 18 | 1.15 | .58 | .30 | --- | --- | .46 | .70 | --- | .89 | 1.38 | 1.51 | .88 |
| 19 | 1.09 | .78 | .09 | --- | --- | .88 | .47 | --- | 1.08 | 1.09 | 1.66 | .99 |
| 20 | .60 | .75 | -.24 | --- | --- | .33 | .57 | --- | 1.11 | .93 | 1.50 | .56 |
| 21 | .67 | .74 | .26 | --- | --- | .46 | --- | --- | .75 | .96 | 1.11 | .78 |
| 22 | .85 | .73 | .03 | --- | --- | .72 | --- | --- | .72 | .95 | 1.02 | 1.02 |
| 23 | .83 | .80 | .32 | --- | --- | .77 | --- | .73 | .89 | 1.13 | .92 | .69 |
| 24 | .79 | 1.14 | .42 | --- | --- | .57 | --- | .82 | 1.06 | 1.21 | .95 | -.11 |
| 25 | .82 | .99 | .39 | --- | .43 | .56 | --- | .48 | 1.29 | 1.05 | 1.12 | .67 |
| 26 | .86 | .50 | .29 | --- | .87 | .95 | --- | .68 | 1.37 | .93 | --- | 1.05 |
| 27 | .82 | .26 | .22 | --- | 1.01 | 1.30 | --- | .65 | 1.17 | 1.35 | 1.23 | 1.28 |
| 28 | .47 | .45 | .24 | --- | 1.08 | 1.12 | --- | .69 | .86 | 1.01 | 1.58 | 1.14 |
| 29 | -.10 | .51 | .99 | --- | 1.14 | .66 | --- | .37 | .91 | 1.11 | 1.34 | .99 |
| 30 | .90 | .46 | .94 | --- | --- | .57 | --- | .85 | 1.00 | 1.14 | 1.02 | .50 |
| 31 | 1.46 | --- | .21 | --- | --- | .55 | --- | 1.21 | --- | 1.30 | 1.21 | --- |
| TOTAL | 26.60 | 30.65 | 14.09 | --- | --- | 21.51 | --- | --- | 30.46 | 36.38 | --- | 21.40 |
| MEAN | .86 | 1.02 | .45 | --- | --- | .69 | --- | --- | 1.02 | 1.17 | --- | .71 |

PAMLICO RIVER BASIN

02081500 TAR RIVER NEAR TAR RIVER, NC

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

DRAINAGE AREA.--167 mi².

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

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Occasional intermittent diversion for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.5 | e.94 | e.80 | 44 | 43 | 124 | 96 | e32 | 48 | 29 | 14 | 4.3 |
| 2 | 5.1 | e1.2 | e2.0 | 31 | 37 | 97 | 88 | e29 | 31 | 404 | 9.9 | 4.1 |
| 3 | 4.1 | e2.5 | e5.0 | 144 | 33 | 83 | 74 | e27 | 23 | 52 | 8.3 | 3.9 |
| 4 | 3.2 | e2.3 | e9.0 | 4520 | 31 | 73 | 67 | e25 | 19 | 96 | 7.8 | 4.9 |
| 5 | 2.9 | e2.0 | e3.3 | 4100 | 33 | 63 | 68 | e24 | 23 | 94 | 12 | 64 |
| 6 | e2.7 | e1.7 | e1.5 | 458 | 29 | 109 | 63 | e23 | 47 | 56 | 6.9 | 49 |
| 7 | e2.4 | e1.8 | e1.4 | 208 | 26 | 2300 | 57 | e22 | 39 | 44 | 5.8 | 29 |
| 8 | e2.2 | e1.9 | e1.3 | 131 | 25 | 1020 | 52 | 25 | 28 | 37 | 6.4 | 21 |
| 9 | e2.1 | e2.0 | e2.2 | 99 | 23 | 303 | 49 | 34 | 28 | 35 | 6.5 | 19 |
| 10 | e2.0 | e2.1 | e4.2 | 84 | 22 | 207 | 46 | 34 | 33 | 28 | 7.1 | 14 |
| 11 | e1.8 | e3.5 | 7.0 | 71 | 21 | 680 | 44 | 28 | 32 | 14 | 6.6 | 12 |
| 12 | e1.7 | e5.8 | 3.6 | 58 | 21 | 329 | 42 | 23 | 26 | 11 | 6.5 | 9.1 |
| 13 | e1.6 | e3.3 | 3.0 | 49 | 21 | 190 | 76 | 21 | 21 | 8.8 | 20 | 7.3 |
| 14 | e1.5 | e2.5 | 2.7 | 48 | 21 | 135 | 103 | 19 | 18 | 7.8 | 92 | 5.9 |
| 15 | e1.4 | e2.1 | 2.2 | 43 | 25 | 111 | 70 | 19 | 16 | 6.8 | 89 | 5.1 |
| 16 | e1.6 | e1.8 | 1.8 | 38 | 58 | 96 | 56 | 27 | 14 | 6.0 | 78 | 4.6 |
| 17 | e4.5 | e1.6 | 2.2 | 34 | 78 | 84 | 49 | 134 | 13 | 5.5 | 84 | 4.8 |
| 18 | e9.6 | e1.5 | 2.3 | 31 | 63 | 76 | 45 | 67 | 11 | 5.0 | 56 | 5.0 |
| 19 | e5.6 | e1.4 | 2.1 | 31 | 63 | 119 | 41 | 36 | 11 | 15 | 39 | 4.8 |
| 20 | e3.5 | e1.5 | 2.1 | 29 | 79 | 441 | 37 | 36 | 15 | 5.7 | 31 | 7.4 |
| 21 | e2.3 | 1.3 | 2.8 | 26 | 75 | 172 | 37 | 33 | 19 | 4.5 | 21 | 5.2 |
| 22 | e2.0 | 1.5 | 2.6 | 26 | 57 | 112 | 657 | 25 | 15 | 4.0 | 16 | 5.0 |
| 23 | e1.8 | e1.4 | 2.6 | 27 | 47 | 112 | 327 | 19 | 12 | 4.2 | 13 | 4.5 |
| 24 | e1.7 | e1.3 | 3.9 | 82 | 46 | 111 | 142 | 16 | 10 | 35 | 10 | 4.1 |
| 25 | e1.6 | e1.2 | 5.3 | 101 | 52 | 89 | 93 | 14 | 12 | 35 | 8.9 | 9.8 |
| 26 | e1.5 | e1.1 | 4.9 | 66 | 1400 | 270 | 76 | 15 | 17 | 50 | 7.8 | 109 |
| 27 | e1.4 | e1.0 | 4.9 | 51 | 1140 | 672 | e58 | 17 | 159 | 25 | 6.8 | 38 |
| 28 | e1.3 | e.94 | 5.5 | 50 | 300 | 263 | e44 | 16 | 68 | 78 | 7.3 | 33 |
| 29 | e1.2 | e.88 | 168 | 52 | 183 | 160 | e38 | 16 | 33 | 80 | 6.3 | 33 |
| 30 | e1.1 | e.84 | 188 | 53 | --- | 121 | e35 | 24 | 21 | 36 | 5.1 | 20 |
| 31 | e1.0 | --- | 80 | 48 | --- | 110 | --- | 73 | --- | 22 | 4.7 | --- |
| TOTAL | 82.9 | 54.90 | 528.20 | 10833 | 4052 | 8832 | 2730 | 953 | 862 | 1334.3 | 693.7 | 540.8 |
| MEAN | 2.67 | 1.83 | 17.0 | 349 | 140 | 285 | 91.0 | 30.7 | 28.7 | 43.0 | 22.4 | 18.0 |
| MAX | 9.6 | 5.8 | 188 | 4520 | 1400 | 2300 | 657 | 134 | 159 | 404 | 92 | 109 |
| MIN | 1.0 | .84 | .80 | 26 | 21 | 63 | 35 | 14 | 10 | 4.0 | 4.7 | 3.9 |
| CFSM | .02 | .01 | .10 | 2.09 | .84 | 1.71 | .54 | .18 | .17 | .26 | .13 | .11 |
| IN. | .02 | .01 | .12 | 2.41 | .90 | 1.97 | .61 | .21 | .19 | .30 | .15 | .12 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 68.0 | 114 | 150 | 250 | 325 | 315 | 215 | 127 | 77.3 | 79.8 | 81.3 | 64.4 |
| MAX | 565 | 599 | 558 | 819 | 798 | 917 | 675 | 475 | 488 | 677 | 542 | 671 |
| (WY) | 1972 | 1973 | 1973 | 1978 | 1960 | 1975 | 1978 | 1978 | 1982 | 1975 | 1955 | 1945 |
| MIN | .41 | .28 | 4.39 | 7.04 | 62.6 | 61.0 | 33.2 | 16.9 | 4.30 | .92 | 1.39 | .28 |
| (WY) | 1971 | 1942 | 1942 | 1942 | 1968 | 1981 | 1942 | 1941 | 1970 | 1966 | 1976 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 34475.12 | | 31496.80 | | | |
| ANNUAL MEAN | 94.5 | | 86.1 | | 155 | |
| HIGHEST ANNUAL MEAN | | | | | 336 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 51.0 | 1981 |
| HIGHEST DAILY MEAN | 3640 | Mar 30 | 4520 | Jan 4 | 10500 | Aug 18 1955 |
| LOWEST DAILY MEAN | .70 | Sep 16 | .80 | Dec 1 | .02 | Aug 13 1977 |
| ANNUAL SEVEN-DAY MINIMUM | .89 | Sep 13 | .97 | Nov 25 | .07 | Aug 8 1977 |
| INSTANTANEOUS PEAK FLOW | | | 7420 | Jan 4 | 14200 | Apr 27 1978 |
| INSTANTANEOUS PEAK STAGE | | | 13.70 | Jan 4 | 18.87 | Apr 27 1978 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0 | Aug 14 1977 |
| ANNUAL RUNOFF (CFSM) | .57 | | .52 | | .93 | |
| ANNUAL RUNOFF (INCHES) | 7.68 | | 7.02 | | 12.59 | |
| 10 PERCENT EXCEEDS | 186 | | 112 | | 324 | |
| 50 PERCENT EXCEEDS | 7.2 | | 23 | | 44 | |
| 90 PERCENT EXCEEDS | 1.5 | | 1.8 | | 3.7 | |

PAMLICO RIVER BASIN

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

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

DRAINAGE AREA.--427 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 176.71 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1973, nonrecording gage at bridge 0.4 mi upstream at 178.53 ft; Nov. 22, 1973, to June 24, 1980, at site 0.1 mi upstream at same datum. National Weather Service gage-height telemeter at station.

REMARKS.--Records good except those for estimated daily discharge from once daily National Weather Service stage observations, which are fair. Maximum gage height for period of record, from floodmarks.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 55 | 39 | 45 | 218 | 168 | 416 | 350 | 139 | 535 | 115 | 72 | 62 |
| 2 | 48 | 41 | 46 | 148 | 148 | 317 | 313 | 133 | 284 | 1050 | 56 | 55 |
| 3 | 69 | 43 | 51 | 225 | 136 | 269 | 284 | 125 | 188 | 489 | 49 | 52 |
| 4 | 117 | 42 | 70 | 3650 | 129 | 234 | 260 | 111 | 153 | 1070 | 47 | 54 |
| 5 | 85 | 40 | 75 | 8920 | 124 | 205 | 256 | 101 | 245 | 1350 | e45 | 77 |
| 6 | 58 | 40 | 69 | 8630 | 121 | 240 | 247 | 102 | 971 | 430 | e42 | 430 |
| 7 | 45 | 40 | 54 | 3520 | 116 | 2330 | 230 | 108 | 395 | 371 | e46 | 454 |
| 8 | 38 | 41 | 51 | 671 | 111 | 4830 | 215 | 143 | 239 | 247 | 65 | 196 |
| 9 | 35 | 43 | 49 | 459 | 105 | 3520 | 204 | 179 | 360 | 179 | 71 | 125 |
| 10 | 34 | 54 | 51 | 381 | 99 | 754 | 191 | 144 | 325 | 147 | 186 | 102 |
| 11 | 35 | 71 | 50 | 326 | 98 | 999 | 179 | 120 | 249 | 122 | 134 | 155 |
| 12 | 33 | 75 | 48 | 277 | 98 | 1070 | 175 | 103 | 197 | e100 | 131 | 108 |
| 13 | 32 | 64 | 53 | 249 | 101 | 577 | 206 | 142 | 152 | e85 | 528 | 78 |
| 14 | 32 | 52 | 50 | 247 | 109 | 425 | 241 | 128 | 128 | e75 | 1740 | 65 |
| 15 | 32 | 48 | 50 | 222 | 122 | 346 | 230 | 110 | 118 | e60 | 701 | 58 |
| 16 | 41 | 47 | 46 | 191 | 190 | 299 | 194 | 127 | 122 | e55 | 514 | 53 |
| 17 | 130 | 48 | 43 | 168 | 251 | 263 | 185 | 127 | 104 | e55 | 466 | 53 |
| 18 | 210 | 45 | 42 | 163 | 209 | 237 | 169 | 220 | 91 | e55 | 390 | 53 |
| 19 | 149 | 44 | 42 | 155 | 202 | 286 | 154 | 142 | 84 | e80 | 292 | 51 |
| 20 | 81 | 44 | 39 | 142 | 239 | 728 | 143 | 111 | 504 | e135 | 217 | 203 |
| 21 | 57 | 44 | 41 | 139 | 231 | 583 | 156 | 103 | 404 | e80 | 177 | 209 |
| 22 | 48 | 48 | 44 | 134 | 193 | 356 | 617 | 94 | 268 | e65 | 139 | 117 |
| 23 | 44 | 52 | 45 | 156 | 162 | 344 | 1060 | 80 | 170 | e135 | 111 | 87 |
| 24 | 42 | 50 | 52 | 208 | 156 | 365 | 444 | 70 | 127 | e160 | 96 | 95 |
| 25 | 41 | 47 | 54 | 253 | 165 | 297 | 300 | 63 | 135 | e135 | 84 | 99 |
| 26 | 41 | 44 | 51 | 237 | 987 | 386 | 237 | 166 | 221 | e115 | 77 | 266 |
| 27 | 41 | 42 | 59 | 179 | 3100 | 1500 | 196 | 192 | 433 | e125 | 74 | 245 |
| 28 | 41 | 41 | 77 | 204 | 2150 | 920 | 172 | 121 | 421 | 141 | 106 | 144 |
| 29 | 40 | 42 | 311 | 219 | 602 | 548 | 158 | 95 | 218 | 299 | 109 | 170 |
| 30 | 38 | 45 | 756 | 203 | --- | 431 | 140 | 221 | 144 | 162 | 88 | 124 |
| 31 | 38 | --- | 387 | 186 | --- | 379 | --- | 1100 | --- | 96 | 72 | --- |
| TOTAL | 1830 | 1416 | 2901 | 31080 | 10622 | 24454 | 7906 | 4920 | 7985 | 7783 | 6925 | 4040 |
| MEAN | 59.0 | 47.2 | 93.6 | 1003 | 366 | 789 | 264 | 159 | 266 | 251 | 223 | 135 |
| MAX | 210 | 75 | 756 | 8920 | 3100 | 4830 | 1060 | 1100 | 971 | 1350 | 1740 | 454 |
| MIN | 32 | 39 | 39 | 134 | 98 | 205 | 140 | 63 | 84 | 55 | 42 | 51 |
| CFSM | .14 | .11 | .22 | 2.35 | .86 | 1.85 | .62 | .37 | .62 | .59 | .52 | .32 |
| IN. | .16 | .12 | .25 | 2.71 | .93 | 2.13 | .69 | .43 | .70 | .68 | .60 | .35 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 148 | 279 | 405 | 817 | 786 | 913 | 620 | 409 | 263 | 243 | 171 | 159 |
| MAX | 582 | 1192 | 1108 | 1845 | 1616 | 2015 | 1407 | 984 | 1451 | 1692 | 512 | 688 |
| (WY) | 1990 | 1986 | 1984 | 1978 | 1983 | 1989 | 1987 | 1989 | 1982 | 1975 | 1986 | 1974 |
| MIN | 28.5 | 47.2 | 86.5 | 78.0 | 202 | 214 | 140 | 123 | 35.4 | 43.3 | 26.8 | 19.7 |
| (WY) | 1987 | 1992 | 1981 | 1981 | 1977 | 1988 | 1985 | 1977 | 1986 | 1986 | 1988 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 97838 | | 111862 | | | |
| ANNUAL MEAN | 268 | | 306 | | 433 | |
| HIGHEST ANNUAL MEAN | | | | | 729 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 131 | 1981 |
| HIGHEST DAILY MEAN | 5030 | Mar 31 | 8920 | Jan 5 | 13000 | Apr 28 1978 |
| LOWEST DAILY MEAN | 17 | Sep 18 | 32 | Oct 13 | 8.1 | Aug 14 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 18 | Sep 13 | 33 | Oct 9 | 9.2 | Sep 16 1985 |
| INSTANTANEOUS PEAK FLOW | | | 10000 | Jan 5 | 13100 | Apr 28 1978 |
| INSTANTANEOUS PEAK STAGE | | | 21.57 | Jan 5 | 24.36* | Apr 28 1978 |
| INSTANTANEOUS LOW FLOW | | | 29 | Oct 15 | 7.3 | Aug 14 1977 |
| ANNUAL RUNOFF (CFSM) | .63 | | .72 | | 1.01 | |
| ANNUAL RUNOFF (INCHES) | 8.52 | | 9.75 | | 13.77 | |
| 10 PERCENT EXCEEDS | 528 | | 473 | | 1040 | |
| 50 PERCENT EXCEEDS | 77 | | 135 | | 207 | |
| 90 PERCENT EXCEEDS | 32 | | 44 | | 42 | |

* See REMARKS.

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

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

DRAINAGE AREA.--777 $mi^2$.

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

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

REMARKS.--Records good except those for estimated daily discharge, which are poor. The city of Rocky Mount diverted an average of 13.2 $ft^3/s$ for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for period of record also occurred Oct. 20, 1981.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 115 | 106 | 88 | 706 | 479 | 1220 | 705 | 270 | 1320 | 536 | 194 | 154 |
| 2 | 115 | 105 | 90 | 460 | 434 | 800 | 629 | 263 | 1120 | 423 | 190 | 143 |
| 3 | 115 | 101 | 84 | 548 | 383 | 640 | 559 | 243 | 634 | 1070 | 167 | 132 |
| 4 | 115 | 105 | 83 | 3840 | 344 | 551 | 493 | 232 | 406 | 1010 | 150 | 121 |
| 5 | 116 | 104 | 74 | 6310 | 308 | 497 | 474 | 215 | 342 | 1400 | 139 | 115 |
| 6 | 117 | 102 | 80 | 6570 | 293 | 480 | 439 | 121 | 355 | 1850 | 121 | 133 |
| 7 | 115 | 104 | 77 | 7000 | 295 | 1740 | 426 | 145 | 1010 | 1080 | 112 | 263 |
| 8 | 114 | 104 | 85 | 8220 | 286 | 3660 | 407 | 197 | 704 | 785 | 107 | 579 |
| 9 | 114 | 104 | 91 | 6620 | 266 | 4350 | 389 | 233 | 557 | 595 | 104 | 420 |
| 10 | 111 | 102 | 76 | 1530 | 251 | 4510 | 369 | 257 | 756 | 446 | 109 | 324 |
| 11 | 110 | 99 | 75 | 835 | 249 | 2370 | 344 | 289 | 850 | 373 | 122 | 271 |
| 12 | 109 | 103 | 77 | 706 | 231 | 1670 | 327 | 265 | 644 | 307 | 156 | 262 |
| 13 | 107 | 103 | 79 | 618 | 249 | 1590 | 354 | 236 | 439 | 263 | 212 | 268 |
| 14 | 105 | 103 | 78 | 545 | 268 | 1090 | 360 | 256 | 339 | 220 | 1200 | 240 |
| 15 | 102 | 108 | 76 | 491 | 316 | 813 | 333 | 298 | 283 | 194 | 2640 | 200 |
| 16 | 98 | 106 | 76 | 550 | 505 | 685 | 354 | 258 | 242 | 156 | 2250 | 168 |
| 17 | 95 | 102 | 82 | 439 | 550 | 607 | 354 | 233 | 202 | 130 | 1960 | 149 |
| 18 | 92 | 100 | 85 | 364 | 596 | 521 | 321 | 233 | 185 | 119 | 2380 | 138 |
| 19 | 94 | 100 | 89 | 332 | 568 | 545 | 344 | 323 | 183 | e150 | 1710 | 130 |
| 20 | 96 | 94 | 91 | 320 | 526 | 632 | 325 | 311 | 183 | e210 | 1370 | 128 |
| 21 | 98 | 70 | 91 | 297 | 491 | 1100 | 297 | 273 | 294 | e300 | 929 | 138 |
| 22 | 99 | 75 | 82 | 284 | 462 | 1080 | 767 | 236 | 679 | e500 | 643 | 193 |
| 23 | 101 | 82 | 87 | 333 | 460 | 827 | 1400 | 206 | 556 | e600 | 489 | 235 |
| 24 | 102 | 87 | 91 | 514 | 431 | 797 | 1830 | 183 | 413 | e500 | 371 | 218 |
| 25 | 103 | 80 | 97 | 567 | 409 | 784 | 1040 | 164 | 387 | e300 | 286 | 189 |
| 26 | 104 | 82 | 92 | 593 | 556 | 841 | 624 | 153 | 849 | e250 | 233 | 174 |
| 27 | 104 | 84 | 100 | 535 | 1470 | 1210 | 462 | 143 | 2440 | e500 | 205 | 177 |
| 28 | 104 | 82 | 102 | 552 | 2950 | 2070 | 388 | 165 | 2210 | e600 | 188 | 233 |
| 29 | 105 | 85 | 111 | 537 | 2730 | 1620 | 343 | 202 | 1590 | 523 | 166 | 247 |
| 30 | 106 | 87 | 122 | 536 | --- | 1050 | 308 | 237 | 867 | 343 | 165 | 231 |
| 31 | 107 | --- | 780 | 525 | --- | 809 | --- | 316 | --- | 121 | 166 | --- |
| TOTAL | 3288 | 2869 | 3391 | 52277 | 17356 | 41159 | 15765 | 7156 | 21039 | 15854 | 19234 | 6373 |
| MEAN | 106 | 95.6 | 109 | 1686 | 598 | 1328 | 525 | 231 | 701 | 511 | 620 | 212 |
| MAX | 117 | 108 | 780 | 8220 | 2950 | 4510 | 1830 | 323 | 2440 | 1850 | 2640 | 579 |
| MIN | 92 | 70 | 74 | 284 | 231 | 480 | 297 | 121 | 183 | 119 | 104 | 115 |
| CFSM | .14 | .12 | .14 | 2.17 | .77 | 1.71 | .68 | .30 | .90 | .66 | .80 | .27 |
| IN. | .16 | .14 | .16 | 2.50 | .83 | 1.97 | .75 | .34 | 1.01 | .76 | .92 | .31 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 283 | 513 | 756 | 1374 | 1397 | 1682 | 1167 | 774 | 566 | 495 | 381 | 254 |
| MAX | 1190 | 1876 | 2406 | 2794 | 2803 | 3438 | 2864 | 2123 | 2064 | 2321 | 1045 | 1046 |
| (WY) | 1973 | 1973 | 1973 | 1978 | 1983 | 1989 | 1987 | 1989 | 1982 | 1975 | 1973 | 1974 |
| MIN | 64.6 | 66.2 | 109 | 186 | 456 | 358 | 284 | 213 | 101 | 67.9 | 77.9 | 75.9 |
| (WY) | 1981 | 1981 | 1992 | 1981 | 1991 | 1981 | 1981 | 1976 | 1991 | 1986 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1972 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 163776 | | 205761 | | | |
| ANNUAL MEAN | 449 | | 562 | | 801 | |
| HIGHEST ANNUAL MEAN | | | | | 1471 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 211 | 1981 |
| HIGHEST DAILY MEAN | 4920 | Jan 15 | 8220 | Jan 8 | 10900 | Apr 30 1978 |
| LOWEST DAILY MEAN | 70 | Nov 21 | 70 | Nov 21 | 39 | Oct 19 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 77 | Jul 16 | 77 | Dec 10 | 57 | Nov 1 1980 |
| INSTANTANEOUS PEAK FLOW | | | 8460 | Jan 8 | 11500 | Apr 30 1978 |
| INSTANTANEOUS PEAK STAGE | | | 17.96 | Jan 8 | 21.62 | Apr 30 1978 |
| INSTANTANEOUS LOW FLOW | | | 61 | Nov 22 | 35* | Oct 19 1981 |
| ANNUAL RUNOFF (CFSM) | .58 | | .72 | | 1.03 | |
| ANNUAL RUNOFF (INCHES) | 7.84 | | 9.85 | | 14.02 | |
| 10 PERCENT EXCEEDS | 1050 | | 1140 | | 1950 | |
| 50 PERCENT EXCEEDS | 129 | | 272 | | 365 | |
| 90 PERCENT EXCEEDS | 80 | | 93 | | 95 | |

* See REMARKS.

PAMLICO RIVER BASIN

02082585 TAR RIVER AT NC 97 AT ROCKY MOUNT, NC

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

DRAINAGE AREA.--925 $mi^2$.

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

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

GAGE.--Water-stage recorder. Datum of gage is 53.88 ft above National Geodetic Vertical Datum of 1929. City of Rocky Mount telemeter at station.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Some regulation at low flow caused by mill above station. The city of Rocky Mount diverted an average of 21.4 $ft^3/s$ for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for period of record and current water year, result of temporary regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 97 | 94 | 93 | 772 | 507 | 1340 | 836 | 353 | e1400 | 492 | 73 | 118 |
| 2 | 97 | 85 | 93 | 519 | 538 | 868 | 747 | 302 | e1200 | 362 | 132 | 102 |
| 3 | 104 | 89 | 97 | 833 | 416 | 687 | 671 | 240 | e700 | 828 | 158 | 90 |
| 4 | 116 | 100 | 87 | 4900 | 396 | 591 | 597 | 313 | e450 | 1050 | 167 | 75 |
| 5 | 99 | 105 | 85 | 7910 | 375 | 540 | 580 | 225 | e300 | 1210 | 73 | 71 |
| 6 | 91 | 109 | 84 | 8800 | 338 | 536 | 548 | 225 | e400 | 1850 | 53 | 112 |
| 7 | 94 | 101 | 84 | 8160 | 337 | 1680 | 529 | 131 | e1100 | 1160 | 141 | 197 |
| 8 | 95 | 100 | 83 | 8480 | 341 | 3960 | 474 | 154 | e800 | 821 | 82 | 525 |
| 9 | 98 | 102 | 84 | 8270 | 265 | 4940 | 471 | 304 | e550 | 565 | 81 | 426 |
| 10 | 99 | 110 | 85 | 2730 | 325 | 5000 | 462 | 277 | e800 | 395 | 57 | 310 |
| 11 | 111 | 97 | 82 | 1000 | 265 | 3060 | 440 | 338 | e900 | 310 | 54 | 240 |
| 12 | 93 | 97 | 82 | 799 | 291 | 1780 | 395 | 321 | e760 | 235 | 63 | 228 |
| 13 | 93 | 104 | 79 | 687 | 265 | 1710 | 535 | 240 | 480 | 206 | 238 | 241 |
| 14 | 96 | 104 | 79 | 658 | 342 | 1200 | 416 | 238 | 361 | 168 | 1300 | 210 |
| 15 | 100 | 107 | 78 | 614 | 356 | 923 | 495 | 276 | 307 | 136 | 3120 | 166 |
| 16 | 168 | 107 | 77 | 630 | 732 | 777 | 515 | 274 | 298 | 116 | 2870 | 127 |
| 17 | 214 | 101 | 76 | 568 | 710 | 688 | 452 | 243 | 299 | 38 | 2650 | 101 |
| 18 | 137 | 103 | 76 | 447 | 713 | 604 | 241 | 234 | 168 | 34 | 3170 | 92 |
| 19 | 121 | 91 | 75 | 344 | 655 | 667 | 474 | 309 | 155 | 36 | 2250 | 103 |
| 20 | 103 | 86 | 76 | 387 | 636 | 795 | 433 | 296 | 266 | 36 | 1760 | 113 |
| 21 | 103 | 77 | 78 | 373 | 579 | 1180 | 331 | 296 | 461 | 44 | 1120 | 105 |
| 22 | 103 | 87 | 79 | 356 | 534 | 1230 | 1070 | 251 | 900 | 96 | 739 | 146 |
| 23 | 101 | 84 | 79 | 366 | 530 | 1020 | 1800 | 238 | 736 | 261 | 550 | 203 |
| 24 | 98 | 86 | 96 | 674 | 434 | 987 | 2230 | 187 | 519 | 652 | 412 | 188 |
| 25 | 96 | 92 | 106 | 839 | 515 | 957 | 1240 | 165 | 418 | 567 | 310 | 158 |
| 26 | 94 | 86 | 281 | 780 | 765 | 1130 | 754 | 116 | 973 | 372 | 251 | 139 |
| 27 | 96 | 81 | 176 | 709 | 1480 | 1470 | 572 | 74 | 2860 | 265 | 228 | 135 |
| 28 | 93 | 90 | 56 | 702 | 3070 | 2330 | 505 | 87 | 2620 | 315 | 179 | 187 |
| 29 | 95 | 87 | 275 | 708 | 3050 | 1920 | 401 | 213 | 1780 | 442 | 151 | 200 |
| 30 | 93 | 96 | 251 | 648 | --- | 1210 | 367 | 232 | 874 | 404 | 136 | 188 |
| 31 | 95 | --- | 743 | 657 | --- | 951 | --- | e600 | --- | 121 | 76 | --- |
| TOTAL | 3293 | 2858 | 3875 | 64320 | 19760 | 46731 | 19581 | 7752 | 23835 | 13587 | 22644 | 5296 |
| MEAN | 106 | 95.3 | 125 | 2075 | 681 | 1507 | 653 | 250 | 794 | 438 | 730 | 177 |
| MAX | 214 | 110 | 743 | 8800 | 3070 | 5000 | 2230 | 600 | 2860 | 1850 | 3170 | 525 |
| MIN | 91 | 77 | 56 | 344 | 265 | 536 | 241 | 74 | 155 | 34 | 53 | 71 |
| CFSM | .11 | .10 | .14 | 2.24 | .74 | 1.63 | .71 | .27 | .86 | .47 | .79 | .19 |
| IN. | .13 | .11 | .16 | 2.59 | .79 | 1.88 | .79 | .31 | .96 | .55 | .91 | .21 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 266 | 550 | 785 | 1565 | 1563 | 2030 | 1424 | 974 | 690 | 399 | 429 | 209 |
| MAX | 1079 | 1905 | 1720 | 3230 | 3280 | 4301 | 3447 | 2725 | 2238 | 1316 | 977 | 805 |
| (WY) | 1990 | 1980 | 1984 | 1978 | 1983 | 1989 | 1987 | 1989 | 1982 | 1984 | 1989 | 1979 |
| MIN | 70.4 | 74.5 | 125 | 254 | 546 | 477 | 359 | 250 | 128 | 54.1 | 79.7 | 84.3 |
| (WY) | 1981 | 1981 | 1992 | 1981 | 1977 | 1981 | 1981 | 1992 | 1986 | 1986 | 1987 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1977 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 193604 | | 233532 | | | |
| ANNUAL MEAN | 530 | | 638 | | 904 | |
| HIGHEST ANNUAL MEAN | | | | | 1500 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 262 | 1981 |
| HIGHEST DAILY MEAN | 5470 | Jan 15 | 8800 | Jan 6 | 12100 | May 1 1978 |
| LOWEST DAILY MEAN | 56 | Dec 28 | 34 | Jul 18 | 6.6 | Oct 3 1983 |
| ANNUAL SEVEN-DAY MINIMUM | 76 | Jul 21 | 57 | Jul 16 | 40 | Jul 3 1986 |
| INSTANTANEOUS PEAK FLOW | | | 8940 | Jan 6 | 12300 | May 1 1978 |
| INSTANTANEOUS PEAK STAGE | | | 20.33 | Jan 6 | 23.66 | May 1 1978 |
| INSTANTANEOUS LOW FLOW | | | 8.6* | Jun 18 | 5.7* | Sep 23 1988 |
| ANNUAL RUNOFF (CFSM) | .57 | | .69 | | .98 | |
| ANNUAL RUNOFF (INCHES) | 7.79 | | 9.39 | | 13.28 | |
| 10 PERCENT EXCEEDS | 1140 | | 1230 | | 2240 | |
| 50 PERCENT EXCEEDS | 168 | | 298 | | 420 | |
| 90 PERCENT EXCEEDS | 86 | | 84 | | 96 | |

* See REMARKS.

PAMLICO RIVER BASIN

02082770 SWIFT CREEK AT HILLIARDSTON, NC

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

DRAINAGE AREA.--166 mi$^2$.

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

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

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

REMARKS.--No estimated daily discharges. Records good.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 30 | 33 | 87 | 88 | 137 | 128 | 66 | 278 | 66 | 44 | 68 |
| 2 | 30 | 29 | 35 | 67 | 84 | 117 | 121 | 64 | 287 | 95 | 38 | 58 |
| 3 | 28 | 30 | 38 | 133 | 81 | 107 | 112 | 63 | 147 | 88 | 33 | 52 |
| 4 | 29 | 29 | 50 | 1670 | 79 | 101 | 104 | 59 | 99 | 142 | 29 | 48 |
| 5 | 59 | 30 | 58 | 2030 | 79 | 98 | 102 | 56 | 95 | 336 | 27 | 47 |
| 6 | 54 | 30 | 58 | 2800 | 78 | 104 | 99 | 56 | 133 | 835 | 25 | 71 |
| 7 | 40 | 30 | 54 | 2400 | 78 | 777 | 95 | 58 | 227 | 638 | 23 | 107 |
| 8 | 32 | 29 | 45 | 664 | 76 | 870 | 91 | 65 | 160 | 233 | 25 | 135 |
| 9 | 27 | 30 | 40 | 202 | 77 | 820 | 89 | 82 | 107 | 160 | 26 | 90 |
| 10 | 24 | 36 | 40 | 155 | 73 | 544 | 85 | 92 | 145 | 112 | 41 | 73 |
| 11 | 21 | 45 | 40 | 134 | 72 | 306 | 83 | 76 | 110 | 92 | 66 | 72 |
| 12 | 20 | 55 | 43 | 120 | 72 | 266 | 81 | 64 | 96 | 77 | 80 | 86 |
| 13 | 20 | 56 | 42 | 109 | 74 | 198 | 82 | 59 | 80 | 68 | 120 | 84 |
| 14 | 19 | 47 | 41 | 105 | 81 | 157 | 83 | 59 | 68 | 61 | 678 | 65 |
| 15 | 22 | 43 | 41 | 106 | 87 | 142 | 82 | 67 | 61 | 54 | 1020 | 57 |
| 16 | 25 | 37 | 41 | 97 | 143 | 132 | 80 | 70 | 56 | 48 | 861 | 51 |
| 17 | 45 | 35 | 41 | 90 | 124 | 122 | 77 | 64 | 57 | 44 | 526 | 48 |
| 18 | 58 | 34 | 39 | 86 | 112 | 116 | 78 | 64 | 62 | 40 | 441 | 46 |
| 19 | 95 | 32 | 37 | 85 | 107 | 125 | 75 | 68 | 52 | 40 | 246 | 46 |
| 20 | 91 | 29 | 37 | 84 | 113 | 166 | 72 | 64 | 216 | 39 | 159 | 45 |
| 21 | 59 | 30 | 36 | 80 | 106 | 155 | 74 | 64 | 645 | 44 | 124 | 127 |
| 22 | 45 | 34 | 37 | 79 | 97 | 130 | 256 | 61 | 485 | 45 | 100 | 355 |
| 23 | 36 | 45 | 39 | 100 | 89 | 143 | 222 | 55 | 180 | 49 | 87 | 223 |
| 24 | 31 | 49 | 46 | 131 | 88 | 166 | 185 | 50 | 111 | 61 | 78 | 99 |
| 25 | 30 | 42 | 51 | 110 | 91 | 141 | 106 | 46 | 88 | 63 | 71 | 86 |
| 26 | 30 | 40 | 52 | 98 | 153 | 242 | 88 | 47 | 110 | 59 | 66 | 74 |
| 27 | 30 | 36 | 56 | 86 | 306 | 439 | 79 | 116 | 221 | 48 | 63 | 79 |
| 28 | 31 | 34 | 60 | 93 | 309 | 337 | 75 | 99 | 195 | 126 | 62 | 81 |
| 29 | 28 | 34 | 89 | 112 | 207 | 223 | 71 | 78 | 129 | 102 | 114 | 72 |
| 30 | 29 | 31 | 115 | 104 | --- | 157 | 67 | 87 | 85 | 76 | 172 | 67 |
| 31 | 30 | --- | 117 | 96 | --- | 138 | --- | 240 | --- | 59 | 90 | --- |
| TOTAL | 1154 | 1091 | 1551 | 12313 | 3224 | 7676 | 3042 | 2259 | 4785 | 4000 | 5535 | 2612 |
| MEAN | 37.2 | 36.4 | 50.0 | 397 | 111 | 248 | 101 | 72.9 | 159 | 129 | 179 | 87.1 |
| MAX | 95 | 56 | 117 | 2800 | 309 | 870 | 256 | 240 | 645 | 835 | 1020 | 355 |
| MIN | 19 | 29 | 33 | 67 | 72 | 98 | 67 | 46 | 52 | 39 | 23 | 45 |
| CFSM | .22 | .22 | .30 | 2.39 | .67 | 1.49 | .61 | .44 | .96 | .78 | 1.08 | .52 |
| IN. | .26 | .24 | .35 | 2.76 | .72 | 1.72 | .68 | .51 | 1.07 | .90 | 1.24 | .59 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 81.3 | 112 | 151 | 236 | 282 | 285 | 226 | 154 | 121 | 98.2 | 90.6 | 61.4 |
| MAX | 420 | 436 | 382 | 500 | 516 | 711 | 774 | 466 | 468 | 470 | 326 | 202 |
| (WY) | 1972 | 1986 | 1973 | 1987 | 1983 | 1989 | 1987 | 1984 | 1979 | 1975 | 1986 | 1974 |
| MIN | 9.65 | 27.8 | 37.3 | 59.5 | 92.6 | 77.6 | 72.9 | 52.8 | 26.4 | 12.3 | 15.8 | 4.90 |
| (WY) | 1971 | 1982 | 1966 | 1981 | 1968 | 1988 | 1981 | 1981 | 1981 | 1981 | 1977 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1963 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 34952.8 | | 49242 | | | |
| ANNUAL MEAN | 95.8 | | 135 | | 158 | |
| HIGHEST ANNUAL MEAN | | | | | 290 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 51.0 | 1981 |
| HIGHEST DAILY MEAN | 938 | Mar 30 | 2800 | Jan 6 | 4780 | May 31 1984 |
| LOWEST DAILY MEAN | 9.8 | Sep 19 | 19 | Oct 14 | .60 | Sep 25 1968 |
| ANNUAL SEVEN-DAY MINIMUM | 12 | Sep 14 | 22 | Oct 10 | 1.1 | Sep 21 1968 |
| INSTANTANEOUS PEAK FLOW | | | 3550 | Jan 6 | 6030 | Jun 5 1979 |
| INSTANTANEOUS PEAK STAGE | | | 13.20 | Jan 6 | 14.27 | Jun 5 1979 |
| INSTANTANEOUS LOW FLOW | | | 17 | Oct 15 | .60 | Sep 25 1968 |
| ANNUAL RUNOFF (CFSM) | .58 | | .81 | | .95 | |
| ANNUAL RUNOFF (INCHES) | 7.83 | | 11.03 | | 12.93 | |
| 10 PERCENT EXCEEDS | 169 | | 222 | | 340 | |
| 50 PERCENT EXCEEDS | 59 | | 77 | | 89 | |
| 90 PERCENT EXCEEDS | 25 | | 31 | | 24 | |

PAMLICO RIVER BASIN

02082950 LITTLE FISHING CREEK NEAR WHITE OAK, NC

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

DISCHARGE AREA.--177 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharge, which are poor. Maximum discharge for period of record, from rating curve extended above 6,900 ft³/s on basis of slope-conveyance study of peak flow. Maximum gage height for period of record, from floodmarks.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | e19 | 24 | 63 | 95 | 130 | 126 | 68 | 262 | 54 | 27 | e27 |
| 2 | 16 | e19 | 26 | 49 | 84 | 108 | 121 | 72 | 122 | 47 | 25 | e23 |
| 3 | 16 | e19 | 27 | 177 | 77 | 98 | 115 | 77 | 82 | 45 | 22 | e21 |
| 4 | 25 | e19 | 31 | 1840 | 75 | 92 | 106 | 58 | 66 | 64 | 20 | e19 |
| 5 | 34 | e20 | 36 | 2410 | 73 | 86 | 116 | 54 | 80 | 74 | 19 | e30 |
| 6 | e23 | e20 | 33 | 2170 | 71 | 93 | 114 | 58 | 105 | 94 | 18 | e47 |
| 7 | e21 | e21 | 29 | 529 | 68 | 1190 | 102 | 58 | 94 | 85 | 17 | e60 |
| 8 | e19 | e22 | 28 | 193 | 67 | 1790 | 96 | 68 | 71 | 59 | 17 | e56 |
| 9 | e18 | e24 | 28 | 144 | 65 | 1370 | 91 | 94 | 59 | 45 | 18 | 47 |
| 10 | e17 | e25 | 28 | 128 | 62 | 301 | 88 | 83 | 64 | 38 | 19 | 38 |
| 11 | e16 | e40 | 28 | 118 | 61 | 438 | 85 | 66 | 63 | 34 | 18 | 33 |
| 12 | e15 | e55 | 28 | 104 | 62 | 375 | 82 | 57 | 56 | 30 | 18 | 35 |
| 13 | e14 | e50 | 28 | 94 | 63 | 210 | 94 | 53 | 49 | 27 | 120 | 32 |
| 14 | e13 | e44 | 27 | 96 | 68 | 161 | 89 | 50 | 44 | 24 | 965 | 28 |
| 15 | e13 | e40 | 27 | 100 | 78 | 139 | 80 | 49 | 41 | 22 | 559 | 26 |
| 16 | e25 | e33 | 27 | 87 | 170 | 125 | 76 | 64 | 38 | 21 | 452 | 24 |
| 17 | e35 | e30 | 27 | 77 | 156 | 115 | 79 | 66 | 37 | 19 | 342 | 23 |
| 18 | e60 | e27 | 25 | 74 | 108 | 108 | 76 | 60 | 52 | 18 | 239 | 22 |
| 19 | e80 | e25 | 23 | 73 | 109 | 122 | 71 | 82 | 44 | 19 | 132 | 22 |
| 20 | e75 | e24 | 24 | 70 | 140 | 154 | 68 | 75 | 312 | 19 | 86 | 47 |
| 21 | e50 | e23 | 23 | 68 | 111 | 125 | 68 | 61 | 126 | 20 | e66 | 51 |
| 22 | e35 | e27 | 24 | 68 | 92 | 108 | 472 | 52 | 165 | 33 | e54 | 36 |
| 23 | e30 | e33 | 25 | 88 | 82 | 134 | 345 | 46 | 74 | 83 | e42 | 31 |
| 24 | e26 | e40 | 29 | 153 | 84 | 174 | 159 | 41 | 54 | 45 | e35 | 27 |
| 25 | e23 | e32 | 38 | 122 | 89 | 128 | 110 | 37 | 50 | 56 | e30 | 24 |
| 26 | e22 | 28 | 39 | 94 | 331 | 216 | 91 | 107 | 129 | 39 | e27 | 23 |
| 27 | e21 | 25 | 37 | 81 | 635 | 553 | 81 | 153 | 381 | 31 | e36 | 22 |
| 28 | e20 | 25 | 41 | 101 | 311 | 305 | 77 | 85 | 372 | 93 | e53 | 21 |
| 29 | e19 | 24 | 128 | 160 | 175 | 179 | 74 | 63 | 117 | 58 | e43 | 22 |
| 30 | e19 | 24 | 203 | 127 | --- | 145 | 71 | 123 | 69 | 38 | e37 | 23 |
| 31 | e19 | --- | 101 | 107 | --- | 135 | --- | 497 | --- | 28 | e30 | --- |
| TOTAL | 836 | 857 | 1242 | 9765 | 3662 | 9407 | 3423 | 2577 | 3278 | 1362 | 3586 | 940 |
| MEAN | 27.0 | 28.6 | 40.1 | 315 | 126 | 303 | 114 | 83.1 | 109 | 43.9 | 116 | 31.3 |
| MAX | 80 | 55 | 203 | 2410 | 635 | 1790 | 472 | 497 | 381 | 94 | 965 | 60 |
| MIN | 13 | 19 | 23 | 49 | 61 | 86 | 68 | 37 | 37 | 18 | 17 | 19 |
| CFSM | .15 | .16 | .23 | 1.78 | .71 | 1.71 | .64 | .47 | .62 | .25 | .65 | .18 |
| IN. | .18 | .18 | .26 | 2.05 | .77 | 1.98 | .72 | .54 | .69 | .29 | .75 | .20 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1991, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 106 | 125 | 161 | 249 | 346 | 322 | 239 | 148 | 105 | 90.4 | 82.7 | 51.7 |
| MAX | 982 | 860 | 482 | 570 | 742 | 648 | 720 | 550 | 300 | 602 | 330 | 202 |
| (WY) | 1973 | 1986 | 1973 | 1962 | 1984 | 1983 | 1987 | 1984 | 1965 | 1975 | 1967 | 1960 |
| MIN | 3.78 | 12.9 | 30.8 | 37.6 | 83.4 | 83.0 | 56.8 | 50.4 | 15.1 | 9.58 | 4.60 | 2.34 |
| (WY) | 1971 | 1982 | 1971 | 1981 | 1991 | 1981 | 1967 | 1981 | 1986 | 1981 | 1980 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1960 - 1991 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 30273 | | 40935 | | | |
| ANNUAL MEAN | 82.9 | | 112 | | 168 | |
| HIGHEST ANNUAL MEAN | | | | | 327 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 47.2 | 1981 |
| HIGHEST DAILY MEAN | 1160 | Mar 31 | 2410 | Jan 5 | 15000 | Oct 7 1972 |
| LOWEST DAILY MEAN | 10 | Sep 18 | 13 | Oct 14 | .78 | Sep 4 1980 |
| ANNUAL SEVEN-DAY MINIMUM | 11 | Sep 12 | 15 | Oct 9 | 1.1 | Sep 26 1968 |
| INSTANTANEOUS PEAK FLOW | | | 2550 | Jan 6 | 18000* | Oct 7 1972 |
| INSTANTANEOUS PEAK STAGE | | | 14.50 | Jan 6 | 24.80* | Oct 7 1972 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .72 | Sep 5 1980 |
| ANNUAL RUNOFF (CFSM) | .47 | | .63 | | .95 | |
| ANNUAL RUNOFF (INCHES) | 6.36 | | 8.60 | | 12.89 | |
| 10 PERCENT EXCEEDS | 152 | | 166 | | 358 | |
| 50 PERCENT EXCEEDS | 40 | | 58 | | 80 | |
| 90 PERCENT EXCEEDS | 16 | | 21 | | 17 | |

* See REMARKS.

PAMLICO RIVER BASIN

02083000 FISHING CREEK NEAR ENFIELD, NC

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

DRAINAGE AREA.--526 $mi^2$.

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

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Slight diurnal fluctuation and some regulation at low flow caused by mills above station. The National Weather Service has telemetry at station. Minimum discharge for current water year also occurred October 15.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | e138 | 69 | 84 | 345 | 343 | 516 | 436 | 214 | 941 | 239 | 120 | 170 |
| 2 | e131 | 69 | 85 | 237 | 305 | 400 | 410 | 212 | 620 | 196 | 104 | 140 |
| 3 | e130 | 74 | 90 | 237 | 272 | 345 | 388 | 221 | 377 | 178 | 94 | 123 |
| 4 | e130 | 70 | 100 | 2580 | 251 | 315 | 361 | 202 | 259 | 208 | 84 | 113 |
| 5 | e142 | 69 | 107 | 5010 | 243 | 293 | 353 | 176 | 241 | 442 | 80 | 114 |
| 6 | e256 | 68 | 118 | 5770 | 235 | 288 | 364 | 168 | 313 | 649 | 78 | 208 |
| 7 | e132 | 68 | 119 | 6180 | 229 | 1220 | 342 | 176 | 449 | 743 | 74 | 373 |
| 8 | e71 | 69 | 107 | 4840 | 223 | 2800 | 319 | 194 | 420 | 511 | 72 | 383 |
| 9 | 64 | 70 | 99 | 1690 | 218 | 3460 | 302 | 245 | 288 | 309 | 75 | 290 |
| 10 | 58 | 74 | 99 | 595 | 211 | 2930 | 288 | 295 | 264 | 219 | e70 | 206 |
| 11 | 55 | 79 | 97 | 467 | 199 | 1210 | 277 | 244 | 273 | 177 | e75 | 165 |
| 12 | 54 | 91 | 98 | 411 | 205 | 1060 | 269 | 199 | 237 | 148 | e80 | 164 |
| 13 | 53 | 114 | 102 | 361 | 210 | 735 | 266 | 176 | 200 | 130 | e130 | 218 |
| 14 | 52 | 108 | 98 | 342 | 223 | 540 | 274 | 165 | 172 | 114 | 1700 | 169 |
| 15 | 51 | 97 | 96 | 347 | 251 | 455 | 262 | 154 | 153 | 99 | 2530 | 128 |
| 16 | 53 | 92 | 97 | 329 | 424 | 408 | 247 | 165 | 141 | 90 | 2060 | 110 |
| 17 | 69 | 85 | 95 | 286 | 540 | 376 | 255 | 293 | 133 | 85 | 1580 | 100 |
| 18 | 221 | 81 | 93 | 258 | 438 | 352 | 249 | 297 | 133 | 80 | 1260 | 96 |
| 19 | 372 | 81 | 89 | 252 | 360 | 357 | 236 | 259 | 161 | 78 | 880 | 96 |
| 20 | 263 | 78 | 83 | 247 | 396 | 459 | 225 | 355 | 1070 | 79 | 546 | 103 |
| 21 | 167 | 79 | 82 | 232 | 401 | 476 | 219 | 286 | 1100 | 79 | 409 | 237 |
| 22 | 116 | 81 | 82 | 225 | 337 | 392 | 864 | 214 | 1040 | 86 | 322 | 458 |
| 23 | e99 | 93 | 82 | 249 | 291 | 385 | 1250 | 170 | 524 | 119 | 256 | 439 |
| 24 | e86 | 116 | 92 | 473 | 276 | 511 | 832 | 145 | 315 | 170 | 211 | 228 |
| 25 | e79 | 128 | 104 | 509 | 280 | 487 | 483 | 131 | 234 | 166 | 180 | 170 |
| 26 | 72 | 112 | 118 | 402 | 394 | 485 | 347 | 123 | 262 | 175 | 159 | 136 |
| 27 | 69 | 98 | 138 | 321 | 1150 | 1200 | 292 | 389 | 720 | 149 | 147 | 120 |
| 28 | 69 | 88 | 146 | 309 | 1200 | 1260 | 258 | 358 | 906 | 240 | 198 | 128 |
| 29 | 69 | 83 | 233 | 421 | 778 | 807 | 239 | 244 | 679 | 340 | 344 | 125 |
| 30 | 68 | 82 | 516 | 464 | --- | 557 | 223 | 221 | 366 | 261 | 292 | 122 |
| 31 | 73 | --- | 515 | 391 | --- | 472 | --- | 782 | --- | 163 | 221 | --- |
| TOTAL | 3462 | 2566 | 4064 | 34780 | 10883 | 25551 | 11130 | 7473 | 12991 | 6722 | 14431 | 5632 |
| MEAN | 112 | 85.5 | 131 | 1122 | 375 | 824 | 371 | 241 | 433 | 217 | 466 | 188 |
| MAX | 372 | 128 | 516 | 6180 | 1200 | 3460 | 1250 | 782 | 1100 | 743 | 2530 | 458 |
| MIN | 51 | 68 | 82 | 225 | 199 | 288 | 219 | 123 | 133 | 78 | 70 | 96 |
| CFSM | .21 | .16 | .25 | 2.13 | .71 | 1.57 | .71 | .46 | .82 | .41 | .89 | .36 |
| IN. | .24 | .18 | .29 | 2.46 | .77 | 1.81 | .79 | .53 | .92 | .48 | 1.02 | .40 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 260 | 328 | 485 | 713 | 876 | 873 | 707 | 443 | 320 | 308 | 342 | 260 |
| MAX | 2035 | 1948 | 1391 | 2303 | 2145 | 2158 | 2049 | 2174 | 1255 | 1483 | 1828 | 2080 |
| (WY) | 1930 | 1986 | 1935 | 1936 | 1960 | 1989 | 1987 | 1958 | 1938 | 1975 | 1940 | 1928 |
| MIN | 14.0 | 26.0 | 46.0 | 60.4 | 198 | 248 | 170 | 152 | 70.6 | 42.8 | 29.1 | 14.2 |
| (WY) | 1934 | 1934 | 1934 | 1934 | 1934 | 1981 | 1967 | 1927 | 1986 | 1981 | 1980 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1927 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 99613 | | 139685 | | | |
| ANNUAL MEAN | 273 | | 382 | | 491 | |
| HIGHEST ANNUAL MEAN | | | | | 871 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 148 | 1981 |
| HIGHEST DAILY MEAN | 2800 | Apr 1 | 6180 | Jan 7 | 12100 | Aug 18 1940 |
| LOWEST DAILY MEAN | 51 | Oct 15 | 51 | Oct 15 | 6.9 | Oct 5 1968 |
| ANNUAL SEVEN-DAY MINIMUM | 54 | Oct 10 | 54 | Oct 10 | 8.1 | Sep 30 1968 |
| INSTANTANEOUS PEAK FLOW | | | 6290 | Jan 7 | 12600 | Dec 2 1934 |
| INSTANTANEOUS PEAK STAGE | | | 15.05 | Jan 7 | 17.72 | Aug 18 1940 |
| INSTANTANEOUS LOW FLOW | | | 50* | Oct 14 | NOT DETERMINED | |
| ANNUAL RUNOFF (CFSM) | .52 | | .73 | | .93 | |
| ANNUAL RUNOFF (INCHES) | 7.04 | | 9.88 | | 12.69 | |
| 10 PERCENT EXCEEDS | 515 | | 691 | | 1100 | |
| 50 PERCENT EXCEEDS | 150 | | 223 | | 271 | |
| 90 PERCENT EXCEEDS | 69 | | 79 | | 70 | |

* See REMARKS.

PAMLICO RIVER BASIN

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

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

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some diurnal fluctuation at low flow caused by mills upstream from station. Town of Tarboro diverted 4.5 $ft^3/s$ for municipal water supply. Minimum discharge for period of record also occurred Oct. 22, 1933, and Oct. 6, 1968.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 401 | 288 | 278 | 1750 | 2020 | 5180 | 3060 | 954 | 958 | 2600 | 882 | e650 |
| 2 | 359 | 286 | 278 | 1810 | 1780 | 3550 | 2520 | 852 | 1520 | 1820 | 633 | e550 |
| 3 | 364 | 286 | 281 | 1710 | 1650 | 2650 | 2170 | 738 | 1530 | 1290 | 596 | e490 |
| 4 | 357 | 286 | 284 | 4960 | 1490 | 2130 | 1910 | 645 | 1520 | 1450 | 759 | e430 |
| 5 | 329 | 283 | 295 | 7870 | 1320 | 1810 | 1720 | 667 | 1280 | 1640 | 780 | e410 |
| 6 | 321 | 283 | 284 | 9930 | 1250 | 1590 | 1600 | 585 | 1070 | 1800 | 582 | e390 |
| 7 | 314 | 283 | 285 | 11400 | 1110 | 1630 | 1500 | 550 | 1020 | 2550 | 444 | e620 |
| 8 | 316 | 280 | 291 | 14100 | 1090 | 3320 | 1430 | 510 | 1450 | 2360 | 411 | e1100 |
| 9 | 316 | 280 | 300 | 16300 | 1020 | 5240 | 1320 | 499 | 1500 | 2030 | 398 | e2000 |
| 10 | 312 | 280 | 305 | 17600 | 949 | 6000 | 1250 | 635 | 1450 | 1720 | 381 | e1500 |
| 11 | 309 | 287 | 301 | 15500 | 928 | 6970 | 1190 | 652 | 1490 | 1490 | 437 | e1100 |
| 12 | 307 | 285 | 292 | 11200 | 886 | 7620 | 1120 | 726 | 1530 | 1170 | 411 | e760 |
| 13 | 303 | 280 | 286 | 7210 | 850 | 7110 | 1060 | 692 | 1300 | 845 | 384 | e690 |
| 14 | 301 | 280 | 284 | 4050 | 945 | 5680 | 1100 | 604 | 999 | 642 | 1250 | e750 |
| 15 | 300 | 300 | 283 | 2520 | 1050 | 3880 | 1020 | 556 | 794 | 532 | 4380 | e760 |
| 16 | 301 | 304 | 281 | 2070 | 1390 | 2670 | 1010 | 549 | 658 | 438 | 7110 | e690 |
| 17 | 505 | 295 | 276 | 1890 | 1970 | 2220 | 1050 | 534 | 587 | 390 | 9590 | 579 |
| 18 | 670 | 285 | 278 | 1720 | 2170 | 1920 | 956 | 523 | 544 | 315 | 12500 | 513 |
| 19 | 555 | 276 | 278 | 1500 | 2200 | 1740 | 791 | 623 | 443 | 316 | 14700 | 485 |
| 20 | 567 | 273 | 278 | 1310 | 2120 | 1820 | 858 | 749 | 437 | 309 | 15000 | 489 |
| 21 | 615 | 276 | 278 | 1270 | 2010 | 1940 | 860 | 877 | 936 | 290 | e13000 | 522 |
| 22 | 523 | 274 | 278 | 1210 | 1870 | 2300 | 1140 | 1120 | 2130 | 278 | e10500 | 506 |
| 23 | 461 | 276 | 278 | 1190 | 1700 | 2380 | 1560 | 1140 | 2740 | 299 | e8000 | 652 |
| 24 | 413 | 276 | 280 | 1400 | 1570 | 2310 | 1610 | 917 | 2720 | 421 | e5900 | 858 |
| 25 | 376 | 276 | 313 | 1830 | 1450 | 2290 | 1710 | 677 | 2050 | 768 | e4300 | 810 |
| 26 | 344 | 279 | 326 | 2070 | 1840 | 2470 | 1710 | 522 | 1690 | 840 | e3000 | 710 |
| 27 | 313 | 295 | 459 | 1980 | 2620 | 3650 | 1990 | 440 | 2930 | 739 | e2200 | 699 |
| 28 | 299 | 292 | 671 | 2000 | 3680 | 4210 | 1860 | 380 | 4140 | 793 | e1800 | 643 |
| 29 | 295 | 288 | 822 | 2210 | 4780 | 4870 | 1480 | 511 | 4430 | 1240 | e1400 | 631 |
| 30 | 291 | 281 | 1230 | 2220 | --- | 4890 | 1150 | 610 | 3750 | 1380 | e1000 | 604 |
| 31 | 291 | --- | 1310 | 2140 | --- | 3810 | --- | 722 | --- | 1280 | e800 | --- |
| TOTAL | 11728 | 8513 | 11963 | 155920 | 49708 | 109850 | 43705 | 20759 | 49596 | 34035 | 123528 | 21591 |
| MEAN | 378 | 284 | 386 | 5030 | 1714 | 3544 | 1457 | 670 | 1653 | 1098 | 3985 | 720 |
| MAX | 670 | 304 | 1310 | 17600 | 4780 | 7620 | 3060 | 1140 | 4430 | 2600 | 15000 | 2000 |
| MIN | 291 | 273 | 276 | 1190 | 850 | 1590 | 791 | 380 | 437 | 278 | 381 | 390 |
| CFSM | .17 | .13 | .18 | 2.30 | .79 | 1.62 | .67 | .31 | .76 | .50 | 1.83 | .33 |
| IN. | .20 | .15 | .20 | 2.66 | .85 | 1.87 | .74 | .35 | .85 | .58 | 2.11 | .37 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1023 | 1241 | 2021 | 3297 | 4290 | 4336 | 3269 | 1906 | 1353 | 1344 | 1494 | 1205 |
| MAX | 6591 | 5049 | 6195 | 10020 | 12920 | 11050 | 8553 | 8411 | 4873 | 6291 | 8260 | 7577 |
| (WY) | 1960 | 1948 | 1949 | 1936 | 1899 | 1989 | 1987 | 1958 | 1979 | 1975 | 1940 | 1945 |
| MIN | 56.7 | 115 | 191 | 253 | 497 | 1116 | 819 | 541 | 243 | 192 | 206 | 63.8 |
| (WY) | 1934 | 1934 | 1934 | 1934 | 1934 | 1981 | 1981 | 1981 | 1986 | 1986 | 1983 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1896 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 455927 | | 640896 | | | |
| ANNUAL MEAN | 1249 | | 1751 | | 2222 | |
| HIGHEST ANNUAL MEAN | | | | | 4057 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 594 | 1981 |
| HIGHEST DAILY MEAN | 8000 | Jan 17 | 17600 | Jan 10 | 36100 | Aug 20 1940 |
| LOWEST DAILY MEAN | 273 | Nov 20 | 273 | Nov 20 | 36 | Oct 17 1933 |
| ANNUAL SEVEN-DAY MINIMUM | 275 | Nov 19 | 275 | Nov 19 | 40 | Sep 26 1932 |
| INSTANTANEOUS PEAK FLOW | | | 17800 | Jan 10 | 37200 | Aug 20 1940 |
| INSTANTANEOUS PEAK STAGE | | | 24.52 | Jan 10 | 31.77 | Aug 20 1940 |
| INSTANTANEOUS LOW FLOW | | | 261 | Nov 19 | 36* | Oct 17 1933 |
| ANNUAL RUNOFF (CFSM) | .57 | | .80 | | 1.02 | |
| ANNUAL RUNOFF (INCHES) | 7.77 | | 10.92 | | 13.83 | |
| 10 PERCENT EXCEEDS | 3150 | | 3830 | | 5580 | |
| 50 PERCENT EXCEEDS | 560 | | 884 | | 1220 | |
| 90 PERCENT EXCEEDS | 286 | | 285 | | 291 | |

* See REMARKS.

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER-QUALITY RECORDS

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

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

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

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | | |
| 01... | 1430 | 978 | 118 | 7.4 | 18.0 | 10 | 760 | 9.3 | 99 | -- | -- | 6.4 |
| JUL | | | | | | | | | | | | |
| 10... | 1245 | 1700 | 102 | 7.2 | 21.0 | -- | 759 | 8.3 | 94 | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 16... | 1500 | 734 | 119 | 6.7 | 23.5 | 4.2 | 772 | 9.0 | 104 | K77 | K55 | 7.4 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | | |
| 01... | 2.6 | 8.1 | 37 | 0.7 | 2.6 | 29 | 24 | 7.6 | 7.9 | 0.20 | 11 | 80 |
| JUL | | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | 24 | 20 | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 16... | 2.5 | 11 | 42 | 0.9 | 3.1 | 32 | 26 | 13 | 8.9 | 0.10 | 15 | 84 |

| DATE | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | | |
| 01... | 64 | 0.410 | 0.020 | <0.010 | 0.430 | 0.440 | 0.070 | 0.060 | 0.09 | 0.08 | 0.53 | 0.60 |
| JUL | | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 16... | 80 | -- | <0.010 | <0.010 | 0.500 | 0.500 | 0.040 | 0.050 | 0.05 | 0.06 | 0.46 | 0.50 |

| DATE | NITRO-GEN, TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS NO3) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) | BARIUM, DIS-SOLVED (UG/L AS BA) | COBALT, DIS-SOLVED (UG/L AS CO) | IRON, DIS-SOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 01... | 1.0 | 4.6 | 0.080 | 0.040 | 0.060 | 0.050 | 0.15 | 110 | 30 | <3 | 1200 |
| JUL | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 16... | 1.0 | 4.4 | 0.120 | 0.090 | 0.080 | 0.060 | 0.18 | 60 | 31 | <3 | 740 |

| DATE | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 01... | <4 | 51 | <10 | 1 | <1 | <1.0 | 48 | <6 | 19 | 50 | 53 |
| JUL | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | 32 | 147 | 63 |
| SEP | | | | | | | | | | | |
| 16... | 5 | 54 | <10 | <1 | <1 | <1.0 | 55 | <6 | 10 | 20 | 84 |

PAMLICO RIVER BASIN

02083800 CONETOE CREEK NEAR BETHEL, NC

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

DRAINAGE AREA.--78.1 mi².

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 29 | 18 | 14 | 71 | 125 | 80 | 81 | 26 | 21 | 42 | 10 | 75 |
| 2 | 25 | 17 | 12 | 57 | 104 | 70 | 72 | 23 | 18 | 36 | 9.0 | 65 |
| 3 | 37 | 17 | 13 | 102 | 93 | 62 | 63 | 21 | 15 | 30 | 13 | 59 |
| 4 | 69 | 17 | 16 | 579 | 85 | 56 | 57 | 19 | 14 | 26 | 11 | 55 |
| 5 | 52 | 16 | 19 | 700 | 80 | 52 | 54 | 17 | 14 | 24 | 122 | 61 |
| 6 | 43 | 16 | 18 | 713 | 72 | 50 | 50 | 17 | 16 | 21 | 186 | 70 |
| 7 | 37 | 15 | 17 | 561 | 68 | 64 | 47 | 18 | 15 | 23 | 85 | 63 |
| 8 | 30 | 15 | 16 | 290 | 64 | 83 | 44 | 19 | 13 | 19 | 57 | 60 |
| 9 | 26 | 14 | 15 | 216 | 58 | 84 | 40 | 24 | 22 | 17 | 44 | 54 |
| 10 | 23 | 16 | 15 | 187 | 53 | 71 | 37 | 22 | 100 | 15 | 42 | 53 |
| 11 | 21 | 21 | 15 | 157 | 52 | 70 | 34 | 20 | 45 | 13 | 35 | 46 |
| 12 | 19 | 21 | 15 | 131 | 51 | 63 | 31 | 17 | 31 | 13 | 30 | 42 |
| 13 | 16 | 20 | 14 | 117 | 49 | 55 | 30 | 16 | 25 | 13 | 46 | 37 |
| 14 | 14 | 18 | 14 | 123 | 53 | 49 | 28 | 15 | 21 | 11 | 138 | 34 |
| 15 | 14 | 17 | 14 | 116 | 56 | 45 | 27 | 14 | 19 | 10 | 501 | 32 |
| 16 | 17 | 16 | 13 | 100 | 86 | 41 | 25 | 13 | 16 | 9.7 | 685 | 30 |
| 17 | 60 | 16 | 13 | 90 | 82 | 38 | 26 | 12 | 14 | 13 | 961 | 27 |
| 18 | 83 | 15 | 12 | 85 | 71 | 36 | 24 | 12 | 12 | 9.6 | 1410 | 25 |
| 19 | 61 | 14 | 12 | 80 | 69 | 38 | 22 | 12 | 12 | 12 | 1850 | 24 |
| 20 | 49 | 13 | 11 | 76 | 69 | 45 | 21 | 12 | 11 | 11 | 2090 | 23 |
| 21 | 41 | 13 | 11 | 74 | 60 | 44 | 21 | 12 | 11 | 10 | 1670 | 23 |
| 22 | 36 | 13 | 11 | 70 | 54 | 40 | 65 | 12 | 21 | 12 | 1150 | 22 |
| 23 | 31 | 15 | 11 | 80 | 53 | 44 | 107 | 11 | 14 | 12 | 727 | 21 |
| 24 | 28 | 16 | 14 | 185 | 55 | 58 | 69 | 9.4 | 11 | 11 | 301 | 20 |
| 25 | 27 | 15 | 16 | 143 | 55 | 50 | 54 | 9.2 | 9.7 | 11 | 191 | 19 |
| 26 | 24 | 14 | 15 | 114 | 117 | 90 | 46 | 9.2 | 35 | 12 | 146 | 18 |
| 27 | 22 | 12 | 18 | 96 | 178 | 283 | 39 | 9.5 | 353 | 10 | 118 | 17 |
| 28 | 22 | 12 | 43 | 142 | 129 | 207 | 35 | 9.2 | 129 | 44 | 118 | 17 |
| 29 | 21 | 12 | 128 | 214 | 102 | 140 | 32 | 8.7 | 69 | 21 | 153 | 16 |
| 30 | 19 | 16 | 167 | 177 | --- | 108 | 28 | 12 | 51 | 12 | 113 | 15 |
| 31 | 18 | --- | 97 | 150 | --- | 95 | --- | 22 | --- | 12 | 89 | --- |
| TOTAL | 1014 | 470 | 819 | 5996 | 2243 | 2311 | 1309 | 473.2 | 1157.7 | 535.3 | 13101.0 | 1123 |
| MEAN | 32.7 | 15.7 | 26.4 | 193 | 77.3 | 74.5 | 43.6 | 15.3 | 38.6 | 17.3 | 423 | 37.4 |
| MAX | 83 | 21 | 167 | 713 | 178 | 283 | 107 | 26 | 353 | 44 | 2090 | 75 |
| MIN | 14 | 12 | 11 | 57 | 49 | 36 | 21 | 8.7 | 9.7 | 9.6 | 9.0 | 15 |
| CFSM | .42 | .20 | .34 | 2.48 | .99 | .95 | .56 | .20 | .49 | .22 | 5.41 | .48 |
| IN. | .48 | .22 | .39 | 2.86 | 1.07 | 1.10 | .62 | .23 | .55 | .25 | 6.24 | .53 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 52.0 | 35.0 | 60.1 | 117 | 155 | 155 | 97.4 | 65.2 | 43.3 | 39.3 | 75.3 | 39.1 |
| MAX | 462 | 181 | 218 | 296 | 327 | 282 | 282 | 251 | 274 | 210 | 452 | 329 |
| (WY) | 1972 | 1978 | 1958 | 1978 | 1960 | 1983 | 1959 | 1978 | 1979 | 1962 | 1967 | 1960 |
| MIN | 2.82 | 3.14 | 3.77 | 9.96 | 22.5 | 17.5 | 13.2 | 9.91 | 5.90 | 6.43 | 4.10 | 2.67 |
| (WY) | 1979 | 1987 | 1969 | 1981 | 1981 | 1981 | 1981 | 1981 | 1986 | 1987 | 1983 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1957 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 17433.4 | | 30552.2 | | | |
| ANNUAL MEAN | 47.8 | | 83.5 | | 78.0 | |
| HIGHEST ANNUAL MEAN | | | | | 148 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 12.0 | 1981 |
| HIGHEST DAILY MEAN | 317 | Mar 31 | 2090 | Aug 20 | 2480 | Aug 23 1967 |
| LOWEST DAILY MEAN | 3.0 | Jun 16 | 8.7 | May 29 | .92 | Aug 28 1987 |
| ANNUAL SEVEN-DAY MINIMUM | 4.1 | Jun 10 | 9.5 | May 23 | 1.5 | Sep 23 1980 |
| INSTANTANEOUS PEAK FLOW | | | 2180 | Aug 20 | 2580 | Aug 23 1967 |
| INSTANTANEOUS PEAK STAGE | | | 15.66 | Aug 20 | 15.74 | Aug 23 1967 |
| INSTANTANEOUS LOW FLOW | | | 8.3 | May 29 | .40* | Aug 28 1980 |
| ANNUAL RUNOFF (CFSM) | .61 | | 1.07 | | 1.00 | |
| ANNUAL RUNOFF (INCHES) | 8.30 | | 14.55 | | 13.57 | |
| 10 PERCENT EXCEEDS | 92 | | 130 | | 183 | |
| 50 PERCENT EXCEEDS | 34 | | 30 | | 34 | |
| 90 PERCENT EXCEEDS | 13 | | 12 | | 5.8 | |

* See REMARKS.

PAMLICO RIVER BASIN

02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC

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

DRAINAGE AREA.--45 $mi^2$.

PERIOD OF RECORD.--October 1975 to March 1987. May to September 1992.

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.

REMARKS.--No estimated daily discharges. Records good. No flow at times during most years. Minimum discharge for current period also occurred July 17.

DISCHARGE, CUBIC FEET PER SECOND, MAY 1992 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | 8.4 | 20 | 11 | 4.1 | 8.7 |
| 2 | | | | | | | | 7.5 | 9.8 | 6.5 | 3.5 | 7.6 |
| 3 | | | | | | | | 5.0 | 6.0 | 4.4 | 12 | 6.2 |
| 4 | | | | | | | | 4.0 | 4.5 | 6.6 | 18 | 5.4 |
| 5 | | | | | | | | 3.4 | 4.3 | 32 | 7.8 | 5.9 |
| 6 | | | | | | | | 3.2 | 3.9 | 24 | 5.6 | 31 |
| 7 | | | | | | | | 3.6 | 3.2 | 15 | 4.7 | 27 |
| 8 | | | | | | | | 7.1 | 2.3 | 7.8 | 4.6 | 17 |
| 9 | | | | | | | | 5.8 | 9.8 | 4.7 | 4.2 | 22 |
| 10 | | | | | | | | 4.1 | 150 | 3.4 | 4.5 | 36 |
| 11 | | | | | | | | 3.4 | 115 | 2.6 | 4.7 | 47 |
| 12 | | | | | | | | 3.1 | 50 | 1.8 | 9.9 | 30 |
| 13 | | | | | | | | 3.1 | 27 | 1.4 | 78 | 17 |
| 14 | | | | | | | | 3.0 | 14 | 1.3 | 355 | 11 |
| 15 | | | | | | | | 2.2 | 8.2 | 1.5 | 1180 | 8.6 |
| 16 | | | | | | | | 1.7 | 49 | .81 | 1400 | 7.3 |
| 17 | | | | | | | | 1.7 | 71 | .36 | 1320 | 5.9 |
| 18 | | | | | | | | 1.5 | 23 | .36 | 1350 | 5.1 |
| 19 | | | | | | | | 4.0 | 8.3 | 374 | 572 | 4.3 |
| 20 | | | | | | | | 7.2 | 5.3 | 154 | 264 | 3.9 |
| 21 | | | | | | | | 7.9 | 36 | 42 | 243 | 3.7 |
| 22 | | | | | | | | 3.9 | 101 | 16 | 175 | 3.8 |
| 23 | | | | | | | | 2.8 | 54 | 9.6 | 101 | 3.8 |
| 24 | | | | | | | | 1.9 | 24 | 8.6 | 67 | 3.5 |
| 25 | | | | | | | | 1.5 | 11 | 10 | 48 | 3.4 |
| 26 | | | | | | | | 1.8 | 7.5 | 6.6 | 35 | 3.2 |
| 27 | | | | | | | | 3.0 | 31 | 5.9 | 25 | 3.0 |
| 28 | | | | | | | | 2.4 | 81 | 21 | 17 | 2.8 |
| 29 | | | | | | | | 1.7 | 49 | 12 | 22 | 2.8 |
| 30 | | | | | | | | 16 | 23 | 7.3 | 16 | 1.9 |
| 31 | | | | | | | | 44 | --- | 5.1 | 12 | --- |
| TOTAL | | | | | | | | 169.9 | 1002.1 | 797.63 | 7363.6 | 338.8 |
| MEAN | | | | | | | | 5.48 | 33.4 | 25.7 | 238 | 11.3 |
| MAX | | | | | | | | 44 | 150 | 374 | 1400 | 47 |
| MIN | | | | | | | | 1.5 | 2.3 | .36 | 3.5 | 1.9 |
| CFSM | | | | | | | | .12 | .74 | .57 | 5.28 | .25 |
| IN. | | | | | | | | .14 | .83 | .66 | 6.09 | .28 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 17.9 | 37.7 | 45.4 | 95.9 | 84.9 | 96.1 | 58.1 | 43.1 | 31.2 | 15.9 | 44.4 | 28.1 |
| MAX | 70.5 | 219 | 94.2 | 244 | 179 | 201 | 144 | 139 | 129 | 59.4 | 238 | 198 |
| (WY) | 1978 | 1978 | 1978 | 1978 | 1983 | 1980 | 1978 | 1978 | 1979 | 1984 | 1992 | 1984 |
| MIN | .27 | 1.23 | 4.57 | 15.2 | 19.7 | 18.0 | 4.49 | .65 | .001 | 1.53 | 0 | .40 |
| (WY) | 1977 | 1982 | 1982 | 1986 | 1977 | 1981 | 1981 | 1985 | 1985 | 1977 | 1976 | 1978 |

| SUMMARY STATISTICS | FOR MAY TO SEPTEMBER 1992 | | WATER YEARS 1976 - 1992 | |
|---|---|---|---|---|
| ANNUAL MEAN | | | 48.6 | |
| HIGHEST ANNUAL MEAN | | | 90.5 | 1978 |
| LOWEST ANNUAL MEAN | | | 22.1 | 1986 |
| HIGHEST DAILY MEAN | 1400 | Sep 16 | 2150 | Nov 7 1977 |
| LOWEST DAILY MEAN | .36 | Jul 17 | 0 | Jul 19 1976 |
| ANNUAL SEVEN-DAY MINIMUM | | | 0 | Jul 19 1976 |
| INSTANTANEOUS PEAK FLOW | 1610 | Aug 18 | 2660 | Sep 14 1984 |
| INSTANTANEOUS PEAK STAGE | 10.64 | Aug 18 | 12.48 | Sep 14 1984 |
| INSTANTANEOUS LOW FLOW | 0* | Jul 18 | 0* | Jul 19 1976 |
| ANNUAL RUNOFF (CFSM) | | | 1.08 | |
| ANNUAL RUNOFF (INCHES) | | | 14.67 | |
| 10 PERCENT EXCEEDS | | | 126 | |
| 50 PERCENT EXCEEDS | | | 12 | |
| 90 PERCENT EXCEEDS | | | .39 | |

* See REMARKS.

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC

LOCATION.--Lat 35°32'33", long 77°03'43", Beaufort County, Hydrologic Unit 03020104, at bridge on U.S. Highway 17 at Washington, and 0.7 mi downstream of Kennedy Creek.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--March 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.0 ft below National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 3.91 ft, Sept. 22, 1989; minimum elevation, -3.70 ft, Jan. 4, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 3.41 ft, November 9; minimum elevation, -2.66 ft January 16.

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.05 | 2.24 | .43 | 1.02 | .19 | .58 | .72 | 1.00 | 1.05 | .95 | .81 | .89 |
| 2 | 1.00 | 2.18 | .34 | .99 | .22 | .44 | .07 | .77 | 1.34 | 1.14 | 1.25 | 1.23 |
| 3 | .97 | 1.78 | .28 | 1.56 | .82 | .64 | .39 | .61 | 1.54 | 1.62 | .86 | .79 |
| 4 | 1.10 | 1.63 | -1.02 | 1.30 | .84 | .86 | .66 | .63 | 1.68 | 1.13 | .68 | .61 |
| 5 | .99 | 1.78 | .45 | 1.71 | 1.18 | .75 | .20 | 1.31 | 1.24 | 1.15 | 1.04 | .66 |
| 6 | .89 | 1.75 | .14 | 1.96 | 1.55 | .85 | .57 | 1.46 | 1.29 | .82 | 1.18 | .74 |
| 7 | .94 | 1.52 | .15 | 1.83 | 1.34 | 1.14 | .44 | 1.81 | 1.24 | 1.11 | 1.12 | .88 |
| 8 | 1.29 | 1.58 | .11 | 1.71 | 1.41 | .75 | .67 | 1.63 | 1.07 | 1.39 | .99 | .94 |
| 9 | 1.26 | 1.77 | .04 | 1.48 | 1.16 | 1.02 | .82 | 1.19 | .76 | .62 | .61 | .93 |
| 10 | .99 | 2.20 | .13 | 1.20 | 1.54 | .99 | .62 | .89 | 1.30 | .79 | .54 | .95 |
| 11 | .84 | 1.26 | .50 | .87 | .81 | -.58 | .57 | 1.17 | 1.51 | .58 | .54 | .84 |
| 12 | .61 | 1.50 | .46 | 1.31 | 1.06 | .38 | .54 | 1.25 | 1.52 | .60 | .35 | 1.13 |
| 13 | 1.00 | 1.19 | .37 | 1.30 | .84 | .29 | 1.47 | 1.32 | 1.52 | .10 | .94 | 1.29 |
| 14 | 1.14 | 1.10 | -.05 | .53 | .65 | .48 | 1.08 | 1.21 | 1.35 | .33 | .74 | 1.27 |
| 15 | .90 | .98 | -.50 | .66 | .78 | .25 | 1.10 | 1.15 | 1.28 | .14 | 1.04 | 1.21 |
| 16 | .91 | .67 | -.49 | -.69 | .25 | .29 | .90 | 1.11 | 1.39 | .03 | 1.52 | 1.14 |
| 17 | .49 | 1.05 | -.19 | .20 | 1.04 | .29 | .40 | 1.30 | 1.58 | .06 | 1.60 | .90 |
| 18 | .85 | .97 | -.67 | .34 | .74 | .53 | .54 | 1.05 | 1.32 | .14 | 1.52 | .75 |
| 19 | .68 | .75 | -.47 | .74 | .80 | .07 | .83 | 1.02 | .91 | .56 | 1.65 | .56 |
| 20 | 1.03 | .70 | .00 | .45 | .38 | .74 | .89 | 1.26 | .89 | .67 | 1.78 | 1.02 |
| 21 | 1.04 | .59 | -.22 | .40 | .63 | .74 | 1.07 | 1.39 | 1.11 | .70 | 2.12 | 1.09 |
| 22 | .99 | .71 | .02 | .52 | .67 | 1.03 | .66 | 1.10 | 1.16 | .66 | 2.09 | 1.00 |
| 23 | 1.01 | .59 | .06 | .76 | .68 | .89 | .90 | .81 | 1.23 | .59 | 1.99 | 1.07 |
| 24 | 1.02 | .19 | .13 | -.80 | .71 | 1.29 | .58 | .74 | .99 | .57 | 1.74 | 1.45 |
| 25 | 1.08 | .04 | .50 | .32 | .94 | 1.26 | .48 | 1.07 | .69 | .82 | 1.44 | 1.20 |
| 26 | 1.12 | .59 | .65 | .26 | .64 | .96 | .65 | 1.22 | .64 | 1.26 | 1.11 | 1.67 |
| 27 | 1.16 | .66 | .66 | .54 | .67 | .23 | .98 | 1.44 | .92 | .70 | 1.08 | 1.58 |
| 28 | 1.34 | .54 | .90 | .38 | .52 | .06 | 1.28 | 1.60 | 1.47 | .94 | .87 | 1.61 |
| 29 | 2.03 | .44 | .55 | .59 | -.41 | .66 | 1.34 | 1.66 | 1.46 | 1.21 | .73 | 1.63 |
| 30 | 1.38 | .44 | .52 | .51 | --- | .61 | 1.27 | 1.65 | 1.36 | 1.16 | 1.24 | 1.84 |
| 31 | 1.67 | --- | .96 | .38 | --- | .57 | --- | 1.05 | --- | .94 | .88 | --- |
| TOTAL | 32.77 | 33.39 | 4.74 | 24.33 | 22.65 | 19.06 | 22.69 | 36.87 | 36.81 | 23.48 | 36.05 | 32.87 |
| MEAN | 1.06 | 1.11 | .15 | .78 | .78 | .61 | .76 | 1.19 | 1.23 | .76 | 1.16 | 1.10 |

## PAMLICO RIVER BASIN

### 02084540 DURHAM CREEK AT EDWARD, NC

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

DRAINAGE AREA.--26 $mi^2$.

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

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

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

REMARKS.--Records poor due to beaver activity throughout the current water year. Runoff affected by ditches and canals upstream from station. Several measurements of water temperature were made during the year. Periods of no flow occur periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2 | 4.9 | 9.6 | 27 | 34 | 17 | 19 | 11 | 13 | 25 | 18 | 41 |
| 2 | 2.1 | 4.8 | 10 | 24 | 30 | 16 | 17 | 11 | 14 | 24 | 17 | 41 |
| 3 | 3.5 | 4.4 | 10 | 42 | 27 | 15 | 16 | 11 | 14 | 23 | 16 | 41 |
| 4 | 4.1 | 4.5 | 13 | 315 | 24 | 14 | 15 | 12 | 14 | 22 | 16 | 40 |
| 5 | 8.1 | 4.4 | 13 | 249 | 23 | 14 | 15 | 12 | 17 | 24 | 15 | 42 |
| 6 | 15 | 4.4 | 12 | 134 | 21 | 13 | 14 | 11 | 20 | 24 | 15 | 48 |
| 7 | 13 | 4.7 | 12 | 82 | 20 | 15 | 14 | 12 | 22 | 25 | 15 | 46 |
| 8 | 12 | 4.8 | 12 | 60 | 19 | 15 | 13 | 13 | 24 | 25 | 14 | 45 |
| 9 | 11 | 5.9 | 11 | 47 | 18 | 15 | 12 | 14 | 28 | 25 | 13 | 44 |
| 10 | 12 | 11 | 12 | 40 | 17 | 14 | 11 | 13 | 43 | 23 | 14 | 44 |
| 11 | 12 | 12 | 11 | 36 | 17 | 17 | 9.6 | 13 | 40 | 22 | 13 | 44 |
| 12 | 13 | 11 | 11 | 31 | 16 | 18 | 9.1 | 13 | 42 | 21 | 14 | 44 |
| 13 | 10 | 9.9 | 11 | 28 | 16 | 17 | 9.0 | 13 | 36 | 20 | 24 | 43 |
| 14 | 4.7 | 9.2 | 12 | 29 | 17 | 15 | 8.5 | 12 | 31 | 19 | 35 | 42 |
| 15 | 4.7 | 8.7 | 12 | 29 | 17 | 14 | 9.4 | 12 | 28 | 17 | 46 | 41 |
| 16 | 5.0 | 8.7 | 12 | 27 | 17 | 14 | 8.7 | 11 | 26 | 15 | 65 | 40 |
| 17 | 9.6 | 8.4 | 12 | 25 | 16 | 13 | 8.5 | 10 | 25 | 14 | 76 | 39 |
| 18 | 14 | 8.4 | 12 | 23 | 16 | 12 | 8.4 | 9.8 | 25 | 12 | 129 | 38 |
| 19 | 11 | 8.6 | 11 | 22 | 18 | 13 | 8.2 | 10 | 25 | 11 | 122 | 37 |
| 20 | 6.3 | 8.7 | 11 | 21 | 19 | 14 | 8.3 | 11 | 24 | 10 | 83 | 37 |
| 21 | 5.4 | 8.8 | 12 | 20 | 18 | 14 | 8.9 | 10 | 26 | 9.4 | 77 | 37 |
| 22 | 5.2 | 9.1 | 12 | 19 | 17 | 14 | 19 | 9.6 | 27 | 8.2 | 64 | 38 |
| 23 | 5.5 | 9.2 | 15 | 21 | 17 | 15 | 24 | 8.9 | 26 | 8.7 | 54 | 38 |
| 24 | 5.9 | 9.6 | 14 | 35 | 18 | 16 | 20 | 8.2 | 25 | 12 | 48 | 37 |
| 25 | 6.1 | 9.7 | 12 | 37 | 19 | 15 | 17 | 7.5 | 24 | 20 | 44 | 36 |
| 26 | 6.4 | 9.7 | 12 | 35 | 20 | 17 | 15 | 7.3 | 24 | 23 | 41 | 36 |
| 27 | 6.0 | 9.9 | 13 | 31 | 20 | 21 | 13 | 7.8 | 26 | 23 | 44 | 36 |
| 28 | 4.7 | 9.7 | 16 | 35 | 19 | 21 | 13 | 7.7 | 27 | 22 | 71 | 37 |
| 29 | 4.5 | 9.6 | 29 | 45 | 18 | 19 | 12 | 7.4 | 26 | 22 | 55 | 40 |
| 30 | 4.5 | 9.5 | 35 | 44 | --- | 18 | 11 | 10 | 26 | 21 | 46 | 39 |
| 31 | 4.6 | --- | 31 | 39 | --- | 21 | --- | 13 | --- | 19 | 42 | --- |
| TOTAL | 232.1 | 242.2 | 430.6 | 1652 | 568 | 486 | 386.6 | 332.2 | 768 | 589.3 | 1346 | 1211 |
| MEAN | 7.49 | 8.07 | 13.9 | 53.3 | 19.6 | 15.7 | 12.9 | 10.7 | 25.6 | 19.0 | 43.4 | 40.4 |
| MAX | 15 | 12 | 35 | 315 | 34 | 21 | 24 | 14 | 43 | 25 | 129 | 48 |
| MIN | 2.1 | 4.4 | 9.6 | 19 | 16 | 12 | 8.2 | 7.3 | 13 | 8.2 | 13 | 36 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 24.2 | 20.1 | 35.2 | 61.9 | 59.7 | 58.5 | 38.5 | 26.6 | 22.6 | 16.9 | 37.4 | 21.8 |
| MAX | 378 | 150 | 91.0 | 176 | 162 | 146 | 102 | 113 | 132 | 70.4 | 116 | 148 |
| (WY) | 1972 | 1978 | 1984 | 1978 | 1972 | 1983 | 1973 | 1976 | 1976 | 1976 | 1971 | 1984 |
| MIN | 0 | 0 | .34 | 11.1 | 13.8 | 10.7 | 3.90 | .33 | .001 | .034 | 0 | 0 |
| (WY) | 1979 | 1974 | 1989 | 1989 | 1968 | 1981 | 1981 | 1986 | 1985 | 1980 | 1980 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1965 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 12461.5 | | 8244.0 | | | |
| ANNUAL MEAN | 34.1 | | 22.5 | | 35.3 | |
| HIGHEST ANNUAL MEAN | | | | | 78.4 | 1972 |
| LOWEST ANNUAL MEAN | | | | | 18.8 | 1985 |
| HIGHEST DAILY MEAN | 350 | Aug 27 | 315 | Jan 4 | 1880 | Oct 1 1971 |
| LOWEST DAILY MEAN | 1.1 | Jun 17 | 2.1 | Oct 2 | 0* | Sep 22 1968 |
| ANNUAL SEVEN-DAY MINIMUM | 1.4 | Jun 12 | 4.6 | Oct 31 | 0 | Sep 22 1968 |
| INSTANTANEOUS PEAK FLOW | | | 380 | Jan 4 | 2070 | Oct 1 1971 |
| INSTANTANEOUS PEAK STAGE | | | 8.78 | Jan 4 | 13.24 | Oct 1 1971 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0* | Sep 22 1968 |
| ANNUAL RUNOFF (CFSM) | 1.31 | | .87 | | 1.36 | |
| ANNUAL RUNOFF (INCHES) | 17.83 | | 11.80 | | 18.43 | |
| 10 PERCENT EXCEEDS | 82 | | 42 | | 90 | |
| 50 PERCENT EXCEEDS | 14 | | 16 | | 15 | |
| 90 PERCENT EXCEEDS | 4.5 | | 8.2 | | .25 | |

* See REMARKS.

PAMLICO RIVER BASIN

0208455500 PAMLICO RIVER AT PAMLICO BEACH, NC

LOCATION.--Lat 35°23'37", long 76°36'22", Beaufort County, Hydrologic Unit 03020104, 0.7 mi northwest of Adams Point at Pamlico Beach.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--March 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 3.04 ft, Nov. 9, 1991; minimum elevation, -1.31 ft, Jan. 16, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 3.04 ft , November 9; minimum elevation, -1.31 ft, January 16.

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .96 | 2.22 | .33 | .93 | .42 | --- | --- | 1.00 | 1.13 | .99 | .87 | .88 |
| 2 | .91 | 2.11 | .29 | .90 | .39 | --- | --- | .75 | 1.25 | 1.14 | 1.11 | 1.00 |
| 3 | 1.04 | 1.86 | .30 | 1.29 | .75 | --- | --- | .62 | 1.31 | 1.44 | .83 | .68 |
| 4 | 1.02 | 1.71 | -.28 | 1.27 | .74 | --- | --- | .80 | 1.37 | 1.08 | .67 | .55 |
| 5 | .96 | 1.79 | .44 | 1.67 | 1.00 | --- | --- | 1.20 | 1.17 | 1.14 | .98 | .59 |
| 6 | .99 | 1.70 | .15 | 1.80 | 1.36 | --- | --- | 1.36 | 1.23 | .88 | 1.09 | .67 |
| 7 | 1.03 | 1.52 | .10 | 1.70 | 1.37 | --- | .45 | 1.73 | 1.18 | 1.14 | 1.11 | .79 |
| 8 | 1.22 | 1.65 | .05 | 1.51 | 1.39 | --- | .60 | 1.52 | 1.05 | 1.24 | .95 | .80 |
| 9 | 1.13 | 2.00 | -.01 | 1.25 | 1.12 | --- | .70 | 1.16 | .82 | .70 | .61 | .77 |
| 10 | .96 | 2.14 | .12 | 1.10 | 1.36 | --- | .55 | 1.00 | 1.26 | .79 | .57 | .79 |
| 11 | .84 | 1.45 | .44 | .86 | .77 | --- | .53 | 1.13 | 1.42 | .64 | .53 | .80 |
| 12 | .70 | 1.51 | .39 | 1.03 | .85 | --- | .51 | 1.27 | 1.40 | .60 | .46 | 1.04 |
| 13 | 1.02 | 1.24 | .29 | 1.00 | .81 | --- | 1.23 | 1.27 | 1.36 | .27 | .86 | 1.17 |
| 14 | 1.02 | 1.06 | .10 | .62 | .57 | --- | 1.04 | 1.09 | 1.30 | .45 | .74 | 1.14 |
| 15 | .88 | .90 | -.19 | .68 | .60 | --- | .85 | 1.05 | 1.23 | .26 | .98 | 1.10 |
| 16 | .97 | .66 | -.28 | -.14 | .37 | --- | .69 | 1.02 | 1.29 | .15 | 1.39 | 1.01 |
| 17 | .84 | .94 | -.24 | .19 | .85 | --- | .38 | 1.21 | 1.37 | .15 | 1.48 | .74 |
| 18 | .85 | .87 | -.51 | .31 | .69 | --- | .47 | .97 | 1.13 | .21 | 1.45 | .62 |
| 19 | .69 | .64 | -.27 | .59 | .70 | --- | .64 | 1.00 | .87 | .54 | 1.47 | .51 |
| 20 | 1.00 | .59 | .01 | .43 | .52 | --- | .72 | 1.23 | .84 | .68 | 1.58 | .89 |
| 21 | 1.02 | .50 | -.20 | .34 | .56 | --- | .76 | 1.31 | 1.12 | .69 | 1.87 | .95 |
| 22 | .94 | .54 | -.03 | .40 | .54 | --- | .57 | 1.06 | 1.18 | .66 | 1.81 | .91 |
| 23 | .93 | .50 | -.01 | .58 | .56 | --- | .78 | .80 | 1.10 | .65 | 1.68 | 1.07 |
| 24 | .96 | .34 | .15 | -.09 | .61 | --- | .54 | .74 | .92 | .64 | 1.49 | 1.57 |
| 25 | 1.00 | .28 | .45 | .26 | .80 | --- | .47 | 1.02 | .71 | .89 | 1.30 | 1.43 |
| 26 | 1.05 | .61 | .54 | .20 | .73 | --- | .73 | 1.22 | .70 | 1.16 | 1.06 | 1.60 |
| 27 | 1.15 | .60 | .59 | .40 | .73 | --- | .99 | 1.39 | .90 | .75 | .97 | 1.45 |
| 28 | 1.38 | .46 | .76 | .32 | .52 | --- | 1.20 | 1.39 | 1.32 | 1.02 | .81 | 1.54 |
| 29 | 1.92 | .37 | .59 | .49 | --- | --- | 1.36 | 1.45 | 1.30 | 1.14 | .80 | 1.69 |
| 30 | 1.51 | .35 | .55 | .41 | --- | --- | 1.21 | 1.36 | 1.23 | 1.09 | 1.14 | 1.87 |
| 31 | 1.84 | --- | .92 | .36 | --- | --- | --- | 1.06 | --- | .89 | .88 | --- |
| TOTAL | 32.73 | 33.11 | 5.54 | 22.66 | --- | --- | --- | 35.18 | 34.46 | 24.07 | 33.54 | 30.62 |
| MEAN | 1.06 | 1.10 | .18 | .73 | --- | --- | --- | 1.13 | 1.15 | .78 | 1.08 | 1.02 |

PAMLICO RIVER BASIN

02084557 VAN SWAMP NEAR HOKE, NC

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

DRAINAGE AREA.--23 mi².

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

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. No flow occurs periodically. Minimum discharge for current water year also occurred August 8-12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2 | 3.2 | 2.8 | 30 | 40 | 13 | 11 | 5.0 | 11 | 9.3 | 1.1 | 13 |
| 2 | .91 | 3.2 | 2.7 | 28 | 35 | 12 | 10 | 4.5 | 8.7 | 7.7 | .68 | 11 |
| 3 | 1.6 | 2.9 | 2.7 | 27 | 31 | 11 | 9.5 | 4.0 | 6.9 | 6.3 | .80 | 9.2 |
| 4 | 3.2 | 2.7 | 3.1 | 57 | 28 | 11 | 9.0 | 3.5 | 5.6 | 5.2 | .67 | 7.7 |
| 5 | 8.6 | 2.6 | 3.3 | 71 | 26 | 10 | 9.0 | 3.1 | 8.4 | 4.2 | .48 | 6.9 |
| 6 | 14 | 2.4 | 3.0 | 70 | 23 | 9.9 | 8.5 | 2.9 | 44 | 3.5 | .37 | 6.7 |
| 7 | 12 | 2.4 | 2.9 | 65 | 21 | 9.7 | 8.0 | 2.8 | 45 | 10 | .29 | 6.3 |
| 8 | 11 | 2.3 | 2.9 | 59 | 20 | 9.4 | 8.0 | 4.9 | 35 | 8.6 | .14 | 5.9 |
| 9 | 13 | 2.3 | 2.8 | 53 | 18 | 8.9 | 7.5 | 7.0 | 29 | 6.7 | .14 | 5.2 |
| 10 | 10 | 5.8 | 2.8 | 49 | 16 | 8.5 | 7.0 | 6.0 | 41 | 5.2 | .14 | 5.0 |
| 11 | 8.5 | 9.5 | 2.8 | 44 | 15 | 8.2 | 6.5 | 4.9 | 41 | 4.1 | .14 | 4.6 |
| 12 | 6.9 | 8.8 | 2.7 | 40 | 14 | 7.7 | 6.2 | 4.1 | 33 | 3.5 | .65 | 4.2 |
| 13 | 5.4 | 8.0 | 2.7 | 36 | 14 | 7.3 | 6.0 | 3.7 | 28 | 2.9 | 6.2 | 3.8 |
| 14 | 5.0 | 7.3 | 2.6 | 34 | 15 | 6.9 | 5.9 | 3.3 | 23 | 2.3 | 9.5 | 3.5 |
| 15 | 4.3 | 6.4 | 2.6 | 33 | 15 | 6.6 | 5.4 | 3.0 | 19 | 1.8 | 38 | 3.2 |
| 16 | 3.8 | 5.9 | 2.4 | 30 | 15 | 6.3 | 7.1 | 2.5 | 15 | 1.3 | 100 | 2.9 |
| 17 | 15 | 5.3 | 2.4 | 27 | 14 | 6.0 | 7.5 | 2.2 | 13 | 1.0 | 125 | 2.7 |
| 18 | 22 | 4.7 | 2.3 | 25 | 13 | 5.9 | 6.7 | 1.9 | 11 | .75 | 132 | 2.5 |
| 19 | 18 | 4.4 | 2.2 | 23 | 14 | 6.2 | 6.0 | 2.2 | 9.3 | .75 | 122 | 2.2 |
| 20 | 15 | 4.1 | 2.2 | 21 | 14 | 5.9 | 5.4 | 2.7 | 9.4 | .56 | 108 | 3.2 |
| 21 | 12 | 3.8 | 2.1 | 19 | 13 | 5.4 | 4.9 | 3.0 | 17 | .41 | 103 | 4.9 |
| 22 | 11 | 3.8 | 2.0 | 18 | 13 | 5.0 | 10 | 2.5 | 16 | .33 | 91 | 4.7 |
| 23 | 9.7 | 4.3 | 2.0 | 19 | 12 | 5.7 | 16 | 2.1 | 13 | .27 | 79 | 4.4 |
| 24 | 8.6 | 4.1 | 4.0 | 28 | 12 | 6.7 | 14 | 1.6 | 11 | .26 | 67 | 3.9 |
| 25 | 7.5 | 4.0 | 7.1 | 29 | 12 | 6.5 | 12 | 1.3 | 9.6 | .34 | 55 | 3.6 |
| 26 | 6.4 | 3.6 | 6.8 | 26 | 14 | 8.5 | 10 | 1.5 | 9.2 | .25 | 45 | 3.4 |
| 27 | 5.6 | 3.3 | 7.9 | 23 | 16 | 15 | 8.9 | 2.5 | 17 | .22 | 36 | 3.2 |
| 28 | 4.8 | 3.2 | 12 | 33 | 16 | 14 | 7.9 | 2.8 | 18 | 3.3 | 29 | 2.9 |
| 29 | 4.3 | 3.1 | 27 | 49 | 14 | 12 | 6.8 | 2.7 | 14 | 3.0 | 23 | 3.2 |
| 30 | 3.7 | 2.9 | 37 | 48 | --- | 12 | 5.7 | 3.9 | 11 | 2.4 | 19 | 3.2 |
| 31 | 3.4 | --- | 34 | 45 | --- | 11 | --- | 11 | --- | 1.7 | 16 | --- |
| TOTAL | 256.41 | 130.3 | 195.8 | 1159 | 523 | 272.2 | 246.4 | 109.1 | 572.1 | 98.14 | 1209.30 | 147.1 |
| MEAN | 8.27 | 4.34 | 6.32 | 37.4 | 18.0 | 8.78 | 8.21 | 3.52 | 19.1 | 3.17 | 39.0 | 4.90 |
| MAX | 22 | 9.5 | 37 | 71 | 40 | 15 | 16 | 11 | 45 | 10 | 132 | 13 |
| MIN | .91 | 2.3 | 2.0 | 18 | 12 | 5.0 | 4.9 | 1.3 | 5.6 | .22 | .14 | 2.2 |
| CFSM | .36 | .19 | .27 | 1.63 | .78 | .38 | .36 | .15 | .83 | .14 | 1.70 | .21 |
| IN. | .41 | .21 | .32 | 1.87 | .85 | .44 | .40 | .18 | .93 | .16 | 1.96 | .24 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 8.04 | 17.4 | 16.6 | 44.2 | 43.2 | 57.4 | 46.8 | 31.4 | 9.74 | 6.91 | 14.8 | 10.7 |
| MAX | 44.0 | 121 | 56.6 | 124 | 110 | 142 | 101 | 122 | 23.5 | 55.2 | 64.8 | 38.4 |
| (WY) | 1990 | 1978 | 1990 | 1978 | 1983 | 1983 | 1983 | 1978 | 1977 | 1989 | 1986 | 1984 |
| MIN | .018 | .052 | .033 | .72 | 10.2 | 8.78 | 4.68 | .58 | .29 | .27 | .090 | .035 |
| (WY) | 1979 | 1979 | 1989 | 1989 | 1989 | 1992 | 1985 | 1985 | 1985 | 1982 | 1983 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1977 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 7088.94 | | 4918.85 | | | |
| ANNUAL MEAN | 19.4 | | 13.4 | | 25.4 | |
| HIGHEST ANNUAL MEAN | | | | | 51.7 | 1978 |
| LOWEST ANNUAL MEAN | | | | | 7.76 | 1981 |
| HIGHEST DAILY MEAN | 185 | Mar 31 | 132 | Aug 18 | 385 | Nov 7 1977 |
| LOWEST DAILY MEAN | .07 | Jun 9 | .14 | Aug 8 | 0 | Aug 21 1983 |
| ANNUAL SEVEN-DAY MINIMUM | .08 | Jun 8 | .24 | Aug 5 | 0 | Sep 12 1985 |
| INSTANTANEOUS PEAK FLOW | | | 135 | Aug 18 | 409 | Nov 6 1977 |
| INSTANTANEOUS PEAK STAGE | | | 4.90 | Aug 18 | 5.66 | Jul 18 1989 |
| INSTANTANEOUS LOW FLOW | | | .11* | Aug 7 | 0* | Oct 1 1978 |
| ANNUAL RUNOFF (CFSM) | .84 | | .58 | | 1.10 | |
| ANNUAL RUNOFF (INCHES) | 11.47 | | 7.96 | | 14.99 | |
| 10 PERCENT EXCEEDS | 43 | | 33 | | 75 | |
| 50 PERCENT EXCEEDS | 9.0 | | 6.9 | | 7.7 | |
| 90 PERCENT EXCEEDS | 1.2 | | 2.1 | | .14 | |

* See REMARKS.

NEUSE RIVER BASIN

02084909 SEVENMILE CREEK NEAR EFLAND, NC

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

DRAINAGE AREA.--14.1 $mi^2$.

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

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

REMARKS.--Records fair except those for period of beaver activity, November 17-25, and those below 1 $ft^3/s$, which are poor. Maximum discharge from rating curve extended above 350 $ft^3/s$. No flow occurs periodically most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2 | 2.4 | .63 | .50 | 4.4 | 10 | 8.0 | 5.9 | 5.1 | 6.0 | .53 | .46 |
| 2 | 1.8 | 2.5 | .64 | .94 | 3.6 | 8.6 | 8.1 | 5.3 | 4.0 | 5.7 | .51 | .38 |
| 3 | 3.8 | 3.0 | 1.2 | 231 | 3.2 | 7.8 | 7.5 | 4.7 | 3.4 | 5.0 | .46 | .39 |
| 4 | 2.8 | 2.4 | 4.0 | 810 | 3.1 | 7.1 | 7.0 | 4.2 | 4.0 | 13 | .46 | .59 |
| 5 | 1.6 | 2.5 | 1.4 | 79 | 3.1 | 6.4 | 7.4 | 4.0 | 6.1 | 7.0 | .38 | .40 |
| 6 | 1.6 | 2.4 | .85 | 33 | 3.2 | 15 | 6.4 | 4.1 | 4.7 | 5.0 | .52 | .40 |
| 7 | 1.6 | 2.1 | .62 | 20 | 3.2 | 110 | 6.0 | 4.4 | 3.9 | 4.6 | .67 | .29 |
| 8 | 1.6 | 2.1 | .53 | 13 | 3.9 | 43 | 6.1 | 6.4 | 4.0 | 3.5 | .71 | .24 |
| 9 | 1.5 | 2.0 | .47 | 10 | 3.3 | 22 | 5.8 | 5.3 | 48 | 3.1 | .81 | .20 |
| 10 | 1.8 | 6.5 | .67 | 9.4 | 3.9 | 52 | 5.5 | 4.4 | 24 | 2.9 | 1.2 | .18 |
| 11 | 2.1 | 2.2 | .23 | 7.7 | 3.3 | 65 | 5.3 | 3.8 | 10 | 2.2 | .61 | .15 |
| 12 | 2.0 | 1.4 | .30 | 6.8 | 3.5 | 27 | 5.5 | 3.5 | 5.8 | 1.5 | .52 | .14 |
| 13 | 2.0 | .86 | .40 | 6.5 | 3.5 | 17 | 5.2 | 4.6 | 4.2 | 1.2 | .42 | .15 |
| 14 | 1.8 | 2.6 | .46 | 7.7 | 3.9 | 13 | 4.9 | 4.2 | 3.8 | 1.2 | 10 | .16 |
| 15 | 1.9 | 1.9 | .68 | 7.6 | 5.5 | 11 | 4.8 | 3.8 | 3.6 | 1.0 | 5.4 | .17 |
| 16 | 2.8 | 1.6 | .86 | 7.0 | 13 | 10 | 5.0 | 5.5 | 140 | .71 | 3.0 | .18 |
| 17 | 5.1 | 2.1 | .81 | 6.8 | 8.1 | 8.6 | 5.6 | 4.2 | 18 | .61 | 2.4 | .15 |
| 18 | 3.6 | 1.8 | .89 | 6.6 | 7.5 | 8.2 | 4.8 | 3.9 | 10 | .58 | 1.9 | .17 |
| 19 | 3.2 | 1.5 | .94 | 6.0 | 9.9 | 13 | 4.5 | 3.9 | 12 | .55 | 1.5 | .17 |
| 20 | 2.7 | 1.2 | .66 | 5.8 | 11 | 11 | 4.3 | 3.8 | 18 | .53 | 1.1 | .21 |
| 21 | 2.6 | 1.0 | .51 | 5.8 | 8.6 | 9.1 | 69 | 3.3 | 9.6 | .55 | .77 | .21 |
| 22 | 2.6 | .94 | .39 | 5.5 | 7.2 | 8.2 | 223 | 3.0 | 7.2 | .58 | .65 | .21 |
| 23 | 1.8 | .96 | .61 | 11 | 7.0 | 13 | 32 | 2.8 | 5.2 | 6.4 | .49 | .91 |
| 24 | 1.2 | 1.2 | 2.5 | 13 | 8.8 | 11 | 16 | 2.5 | 4.3 | 4.5 | .39 | 1.1 |
| 25 | 1.3 | .63 | 4.0 | 7.1 | 40 | 9.1 | 11 | 2.1 | 7.0 | 5.2 | .38 | 1.3 |
| 26 | 1.4 | .47 | 5.4 | 5.4 | 226 | 21 | 8.7 | 5.5 | 27 | 2.5 | .35 | 2.4 |
| 27 | 1.8 | .43 | 7.3 | 4.5 | 49 | 19 | 7.4 | 4.9 | 43 | 1.2 | .35 | 4.7 |
| 28 | 2.1 | .45 | 12 | 5.6 | 22 | 12 | 7.2 | 4.0 | 13 | 1.1 | .35 | 75 |
| 29 | 2.9 | .48 | 35 | 5.4 | 15 | 9.5 | 6.4 | 4.1 | 7.4 | 1.3 | .81 | 6.5 |
| 30 | 3.1 | .52 | 4.2 | 5.5 | --- | 8.7 | 5.6 | 9.4 | 6.0 | .71 | 1.1 | 3.4 |
| 31 | 2.8 | --- | .79 | 5.2 | --- | 8.6 | --- | 7.8 | --- | .58 | .62 | --- |
| TOTAL | 71.1 | 52.14 | 89.94 | 1349.34 | 487.7 | 594.9 | 504.0 | 139.3 | 462.3 | 90.50 | 39.36 | 100.91 |
| MEAN | 2.29 | 1.74 | 2.90 | 43.5 | 16.8 | 19.2 | 16.8 | 4.49 | 15.4 | 2.92 | 1.27 | 3.36 |
| MAX | 5.1 | 6.5 | 35 | 810 | 226 | 110 | 223 | 9.4 | 140 | 13 | 10 | 75 |
| MIN | 1.2 | .43 | .23 | .50 | 3.1 | 6.4 | 4.3 | 2.1 | 3.4 | .53 | .35 | .14 |
| CFSM | .16 | .12 | .21 | 3.09 | 1.19 | 1.36 | 1.19 | .32 | 1.09 | .21 | .09 | .24 |
| IN. | .19 | .14 | .24 | 3.56 | 1.29 | 1.57 | 1.33 | .37 | 1.22 | .24 | .10 | .27 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 7.62 | 7.58 | 9.81 | 29.8 | 23.2 | 26.2 | 17.6 | 15.5 | 7.57 | 4.53 | 4.08 | 5.78 |
| MAX | 16.6 | 13.9 | 17.6 | 58.2 | 46.5 | 55.6 | 23.6 | 36.3 | 15.4 | 14.4 | 8.27 | 17.2 |
| (WY) | 1991 | 1989 | 1991 | 1991 | 1989 | 1989 | 1990 | 1989 | 1992 | 1989 | 1989 | 1991 |
| MIN | .45 | 1.74 | 2.90 | 7.63 | 9.22 | 4.39 | 8.37 | 4.19 | 1.20 | .21 | .93 | .027 |
| (WY) | 1988 | 1992 | 1992 | 1989 | 1991 | 1988 | 1988 | 1988 | 1988 | 1988 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 5327.07 | | 3981.49 | | | |
| ANNUAL MEAN | 14.6 | | 10.9 | | 13.2 | |
| HIGHEST ANNUAL MEAN | | | | | 19.1 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 5.92 | 1988 |
| HIGHEST DAILY MEAN | 385 | Jan 12 | 810 | Jan 4 | 810 | Jan 4 1992 |
| LOWEST DAILY MEAN | 0 | Sep 9 | .14 | Sep 12 | 0 | Aug 3 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 0 | Sep 12 | .16 | Sep 11 | 0 | Aug 13 1988 |
| INSTANTANEOUS PEAK FLOW | | | 1290 | Jan 4 | 2150* | Feb 21 1989 |
| INSTANTANEOUS PEAK STAGE | | | 8.06 | Jan 4 | 9.40 | Feb 21 1989 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0* | Aug 6 1987 |
| ANNUAL RUNOFF (CFSM) | 1.04 | | .77 | | .94 | |
| ANNUAL RUNOFF (INCHES) | 14.05 | | 10.50 | | 12.76 | |
| 10 PERCENT EXCEEDS | 29 | | 13 | | 22 | |
| 50 PERCENT EXCEEDS | 5.1 | | 3.8 | | 5.1 | |
| 90 PERCENT EXCEEDS | .52 | | .46 | | .32 | |

* See REMARKS.

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC

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

DRAINAGE AREA.--66.0 $mi^2$.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good except those for period of beaver activity, November 1 to December 10, and those for estimated daily discharge, which are poor. Diversions upstream from station of 1.1 $ft^3/s$ by Orange-Alamance Water System, Inc. and 2.2 $ft^3/s$ by town of Hillsborough for municipal supply, part of which is returned downstream of station as treated effluent. Minimum discharge for current water year also occurred September 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 9.6 | 9.6 | 13 | 29 | 59 | 48 | 34 | 27 | 21 | 6.6 | 2.9 |
| 2 | 10 | 9.7 | 9.9 | 8.5 | 25 | e55 | 47 | 32 | 20 | 126 | 5.9 | 2.6 |
| 3 | 17 | 8.4 | 11 | 434 | 22 | e48 | 43 | 28 | 17 | 55 | 4.9 | 4.8 |
| 4 | 15 | 9.7 | 14 | 2590 | 22 | e44 | 42 | 25 | 20 | 44 | 4.0 | 3.1 |
| 5 | 11 | 8.7 | 11 | e1020 | 22 | e43 | 43 | 22 | 27 | 27 | 3.6 | 2.7 |
| 6 | 19 | 8.9 | 11 | e280 | 21 | e42 | 38 | 22 | 23 | 23 | 3.8 | 5.3 |
| 7 | 25 | 8.8 | 12 | 104 | 21 | 359 | 35 | 26 | 18 | 24 | 3.8 | 6.3 |
| 8 | 13 | 8.9 | 12 | 73 | 21 | 154 | 36 | 38 | 18 | 15 | 5.2 | 5.0 |
| 9 | 9.1 | 11 | 9.4 | 58 | 20 | 95 | 34 | 34 | 90 | 12 | 13 | 4.3 |
| 10 | 7.9 | 45 | 11 | 53 | 18 | 125 | 34 | 28 | 69 | 10 | e5.6 | 4.0 |
| 11 | 6.8 | 41 | 12 | 44 | 18 | 239 | 34 | 23 | 36 | 9.0 | e4.0 | 4.2 |
| 12 | 5.6 | 20 | 11 | 38 | 19 | 112 | 34 | 20 | 24 | 8.0 | e3.5 | 4.4 |
| 13 | 5.0 | 14 | 9.9 | 34 | e18 | 81 | 44 | 25 | 19 | 6.2 | e3.3 | 2.9 |
| 14 | 5.8 | 12 | 10 | 37 | e19 | 64 | 36 | 28 | 17 | 4.9 | e3.2 | 2.7 |
| 15 | 5.2 | 13 | 11 | 33 | e23 | 58 | 31 | 22 | 17 | 4.8 | e3.2 | 2.5 |
| 16 | 11 | 17 | 11 | 29 | e26 | 51 | 31 | 32 | e35 | 4.5 | e13 | 2.4 |
| 17 | 17 | 16 | 11 | 27 | e30 | 44 | 41 | 24 | e70 | 3.2 | e9.7 | 2.5 |
| 18 | 13 | 15 | 9.8 | 27 | 33 | 42 | 32 | 21 | 35 | 3.0 | 9.6 | 2.3 |
| 19 | 9.4 | 11 | 10 | 27 | 38 | 308 | 28 | 22 | 31 | 3.1 | 7.8 | 2.3 |
| 20 | 7.8 | 8.7 | 10 | 23 | 44 | e187 | 26 | 19 | 59 | 2.8 | 6.5 | 2.8 |
| 21 | 7.2 | 7.4 | 9.6 | 22 | 34 | e135 | 233 | 16 | 33 | 2.6 | 5.3 | 3.1 |
| 22 | 7.0 | 7.0 | 11 | 23 | 29 | e100 | 420 | 15 | 24 | 5.8 | 4.9 | 3.4 |
| 23 | 7.0 | 8.2 | 9.9 | 43 | 29 | e80 | 181 | 14 | 17 | 50 | 4.3 | 4.0 |
| 24 | 7.0 | 9.7 | 12 | 77 | 31 | e70 | 102 | 14 | 14 | 27 | 3.8 | 3.8 |
| 25 | 7.4 | 8.4 | 10 | 48 | 63 | e80 | 76 | 15 | 26 | 28 | 3.2 | 4.1 |
| 26 | 7.7 | 8.4 | 9.1 | 37 | 804 | e280 | 58 | 25 | 125 | 11 | 3.0 | 4.9 |
| 27 | 8.2 | 8.5 | 9.6 | 30 | 235 | 100 | 48 | 21 | e1000 | 30 | 3.0 | 126 |
| 28 | 8.4 | 9.9 | 17 | 35 | 113 | 72 | 44 | 18 | e500 | 144 | 3.4 | 80 |
| 29 | 8.9 | 10 | 183 | 35 | 81 | 61 | 40 | 19 | e100 | 37 | 3.3 | 15 |
| 30 | 9.0 | 11 | 56 | 32 | --- | 55 | 35 | 42 | 23 | 17 | 3.4 | 7.6 |
| 31 | 9.2 | --- | 22 | 30 | --- | 53 | --- | 47 | --- | 9.9 | 2.9 | --- |
| TOTAL | 310.6 | 384.9 | 565.8 | 5364.5 | 1908 | 3296 | 1974 | 771 | 2534 | 768.8 | 160.7 | 321.9 |
| MEAN | 10.0 | 12.8 | 18.3 | 173 | 65.8 | 106 | 65.8 | 24.9 | 84.5 | 24.8 | 5.18 | 10.7 |
| MAX | 25 | 45 | 183 | 2590 | 804 | 359 | 420 | 47 | 1000 | 144 | 13 | 126 |
| MIN | 5.0 | 7.0 | 9.1 | 8.5 | 18 | 42 | 26 | 14 | 14 | 2.6 | 2.9 | 2.3 |
| CFSM | .15 | .19 | .28 | 2.62 | 1.00 | 1.61 | 1.00 | .38 | 1.28 | .38 | .08 | .16 |
| IN. | .18 | .22 | .32 | 3.02 | 1.08 | 1.86 | 1.11 | .43 | 1.43 | .43 | .09 | .18 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 27.9 | 44.8 | 57.0 | 88.0 | 112 | 111 | 91.3 | 53.6 | 37.1 | 40.3 | 35.6 | 33.4 |
| MAX | 181 | 213 | 166 | 326 | 273 | 270 | 264 | 165 | 155 | 359 | 256 | 342 |
| (WY) | 1930 | 1986 | 1946 | 1936 | 1960 | 1929 | 1936 | 1931 | 1938 | 1938 | 1939 | 1945 |
| MIN | .63 | .82 | 3.64 | 5.16 | 21.5 | 29.9 | 18.8 | 9.67 | 1.75 | 1.28 | .85 | .28 |
| (WY) | 1987 | 1942 | 1942 | 1942 | 1931 | 1988 | 1942 | 1986 | 1986 | 1986 | 1987 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1928 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 18288.45 | | 18360.2 | | | |
| ANNUAL MEAN | 50.1 | | 50.2 | | 60.7 | |
| HIGHEST ANNUAL MEAN | | | | | 108 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 26.3 | 1988 |
| HIGHEST DAILY MEAN | 1100 | Jan 12 | 2590 | Jan 4 | 4570 | Sep 18 1945 |
| LOWEST DAILY MEAN | .75 | Sep 18 | 2.3 | Sep 18 | .02 | Jul 10 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 1.5 | Sep 12 | 2.5 | Sep 14 | .10 | Oct 6 1954 |
| INSTANTANEOUS PEAK FLOW | | | 3200 | Jan 4 | 11000 | Sep 18 1945 |
| INSTANTANEOUS PEAK STAGE | | | 14.78 | Jan 4 | 20.01 | Sep 18 1945 |
| INSTANTANEOUS LOW FLOW | | | 2.0* | Sep 18 | .01 | Jul 10 1986 |
| ANNUAL RUNOFF (CFSM) | .76 | | .76 | | .92 | |
| ANNUAL RUNOFF (INCHES) | 10.31 | | 10.35 | | 12.50 | |
| 10 PERCENT EXCEEDS | 100 | | 80 | | 115 | |
| 50 PERCENT EXCEEDS | 16 | | 19 | | 26 | |
| 90 PERCENT EXCEEDS | 4.5 | | 4.0 | | 4.6 | |

* See REMARKS.

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | 1045 | 7.7 | 108 | 6.3 | -- | 43 | 8.2 | -- | 8.8 | 3.4 | 5.8 |
| DEC 16... | 1120 | 15 | 102 | 6.7 | 6.0 | 50 | 10.6 | 85 | 8.1 | 3.2 | 6.2 |
| JAN 13... | 1045 | 34 | 80 | 6.8 | 8.0 | 41 | 10.9 | 93 | 5.7 | 2.4 | 4.4 |
| FEB 06... | 1000 | 24 | 84 | 6.9 | 5.0 | 55 | 12.2 | 96 | 6.6 | 2.8 | 5.2 |
| MAR 12... | 1000 | 112 | 65 | 6.7 | 10.0 | 120 | 10.8 | 97 | 5.2 | 2.2 | 3.9 |
| APR 21... | 0945 | 102 | 81 | 6.8 | 20.0 | 90 | 7.8 | 87 | 7.3 | 2.7 | 4.6 |
| MAY 06... | 1030 | 25 | 82 | 6.4 | 15.0 | 50 | 8.5 | 84 | 6.5 | 2.6 | 4.9 |
| JUN 03... | 0945 | 20 | 86 | 6.6 | 17.0 | 50 | 6.7 | 70 | 6.8 | 2.8 | 5.1 |
| JUL 14... | 1100 | 6.1 | 94 | 7.0 | 26.0 | 45 | 9.2 | 112 | 7.8 | 3.1 | 5.4 |
| AUG 04... | 0930 | 65 | 84 | 6.7 | 25.0 | 57 | 5.5 | 68 | 7.3 | 2.8 | 5.0 |
| SEP 02... | 1000 | 2.9 | 104 | 6.8 | 21.5 | 28 | 5.9 | 68 | 9.2 | 3.3 | 6.1 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | 2.1 | 9.0 | 6.7 | 0.20 | 13 | 73 | 70 | 0.150 | 0.140 | 0.010 | 0.020 |
| DEC 16... | 2.1 | 6.0 | 6.0 | 0.20 | 14 | 90 | 69 | 0.140 | 0.160 | 0.010 | 0.010 |
| JAN 13... | 1.8 | 8.2 | 5.1 | <0.10 | 14 | 39 | 58 | 0.470 | 0.470 | 0.040 | 0.040 |
| FEB 06... | 1.3 | 5.7 | 5.3 | 0.20 | 13 | 63 | 58 | 0.290 | 0.280 | 0.020 | 0.010 |
| MAR 12... | 1.4 | 6.0 | 4.0 | <0.10 | 11 | 64 | 46 | 0.260 | 0.280 | 0.050 | 0.060 |
| APR 21... | 1.2 | 5.5 | 4.8 | <0.10 | 7.6 | 55 | 51 | 0.250 | 0.260 | 0.100 | 0.060 |
| MAY 06... | 1.2 | 4.4 | 4.6 | 0.10 | 13 | 66 | 56 | 0.310 | 0.310 | 0.030 | 0.040 |
| JUN 03... | 1.1 | 3.8 | 4.6 | <0.10 | 15 | 66 | 60 | -- | 0.390 | -- | 0.060 |
| JUL 14... | 1.7 | 4.9 | 4.5 | 0.10 | 14 | 48 | 63 | -- | 0.310 | -- | 0.070 |
| AUG 04... | 1.7 | 5.7 | 4.5 | <0.10 | 9.6 | 58 | 40 | -- | 0.260 | -- | 0.090 |
| SEP 02... | 1.8 | 5.9 | 5.1 | <0.10 | 13 | 84 | 67 | -- | 0.220 | -- | 0.040 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | 0.30 | 0.30 | 0.020 | <0.010 | <0.010 | <0.010 | -- | <1 | <1 | 1 | <1 |
| DEC 16... | 0.20 | <0.20 | 0.020 | <0.010 | 0.010 | <0.010 | -- | -- | -- | -- | -- |
| JAN 13... | 0.30 | 0.30 | 0.050 | 0.020 | 0.010 | 0.010 | -- | -- | -- | -- | -- |
| FEB 06... | 0.20 | <0.20 | 0.020 | <0.010 | 0.010 | 0.030 | -- | -- | -- | -- | -- |
| MAR 12... | 0.60 | 0.40 | 0.050 | 0.020 | 0.030 | 0.020 | -- | -- | -- | -- | -- |
| APR 21... | 0.60 | 0.40 | 0.210 | 0.030 | 0.200 | 0.020 | 1500 | <1 | <1 | 2 | 2 |
| MAY 06... | 0.20 | <0.20 | 0.010 | <0.010 | 0.010 | <0.010 | -- | -- | -- | -- | -- |
| JUN 03... | 0.30 | 0.30 | 0.050 | 0.020 | -- | <0.010 | 150 | <1 | <1 | 1 | <1 |
| JUL 14... | 0.30 | 0.30 | 0.040 | 0.020 | -- | 0.010 | -- | -- | -- | -- | -- |
| AUG 04... | 0.40 | 0.20 | 0.040 | 0.030 | -- | 0.010 | 180 | <1 | <1 | <1 | <1 |
| SEP 02... | 0.20 | <0.20 | 0.040 | <0.010 | -- | <0.010 | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | 7 | 550 | 2 | 110 | <0.10 | <1 | 3 | <1 | <1 | <10 | 6.4 |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.1 |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.4 |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.4 |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.5 |
| APR 21... | 5 | 3600 | 5 | 320 | <0.10 | <1 | <1 | <1 | <1 | 20 | 8.9 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.2 |
| JUN 03... | 1 | 1100 | <1 | 80 | <0.10 | <1 | <1 | <1 | <1 | <10 | 2.7 |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.4 |
| AUG 04... | 2 | 800 | 3 | 200 | <0.10 | <1 | <1 | <1 | <1 | <10 | 7.4 |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.4 |

| DATE | PCB, TOTAL (UG/L) | DI-CHLORO-BROMO-METHANE TOTAL (UG/L) | CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) | 1,2-DI-CHLORO-ETHANE TOTAL (UG/L) | BROMO-FORM TOTAL (UG/L) | CHLORO-DI-BROMO-METHANE TOTAL (UG/L) | CHLORO-FORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLORO-BENZENE TOTAL (UG/L) | CHLORO-ETHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | <0.1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | ETHYL-BENZENE TOTAL (UG/L) | METHYL-BROMIDE TOTAL (UG/L) | METHYL-CHLO-RIDE TOTAL (UG/L) | METHYL-ENE CHLO-RIDE TOTAL (UG/L) | TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) | TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) | 1,1-DI-CHLORO-ETHANE TOTAL (UG/L) | 1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) | 1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) | 1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DI-CHLORO-PROPANE TOTAL (UG/L) | 1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L) | 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) | BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L) | DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) | TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) | CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) | VINYL CHLO-RIDE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | 1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLOR-DYRIFOS TOTAL RECOVER (UG/L) | DI-SYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PER-THANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | 0.001 |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | -- | <0.10 | -- | -- | -- | -- | -- | <0.1 | -- | <0.010 | <0.010 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 | <0.001 | <0.001 |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 | <0.010 | <0.010 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | METH-OXY-CHLOR, TOTAL (UG/L) | MALA-THION, TOTAL (UG/L) | PARA-THION, TOTAL (UG/L) | DI-AZINON, TOTAL (UG/L) | METHYL PARA-THION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRI-THION (UG/L) | FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L | SI-MAZINE, WATER, DISS, REC (UG/L) | PRO-METRYN, WATER, DISS, REC (UG/L) | PRO-METON, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- | -- |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | <0.05 | <0.05 | <0.05 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | ATRA-ZINE, WATER, DISS, REC (UG/L) | DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) | CYANA-ZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROP-AZINE WATER DISS REC (UG/L) | METO-LACHLOR WATER DISSOLV (UG/L) | ALA-CHLOR, WATER, DISS, REC, (UG/L) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 22... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5 | 0.10 |
| DEC 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.16 |
| JAN 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 0.92 |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13 | 0.84 |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 20 | 6.0 |
| APR 21... | 0.77 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | 0.05 | <0.05 | 74 | 20.4 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7 | 0.47 |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.22 |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 15 | 0.25 |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 16 | 2.8 |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9 | 0.07 |

NEUSE RIVER BASIN

02085070 ENO RIVER NEAR DURHAM, NC

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

DRAINAGE AREA.--141 $mi^2$.

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

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

GAGE.--Water-stage recorder. Datum of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 19, 1966, at site 275 ft upstream at 272.35 ft. Nov. 20, 1966, to Sept. 30, 1967, water-stage recorder and crest-stage gage at present site at 270.94 ft. U.S. Army Corps of Engineers satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges due to beaver activity, which are poor. Some regulation during periods of low flow caused by mill 600 ft upstream. Minimum discharge for period of record also occurred Aug. 15, 1977. Minimum discharge for current water year, due to regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 23 | e7.6 | 13 | 75 | 61 | 137 | 97 | 63 | 59 | 34 | 16 | 3.7 |
| 2 | 18 | e8.0 | 14 | 60 | 57 | 110 | 90 | 60 | 40 | 143 | 9.7 | 3.2 |
| 3 | 26 | e8.2 | 27 | 376 | 51 | 95 | 82 | 54 | 31 | 104 | 6.7 | 7.2 |
| 4 | 34 | e8.0 | 48 | 4290 | 46 | 87 | 80 | 47 | 28 | 58 | 5.3 | 4.9 |
| 5 | 30 | e8.5 | 58 | 1130 | 44 | 80 | 80 | 44 | 35 | 47 | 4.6 | 9.1 |
| 6 | 20 | e8.1 | 38 | 484 | 44 | 187 | 80 | 40 | 41 | 34 | 3.9 | 4.9 |
| 7 | 20 | e7.9 | 28 | 258 | 43 | 960 | 74 | 39 | 34 | 31 | 3.2 | 3.1 |
| 8 | 36 | e8.0 | 22 | 169 | 41 | 444 | 70 | 71 | 29 | 30 | 3.5 | 4.4 |
| 9 | 21 | e12 | 20 | 129 | 41 | 253 | 71 | 67 | 352 | 22 | 4.6 | 6.0 |
| 10 | 15 | e52 | 19 | 110 | 39 | 190 | 67 | 54 | 195 | 17 | 14 | 5.6 |
| 11 | 11 | 140 | 20 | 97 | 36 | 562 | 65 | 45 | 93 | 14 | 11 | 5.9 |
| 12 | 8.3 | 121 | 21 | 84 | 36 | 283 | 76 | 39 | 58 | 11 | 8.9 | 4.3 |
| 13 | 7.6 | e58 | 19 | 76 | 37 | 189 | 105 | 37 | 42 | 9.3 | 55 | 3.5 |
| 14 | 5.6 | e36 | 16 | 74 | 37 | 144 | 86 | 43 | 35 | 7.5 | 129 | 3.2 |
| 15 | 4.5 | e26 | 14 | 72 | 49 | 123 | 71 | 43 | 32 | 5.7 | 58 | 3.1 |
| 16 | 19 | e31 | 14 | 66 | 91 | 111 | 67 | 43 | 118 | 5.7 | 47 | 2.1 |
| 17 | 39 | e29 | 14 | 60 | 100 | 97 | 70 | 49 | 103 | 4.9 | 34 | 1.9 |
| 18 | 38 | e27 | 13 | 56 | 74 | 90 | 66 | 38 | 63 | 4.7 | 26 | 2.1 |
| 19 | 27 | e23 | 13 | 56 | 75 | 129 | 53 | 36 | 40 | 4.3 | 20 | 2.1 |
| 20 | 16 | e19 | 12 | 55 | 80 | 201 | 54 | 36 | 54 | 3.1 | 18 | 2.1 |
| 21 | 12 | e17 | 11 | 53 | 76 | 144 | 236 | 31 | 56 | 3.1 | 12 | 2.0 |
| 22 | 9.5 | e16 | 11 | 51 | 65 | 111 | 1630 | 26 | 49 | 3.5 | 9.1 | 1.9 |
| 23 | 8.2 | e17 | 11 | 69 | 63 | 126 | 472 | 23 | 33 | 4.3 | 6.7 | 2.4 |
| 24 | 7.6 | e20 | 15 | 135 | 64 | 135 | 219 | 21 | 28 | 43 | 5.7 | 3.5 |
| 25 | 7.4 | 18 | 23 | 104 | 123 | 106 | 143 | 19 | 36 | 30 | 4.6 | 7.0 |
| 26 | 7.9 | 15 | 25 | 77 | 1210 | 293 | 108 | 31 | 229 | 32 | 4.2 | 4.1 |
| 27 | 6.9 | 13 | 25 | 66 | 621 | 313 | 87 | 49 | 636 | 18 | 4.1 | 6.7 |
| 28 | 7.4 | 13 | 35 | 64 | 293 | 183 | 78 | 35 | 155 | 90 | 9.3 | 249 |
| 29 | 7.9 | 11 | 363 | 66 | 190 | 137 | 73 | 31 | 70 | 96 | 7.0 | 42 |
| 30 | 6.3 | 13 | 253 | 66 | --- | 117 | 66 | 74 | 44 | 38 | 5.8 | 19 |
| 31 | 7.5 | --- | 114 | 63 | --- | 105 | --- | 92 | --- | 27 | 4.1 | --- |
| TOTAL | 507.6 | 791.3 | 1329 | 8591 | 3787 | 6242 | 4616 | 1380 | 2818 | 975.1 | 551.0 | 420.0 |
| MEAN | 16.4 | 26.4 | 42.9 | 277 | 131 | 201 | 154 | 44.5 | 93.9 | 31.5 | 17.8 | 14.0 |
| MAX | 39 | 140 | 363 | 4290 | 1210 | 960 | 1630 | 92 | 636 | 143 | 129 | 249 |
| MIN | 4.5 | 7.6 | 11 | 51 | 36 | 80 | 53 | 19 | 28 | 3.1 | 3.2 | 1.9 |
| CFSM | .12 | .19 | .30 | 1.97 | .93 | 1.43 | 1.09 | .32 | .67 | .22 | .13 | .10 |
| IN. | .13 | .21 | .35 | 2.27 | 1.00 | 1.65 | 1.22 | .36 | .74 | .26 | .15 | .11 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 57.6 | 75.1 | 113 | 197 | 251 | 260 | 176 | 135 | 89.9 | 75.9 | 57.8 | 48.8 |
| MAX | 456 | 462 | 406 | 491 | 551 | 626 | 424 | 429 | 411 | 452 | 282 | 312 |
| (WY) | 1972 | 1986 | 1973 | 1978 | 1979 | 1975 | 1983 | 1978 | 1982 | 1975 | 1985 | 1974 |
| MIN | 4.77 | 11.0 | 19.5 | 21.4 | 64.7 | 67.4 | 46.2 | 26.1 | 6.86 | 6.35 | 3.34 | .84 |
| (WY) | 1964 | 1970 | 1981 | 1981 | 1968 | 1988 | 1985 | 1986 | 1986 | 1977 | 1977 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1963 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 39138.4 | | 32008.0 | | | |
| ANNUAL MEAN | 107 | | 87.5 | | 128 | |
| HIGHEST ANNUAL MEAN | | | | | 244 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 60.4 | 1977 |
| HIGHEST DAILY MEAN | 2280 | Jan 12 | 4290 | Jan 4 | 6210 | Apr 26 1978 |
| LOWEST DAILY MEAN | 4.5 | Oct 15 | 1.9 | Sep 17 | .08 | Aug 14 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 6.9 | Sep 12 | 2.0 | Sep 16 | .20 | Aug 8 1977 |
| INSTANTANEOUS PEAK FLOW | | | 5490 | Jan 4 | 9620 | Apr 26 1978 |
| INSTANTANEOUS PEAK STAGE | | | 13.93 | Jan 4 | 19.65 | Apr 26 1978 |
| INSTANTANEOUS LOW FLOW | | | .57* | Jul 19 | .06* | Aug 14 1977 |
| ANNUAL RUNOFF (CFSM) | .76 | | .62 | | .91 | |
| ANNUAL RUNOFF (INCHES) | 10.33 | | 8.44 | | 12.30 | |
| 10 PERCENT EXCEEDS | 253 | | 143 | | 260 | |
| 50 PERCENT EXCEEDS | 38 | | 37 | | 52 | |
| 90 PERCENT EXCEEDS | 7.9 | | 4.9 | | 7.2 | |

* See REMARKS.

NEUSE RIVER BASIN

02085079 ENO RIVER NEAR WEAVER, NC

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

DRAINAGE AREA.--148 mi².

PERIOD OF RECORD.--Water years 1983 to current year.

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

INSTRUMENTATION.--Water-quality monitor from Oct. 1982 to Sept. 1985.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 02... | 1000 | 17 | 228 | 7.0 | 19.0 | 100 | 8.1 | 88 | 11 | 2.8 | 29 |
| NOV | | | | | | | | | | | |
| 18... | 1020 | 27 | 604 | 6.9 | 9.0 | -- | 12.1 | 104 | -- | -- | -- |
| DEC | | | | | | | | | | | |
| 03... | 1320 | 33 | 381 | 7.0 | 17.0 | 21 | 8.9 | 93 | 14 | 4.6 | 57 |
| JAN | | | | | | | | | | | |
| 03... | 1615 | 410 | 128 | 6.9 | -- | 60 | -- | -- | 5.3 | 2.2 | 9.7 |
| 09... | 1445 | 125 | 118 | 6.8 | 8.0 | 110 | 11.1 | 94 | 7.0 | 2.5 | 10 |
| FEB | | | | | | | | | | | |
| 10... | 1500 | 39 | 217 | 7.4 | 5.0 | 25 | 13.2 | 102 | 9.5 | 3.2 | 25 |
| MAR | | | | | | | | | | | |
| 16... | 1200 | 111 | 104 | 7.3 | 7.0 | 60 | 12.4 | 101 | 6.7 | 2.7 | 9.5 |
| APR | | | | | | | | | | | |
| 22... | 1430 | 1390 | 60 | 7.3 | 20.5 | 200 | 6.6 | 74 | 4.6 | 1.7 | 4.0 |
| MAY | | | | | | | | | | | |
| 05... | 1500 | 42 | 188 | 7.0 | 17.0 | 30 | 8.5 | 88 | 8.4 | 3.2 | 22 |
| 08... | 1230 | 69 | 160 | 7.2 | 12.5 | 80 | 9.6 | 90 | 8.8 | 3.5 | 16 |
| 30... | 1630 | 80 | 185 | 7.1 | 18.5 | 55 | -- | -- | 8.3 | 3.4 | 22 |
| JUN | | | | | | | | | | | |
| 16... | 1530 | 347 | 196 | 7.2 | 22.5 | 50 | 7.0 | 81 | 10 | 3.4 | 23 |
| JUL | | | | | | | | | | | |
| 16... | 1000 | 5.3 | 301 | 6.9 | 27.0 | 15 | 5.6 | 69 | 16 | 4.0 | 37 |
| AUG | | | | | | | | | | | |
| 11... | 1000 | 10 | 203 | 6.9 | 25.0 | 42 | 6.4 | 79 | 10 | 3.0 | 24 |
| SEP | | | | | | | | | | | |
| 10... | 1500 | 5.8 | 400 | 7.1 | 24.5 | 13 | 6.6 | 80 | 19 | 4.4 | 52 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 02... | 4.1 | 30 | 22 | 0.20 | 11 | 139 | 140 | 2.20 | 2.30 | 0.050 | 0.030 |
| NOV | | | | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | 2.90 | 3.00 | 0.020 | 0.020 |
| DEC | | | | | | | | | | | |
| 03... | 6.6 | 78 | 23 | 0.40 | 3.6 | 220 | 234 | 2.30 | 2.30 | 0.110 | 0.100 |
| JAN | | | | | | | | | | | |
| 03... | 2.9 | 16 | 10 | 0.20 | 10 | 88 | 78 | 0.930 | 0.950 | 0.070 | 0.060 |
| 09... | 2.6 | 15 | 9.1 | 0.10 | 11 | 91 | 74 | 1.00 | 1.00 | 0.060 | 0.050 |
| FEB | | | | | | | | | | | |
| 10... | 3.3 | 43 | 14 | 0.20 | 2.3 | 130 | 127 | 1.00 | 1.00 | 0.020 | <0.010 |
| MAR | | | | | | | | | | | |
| 16... | <0.10 | 13 | 7.7 | 0.10 | 9.3 | 71 | -- | 0.490 | 0.510 | 0.010 | 0.020 |
| APR | | | | | | | | | | | |
| 22... | 2.0 | 6.1 | 4.2 | 0.10 | 7.8 | 62 | 39 | 0.230 | -- | 0.080 | -- |
| MAY | | | | | | | | | | | |
| 05... | 2.6 | 35 | 14 | 0.20 | 5.2 | 110 | 111 | -- | -- | -- | -- |
| 08... | 2.3 | 21 | 9.8 | <0.10 | 5.6 | 100 | 133 | -- | -- | 0.050 | 0.050 |
| 30... | 2.9 | 33 | 9.6 | 0.10 | 8.1 | 108 | 113 | -- | 0.980 | -- | 0.110 |
| JUN | | | | | | | | | | | |
| 16... | 3.0 | 32 | 13 | 0.10 | 12 | 134 | 119 | 1.10 | -- | 0.070 | -- |
| JUL | | | | | | | | | | | |
| 16... | 3.9 | 37 | 38 | 0.40 | 12 | 190 | 187 | -- | 3.00 | -- | 0.080 |
| AUG | | | | | | | | | | | |
| 11... | 3.8 | 35 | 16 | 0.20 | 9.6 | 112 | 129 | -- | 1.50 | -- | 0.090 |
| SEP | | | | | | | | | | | |
| 10... | 5.7 | 76 | 34 | 0.40 | 9.4 | 242 | 246 | -- | 3.00 | -- | 0.050 |

NEUSE RIVER BASIN

02085079 ENO RIVER NEAR WEAVER, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 0.40 | 0.50 | 0.110 | 0.110 | 0.050 | 0.060 | -- | -- | -- | -- | -- |
| NOV 18... | 0.60 | 0.50 | 0.160 | 0.130 | 0.120 | 0.110 | -- | -- | -- | -- | -- |
| DEC 03... | 0.70 | 0.50 | 0.130 | 0.100 | 0.090 | 0.080 | -- | -- | -- | -- | -- |
| JAN 03... | 0.50 | 0.40 | 0.070 | 0.040 | 0.050 | 0.030 | -- | -- | -- | -- | -- |
| 09... | 0.50 | 0.30 | 0.070 | 0.060 | 0.030 | 0.020 | -- | -- | -- | -- | -- |
| FEB 10... | 0.30 | 0.30 | 0.020 | 0.020 | 0.020 | <0.010 | -- | -- | -- | -- | -- |
| MAR 16... | <0.20 | <0.20 | 0.020 | 0.010 | 0.020 | 0.010 | -- | -- | -- | -- | -- |
| APR 22... | 1.1 | -- | 0.170 | -- | 0.020 | -- | 1700 | <1 | <1 | <1 | 3 |
| MAY 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | 1.1 | 0.80 | 1.10 | 1.00 | 0.950 | 0.880 | 700 | <1 | <1 | 3 | 2 |
| 30... | 0.50 | 0.50 | 0.070 | 0.050 | -- | 0.030 | 630 | <1 | <1 | <1 | 1 |
| JUN 16... | 0.40 | -- | 0.070 | -- | 0.050 | -- | 220 | <1 | <1 | <1 | <1 |
| JUL 16... | 0.60 | 0.50 | 0.180 | 0.140 | -- | 0.120 | -- | -- | -- | -- | -- |
| AUG 11... | 0.40 | 0.50 | 0.100 | 0.070 | -- | 0.050 | 170 | <1 | <1 | <1 | <1 |
| SEP 10... | 0.50 | 0.50 | 0.130 | 0.090 | -- | 0.080 | -- | -- | -- | -- | -- |

| DATE | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11 |
| NOV 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.9 |
| JAN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.9 |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.1 |
| FEB 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.9 |
| MAR 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.2 |
| APR 22... | 5 | 710 | 6 | 510 | <0.10 | <1 | 2 | <1 | <1 | 20 | 22 |
| MAY 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.1 |
| 08... | 2 | 1400 | 2 | 200 | <0.10 | <1 | 2 | <1 | <1 | 10 | 6.3 |
| 30... | 3 | 1200 | 2 | 180 | <0.10 | 2 | 1 | <1 | <1 | 30 | 6.6 |
| JUN 16... | 2 | 750 | <1 | 90 | <0.10 | <1 | 1 | <1 | <1 | <10 | 6.8 |
| JUL 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 |
| AUG 11... | 3 | 610 | 3 | 90 | <0.10 | 1 | 1 | <1 | <1 | 20 | 8.7 |
| SEP 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.8 |

| DATE | PCB, TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 18... | <0.1 | <0.10 | -- | -- | -- | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 |
| DEC 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 03... | <0.1 | <0.10 | -- | -- | -- | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 22... | <0.1 | <0.10 | -- | -- | -- | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 |
| MAY 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | <0.1 | <0.10 | 0.02 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 |
| 30... | <0.1 | <0.10 | <0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 |
| JUN 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

02085079 ENO RIVER NEAR WEAVER, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MALA-THION, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 18... | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 | <0.010 | <0.010 | <0.01 | -- |
| DEC 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 03... | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 | <0.010 | <0.010 | <0.01 | -- |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 22... | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 | <0.010 | <0.010 | <0.01 | -- |
| MAY 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | <0.01 |
| 30... | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | 0.01 |
| JUN 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PARA-THION, TOTAL (UG/L) | DI-AZINON, TOTAL (UG/L) | METHYL PARA-THION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRI-THION (UG/L) | FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L | SI-MAZINE, WATER, DISS, REC (UG/L) | PRO-METRYN, WATER, DISS, REC (UG/L) | PRO-METON, WATER, DISS, REC (UG/L) | ATRA-ZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 18... | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- |
| DEC 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 03... | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 22... | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- |
| MAY 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 08... | <0.01 | 0.13 | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 | <0.05 | <0.05 | 0.08 |
| 30... | <0.01 | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 | 0.06 | <0.05 | <0.05 | 0.09 |
| JUN 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) | CYANA-ZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROP-AZINE WATER DISS REC (UG/L) | METO-LACHLOR WATER DISSOLV (UG/L) | ALA-CHLOR, WATER, DISS, REC, (UG/L) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | 14 | 0.64 |
| NOV 18... | -- | -- | -- | -- | -- | -- | -- | -- | 2 | 0.15 |
| DEC 03... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.36 |
| JAN 03... | -- | -- | -- | -- | -- | -- | -- | -- | 44 | 49 |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 3.4 |
| FEB 10... | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 0.32 |
| MAR 16... | -- | -- | -- | -- | -- | -- | -- | -- | 7 | 2.1 |
| APR 22... | -- | -- | -- | -- | -- | -- | -- | -- | 233 | 874 |
| MAY 05... | -- | -- | -- | -- | -- | -- | -- | -- | 12 | 1.4 |
| 08... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 75 | 14 |
| 30... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | -- | -- |
| JUN 16... | -- | -- | -- | -- | -- | -- | -- | -- | 9 | 8.4 |
| JUL 16... | -- | -- | -- | -- | -- | -- | -- | -- | 11 | 0.16 |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.11 |
| SEP 10... | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 0.16 |

NEUSE RIVER BASIN

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

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

DRAINAGE AREA.--78.2 mi².

PERIOD OF RECORD.--October 1987 to current year.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Aug. 19-29, 1988. Maximum gage height for current water year and period of record, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.2 | 1.8 | 3.5 | 34 | 23 | 58 | e41 | 30 | 21 | 226 | e8.0 | 5.8 |
| 2 | 2.8 | 1.8 | 4.6 | 25 | 21 | 47 | e37 | 28 | 16 | 759 | e6.0 | 4.9 |
| 3 | 2.8 | 1.8 | 8.2 | 253 | 20 | 39 | e34 | 26 | 13 | 114 | e5.1 | 4.5 |
| 4 | 5.4 | 1.8 | 17 | e3200 | 19 | 35 | e32 | 24 | 13 | 54 | e4.8 | 4.8 |
| 5 | 6.4 | 1.8 | 26 | 618 | 18 | 32 | e30 | 23 | 18 | 40 | e7.1 | 3.8 |
| 6 | 4.2 | 1.7 | 16 | 193 | 18 | 71 | e29 | 22 | 19 | 33 | e6.5 | 3.7 |
| 7 | e50 | 1.7 | 10 | 106 | 17 | 709 | 27 | 23 | 15 | 37 | e7.6 | 3.7 |
| 8 | 13 | 1.7 | 9.1 | 69 | 17 | 209 | 28 | 43 | 13 | 23 | e6.1 | 3.7 |
| 9 | 7.6 | 1.9 | 7.5 | 55 | 15 | 104 | 28 | 42 | 16 | 18 | e6.2 | 3.9 |
| 10 | 4.6 | 2.2 | 7.3 | 47 | 14 | 148 | 26 | 30 | 22 | 14 | e8.2 | 3.9 |
| 11 | 3.1 | 22 | 6.3 | 40 | 14 | 352 | 25 | 26 | 21 | 12 | e6.5 | 3.4 |
| 12 | 2.2 | 15 | 6.2 | 33 | 14 | 133 | 28 | 23 | 16 | 10 | e5.0 | 3.0 |
| 13 | 2.0 | 10 | 6.2 | 30 | 15 | 83 | 40 | 22 | 13 | 9.2 | e14 | 2.8 |
| 14 | 1.8 | 7.6 | 6.2 | 29 | 15 | 63 | e34 | 22 | 12 | 8.2 | e90 | 2.5 |
| 15 | 1.7 | 5.8 | 6.2 | 25 | 15 | 52 | e29 | 24 | 11 | 7.8 | e50 | 2.3 |
| 16 | 2.4 | 4.2 | 6.0 | 22 | 24 | 45 | 26 | 29 | 11 | 6.6 | e40 | 2.0 |
| 17 | 10 | 3.9 | 5.9 | 20 | 42 | 40 | 26 | 23 | 15 | 6.5 | e37 | 1.8 |
| 18 | 16 | 3.7 | 5.8 | 19 | 32 | 38 | 25 | 20 | 19 | 6.3 | e24 | 1.6 |
| 19 | 11 | 3.4 | 5.5 | 18 | 30 | 48 | 24 | 19 | 13 | 5.6 | e18 | 1.7 |
| 20 | 5.2 | 2.9 | 4.9 | 18 | 30 | 70 | 23 | 18 | 11 | 5.4 | e14 | 2.2 |
| 21 | 2.8 | 2.8 | 4.8 | 17 | 30 | 50 | 178 | 17 | 11 | 5.0 | e11 | 2.2 |
| 22 | 2.8 | 2.8 | 5.1 | 17 | 27 | 42 | 981 | 16 | 10 | 4.4 | e8.5 | 2.2 |
| 23 | 2.7 | 2.8 | 5.1 | 17 | 24 | 43 | 185 | 15 | 8.5 | 5.0 | e6.8 | 2.1 |
| 24 | 2.3 | 2.8 | 5.1 | 56 | 24 | 42 | 92 | 14 | 8.0 | 16 | e5.6 | 2.2 |
| 25 | 2.1 | 2.9 | 5.1 | 45 | 24 | 37 | 64 | 13 | 16 | 15 | 4.9 | 1.9 |
| 26 | 2.0 | 3.3 | 5.1 | 31 | e600 | 116 | 47 | 16 | 210 | 9.8 | 4.4 | 1.9 |
| 27 | 1.8 | 3.3 | 5.2 | 28 | 321 | e160 | 40 | 18 | 352 | 7.5 | 4.6 | 3.3 |
| 28 | 1.8 | 3.5 | 5.8 | 26 | 132 | e100 | 35 | 16 | 67 | 66 | 79 | 12 |
| 29 | 1.8 | 3.5 | 204 | 26 | 82 | e68 | 32 | 15 | 28 | 44 | 21 | 8.3 |
| 30 | 1.8 | 3.5 | 120 | 26 | --- | e50 | 31 | 22 | 19 | e15 | 11 | 5.7 |
| 31 | 1.8 | --- | 53 | 25 | --- | e44 | --- | 28 | --- | e10 | 7.4 | --- |
| TOTAL | 180.1 | 127.9 | 586.7 | 5168 | 1677 | 3128 | 2277 | 707 | 1037.5 | 1593.3 | 528.3 | 107.8 |
| MEAN | 5.81 | 4.26 | 18.9 | 167 | 57.8 | 101 | 75.9 | 22.8 | 34.6 | 51.4 | 17.0 | 3.59 |
| MAX | 50 | 22 | 204 | 3200 | 600 | 709 | 981 | 43 | 352 | 759 | 90 | 12 |
| MIN | 1.7 | 1.7 | 3.5 | 17 | 14 | 32 | 23 | 13 | 8.0 | 4.4 | 4.4 | 1.6 |
| CFSM | .07 | .05 | .24 | 2.13 | .74 | 1.29 | .97 | .29 | .44 | .66 | .22 | .05 |
| IN. | .09 | .06 | .28 | 2.46 | .80 | 1.49 | 1.08 | .34 | .49 | .76 | .25 | .05 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 39.9 | 31.5 | 62.4 | 138 | 124 | 146 | 99.2 | 77.8 | 31.6 | 35.1 | 29.7 | 10.4 |
| MAX | 95.8 | 57.1 | 136 | 251 | 256 | 318 | 154 | 165 | 64.1 | 104 | 114 | 22.6 |
| (WY) | 1991 | 1989 | 1990 | 1991 | 1989 | 1989 | 1990 | 1990 | 1989 | 1989 | 1989 | 1991 |
| MIN | 5.81 | 4.26 | 13.3 | 29.0 | 50.7 | 30.9 | 51.5 | 22.8 | 7.74 | 1.59 | 2.98 | 1.27 |
| (WY) | 1992 | 1992 | 1989 | 1989 | 1991 | 1988 | 1988 | 1992 | 1988 | 1988 | 1991 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1987 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 20432.41 | | 17118.6 | | | |
| ANNUAL MEAN | 56.0 | | 46.8 | | 68.8 | |
| HIGHEST ANNUAL MEAN | | | | | 105 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 30.8 | 1988 |
| HIGHEST DAILY MEAN | 1540 | Jan 12 | 3200 | Jan 4 | 3200 | Jan 4 1992 |
| LOWEST DAILY MEAN | .14 | Sep 17 | 1.6 | Sep 18 | 0 | Aug 19 1988 |
| ANNUAL SEVEN-DAY MINIMUM | .18 | Sep 16 | 1.8 | Nov 2 | 0 | Aug 19 1988 |
| INSTANTANEOUS PEAK FLOW | | | 4800 | Jan 4 | 4800 | Jan 4 1992 |
| INSTANTANEOUS PEAK STAGE | | | 7.98* | Jan 4 | 7.98* | Jan 4 1992 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0* | Aug 18 1988 |
| ANNUAL RUNOFF (CFSM) | .72 | | .60 | | .88 | |
| ANNUAL RUNOFF (INCHES) | 9.72 | | 8.14 | | 11.95 | |
| 10 PERCENT EXCEEDS | 118 | | 67 | | 145 | |
| 50 PERCENT EXCEEDS | 10 | | 16 | | 23 | |
| 90 PERCENT EXCEEDS | 1.7 | | 2.6 | | 1.7 | |

* See REMARKS.

NEUSE RIVER BASIN

0208524845 LITTLE RIVER AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°06'53", long 78°52'10", Durham County, Hydrologic Unit 03020201, at dam 7.5 mi below State Highway 501, and 4.0 mi south of Bahama.

DRAINAGE AREA.--97.7 $mi^2$.

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 1315 | 81 | 6.7 | 18.5 | 40 | 4.8 | 52 | 6.5 | 2.4 | 4.6 | 2.0 |
| NOV 19... | 1020 | 80 | 6.8 | 13.5 | 25 | 7.8 | 75 | 6.6 | 2.5 | 4.9 | 2.1 |
| APR 29... | 1330 | 69 | 6.8 | 18.0 | 40 | 8.8 | 93 | 5.3 | 2.1 | 4.0 | 1.7 |
| JUN 17... | 1115 | 73 | 6.6 | 20.0 | 30 | 5.9 | 65 | 5.7 | 2.2 | 4.4 | 1.7 |
| AUG 10... | 1500 | 74 | 6.6 | 28.0 | 35 | 7.6 | 99 | 6.2 | 2.3 | 4.0 | 2.3 |

| DATE | SULFATE DISSOLVED (MG/L AS SO4) | 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 2.9 | 3.7 | <0.10 | 8.8 | 48 | 48 | 0.120 | 0.094 | 0.180 | 0.150 | 0.50 |
| NOV 19... | 4.0 | 5.0 | 0.10 | 8.6 | 54 | 52 | 0.240 | 0.230 | 0.100 | 0.090 | 0.40 |
| APR 29... | 6.2 | 5.2 | 0.20 | 5.5 | 52 | 42 | 0.078 | 0.150 | 0.020 | 0.030 | 0.50 |
| JUN 17... | 5.4 | 5.3 | <0.10 | 6.3 | 27 | 44 | -- | 0.140 | -- | 0.050 | 0.50 |
| AUG 10... | 4.3 | 4.7 | <0.10 | 3.8 | 48 | 43 | -- | <0.050 | -- | 0.070 | 0.40 |

| DATE | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 0.40 | 0.040 | 0.040 | <0.010 | <0.010 | 130 | <1 | <1 | <1 | <1 | 2 |
| NOV 19... | 0.40 | <0.010 | <0.010 | <0.010 | <0.010 | 70 | <1 | <1 | 3 | <1 | -- |
| APR 29... | 0.30 | 0.030 | <0.010 | <0.010 | <0.010 | 120 | <1 | <1 | <1 | <1 | 2 |
| JUN 17... | 0.30 | 0.010 | <0.010 | -- | <0.010 | 40 | <1 | <1 | <1 | <1 | 2 |
| AUG 10... | 0.30 | 0.010 | <0.010 | -- | <0.010 | 30 | <1 | <1 | <1 | <1 | 1 |

| DATE | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 310 | <1 | 300 | <0.10 | <1 | 1 | <1 | <1 | <10 | 5.7 | -- |
| NOV 19... | 180 | 3 | 530 | <0.10 | <1 | <1 | <1 | <1 | 10 | 5.6 | -- |
| APR 29... | 400 | <1 | 30 | 0.30 | <1 | <1 | <1 | <1 | <10 | 11 | <0.1 |
| JUN 17... | 290 | <1 | 260 | <0.10 | <1 | <1 | <1 | <1 | <10 | 8.3 | -- |
| AUG 10... | 240 | 2 | 340 | <0.10 | <1 | <1 | <1 | <1 | 20 | 10 | -- |

NEUSE RIVER BASIN

0208524845 LITTLE RIVER AT DAM NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 29... | <0.10 | <0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 |
| JUN 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 29... | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | <0.01 |
| JUN 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 29... | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.19 | <0.05 | <0.05 | 0.20 |
| JUN 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | 1.00 | <0.100 |
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | <0.100 | <0.100 |
| APR 29... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 12.0 | 1.00 |
| JUN 17... | -- | -- | -- | -- | -- | -- | -- | -- | 2.60 | <0.100 |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | 2.50 | <0.100 |

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC

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

DRAINAGE AREA.--149 $mi^2$.

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 346.85 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1925, nonrecording gage at present site at 346.27 ft.

REMARKS.--Records good except those daily discharges computed during period of beaver activity, October 1 to November 26, which are poor. Prior to December 1962, some diurnal fluctuation and infrequent regulation at low flow caused by small mill 5 mi upstream. Maximum discharge for period of record computed on the basis of records for nearby stations, gage height not determined. Maximum discharge and stage for current water year, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.6 | 5.7 | 6.6 | 50 | 42 | 111 | 75 | 48 | 39 | 38 | 13 | 10 |
| 2 | 3.4 | 5.8 | 7.7 | 39 | 39 | 86 | 69 | 45 | 28 | 105 | 9.7 | 8.3 |
| 3 | 3.2 | 7.1 | 11 | 371 | 35 | 74 | 64 | 39 | 23 | 49 | 8.3 | 7.3 |
| 4 | 3.5 | 5.2 | 28 | 5940 | 33 | 68 | 60 | 35 | 21 | 41 | 7.4 | 24 |
| 5 | 8.3 | 3.1 | 40 | 1130 | 33 | 64 | 61 | 33 | 25 | 40 | 11 | 31 |
| 6 | 118 | 5.0 | 21 | 351 | 32 | 70 | 57 | 31 | 36 | 44 | 10 | 16 |
| 7 | 100 | 5.7 | 15 | 198 | 30 | 1400 | 52 | 31 | 34 | 42 | 12 | 11 |
| 8 | 39 | 5.9 | 12 | 132 | 30 | 449 | 52 | 40 | 25 | 25 | 9.4 | 10 |
| 9 | 21 | 6.0 | 11 | 97 | 29 | 227 | 51 | 63 | 25 | 18 | 9.6 | 9.2 |
| 10 | 12 | 8.0 | 10 | 81 | 27 | 248 | 48 | 43 | 33 | 13 | 13 | 7.3 |
| 11 | 6.9 | 16 | 10 | 69 | 26 | 639 | 46 | 35 | 45 | 11 | 9.6 | 6.4 |
| 12 | 6.0 | 13 | 13 | 60 | 26 | 257 | 46 | 31 | 31 | 9.5 | 7.7 | 5.5 |
| 13 | 5.1 | 9.5 | 15 | 53 | 26 | 166 | 158 | 28 | 24 | 8.1 | 24 | 4.8 |
| 14 | 4.8 | 7.4 | 13 | 52 | 27 | 124 | 93 | 26 | 21 | 6.9 | 220 | 4.6 |
| 15 | 6.3 | 6.1 | 12 | 49 | 30 | 100 | 67 | 25 | 19 | 6.3 | 82 | 5.3 |
| 16 | 12 | 5.2 | 12 | 43 | 74 | 84 | 58 | 31 | 20 | 5.6 | 65 | 5.6 |
| 17 | 54 | 5.2 | 13 | 39 | 76 | 74 | 53 | 63 | 39 | 5.0 | 57 | 5.3 |
| 18 | 63 | 5.1 | 12 | 38 | 55 | 71 | 50 | 35 | 30 | 4.6 | 39 | 5.2 |
| 19 | 35 | 4.7 | 11 | 36 | 52 | 128 | 45 | 28 | 23 | 4.1 | 31 | 4.9 |
| 20 | 22 | 4.9 | 12 | 34 | 69 | 415 | 42 | 26 | 18 | 4.0 | 23 | 4.5 |
| 21 | 13 | 5.1 | 12 | 33 | 60 | 174 | 331 | 24 | 16 | 3.8 | 18 | 4.6 |
| 22 | 8.7 | 6.8 | 11 | 32 | 48 | 116 | 1870 | 22 | 14 | 4.1 | 14 | 8.6 |
| 23 | 7.0 | 5.6 | 12 | 38 | 43 | 104 | 368 | 19 | 13 | 31 | 12 | 10 |
| 24 | 10 | 5.2 | 13 | 128 | 43 | 97 | 187 | 18 | 14 | 39 | 10 | 8.4 |
| 25 | 11 | 6.0 | 13 | 80 | 65 | 76 | 129 | 17 | 30 | 33 | 9.0 | 27 |
| 26 | 9.2 | 6.9 | 15 | 58 | 1830 | 212 | 96 | 18 | 53 | 27 | 8.1 | 34 |
| 27 | 9.3 | 7.1 | 18 | 48 | 600 | 326 | 73 | 18 | 138 | 17 | 7.6 | 22 |
| 28 | 4.2 | 6.9 | 18 | 47 | 262 | 161 | 66 | 19 | 50 | 158 | 28 | 26 |
| 29 | 3.9 | 6.8 | 327 | 52 | 166 | 111 | 58 | 21 | 30 | 73 | 35 | 17 |
| 30 | 5.0 | 7.0 | 183 | 49 | --- | 90 | 52 | 28 | 20 | 33 | 21 | 14 |
| 31 | 5.2 | --- | 76 | 45 | --- | 82 | --- | 46 | --- | 20 | 14 | --- |
| TOTAL | 614.6 | 198.0 | 983.3 | 9472 | 3908 | 6404 | 4477 | 986 | 937 | 919.0 | 838.4 | 357.8 |
| MEAN | 19.8 | 6.60 | 31.7 | 306 | 135 | 207 | 149 | 31.8 | 31.2 | 29.6 | 27.0 | 11.9 |
| MAX | 118 | 16 | 327 | 5940 | 1830 | 1400 | 1870 | 63 | 138 | 158 | 220 | 34 |
| MIN | 3.2 | 3.1 | 6.6 | 32 | 26 | 64 | 42 | 17 | 13 | 3.8 | 7.4 | 4.5 |
| CFSM | .13 | .04 | .21 | 2.05 | .90 | 1.39 | 1.00 | .21 | .21 | .20 | .18 | .08 |
| IN. | .15 | .05 | .25 | 2.36 | .98 | 1.60 | 1.12 | .25 | .23 | .23 | .21 | .09 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 66.4 | 96.0 | 133 | 218 | 273 | 270 | 217 | 117 | 77.5 | 89.2 | 79.5 | 71.7 |
| MAX | 561 | 489 | 421 | 761 | 669 | 893 | 612 | 573 | 551 | 798 | 431 | 647 |
| (WY) | 1972 | 1986 | 1973 | 1936 | 1979 | 1975 | 1936 | 1978 | 1938 | 1975 | 1939 | 1945 |
| MIN | 1.24 | .71 | 1.81 | 4.29 | 44.4 | 72.4 | 31.1 | 22.2 | 7.85 | 4.59 | 2.93 | .71 |
| (WY) | 1942 | 1934 | 1934 | 1934 | 1931 | 1967 | 1942 | 1927 | 1986 | 1991 | 1977 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1925 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 32896.6 | | 30095.1 | | | |
| ANNUAL MEAN | 90.1 | | 82.2 | | 142 | |
| HIGHEST ANNUAL MEAN | | | | | 285 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 53.5 | 1981 |
| HIGHEST DAILY MEAN | 2990 | Jan 12 | 5940 | Jan 4 | 9900 | Oct 2 1929 |
| LOWEST DAILY MEAN | 1.7 | Jul 21 | 3.1 | Nov 5 | .27 | Sep 24 1968 |
| ANNUAL SEVEN-DAY MINIMUM | 2.2 | Jul 19 | 4.5 | Jul 16 | .28 | Sep 24 1968 |
| INSTANTANEOUS PEAK FLOW | | | 7600* | Jan 4 | 20000* | Jul 26 1938 |
| INSTANTANEOUS PEAK STAGE | | | 8.57* | Jan 4 | NOT DETERMINED* | |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .23 | Sep 26 1968 |
| ANNUAL RUNOFF (CFSM) | .60 | | .55 | | .95 | |
| ANNUAL RUNOFF (INCHES) | 8.21 | | 7.51 | | 12.94 | |
| 10 PERCENT EXCEEDS | 176 | | 120 | | 278 | |
| 50 PERCENT EXCEEDS | 14 | | 27 | | 49 | |
| 90 PERCENT EXCEEDS | 3.8 | | 5.6 | | 7.3 | |

* See REMARKS.

NEUSE RIVER BASIN

02086490 FLAT RIVER ON DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°09'02", long 78°49'49", Durham County, Hydrologic Unit 03020201, at dam 3.0 mi southeast of Bahama.

DRAINAGE AREA.--167 mi².

PERIOD OF RECORD.--Water years 1986, 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 1100 | 98 | 6.8 | 17.0 | 40 | 0.5 | 5 | 6.1 | 2.3 | 5.5 | 2.1 |
| NOV 18... | 1215 | 78 | 7.4 | 10.5 | 43 | 7.8 | 70 | 5.7 | 2.4 | 5.1 | 2.4 |
| APR 29... | 1115 | 62 | 6.5 | 18.0 | 110 | 8.1 | 85 | 4.4 | 1.8 | 3.8 | 1.6 |
| JUN 18... | 1145 | 65 | 6.5 | 25.0 | 40 | 7.1 | 84 | 4.8 | 2.0 | 4.4 | 1.9 |
| AUG 11... | 1230 | 73 | 6.8 | 28.0 | 23 | 6.6 | 86 | 5.2 | 2.3 | 4.6 | 2.3 |

| DATE | SULFATE DISSOLVED (MG/L AS SO4) | 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 3.4 | 6.7 | <0.10 | 10 | 50 | 52 | <0.050 | <0.050 | 0.080 | 0.130 | 0.50 |
| NOV 18... | 4.2 | 5.4 | 0.10 | 9.6 | 54 | 51 | <0.050 | <0.050 | 0.220 | 0.220 | 0.70 |
| APR 29... | 6.1 | 4.6 | 0.20 | 6.7 | 59 | 39 | 0.170 | 0.190 | 0.070 | 0.090 | 0.60 |
| JUN 18... | 4.9 | 4.7 | <0.10 | 6.9 | 40 | 42 | -- | <0.050 | -- | 0.060 | 0.70 |
| AUG 11... | 3.9 | 5.1 | 0.10 | 7.7 | 36 | 46 | -- | <0.050 | -- | 0.010 | 0.30 |

| DATE | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 0.40 | 0.030 | 0.060 | <0.010 | <0.010 | 350 | <1 | <1 | <1 | <1 | 4 |
| NOV 18... | 0.60 | 0.020 | <0.010 | <0.010 | <0.010 | 60 | <1 | <1 | <1 | <1 | -- |
| APR 29... | 0.50 | 0.050 | 0.020 | 0.020 | <0.010 | 480 | <1 | <1 | 1 | <1 | 3 |
| JUN 18... | 0.20 | 0.040 | 0.040 | -- | <0.010 | 40 | <1 | <1 | <1 | <1 | 3 |
| AUG 11... | 0.20 | 0.010 | <0.010 | -- | <0.010 | 20 | <1 | <1 | <1 | <1 | 1 |

| DATE | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | 640 | 2 | 760 | <0.10 | <1 | <1 | <1 | <1 | <10 | 6.7 | -- |
| NOV 18... | 1000 | 3 | 530 | <0.10 | <3 | <1 | <1 | <1 | <10 | 8.8 | -- |
| APR 29... | 950 | 1 | 50 | <0.10 | <1 | 1 | <1 | <1 | 20 | 14 | <0.1 |
| JUN 18... | 280 | <1 | 50 | <0.10 | <1 | <1 | <1 | <1 | <10 | 10 | -- |
| AUG 11... | 170 | 2 | 70 | <0.10 | <1 | <1 | <1 | <1 | 10 | 8.4 | -- |

NEUSE RIVER BASIN

02086490 FLAT RIVER ON DAM NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NAPHTHALENES, POLY-CHLOR. TOTAL (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 29... | <0.10 | <0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 |
| JUN 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 29... | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | <0.01 |
| JUN 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 29... | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.46 | <0.05 | <0.05 | 1.3 |
| JUN 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT 02... | -- | -- | -- | -- | -- | -- | -- | -- | 4.20 | <0.100 |
| NOV 18... | -- | -- | -- | -- | -- | -- | -- | -- | 1.20 | <0.100 |
| APR 29... | <0.05 | 0.05 | <0.20 | <0.05 | <0.05 | 0.46 | <0.05 | <0.05 | 1.90 | <0.100 |
| JUN 18... | -- | -- | -- | -- | -- | -- | -- | -- | 21.0 | 0.100 |
| AUG 11... | -- | -- | -- | -- | -- | -- | -- | -- | 1.50 | 0.200 |

NEUSE RIVER BASIN

02086624 KNAP OF REEDS CREEK NEAR BUTNER, NC

LOCATION.--Lat 36°07'40", long 78°48'55", Granville County, Hydrologic Unit 03020201, on left bank 60 ft downstream of Butner wastewater treatment plant outfall, 1.5 mi downstream of bridge on Secondary Road 1120, 2.3 mi west of Butner, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--43.0 $mi^2$.

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

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

REMARKS.--Records fair except those for estimated daily discharge and those for periods of beaver activty, October 3 to December 28 and August 31 to September 30, which are poor. Some diurnal fluctuation at low flow. The town of Butner diverted an average of 2.9 $ft^3/s$ for municipal water supply upstream from station and returned an average of 2.0 $ft^3/s$ upstream from station as treated effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.8 | 3.9 | 4.9 | 20 | 7.9 | e32 | 23 | 6.4 | 11 | 57 | 4.6 | 5.8 |
| 2 | 3.6 | 3.6 | 5.6 | 19 | 7.5 | e25 | 21 | 4.3 | 7.8 | 857 | 4.3 | 5.5 |
| 3 | 5.8 | 3.6 | 6.6 | 149 | 7.4 | e21 | 18 | 3.5 | 5.8 | 61 | 4.4 | 6.2 |
| 4 | 4.0 | 3.6 | 8.0 | 988 | 6.9 | e20 | 16 | 3.9 | 5.6 | 25 | 4.8 | 7.8 |
| 5 | 4.4 | 3.7 | 7.0 | 142 | 6.6 | e18 | 16 | 4.2 | 6.3 | 17 | 5.1 | 10 |
| 6 | 4.9 | 6.6 | 6.8 | 81 | 6.5 | e20 | 14 | 5.0 | 5.3 | 15 | 4.5 | 7.6 |
| 7 | 5.7 | 7.2 | 6.3 | 42 | 6.2 | e404 | 13 | 5.0 | 4.4 | 11 | 4.3 | 4.3 |
| 8 | 5.6 | 7.4 | 6.1 | 27 | 5.3 | e130 | 13 | 10 | 4.1 | 6.9 | 3.8 | 4.1 |
| 9 | 4.6 | 8.6 | 7.1 | 20 | 6.2 | e66 | 12 | 3.8 | 9.1 | 4.5 | 3.8 | 4.7 |
| 10 | 4.9 | 13 | 7.6 | 17 | 5.1 | e72 | 11 | 3.1 | 9.4 | 4.5 | 4.2 | 4.8 |
| 11 | 4.8 | 10 | 7.9 | 13 | 5.4 | e184 | 10 | 4.1 | 6.1 | 3.6 | 4.3 | 4.8 |
| 12 | 4.5 | e8.0 | 7.7 | 11 | 5.5 | e74 | 10 | 4.1 | 5.6 | 3.3 | 4.6 | 4.6 |
| 13 | 5.4 | e6.5 | 9.1 | 10 | 5.5 | e48 | 13 | 4.3 | 4.6 | 3.7 | 10 | 4.2 |
| 14 | 5.6 | e5.5 | 9.6 | 11 | 7.0 | e36 | 11 | 4.3 | 3.7 | 4.5 | 18 | 4.8 |
| 15 | 5.8 | e5.0 | 9.4 | 9.6 | 9.0 | e29 | 9.6 | 4.9 | 4.0 | 4.4 | 5.7 | 4.6 |
| 16 | 4.8 | e4.8 | 8.2 | 8.7 | 14 | e24 | 10 | 9.3 | 9.2 | 3.9 | 7.0 | 4.0 |
| 17 | 6.6 | e4.7 | 8.2 | 7.6 | 8.9 | e21 | 9.9 | 3.8 | 4.3 | 4.2 | 5.3 | 4.3 |
| 18 | 5.3 | e4.6 | 7.5 | 7.1 | 8.5 | e20 | 9.3 | 4.9 | 3.8 | 3.6 | 6.1 | 4.0 |
| 19 | 4.7 | e4.5 | 7.7 | 6.1 | 15 | e37 | 6.1 | 6.7 | 3.7 | 3.3 | 4.7 | 4.1 |
| 20 | 4.7 | e4.4 | 6.9 | 6.1 | e14 | e120 | 6.1 | 5.6 | 3.3 | 3.7 | 4.8 | 4.5 |
| 21 | 5.6 | e4.5 | 7.6 | 6.7 | e13 | e50 | 12 | 6.9 | 3.5 | 3.4 | 4.7 | 3.8 |
| 22 | 5.5 | e4.8 | 7.0 | 6.0 | 10 | e33 | 248 | 4.7 | 4.0 | 4.3 | 3.8 | 3.9 |
| 23 | 5.1 | e4.7 | 7.9 | 10 | 9.1 | e30 | 56 | 3.4 | 3.6 | 5.3 | 3.9 | 4.1 |
| 24 | 4.9 | e4.6 | 8.9 | 10 | 11 | e28 | 24 | 2.9 | 4.3 | 4.9 | 3.8 | 4.2 |
| 25 | 5.1 | 4.6 | 7.6 | 9.3 | e528 | e22 | 19 | 2.6 | 6.5 | 4.7 | 4.4 | 5.0 |
| 26 | 4.4 | 4.6 | 6.4 | 8.3 | e173 | e61 | 15 | 6.8 | 21 | 3.9 | 5.0 | 4.1 |
| 27 | 4.1 | 4.4 | 13 | 8.6 | e76 | e94 | 11 | 4.9 | 19 | 3.9 | 8.5 | 5.9 |
| 28 | 4.5 | 4.5 | 25 | 11 | e48 | e46 | 9.2 | 4.0 | 8.6 | 5.2 | 9.5 | 6.4 |
| 29 | 4.7 | 4.5 | 107 | 10 | e48 | e32 | 7.9 | 4.1 | 5.9 | 5.0 | 5.8 | 4.1 |
| 30 | 3.7 | 4.6 | 36 | 9.0 | --- | e30 | 6.0 | 19 | 4.4 | 4.5 | 4.7 | 4.8 |
| 31 | 3.6 | --- | 24 | 8.7 | --- | 29 | --- | 11 | --- | 5.2 | 4.8 | --- |
| TOTAL | 149.7 | 165.0 | 398.6 | 1692.8 | 1074.5 | 1856 | 660.1 | 171.5 | 197.9 | 1147.4 | 173.2 | 151.0 |
| MEAN | 4.83 | 5.50 | 12.9 | 54.6 | 37.1 | 59.9 | 22.0 | 5.53 | 6.60 | 37.0 | 5.59 | 5.03 |
| MAX | 6.6 | 13 | 107 | 988 | 528 | 404 | 248 | 19 | 21 | 857 | 18 | 10 |
| MIN | 2.8 | 3.6 | 4.9 | 6.0 | 5.1 | 18 | 6.0 | 2.6 | 3.3 | 3.3 | 3.8 | 3.8 |
| CFSM | .11 | .13 | .30 | 1.27 | .86 | 1.39 | .51 | .13 | .15 | .86 | .13 | .12 |
| IN. | .13 | .14 | .34 | 1.46 | .93 | 1.61 | .57 | .15 | .17 | .99 | .15 | .13 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 21.3 | 27.2 | 46.5 | 65.4 | 93.0 | 108 | 68.5 | 45.6 | 9.20 | 27.7 | 22.7 | 6.02 |
| MAX | 105 | 147 | 124 | 164 | 170 | 228 | 147 | 109 | 19.1 | 166 | 113 | 12.5 |
| (WY) | 1990 | 1986 | 1984 | 1991 | 1983 | 1983 | 1989 | 1989 | 1987 | 1989 | 1989 | 1989 |
| MIN | 3.65 | 4.59 | 6.54 | 6.00 | 14.8 | 14.0 | 6.52 | 5.33 | 2.41 | 2.12 | 5.23 | 2.44 |
| (WY) | 1985 | 1985 | 1989 | 1989 | 1988 | 1988 | 1985 | 1986 | 1986 | 1985 | 1988 | 1984 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 13313.3 | | 7837.7 | | | |
| ANNUAL MEAN | 36.5 | | 21.4 | | 44.9 | |
| HIGHEST ANNUAL MEAN | | | | | 78.9 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 13.2 | 1988 |
| HIGHEST DAILY MEAN | 1110 | Mar 30 | 988 | Jan 4 | 2260 | Jul 16 1989 |
| LOWEST DAILY MEAN | 2.8 | Oct 1 | 2.6 | May 25 | 1.2 | Oct 7 1984 |
| ANNUAL SEVEN-DAY MINIMUM | 3.7 | Oct 30 | 3.7 | Oct 30 | 1.6 | Jul 4 1985 |
| INSTANTANEOUS PEAK FLOW | | | 1660 | Jul 2 | 3210 | Mar 6 1984 |
| INSTANTANEOUS PEAK STAGE | | | 6.71 | Jul 2 | 7.59 | Mar 6 1984 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .96 | Oct 7 1984 |
| ANNUAL RUNOFF (CFSM) | .85 | | .50 | | 1.04 | |
| ANNUAL RUNOFF (INCHES) | 11.52 | | 6.78 | | 14.19 | |
| 10 PERCENT EXCEEDS | 59 | | 29 | | 82 | |
| 50 PERCENT EXCEEDS | 8.0 | | 6.1 | | 8.6 | |
| 90 PERCENT EXCEEDS | 4.6 | | 3.9 | | 3.1 | |

NEUSE RIVER BASIN

02086849 ELLERBE CREEK NEAR GORMAN, NC

LOCATION.--Lat 36°03'33", long 78°49'58", Durham county, Hydrologic Unit 03020201, 1.6 mi northwest of Gorman, and 3 mi upstream from mouth.

DRAINAGE AREA.--21.9 mi².

PERIOD OF RECORD.--Water years 1983 to 1987, 1991 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21... | 1530 | 12 | 368 | 7.1 | 21.0 | 45 | 6.9 | 78 | 19 | 6.5 | 44 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21... | 6.6 | 30 | 31 | 0.70 | 9.2 | 226 | 231 | 9.30 | 9.30 | 0.130 | 0.120 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21... | 1.4 | 1.0 | 0.790 | 0.600 | 0.630 | 0.560 | 440 | <1 | <1 | 1 | 2 |

| DATE | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21... | 4 | 820 | 3 | 140 | <0.10 | 7 | <1 | <1 | <1 | 30 | 11 |

| DATE | PCB, TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | PER-THANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21... | <0.1 | <0.10 | <0.1 | <0.010 | 0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |

| DATE | ENDRIN WATER UNFLTRD REC (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SI-MAZINE, WATER, DISS, REC (UG/L) | PRO-METRYN, WATER, DISS, REC (UG/L) | PRO-METON, WATER, DISS, REC (UG/L) | ATRA-ZINE, WATER, DISS, REC (UG/L) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 0.86 | <0.05 | 0.09 | <0.05 | |

| DATE | DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) | CYANA-ZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROP-AZINE WATER DISS REC (UG/L) | METO-LACHLOR WATER DISSOLV (UG/L) | ALA-CHLOR, WATER, DISS, REC, (UG/L) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APR 21... | 0.07 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 21 | 0.68 | |

NEUSE RIVER BASIN

02086920 FALLS LAKE AT I-85 NEAR REDWOOD, NC

LOCATION.--Lat 36°04'14", long 78°46'48", Durham County, Hydrologic Unit 03030201, at bridge on Interstate 85, 1.7 mi north of Redwood.

DRAINAGE AREA.--514 mi².

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | 1500 | 383 | 6.9 | 11.0 | 53 | 10.2 | 93 | 14 | 5.6 | 53 | 7.3 | 53 |
| MAY 19... | 1500 | 156 | 6.8 | 24.0 | 40 | -- | -- | 7.8 | 3.0 | 17 | 2.7 | 23 |
| JUN 30... | 1300 | 148 | 9.2 | 26.5 | 60 | 6.7 | 84 | 7.6 | 2.9 | 17 | 2.9 | 17 |

| 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | 32 | 0.50 | 17 | 208 | 248 | 7.60 | 7.10 | 0.220 | 0.240 | 1.5 | 1.1 | 0.120 |
| MAY 19... | 10 | 0.10 | 6.7 | 88 | 91 | 0.590 | 0.580 | 0.200 | 0.190 | 0.60 | 0.40 | 0.070 |
| JUN 30... | 11 | 0.20 | 5.6 | 86 | 86 | -- | 0.078 | -- | 0.030 | 1.4 | 0.40 | 0.160 |

| DATE | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | 0.050 | 0.050 | 0.020 | 1300 | <1 | <1 | 4 | 2 | 3 | 1700 | 4 | 480 |
| MAY 19... | 0.030 | 0.020 | <0.010 | 140 | <1 | <1 | <1 | <1 | 2 | 510 | <1 | 200 |
| JUN 30... | <0.010 | -- | <0.010 | 280 | <1 | <1 | <1 | 1 | 1 | 710 | 1 | 310 |

| DATE | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DICHLOROBROMOMETHANE TOTAL (UG/L) | CARBONTETRACHLORIDE TOTAL (UG/L) | 1,2-DICHLOROETHANE TOTAL (UG/L) | BROMOFORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | <0.10 | 1 | 4 | <1 | <1 | 20 | 12 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 19... | <0.10 | <1 | <1 | <1 | <1 | 10 | 7.4 | <0.1 | -- | -- | -- | -- |
| JUN 30... | <0.10 | 1 | 1 | <1 | <1 | <10 | 12 | -- | -- | -- | -- | -- |

| DATE | CHLORODIBROMOMETHANE TOTAL (UG/L) | CHLOROFORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLOROBENZENE TOTAL (UG/L) | CHLOROETHANE TOTAL (UG/L) | ETHYLBENZENE TOTAL (UG/L) | METHYLBROMIDE TOTAL (UG/L) | METHYLCHLORIDE TOTAL (UG/L) | METHYLENE CHLORIDE TOTAL (UG/L) | TETRACHLOROETHYLENE TOTAL (UG/L) | TRICHLOROFLUOROMETHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | <0.2 | 0.5 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

02086920 FALLS LAKE AT I-85 NEAR REDWOOD, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DICHLORODIFLUOROMETHANE TOTAL (UG/L) | TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | 1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 19... | -- | -- | -- | -- | -- | <0.10 | -- | -- | -- | -- | -- | <0.1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | <0.01 | <0.001 | 0.006 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 19... | -- | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 19... | <0.010 | <0.010 | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | 0.14 | <0.05 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.50 | <0.100 |
| MAY 19... | <0.05 | 0.30 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.08 | <0.05 | 0.06 | 22.0 | 1.50 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.20 | 0.600 |

NEUSE RIVER BASIN

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

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

DRAINAGE AREA.--10.1 $mi^2$.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records fair except those for estimated daily discharges and those below 2 $ft^3/s$, which are poor. Slight diurnal fluctuation at low flow. An average of 36.5 $ft^3/s$ was diverted from the Neuse River basin for Durham municipal water supply of which 17.7 $ft^3/s$ was returned to the Cape Fear River basin as treated effluent. An average of 0.8 $ft^3/s$ was returned upstream from station as treated effluent. Periods of no flow occur periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .90 | 1.7 | 1.9 | 3.4 | 3.0 | e5.5 | 5.3 | 1.9 | 7.9 | 3.7 | e1.0 | .92 |
| 2 | 1.1 | 1.9 | 1.9 | 2.6 | 2.4 | e4.3 | 4.8 | 1.9 | 9.3 | 23 | e.80 | .90 |
| 3 | 7.2 | 2.0 | 2.9 | 150 | 2.1 | e3.7 | 4.2 | 1.9 | 7.9 | 5.5 | e.90 | 1.0 |
| 4 | 3.7 | 1.9 | 6.7 | 539 | 2.1 | e3.2 | 4.1 | 1.5 | 8.0 | 13 | e1.0 | 1.1 |
| 5 | 2.1 | 1.9 | 2.9 | 45 | 2.4 | e4.5 | 4.5 | 1.3 | 8.4 | 3.9 | e1.2 | 1.3 |
| 6 | 1.6 | 1.8 | 1.9 | 14 | 1.9 | e15 | 3.7 | 1.4 | 7.1 | 3.5 | e.72 | 3.1 |
| 7 | 1.3 | 1.7 | 1.6 | 7.6 | 1.9 | e50 | 3.5 | 1.6 | 4.6 | 2.0 | .73 | 4.9 |
| 8 | .98 | 1.8 | 1.4 | 5.1 | 2.0 | e15 | 3.3 | 12 | 3.8 | 1.6 | .71 | 1.4 |
| 9 | 1.1 | 1.9 | 1.2 | 4.5 | 1.7 | e12 | 3.0 | 4.8 | 232 | 1.5 | .98 | 1.4 |
| 10 | 1.2 | 6.5 | 1.8 | 4.1 | 1.4 | e8.0 | 3.0 | 2.9 | 20 | e1.0 | 1.3 | 1.3 |
| 11 | 1.1 | 3.6 | 1.3 | 3.5 | 1.9 | e6.0 | 2.9 | 3.5 | 10 | e1.2 | .81 | 1.2 |
| 12 | 1.9 | 2.5 | 1.0 | 2.9 | 1.8 | e5.0 | 3.2 | 2.4 | 6.8 | e1.1 | 1.5 | 1.6 |
| 13 | 2.1 | 2.1 | 1.0 | 2.9 | 1.6 | e4.0 | 3.8 | 1.8 | 4.6 | e1.0 | 12 | 1.5 |
| 14 | 1.8 | 1.8 | 1.2 | 5.0 | 2.0 | e2.5 | 2.9 | 1.2 | 3.2 | e.90 | 21 | 1.6 |
| 15 | 1.7 | 1.8 | 1.1 | 3.4 | 4.3 | e2.2 | 2.3 | 1.1 | 3.9 | e1.0 | 10 | 1.6 |
| 16 | 13 | 1.6 | 1.1 | 2.5 | 7.7 | e3.0 | 2.3 | 1.3 | 3.8 | e1.1 | 8.9 | 1.5 |
| 17 | 24 | 1.6 | 1.2 | 2.3 | 4.1 | e5.0 | 2.3 | 1.0 | 2.6 | e1.2 | 4.2 | 1.7 |
| 18 | 5.8 | 1.3 | 1.2 | 2.2 | 3.2 | e9.0 | 2.0 | 1.0 | 1.6 | e1.3 | 3.4 | 1.8 |
| 19 | 3.2 | 1.3 | 1.3 | 1.8 | 10 | e8.0 | 1.6 | 3.0 | 1.5 | e1.4 | 1.7 | 2.2 |
| 20 | 2.2 | 1.4 | 1.0 | 1.8 | 6.5 | e6.5 | 1.7 | 1.4 | 3.9 | e1.4 | 1.7 | 1.5 |
| 21 | 1.8 | 1.5 | 1.0 | 1.9 | 4.1 | e5.5 | 15 | .83 | 4.6 | e1.2 | 1.7 | 1.0 |
| 22 | 1.7 | 1.9 | 1.1 | 2.0 | 3.2 | e8.0 | 111 | .75 | 4.5 | e1.1 | 1.0 | 1.1 |
| 23 | 1.7 | 2.8 | 1.1 | 4.5 | 3.1 | e10 | 9.8 | .75 | 1.1 | e1.3 | .86 | 1.4 |
| 24 | 1.5 | 2.4 | 1.8 | 5.3 | 5.6 | e8.0 | 5.8 | .61 | .83 | e1.2 | .82 | 1.1 |
| 25 | 1.5 | 1.8 | 1.5 | 3.3 | 31 | e10 | 4.3 | .81 | 6.8 | e1.1 | .82 | 1.2 |
| 26 | 1.7 | 1.8 | .94 | 2.7 | 214 | e25 | 3.3 | 17 | 106 | e1.2 | .77 | 1.3 |
| 27 | 2.0 | 2.2 | 2.6 | 2.3 | 25 | e12 | 2.6 | 4.6 | 128 | e1.1 | 1.1 | 43 |
| 28 | 1.7 | 2.2 | 9.7 | 5.1 | 10 | e9.0 | 2.4 | 1.9 | 12 | e.90 | 1.1 | 44 |
| 29 | 1.6 | 2.2 | 62 | 4.7 | 7.1 | e8.0 | 2.2 | 1.5 | 5.3 | e.80 | 1.3 | 4.7 |
| 30 | 1.5 | 2.0 | 9.2 | 3.6 | --- | e7.0 | 2.2 | 47 | 3.1 | e.70 | .95 | 2.2 |
| 31 | 1.5 | --- | 4.6 | 3.5 | --- | e6.0 | --- | 14 | --- | e.60 | .84 | --- |
| TOTAL | 96.18 | 62.9 | 131.14 | 842.5 | 367.1 | 280.9 | 223.0 | 138.65 | 623.13 | 81.50 | 85.81 | 134.52 |
| MEAN | 3.10 | 2.10 | 4.23 | 27.2 | 12.7 | 9.06 | 7.43 | 4.47 | 20.8 | 2.63 | 2.77 | 4.48 |
| MAX | 24 | 6.5 | 62 | 539 | 214 | 50 | 111 | 47 | 232 | 23 | 21 | 44 |
| MIN | .90 | 1.3 | .94 | 1.8 | 1.4 | 2.2 | 1.6 | .61 | .83 | .60 | .71 | .90 |
| CFSM | .31 | .21 | .42 | 2.69 | 1.25 | .90 | .74 | .44 | 2.06 | .26 | .27 | .44 |
| IN. | .35 | .23 | .48 | 3.10 | 1.35 | 1.03 | .82 | .51 | 2.30 | .30 | .32 | .50 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 6.55 | 9.48 | 12.7 | 20.4 | 25.3 | 23.4 | 13.5 | 10.6 | 6.10 | 2.53 | 5.40 | 2.76 |
| MAX | 22.5 | 38.9 | 33.9 | 36.7 | 46.7 | 53.6 | 32.2 | 23.4 | 24.9 | 6.00 | 23.3 | 7.88 |
| (WY) | 1990 | 1986 | 1984 | 1987 | 1989 | 1989 | 1987 | 1990 | 1989 | 1984 | 1986 | 1987 |
| MIN | .52 | .71 | 2.69 | 4.70 | 1.70 | 3.33 | 1.20 | 1.35 | .50 | .76 | 1.27 | .35 |
| (WY) | 1987 | 1985 | 1989 | 1986 | 1991 | 1988 | 1985 | 1987 | 1985 | 1983 | 1983 | 1984 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2664.96 | | 3067.33 | | | |
| ANNUAL MEAN | 7.30 | | 8.38 | | 11.5 | |
| HIGHEST ANNUAL MEAN | | | | | 18.4 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 5.85 | 1985 |
| HIGHEST DAILY MEAN | 232 | Jan 12 | 539 | Jan 4 | 539 | Jan 4 1992 |
| LOWEST DAILY MEAN | .54 | Sep 19 | .60 | Jul 31 | .13 | Jul 17 1983 |
| ANNUAL SEVEN-DAY MINIMUM | .57 | Sep 13 | .81 | Jul 28 | .19 | Sep 12 1984 |
| INSTANTANEOUS PEAK FLOW | | | 743 | Jan 4 | 1720 | Aug 20 1986 |
| INSTANTANEOUS PEAK STAGE | | | 7.51 | Jan 4 | 9.26 | Aug 20 1986 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0* | Aug 28 1984 |
| ANNUAL RUNOFF (CFSM) | .72 | | .83 | | 1.14 | |
| ANNUAL RUNOFF (INCHES) | 9.82 | | 11.30 | | 15.46 | |
| 10 PERCENT EXCEEDS | 10 | | 10 | | 21 | |
| 50 PERCENT EXCEEDS | 1.8 | | 2.1 | | 2.2 | |
| 90 PERCENT EXCEEDS | .84 | | 1.0 | | .52 | |

* See REMARKS.

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 03... | 2030 | 98 | 7.1 | -- | 270 | -- | -- | 5.9 | 3.7 | 12 | 3.5 | 9.1 |
| FEB | | | | | | | | | | | | |
| 26... | 1500 | 91 | 6.9 | 11.0 | 250 | 9.2 | 84 | 7.0 | 2.4 | 6.0 | 2.4 | 11 |
| APR | | | | | | | | | | | | |
| 22... | 1230 | 124 | 7.3 | 21.0 | 230 | 5.8 | 66 | 8.3 | 2.8 | 8.3 | 2.8 | 11 |
| MAY | | | | | | | | | | | | |
| 08... | 1445 | 155 | 7.0 | 14.0 | 200 | 8.6 | 84 | 11 | 3.6 | 13 | 2.8 | 10 |
| 30... | 1030 | 113 | 6.9 | 18.5 | 300 | -- | -- | 8.5 | 2.8 | 7.4 | 2.8 | 8.0 |
| 30... | 1145 | 113 | 6.9 | 18.5 | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 11... | 1600 | 489 | 7.3 | 27.0 | -- | 6.7 | -- | -- | -- | -- | -- | -- |

| 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 03... | 7.0 | 0.20 | 4.3 | 85 | 63 | 0.270 | 0.280 | 0.070 | 0.070 | 0.80 | 0.70 | 0.180 |
| FEB | | | | | | | | | | | | |
| 26... | 5.9 | 0.10 | 7.4 | 87 | 54 | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 22... | 8.8 | 0.20 | 7.5 | 95 | 65 | 0.550 | -- | 0.150 | -- | 1.0 | -- | 0.180 |
| MAY | | | | | | | | | | | | |
| 08... | 12 | 0.20 | 6.3 | 94 | 83 | -- | -- | -- | -- | -- | -- | -- |
| 30... | 7.8 | 0.10 | 6.0 | 88 | 63 | -- | 0.580 | -- | 0.140 | 0.80 | 0.60 | 0.120 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 03... | 0.070 | 0.040 | 0.050 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 26... | -- | -- | -- | 3800 | -- | <1 | 5 | 2 | 4 | 3700 | 5 | 160 |
| APR | | | | | | | | | | | | |
| 22... | -- | 0.150 | -- | 1700 | 1 | <1 | 2 | 2 | 7 | 2100 | 6 | 240 |
| MAY | | | | | | | | | | | | |
| 08... | -- | -- | -- | 2900 | 1 | <1 | 5 | 3 | 4 | 3600 | 8 | 430 |
| 30... | 0.090 | -- | 0.030 | 5800 | 1 | <1 | 4 | 4 | 6 | 2900 | 14 | 610 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | 15 | <0.1 | <0.10 | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 26... | <0.10 | <1 | 5 | <1 | <1 | 30 | 18 | <0.1 | <0.10 | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 22... | 0.20 | <1 | 4 | <1 | <1 | 20 | 18 | <0.1 | <0.10 | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 08... | <0.10 | <1 | 4 | 2 | <1 | 20 | 14 | <0.1 | <0.10 | <0.01 | <0.01 | <0.01 |
| 30... | <0.10 | <1 | 6 | <1 | <1 | 40 | 18 | <0.1 | <0.10 | 0.01 | <0.01 | <0.01 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | PER-THANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 03... | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- |
| FEB | | | | | | | | | | | | |
| 26... | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- |
| APR | | | | | | | | | | | | |
| 22... | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- |
| MAY | | | | | | | | | | | | |
| 08... | <0.1 | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 |
| 30... | <0.1 | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 | <0.001 | <0.001 | 0.003 | <0.001 | <0.001 | <0.01 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MALA-THION, TOTAL (UG/L) | PARA-THION, TOTAL (UG/L) | DI-AZINON, TOTAL (UG/L) | METHYL PARA-THION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRI-THION (UG/L) | FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L | SI-MAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 03... | <1 | <0.010 | <0.010 | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 26... | <1 | <0.010 | <0.010 | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 22... | <1 | <0.010 | <0.010 | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | 0.06 |
| MAY | | | | | | | | | | | | |
| 08... | <1 | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | 0.05 | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 |
| 30... | <1 | <0.001 | <0.001 | <0.01 | 0.02 | <0.01 | 0.21 | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.05 |
| AUG | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PRO-METRYN, WATER, DISS, REC (UG/L) | PRO-METON, WATER, DISS, REC (UG/L) | ATRA-ZINE, WATER, DISS, REC (UG/L) | DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) | CYANA-ZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROP-AZINE WATER DISS REC (UG/L) | METO-LACHLOR WATER DISSOLV (UG/L) | ALA-CHLOR, WATER, DISS, REC, (UG/L) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 110 |
| APR | | | | | | | | | | | | |
| 22... | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 92 |
| MAY | | | | | | | | | | | | |
| 08... | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 143 |
| 30... | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 413 |
| 30... | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | -- |
| AUG | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

0208703650 FALLS LAKE AT STATE HIGHWAY 50 NEAR SANDY PLAIN, NC

LOCATION.--Lat 36°00'54", long 78°41'29", Wake County, Hydrologic Unit 03020201, at bridge on State Highway 50, and 3.3 mi south of Sandy Plain.

DRAINAGE AREA.--620 mi².

PERIOD OF RECORD.--WATER YEARS 1989 to present.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | 1245 | 122 | 6.5 | 20.5 | 30 | 8.9 | 100 | 7.0 | 2.7 | 13 | 2.4 | 10 |
| NOV 05... | 1330 | 144 | 7.1 | 13.0 | 24 | 11.8 | 112 | 6.9 | 2.7 | 17 | 2.8 | 18 |
| MAY 19... | 1400 | 103 | 7.4 | 24.0 | 30 | -- | -- | 6.7 | 2.6 | 7.9 | 2.5 | 11 |
| JUN 30... | 1400 | 104 | 8.4 | 28.0 | 15 | 9.5 | 123 | 7.0 | 2.8 | 8.3 | 2.3 | 9.6 |

| 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | 9.7 | 0.20 | 5.2 | 69 | 73 | <0.050 | <0.050 | 0.100 | 0.090 | 0.60 | 0.30 | 0.030 |
| NOV 05... | 13 | 0.10 | 7.1 | 126 | 90 | 0.062 | 0.051 | 0.120 | 0.120 | 0.80 | 0.50 | 0.050 |
| MAY 19... | 7.1 | 0.10 | 3.5 | 64 | 57 | <0.050 | <0.050 | 0.080 | 0.080 | 0.70 | 0.40 | 0.040 |
| JUN 30... | 6.9 | <0.10 | 3.3 | 62 | 58 | -- | <0.050 | -- | 0.020 | 0.50 | 0.30 | 0.040 |

| DATE | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | <0.010 | <0.010 | <0.010 | 180 | <1 | <1 | 2 | <1 | 3 | 430 | 2 | 270 |
| NOV 05... | <0.010 | <0.010 | <0.010 | 470 | <1 | <1 | 2 | <1 | 3 | 800 | <1 | 360 |
| MAY 19... | 0.030 | 0.010 | <0.010 | 70 | <1 | <1 | <1 | <1 | <1 | 170 | <1 | 90 |
| JUN 30... | <0.010 | -- | <0.010 | 40 | <1 | <1 | <1 | <1 | 1 | 60 | <1 | 50 |

| DATE | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DICHLOROBROMOMETHANE TOTAL (UG/L) | CARBONTETRACHLORIDE TOTAL (UG/L) | 1,2-DICHLOROETHANE TOTAL (UG/L) | BROMOFORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | <0.10 | <1 | <1 | <1 | <1 | <10 | 8.3 | -- | -- | -- | -- | -- |
| NOV 05... | <0.10 | <1 | 2 | <1 | <1 | 60 | 9.5 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 19... | <0.10 | <1 | 2 | <1 | <1 | 20 | 11 | <0.1 | -- | -- | -- | -- |
| JUN 30... | <0.10 | <1 | <1 | <1 | <1 | <10 | 9.3 | -- | -- | -- | -- | -- |

| DATE | CHLORODIBROMOMETHANE TOTAL (UG/L) | CHLOROFORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLOROBENZENE TOTAL (UG/L) | CHLOROETHANE TOTAL (UG/L) | ETHYLBENZENE TOTAL (UG/L) | METHYLBROMIDE TOTAL (UG/L) | METHYLCHLORIDE TOTAL (UG/L) | METHYLENE CHLORIDE TOTAL (UG/L) | TETRACHLOROETHYLENE TOTAL (UG/L) | TRICHLOROFLUOROMETHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

0208703650 FALLS LAKE AT STATE HIGHWAY 50 NEAR SANDY PLAIN, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DICHLORODIFLUOROMETHANE TOTAL (UG/L) | TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | 1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 19... | -- | -- | -- | -- | -- | <0.10 | -- | -- | -- | -- | -- | <0.1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 19... | -- | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 19... | <0.010 | <0.010 | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | 0.13 | <0.05 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.90 | <0.100 |
| NOV 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.40 | <0.100 |
| MAY 19... | 0.05 | 0.06 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 9.70 | 0.400 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.10 | <0.100 |

NEUSE RIVER BASIN

0208708905 FALLS LAKE AT STATE HIGHWAY 98 NEAR BAYLEAF, NC

LOCATION.--Lat 35°58'42", long 78°37'59", Wake County, Hydrologic Unit 03020201, at bridge on State Highway 98, and 2.0 mi north of Bayleaf.

DRAINAGE AREA.--704 mi².

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | 1215 | 115 | 6.9 | 20.5 | 40 | 3.5 | 39 | 7.4 | 3.0 | 9.9 | 2.2 | 6.5 |
| NOV 05... | 1030 | 127 | 6.7 | 14.0 | 22 | 12.6 | 122 | 7.3 | 2.9 | 13 | 2.5 | 7.0 |
| MAY 19... | 1310 | 96 | 6.9 | 24.0 | 30 | -- | -- | 5.8 | 2.4 | 7.4 | 2.5 | 11 |
| JUN 30... | 1445 | 92 | 7.8 | 29.0 | 13 | 9.2 | 121 | 5.9 | 2.5 | 8.1 | 2.2 | 9.5 |

| 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | 8.1 | 0.20 | 5.8 | 63 | 66 | <0.050 | <0.050 | 0.100 | 0.100 | 0.70 | 0.50 | 0.050 |
| NOV 05... | 8.0 | <0.10 | <0.10 | 72 | 67 | 0.160 | <0.050 | 0.230 | 0.510 | 0.80 | 0.80 | 0.030 |
| MAY 19... | 6.5 | 0.10 | 4.2 | 50 | 54 | 0.089 | 0.080 | 0.040 | 0.050 | 0.50 | 0.30 | 0.030 |
| JUN 30... | 6.1 | <0.10 | 3.4 | 36 | 53 | -- | <0.050 | -- | 0.020 | 0.40 | 0.20 | 0.060 |

| DATE | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | <0.010 | <0.010 | <0.010 | 50 | <1 | <1 | 2 | <1 | 2 | 320 | 2 | 580 |
| NOV 05... | <0.010 | <0.010 | 0.010 | 290 | <1 | <1 | 2 | <1 | 3 | 620 | <1 | 390 |
| MAY 19... | 0.020 | <0.010 | <0.010 | 40 | <1 | <1 | <1 | <1 | 2 | 110 | <1 | 40 |
| JUN 30... | <0.010 | -- | <0.010 | 50 | <1 | <1 | <1 | <1 | 1 | 70 | <1 | 20 |

| DATE | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DICHLOROBROMOMETHANE TOTAL (UG/L) | CARBONTETRACHLORIDE TOTAL (UG/L) | 1,2-DICHLOROETHANE TOTAL (UG/L) | BROMOFORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | <0.10 | 1 | 1 | <1 | <1 | <10 | 7.4 | -- | -- | -- | -- | -- |
| NOV 05... | <0.10 | <1 | 1 | <1 | <1 | <10 | 6.9 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 19... | <0.10 | <1 | 1 | <1 | <1 | <10 | 14 | <0.1 | -- | -- | -- | -- |
| JUN 30... | <0.10 | <1 | <1 | <1 | <1 | <10 | 8.0 | -- | -- | -- | -- | -- |

| DATE | CHLORODIBROMOMETHANE TOTAL (UG/L) | CHLOROFORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLOROBENZENE TOTAL (UG/L) | CHLOROETHANE TOTAL (UG/L) | ETHYLBENZENE TOTAL (UG/L) | METHYLBROMIDE TOTAL (UG/L) | METHYLCHLORIDE TOTAL (UG/L) | METHYLENECHLORIDE TOTAL (UG/L) | TETRACHLOROETHYLENE TOTAL (UG/L) | TRICHLOROFLUOROMETHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

0208708905 FALLS LAKE AT STATE HIGHWAY 98 NEAR BAYLEAF, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DICHLORODIFLUOROMETHANE TOTAL (UG/L) | TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | 1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 19... | -- | -- | -- | -- | -- | <0.10 | -- | -- | -- | -- | -- | <0.1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 19... | -- | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 19... | <0.010 | <0.010 | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | 0.11 | <0.05 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.40 | <0.100 |
| NOV 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.10 | <0.100 |
| MAY 19... | <0.05 | <0.05 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 6.60 | <0.100 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.700 | <0.100 |

NEUSE RIVER BASIN

02087182 FALLS LAKE ABOVE DAM AT FALLS, NC

LOCATION.--Lat 35°56'28", long 78°35'02", Wake county, Hydrologic Unit 03020201, 0.05 mi above dam, and 0.5 mi northwest of Falls.

DRAINAGE AREA.--771 mi².

PERIOD OF RECORD.--Water years 1989, to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 1145 | 105 | 6.7 | 20.5 | 40 | 4.3 | 48 | 7.2 | 2.8 | 8.2 | 1.9 | 5.3 |
| NOV | | | | | | | | | | | | |
| 05... | 1000 | 118 | 6.5 | 15.0 | 22 | 12.5 | 123 | 7.9 | 3.0 | 10 | 2.4 | 5.5 |
| MAY | | | | | | | | | | | | |
| 19... | 1210 | 95 | 6.5 | 25.0 | 25 | -- | -- | 5.5 | 2.3 | 7.6 | 2.6 | 11 |
| JUN | | | | | | | | | | | | |
| 30... | 1130 | 87 | 7.5 | 26.5 | 20 | 8.8 | 110 | 5.7 | 2.5 | 6.4 | 2.2 | 9.7 |

| 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 6.6 | 0.20 | 6.1 | 62 | 60 | <0.050 | <0.050 | 0.170 | 0.170 | 0.70 | 0.50 | 0.040 |
| NOV | | | | | | | | | | | | |
| 05... | 7.0 | 0.10 | <0.10 | 63 | 59 | 0.050 | 0.065 | 0.510 | 0.530 | 1.0 | 0.80 | 0.020 |
| MAY | | | | | | | | | | | | |
| 19... | 6.7 | 0.10 | 4.5 | 72 | 54 | 0.140 | 0.130 | 0.090 | 0.080 | 0.60 | 0.30 | 0.040 |
| JUN | | | | | | | | | | | | |
| 30... | 6.0 | <0.10 | 3.5 | 54 | 50 | -- | <0.050 | -- | 0.020 | 0.40 | 0.30 | <0.010 |

| DATE | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | 0.040 | <0.010 | <0.010 | 40 | <1 | <1 | 3 | <1 | 3 | 200 | 1 | 800 |
| NOV | | | | | | | | | | | | |
| 05... | <0.010 | <0.010 | <0.010 | 150 | <1 | <1 | <1 | <1 | 3 | 870 | 1 | 900 |
| MAY | | | | | | | | | | | | |
| 19... | 0.030 | <0.010 | <0.010 | 40 | <1 | <1 | <1 | <1 | 2 | 80 | <1 | 30 |
| JUN | | | | | | | | | | | | |
| 30... | <0.010 | -- | <0.010 | 50 | <1 | <1 | 4 | <1 | 2 | 70 | <1 | 20 |

| DATE | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DICHLOROBROMOMETHANE TOTAL (UG/L) | CARBONTETRACHLORIDE TOTAL (UG/L) | 1,2-DICHLOROETHANE TOTAL (UG/L) | BROMOFORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | <0.10 | 1 | 1 | <1 | <1 | 10 | 6.3 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 05... | <0.10 | <1 | 5 | <1 | <1 | <10 | 7.9 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY | | | | | | | | | | | | |
| 19... | <0.10 | <1 | <1 | <1 | <1 | <10 | 8.9 | <0.1 | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 30... | <0.10 | <1 | 1 | <1 | <1 | <10 | 7.9 | -- | -- | -- | -- | -- |

| DATE | CHLORODIBROMOETHANE TOTAL (UG/L) | CHLOROFORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLOROBENZENE TOTAL (UG/L) | CHLOROETHANE TOTAL (UG/L) | ETHYLBENZENE TOTAL (UG/L) | METHYLBROMIDE TOTAL (UG/L) | METHYLCHLORIDE TOTAL (UG/L) | METHYLENE CHLORIDE TOTAL (UG/L) | TETRACHLOROETHYLENE TOTAL (UG/L) | TRICHLOROFLUOROMETHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY | | | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

02087182 FALLS LAKE ABOVE DAM AT FALLS, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DI-CHLORO-ETHANE TOTAL (UG/L) | 1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) | 1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) | 1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DI-CHLORO-PROPANE TOTAL (UG/L) | 1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L) | 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) | BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) | TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) | CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) | VINYL CHLO-RIDE TOTAL (UG/L) | TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | 1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLOR-PYRIFOS TOTAL RECOVER (UG/L) | DI-SYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PER-THANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 19... | -- | -- | -- | -- | -- | <0.10 | -- | -- | -- | -- | -- | <0.1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOX-APHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 19... | -- | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MALA-THION, TOTAL (UG/L) | PARA-THION, TOTAL (UG/L) | DI-AZINON, TOTAL (UG/L) | METHYL PARA-THION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRI-THION (UG/L) | FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L | SI-MAZINE, WATER, DISS, REC (UG/L) | PRO-METRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV 05... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 19... | <0.010 | <0.010 | <0.01 | -- | -- | -- | -- | <0.01 | -- | -- | 0.12 | <0.05 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PRO-METON, WATER, DISS, REC (UG/L) | DEISO-ATRA-ZINE, WATER, DISS, REC (UG/L) | DEETHYL PROPYL ATRAZIN WATER, DISS, REC (UG/L) | ATRA-ZINE, WATER, DISS, REC (UG/L) | CYANA-ZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROP-AZINE WATER DISS REC (UG/L) | METO-LACHLOR WATER DISSOLV (UG/L) | ALA-CHLOR, WATER, DISS, REC, (UG/L) | CHLOR-A METRI-BUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) | PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.30 | <0.100 |
| NOV 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.70 | <0.100 |
| MAY 19... | <0.05 | 0.05 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 4.20 | <0.100 |
| JUN 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.40 | <0.100 |

## 02087183 NEUSE RIVER NEAR FALLS, NC

LOCATION.--Lat 35°56'25", long 78°34'56", Wake County, Hydrologic Unit 03020201, on right bank 300 ft downstream of Falls Lake Dam, and 0.3 mi northwest of Falls.

DRAINAGE AREA.--771 $mi^2$.

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

REVISED RECORDS.--WDR NC-91-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 194.69 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1990, water-stage recorder at site 0.4 mi downstream at 182.62 ft. U.S. Army Corps of Engineers satellite transmitter at station.

REMARKS.--Records good. No estimated daily discharges. Flow regulated by Falls Lake (station 02087182). From June 5, 1980, to May 6, 1981, flows affected by incidental storage in Falls Lake, under construction; May 6, 1981, to Jan. 13, 1983, gates closed and Falls Lake partially filled to provide storage for city of Raleigh water supply; Jan. 13, 1983, gates closed and normal pool elevation, 250 ft, reached Dec. 7, 1983. The city of Raleigh diverted an average of 59.6 $ft^3/s$, 1.2 mi upstream from station for municipal water supply, most of which was returned downstream as treated effluent. See diversions for municipal water supply for cities of Durham and Butner (stations 02086500 and 02086624). Minimum discharge for current water year and period of record not determined due to intermittent gate closure. Maximum gage-height for period of record at former site.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 161 | 108 | 63 | 64 | 170 | 2450 | 1020 | 173 | 161 | 272 | 167 | 167 |
| 2 | 161 | 108 | 63 | 64 | 170 | 2100 | 707 | 173 | 161 | 199 | 167 | 167 |
| 3 | 161 | 108 | 63 | 64 | 170 | 1070 | 225 | 173 | 161 | 526 | 167 | 167 |
| 4 | 161 | 108 | 63 | 64 | 170 | 608 | 170 | 173 | 161 | 686 | 167 | 167 |
| 5 | 161 | 108 | 63 | 324 | 170 | 283 | 170 | 170 | 161 | 583 | 175 | 181 |
| 6 | 161 | 108 | 63 | 831 | 170 | 283 | 170 | 170 | 161 | 945 | 192 | 189 |
| 7 | 161 | 108 | 63 | 2440 | 170 | 283 | 170 | 168 | 161 | 1530 | 192 | 189 |
| 8 | 161 | 108 | 63 | 2740 | 170 | 1150 | 170 | 167 | 161 | 1090 | 192 | 180 |
| 9 | 161 | 108 | 63 | 1780 | 170 | 2430 | 170 | 167 | 161 | 598 | 192 | 173 |
| 10 | 161 | 108 | 63 | 994 | 170 | 2620 | 146 | 167 | 161 | 167 | 192 | 173 |
| 11 | 161 | 108 | 63 | 494 | 170 | 2610 | 129 | 167 | 161 | 167 | 179 | 173 |
| 12 | 161 | 92 | 63 | 494 | 170 | 2900 | 127 | 144 | 161 | 167 | 167 | 173 |
| 13 | 161 | 63 | 63 | 321 | 170 | 2470 | 127 | 132 | 161 | 167 | 167 | 173 |
| 14 | 161 | 63 | 63 | 176 | 170 | 1350 | 127 | 132 | 161 | 167 | 167 | 173 |
| 15 | 161 | 63 | 63 | 176 | 170 | 676 | 127 | 132 | 161 | 167 | 167 | 173 |
| 16 | 161 | 63 | 63 | 176 | 170 | 502 | 127 | 127 | 167 | 151 | 167 | 179 |
| 17 | 161 | 63 | 63 | 176 | 170 | 502 | 127 | 127 | 167 | 157 | 167 | 192 |
| 18 | 161 | 63 | 63 | 176 | 170 | 502 | 127 | 128 | 167 | 167 | 167 | 192 |
| 19 | 161 | 63 | 63 | 176 | 170 | 502 | 127 | 132 | 167 | 167 | 167 | 192 |
| 20 | 161 | 63 | 63 | 176 | 170 | 502 | 127 | 131 | 167 | 167 | 167 | 192 |
| 21 | 161 | 63 | 63 | 176 | 170 | 502 | 129 | 129 | 167 | 167 | 167 | 192 |
| 22 | 170 | 63 | 63 | 176 | 170 | 502 | 132 | 148 | 167 | 167 | 167 | 192 |
| 23 | 167 | 63 | 63 | 176 | 170 | 502 | 1180 | 161 | 167 | 167 | 167 | 196 |
| 24 | 167 | 63 | 64 | 240 | 170 | 502 | 1650 | 161 | 167 | 167 | 167 | 192 |
| 25 | 167 | 63 | 64 | 333 | 170 | 502 | 583 | 161 | 167 | 167 | 167 | 192 |
| 26 | 167 | 63 | 64 | 333 | 170 | 502 | 583 | 161 | 167 | 167 | 167 | 192 |
| 27 | 167 | 63 | 64 | 246 | 812 | 508 | 583 | 161 | 167 | 167 | 167 | 192 |
| 28 | 167 | 63 | 64 | 170 | 1890 | 517 | 583 | 161 | 167 | 167 | 167 | 193 |
| 29 | 167 | 63 | 64 | 170 | 2460 | 517 | 346 | 161 | 252 | 167 | 167 | 193 |
| 30 | 169 | 63 | 64 | 170 | --- | 517 | 173 | 161 | 327 | 167 | 167 | 192 |
| 31 | 127 | --- | 64 | 170 | --- | 847 | --- | 161 | --- | 167 | 167 | --- |
| TOTAL | 5016 | 2414 | 1961 | 14266 | 9582 | 31711 | 10332 | 4779 | 5165 | 10077 | 5322 | 5491 |
| MEAN | 162 | 80.5 | 63.3 | 460 | 330 | 1023 | 344 | 154 | 172 | 325 | 172 | 183 |
| MAX | 170 | 108 | 64 | 2740 | 2460 | 2900 | 1650 | 173 | 327 | 1530 | 192 | 196 |
| MIN | 127 | 63 | 63 | 64 | 170 | 283 | 127 | 127 | 161 | 151 | 167 | 167 |
| † | -191 | -92 | +13 | +672 | +195 | -120 | +108 | -49 | +107 | -184 | -104 | -166 |
| STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992*, BY WATER YEAR (WY) | | | | | | | | | | | | |
| MEAN | 269 | 290 | 606 | 877 | 1179 | 1700 | 1196 | 640 | 339 | 302 | 327 | 186 |
| MAX | 865 | 1122 | 1818 | 2014 | 2531 | 3992 | 2586 | 1821 | 735 | 897 | 1099 | 463 |
| (WY) | 1990 | 1986 | 1986 | 1984 | 1985 | 1989 | 1984 | 1989 | 1984 | 1989 | 1989 | 1989 |
| MIN | 72.6 | 65.2 | 63.3 | 210 | 287 | 233 | 141 | 154 | 126 | 61.7 | 61.0 | 67.8 |
| (WY) | 1984 | 1984 | 1992 | 1986 | 1991 | 1988 | 1985 | 1992 | 1987 | 1983 | 1983 | 1985 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 161926 | | 106116 | | | |
| ANNUAL MEAN | 444 | | 290 | ‡ 305 | 658 | (UNADJUSTED) |
| HIGHEST ANNUAL MEAN | | | | | 1161 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 205 | 1988 |
| HIGHEST DAILY MEAN | 3700 | Jan 16 | 2900 | Mar 12 | 6810 | Mar 6 1987 |
| LOWEST DAILY MEAN | 63 | Nov 13 | 63 | Nov 13 | 60 | Jul 11 1983 |
| ANNUAL SEVEN-DAY MINIMUM | 63 | Nov 13 | 63 | Nov 13 | 60 | Aug 5 1983 |
| INSTANTANEOUS PEAK FLOW | | | 3650 | Jan 7 | 6850 | Mar 6 1987 |
| INSTANTANEOUS PEAK STAGE | | | 3.92 | Jan 7 | 18.21* | Mar 6 1987 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | NOT DETERMINED | |
| ANNUAL RUNOFF (CFSM) | .57 | | .38 | | .85 | |
| ANNUAL RUNOFF (INCHES) | 7.80 | | 5.11 | | 11.56 | |
| 10 PERCENT EXCEEDS | 1040 | | 520 | | 2220 | |
| 50 PERCENT EXCEEDS | 168 | | 167 | | 184 | |
| 90 PERCENT EXCEEDS | 63 | | 63 | | 73 | |

† Change in contents, equivalent in cubic feet per second, in Falls Reservoir; furnished by U.S. Army Corps of Engineers.
‡ Adjusted for change in contents.
* Regulated period only (1983-1992). See REMARKS.

NEUSE RIVER BASIN

## 0208726005 CRABTREE CREEK AT SECONDARY ROAD 1649 NEAR RALEIGH, NC

LOCATION.--Lat 35°50'43", long 78°43'29", Wake County, Hydrologic Unit 03020201, on downstream side of bridge on Secondary Road 1649, 0.1 mi upstream from Sycamore Creek, and 6.6 mi northwest of Raleigh.

DRAINAGE AREA.--76 mi².

PERIOD OF RECORD.--December 1987 to current year.

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by flood-control dams upstream. Minimum discharge for period of record also occurred Dec. 18, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 6.5 | 34 | 34 | 25 | 99 | 37 | 17 | 64 | 177 | 9.9 | 20 |
| 2 | 15 | 8.6 | 37 | 24 | 21 | 69 | 31 | 15 | 61 | 138 | 7.5 | 17 |
| 3 | 48 | 16 | 36 | 31 | 19 | 52 | 26 | 13 | 44 | 115 | 6.8 | 16 |
| 4 | 43 | 25 | 32 | 40 | 18 | 40 | 24 | 11 | 38 | 82 | 6.1 | 26 |
| 5 | 30 | 30 | 18 | 152 | 16 | 33 | 26 | 9.9 | 37 | 137 | 5.8 | 20 |
| 6 | 22 | 36 | 12 | 390 | 15 | 35 | 23 | 9.6 | 28 | 105 | 6.3 | 71 |
| 7 | 17 | 32 | 10 | 255 | 14 | 62 | 22 | 10 | 22 | 73 | 6.0 | 97 |
| 8 | 14 | 37 | 10 | 176 | 13 | 65 | 21 | 30 | 18 | 54 | 5.6 | 54 |
| 9 | 12 | 40 | 9.4 | 130 | 12 | 175 | 21 | 24 | 60 | 43 | 5.8 | 37 |
| 10 | 10 | 32 | 9.7 | 93 | 11 | 161 | 24 | 16 | 61 | 34 | 5.7 | 29 |
| 11 | 8.7 | 26 | 7.7 | 62 | 11 | 152 | 19 | 13 | 61 | 27 | 5.2 | 24 |
| 12 | 7.8 | 18 | 6.7 | 45 | 11 | 118 | 21 | 11 | 62 | 23 | 55 | 20 |
| 13 | 7.2 | 14 | 6.7 | 36 | 10 | 90 | 31 | 11 | 63 | 19 | 287 | 17 |
| 14 | 6.5 | e13 | 9.6 | 42 | 11 | 80 | 21 | 9.9 | 56 | 16 | 568 | 15 |
| 15 | 7.2 | e12 | 15 | 35 | 15 | 64 | 18 | 17 | 41 | e15 | 404 | 13 |
| 16 | 10 | e13 | 14 | 30 | 27 | 46 | 18 | 14 | 237 | e14 | 291 | 13 |
| 17 | 14 | e14 | 14 | 24 | 23 | 37 | 18 | 12 | 185 | e13 | 208 | 12 |
| 18 | 14 | e16 | 15 | 21 | 21 | 30 | 16 | 12 | 116 | e13 | 170 | 12 |
| 19 | 12 | 17 | 21 | 19 | 28 | 43 | 14 | 25 | 85 | e12 | 127 | 12 |
| 20 | 10 | 21 | 23 | 17 | 32 | 43 | 12 | 23 | 82 | e11 | 157 | 13 |
| 21 | 9.3 | 27 | 25 | 16 | 29 | 38 | e31 | 19 | 78 | e11 | 143 | 12 |
| 22 | 8.7 | 33 | 28 | 14 | 26 | 33 | e50 | 15 | 73 | e18 | 101 | 12 |
| 23 | 7.8 | 37 | 34 | 34 | 24 | 46 | e130 | 12 | 51 | 323 | 69 | 14 |
| 24 | 8.2 | 35 | 37 | 44 | 29 | 49 | e100 | 10 | 38 | 167 | 50 | 13 |
| 25 | 8.3 | 29 | 38 | 25 | 39 | 44 | e70 | 9.3 | 263 | 96 | 39 | 20 |
| 26 | 8.0 | 23 | 35 | 19 | 63 | 54 | 49 | 8.5 | 463 | 57 | 31 | 17 |
| 27 | 9.2 | 22 | 38 | 17 | 65 | 64 | 35 | 8.6 | 310 | 37 | 34 | 15 |
| 28 | 9.2 | 25 | 59 | 29 | 139 | 68 | 27 | 8.0 | 206 | 30 | 36 | 14 |
| 29 | 9.2 | 26 | 127 | 33 | 149 | 62 | 22 | 7.8 | 124 | 22 | 33 | 13 |
| 30 | 10 | 31 | 86 | 30 | --- | 51 | 19 | 24 | 92 | 17 | 27 | 12 |
| 31 | 7.9 | --- | 52 | 28 | --- | 43 | --- | 62 | --- | 13 | 23 | --- |
| TOTAL | 422.2 | 715.1 | 899.8 | 1945 | 916 | 2046 | 976 | 487.6 | 3119 | 1912 | 2923.7 | 680 |
| MEAN | 13.6 | 23.8 | 29.0 | 62.7 | 31.6 | 66.0 | 32.5 | 15.7 | 104 | 61.7 | 94.3 | 22.7 |
| MAX | 48 | 40 | 127 | 390 | 149 | 175 | 130 | 62 | 463 | 323 | 568 | 97 |
| MIN | 6.5 | 6.5 | 6.7 | 14 | 10 | 30 | 12 | 7.8 | 18 | 11 | 5.2 | 12 |
| CFSM | .18 | .31 | .38 | .83 | .42 | .87 | .43 | .21 | 1.37 | .81 | 1.24 | .30 |
| IN. | .21 | .35 | .44 | .95 | .45 | 1.00 | .48 | .24 | 1.53 | .94 | 1.43 | .33 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 59.0 | 63.7 | 47.4 | 94.0 | 103 | 143 | 81.9 | 69.3 | 48.6 | 46.9 | 48.5 | 16.3 |
| MAX | 90.6 | 104 | 143 | 127 | 195 | 341 | 143 | 144 | 104 | 89.8 | 108 | 22.7 |
| (WY) | 1991 | 1990 | 1990 | 1988 | 1989 | 1989 | 1989 | 1989 | 1992 | 1989 | 1989 | 1992 |
| MIN | 13.6 | 23.8 | 14.4 | 43.1 | 16.2 | 25.0 | 32.5 | 15.7 | 15.9 | 9.15 | 6.74 | 5.35 |
| (WY) | 1992 | 1992 | 1991 | 1989 | 1991 | 1988 | 1992 | 1992 | 1988 | 1988 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 16097.2 | | 17042.4 | | | |
| ANNUAL MEAN | 44.1 | | 46.6 | | 74.4 | |
| HIGHEST ANNUAL MEAN | | | | | 109 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 46.6 | 1992 |
| HIGHEST DAILY MEAN | 375 | Mar 30 | 568 | Aug 14 | 1090 | Mar 24 1989 |
| LOWEST DAILY MEAN | 4.9 | May 5 | 5.2 | Aug 11 | 2.1 | Dec 18 1990 |
| ANNUAL SEVEN-DAY MINIMUM | 6.2 | Sep 12 | 5.8 | Aug 5 | 2.6 | Dec 12 1990 |
| INSTANTANEOUS PEAK FLOW | | | 1150 | Jun 25 | 2110 | Mar 29 1990 |
| INSTANTANEOUS PEAK STAGE | | | 8.29 | Jun 25 | 10.11 | Mar 29 1990 |
| INSTANTANEOUS LOW FLOW | | | 4.6 | Aug 11 | 1.8* | Dec 17 1990 |
| ANNUAL RUNOFF (CFSM) | .58 | | .61 | | .98 | |
| ANNUAL RUNOFF (INCHES) | 7.88 | | 8.34 | | 13.31 | |
| 10 PERCENT EXCEEDS | 121 | | 108 | | 177 | |
| 50 PERCENT EXCEEDS | 20 | | 25 | | 28 | |
| 90 PERCENT EXCEEDS | 7.8 | | 9.5 | | 7.2 | |

* See REMARKS.

NEUSE RIVER BASIN

02087324 CRABTREE CREEK AT US 1 AT RALEIGH, NC

LOCATION.--Lat 35°48'40", long 78°36'43", Wake County, Hydrologic Unit 03020201, on downsteam side of bridge on U.S. Highway 1, 2.7 mi northeast of Raleigh, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--121 $mi^2$.

PERIOD OF RECORD.--July 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 183.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for daily discharge below 15 $ft^3/s$, which are fair. Flow regulated by flood-control dams upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 44 | 14 | 17 | 88 | 56 | 123 | 73 | 46 | 239 | 174 | 40 | 39 |
| 2 | 37 | 13 | 20 | 72 | 52 | 99 | 67 | 41 | 180 | 255 | 36 | 34 |
| 3 | 155 | 12 | 68 | 459 | 47 | 82 | 60 | 39 | 151 | 186 | 35 | 32 |
| 4 | 91 | 14 | 75 | 1270 | 45 | 69 | 64 | 36 | 174 | 153 | 33 | 125 |
| 5 | 62 | 13 | 47 | 874 | 43 | 61 | 66 | 35 | 125 | 123 | 47 | 84 |
| 6 | 47 | 15 | 33 | 558 | 41 | 142 | 56 | 33 | 65 | 246 | 39 | 73 |
| 7 | 34 | 15 | 27 | 343 | 39 | 659 | 53 | 49 | 51 | 147 | 34 | 172 |
| 8 | 27 | 14 | 25 | 223 | 38 | 447 | 51 | 174 | 43 | 109 | 42 | 69 |
| 9 | 23 | 21 | 24 | 169 | 36 | 290 | 49 | 71 | 361 | 90 | 43 | 52 |
| 10 | 20 | 94 | 30 | 136 | 33 | 212 | 52 | 51 | 356 | 77 | 39 | 44 |
| 11 | 18 | 51 | 28 | 107 | 32 | 189 | 48 | 79 | 247 | 65 | 34 | 55 |
| 12 | 16 | 34 | 26 | 88 | 33 | 146 | 64 | 105 | 165 | 57 | 382 | 31 |
| 13 | 14 | 27 | 28 | 78 | 35 | 120 | 87 | 105 | 113 | 50 | 491 | 29 |
| 14 | 14 | 24 | 26 | 96 | 36 | 105 | 58 | 108 | 86 | 45 | 986 | 28 |
| 15 | 27 | 22 | 25 | 78 | 72 | 100 | 49 | 126 | 72 | 44 | 637 | 27 |
| 16 | 37 | 20 | 24 | 68 | 67 | 82 | 43 | 113 | 946 | 43 | 424 | 26 |
| 17 | 42 | 19 | 23 | 62 | 55 | 71 | 42 | 104 | 301 | 40 | 294 | 25 |
| 18 | 32 | 19 | 23 | 56 | 51 | 65 | 41 | 111 | 160 | 38 | 221 | 25 |
| 19 | 25 | 20 | 21 | 53 | 73 | 110 | 37 | 124 | 130 | 62 | 159 | 23 |
| 20 | 20 | 19 | 19 | 49 | 64 | 84 | 34 | 124 | 132 | 75 | 200 | 23 |
| 21 | 17 | 20 | 20 | 46 | 58 | 75 | 102 | 114 | 159 | 68 | 168 | 22 |
| 22 | 17 | 30 | 21 | 44 | 54 | 69 | 331 | 105 | 119 | 232 | 123 | 21 |
| 23 | 17 | 29 | 21 | 109 | 53 | 111 | 198 | 100 | 90 | 464 | 92 | 22 |
| 24 | 16 | 23 | 78 | 94 | 69 | 91 | 140 | 96 | 76 | 209 | 74 | 20 |
| 25 | 16 | 26 | 40 | 66 | 112 | 82 | 105 | 94 | 66 | 122 | 62 | 108 |
| 26 | 16 | 19 | 29 | 52 | 388 | 144 | 82 | 97 | 979 | 86 | 55 | 26 |
| 27 | 15 | 17 | 70 | 48 | 393 | 131 | 68 | 95 | 1080 | 67 | 53 | 19 |
| 28 | 14 | 16 | 153 | 99 | 265 | 114 | 59 | 93 | 529 | 80 | 55 | 17 |
| 29 | 14 | 18 | 391 | 73 | 173 | 99 | 52 | 103 | 309 | 52 | 53 | 17 |
| 30 | 13 | 17 | 170 | 65 | --- | 88 | 48 | 433 | 177 | 46 | 46 | 16 |
| 31 | 16 | --- | 114 | 61 | --- | 82 | --- | 379 | --- | 44 | 44 | --- |
| TOTAL | 956 | 695 | 1716 | 5684 | 2513 | 4342 | 2279 | 3383 | 7681 | 3549 | 5041 | 1304 |
| MEAN | 30.8 | 23.2 | 55.4 | 183 | 86.7 | 140 | 76.0 | 109 | 256 | 114 | 163 | 43.5 |
| MAX | 155 | 94 | 391 | 1270 | 393 | 659 | 331 | 433 | 1080 | 464 | 986 | 172 |
| MIN | 13 | 12 | 17 | 44 | 32 | 61 | 34 | 33 | 43 | 38 | 33 | 16 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 65.7 | 31.3 | 63.4 | 223 | 73.3 | 165 | 76.8 | 82.0 | 189 | 99.4 | 94.1 | 33.4 |
| MAX | 101 | 39.5 | 71.5 | 263 | 86.7 | 190 | 77.7 | 109 | 257 | 151 | 163 | 43.5 |
| (WY) | 1991 | 1991 | 1991 | 1991 | 1992 | 1991 | 1991 | 1992 | 1990 | 1991 | 1992 | 1992 |
| MIN | 30.8 | 23.2 | 55.4 | 183 | 59.5 | 140 | 76.0 | 55.0 | 52.3 | 32.8 | 59.3 | 14.2 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1992 | 1991 | 1991 | 1990 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1990 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 32510.8 | | 39143 | | | |
| ANNUAL MEAN | 89.1 | | 107 | | 102 | |
| HIGHEST ANNUAL MEAN | | | | | 107 | 1992 |
| LOWEST ANNUAL MEAN | | | | | 97.7 | 1991 |
| HIGHEST DAILY MEAN | 1610 | Jan 12 | 1270 | Jan 4 | 1610 | Jan 12 1991 |
| LOWEST DAILY MEAN | 4.4 | Jun 16 | 12 | Nov 3 | 4.4 | Jun 16 1991 |
| ANNUAL SEVEN-DAY MINIMUM | 6.5 | Jun 10 | 14 | Oct 30 | 6.5 | Jun 10 1991 |
| INSTANTANEOUS PEAK FLOW | | | 2610 | Jun 26 | 2610 | Jun 26 1992 |
| INSTANTANEOUS PEAK STAGE | | | 11.02 | Jun 26 | 11.02 | Jun 26 1992 |
| INSTANTANEOUS LOW FLOW | | | 10 | Nov 3 | 3.2 | Jun 17 1991 |
| ANNUAL RUNOFF (CFSM) | .72 | | .87 | | .83 | |
| ANNUAL RUNOFF (INCHES) | 9.83 | | 11.84 | | 11.30 | |
| 10 PERCENT EXCEEDS | 189 | | 222 | | 238 | |
| 50 PERCENT EXCEEDS | 51 | | 59 | | 55 | |
| 90 PERCENT EXCEEDS | 15 | | 19 | | 15 | |

NEUSE RIVER BASIN

0208732885 MARSH CREEK NEAR NEW HOPE, NC

LOCATION.--Lat 35°48'59", long 78°35'37", Wake County, Hydrologic Unit 03020201, on right upstream wingwall, 0.2 mi downstream of U.S. Highway 401, and 2.9 mi southwest of New Hope.

DRAINAGE AREA.--6.84 $mi^2$.

PERIOD OF RECORD.--January 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 198 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-- Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Oct. 17, 18, 1990. Recording rain gage at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.6 | 1.2 | 1.0 | e4.0 | 3.3 | 3.4 | 3.9 | 3.1 | 4.2 | 15 | 1.0 | 1.7 |
| 2 | 1.6 | 1.3 | 1.1 | e3.0 | 3.2 | 3.4 | 3.6 | 2.6 | 3.3 | 18 | 1.2 | 1.3 |
| 3 | 23 | 1.2 | 13 | e20 | 3.3 | 3.3 | 3.5 | 2.5 | 3.2 | 6.9 | 1.3 | 1.3 |
| 4 | 3.5 | 1.3 | 6.9 | e150 | 3.1 | 3.5 | 6.2 | 2.4 | 7.9 | 5.5 | 1.1 | 25 |
| 5 | 2.2 | 1.3 | 1.5 | e80 | 3.0 | 3.4 | 5.1 | 2.8 | 7.2 | 4.3 | 6.4 | 9.2 |
| 6 | 1.8 | 1.4 | 1.2 | e40 | 3.0 | 35 | 3.7 | 2.6 | 3.8 | 23 | 4.0 | 3.5 |
| 7 | 1.5 | .94 | 1.1 | e16 | 3.0 | 77 | 3.4 | 7.7 | 3.2 | 6.1 | 1.6 | 3.0 |
| 8 | 1.4 | .96 | 1.1 | e8.0 | 2.9 | 8.0 | 3.4 | 29 | 3.2 | 4.2 | 5.2 | 2.4 |
| 9 | 1.4 | 2.4 | 1.1 | e4.5 | 2.9 | 5.0 | 3.2 | 4.2 | 34 | 3.6 | 5.2 | 2.7 |
| 10 | 1.4 | 14 | 1.8 | e3.8 | 3.3 | 14 | 3.2 | 2.9 | 17 | 3.0 | 2.5 | 6.0 |
| 11 | 1.3 | 2.1 | 1.2 | e3.3 | 3.4 | 8.7 | 3.3 | 2.7 | 4.6 | 2.7 | 1.3 | 38 |
| 12 | 1.2 | 1.2 | 1.1 | e3.2 | 2.8 | 4.6 | 7.5 | 2.8 | 3.7 | 2.5 | 59 | 3.5 |
| 13 | 1.2 | 1.0 | 1.2 | e3.0 | 3.9 | 4.2 | 6.1 | 2.9 | 3.3 | 2.2 | 42 | 2.5 |
| 14 | 1.2 | .95 | 1.9 | 8.6 | 3.2 | 4.0 | 3.6 | 2.9 | 3.2 | 2.1 | 28 | 2.1 |
| 15 | 3.7 | 1.0 | 1.4 | 3.2 | 17 | 3.8 | 4.1 | 2.9 | 3.3 | 1.9 | 33 | 1.9 |
| 16 | 5.4 | 1.2 | 1.2 | 2.6 | 7.6 | 3.9 | 3.6 | 2.9 | 74 | 1.7 | 21 | 1.8 |
| 17 | 5.5 | 1.2 | 1.2 | 2.5 | 3.5 | 3.8 | 4.2 | 2.8 | 6.2 | 1.7 | 21 | 1.7 |
| 18 | 2.2 | 1.2 | 1.1 | 2.4 | 3.8 | 3.6 | 3.3 | 2.5 | 4.0 | 1.7 | 9.4 | 1.6 |
| 19 | 1.5 | 1.1 | 1.1 | 2.4 | 7.2 | 15 | 3.0 | 2.6 | 7.0 | 5.8 | 3.8 | 3.4 |
| 20 | 1.3 | 1.3 | 1.2 | 2.3 | 3.7 | 5.1 | 3.0 | 2.4 | 5.7 | 6.4 | 11 | 2.3 |
| 21 | 1.2 | 1.2 | 1.2 | 2.4 | 3.2 | 4.2 | 27 | 2.4 | 17 | 4.0 | 3.9 | 1.8 |
| 22 | 1.2 | 3.9 | 1.2 | 2.3 | 3.0 | 4.2 | 46 | 2.4 | 7.4 | 15 | 2.6 | 1.7 |
| 23 | 1.2 | 1.8 | 1.3 | 26 | 3.9 | 17 | 4.4 | 2.4 | 4.3 | 13 | 1.9 | 3.5 |
| 24 | 1.2 | .97 | 19 | 8.6 | 7.2 | 5.5 | 3.3 | 2.4 | 3.7 | 3.1 | 1.8 | 1.8 |
| 25 | 1.3 | .84 | 2.2 | 3.7 | 21 | 4.4 | 3.2 | 2.4 | 3.5 | 2.1 | 1.9 | 31 |
| 26 | 1.3 | .84 | e1.8 | 3.4 | 41 | 31 | 2.7 | 2.8 | 207 | 1.6 | 1.8 | 4.4 |
| 27 | 1.2 | .87 | e8.0 | 3.8 | 7.2 | 7.8 | 3.0 | 2.7 | 40 | 1.6 | 1.7 | 2.3 |
| 28 | 1.3 | .99 | e30 | 18 | 4.5 | 5.1 | 3.0 | 2.5 | 12 | 6.1 | 2.0 | 1.9 |
| 29 | 1.3 | 1.0 | e100 | 5.1 | 3.6 | 4.4 | 2.7 | 3.8 | 8.1 | 1.9 | 1.6 | 1.7 |
| 30 | 1.3 | 1.0 | e18 | 4.2 | --- | 4.1 | 2.9 | 62 | 7.5 | 1.4 | 1.5 | 1.3 |
| 31 | 1.3 | --- | e9.0 | 3.7 | --- | 4.2 | --- | 23 | --- | 1.3 | 2.2 | --- |
| TOTAL | 77.7 | 51.66 | 234.1 | 444.0 | 181.7 | 304.6 | 179.1 | 196.0 | 512.5 | 169.4 | 281.9 | 166.3 |
| MEAN | 2.51 | 1.72 | 7.55 | 14.3 | 6.27 | 9.83 | 5.97 | 6.32 | 17.1 | 5.46 | 9.09 | 5.54 |
| MAX | 23 | 14 | 100 | 150 | 41 | 77 | 46 | 62 | 207 | 23 | 59 | 38 |
| MIN | 1.2 | .84 | 1.0 | 2.3 | 2.8 | 3.3 | 2.7 | 2.4 | 3.2 | 1.3 | 1.0 | 1.3 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 5.02 | 6.32 | 6.53 | 11.4 | 12.0 | 13.1 | 9.11 | 11.1 | 9.35 | 8.36 | 9.88 | 5.45 |
| MAX | 10.1 | 14.9 | 10.3 | 20.7 | 20.7 | 21.3 | 19.2 | 25.9 | 20.3 | 17.5 | 38.0 | 14.4 |
| (WY) | 1990 | 1989 | 1990 | 1987 | 1989 | 1989 | 1989 | 1984 | 1989 | 1984 | 1986 | 1989 |
| MIN | 1.95 | 1.72 | 4.22 | 3.77 | 2.77 | 4.54 | 2.08 | 3.64 | 4.61 | 2.44 | 2.91 | 1.86 |
| (WY) | 1987 | 1992 | 1986 | 1986 | 1991 | 1986 | 1985 | 1985 | 1987 | 1987 | 1988 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1984 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2711.36 | | 2798.96 | | | |
| ANNUAL MEAN | 7.43 | | 7.65 | | 8.96 | |
| HIGHEST ANNUAL MEAN | | | | | 14.2 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 5.87 | 1988 |
| HIGHEST DAILY MEAN | 113 | Jan 11 | 207 | Jun 26 | 397 | May 29 1984 |
| LOWEST DAILY MEAN | .84 | Nov 25 | .84 | Nov 25 | .37 | Oct 17 1990 |
| ANNUAL SEVEN-DAY MINIMUM | .93 | Nov 24 | .93 | Nov 24 | .62 | Oct 15 1990 |
| INSTANTANEOUS PEAK FLOW | | | 494 | Jun 26 | 1320 | May 29 1984 |
| INSTANTANEOUS PEAK STAGE | | | 8.70 | Jun 26 | 10.54 | May 29 1984 |
| INSTANTANEOUS LOW FLOW | | | .73 | Nov 8 | .37* | Oct 16 1990 |
| ANNUAL RUNOFF (CFSM) | 1.09 | | 1.12 | | 1.31 | |
| ANNUAL RUNOFF (INCHES) | 14.75 | | 15.22 | | 17.79 | |
| 10 PERCENT EXCEEDS | 16 | | 17 | | 18 | |
| 50 PERCENT EXCEEDS | 2.9 | | 3.2 | | 3.5 | |
| 90 PERCENT EXCEEDS | 1.2 | | 1.2 | | 1.4 | |

* See REMARKS.

NEUSE RIVER BASIN

## 02087500 NEUSE RIVER NEAR CLAYTON, NC

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

DRAINAGE AREA.--1,150 $mi^2$.

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

REVISED RECORDS.--WSP 1032: 1930, 1935(M). WSP 1333: 1935. WSP 1503: 1949. WDR NC-81-1: Drainage area.

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Falls Lake (station 02087182), since Dec. 7, 1983. Diversions for municipal water supply for cities of Durham and Butner (stations 02086500 and 02086624). The city of Raleigh diverted an average of 59.6 $ft^3/s$ upstream from station, most of which was returned upstream from station as treated effluent. Satellite data transmitter at station. Prior to regulation, maximum discharge: 22,900 $ft^3/s$, Sept. 19, 1945; gage height: 22.12 ft; minimum discharge: 44 $ft^3/s$, Sept. 15, 1932; gage height: 0.28 ft, at site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1919, reached a stage of 21.15 ft, from floodmark at former site; discharge 21,200 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 299 | 272 | 174 | 318 | 373 | 2720 | 1240 | 378 | 642 | 644 | 266 | 280 |
| 2 | 284 | 228 | 181 | 274 | 354 | 2690 | 1280 | 356 | 452 | 690 | 255 | 271 |
| 3 | 375 | 223 | 197 | 577 | 346 | 2260 | 751 | 345 | 382 | 606 | 269 | 261 |
| 4 | 456 | 228 | 340 | 3590 | 338 | 1310 | 446 | 339 | 369 | 908 | 261 | 258 |
| 5 | 348 | 219 | e260 | 3310 | 333 | 800 | 445 | 324 | 442 | 892 | 254 | 546 |
| 6 | 318 | 220 | e200 | 1750 | 336 | 507 | 409 | 328 | 396 | 934 | 312 | 334 |
| 7 | 292 | 229 | 195 | 1930 | 327 | 1160 | 391 | 353 | 348 | 1480 | 281 | 433 |
| 8 | 280 | 231 | 181 | 2930 | 319 | 2180 | 387 | 574 | 320 | 1770 | 265 | 399 |
| 9 | 275 | 230 | 182 | 2840 | 317 | 2210 | 392 | 537 | 777 | 1330 | 304 | 332 |
| 10 | 268 | 285 | 188 | 1930 | 314 | 2980 | 378 | 393 | 1460 | 697 | 297 | 312 |
| 11 | 260 | 400 | 197 | 1050 | 313 | 3240 | 353 | 350 | 900 | 403 | 289 | 433 |
| 12 | 262 | 291 | 190 | 742 | 316 | 3110 | 332 | 336 | 600 | 330 | 295 | 351 |
| 13 | 254 | 258 | 178 | 703 | 319 | 3300 | 447 | 303 | 485 | 319 | 989 | 291 |
| 14 | 245 | 194 | 186 | 533 | 349 | 2760 | 400 | 287 | 417 | 287 | 1500 | 274 |
| 15 | 248 | 192 | 175 | 432 | 358 | 1550 | 354 | 293 | 386 | 311 | 1300 | 259 |
| 16 | 327 | 187 | 182 | 379 | 564 | 889 | 342 | 288 | 1500 | 283 | 1140 | 249 |
| 17 | 361 | 184 | 165 | 352 | 415 | 752 | 337 | 277 | 1480 | 252 | 953 | 261 |
| 18 | 347 | 187 | 174 | 347 | 376 | 739 | 326 | 277 | 632 | 256 | 1070 | 279 |
| 19 | 302 | 180 | 165 | 335 | 401 | 858 | 311 | 312 | 480 | 347 | 641 | 282 |
| 20 | 286 | 178 | 157 | 329 | 412 | 874 | 309 | 301 | 497 | 387 | 543 | 304 |
| 21 | 265 | 173 | 164 | 325 | 370 | 776 | 316 | 304 | 503 | 411 | 566 | 296 |
| 22 | 271 | 182 | 177 | 322 | 355 | 746 | 1060 | 273 | 640 | 361 | 470 | 294 |
| 23 | 285 | 215 | 166 | 405 | 349 | 860 | 789 | 280 | 439 | 948 | 405 | 289 |
| 24 | 276 | 198 | 264 | 632 | 370 | 866 | 2100 | 294 | 382 | 673 | 366 | 298 |
| 25 | 271 | 188 | 270 | 512 | 397 | 779 | 1410 | 284 | 353 | 459 | 332 | 363 |
| 26 | 274 | 184 | 194 | 525 | 988 | 946 | 837 | 283 | 1450 | 368 | 314 | 441 |
| 27 | 277 | 178 | 342 | 511 | 1270 | 1120 | 805 | 284 | 3840 | 349 | 305 | 322 |
| 28 | 287 | 172 | 397 | 537 | 1600 | 912 | 782 | 310 | 1630 | 351 | 303 | 300 |
| 29 | 285 | 169 | 1290 | 480 | 2360 | 834 | 760 | 292 | 840 | 323 | 305 | 283 |
| 30 | 294 | 170 | 820 | 407 | --- | 795 | 461 | 450 | 704 | 290 | 295 | 280 |
| 31 | 293 | --- | 433 | 392 | --- | 800 | --- | 1200 | --- | 278 | 279 | --- |
| TOTAL | 9165 | 6445 | 8384 | 29699 | 15239 | 46323 | 18950 | 11205 | 23746 | 17937 | 15424 | 9575 |
| MEAN | 296 | 215 | 270 | 958 | 525 | 1494 | 632 | 361 | 792 | 579 | 498 | 319 |
| MAX | 456 | 400 | 1290 | 3590 | 2360 | 3300 | 2100 | 1200 | 3840 | 1770 | 1500 | 546 |
| MIN | 245 | 169 | 157 | 274 | 313 | 507 | 309 | 273 | 320 | 252 | 254 | 249 |
| CFSM | .26 | .19 | .24 | .83 | .46 | 1.30 | .55 | .31 | .69 | .50 | .43 | .28 |
| IN. | .30 | .21 | .27 | .96 | .49 | 1.50 | .61 | .36 | .77 | .58 | .50 | .31 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 437 | 511 | 922 | 1384 | 1728 | 2316 | 1704 | 1056 | 648 | 577 | 641 | 338 |
| MAX | 1289 | 1305 | 2013 | 2821 | 3188 | 4906 | 3211 | 2864 | 1165 | 1356 | 1539 | 661 |
| (WY) | 1990 | 1986 | 1986 | 1984 | 1985 | 1989 | 1984 | 1989 | 1989 | 1989 | 1989 | 1989 |
| MIN | 212 | 215 | 270 | 419 | 520 | 483 | 290 | 320 | 314 | 234 | 204 | 136 |
| (WY) | 1984 | 1992 | 1992 | 1986 | 1991 | 1988 | 1986 | 1985 | 1987 | 1983 | 1983 | 1985 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 277732 | | 212092 | | | |
| ANNUAL MEAN | 761 | | 579 | | 1019 | |
| HIGHEST ANNUAL MEAN | | | | | 1653 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 458 | 1988 |
| HIGHEST DAILY MEAN | 5830 | Jan 12 | 3840 | Jun 27 | 8350 | Mar 1 1987 |
| LOWEST DAILY MEAN | 157 | Dec 20 | 157 | Dec 20 | 105 | Sep 16 1985 |
| ANNUAL SEVEN-DAY MINIMUM | 167 | Dec 17 | 167 | Dec 17 | 117 | Sep 12 1985 |
| INSTANTANEOUS PEAK FLOW | | | 4990 | Jan 4 | 8790 | Mar 1 1987 |
| INSTANTANEOUS PEAK STAGE | | | 8.54 | Jan 4 | 12.74 | Mar 1 1987 |
| INSTANTANEOUS LOW FLOW | | | 119 | Dec 20 | 78 | Sep 18 1985 |
| ANNUAL RUNOFF (CFSM) | .66 | | .50 | | .89 | |
| ANNUAL RUNOFF (INCHES) | 8.98 | | 6.86 | | 12.04 | |
| 10 PERCENT EXCEEDS | 2000 | | 1270 | | 3110 | |
| 50 PERCENT EXCEEDS | 402 | | 347 | | 423 | |
| 90 PERCENT EXCEEDS | 198 | | 198 | | 250 | |

* Regulated period only (1983-1992). See REMARKS.

NEUSE RIVER BASIN

02087570 NEUSE RIVER AT SMITHFIELD, NC

LOCATION.--Lat 35°30'46", long 78°21'00", Johnston County, Hydrologic Unit 03020201, on left bank 10 ft downstream from bridge on U.S. Highway 70 at Smithfield, 2.1 mi upstream from Swift Creek, and 178 mi upstream from mouth.

DRAINAGE AREA.--1,206 $mi^2$.

PERIOD OF RECORD.--Water years 1955, 1959-67, October 1988 to September 1989.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 12... | 1215 | 309 | 261 | 6.6 | -- | 25 | -- | -- | 9.9 | 3.6 | 36 |
| DEC | | | | | | | | | | | |
| 11... | 1140 | 203 | 331 | 6.6 | 10.0 | 33 | 10.4 | 91 | 9.2 | 3.3 | 48 |
| JAN | | | | | | | | | | | |
| 07... | 1030 | 2050 | 112 | 7.0 | 9.0 | 110 | 10.0 | 86 | 6.7 | 1.9 | 4.3 |
| FEB | | | | | | | | | | | |
| 05... | 1000 | 354 | 187 | 6.9 | 7.0 | 40 | 12.2 | 101 | 7.1 | 2.6 | 21 |
| 27... | 1000 | 1400 | 127 | 6.9 | 11.0 | 280 | 9.2 | 83 | 6.2 | 2.0 | 14 |
| MAR | | | | | | | | | | | |
| 11... | 1000 | 3680 | 117 | 7.0 | 13.0 | 55 | 9.8 | 93 | 5.7 | 2.2 | 12 |
| APR | | | | | | | | | | | |
| 16... | 1030 | 361 | 174 | 6.9 | 17.0 | 40 | 10.0 | 102 | 7.0 | 2.7 | 21 |
| MAY | | | | | | | | | | | |
| 05... | 1045 | 344 | 270 | 7.1 | 17.0 | 40 | 8.0 | 82 | 7.2 | 2.8 | 37 |
| JUN | | | | | | | | | | | |
| 02... | 1100 | 479 | 153 | 7.6 | 19.5 | 55 | 7.6 | 82 | 6.3 | 2.5 | 18 |
| 27... | 1200 | 4940 | 93 | 6.9 | 23.0 | 200 | 5.4 | 64 | 4.4 | 1.5 | 9.9 |
| JUL | | | | | | | | | | | |
| 21... | 1345 | 381 | 264 | 7.2 | 29.0 | 30 | 6.9 | 87 | 7.8 | 3.3 | 38 |
| AUG | | | | | | | | | | | |
| 13... | 1345 | 1140 | 203 | 6.9 | 26.0 | 28 | 5.6 | 70 | 8.0 | 3.1 | 28 |
| SEP | | | | | | | | | | | |
| 10... | 1200 | 308 | 154 | 7.4 | 26.0 | 14 | 6.9 | 85 | 7.7 | 3.0 | 15 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 12... | 5.6 | 53 | 24 | 0.30 | 11 | 165 | 180 | 2.20 | 2.20 | <0.010 | 0.030 |
| DEC | | | | | | | | | | | |
| 11... | 6.2 | 58 | 26 | 0.20 | 12 | 203 | 205 | 2.90 | 2.90 | 0.030 | 0.030 |
| JAN | | | | | | | | | | | |
| 07... | 2.7 | 7.1 | 4.5 | <0.10 | 6.4 | 71 | 51 | 0.870 | 0.890 | 0.080 | 0.070 |
| FEB | | | | | | | | | | | |
| 05... | 3.7 | 23 | 18 | 0.30 | 11 | 113 | 113 | 1.80 | 1.90 | 0.060 | 0.040 |
| 27... | 1.8 | 19 | 8.8 | 0.20 | 8.3 | 86 | 75 | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 11... | 2.9 | 16 | 9.1 | <0.10 | 7.0 | 81 | 67 | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 16... | 3.9 | 23 | 15 | 0.20 | 8.3 | 96 | 107 | 1.90 | 1.80 | 0.030 | 0.020 |
| MAY | | | | | | | | | | | |
| 05... | 4.4 | 48 | 23 | 0.30 | 10 | 166 | 162 | 1.70 | 1.60 | 0.040 | 0.040 |
| JUN | | | | | | | | | | | |
| 02... | 3.5 | 24 | 10 | 0.20 | 9.1 | 98 | 96 | -- | 1.00 | -- | 0.040 |
| 27... | 3.0 | 20 | 4.6 | 0.20 | 5.1 | 64 | 58 | 0.610 | -- | 0.070 | -- |
| JUL | | | | | | | | | | | |
| 21... | 4.1 | 57 | 18 | 0.20 | 7.5 | 160 | 167 | -- | 1.30 | -- | 0.040 |
| AUG | | | | | | | | | | | |
| 13... | 4.2 | 31 | 14 | 0.20 | 8.4 | 122 | 118 | 1.30 | -- | 0.120 | -- |
| SEP | | | | | | | | | | | |
| 10... | 3.8 | 13 | 13 | 0.20 | 8.7 | 86 | 95 | -- | 1.50 | -- | 0.030 |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

NEUSE RIVER BASIN

02087570 NEUSE RIVER AT SMITHFIELD, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 12... | 0.50 | 0.40 | 0.110 | 0.070 | 0.080 | 0.060 | 210 | 1 | <1 | 1 | <1 |
| DEC | | | | | | | | | | | |
| 11... | 0.50 | 0.50 | 0.120 | 0.140 | 0.090 | 0.090 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 07... | 0.80 | 0.40 | 0.170 | 0.030 | 0.050 | 0.020 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 05... | 0.50 | 0.30 | 0.070 | 0.040 | 0.040 | 0.040 | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | 610 | 2 | <1 | 2 | <1 |
| MAR | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | 580 | <1 | <1 | 2 | <1 |
| APR | | | | | | | | | | | |
| 16... | 0.40 | 0.20 | 0.110 | 0.070 | 0.070 | 0.070 | 340 | <1 | <1 | 1 | <1 |
| MAY | | | | | | | | | | | |
| 05... | 0.40 | 0.40 | 0.160 | 0.180 | 0.160 | 0.140 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 02... | 0.40 | 0.40 | 0.170 | 0.140 | -- | 0.120 | 780 | <1 | <1 | <1 | <1 |
| 27... | 0.70 | -- | 0.150 | -- | 0.040 | -- | 6800 | <1 | <1 | 6 | 5 |
| JUL | | | | | | | | | | | |
| 21... | 0.50 | 0.40 | 0.160 | 0.140 | -- | 0.120 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 13... | 1.2 | -- | 0.490 | -- | 0.110 | -- | 3000 | <1 | <1 | 1 | 3 |
| SEP | | | | | | | | | | | |
| 10... | 0.50 | 0.30 | 0.270 | 0.190 | -- | 0.180 | -- | -- | -- | -- | -- |

| DATE | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 12... | -- | 510 | 7 | 70 | <0.10 | <1 | 2 | <1 | <1 | 40 |
| DEC | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | <1 | 1300 | 3 | 70 | <0.10 | <1 | 2 | <1 | <1 | <10 |
| MAR | | | | | | | | | | |
| 11... | 5 | 1200 | 7 | 180 | <0.10 | <1 | 2 | <1 | <1 | 20 |
| APR | | | | | | | | | | |
| 16... | 5 | 940 | 4 | 80 | -- | <1 | 1 | <1 | <1 | 20 |
| MAY | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 02... | 14 | 1500 | 7 | 190 | 0.30 | 1 | 1 | <1 | <1 | 10 |
| 27... | 99 | 7200 | 42 | 540 | <0.10 | <1 | 6 | <1 | <1 | 60 |
| JUL | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 13... | 17 | 4400 | 32 | 830 | 0.10 | 1 | 5 | <1 | <1 | 50 |
| SEP | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NEUSE RIVER BASIN

02087570 NEUSE RIVER AT SMITHFIELD, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | PER-THANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 12... | 6.7 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| DEC | | | | | | | | | | |
| 11... | 5.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 07... | 7.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 05... | 6.1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 11 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| MAR | | | | | | | | | | |
| 11... | 11 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| APR | | | | | | | | | | |
| 16... | 6.3 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| MAY | | | | | | | | | | |
| 05... | 7.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 02... | 7.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | |
| 21... | 7.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 13... | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | |
| 10... | 6.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 12... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- |
| DEC | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | 13 | 7.1 |
| JAN | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | 83 | 459 |
| FEB | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | 13 | 12 |
| 27... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 144 | 544 |
| MAR | | | | | | | | | | |
| 11... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 135 | 1340 |
| APR | | | | | | | | | | |
| 16... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 25 | 24 |
| MAY | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | 21 | 20 |
| JUN | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | 53 | 69 |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | 458 | 6110 |
| JUL | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | 22 | 23 |
| AUG | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | 313 | 963 |
| SEP | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | 37 | 31 |

NEUSE RIVER BASIN

02087580 SWIFT CREEK NEAR APEX, NC

LOCATION.--Lat 35°43'00", long 78°45'00", Wake county, Hydrologic Unit 03020201, at bridge on Secondary Road 1152, 2.8 mi downstream of Williams Creek, and 6 mi east of Apex.

DRAINAGE AREA.--19.50 $mi^2$.

PERIOD OF RECORD.--Water year 1986, October 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 13... | 1115 | 7.2 | 84 | 6.4 | 8.0 | 43 | 9.4 | 80 | 8.1 | 2.4 | 3.6 |
| DEC | | | | | | | | | | | |
| 11... | 1345 | 5.8 | 102 | 6.8 | 9.0 | 55 | 9.3 | 80 | 8.9 | 2.9 | 4.8 |
| JAN | | | | | | | | | | | |
| 07... | 1400 | 33 | 111 | 6.9 | 7.5 | 120 | 10.4 | 86 | 6.2 | 2.3 | 9.3 |
| FEB | | | | | | | | | | | |
| 05... | 1300 | 9.1 | 97 | 7.0 | 7.0 | 70 | 12.0 | 99 | 7.9 | 2.5 | 4.9 |
| 26... | 0945 | 111 | 68 | 6.9 | 11.0 | 280 | 9.8 | 90 | 5.7 | 1.6 | 3.2 |
| MAR | | | | | | | | | | | |
| 16... | 0945 | 16 | 90 | 7.0 | 6.0 | 100 | 11.2 | 89 | 7.7 | 2.4 | 5.1 |
| APR | | | | | | | | | | | |
| 16... | 1530 | 20 | 77 | 7.1 | 16.0 | 70 | 10.4 | 105 | 6.4 | 2.0 | 3.9 |
| MAY | | | | | | | | | | | |
| 05... | 1330 | 2.9 | 121 | 6.9 | 14.5 | 150 | 7.4 | 73 | 10 | 3.5 | 6.8 |
| JUN | | | | | | | | | | | |
| 02... | 1530 | 15 | 84 | 6.8 | 18.5 | 70 | 7.6 | 81 | 6.8 | 2.1 | 4.3 |
| JUL | | | | | | | | | | | |
| 15... | 1315 | 0.19 | 109 | 6.6 | 26.0 | 65 | 4.2 | 51 | 10 | 3.2 | 5.7 |
| AUG | | | | | | | | | | | |
| 06... | 1400 | 2.0 | 96 | 6.9 | 22.0 | 53 | 6.1 | 70 | 9.3 | 2.5 | 4.9 |
| SEP | | | | | | | | | | | |
| 08... | 1400 | 1.4 | 82 | 7.3 | 23.5 | 14 | 6.3 | 74 | 8.2 | 2.3 | 3.2 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 13... | 4.3 | 5.2 | 4.4 | <0.10 | 5.4 | 61 | 52 | 0.140 | 0.140 | 0.050 | 0.040 |
| DEC | | | | | | | | | | | |
| 11... | 3.5 | 5.2 | 6.0 | 0.20 | 10 | 60 | 66 | <0.050 | <0.050 | 0.020 | 0.020 |
| JAN | | | | | | | | | | | |
| 07... | 3.4 | 12 | 7.6 | 0.10 | 8.1 | 88 | 64 | 0.240 | 0.250 | 0.050 | 0.040 |
| FEB | | | | | | | | | | | |
| 05... | 2.3 | 6.6 | 5.8 | 0.20 | 7.7 | 66 | 56 | <0.050 | <0.050 | 0.010 | <0.010 |
| 26... | 2.5 | 8.0 | 3.9 | 0.10 | 5.0 | 55 | 40 | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 16... | 0.30 | 8.0 | 6.7 | 0.10 | 7.1 | 67 | 53 | 0.092 | 0.100 | 0.040 | 0.030 |
| APR | | | | | | | | | | | |
| 16... | 2.7 | 6.5 | 4.9 | <0.10 | 5.6 | 48 | 46 | 0.140 | 0.130 | 0.030 | 0.030 |
| MAY | | | | | | | | | | | |
| 05... | 2.6 | 5.9 | 7.6 | 0.10 | 13 | 92 | 77 | 0.150 | 0.150 | 0.080 | 0.070 |
| JUN | | | | | | | | | | | |
| 02... | 2.7 | 6.9 | 5.6 | <0.10 | 7.7 | 94 | 51 | -- | 0.200 | -- | 0.080 |
| JUL | | | | | | | | | | | |
| 15... | 2.7 | 4.7 | 5.4 | 0.10 | 12 | 72 | 68 | -- | 0.120 | -- | 0.070 |
| AUG | | | | | | | | | | | |
| 06... | 2.6 | 6.7 | 5.1 | <0.10 | 6.1 | 48 | 57 | -- | 0.240 | -- | 0.010 |
| SEP | | | | | | | | | | | |
| 08... | 3.2 | 1.4 | 0.30 | <0.10 | 5.4 | 58 | 47 | -- | 0.063 | -- | 0.030 |

NEUSE RIVER BASIN

02087580 SWIFT CREEK NEAR APEX, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 13... | 0.60 | 0.40 | 0.040 | 0.010 | 0.010 | <0.010 | 150 | 1 | <1 | <1 | <1 |
| DEC | | | | | | | | | | | |
| 11... | 0.30 | 0.20 | 0.050 | 0.010 | <0.010 | 0.020 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 07... | 0.60 | 0.30 | 0.070 | 0.010 | 0.030 | <0.010 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 05... | 0.20 | <0.20 | 0.020 | <0.010 | 0.010 | <0.010 | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | 2900 | -- | <1 | 5 | 1 |
| MAR | | | | | | | | | | | |
| 16... | 0.30 | 0.30 | 0.040 | <0.010 | 0.030 | <0.010 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 16... | 0.20 | <0.20 | 0.040 | <0.010 | 0.020 | <0.010 | 600 | <1 | <1 | 1 | <1 |
| MAY | | | | | | | | | | | |
| 05... | 0.20 | 0.40 | 0.050 | 0.040 | <0.010 | <0.010 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 02... | 0.60 | 0.30 | 0.060 | 0.030 | -- | 0.010 | 260 | 1 | <1 | <1 | <1 |
| JUL | | | | | | | | | | | |
| 15... | 0.40 | 0.30 | 0.060 | <0.010 | -- | 0.020 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | 0.40 | <0.20 | 0.040 | <0.010 | -- | <0.010 | 100 | 1 | <1 | 2 | <1 |
| SEP | | | | | | | | | | | |
| 08... | 0.50 | 0.40 | 0.070 | 0.020 | -- | <0.010 | -- | -- | -- | -- | -- |

| DATE | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 13... | -- | 730 | 2 | 80 | <0.10 | 1 | 1 | <1 | <1 | 10 |
| DEC | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 5 | 5200 | 4 | 200 | <0.10 | <1 | 2 | <1 | <1 | 20 |
| MAR | | | | | | | | | | |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 16... | 2 | 1600 | <1 | 90 | <0.10 | <1 | <1 | <1 | <1 | <10 |
| MAY | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 02... | 2 | 1100 | <1 | 100 | <0.10 | <1 | <1 | <1 | <1 | <10 |
| JUL | | | | | | | | | | |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 06... | 2 | 850 | 2 | 60 | <0.10 | 1 | <1 | <1 | <1 | <10 |
| SEP | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | 7.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC 11... | 5.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 07... | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 05... | 4.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 14 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| MAR 16... | 6.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 16... | 5.6 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| MAY 05... | 7.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 02... | 5.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 15... | 7.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 06... | 6.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 08... | 8.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | -- | -- | -- | -- | -- | -- | -- | -- | 6 | 0.12 |
| DEC 11... | -- | -- | -- | -- | -- | -- | -- | -- | 12 | 0.19 |
| JAN 07... | -- | -- | -- | -- | -- | -- | -- | -- | 17 | 1.5 |
| FEB 05... | -- | -- | -- | -- | -- | -- | -- | -- | 19 | 0.47 |
| 26... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 427 | 128 |
| MAR 16... | -- | -- | -- | -- | -- | -- | -- | -- | 18 | 0.78 |
| APR 16... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 15 | 0.81 |
| MAY 05... | -- | -- | -- | -- | -- | -- | -- | -- | 113 | 0.88 |
| JUN 02... | -- | -- | -- | -- | -- | -- | -- | -- | 13 | 0.53 |
| JUL 15... | -- | -- | -- | -- | -- | -- | -- | -- | 56 | 0.03 |
| AUG 06... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.02 |
| SEP 08... | -- | -- | -- | -- | -- | -- | -- | -- | 9 | 0.03 |

NEUSE RIVER BASIN

0208758850 SWIFT CREEK NEAR MCCULLARS CROSSROADS, NC

LOCATION.--Lat 35°41'33", long 78°41'34", Wake County, Hydrologic Unit 03020201, 0.1 mi downstream of Secondary Road 1375, 0.1 mi downstream of Lake Wheeler, and 2.0 mi north of McCullars Crossroads.

DRAINAGE AREA.--35.8 $mi^2$.

PERIOD OF RECORD.--December 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 258 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-- Records fair except those for estimated daily discharges, which are poor. Some regulation by Lake Wheeler (station 02087588). Minimum discharge for current water year and period of record also occurred Oct. 3, 1990, and Dec. 22, 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.7 | 7.7 | 1.5 | 22 | 27 | 20 | 13 | 14 | 38 | 13 | .19 | e.82 |
| 2 | 1.3 | 5.7 | 2.1 | 14 | 19 | 15 | 12 | 11 | 17 | 15 | .22 | e.80 |
| 3 | 4.2 | 3.0 | 8.0 | 51 | 14 | 12 | 9.0 | 6.9 | 8.8 | 12 | .15 | e.77 |
| 4 | 6.3 | 2.1 | 14 | 300 | 12 | 9.2 | 8.2 | 4.8 | 9.4 | 9.6 | .15 | e.75 |
| 5 | 4.9 | .80 | 12 | 198 | 9.4 | 8.6 | 11 | 3.1 | 12 | 6.9 | .11 | e.70 |
| 6 | 3.9 | .42 | 12 | 71 | 8.2 | 15 | 10 | 2.4 | 8.8 | 12 | .14 | e.68 |
| 7 | 1.9 | .24 | 10 | 35 | 7.3 | 356 | 9.5 | 2.6 | 6.0 | 14 | .21 | e.66 |
| 8 | 1.1 | .18 | 6.1 | 21 | 6.8 | 165 | 11 | 3.7 | 4.6 | 8.1 | .23 | .66 |
| 9 | .61 | .39 | 5.6 | 15 | 5.5 | 67 | 13 | 4.4 | 49 | 6.2 | .32 | .72 |
| 10 | .48 | 11 | 7.9 | 14 | 4.9 | 43 | 13 | 3.3 | 206 | 3.7 | .30 | .79 |
| 11 | .48 | 14 | 5.8 | 9.9 | 4.8 | 53 | 13 | 2.5 | 73 | 2.9 | .44 | 2.0 |
| 12 | .33 | 9.7 | 4.3 | 6.5 | 4.7 | 32 | 15 | 2.2 | 29 | 2.1 | .59 | 1.9 |
| 13 | .13 | 6.6 | 4.3 | 4.9 | 5.1 | 23 | 60 | 2.7 | 15 | 1.8 | .65 | 1.5 |
| 14 | .11 | 4.1 | 4.2 | 6.6 | 6.0 | 18 | 39 | 3.3 | 9.3 | 1.1 | 28 | .97 |
| 15 | .41 | 3.3 | 2.2 | 5.6 | 9.8 | 15 | 24 | 2.9 | 6.8 | .95 | 37 | .84 |
| 16 | 2.8 | 2.8 | 1.3 | 6.2 | 18 | 13 | 20 | 2.8 | 336 | .26 | 43 | .81 |
| 17 | 5.3 | 2.0 | 1.2 | 5.3 | 16 | 13 | 18 | 2.6 | 178 | .35 | 34 | .93 |
| 18 | 5.7 | 1.5 | .11 | 4.8 | 16 | 9.8 | 14 | 2.4 | 56 | .17 | 36 | 1.1 |
| 19 | 5.9 | 1.3 | .07 | 4.5 | 17 | 28 | 12 | 2.3 | 27 | .22 | 20 | 1.2 |
| 20 | 5.2 | 1.7 | .04 | 4.6 | 19 | 31 | 10 | 2.1 | 26 | .09 | 14 | 1.1 |
| 21 | 5.0 | 2.0 | .04 | 3.7 | 15 | 24 | 13 | 1.9 | 32 | .18 | 12 | 1.2 |
| 22 | 5.5 | 4.1 | .04 | 3.1 | 12 | 20 | 122 | 1.6 | 48 | .14 | 7.3 | 1.4 |
| 23 | 5.8 | 2.1 | .06 | 8.0 | 11 | 30 | 67 | 1.5 | 24 | .34 | 4.9 | 1.4 |
| 24 | 6.3 | 4.1 | 1.2 | 9.6 | 11 | 33 | 34 | 1.4 | 13 | .32 | 3.5 | 1.5 |
| 25 | 6.6 | 1.7 | 2.5 | 1.8 | 17 | 24 | 26 | .76 | 8.6 | .41 | 2.8 | 1.5 |
| 26 | 7.0 | .79 | 2.5 | 1.9 | 111 | 33 | 18 | .55 | 48 | .52 | 2.1 | 1.6 |
| 27 | 7.3 | .39 | 7.9 | 2.2 | 104 | 44 | 12 | .48 | 496 | .24 | 1.7 | 1.7 |
| 28 | 7.3 | .27 | 17 | 3.3 | 55 | 28 | 14 | .39 | 128 | .17 | 2.4 | 1.8 |
| 29 | 9.2 | .26 | 191 | 36 | 33 | 19 | 14 | .49 | 41 | .11 | 1.4 | 1.8 |
| 30 | 11 | .59 | 94 | 59 | --- | 16 | 14 | 15 | 20 | .11 | .90 | 1.9 |
| 31 | 12 | --- | 40 | 39 | --- | 14 | --- | 93 | --- | .19 | e.85 | --- |
| TOTAL | 135.75 | 94.83 | 458.96 | 967.5 | 599.5 | 1231.6 | 668.7 | 199.07 | 1974.3 | 113.17 | 255.55 | 35.50 |
| MEAN | 4.38 | 3.16 | 14.8 | 31.2 | 20.7 | 39.7 | 22.3 | 6.42 | 65.8 | 3.65 | 8.24 | 1.18 |
| MAX | 12 | 14 | 191 | 300 | 111 | 356 | 122 | 93 | 496 | 15 | 43 | 2.0 |
| MIN | .11 | .18 | .04 | 1.8 | 4.7 | 8.6 | 8.2 | .39 | 4.6 | .09 | .11 | .66 |
| CFSM | .12 | .09 | .41 | .87 | .58 | 1.11 | .62 | .18 | 1.84 | .10 | .23 | .03 |
| IN. | .14 | .10 | .48 | 1.01 | .62 | 1.28 | .69 | .21 | 2.05 | .12 | .27 | .04 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 15.8 | 17.9 | 21.4 | 41.4 | 39.5 | 61.4 | 29.9 | 31.2 | 30.0 | 15.2 | 24.4 | 5.46 |
| MAX | 35.6 | 32.2 | 50.9 | 70.6 | 75.2 | 120 | 56.8 | 75.7 | 65.8 | 51.5 | 81.4 | 18.6 |
| (WY) | 1990 | 1990 | 1990 | 1991 | 1989 | 1989 | 1989 | 1989 | 1992 | 1989 | 1989 | 1989 |
| MIN | 4.38 | 3.16 | 7.81 | 19.7 | 14.4 | 15.1 | 14.5 | 6.42 | 11.5 | 1.16 | 2.04 | .11 |
| (WY) | 1992 | 1992 | 1989 | 1989 | 1991 | 1988 | 1991 | 1992 | 1990 | 1988 | 1988 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 7467.34 | | 6734.43 | | | |
| ANNUAL MEAN | 20.5 | | 18.4 | | 31.2 | |
| HIGHEST ANNUAL MEAN | | | | | 48.9 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 18.4 | 1992 |
| HIGHEST DAILY MEAN | 702 | Jan 12 | 496 | Jun 27 | 893 | Mar 24 1989 |
| LOWEST DAILY MEAN | .04 | Dec 20 | .04 | Dec 20 | .04 | Sep 29 1990 |
| ANNUAL SEVEN-DAY MINIMUM | .14 | Sep 9 | .16 | Jul 29 | .05 | Sep 27 1990 |
| INSTANTANEOUS PEAK FLOW | | | 744 | Jun 27 | 1170 | Aug 18 1989 |
| INSTANTANEOUS PEAK STAGE | | | 9.00 | Jun 27 | 10.14 | Aug 18 1989 |
| INSTANTANEOUS LOW FLOW | | | .03* | Dec 21 | .03* | Oct 1 1990 |
| ANNUAL RUNOFF (CFSM) | .57 | | .51 | | .87 | |
| ANNUAL RUNOFF (INCHES) | 7.76 | | 7.00 | | 11.82 | |
| 10 PERCENT EXCEEDS | 48 | | 37 | | 65 | |
| 50 PERCENT EXCEEDS | 7.0 | | 5.8 | | 12 | |
| 90 PERCENT EXCEEDS | .33 | | .35 | | .54 | |

* See REMARKS.

NEUSE RIVER BASIN

02087701 LAKE BENSON ON SWIFT CREEK NEAR GARNER, NC

LOCATION.--Lat 35°39'44", long 78°36'52", Wake County, Hydrologic Unit 03020201, at dam 1.5 mi below Reedy Branch, and 3.3 mi south of Garner.

DRAINAGE AREA.--67.0 $mi^2$.

PERIOD OF RECORD.--Water years 1986, 1989 to present.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | 1030 | 61 | 6.5 | 10.0 | 22 | 9.0 | 80 | 4.8 | 1.7 | 4.3 | 1.1 |
| APR 16... | 1330 | 77 | 7.2 | 16.0 | 60 | 6.3 | 73 | 4.9 | 1.9 | 4.7 | 11 |
| JUN 02... | 1345 | 79 | 7.0 | 22.0 | 35 | 9.8 | 112 | 5.9 | 2.2 | 5.0 | 2.7 |
| AUG 13... | 1600 | 74 | 6.5 | 30.0 | 13 | 9.8 | 131 | 5.7 | 2.1 | 4.5 | 2.6 |

| DATE | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | 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, AM-MONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | 4.4 | 3.3 | <0.10 | 6.6 | 35 | 39 | 0.088 | 0.073 | 0.070 | 0.070 | 0.40 |
| APR 16... | 5.6 | 5.8 | 0.10 | 6.1 | 46 | 53 | 0.160 | 0.130 | 0.050 | 0.020 | 0.50 |
| JUN 02... | 4.2 | 5.2 | <0.10 | 5.4 | 36 | 47 | -- | <0.050 | -- | 0.020 | 0.60 |
| AUG 13... | 2.9 | 4.4 | <0.10 | 11 | 62 | 50 | -- | <0.050 | -- | 0.140 | 1.7 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | 0.30 | 0.010 | <0.010 | <0.010 | <0.010 | 140 | 1 | <1 | 1 | <1 |
| APR 16... | <0.20 | 0.030 | <0.010 | <0.010 | <0.010 | 270 | <1 | <1 | 1 | <1 |
| JUN 02... | 0.20 | 0.050 | 0.020 | -- | <0.010 | 80 | <1 | <1 | <1 | <1 |
| AUG 13... | 0.50 | 0.050 | <0.010 | -- | <0.010 | 80 | 1 | <1 | <1 | <1 |

NEUSE RIVER BASIN

02087701 LAKE BENSON ON SWIFT CREEK NEAR GARNER, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | -- | 490 | 3 | 60 | <0.10 | <1 | 2 | <1 | <1 | 20 |
| APR 16... | 5 | 1300 | 1 | 160 | -- | <1 | 1 | <1 | <1 | 10 |
| JUN 02... | 1 | 400 | <1 | 180 | 0.20 | <1 | <1 | <1 | <1 | <10 |
| AUG 13... | 2 | 560 | 1 | 770 | <0.10 | <1 | <1 | <1 | <1 | 10 |

| DATE | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | PER-THANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | 5.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 16... | 8.8 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| JUN 02... | 7.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 13... | 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 13... | -- | -- | -- | -- | -- | -- | -- | -- | <0.100 | <0.100 |
| APR 16... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 4.30 | <0.100 |
| JUN 02... | -- | -- | -- | -- | -- | -- | -- | -- | 6.50 | 0.600 |
| AUG 13... | -- | -- | -- | -- | -- | -- | -- | -- | 3.10 | <0.100 |

NEUSE RIVER BASIN

02088000 MIDDLE CREEK NEAR CLAYTON, NC

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

DRAINAGE AREA.--83.5 $mi^2$.

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

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

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

REMARKS.--Records good except those for estimated daily discharge, which are poor. Maximum discharge and stage for period of record, result of dam failure. No flow also occurred Oct. 12-13, 1954, and July 13-28, 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 23 | 14 | 46 | 52 | 71 | 57 | 29 | 70 | e65 | 9.0 | 9.6 |
| 2 | 9.7 | 21 | 14 | 38 | 46 | 60 | 55 | 30 | 36 | e52 | 7.6 | 8.7 |
| 3 | 10 | 24 | 18 | 60 | 43 | 53 | 51 | 28 | 27 | e48 | 9.1 | 8.0 |
| 4 | 13 | 25 | 32 | 357 | 42 | 50 | 48 | 25 | 23 | e44 | 11 | 7.8 |
| 5 | 15 | 22 | 30 | 513 | 41 | 47 | 58 | 23 | 28 | e41 | 10 | 7.8 |
| 6 | 13 | 20 | 23 | 313 | 40 | 53 | 55 | 21 | 27 | e38 | 9.2 | 8.3 |
| 7 | 12 | 21 | 20 | 128 | 39 | 313 | 49 | 23 | 22 | e35 | 9.0 | 28 |
| 8 | 10 | 20 | 18 | 86 | 38 | 581 | 46 | 28 | 17 | e33 | 8.4 | 30 |
| 9 | 9.0 | 21 | 17 | 70 | 36 | 302 | 44 | 33 | 115 | 31 | 8.7 | 21 |
| 10 | 8.4 | 32 | 19 | 65 | 35 | 146 | 41 | 29 | 351 | 29 | 15 | 17 |
| 11 | 8.2 | 45 | 20 | 58 | 34 | 171 | 39 | 25 | 345 | 28 | 13 | 26 |
| 12 | 8.3 | 32 | 20 | 53 | 35 | 130 | 38 | 22 | 90 | 26 | 10 | 37 |
| 13 | 7.9 | 24 | 19 | 50 | 35 | 93 | 83 | 21 | 52 | 20 | 13 | 25 |
| 14 | 8.0 | 18 | 18 | 54 | 38 | 76 | 82 | 21 | 41 | 16 | 32 | 17 |
| 15 | 8.5 | 15 | 17 | 57 | 43 | 68 | 52 | 21 | 35 | 14 | 50 | 13 |
| 16 | 11 | 14 | 16 | 48 | 104 | 61 | 45 | 19 | 575 | 11 | 62 | 11 |
| 17 | 18 | 13 | 14 | 44 | 73 | 56 | 44 | 17 | 596 | 10 | 89 | 9.2 |
| 18 | 20 | 12 | 14 | 42 | 56 | 54 | 39 | 16 | 359 | 10 | 201 | 9.0 |
| 19 | 17 | 11 | 14 | 41 | 58 | 105 | 35 | 15 | 101 | 8.7 | 73 | 14 |
| 20 | 15 | 11 | 12 | 39 | 58 | 147 | 32 | 16 | 66 | 8.6 | 42 | 47 |
| 21 | 14 | 11 | 13 | 38 | 49 | 92 | 32 | 17 | 60 | 8.3 | 34 | 30 |
| 22 | 14 | 20 | 15 | 37 | 44 | 73 | 179 | 15 | 115 | 13 | 28 | 23 |
| 23 | 14 | 22 | 16 | 45 | 43 | 93 | 180 | 15 | 80 | 9.5 | 23 | 17 |
| 24 | 16 | 21 | 19 | 105 | 46 | 120 | 73 | 11 | 56 | 8.6 | 20 | 15 |
| 25 | 18 | 18 | 22 | 72 | 50 | 83 | 51 | 11 | 48 | 8.5 | 17 | 12 |
| 26 | 20 | 16 | 19 | 54 | 209 | 104 | 43 | 9.8 | 245 | 8.9 | 14 | 11 |
| 27 | 21 | 14 | 36 | 46 | 305 | 148 | 36 | 11 | 1470 | 16 | 13 | 11 |
| 28 | 24 | 12 | 80 | 73 | 147 | 95 | 33 | 11 | 736 | 20 | 12 | 11 |
| 29 | 25 | 12 | 236 | 102 | 94 | 72 | 31 | 10 | 196 | 17 | 12 | 11 |
| 30 | 25 | 12 | 213 | 74 | --- | 63 | 29 | 26 | 104 | 14 | 12 | 9.7 |
| 31 | 20 | --- | 75 | 61 | --- | 60 | --- | 101 | --- | 11 | 10 | --- |
| TOTAL | 444.0 | 582 | 1113 | 2869 | 1933 | 3640 | 1680 | 699.8 | 6086 | 703.1 | 877.0 | 505.1 |
| MEAN | 14.3 | 19.4 | 35.9 | 92.5 | 66.7 | 117 | 56.0 | 22.6 | 203 | 22.7 | 28.3 | 16.8 |
| MAX | 25 | 45 | 236 | 513 | 305 | 581 | 180 | 101 | 1470 | 65 | 201 | 47 |
| MIN | 7.9 | 11 | 12 | 37 | 34 | 47 | 29 | 9.8 | 17 | 8.3 | 7.6 | 7.8 |
| CFSM | .17 | .23 | .43 | 1.11 | .80 | 1.41 | .67 | .27 | 2.43 | .27 | .34 | .20 |
| IN. | .20 | .26 | .50 | 1.28 | .86 | 1.62 | .75 | .31 | 2.71 | .31 | .39 | .23 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 45.4 | 60.6 | 84.9 | 131 | 163 | 164 | 116 | 72.8 | 52.8 | 55.9 | 58.6 | 47.6 |
| MAX | 275 | 226 | 254 | 356 | 450 | 352 | 319 | 330 | 203 | 472 | 340 | 436 |
| (WY) | 1960 | 1958 | 1973 | 1954 | 1973 | 1989 | 1959 | 1958 | 1992 | 1965 | 1949 | 1955 |
| MIN | .77 | 4.67 | 19.7 | 31.6 | 46.2 | 45.1 | 16.1 | 11.4 | 2.15 | .23 | 1.75 | .50 |
| (WY) | 1987 | 1974 | 1952 | 1942 | 1941 | 1981 | 1986 | 1981 | 1986 | 1986 | 1983 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 23339.7 | | 21132.0 | | | |
| ANNUAL MEAN | 63.9 | | 57.7 | | 87.4 | |
| HIGHEST ANNUAL MEAN | | | | | 161 | 1965 |
| LOWEST ANNUAL MEAN | | | | | 30.0 | 1981 |
| HIGHEST DAILY MEAN | 1130 | Jun 20 | 1470 | Jun 27 | 4870 | Feb 3 1973 |
| LOWEST DAILY MEAN | 5.7 | Jun 15 | 7.6 | Aug 2 | 0 | Oct 11 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 6.8 | Jun 10 | 8.3 | Oct 9 | 0 | Jul 13 1986 |
| INSTANTANEOUS PEAK FLOW | | | 1730 | Jun 27 | 8510* | Feb 3 1973 |
| INSTANTANEOUS PEAK STAGE | | | 9.92 | Jun 27 | 13.42* | Feb 3 1973 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0* | Oct 11 1954 |
| ANNUAL RUNOFF (CFSM) | .77 | | .69 | | 1.05 | |
| ANNUAL RUNOFF (INCHES) | 10.40 | | 9.41 | | 14.22 | |
| 10 PERCENT EXCEEDS | 150 | | 104 | | 196 | |
| 50 PERCENT EXCEEDS | 31 | | 28 | | 44 | |
| 90 PERCENT EXCEEDS | 11 | | 10 | | 7.0 | |

* See REMARKS.

NEUSE RIVER BASIN

02088500 LITTLE RIVER NEAR PRINCETON, NC

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

DRAINAGE AREA.--232 $mi^2$.

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

REVISED RECORD.--WSP 1233: 1935(M). WDR NC-81-1: Drainage area.

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

REMARKS.--No estimated daily discharges. Records good. Slight fluctuation and occasional regulation for short periods is caused by mills upstream from station. Minimum discharge for period of record occurred frequently in June 1986 due to regulation from unknown source.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 38 | 27 | 42 | 226 | 257 | 327 | 261 | 73 | 97 | 286 | 37 | 32 |
| 2 | 36 | 30 | 45 | 165 | 220 | 248 | 237 | 66 | 88 | 143 | 28 | 26 |
| 3 | 37 | 33 | 45 | 303 | 192 | 210 | 214 | 62 | 79 | 103 | 28 | 21 |
| 4 | 35 | 40 | 72 | 1050 | 178 | 185 | 201 | 56 | 66 | 94 | 21 | 16 |
| 5 | 24 | 37 | 89 | 1550 | 164 | 169 | 208 | 53 | 59 | 114 | 17 | 13 |
| 6 | 18 | 31 | 83 | 1730 | 157 | 217 | 210 | 45 | 58 | 137 | 22 | 19 |
| 7 | 27 | 31 | 67 | 1950 | 149 | 1150 | 197 | 39 | 52 | 161 | 16 | 17 |
| 8 | 25 | 32 | 63 | 1800 | 144 | 1460 | 187 | 55 | 43 | 140 | 36 | 20 |
| 9 | 34 | 36 | 61 | 1040 | 141 | 1270 | 177 | 80 | 127 | 116 | 22 | 16 |
| 10 | 30 | 63 | 60 | 492 | 130 | 1100 | 168 | 88 | 657 | 103 | 4.5 | 17 |
| 11 | 20 | 75 | 56 | 350 | 128 | 962 | 158 | 80 | 739 | 83 | 1.2 | 59 |
| 12 | 6.7 | 81 | 58 | 291 | 125 | 669 | 150 | 71 | 550 | 66 | 27 | 32 |
| 13 | 1.7 | 79 | 57 | 251 | 126 | 471 | 164 | 62 | 514 | 55 | 31 | 43 |
| 14 | 14 | 58 | 58 | 248 | 132 | 372 | 188 | 56 | 301 | 46 | 159 | 33 |
| 15 | 22 | 56 | 49 | 253 | 139 | 311 | 181 | 49 | 149 | 36 | 485 | 24 |
| 16 | 62 | 53 | 47 | 223 | 227 | 272 | 188 | 38 | 109 | 28 | 591 | 30 |
| 17 | 90 | 51 | 44 | 191 | 290 | 244 | 163 | 39 | 108 | 20 | 584 | 24 |
| 18 | 73 | 46 | 44 | 175 | 256 | 225 | 149 | 34 | 114 | 16 | 1000 | 18 |
| 19 | 65 | 43 | 41 | 163 | 239 | 251 | 142 | 105 | 86 | 89 | 999 | 12 |
| 20 | 60 | 35 | 46 | 154 | 242 | 325 | 134 | 170 | 74 | 84 | 730 | 5.9 |
| 21 | 51 | 31 | 37 | 152 | 213 | 296 | 133 | 92 | 71 | 40 | 463 | 55 |
| 22 | 43 | 36 | 40 | 147 | 184 | 264 | 466 | 66 | 90 | 23 | 428 | 67 |
| 23 | 46 | 54 | 41 | 152 | 167 | 300 | 797 | 50 | 97 | 20 | 296 | 47 |
| 24 | 39 | 64 | 45 | 351 | 169 | 382 | 437 | 36 | 82 | 71 | 178 | 37 |
| 25 | 30 | 58 | 56 | 492 | 181 | 317 | 250 | 30 | 121 | 215 | 122 | 31 |
| 26 | 15 | 51 | 68 | 338 | 449 | 349 | 180 | 25 | 61 | 124 | 88 | 28 |
| 27 | 18 | 45 | 91 | 244 | 720 | 530 | 131 | 35 | 545 | 108 | 70 | 19 |
| 28 | 28 | 43 | 188 | 294 | 603 | 502 | 108 | 20 | 890 | 76 | 58 | 12 |
| 29 | 29 | 42 | 313 | 462 | 463 | 414 | 91 | 11 | 970 | 60 | 56 | 24 |
| 30 | 27 | 41 | 403 | 403 | --- | 352 | 80 | 27 | 621 | 51 | 46 | 27 |
| 31 | 26 | --- | 316 | 309 | --- | 297 | --- | 52 | --- | 45 | 38 | --- |
| TOTAL | 1070.4 | 1402 | 2725 | 15949 | 6785 | 14441 | 6350 | 1765 | 7618 | 2753 | 6681.7 | 824.9 |
| MEAN | 34.5 | 46.7 | 87.9 | 514 | 234 | 466 | 212 | 56.9 | 254 | 88.8 | 216 | 27.5 |
| MAX | 90 | 81 | 403 | 1950 | 720 | 1460 | 797 | 170 | 970 | 286 | 1000 | 67 |
| MIN | 1.7 | 27 | 37 | 147 | 125 | 169 | 80 | 11 | 43 | 16 | 1.2 | 5.9 |
| CFSM | .15 | .20 | .38 | 2.22 | 1.01 | 2.01 | .91 | .25 | 1.09 | .38 | .93 | .12 |
| IN. | .17 | .22 | .44 | 2.56 | 1.09 | 2.32 | 1.02 | .28 | 1.22 | .44 | 1.07 | .13 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 130 | 139 | 231 | 384 | 473 | 470 | 332 | 196 | 151 | 185 | 192 | 127 |
| MAX | 1202 | 645 | 717 | 999 | 1285 | 1204 | 969 | 835 | 573 | 826 | 783 | 905 |
| (WY) | 1965 | 1948 | 1937 | 1954 | 1948 | 1989 | 1959 | 1989 | 1953 | 1959 | 1931 | 1955 |
| MIN | 6.00 | 13.0 | 16.0 | 24.1 | 49.6 | 120 | 53.3 | 17.3 | 14.1 | 21.9 | 5.65 | 2.83 |
| (WY) | 1934 | 1934 | 1934 | 1934 | 1934 | 1981 | 1986 | 1986 | 1986 | 1963 | 1980 | 1980 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1930 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 68867.4 | | 68365.0 | | | |
| ANNUAL MEAN | 189 | | 187 | | 251 | |
| HIGHEST ANNUAL MEAN | | | | | 511 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 91.8 | 1951 |
| HIGHEST DAILY MEAN | 2750 | Aug 1 | 1950 | Jan 7 | 6790 | Oct 6 1964 |
| LOWEST DAILY MEAN | 1.6 | Jun 16 | 1.2 | Aug 11 | .08 | Jun 16 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 3.7 | Jun 11 | 17 | Sep 4 | .82 | Aug 2 1990 |
| INSTANTANEOUS PEAK FLOW | | | 1990 | Jan 7 | 7150 | Oct 6 1964 |
| INSTANTANEOUS PEAK STAGE | | | 10.36 | Jan 7 | 13.94 | Oct 6 1964 |
| INSTANTANEOUS LOW FLOW | | | .80 | Aug 12 | .08* | Jun 1 1986 |
| ANNUAL RUNOFF (CFSM) | .81 | | .81 | | 1.08 | |
| ANNUAL RUNOFF (INCHES) | 11.04 | | 10.96 | | 14.70 | |
| 10 PERCENT EXCEEDS | 493 | | 463 | | 624 | |
| 50 PERCENT EXCEEDS | 93 | | 80 | | 117 | |
| 90 PERCENT EXCEEDS | 29 | | 24 | | 22 | |

* See REMARKS.

NEUSE RIVER BASIN

## 02089000 NEUSE RIVER NEAR GOLDSBORO, NC

LOCATION.--Lat 35°20'14", long 77°59'51", Wayne County, Hydrologic Unit 03020202, on left bank at downstream side of bridge on Secondary Road 1915, 0.2 mi upstream from Stony Creek, 1.5 mi downstream of Seaboard Coast Line Railroad bridge, 3.2 mi south of Wayne County courthouse in Goldsboro, 4.3 mi downstream of Little River, and 135 mi upstream from mouth.

DRAINAGE AREA.--2,399 mi$^2$.

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

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

GAGE.--Water-stage recorder. Datum of gage is 42.95 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1931, nonrecording gage at railroad bridge 1.5 mi upstream at 44.95 ft. July 24, 1931, to Aug. 31, 1948, water-stage recorder at site 2.3 mi upstream at 44.66 ft. National Weather Service gage-height telemeter at station.

REMARKS.--Records good except those for estimated daily discharge, which are poor. Flow regulated by Falls Lake (station 02087182). Diversions for municipal water supply for cities of Durham and Butner (station 02087183). Prior to regulation, maximum discharge: 30,700 ft$^3$/s, Sept. 27, 1945; gage height: 26.72 ft at site and datum then in use; minimum discharge: 76 ft$^3$/s, Sept. 26, 1968. Minimum discharge during regulation also occurred Oct. 3, 1955. Minimum discharge for current water year also occurred November 8.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1866 and July 1919, reached stages of about 29 and 28 ft, respectively, at site 2.3 mi upstream at present datum, from flood profiles of U.S. Army Corps of Engineers, Flood of Oct. 5, 1929, reached a stage of 27.3 ft at railroad bridge at present datum; discharge, 38,600 ft$^3$/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 993 | 494 | 475 | 2660 | 2160 | 3820 | 2150 | 1330 | 999 | 5600 | 433 | 713 |
| 2 | 822 | 506 | 488 | 2070 | 1920 | 3830 | 2100 | 1040 | 1460 | 5530 | 394 | 672 |
| 3 | 938 | 502 | 502 | 2080 | 1700 | 3800 | 2270 | 851 | 1150 | 3380 | 543 | 646 |
| 4 | 854 | 450 | 559 | 2810 | 1520 | 3730 | 2150 | 774 | 885 | 2000 | 529 | 610 |
| 5 | 880 | 385 | 578 | 4340 | 1400 | 3060 | 1700 | e700 | 750 | 1570 | 442 | 585 |
| 6 | 927 | 385 | 726 | 5170 | 1310 | 2190 | 1400 | e660 | 676 | 1600 | 500 | 581 |
| 7 | 818 | 378 | 763 | 5920 | 1240 | 2440 | 1350 | 622 | 693 | 1530 | 408 | 863 |
| 8 | 731 | 381 | 693 | 6420 | 1190 | 4020 | 1280 | 653 | 644 | 1700 | 417 | 790 |
| 9 | 667 | 408 | 633 | 6670 | 1140 | 4950 | 1220 | 699 | 686 | 2050 | 434 | 805 |
| 10 | 621 | 484 | 602 | 6630 | 1110 | 5630 | 1160 | 1000 | 1410 | 2120 | 500 | 915 |
| 11 | 595 | 518 | 584 | 6170 | 1050 | 5860 | 1100 | 978 | 3220 | 1510 | 428 | 899 |
| 12 | 549 | 612 | 581 | 4580 | 1010 | 5760 | 1040 | 811 | 3860 | 1030 | 436 | 922 |
| 13 | 507 | 757 | 576 | 2930 | 986 | 5640 | 970 | 717 | 3790 | 736 | 694 | 983 |
| 14 | 489 | 720 | 560 | 2350 | 982 | 5420 | 920 | 662 | 2700 | 598 | 1580 | 864 |
| 15 | 477 | 648 | 543 | 2090 | 1030 | 5100 | 1020 | 617 | 1860 | 526 | 4270 | 749 |
| 16 | 665 | 561 | 528 | 1870 | 1130 | 4790 | 1060 | 566 | 1370 | 465 | 6120 | 643 |
| 17 | 733 | 505 | 504 | 1700 | 1360 | 3440 | 1010 | 527 | 1270 | 449 | 8990 | 583 |
| 18 | 819 | 475 | 491 | 1540 | 1650 | 2260 | 933 | 520 | 2640 | 436 | 8830 | 537 |
| 19 | 873 | 448 | 465 | 1430 | 1560 | 2050 | 861 | 578 | 2900 | 524 | 8430 | 512 |
| 20 | 798 | 442 | 447 | 1340 | 1460 | 2050 | 824 | 507 | 2810 | 450 | 7930 | 518 |
| 21 | 730 | 434 | 443 | 1260 | 1460 | 2320 | 782 | 681 | 2300 | 571 | 6350 | 547 |
| 22 | 656 | 460 | 443 | 1200 | 1380 | 2300 | 1220 | 658 | 1700 | 718 | 4590 | 635 |
| 23 | 589 | 490 | 428 | 1280 | 1290 | 2220 | 2000 | 583 | 1590 | 797 | 3110 | 684 |
| 24 | 551 | 537 | 486 | 1450 | 1240 | 2260 | 3070 | 512 | 1480 | 700 | 2260 | 659 |
| 25 | 545 | 583 | 510 | 1960 | 1270 | 2470 | 3320 | 460 | 1220 | 1100 | 1760 | 621 |
| 26 | 538 | 591 | 601 | 2250 | 1530 | 2480 | 3470 | 451 | 1150 | 1040 | 1390 | 606 |
| 27 | 526 | 564 | 823 | 2080 | 2430 | 2630 | 2730 | 439 | 1290 | 821 | 1150 | 645 |
| 28 | 506 | 526 | 881 | 2100 | 3350 | 3070 | 1970 | 416 | 3220 | 657 | 1000 | 724 |
| 29 | 491 | 500 | 1350 | 2250 | 3720 | 3090 | 1610 | 416 | 4410 | 573 | 907 | 641 |
| 30 | 488 | 479 | 2110 | 2490 | --- | 2750 | 1450 | 532 | 5030 | 519 | 852 | 575 |
| 31 | 497 | --- | 2850 | 2440 | --- | 2410 | --- | 540 | --- | 491 | 790 | --- |
| TOTAL | 20873 | 15223 | 22223 | 91530 | 44578 | 107840 | 48140 | 20500 | 59163 | 41791 | 76467 | 20727 |
| MEAN | 673 | 507 | 717 | 2953 | 1537 | 3479 | 1605 | 661 | 1972 | 1348 | 2467 | 691 |
| MAX | 993 | 757 | 2850 | 6670 | 3720 | 5860 | 3470 | 1330 | 5030 | 5600 | 8990 | 983 |
| MIN | 477 | 378 | 428 | 1200 | 982 | 2050 | 782 | 416 | 644 | 436 | 394 | 512 |
| CFSM | .28 | .21 | .30 | 1.23 | .64 | 1.45 | .67 | .28 | .82 | .56 | 1.03 | .29 |
| IN. | .32 | .24 | .34 | 1.42 | .69 | 1.67 | .75 | .32 | .92 | .65 | 1.19 | .32 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 825 | 977 | 1933 | 3096 | 3710 | 5188 | 4165 | 2244 | 1480 | 1460 | 1698 | 883 |
| MAX | 2902 | 2775 | 4517 | 5726 | 7006 | 10290 | 7850 | 7276 | 3081 | 4668 | 3601 | 2468 |
| (WY) | 1990 | 1990 | 1990 | 1987 | 1983 | 1989 | 1989 | 1989 | 1989 | 1989 | 1989 | 1984 |
| MIN | 310 | 326 | 622 | 884 | 1517 | 1575 | 631 | 433 | 342 | 394 | 264 | 246 |
| (WY) | 1984 | 1988 | 1988 | 1986 | 1986 | 1988 | 1986 | 1986 | 1986 | 1987 | 1983 | 1985 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 662087 | | 569055 | | | |
| ANNUAL MEAN | 1814 | | 1555 | | 2299 | |
| HIGHEST ANNUAL MEAN | | | | | 3786 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 1042 | 1988 |
| HIGHEST DAILY MEAN | 8650 | Aug 3 | 8990 | Aug 17 | 17800 | Mar 6 1987 |
| LOWEST DAILY MEAN | 333 | Jun 16 | 378 | Nov 7 | 162 | Sep 10 1983 |
| ANNUAL SEVEN-DAY MINIMUM | 359 | Jun 12 | 410 | Nov 4 | 172 | Sep 15 1985 |
| INSTANTANEOUS PEAK FLOW | | | 9000 | Aug 17 | 18000 | Mar 6 1987 |
| INSTANTANEOUS PEAK STAGE | | | 17.71 | Aug 17 | 22.93 | Mar 6 1987 |
| INSTANTANEOUS LOW FLOW | | | 376* | Nov 7 | 157* | Sep 19 1985 |
| ANNUAL RUNOFF (CFSM) | .76 | | .65 | | .96 | |
| ANNUAL RUNOFF (INCHES) | 10.27 | | 8.82 | | 13.02 | |
| 10 PERCENT EXCEEDS | 4420 | | 3540 | | 6210 | |
| 50 PERCENT EXCEEDS | 1260 | | 917 | | 1170 | |
| 90 PERCENT EXCEEDS | 481 | | 482 | | 363 | |

* Regulated period only (1983-1992). See REMARKS.

NEUSE RIVER BASIN

0208925200 BEAR CREEK AT MAYS STORE, NC

LOCATION.--Lat 35°16'28", long 77°47'40", Lenoir County, Hydrologic Unit 03020202, at downstream side of bridge on Secondary Road 1318, 0.7 mi west of Mays Store, and 1.0 mi downstream of Secondary Road 1002.

DRAINAGE AREA.--57.7 mi².

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for current water year also occurred July 18. Maximum discharge for current year from outside gage reading during peak stage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 92 | 34 | 32 | 62 | 80 | 58 | 52 | 29 | 31 | 29 | 29 | 88 |
| 2 | 86 | 33 | 32 | 57 | 71 | 53 | 48 | 27 | 27 | 27 | 26 | 74 |
| 3 | 191 | 33 | 32 | 242 | 65 | 50 | 44 | 25 | 24 | 24 | 36 | 66 |
| 4 | 197 | 34 | 42 | 543 | 61 | 48 | 43 | 24 | 25 | 46 | 33 | 61 |
| 5 | 137 | 34 | 37 | 416 | 58 | 47 | 47 | 22 | 26 | 58 | 30 | 59 |
| 6 | 112 | 33 | 40 | 330 | 56 | 48 | 44 | 22 | 24 | 41 | 108 | 58 |
| 7 | 86 | 32 | 53 | 271 | 53 | 69 | 44 | 23 | 22 | 29 | 61 | 60 |
| 8 | 73 | 32 | 38 | 228 | 51 | 67 | 41 | 28 | 21 | 24 | 48 | 57 |
| 9 | 65 | 33 | 33 | 172 | 48 | 58 | 38 | 27 | 30 | 22 | 40 | 56 |
| 10 | 61 | 48 | 33 | 136 | 46 | 55 | 36 | 25 | 117 | 21 | 42 | 83 |
| 11 | 58 | 56 | 33 | 118 | 46 | 53 | 35 | 23 | 70 | 19 | 39 | 58 |
| 12 | 55 | 45 | 32 | 106 | 47 | 48 | 34 | 22 | 49 | 18 | 37 | 46 |
| 13 | 52 | 40 | 31 | 100 | 45 | 46 | 33 | 26 | 42 | 17 | 79 | 40 |
| 14 | 49 | 38 | 31 | 103 | 45 | 44 | 32 | 27 | 36 | 17 | 206 | 37 |
| 15 | 47 | 36 | 30 | 96 | 45 | 43 | 31 | 26 | 32 | 16 | 569 | 35 |
| 16 | 56 | 36 | 29 | 84 | 47 | 41 | 30 | 23 | 29 | 16 | 549 | 34 |
| 17 | 103 | 35 | 29 | 69 | 44 | 40 | 30 | 22 | 27 | 16 | 653 | 32 |
| 18 | 99 | 35 | 28 | 65 | 44 | 40 | 29 | 22 | 25 | 16 | 863 | 31 |
| 19 | 94 | 34 | 28 | 61 | 46 | 46 | 27 | 29 | 24 | 287 | 694 | 30 |
| 20 | 91 | 33 | 27 | 58 | 44 | 48 | 26 | 32 | 24 | 456 | 486 | 32 |
| 21 | 86 | 34 | 28 | 55 | 43 | 47 | 26 | 30 | 23 | 169 | 442 | 36 |
| 22 | 78 | 37 | 28 | 53 | 41 | 45 | 114 | 26 | 25 | 102 | 367 | 33 |
| 23 | 55 | 39 | 28 | 68 | 42 | 50 | 108 | 23 | 23 | 95 | 318 | 31 |
| 24 | 43 | 38 | 43 | 115 | 45 | 51 | 70 | 21 | 22 | 170 | 286 | 31 |
| 25 | 45 | 35 | 43 | 86 | 47 | 47 | 56 | 20 | 101 | 104 | 260 | 31 |
| 26 | 40 | 34 | 38 | 73 | 94 | 69 | 48 | 20 | 72 | 76 | 224 | 30 |
| 27 | 38 | 33 | 50 | 65 | 101 | 93 | 41 | 21 | 75 | 60 | 168 | 30 |
| 28 | 38 | 32 | 61 | 108 | 78 | 74 | 38 | 25 | 58 | 49 | 139 | 30 |
| 29 | 40 | 32 | 96 | 130 | 67 | 62 | 33 | 22 | 42 | 42 | 119 | 33 |
| 30 | 38 | 32 | 95 | 106 | --- | 57 | 31 | 28 | 34 | 37 | 104 | 29 |
| 31 | 35 | --- | 72 | 92 | --- | 55 | --- | 37 | --- | 33 | 97 | --- |
| TOTAL | 2340 | 1080 | 1252 | 4268 | 1600 | 1652 | 1309 | 777 | 1180 | 2136 | 7152 | 1351 |
| MEAN | 75.5 | 36.0 | 40.4 | 138 | 55.2 | 53.3 | 43.6 | 25.1 | 39.3 | 68.9 | 231 | 45.0 |
| MAX | 197 | 56 | 96 | 543 | 101 | 93 | 114 | 37 | 117 | 456 | 863 | 88 |
| MIN | 35 | 32 | 27 | 53 | 41 | 40 | 26 | 20 | 21 | 16 | 26 | 29 |
| CFSM | 1.31 | .62 | .70 | 2.39 | .96 | .92 | .76 | .43 | .68 | 1.19 | 4.00 | .78 |
| IN. | 1.51 | .70 | .81 | 2.75 | 1.03 | 1.07 | .84 | .50 | .76 | 1.38 | 4.61 | .87 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 43.3 | 35.5 | 47.1 | 73.6 | 53.2 | 79.7 | 73.3 | 86.6 | 56.7 | 55.5 | 110 | 47.5 |
| MAX | 75.5 | 65.7 | 112 | 138 | 70.3 | 149 | 150 | 216 | 93.8 | 98.5 | 231 | 88.6 |
| (WY) | 1992 | 1990 | 1990 | 1992 | 1990 | 1989 | 1989 | 1989 | 1990 | 1989 | 1992 | 1991 |
| MIN | 18.1 | 21.1 | 23.2 | 32.4 | 45.0 | 35.3 | 43.6 | 25.1 | 22.4 | 14.9 | 22.1 | 20.3 |
| (WY) | 1988 | 1988 | 1989 | 1989 | 1988 | 1988 | 1992 | 1992 | 1988 | 1988 | 1988 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 25205 | | 26097 | | | |
| ANNUAL MEAN | 69.1 | | 71.3 | | 63.7 | |
| HIGHEST ANNUAL MEAN | | | | | 83.5 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 31.7 | 1988 |
| HIGHEST DAILY MEAN | 519 | Sep 26 | 863 | Aug 18 | 1060 | May 29 1990 |
| LOWEST DAILY MEAN | 15 | Jun 14 | 16 | Jul 15 | 10 | Jul 19 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 16 | Jun 11 | 17 | Jul 12 | 11 | Jul 15 1988 |
| INSTANTANEOUS PEAK FLOW | | | 885 | Aug 18 | 1220 | May 29 1990 |
| INSTANTANEOUS PEAK STAGE | | | 8.85* | Aug 18 | 9.25 | May 29 1990 |
| INSTANTANEOUS LOW FLOW | | | 15* | Jul 16 | 9.7 | Jul 20 1988 |
| ANNUAL RUNOFF (CFSM) | 1.20 | | 1.24 | | 1.10 | |
| ANNUAL RUNOFF (INCHES) | 16.25 | | 16.83 | | 15.00 | |
| 10 PERCENT EXCEEDS | 136 | | 113 | | 124 | |
| 50 PERCENT EXCEEDS | 46 | | 43 | | 41 | |
| 90 PERCENT EXCEEDS | 28 | | 25 | | 21 | |

* See REMARKS.

NEUSE RIVER BASIN

## 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 downstream of bridge on State Highway 11, and 90 mi upstream from mouth.

DRAINAGE AREA.--2,692 mi$^2$.

### WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 10.90 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1934, nonrecording gage at highway bridge 1 mi downstream at 10.10 ft. The National Weather Service telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182). Diversions for municipal water supply for cities of Durham and Butner (station 02087183). Prior to regulation, maximum discharge: 26,000 ft$^3$/s, Oct. 13, 1964; gage height: 22.86 ft, at site and datum then in use; minimum discharge: 124 ft$^3$/s, Sept. 26, 1932, at site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1919 reached a stage of 25.0 ft, at present site and datum; discharge, about 39,000 ft$^3$/s, from information provided by North Carolina State Highway Commission. Flood in October 1924 reached a stage of 24.7 ft, at present site and datum; discharge, 36,000 ft$^3$/s, from information provided by North Carolina State Highway Commission. Flood of Sept. 25-26, 1928, reached a stage of 24.2 ft, at present site and datum; discharge, 34,000 ft$^3$/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1690 | 668 | 687 | 2660 | 2830 | 3430 | 2790 | 1740 | 832 | 3870 | 679 | 1250 |
| 2 | 1430 | 669 | 678 | 2850 | 2650 | 3710 | 2520 | 1580 | 992 | 4420 | 610 | 1150 |
| 3 | 1350 | 674 | 687 | 3010 | 2410 | 3860 | 2390 | 1350 | 1460 | 4930 | 574 | 1050 |
| 4 | 1530 | 671 | 725 | 3670 | 2190 | 3910 | 2440 | 1160 | 1400 | 5130 | 649 | 1010 |
| 5 | 1530 | 649 | 774 | 4250 | 1980 | 3900 | 2420 | 1060 | 1180 | 3760 | 716 | 981 |
| 6 | 1390 | 606 | 772 | 4560 | 1840 | 3740 | 2110 | 982 | 1010 | 2300 | 749 | 917 |
| 7 | 1360 | 592 | 851 | 4980 | 1730 | 2960 | 1800 | 945 | 901 | 1920 | 916 | 972 |
| 8 | 1230 | 587 | 949 | 5500 | 1640 | 2710 | 1680 | 953 | 868 | 1770 | 763 | 1160 |
| 9 | 1100 | 597 | 902 | 6050 | 1580 | 3360 | 1610 | 949 | 1100 | 1790 | 652 | 1180 |
| 10 | 998 | 700 | 836 | 6520 | 1520 | 4120 | 1530 | 951 | 1620 | 2030 | 631 | 1110 |
| 11 | 924 | 800 | 803 | 6840 | 1470 | 4620 | 1460 | 1140 | 1860 | 2170 | 685 | 1220 |
| 12 | 867 | 796 | 780 | 6970 | 1430 | 5210 | 1400 | 1220 | 2840 | 1900 | 666 | 1210 |
| 13 | 816 | 806 | 771 | 6820 | 1380 | 5630 | 1350 | 1100 | 3350 | 1420 | 961 | 1190 |
| 14 | 769 | 911 | 765 | 5700 | 1360 | 5810 | 1280 | 988 | 3730 | 1060 | 1370 | 1220 |
| 15 | 735 | 936 | 749 | 4130 | 1340 | 5840 | 1230 | 909 | 3530 | 848 | 2600 | 1160 |
| 16 | 741 | 870 | 731 | 3010 | 1370 | 5720 | 1270 | 848 | 2520 | 728 | 4840 | 1030 |
| 17 | 874 | 799 | 719 | 2610 | 1430 | 5490 | 1310 | 790 | 1810 | 637 | 6590 | 912 |
| 18 | 1020 | 736 | 704 | 2280 | 1570 | 5090 | 1270 | 764 | 1570 | 585 | 8250 | 831 |
| 19 | 1060 | 702 | 687 | 2060 | 1820 | 3690 | 1210 | 900 | 2340 | 632 | 9500 | 772 |
| 20 | 1110 | 676 | 675 | 1910 | 1840 | 2700 | 1140 | 950 | 2730 | 1140 | 10500 | 763 |
| 21 | 1070 | 658 | 657 | 1800 | 1760 | 2460 | 1080 | 834 | 2950 | 1280 | 10500 | 853 |
| 22 | 996 | 659 | 651 | 1730 | 1720 | 2490 | 1490 | 889 | 2800 | 1080 | 9930 | 868 |
| 23 | 914 | 686 | 654 | 1690 | 1690 | 2540 | 1870 | 893 | 2110 | 1030 | 8950 | 852 |
| 24 | 821 | 708 | 685 | 1810 | 1620 | 2510 | 2420 | 810 | 1850 | 1160 | 7100 | 903 |
| 25 | 766 | 718 | 785 | 1960 | 1580 | 2500 | 2940 | 726 | 1760 | 1160 | 5260 | 898 |
| 26 | 744 | 749 | 779 | 2180 | 1640 | 2690 | 3300 | 675 | 1670 | 1280 | 3600 | 860 |
| 27 | 735 | 771 | 845 | 2460 | 1870 | 2870 | 3460 | 646 | 1590 | 1370 | 2560 | 830 |
| 28 | 726 | 762 | 1120 | 2550 | 2450 | 2930 | 3050 | 636 | 1690 | 1180 | 1940 | 826 |
| 29 | 709 | 732 | 1310 | 2650 | 3110 | 3100 | 2320 | 604 | 2660 | 960 | 1680 | 913 |
| 30 | 685 | 707 | 1640 | 2720 | --- | 3230 | 1960 | 665 | 3420 | 826 | 1480 | 892 |
| 31 | 670 | --- | 2090 | 2810 | --- | 3090 | --- | 814 | --- | 737 | 1350 | --- |
| TOTAL | 31360 | 21595 | 26461 | 110740 | 52820 | 115910 | 58100 | 29471 | 60143 | 55103 | 107251 | 29783 |
| MEAN | 1012 | 720 | 854 | 3572 | 1821 | 3739 | 1937 | 951 | 2005 | 1778 | 3460 | 993 |
| MAX | 1690 | 936 | 2090 | 6970 | 3110 | 5840 | 3460 | 1740 | 3730 | 5130 | 10500 | 1250 |
| MIN | 670 | 587 | 651 | 1690 | 1340 | 2460 | 1080 | 604 | 832 | 585 | 574 | 763 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1003 | 1133 | 2202 | 3364 | 4089 | 5756 | 4865 | 2699 | 1813 | 1647 | 2084 | 1147 |
| MAX | 3288 | 2924 | 5097 | 5465 | 7673 | 10720 | 9582 | 8773 | 3513 | 5223 | 4068 | 3248 |
| (WY) | 1990 | 1990 | 1990 | 1987 | 1983 | 1989 | 1989 | 1989 | 1983 | 1989 | 1989 | 1984 |
| MIN | 366 | 430 | 760 | 1181 | 1767 | 1673 | 878 | 563 | 460 | 468 | 314 | 357 |
| (WY) | 1984 | 1988 | 1988 | 1986 | 1986 | 1988 | 1986 | 1986 | 1986 | 1987 | 1983 | 1985 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 777055 | | 698737 | | | |
| ANNUAL MEAN | 2129 | | 1909 | | 2644 | |
| HIGHEST ANNUAL MEAN | | | | | 4216 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 1204 | 1988 |
| HIGHEST DAILY MEAN | 8460 | Aug 6 | 10500 | Aug 20 | 18500 | Mar 9 1987 |
| LOWEST DAILY MEAN | 484 | Jun 18 | 574 | Aug 3 | 200 | Sep 20 1985 |
| ANNUAL SEVEN-DAY MINIMUM | 503 | Jun 12 | 625 | Nov 3 | 214 | Sep 16 1985 |
| INSTANTANEOUS PEAK FLOW | | | 10700 | Aug 20 | 18600 | Mar 9 1987 |
| INSTANTANEOUS PEAK STAGE | | | 16.46 | Aug 20 | 20.03 | Mar 9 1987 |
| INSTANTANEOUS LOW FLOW | | | 552 | Jul 19 | 196 | Sep 20 1985 |
| ANNUAL RUNOFF (CFSM) | .79 | | .71 | | .98 | |
| ANNUAL RUNOFF (INCHES) | 10.74 | | 9.66 | | 13.34 | |
| 10 PERCENT EXCEEDS | 4680 | | 3860 | | 6910 | |
| 50 PERCENT EXCEEDS | 1530 | | 1280 | | 1450 | |
| 90 PERCENT EXCEEDS | 677 | | 686 | | 471 | |

* Regulated period only (1883-1992). See REMARKS.

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1955-56, 1959-67, 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to September 1986.
WATER TEMPERATURE: October 1949 to September 1950, January 1955 to September 1956, July 1973 to September 1986.

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

REMARKS.--Station operated as part of NASQAN network from October 1974 to present. Daily records of specific conductance for January 1955 to September 1956 are available in the files of the district office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 242 microsiemens, Sept. 21, 1983; minimum daily, 43 microsiemens, Mar. 28, 1975.
WATER TEMPERATURE: Maximum recorded, 36.0°C, July 13, 14, 19, 20, 1986; minimum daily, 0.0°C, Feb. 7, 1978, Jan. 13, 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 05... | 1115 | 776 | 209 | 7.6 | 12.0 | 5.6 | 771 | 9.2 | 84 | -- | -- | 7.8 |
| APR | | | | | | | | | | | | |
| 29... | 1115 | 2480 | 104 | 7.2 | 16.5 | 16 | 761 | 7.7 | 79 | -- | -- | 5.3 |
| SEP | | | | | | | | | | | | |
| 15... | 1145 | 1170 | 132 | 7.3 | 23.0 | 8.8 | 767 | 7.2 | 83 | 130 | K40 | 7.1 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 05... | 2.9 | 23 | 58 | 2 | 4.1 | 28 | 18 | 0.30 | 7.5 | 124 | 116 | 1.19 |
| APR | | | | | | | | | | | | |
| 29... | 2.3 | 9.4 | 44 | 0.9 | 3.0 | 10 | 8.8 | 0.20 | 7.0 | 79 | 60 | 0.540 |
| SEP | | | | | | | | | | | | |
| 15... | 2.6 | 11 | 42 | 0.9 | 3.7 | 13 | 13 | 0.20 | 8.6 | 85 | 79 | 0.960 |

| DATE | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 05... | 1.09 | 0.010 | 0.010 | 1.20 | 1.10 | 0.070 | 0.060 | 0.09 | 0.08 | 0.53 | 0.60 |
| APR | | | | | | | | | | | |
| 29... | 0.520 | 0.020 | 0.020 | 0.560 | 0.540 | 0.110 | 0.120 | 0.14 | 0.15 | 0.49 | 0.60 |
| SEP | | | | | | | | | | | |
| 15... | 0.950 | 0.010 | 0.010 | 0.970 | 0.960 | 0.050 | 0.060 | 0.06 | 0.08 | 0.45 | 0.50 |

| DATE | NITRO-GEN, TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS NO3) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) | BARIUM, DIS-SOLVED (UG/L AS BA) | COBALT, DIS-SOLVED (UG/L AS CO) | IRON, DIS-SOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 05... | 1.8 | 8.0 | 0.110 | 0.070 | 0.070 | 0.060 | 0.18 | 70 | 27 | <3 | 660 |
| APR | | | | | | | | | | | |
| 29... | 1.2 | 5.1 | 0.060 | 0.060 | 0.060 | 0.050 | 0.15 | 160 | 33 | <3 | 760 |
| SEP | | | | | | | | | | | |
| 15... | 1.5 | 6.5 | 0.130 | 0.070 | 0.090 | 0.070 | 0.21 | 40 | 25 | <3 | 540 |

| DATE | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 05... | 4 | 28 | <10 | <1 | <1 | <1.0 | 50 | <6 | 17 | 36 | 68 |
| APR | | | | | | | | | | | |
| 29... | 6 | 34 | <10 | 1 | <1 | <1.0 | 40 | <6 | 62 | 415 | 44 |
| SEP | | | | | | | | | | | |
| 15... | 5 | 27 | <10 | <1 | <1 | <1.0 | 47 | <6 | 19 | 60 | 95 |

## 02090380 CONTENTNEA CREEK NEAR LUCAMA, NC

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

DRAINAGE AREA.--161 mi$^2$.

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

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

GAGE.--Water-stage recorder. Datum of gage is 117.43 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharge, which are poor. Since September 1976, some regulation at low flow by Buckhorn Reservoir (station 02090370) 1 mi upstream. Minimum discharge for period of record also occurred Sept. 10-14, 1976, due to regulation. Minimum discharge for current water year also occurred July 17, 18, and August 8-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 15 | 26 | 134 | 168 | e132 | 134 | 61 | 69 | 157 | 23 | 38 |
| 2 | 22 | 16 | 27 | 95 | 127 | e122 | 121 | 58 | 65 | 97 | 18 | 32 |
| 3 | 23 | 16 | 36 | 228 | 113 | e114 | 98 | 56 | 48 | 73 | 18 | 30 |
| 4 | 21 | 15 | 56 | 1190 | 108 | e108 | 96 | 50 | 38 | 73 | 16 | 28 |
| 5 | 20 | 15 | 33 | 2470 | 105 | e106 | 108 | 36 | 39 | 76 | 14 | 27 |
| 6 | 21 | 15 | 36 | 2090 | 98 | e118 | 113 | 32 | 33 | 86 | 13 | 28 |
| 7 | 17 | 15 | 34 | 1190 | 92 | e246 | 109 | 35 | 27 | 81 | 12 | 33 |
| 8 | 16 | 15 | 32 | 530 | 90 | e262 | 97 | 49 | 22 | 72 | 12 | 33 |
| 9 | 15 | 15 | 32 | 310 | 83 | e184 | 89 | 74 | 139 | 65 | 13 | 33 |
| 10 | 15 | 16 | 36 | 249 | 79 | e150 | 84 | 68 | 437 | 50 | 12 | 35 |
| 11 | 15 | 18 | 35 | 215 | 79 | e152 | 79 | 53 | 508 | 39 | 12 | 59 |
| 12 | 16 | 16 | 34 | 172 | 77 | e140 | 76 | 43 | 440 | 30 | 13 | 67 |
| 13 | 15 | 18 | 34 | 153 | 79 | e124 | 102 | 51 | 239 | 24 | 32 | 63 |
| 14 | 15 | 18 | 39 | 170 | 83 | e112 | 136 | 75 | 120 | 17 | 229 | 47 |
| 15 | 16 | 19 | 31 | 196 | 98 | e106 | 130 | 79 | 83 | 16 | 513 | 37 |
| 16 | 22 | 20 | 26 | 251 | 185 | e100 | 115 | 71 | 73 | 13 | 602 | 32 |
| 17 | 51 | 20 | 24 | 125 | 229 | e96 | 97 | 52 | 60 | 13 | 591 | 28 |
| 18 | 50 | 19 | 25 | 104 | 192 | e96 | 81 | 40 | 51 | 14 | 801 | 25 |
| 19 | 41 | 19 | 23 | 96 | 169 | e124 | 71 | 41 | 45 | 59 | 910 | 24 |
| 20 | 32 | 19 | 20 | 92 | 155 | e190 | 63 | 54 | 38 | 67 | 786 | 35 |
| 21 | 27 | 21 | 22 | 90 | 140 | 164 | 63 | 52 | 49 | 44 | 492 | 74 |
| 22 | 24 | 29 | 21 | 89 | 117 | 135 | 406 | 51 | 72 | 27 | 432 | 65 |
| 23 | 21 | 42 | 23 | 110 | 110 | 158 | 570 | 39 | 54 | 25 | 265 | 48 |
| 24 | 20 | 53 | 31 | 315 | 110 | 191 | 394 | 31 | 41 | 162 | 146 | 35 |
| 25 | 18 | 36 | 37 | 372 | 114 | 184 | 204 | 22 | 31 | 305 | 106 | 31 |
| 26 | 18 | 29 | 38 | 269 | 252 | 200 | 115 | 20 | 52 | 144 | 84 | 25 |
| 27 | 17 | 27 | 79 | 180 | e260 | 314 | 88 | 20 | 460 | 80 | 70 | 25 |
| 28 | 17 | 26 | 162 | 205 | e190 | 318 | 77 | 18 | 1510 | 54 | 62 | 26 |
| 29 | 16 | 25 | 254 | 261 | e158 | 242 | 68 | 19 | 1260 | 38 | 57 | 26 |
| 30 | 16 | 25 | 321 | 241 | --- | 171 | 61 | 35 | 437 | 29 | 49 | 21 |
| 31 | 15 | --- | 219 | 202 | --- | 138 | --- | 59 | --- | 27 | 44 | --- |
| TOTAL | 677 | 652 | 1846 | 12394 | 3860 | 4997 | 4045 | 1444 | 6540 | 2057 | 6447 | 1110 |
| MEAN | 21.8 | 21.7 | 59.5 | 400 | 133 | 161 | 135 | 46.6 | 218 | 66.4 | 208 | 37.0 |
| MAX | 51 | 53 | 321 | 2470 | 260 | 318 | 570 | 79 | 1510 | 305 | 910 | 74 |
| MIN | 15 | 15 | 20 | 89 | 77 | 96 | 61 | 18 | 22 | 13 | 12 | 21 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 71.5 | 79.2 | 138 | 257 | 306 | 329 | 209 | 135 | 97.3 | 92.8 | 113 | 47.0 |
| MAX | 644 | 287 | 404 | 690 | 533 | 803 | 701 | 537 | 359 | 624 | 512 | 231 |
| (WY) | 1965 | 1973 | 1973 | 1987 | 1983 | 1989 | 1987 | 1989 | 1965 | 1984 | 1986 | 1979 |
| MIN | 2.05 | 2.76 | 21.2 | 39.4 | 87.5 | 67.7 | 24.7 | 8.08 | 10.4 | 3.96 | 3.18 | 2.52 |
| (WY) | 1981 | 1974 | 1966 | 1981 | 1986 | 1981 | 1986 | 1981 | 1970 | 1981 | 1980 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 39848 | | 46069 | | | |
| ANNUAL MEAN | 109 | | 126 | | 156 | |
| HIGHEST ANNUAL MEAN | | | | | 278 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 35.5 | 1981 |
| HIGHEST DAILY MEAN | 2700 | Jul 30 | 2470 | Jan 5 | 5500 | Oct 6 1964 |
| LOWEST DAILY MEAN | 11 | May 18 | 12 | Aug 7 | .04 | Sep 9 1976 |
| ANNUAL SEVEN-DAY MINIMUM | 15 | Jun 12 | 12 | Aug 6 | .04 | Sep 8 1976 |
| INSTANTANEOUS PEAK FLOW | | | 2560 | Jan 5 | 5860 | Oct 6 1964 |
| INSTANTANEOUS PEAK STAGE | | | 12.89 | Jan 5 | 16.28 | Oct 6 1964 |
| INSTANTANEOUS LOW FLOW | | | 12* | Jul 16 | .04* | Sep 9 1976 |
| ANNUAL RUNOFF (CFSM) | .68 | | .78 | | .97 | |
| ANNUAL RUNOFF (INCHES) | 9.21 | | 10.64 | | 13.14 | |
| 10 PERCENT EXCEEDS | 252 | | 253 | | 381 | |
| 50 PERCENT EXCEEDS | 45 | | 59 | | 68 | |
| 90 PERCENT EXCEEDS | 16 | | 17 | | 10 | |

* See REMARKS.

NEUSE RIVER BASIN

0209096970 MOCCASIN RUN NEAR PATETOWN, NC

LOCATION.--Lat 35°28'46", long 77°54'37", Wayne County, Hydrologic Unit 03020203, on left bank at downstream side of bridge on State Highway 111, and 1.5 mi northeast of Patetown.

DRAINAGE AREA.--1.89 mi².

PERIOD OF RECORD.--April 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.7 | 1.2 | 1.1 | 1.4 | 2.8 | 2.1 | 1.8 | 1.2 | .99 | .67 | .38 | 1.9 |
| 2 | 1.7 | 1.2 | 1.2 | 1.3 | 2.5 | 2.0 | 1.6 | 1.1 | .83 | .63 | .39 | 1.7 |
| 3 | 6.4 | 1.3 | 2.5 | 36 | 2.4 | 1.9 | 1.6 | 1.1 | .73 | .54 | 5.0 | 1.5 |
| 4 | 3.5 | 1.3 | 2.5 | 38 | 2.4 | 1.8 | 1.8 | .99 | .90 | 2.4 | 1.4 | 2.5 |
| 5 | 2.6 | 1.2 | 1.1 | 15 | 2.3 | 1.8 | 2.1 | .78 | .99 | .97 | .81 | 2.0 |
| 6 | 2.4 | 1.1 | .96 | 8.2 | 2.2 | 2.5 | 1.7 | .90 | .76 | .69 | .72 | 3.9 |
| 7 | 2.1 | 1.1 | .92 | 6.3 | 2.2 | 4.1 | 2.0 | 1.2 | .53 | .62 | .67 | 3.0 |
| 8 | 1.7 | 1.1 | .87 | 5.2 | 2.1 | 2.9 | 1.4 | 2.2 | .49 | .51 | .60 | 1.6 |
| 9 | 1.6 | 1.8 | .86 | 4.9 | 1.9 | 2.3 | 1.2 | 1.3 | 2.8 | .54 | .59 | 1.6 |
| 10 | 1.5 | 3.3 | 1.2 | 4.6 | 1.9 | 2.1 | 1.2 | .97 | 5.8 | .41 | .58 | 2.1 |
| 11 | 1.5 | 1.7 | .86 | 4.0 | 2.0 | 2.1 | 1.1 | .88 | 1.9 | .34 | .47 | 2.1 |
| 12 | 1.4 | 1.3 | .79 | 3.6 | 2.0 | 1.8 | 1.1 | .81 | 1.3 | .30 | 1.5 | 1.5 |
| 13 | 1.3 | 1.1 | .86 | 3.3 | 2.0 | 1.7 | 1.1 | 2.4 | 1.0 | .25 | 4.2 | 1.1 |
| 14 | 1.3 | 1.0 | .90 | 3.8 | 2.1 | 1.7 | 1.0 | 1.5 | .85 | .21 | 28 | .99 |
| 15 | 1.6 | 1.1 | .66 | 3.0 | 2.5 | 1.7 | 1.2 | 1.0 | .81 | .17 | 15 | .82 |
| 16 | 6.4 | 1.1 | .62 | 2.7 | 2.6 | 1.6 | .96 | .93 | .73 | .15 | 27 | .73 |
| 17 | 3.2 | 1.2 | .67 | 2.6 | 2.2 | 1.6 | 1.1 | .76 | .64 | .14 | 83 | .84 |
| 18 | 2.2 | 1.2 | .73 | 2.5 | 2.2 | 1.6 | 1.3 | 5.5 | .59 | .20 | 34 | .80 |
| 19 | 1.7 | 1.1 | .68 | 2.4 | 2.4 | 2.9 | 1.5 | 5.4 | .51 | 1.0 | 9.8 | .84 |
| 20 | 1.5 | 1.3 | .71 | 2.3 | 2.2 | 2.3 | .86 | 2.0 | .54 | .63 | 7.1 | 1.2 |
| 21 | 1.5 | 1.7 | .89 | 2.3 | 2.0 | 2.0 | .90 | 1.8 | 1.1 | .47 | 5.7 | 1.2 |
| 22 | 1.4 | 2.9 | .86 | 2.2 | 2.0 | 1.8 | 9.9 | 1.4 | 1.1 | .37 | 4.3 | 1.0 |
| 23 | 1.4 | 1.7 | .99 | 6.4 | 2.3 | 3.6 | 3.8 | .97 | .62 | .75 | 3.7 | .88 |
| 24 | 1.3 | 1.6 | 2.2 | 4.3 | 2.4 | 2.5 | 2.6 | .76 | 1.1 | 1.6 | 3.1 | .90 |
| 25 | 1.3 | 1.2 | 1.0 | 2.9 | 2.9 | 2.0 | 2.3 | .70 | 4.4 | 2.2 | 2.8 | .80 |
| 26 | 1.3 | 1.1 | .83 | 2.6 | 5.5 | 4.5 | 1.8 | .84 | 1.4 | .88 | 2.6 | .79 |
| 27 | 1.4 | .99 | 3.2 | 2.5 | 3.7 | 3.5 | 1.5 | .84 | 3.2 | .62 | 2.3 | .77 |
| 28 | 1.4 | 1.1 | 3.0 | 6.7 | 2.9 | 2.6 | 1.4 | .73 | 1.4 | .81 | 2.3 | .69 |
| 29 | 1.4 | 1.1 | 6.1 | 4.6 | 2.5 | 2.1 | 1.3 | .85 | .96 | .61 | 2.5 | .74 |
| 30 | 1.3 | .97 | 2.7 | 3.7 | --- | 2.0 | 1.2 | 3.0 | .77 | .48 | 2.1 | .59 |
| 31 | 1.3 | --- | 1.7 | 3.2 | --- | 2.0 | --- | 1.7 | --- | .42 | 2.1 | --- |
| TOTAL | 62.3 | 41.06 | 44.16 | 192.5 | 71.1 | 71.1 | 54.32 | 46.51 | 39.74 | 20.58 | 254.71 | 41.08 |
| MEAN | 2.01 | 1.37 | 1.42 | 6.21 | 2.45 | 2.29 | 1.81 | 1.50 | 1.32 | .66 | 8.22 | 1.37 |
| MAX | 6.4 | 3.3 | 6.1 | 38 | 5.5 | 4.5 | 9.9 | 5.5 | 5.8 | 2.4 | 83 | 3.9 |
| MIN | 1.3 | .97 | .62 | 1.3 | 1.9 | 1.6 | .86 | .70 | .49 | .14 | .38 | .59 |
| CFSM | 1.06 | .72 | .75 | 3.29 | 1.30 | 1.21 | .96 | .79 | .70 | .35 | 4.35 | .72 |
| IN. | 1.23 | .81 | .87 | 3.79 | 1.40 | 1.40 | 1.07 | .92 | .78 | .41 | 5.01 | .81 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1.54 | 1.97 | 2.47 | 3.43 | 2.71 | 4.90 | 3.95 | 2.77 | 1.64 | 2.31 | 4.41 | 1.50 |
| MAX | 2.67 | 3.02 | 6.15 | 6.21 | 3.66 | 9.45 | 11.2 | 7.12 | 3.59 | 7.57 | 8.22 | 3.23 |
| (WY) | 1990 | 1989 | 1990 | 1992 | 1990 | 1989 | 1989 | 1989 | 1989 | 1989 | 1992 | 1991 |
| MIN | .61 | .89 | 1.12 | 1.38 | 1.42 | 2.29 | 1.73 | .97 | .52 | .27 | .77 | .26 |
| (WY) | 1989 | 1991 | 1991 | 1991 | 1991 | 1992 | 1988 | 1988 | 1988 | 1988 | 1988 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 894.01 | | 939.16 | | | |
| ANNUAL MEAN | 2.45 | | 2.57 | | 3.04 | |
| HIGHEST ANNUAL MEAN | | | | | 4.69 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 2.29 | 1991 |
| HIGHEST DAILY MEAN | 39 | Aug 3 | 83 | Aug 17 | 83 | Aug 17 1992 |
| LOWEST DAILY MEAN | .25 | Jul 25 | .14 | Jul 17 | .14 | Jul 18 1988 |
| ANNUAL SEVEN-DAY MINIMUM | .30 | Jul 19 | .20 | Jul 12 | .16 | Jul 15 1988 |
| INSTANTANEOUS PEAK FLOW | | | 115 | Aug 17 | 115 | Aug 17 1992 |
| INSTANTANEOUS PEAK STAGE | | | 4.10 | Aug 17 | 4.23 | Aug 16 1989 |
| INSTANTANEOUS LOW FLOW | | | .10 | Jul 18 | .10 | Jul 18 1992 |
| ANNUAL RUNOFF (CFSM) | 1.30 | | 1.36 | | 1.61 | |
| ANNUAL RUNOFF (INCHES) | 17.60 | | 18.49 | | 21.88 | |
| 10 PERCENT EXCEEDS | 4.5 | | 3.8 | | 5.6 | |
| 50 PERCENT EXCEEDS | 1.3 | | 1.5 | | 1.4 | |
| 90 PERCENT EXCEEDS | .51 | | .65 | | .35 | |

NEUSE RIVER BASIN

02091000 NAHUNTA SWAMP NEAR SHINE, NC

LOCATION.--Lat 35°29'20", long 77°48'22", Greene County, Hydrologic Unit 03020203, on right bank 10 ft downstream of bridge on Secondary Road 1058, 2 mi upstream from Appletree Swamp, 3.5 mi north of Shine, and 8 mi northwest of Snow Hill.

DRAINAGE AREA.--80.4 mi².

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

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

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

REMARKS.--Records good except those for estimated daily discharge, which are poor. Minimum discharge for period of record also occurred Oct. 8, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 58 | 33 | 30 | 61 | 98 | 68 | 59 | 28 | 26 | 26 | 13 | e40 |
| 2 | 52 | 31 | 30 | 57 | 84 | 61 | 56 | 27 | 21 | 23 | 12 | e39 |
| 3 | 173 | 32 | 32 | 336 | 76 | 57 | 49 | 25 | 18 | 21 | 218 | e37 |
| 4 | 136 | 33 | 56 | 797 | 72 | 54 | 49 | 23 | 17 | 117 | 151 | e75 |
| 5 | 88 | 32 | 40 | 742 | 69 | 52 | 62 | 21 | 18 | 143 | 50 | e67 |
| 6 | 78 | 32 | 35 | 410 | 66 | 59 | 57 | 21 | 17 | 35 | 39 | e130 |
| 7 | 65 | 33 | 32 | 228 | 64 | 140 | 50 | 22 | 15 | 28 | 29 | e78 |
| 8 | 55 | 31 | 30 | 168 | 60 | 149 | 48 | 33 | 13 | 23 | 24 | e52 |
| 9 | 49 | 34 | 29 | 140 | 56 | 100 | 44 | 31 | 19 | 20 | 22 | e55 |
| 10 | 46 | 59 | 32 | 129 | 53 | 77 | 42 | 25 | 160 | 18 | 58 | e70 |
| 11 | 44 | 54 | 31 | 119 | 52 | 79 | 39 | 22 | 66 | 16 | 24 | 56 |
| 12 | 42 | 43 | 30 | 104 | 52 | 72 | 37 | 20 | 39 | 14 | 42 | 67 |
| 13 | 38 | 39 | 29 | 98 | 51 | 62 | 38 | 25 | 32 | 13 | 136 | 46 |
| 14 | 36 | 35 | 29 | 111 | 53 | 55 | 34 | 27 | 27 | 12 | 324 | 36 |
| 15 | 35 | 34 | 28 | 105 | 55 | 52 | 33 | 22 | 25 | 11 | 820 | 31 |
| 16 | 92 | 31 | 26 | 89 | 73 | 50 | 32 | 19 | 23 | 10 | 806 | 28 |
| 17 | 88 | 31 | 27 | 79 | 64 | 47 | 33 | 18 | 22 | 9.9 | 1220 | 26 |
| 18 | 62 | 29 | 26 | 76 | 60 | 47 | 30 | 18 | 19 | 9.7 | 1600 | 25 |
| 19 | 52 | 30 | 24 | 72 | 65 | 63 | 29 | 62 | 18 | 24 | 1170 | 25 |
| 20 | 45 | 30 | 23 | 68 | 59 | 70 | 27 | 30 | 18 | 44 | 785 | 29 |
| 21 | 41 | 32 | 25 | 66 | 53 | 62 | 27 | 25 | 24 | 29 | 290 | 41 |
| 22 | 40 | 43 | 25 | 64 | 51 | 53 | 218 | 21 | 33 | 21 | 176 | 34 |
| 23 | 38 | 49 | 25 | 122 | 51 | 81 | 140 | 18 | 24 | 49 | 123 | 31 |
| 24 | 36 | 43 | 43 | 180 | 60 | 91 | 72 | 16 | 24 | 44 | 94 | 30 |
| 25 | 35 | 36 | 39 | 111 | 62 | 70 | 51 | 14 | 210 | 66 | 76 | 29 |
| 26 | 36 | 33 | 32 | 91 | 151 | 109 | 44 | 15 | 66 | 41 | 64 | 26 |
| 27 | 35 | 30 | 53 | 78 | 149 | 144 | 39 | 17 | 105 | 33 | 58 | 24 |
| 28 | 36 | 30 | 70 | 165 | 104 | 100 | 35 | 16 | 67 | 25 | 53 | 23 |
| 29 | 36 | 29 | 148 | 180 | 83 | 81 | 31 | 14 | 40 | 21 | 52 | 26 |
| 30 | 34 | 29 | 110 | 135 | --- | 70 | 29 | 31 | 30 | 17 | 44 | 23 |
| 31 | 33 | --- | 73 | 114 | --- | 63 | --- | 39 | --- | 15 | e42 | --- |
| TOTAL | 1734 | 1060 | 1262 | 5295 | 2046 | 2338 | 1534 | 745 | 1236 | 978.6 | 8615 | 1299 |
| MEAN | 55.9 | 35.3 | 40.7 | 171 | 70.6 | 75.4 | 51.1 | 24.0 | 41.2 | 31.6 | 278 | 43.3 |
| MAX | 173 | 59 | 148 | 797 | 151 | 149 | 218 | 62 | 210 | 143 | 1600 | 130 |
| MIN | 33 | 29 | 23 | 57 | 51 | 47 | 27 | 14 | 13 | 9.7 | 12 | 23 |
| CFSM | .70 | .44 | .51 | 2.12 | .88 | .94 | .64 | .30 | .51 | .39 | 3.46 | .54 |
| IN. | .80 | .49 | .58 | 2.45 | .95 | 1.08 | .71 | .34 | .57 | .45 | 3.99 | .60 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 47.2 | 53.3 | 68.5 | 115 | 143 | 145 | 106 | 62.3 | 51.5 | 62.0 | 77.1 | 58.7 |
| MAX | 473 | 253 | 184 | 253 | 307 | 311 | 252 | 277 | 190 | 395 | 360 | 396 |
| (WY) | 1965 | 1978 | 1958 | 1978 | 1983 | 1983 | 1974 | 1989 | 1969 | 1965 | 1974 | 1955 |
| MIN | 2.26 | 11.2 | 22.3 | 31.1 | 34.6 | 33.7 | 19.1 | 10.8 | 5.35 | 3.10 | 4.71 | 2.58 |
| (WY) | 1955 | 1987 | 1988 | 1955 | 1988 | 1986 | 1986 | 1986 | 1986 | 1987 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1954 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 28344.1 | | 28142.6 | | | |
| ANNUAL MEAN | 77.7 | | 76.9 | | 82.6 | |
| HIGHEST ANNUAL MEAN | | | | | 150 | 1965 |
| LOWEST ANNUAL MEAN | | | | | 22.9 | 1986 |
| HIGHEST DAILY MEAN | 912 | Aug 3 | 1600 | Aug 18 | 4560 | Oct 6 1964 |
| LOWEST DAILY MEAN | 8.6 | Jul 25 | 9.7 | Jul 18 | 1.0 | Oct 7 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 9.6 | Jul 19 | 11 | Jul 12 | 1.3 | Oct 4 1954 |
| INSTANTANEOUS PEAK FLOW | | | 1710 | Aug 18 | 5470 | Oct 3 1964 |
| INSTANTANEOUS PEAK STAGE | | | 11.36 | Aug 18 | 14.14 | Oct 6 1964 |
| INSTANTANEOUS LOW FLOW | | | 9.5 | Jul 18 | 1.0* | Oct 7 1954 |
| ANNUAL RUNOFF (CFSM) | .97 | | .96 | | 1.03 | |
| ANNUAL RUNOFF (INCHES) | 13.11 | | 13.02 | | 13.96 | |
| 10 PERCENT EXCEEDS | 147 | | 131 | | 175 | |
| 50 PERCENT EXCEEDS | 47 | | 41 | | 43 | |
| 90 PERCENT EXCEEDS | 20 | | 21 | | 10 | |

* See REMARKS.

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°25'44", long 77°34'59", Greene County, Hydrologic Unit 03020203, on left bank at bridge on State Highway 123 at Hookerton, and 2.2 mi upstream from Wheat Swamp Creek.

DRAINAGE AREA.--733 $mi^2$.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1928 to current year.

REVISED RECORDS.--WSP 1333: 1903-35. WSP 1383: Drainage area. WSP 1503: 1951. WSP 1723: 1932. WDR NC-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.85 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 26, 1934, nonrecording gage at site 1,400 ft upstream and Nov. 27, 1934, to Sept. 30, 1987, water-stage recorder at site 0.3 mi upstream at present datum.

REMARKS.--Records fair except those estimated for periods computed from once daily observer readings, which are poor. Flow regulated by Buckhorn Reservoir (station 02090370) since September 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1928 reached a stage of 23.3 ft, from floodmark; high water of autumn 1924 was about 0.1 ft lower, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 579 | 199 | 248 | 831 | 1270 | 1170 | 1170 | 468 | 237 | 903 | 234 | 464 |
| 2 | 447 | 198 | 237 | 851 | 1250 | 1290 | 1060 | 407 | 230 | 1030 | 198 | 397 |
| 3 | 454 | 193 | 235 | 1290 | 1190 | 1330 | 857 | 363 | 216 | 1150 | 194 | 349 |
| 4 | 639 | 190 | 246 | 1900 | 1090 | 1250 | 752 | 331 | 220 | 1270 | 442 | 312 |
| 5 | 682 | 186 | 268 | 2230 | 964 | 1010 | 672 | 306 | 231 | 1280 | 647 | 285 |
| 6 | 584 | 185 | 296 | 2500 | 825 | 820 | 642 | 285 | 229 | 946 | 761 | 276 |
| 7 | 473 | 184 | 304 | 2780 | 722 | 736 | 618 | 270 | 228 | 519 | 633 | 347 |
| 8 | 405 | 185 | 302 | 3220 | 650 | 752 | 597 | 275 | 211 | 383 | 406 | 513 |
| 9 | 342 | 187 | 291 | 3720 | 605 | 866 | 577 | 283 | 197 | 326 | 297 | 425 |
| 10 | 304 | 219 | 282 | 3940 | 572 | 1000 | 551 | 281 | 310 | 289 | 263 | 363 |
| 11 | 273 | 260 | 270 | 3850 | 546 | 1160 | 517 | 272 | 538 | 254 | 261 | 329 |
| 12 | 253 | 289 | 263 | 3510 | 521 | 1370 | 481 | 265 | 612 | 227 | 222 | 294 |
| 13 | 232 | 298 | 260 | 3000 | 496 | 1570 | 449 | 265 | 680 | 205 | 351 | 278 |
| 14 | 215 | 288 | 258 | 2520 | 488 | 1720 | 422 | 261 | 742 | 203 | 746 | 269 |
| 15 | 202 | 278 | 254 | 2010 | 494 | 1770 | 404 | 254 | 769 | 184 | 1700 | 275 |
| 16 | 197 | 264 | 247 | 1550 | 529 | 1660 | 405 | 239 | 747 | 152 | 2590 | 275 |
| 17 | 252 | 249 | 240 | 1240 | 582 | 1420 | 429 | 230 | 572 | 138 | 3320 | 250 |
| 18 | 345 | 231 | 233 | 1080 | 652 | 1090 | 444 | 230 | 410 | 134 | 4800 | 221 |
| 19 | 392 | 221 | 225 | 945 | 719 | 855 | 433 | 274 | 327 | 522 | 5930 | e198 |
| 20 | 399 | 215 | 214 | 860 | 775 | 756 | 405 | 287 | 272 | 697 | 6590 | e187 |
| 21 | 415 | 214 | 204 | 777 | 794 | 713 | 374 | 275 | 255 | 396 | 6830 | e176 |
| 22 | 398 | 220 | 198 | 699 | 776 | 708 | 537 | 251 | 283 | 284 | 6270 | e172 |
| 23 | 365 | 233 | 196 | 678 | 734 | 731 | 775 | 235 | 284 | 272 | 5110 | e180 |
| 24 | 305 | 255 | 220 | 774 | 697 | 772 | 872 | 225 | 287 | 331 | 3990 | e187 |
| 25 | 270 | 271 | 247 | 881 | 664 | 807 | 957 | 212 | 353 | 386 | 3290 | e190 |
| 26 | 247 | 273 | 259 | 907 | 684 | e860 | 1050 | 201 | 480 | 468 | 2690 | e191 |
| 27 | 230 | 271 | 276 | 901 | 797 | 992 | 1150 | 194 | 451 | 507 | 2200 | e187 |
| 28 | 222 | 274 | 344 | 978 | 919 | 1050 | 1160 | 185 | 462 | 463 | 1600 | e181 |
| 29 | 218 | 278 | 548 | 1120 | 1040 | 1140 | 976 | 174 | 596 | 426 | 1110 | e176 |
| 30 | 208 | 267 | 687 | 1230 | --- | 1180 | 629 | 179 | 760 | 357 | 743 | e173 |
| 31 | 205 | --- | 782 | 1270 | --- | 1200 | --- | 215 | --- | 287 | 540 | --- |
| TOTAL | 10752 | 7075 | 9134 | 54042 | 22045 | 33748 | 20365 | 8192 | 12189 | 14989 | 64958 | 8120 |
| MEAN | 347 | 236 | 295 | 1743 | 760 | 1089 | 679 | 264 | 406 | 484 | 2095 | 271 |
| MAX | 682 | 298 | 782 | 3940 | 1270 | 1770 | 1170 | 468 | 769 | 1280 | 6830 | 513 |
| MIN | 197 | 184 | 196 | 678 | 488 | 708 | 374 | 174 | 197 | 134 | 194 | 172 |
| CFSM | .47 | .32 | .40 | 2.38 | 1.04 | 1.49 | .93 | .36 | .55 | .66 | 2.86 | .37 |
| IN. | .55 | .36 | .46 | 2.74 | 1.12 | 1.71 | 1.03 | .42 | .62 | .76 | 3.30 | .41 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 448 | 444 | 661 | 1088 | 1353 | 1433 | 1041 | 602 | 458 | 569 | 674 | 509 |
| MAX | 4183 | 2150 | 2349 | 2610 | 4316 | 3491 | 2752 | 3363 | 1708 | 2203 | 2422 | 3675 |
| (WY) | 1965 | 1948 | 1949 | 1987 | 1948 | 1989 | 1989 | 1989 | 1989 | 1929 | 1960 | 1955 |
| MIN | 20.3 | 41.1 | 64.7 | 92.5 | 239 | 382 | 202 | 82.9 | 38.5 | 63.3 | 37.2 | 24.9 |
| (WY) | 1955 | 1955 | 1934 | 1934 | 1934 | 1981 | 1986 | 1986 | 1986 | 1952 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1929 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 224643 | | 265609 | | | |
| ANNUAL MEAN | 615 | | 726 | | 762 | |
| HIGHEST ANNUAL MEAN | | | | | 1422 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 242 | 1951 |
| HIGHEST DAILY MEAN | 5130 | Aug 5 | 6830 | Aug 21 | 16000 | Oct 7 1964 |
| LOWEST DAILY MEAN | 84 | Jul 26 | 134 | Jul 18 | 15 | Oct 28 1933 |
| ANNUAL SEVEN-DAY MINIMUM | 104 | Jul 21 | 178 | Jul 12 | 16 | Oct 8 1954 |
| INSTANTANEOUS PEAK FLOW | | | 6890 | Aug 21 | 17200 | Oct 8 1964 |
| INSTANTANEOUS PEAK STAGE | | | 15.42 | Aug 21 | 22.11 | Oct 8 1964 |
| INSTANTANEOUS LOW FLOW | | | 126 | Jul 18 | 15 | Oct 28 1933 |
| ANNUAL RUNOFF (CFSM) | .84 | | .99 | | 1.04 | |
| ANNUAL RUNOFF (INCHES) | 11.40 | | 13.48 | | 14.13 | |
| 10 PERCENT EXCEEDS | 1150 | | 1280 | | 1900 | |
| 50 PERCENT EXCEEDS | 439 | | 405 | | 443 | |
| 90 PERCENT EXCEEDS | 165 | | 202 | | 87 | |

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1969-72, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1979 to September 1984.
WATER TEMPERATURE: October 1949 to September 1950, March 1979 to September 1984.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1984.

REMARKS.--Station operated as part of NASQAN network from March 1979 to present. Miscellaneous chemical data published for water years 1945, 1947-49, 1955-67.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 218 microsiemens, Nov. 1, 10, 1983; minimum daily, 41 microsiemens, June 11, 1979.
WATER TEMPERATURE: Maximum, 29.5°C, Aug. 23, 1983; minimum daily, 1.0°C, Jan. 13, 14, 1981, Jan. 18, 1982.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 05... | 1300 | 269 | 86 | 6.7 | 18.0 | 4.1 | 755 | 6.9 | 74 | -- | -- | 5.9 |
| APR | | | | | | | | | | | | |
| 29... | 1330 | 966 | 80 | 6.8 | 16.0 | 5.4 | 760 | 7.4 | 75 | -- | -- | 4.3 |
| SEP | | | | | | | | | | | | |
| 15... | 1430 | 275 | 106 | 7.3 | 21.5 | 4.7 | 767 | 6.4 | 72 | 120 | K25 | 5.7 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 05... | 2.2 | 9.3 | 41 | 0.8 | 4.5 | 14 | 12 | 7.3 | 22 | 0.30 | 7.2 | 80 |
| APR | | | | | | | | | | | | |
| 29... | 2.0 | 6.1 | 37 | 0.6 | 3.0 | 14 | 11 | 4.9 | 9.1 | 0.20 | 5.1 | 84 |
| SEP | | | | | | | | | | | | |
| 15... | 2.2 | 8.4 | 39 | 0.8 | 4.2 | 17 | 14 | 8.8 | 15 | 0.20 | 8.7 | 80 |

| DATE | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 05... | 70 | 0.680 | 0.680 | 0.010 | 0.010 | 0.690 | 0.690 | 0.100 | 0.090 | 0.13 | 0.12 | 0.40 |
| APR | | | | | | | | | | | | |
| 29... | 45 | 0.380 | 0.370 | 0.020 | 0.010 | 0.400 | 0.380 | 0.130 | 0.120 | 0.17 | 0.15 | 0.57 |
| SEP | | | | | | | | | | | | |
| 15... | 68 | 0.920 | 0.920 | 0.030 | 0.030 | 0.950 | 0.950 | 0.200 | 0.210 | 0.26 | 0.27 | 0.50 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS NO3) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) | BARIUM, DIS-SOLVED (UG/L AS BA) | COBALT, DIS-SOLVED (UG/L AS CO) | IRON, DIS-SOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 05... | 0.50 | 1.2 | 5.3 | 0.170 | 0.180 | 0.130 | 0.140 | 0.43 | 110 | 29 | <3 | 1000 |
| APR | | | | | | | | | | | | |
| 29... | 0.70 | 1.1 | 4.9 | 0.120 | 0.080 | 0.100 | 0.070 | 0.21 | 190 | 34 | <3 | 1300 |
| SEP | | | | | | | | | | | | |
| 15... | 0.70 | 1.7 | 7.3 | 0.240 | 0.160 | 0.190 | 0.150 | 0.46 | 100 | 40 | <3 | 1300 |

| DATE | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 05... | <4 | 18 | <10 | <1 | <1 | <1.0 | 30 | <6 | -- | -- | -- |
| APR | | | | | | | | | | | |
| 29... | <4 | 41 | <10 | <1 | <1 | <1.0 | 27 | <6 | 7 | 18 | 79 |
| SEP | | | | | | | | | | | |
| 15... | <4 | 51 | <10 | 1 | <1 | <1.0 | 33 | <6 | 3 | 2.2 | 91 |

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC

LOCATION.--Lat 35°06'42", long 77°01'37", Craven County, Hydrologic Unit 03020204, at bridge on U.S. Highway 17 at New Bern, and 0.9 mi upstream from Trent River.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--March 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 4.82 ft, Nov. 10, 1991; minimum elevation, -2.27 ft, Jan. 4, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 4.82 ft, November 10; minimum elevation, -2.18 ft, March 11.

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.13 | 2.27 | .32 | 1.20 | .51 | .46 | .51 | 1.05 | 1.14 | .81 | .93 | .87 |
| 2 | 1.09 | 1.95 | .18 | 1.14 | .58 | .29 | .47 | .50 | 1.27 | 1.06 | 1.17 | 1.04 |
| 3 | 1.19 | 1.89 | -.17 | 1.40 | .83 | .55 | .53 | .42 | 1.44 | 1.50 | .72 | .56 |
| 4 | 1.05 | 1.85 | -.36 | 1.18 | .68 | 1.03 | .61 | .83 | 1.44 | .96 | .48 | .49 |
| 5 | .93 | 2.10 | .66 | 1.73 | 1.40 | .81 | .51 | 1.56 | 1.04 | 1.06 | 1.08 | .61 |
| 6 | 1.05 | 1.94 | .09 | 1.98 | 2.34 | .76 | .63 | 2.06 | 1.13 | .60 | 1.25 | .73 |
| 7 | 1.24 | 1.67 | .10 | 1.89 | 1.68 | .82 | .35 | 2.65 | 1.09 | 1.14 | 1.28 | .86 |
| 8 | 1.38 | 2.19 | .03 | 1.62 | 1.53 | .73 | .61 | 1.41 | .87 | 1.21 | 1.00 | .85 |
| 9 | 1.39 | 3.13 | -.09 | 1.31 | 1.29 | .95 | .67 | .94 | .57 | .46 | .43 | .84 |
| 10 | 1.05 | 2.34 | .33 | 1.15 | 2.07 | .68 | .49 | .98 | 1.51 | .68 | .41 | .86 |
| 11 | .76 | 1.27 | .56 | .93 | .85 | -.56 | .46 | 1.35 | 1.69 | .55 | .25 | .99 |
| 12 | .58 | 1.59 | .48 | 1.07 | 1.41 | .36 | .49 | 1.48 | 1.55 | .43 | .20 | 1.51 |
| 13 | 1.16 | 1.28 | .28 | 1.04 | 1.09 | .30 | 2.33 | 1.30 | 1.56 | -.20 | .62 | 1.62 |
| 14 | 1.12 | 1.03 | -.03 | .20 | .60 | .49 | 1.30 | 1.08 | 1.34 | .10 | .56 | 1.52 |
| 15 | .81 | .91 | -.09 | .82 | .55 | .43 | 1.00 | 1.05 | 1.23 | -.30 | .74 | 1.50 |
| 16 | 1.30 | .63 | -.30 | -.40 | .29 | .72 | .65 | 1.06 | 1.38 | -.37 | 1.32 | 1.26 |
| 17 | .93 | 1.38 | -.58 | .01 | 1.25 | -.05 | .11 | 1.38 | 1.60 | -.40 | 1.38 | .76 |
| 18 | .78 | 1.06 | -.52 | .33 | .80 | .30 | .43 | .92 | 1.15 | -.25 | 1.46 | .59 |
| 19 | .60 | .70 | .30 | .96 | .73 | -.04 | .70 | 1.29 | .79 | .40 | 1.39 | .39 |
| 20 | 1.40 | .63 | .16 | .46 | .51 | 1.18 | .76 | 1.79 | .79 | .58 | 1.73 | .96 |
| 21 | 1.17 | .50 | -.32 | .37 | .59 | .86 | .63 | 1.70 | 1.28 | .55 | 2.20 | 1.00 |
| 22 | 1.00 | .47 | .02 | .48 | .60 | .83 | .48 | 1.19 | 1.41 | .49 | 2.15 | .91 |
| 23 | 1.04 | .49 | -.08 | .41 | .70 | 1.08 | .87 | .79 | 1.08 | .42 | 1.95 | 1.58 |
| 24 | 1.08 | .14 | .24 | -.47 | .72 | 1.39 | .38 | .67 | .81 | .35 | 1.68 | 2.30 |
| 25 | 1.13 | .33 | .54 | .35 | 1.01 | 1.12 | .44 | 1.35 | .44 | .82 | 1.34 | 1.68 |
| 26 | 1.16 | .76 | .84 | .44 | .66 | .81 | .76 | 1.33 | .28 | 1.08 | 1.06 | 1.70 |
| 27 | 1.27 | .82 | .91 | .67 | .67 | .38 | 1.03 | 1.57 | .86 | .48 | .90 | 1.48 |
| 28 | 1.81 | .52 | .98 | .49 | .33 | .31 | 1.67 | 1.69 | 1.48 | .92 | .28 | 1.72 |
| 29 | 2.73 | .40 | .51 | .67 | -.23 | .62 | 1.95 | 1.95 | 1.44 | 1.09 | .89 | 1.98 |
| 30 | 1.71 | .39 | .65 | .46 | --- | .50 | 1.09 | 1.30 | 1.26 | .97 | 1.19 | 2.34 |
| 31 | 1.90 | --- | 1.38 | .34 | --- | .65 | --- | .99 | --- | .60 | .83 | --- |
| TOTAL | 36.94 | 36.63 | 7.02 | 24.23 | 26.04 | 18.76 | 22.91 | 39.63 | 34.92 | 17.79 | 32.87 | 35.50 |
| MEAN | 1.19 | 1.22 | .23 | .78 | .90 | .61 | .76 | 1.28 | 1.16 | .57 | 1.06 | 1.18 |
| MAX | 2.73 | 3.13 | 1.38 | 1.98 | 2.34 | 1.39 | 2.33 | 2.65 | 1.69 | 1.50 | 2.20 | 2.34 |
| MIN | .58 | .14 | -.58 | -.47 | -.23 | -.56 | .11 | .42 | .28 | -.40 | .20 | .39 |

CAL YR 1991 TOTAL 321.81 MEAN .88 MAX 3.13 MIN -.58
WTR YR 1992 TOTAL 333.24 MEAN .91 MAX 3.13 MIN -.58

02092500 TRENT RIVER NEAR TRENTON, NC

LOCATION.--Lat 35°03'54", long 77°27'24", Jones County, Hydrologic Unit 03020204, on left bank 50 ft downstream of Free Bridge on Secondary Road 1129, 800 ft downstream of Little Chinquapin Branch, 1.5 mi southwest of Phillips Crossroads, and 6 mi west of Trenton.

DRAINAGE AREA.--168 $mi^2$.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.15 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 21, 1951, nonrecording gage on bridge 50 ft upstream at same datum. Satellite data transmitter at the station.

REMARKS.--No estimated daily discharges. Records fair. Minimum discharge for period of record also occurred Oct. 24, 25, and 26, 1974. Minimum discharge for current water year also occurred August 3.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 17.3 ft; discharge, 7,600 $ft^3/s$, from information provided by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 20 | 27 | 114 | 459 | 145 | 190 | 61 | 48 | 15 | 3.4 | 74 |
| 2 | 34 | 19 | 26 | 101 | 410 | 123 | 154 | 51 | 63 | 13 | 2.8 | 62 |
| 3 | 35 | 19 | 26 | 245 | 332 | 105 | 131 | 45 | 67 | 12 | 6.3 | 57 |
| 4 | 46 | 17 | 33 | 669 | 253 | 92 | 113 | 38 | 64 | 11 | 6.7 | 51 |
| 5 | 63 | 16 | 43 | 1180 | 199 | 83 | 105 | 33 | 54 | 10 | 4.3 | 42 |
| 6 | 70 | 16 | 47 | 1380 | 164 | 78 | 102 | 29 | 42 | 9.1 | 6.9 | 37 |
| 7 | 75 | 15 | 46 | 1170 | 143 | 76 | 100 | 27 | 34 | 8.0 | 8.6 | 37 |
| 8 | 71 | 15 | 45 | 860 | 126 | 78 | 95 | 32 | 27 | 7.3 | 8.3 | 43 |
| 9 | 61 | 16 | 43 | 617 | 113 | 80 | 86 | 40 | 29 | 6.7 | 6.8 | 49 |
| 10 | 51 | 25 | 41 | 460 | 103 | 77 | 78 | 43 | 156 | 6.2 | 7.5 | 56 |
| 11 | 43 | 44 | 37 | 363 | 95 | 74 | 71 | 40 | 256 | 5.8 | 6.9 | 52 |
| 12 | 37 | 56 | 33 | 289 | 89 | 68 | 64 | 36 | 299 | 5.8 | 6.1 | 46 |
| 13 | 31 | 58 | 31 | 243 | 84 | 63 | 58 | 33 | 318 | 5.8 | 14 | 40 |
| 14 | 26 | 56 | 30 | 233 | 81 | 60 | 53 | 30 | 287 | 5.9 | 132 | 32 |
| 15 | 24 | 56 | 29 | 246 | 79 | 56 | 50 | 29 | 216 | 5.4 | 325 | 26 |
| 16 | 23 | 52 | 27 | 246 | 81 | 53 | 47 | 31 | 144 | 5.0 | 773 | 22 |
| 17 | 27 | 45 | 25 | 230 | 78 | 50 | 45 | 32 | 105 | 4.8 | 1800 | 19 |
| 18 | 29 | 38 | 24 | 202 | 77 | 48 | 43 | 36 | 81 | 5.1 | 2840 | 17 |
| 19 | 31 | 32 | 22 | 174 | 78 | 49 | 41 | 32 | 64 | 6.2 | 3560 | 15 |
| 20 | 32 | 29 | 21 | 152 | 84 | 54 | 37 | 41 | 54 | 7.8 | 3240 | 14 |
| 21 | 31 | 28 | 20 | 135 | 86 | 65 | 34 | 61 | 54 | 14 | 2600 | 15 |
| 22 | 28 | 28 | 20 | 121 | 83 | 71 | 54 | 64 | 50 | 12 | 2150 | 17 |
| 23 | 25 | 27 | 20 | 123 | 82 | 76 | 141 | 73 | 45 | 11 | 1670 | 22 |
| 24 | 23 | 31 | 22 | 191 | 104 | 83 | 204 | 68 | 40 | 12 | 1120 | 22 |
| 25 | 22 | 47 | 25 | 254 | 124 | 86 | 245 | 51 | 37 | 9.6 | 713 | 23 |
| 26 | 21 | 36 | 27 | 286 | 147 | 135 | 241 | 38 | 32 | 8.6 | 482 | 27 |
| 27 | 18 | 35 | 32 | 277 | 178 | 297 | 194 | 30 | 28 | 7.5 | 348 | 32 |
| 28 | 14 | 36 | 45 | 287 | 188 | 342 | 136 | 25 | 26 | 6.4 | 211 | 35 |
| 29 | 16 | 30 | 75 | 367 | 171 | 342 | 99 | 22 | 22 | 5.5 | 142 | 36 |
| 30 | 19 | 28 | 112 | 424 | --- | 293 | 76 | 25 | 19 | 4.6 | 110 | 31 |
| 31 | 20 | --- | 121 | 466 | --- | 236 | --- | 34 | --- | 3.9 | 88 | --- |
| TOTAL | 1086 | 970 | 1175 | 12105 | 4291 | 3538 | 3087 | 1230 | 2761 | 251.0 | 22392.6 | 1051 |
| MEAN | 35.0 | 32.3 | 37.9 | 390 | 148 | 114 | 103 | 39.7 | 92.0 | 8.10 | 722 | 35.0 |
| MAX | 75 | 58 | 121 | 1380 | 459 | 342 | 245 | 73 | 318 | 15 | 3560 | 74 |
| MIN | 14 | 15 | 20 | 101 | 77 | 48 | 34 | 22 | 19 | 3.9 | 2.8 | 14 |
| CFSM | .21 | .19 | .23 | 2.32 | .88 | .68 | .61 | .24 | .55 | .05 | 4.30 | .21 |
| IN. | .24 | .21 | .26 | 2.68 | .95 | .78 | .68 | .27 | .61 | .06 | 4.96 | .23 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 92.5 | 88.9 | 162 | 298 | 322 | 340 | 222 | 128 | 124 | 155 | 191 | 126 |
| MAX | 864 | 295 | 551 | 703 | 746 | 963 | 684 | 435 | 768 | 1381 | 1587 | 1577 |
| (WY) | 1972 | 1963 | 1958 | 1978 | 1973 | 1983 | 1973 | 1978 | 1961 | 1962 | 1955 | 1955 |
| MIN | 1.58 | 1.80 | 6.65 | 17.2 | 31.8 | 36.5 | 23.1 | 10.2 | 2.77 | 5.33 | 4.97 | 4.56 |
| (WY) | 1955 | 1955 | 1955 | 1955 | 1955 | 1955 | 1955 | 1985 | 1985 | 1985 | 1957 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1951 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 66753 | | 53937.6 | | | |
| ANNUAL MEAN | 183 | | 147 | | 189 | |
| HIGHEST ANNUAL MEAN | | | | | 316 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 79.8 | 1985 |
| HIGHEST DAILY MEAN | 975 | Jul 8 | 3560 | Aug 19 | 8580 | Sep 21 1955 |
| LOWEST DAILY MEAN | 11 | Jun 16 | 2.8 | Aug 2 | .34 | Oct 23 1973 |
| ANNUAL SEVEN-DAY MINIMUM | 13 | Jun 12 | 4.6 | Jul 30 | .39 | Oct 22 1973 |
| INSTANTANEOUS PEAK FLOW | | | 3640 | Aug 19 | 9100 | Sep 21 1955 |
| INSTANTANEOUS PEAK STAGE | | | 15.40 | Aug 19 | 17.84 | Sep 21 1955 |
| INSTANTANEOUS LOW FLOW | | | 2.4* | Aug 2 | .30* | Oct 23 1974 |
| ANNUAL RUNOFF (CFSM) | 1.09 | | .88 | | 1.13 | |
| ANNUAL RUNOFF (INCHES) | 14.78 | | 11.94 | | 15.31 | |
| 10 PERCENT EXCEEDS | 493 | | 286 | | 473 | |
| 50 PERCENT EXCEEDS | 89 | | 46 | | 81 | |
| 90 PERCENT EXCEEDS | 24 | | 11 | | 8.8 | |

* See REMARKS.

NEUSE RIVER BASIN

## 0209265800 NEUSE RIVER AT MINNESOTT BEACH, NC

LOCATION.--Lat 34°57'58", long 76°48'20", Pamlico County, Hydrologic Unit 03020204, at ferry landing, north shore of Neuse River, at State Highway 306, and 0.3 mi southeast of Minnesott Beach.

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--March 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10 ft above National Geodetic Vertical Datum of 1929, gage readings have been reduced to elevations NGVD.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 4.80 ft, Nov. 9, 1991; minimum elevation, -1.66 ft, June 13, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 4.80 ft, November 9; minimum elevation, -1.12 ft, December 17.

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.08 | 2.27 | .19 | 1.21 | .81 | .45 | .52 | 1.15 | 1.29 | .97 | 1.07 | .98 |
| 2 | 1.08 | 1.92 | .17 | 1.17 | .82 | .29 | .73 | .50 | 1.32 | 1.23 | 1.21 | 1.03 |
| 3 | 1.28 | 1.95 | -.28 | 1.41 | .83 | .51 | .71 | .49 | 1.42 | 1.48 | .79 | .56 |
| 4 | 1.03 | 1.93 | .20 | 1.35 | .68 | 1.02 | .75 | 1.03 | 1.31 | 1.03 | .55 | .51 |
| 5 | .90 | 2.17 | .67 | 1.93 | 1.37 | .78 | .79 | 1.62 | 1.19 | 1.17 | 1.14 | .63 |
| 6 | 1.16 | 1.98 | .05 | 1.99 | 2.39 | .63 | .72 | 2.20 | 1.23 | .70 | 1.35 | .75 |
| 7 | 1.37 | 1.74 | .03 | 1.84 | 1.81 | .71 | .37 | 2.72 | 1.17 | 1.25 | 1.37 | .89 |
| 8 | 1.37 | 2.32 | .04 | 1.58 | 1.59 | .77 | .64 | 1.44 | 1.00 | 1.23 | 1.06 | .84 |
| 9 | 1.36 | 3.42 | -.22 | 1.21 | 1.34 | .97 | .67 | .98 | .66 | .57 | .49 | .80 |
| 10 | 1.06 | 2.33 | .67 | 1.24 | 2.05 | .55 | .50 | 1.14 | 1.56 | .77 | .49 | .80 |
| 11 | .78 | 1.44 | .59 | 1.18 | .90 | -.24 | .47 | 1.43 | 1.71 | .64 | .29 | 1.07 |
| 12 | .65 | 1.65 | .42 | 1.03 | 1.39 | .39 | .52 | 1.58 | 1.58 | .48 | .32 | 1.54 |
| 13 | 1.19 | 1.38 | .22 | 1.01 | 1.17 | .47 | 2.35 | 1.34 | 1.57 | -.07 | .64 | 1.63 |
| 14 | 1.09 | 1.08 | .01 | .29 | .62 | .52 | 1.33 | 1.11 | 1.39 | .18 | .65 | 1.52 |
| 15 | .81 | .91 | -.01 | 1.13 | .47 | .52 | .94 | 1.08 | 1.28 | -.25 | .82 | 1.50 |
| 16 | 1.42 | .67 | -.02 | .02 | .37 | .92 | .58 | 1.10 | 1.39 | -.29 | 1.36 | 1.22 |
| 17 | 1.14 | 1.41 | -.77 | .01 | 1.22 | -.11 | .09 | 1.38 | 1.55 | -.32 | 1.45 | .71 |
| 18 | .81 | 1.05 | .00 | .37 | .81 | .29 | .41 | .98 | 1.17 | -.16 | 1.55 | .53 |
| 19 | .61 | .70 | .44 | 1.00 | .71 | .15 | .67 | 1.39 | .81 | .44 | 1.46 | .38 |
| 20 | 1.42 | .55 | .13 | .50 | .63 | 1.31 | .67 | 1.94 | .83 | .63 | 1.81 | .91 |
| 21 | 1.20 | .50 | -.28 | .39 | .58 | 1.00 | .38 | 1.77 | 1.35 | .58 | 2.30 | .97 |
| 22 | 1.01 | .31 | .07 | .47 | .58 | .75 | .43 | 1.26 | 1.52 | .54 | 2.20 | .90 |
| 23 | 1.01 | .54 | -.10 | .24 | .68 | 1.19 | .84 | .86 | 1.12 | .46 | 2.01 | 1.68 |
| 24 | 1.07 | .17 | .47 | -.14 | .70 | 1.35 | .39 | .75 | .86 | .47 | 1.75 | 2.48 |
| 25 | 1.12 | .66 | .60 | .37 | .97 | 1.05 | .51 | 1.42 | .52 | .96 | 1.42 | 1.82 |
| 26 | 1.15 | .90 | .76 | .49 | .76 | .79 | .98 | 1.45 | .35 | 1.12 | 1.20 | 1.68 |
| 27 | 1.31 | .75 | 1.11 | .62 | .76 | .61 | 1.13 | 1.63 | .93 | .58 | 1.07 | 1.44 |
| 28 | 1.90 | .49 | .84 | .53 | .31 | .50 | 1.78 | 1.68 | 1.49 | 1.07 | .34 | 1.70 |
| 29 | 2.73 | .40 | .45 | .68 | .11 | .66 | 2.10 | 1.89 | 1.42 | 1.12 | 1.07 | 2.07 |
| 30 | 1.84 | .38 | 1.07 | .46 | --- | .50 | 1.14 | 1.22 | 1.28 | 1.01 | 1.25 | 2.40 |
| 31 | 1.99 | --- | 1.45 | .40 | --- | .75 | --- | 1.08 | --- | .61 | .95 | --- |
| TOTAL | 37.94 | 37.97 | 8.97 | 25.98 | 27.43 | 20.05 | 24.11 | 41.61 | 36.27 | 20.20 | 35.43 | 35.94 |
| MEAN | 1.22 | 1.27 | .29 | .84 | .95 | .65 | .80 | 1.34 | 1.21 | .65 | 1.14 | 1.20 |

02093000 NEW RIVER NEAR GUM BRANCH, NC

LOCATION.--Lat 34°50'56", long 77°31'11", Onslow County, Hydrologic Unit 03030001, on right bank 5 ft downstream of Secondary Road 1314, 0.7 mi downstream of Jenkins Swamp, 1.8 mi southwest of Gum Branch, and 3.8 mi southeast of Richlands.

DRAINAGE AREA.--94 $mi^2$.

PERIOD OF RECORD.--August 1949 to September 1973. July 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Aug. 19, 1949, to Mar. 22, 1950, nonrecording gage and Mar. 23, 1950, to Mar. 25, 1969, water-stage recorder at site 0.2 mi upstream at 2.52 ft. Mar. 26, 1969, to Sept. 1973 water-stage recorder at present site and datum.

REMARKS.--Records fair except those for periods of estimated daily discharges and those below 5 $ft^3/s$, which are poor. Minimum discharge for current year also occurred August 3. Maximum discharge and stage for period of record, from floodmark, site and datum then in use. Low flows possibly affected by tide.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1908 reached a stage of about 18 ft at former site and datum, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22 | 46 | 18 | 58 | 131 | 79 | e80 | 32 | 71 | 31 | 10 | e55 |
| 2 | 22 | 72 | 19 | 50 | 108 | 72 | e74 | 28 | 50 | 26 | 9.3 | e47 |
| 3 | 44 | 72 | 22 | 384 | 96 | 64 | e67 | 26 | 36 | 26 | 11 | e42 |
| 4 | 46 | 43 | 46 | 906 | 89 | 57 | e62 | 22 | 35 | 26 | 13 | e37 |
| 5 | 38 | 25 | 34 | 814 | 83 | 54 | e59 | 20 | 44 | 21 | 11 | e33 |
| 6 | 48 | 23 | 29 | 400 | 76 | 50 | e56 | 19 | 35 | 19 | 19 | e31 |
| 7 | 41 | 24 | 27 | 254 | 72 | 59 | e53 | 20 | 28 | 15 | 14 | e29 |
| 8 | 38 | 22 | 25 | 197 | 72 | 58 | e50 | 55 | 22 | 14 | 12 | e33 |
| 9 | 35 | 22 | 24 | 163 | 63 | 50 | e48 | 51 | 38 | 13 | 11 | e38 |
| 10 | 33 | 81 | 23 | 141 | 54 | 45 | 43 | 33 | 255 | 12 | 9.9 | e44 |
| 11 | 28 | 73 | 22 | 130 | 52 | 45 | 41 | 25 | 146 | 11 | 9.5 | e50 |
| 12 | 26 | 45 | 22 | 116 | 50 | 38 | 43 | 22 | 97 | 11 | 8.8 | e56 |
| 13 | 23 | 32 | 21 | 108 | 48 | 36 | 41 | 30 | 85 | 11 | 33 | e45 |
| 14 | 21 | 28 | 21 | 139 | 47 | 34 | 37 | 40 | 113 | 10 | 243 | e37 |
| 15 | 22 | 26 | 21 | 142 | 45 | 33 | 37 | 28 | 200 | 11 | 340 | e32 |
| 16 | 21 | 24 | 19 | 115 | 48 | 32 | 36 | 22 | 105 | 10 | 557 | e26 |
| 17 | 38 | 23 | 18 | 98 | 43 | 31 | 33 | 27 | 70 | 9.4 | 910 | e22 |
| 18 | 32 | 21 | 18 | 90 | 44 | 31 | 29 | 25 | 44 | 9.7 | 1350 | 23 |
| 19 | 26 | 21 | 18 | 83 | 60 | 37 | 27 | 28 | 31 | 10 | 1420 | 26 |
| 20 | 24 | 21 | 17 | 78 | 63 | 60 | 25 | 28 | 76 | 13 | e1300 | 25 |
| 21 | 23 | 20 | 17 | 74 | 52 | 57 | 26 | 27 | 536 | 11 | e1030 | 25 |
| 22 | 23 | 21 | 17 | 69 | 46 | 48 | 124 | 24 | 269 | 11 | e800 | 31 |
| 23 | 23 | 23 | 18 | 98 | 61 | 54 | 162 | 20 | 129 | 12 | e600 | 40 |
| 24 | 22 | 24 | 24 | 181 | 119 | 60 | 147 | 17 | 84 | 14 | e450 | 49 |
| 25 | 22 | 22 | 27 | 131 | 107 | 50 | 66 | 16 | 63 | 18 | e340 | 37 |
| 26 | 23 | 20 | 25 | 108 | 130 | 177 | 56 | 27 | 46 | 18 | e250 | 41 |
| 27 | 24 | 19 | 29 | 92 | 140 | e310 | 46 | 26 | 38 | 15 | e190 | 46 |
| 28 | 25 | 19 | 58 | 177 | 114 | e200 | 41 | 23 | 35 | 12 | e150 | 50 |
| 29 | 24 | 19 | 119 | 244 | 96 | e150 | 36 | 20 | 32 | 12 | e110 | 76 |
| 30 | 26 | 18 | 90 | 184 | --- | e110 | 35 | 56 | 31 | 14 | e85 | 43 |
| 31 | 31 | --- | 72 | 159 | --- | e95 | --- | 96 | --- | 14 | e65 | --- |
| TOTAL | 894 | 949 | 960 | 5983 | 2209 | 2276 | 1680 | 933 | 2844 | 460.1 | 10361.5 | 1169 |
| MEAN | 28.8 | 31.6 | 31.0 | 193 | 76.2 | 73.4 | 56.0 | 30.1 | 94.8 | 14.8 | 334 | 39.0 |
| MAX | 48 | 81 | 119 | 906 | 140 | 310 | 162 | 96 | 536 | 31 | 1420 | 76 |
| MIN | 21 | 18 | 17 | 50 | 43 | 31 | 25 | 16 | 22 | 9.4 | 8.8 | 22 |
| CFSM | .39 | .42 | .42 | 2.59 | 1.02 | .99 | .75 | .40 | 1.27 | .20 | 4.49 | .52 |
| IN. | .45 | .47 | .48 | 2.99 | 1.10 | 1.14 | .84 | .47 | 1.42 | .23 | 5.17 | .58 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 70.9 | 61.1 | 86.3 | 144 | 166 | 171 | 120 | 76.5 | 94.8 | 129 | 118 | 90.3 |
| MAX | 553 | 190 | 277 | 299 | 403 | 418 | 377 | 188 | 423 | 717 | 734 | 887 |
| (WY) | 1972 | 1970 | 1958 | 1963 | 1973 | 1959 | 1973 | 1969 | 1961 | 1962 | 1955 | 1955 |
| MIN | 2.01 | 4.30 | 13.3 | 32.4 | 33.1 | 27.7 | 21.0 | 16.4 | 11.3 | 8.82 | 6.25 | 4.25 |
| (WY) | 1955 | 1955 | 1955 | 1955 | 1955 | 1955 | 1955 | 1957 | 1970 | 1970 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1949 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 39656 | | 30718.6 | | | |
| ANNUAL MEAN | 109 | | 83.9 | | 111 | |
| HIGHEST ANNUAL MEAN | | | | | 208 | 1972 |
| LOWEST ANNUAL MEAN | | | | | 59.9 | 1953 |
| HIGHEST DAILY MEAN | 880 | Mar 30 | 1420 | Aug 19 | 6490 | Sep 20 1955 |
| LOWEST DAILY MEAN | 14 | Jun 13 | 8.8 | Aug 12 | 1.9 | Oct 6 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 16 | Jun 10 | 10 | Jul 13 | 2.0 | Oct 4 1954 |
| INSTANTANEOUS PEAK FLOW | | | 1440 | Aug 18 | 7900* | Sep 20 1955 |
| INSTANTANEOUS PEAK STAGE | | | 12.85 | Aug 18 | 19.99* | Sep 20 1955 |
| INSTANTANEOUS LOW FLOW | | | 7.2* | Aug 2 | 1.8* | Oct 7 1954 |
| ANNUAL RUNOFF (CFSM) | 1.46 | | 1.13 | | 1.49 | |
| ANNUAL RUNOFF (INCHES) | 19.80 | | 15.34 | | 20.24 | |
| 10 PERCENT EXCEEDS | 247 | | 148 | | 240 | |
| 50 PERCENT EXCEEDS | 68 | | 37 | | 52 | |
| 90 PERCENT EXCEEDS | 22 | | 17 | | 12 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02093800 REEDY FORK NEAR OAK RIDGE, NC

LOCATION.--Lat 36°10'22", long 79°57'12", Guilford County, Hydrologic Unit 03030002, on left bank at downstream side of bridge on Secondary Road 2128, 0.8 mi downstream of Beaver Creek, and 2 mi east of Oak Ridge.

DRAINAGE AREA.--20.6 $mi^2$.

PERIOD OF RECORD.--October 1955 to current year.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 771.30 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 13, 1955, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Some diurnal fluctuation at medium and low flows caused by mill upstream. Maximum discharge: 3,950 $ft^3/s$, from rating curve extended above 1,500 $ft^3/s$ on basis of contracted-opening measurement; gage height: 10.94 ft. Minimum discharge for current water year also occurred Sept. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.5 | 10 | 19 | 17 | 13 | 18 | 17 | 20 | 16 | 33 | 10 | 7.6 |
| 2 | 8.6 | 11 | 23 | 16 | 13 | 17 | 16 | 17 | 14 | 90 | 8.8 | 7.4 |
| 3 | 10 | 11 | 24 | 34 | 12 | 17 | 16 | 16 | 13 | 35 | 8.4 | 7.8 |
| 4 | 9.3 | 11 | 25 | 327 | 13 | 17 | 16 | 14 | 22 | 30 | 8.0 | 8.6 |
| 5 | 8.9 | 11 | 17 | 107 | 12 | 16 | 17 | 16 | 32 | 21 | 7.6 | 8.4 |
| 6 | 56 | 11 | 16 | 47 | 13 | 18 | 15 | 16 | 20 | 17 | 7.9 | 8.8 |
| 7 | 19 | 11 | 15 | 38 | 12 | 34 | 14 | 16 | 18 | 16 | 8.0 | 8.3 |
| 8 | 15 | 11 | 15 | 30 | 13 | 22 | 14 | 28 | 15 | 12 | 8.0 | 8.1 |
| 9 | 12 | 12 | 14 | 25 | 12 | 19 | 14 | 21 | 43 | 12 | 7.9 | 7.8 |
| 10 | 11 | 33 | 18 | 22 | 11 | 24 | 13 | 19 | 42 | 11 | 7.0 | 7.5 |
| 11 | 11 | 21 | 14 | 19 | 12 | 30 | 13 | 17 | 24 | 10 | 6.6 | 8.6 |
| 12 | 10 | 15 | 14 | 18 | 12 | 22 | 13 | 16 | 19 | 9.6 | 6.4 | 7.6 |
| 13 | 9.6 | 13 | 14 | 18 | 12 | 19 | 13 | 15 | 17 | 8.9 | 127 | 6.8 |
| 14 | 9.5 | 12 | 14 | 18 | 12 | 18 | 13 | 14 | 16 | 8.3 | 126 | 6.6 |
| 15 | 10 | 13 | 13 | 17 | 22 | 17 | 13 | 13 | 17 | 7.9 | 38 | 6.6 |
| 16 | 11 | 12 | 13 | 15 | 30 | 16 | 13 | 13 | 30 | 7.8 | 28 | 6.2 |
| 17 | 11 | 12 | 13 | 15 | 20 | 16 | 14 | 13 | 18 | 7.9 | 19 | 6.2 |
| 18 | 10 | 11 | 12 | 14 | 18 | 15 | 12 | 16 | 16 | 9.2 | 15 | 6.2 |
| 19 | 9.8 | 11 | 12 | 14 | 18 | 18 | 12 | 16 | 14 | 8.3 | 13 | 7.8 |
| 20 | 9.7 | 12 | 12 | 13 | 16 | 16 | 13 | 15 | 13 | 7.6 | 13 | 9.1 |
| 21 | 9.8 | 12 | 12 | 13 | 15 | 15 | 320 | 14 | 13 | 8.0 | 12 | 7.6 |
| 22 | 10 | 14 | 13 | 13 | 15 | 15 | 400 | 13 | 12 | 17 | 11 | 7.5 |
| 23 | 10 | 15 | 13 | 20 | 16 | 15 | 84 | 12 | 11 | 33 | 11 | 8.7 |
| 24 | 10 | 13 | 14 | 26 | 20 | 14 | 43 | 12 | 11 | 40 | 9.2 | 7.9 |
| 25 | 10 | 12 | 12 | 19 | 29 | 14 | 32 | 11 | 11 | 20 | 9.3 | 7.0 |
| 26 | 10 | 12 | 12 | 16 | 101 | 37 | 24 | 13 | 13 | 15 | 9.3 | 7.5 |
| 27 | 11 | 12 | 12 | 15 | 41 | 29 | 21 | 13 | 17 | 13 | 9.3 | 7.9 |
| 28 | 11 | 11 | 15 | 15 | 27 | 21 | 21 | 15 | 11 | 17 | 9.9 | 12 |
| 29 | 11 | 11 | 43 | 14 | 21 | 19 | 19 | 16 | 10 | 11 | 9.2 | 9.1 |
| 30 | 10 | 11 | 22 | 14 | --- | 18 | 19 | 27 | 9.7 | 9.5 | 8.1 | 7.8 |
| 31 | 11 | --- | 18 | 14 | --- | 17 | --- | 21 | --- | 12 | 7.9 | --- |
| TOTAL | 373.7 | 387 | 503 | 1003 | 581 | 603 | 1264 | 498 | 537.7 | 558.0 | 579.8 | 235.0 |
| MEAN | 12.1 | 12.9 | 16.2 | 32.4 | 20.0 | 19.5 | 42.1 | 16.1 | 17.9 | 18.0 | 18.7 | 7.83 |
| MAX | 56 | 33 | 43 | 327 | 101 | 37 | 400 | 28 | 43 | 90 | 127 | 12 |
| MIN | 8.5 | 10 | 12 | 13 | 11 | 14 | 12 | 11 | 9.7 | 7.6 | 6.4 | 6.2 |
| CFSM | .59 | .63 | .79 | 1.57 | .97 | .94 | 2.05 | .78 | .87 | .87 | .91 | .38 |
| IN. | .67 | .70 | .91 | 1.81 | 1.05 | 1.09 | 2.28 | .90 | .97 | 1.01 | 1.05 | .42 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 19.6 | 17.3 | 24.0 | 29.5 | 35.3 | 35.8 | 29.0 | 24.0 | 19.5 | 20.5 | 17.0 | 16.8 |
| MAX | 80.2 | 40.4 | 48.7 | 82.0 | 78.7 | 102 | 75.8 | 58.9 | 74.4 | 152 | 62.0 | 85.5 |
| (WY) | 1991 | 1986 | 1963 | 1978 | 1979 | 1975 | 1987 | 1991 | 1982 | 1984 | 1978 | 1979 |
| MIN | 5.90 | 7.21 | 8.67 | 8.52 | 13.5 | 12.4 | 9.79 | 8.19 | 5.03 | 3.64 | 5.88 | 3.39 |
| (WY) | 1968 | 1968 | 1956 | 1956 | 1968 | 1967 | 1967 | 1986 | 1986 | 1977 | 1977 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1956 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 11228.1 | | 7123.2 | | | |
| ANNUAL MEAN | 30.8 | | 19.5 | | 24.0 | |
| HIGHEST ANNUAL MEAN | | | | | 42.7 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 11.7 | 1967 |
| HIGHEST DAILY MEAN | 625 | May 19 | 400 | Apr 22 | 1250 | Jul 28 1984 |
| LOWEST DAILY MEAN | 7.5 | Sep 5 | 6.2 | Sep 16 | 1.7 | Aug 7 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 7.8 | Aug 31 | 6.6 | Sep 12 | 2.3 | Sep 29 1968 |
| INSTANTANEOUS PEAK FLOW | | | 864 | Apr 22 | 3950* | Oct 10 1959 |
| INSTANTANEOUS PEAK STAGE | | | 9.90 | Apr 22 | 12.41 | Sep 22 1979 |
| INSTANTANEOUS LOW FLOW | | | 6.0* | Sep 16 | 1.2 | Aug 7 1977 |
| ANNUAL RUNOFF (CFSM) | 1.49 | | .94 | | 1.16 | |
| ANNUAL RUNOFF (INCHES) | 20.28 | | 12.86 | | 15.81 | |
| 10 PERCENT EXCEEDS | 43 | | 28 | | 38 | |
| 50 PERCENT EXCEEDS | 18 | | 13 | | 14 | |
| 90 PERCENT EXCEEDS | 9.2 | | 8.1 | | 6.9 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02094500 REEDY FORK NEAR GIBSONVILLE, NC

LOCATION.--Lat 36°10'31", long 79°37'01", Guilford County, Hydrologic Unit 03030002, on right bank 0.2 mi downstream of Huffines Mill on Secondary Road 2719, 1.2 mi upstream from Buffalo Creek, and 6 mi northwest of Gibsonville.

DRAINAGE AREA.--131 $mi^2$.

PERIOD OF RECORD.--September 1928 to current year.

REVISED RECORDS.--WSP 1303: 1929-40 (monthly and yearly runoff). WSP 1383: 1929-30, 1933(M), 1934, 1937(M), 1939-42(M), 1948. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder and rock-masonry control. Datum of gage is 626.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1923 by Lake Brandt (station 02094117), 14 mi upstream; since 1957 by Lake Higgins (station 02093981) on Brush Creek, a tributary to Lake Brandt; since 1943 by Richland Lake 12 mi upstream from station; and since 1968 by Lake Townsend (station 02094305), 9 mi upstream from station. City of Greensboro diverted an average of 23.8 $ft^3/s$ from Lake Brandt and an average of 25.5 $ft^3/s$ from Lake Townsend for municipal water supply. Maximum discharge prior to regulation by Lake Townsend: 11,600 $ft^3/s$, Sept. 25, 1947; gage height: 20.77 ft; minimum discharge not determined. Maximum discharge for regulated period: 5,660 $ft^3/s$, from high-water mark in well. Minimum discharge for regulated period also occurred July 30, Aug. 6, 7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 17.90 ft, from information by local resident; discharge, 8,640 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 28 | 15 | 23 | 17 | 33 | 29 | 132 | 20 | 12 | 41 | 15 |
| 2 | 13 | 29 | 21 | 21 | 16 | 25 | 26 | 28 | 17 | 100 | 14 | 15 |
| 3 | 29 | 27 | 22 | 120 | 16 | 23 | 25 | 22 | 17 | 26 | 11 | 15 |
| 4 | 30 | 27 | 36 | 792 | 15 | 20 | 24 | 19 | 147 | 140 | 10 | 16 |
| 5 | 25 | 28 | 22 | 1010 | 18 | 19 | 24 | 172 | 79 | 30 | 12 | 16 |
| 6 | 229 | 29 | 18 | 889 | 15 | 21 | 22 | 37 | 24 | 46 | 8.5 | 35 |
| 7 | 46 | 34 | 18 | 819 | 14 | 394 | 21 | 112 | 17 | 340 | 9.0 | 23 |
| 8 | 33 | 33 | 18 | 711 | 15 | 86 | 21 | 320 | 38 | 70 | 11 | 18 |
| 9 | 29 | 33 | 17 | 394 | 16 | 34 | 20 | 74 | 529 | 16 | 13 | 16 |
| 10 | 28 | 80 | 28 | 55 | 16 | 47 | 19 | 27 | 200 | 11 | 9.0 | 14 |
| 11 | 30 | 47 | 33 | 22 | 15 | 97 | 19 | 21 | 44 | 9.5 | 9.0 | 14 |
| 12 | 26 | 36 | 26 | 18 | 15 | 40 | 25 | 20 | 307 | 9.0 | 11 | 14 |
| 13 | 25 | 32 | 22 | 17 | 15 | 29 | 42 | 22 | 53 | 8.0 | 390 | 13 |
| 14 | 26 | 22 | 23 | 111 | 15 | 24 | 25 | 18 | 24 | 8.0 | 890 | 13 |
| 15 | 27 | 19 | 22 | 23 | 38 | 22 | 346 | 16 | 23 | 7.5 | 690 | 13 |
| 16 | 28 | 17 | 20 | 20 | 75 | 22 | 51 | 15 | 107 | 7.0 | 120 | 13 |
| 17 | 32 | 15 | 19 | 17 | 32 | 20 | 30 | 14 | 97 | 6.6 | 200 | 12 |
| 18 | 28 | 14 | 19 | 17 | 263 | 86 | 21 | 16 | 30 | 6.6 | 81 | 12 |
| 19 | 26 | 14 | 20 | 16 | 43 | 94 | 17 | 17 | 23 | 6.6 | 28 | 14 |
| 20 | 25 | 14 | 19 | 16 | 27 | 36 | 15 | 16 | 19 | 6.2 | 23 | 15 |
| 21 | 26 | 14 | 20 | 17 | 24 | 25 | 1830 | 15 | 17 | 5.8 | 22 | 14 |
| 22 | 26 | 15 | 18 | 15 | 28 | 24 | 4500 | 14 | 17 | 68 | 21 | 16 |
| 23 | 26 | 21 | 18 | 70 | 25 | 22 | 1980 | 13 | 14 | 120 | 20 | 23 |
| 24 | 28 | 16 | 20 | 176 | 27 | 21 | 893 | 12 | 14 | 320 | 20 | 21 |
| 25 | 26 | 14 | 21 | 31 | 81 | 20 | 100 | 12 | 24 | 95 | 19 | 14 |
| 26 | 25 | 13 | 20 | 25 | 631 | 73 | 39 | 13 | 18 | 23 | 18 | 15 |
| 27 | 28 | 12 | 20 | 20 | 487 | 119 | 405 | 14 | 17 | 99 | 25 | 15 |
| 28 | 25 | 13 | 23 | 19 | 444 | 35 | 167 | 17 | 15 | 250 | 175 | 15 |
| 29 | 25 | 12 | 134 | 19 | 171 | 26 | 75 | 135 | 14 | 46 | 26 | 15 |
| 30 | 28 | 13 | 43 | 20 | --- | 24 | 29 | 80 | 13 | 19 | 17 | 14 |
| 31 | 29 | --- | 28 | 18 | --- | 26 | --- | 36 | --- | 17 | 16 | --- |
| TOTAL | 1037 | 721 | 803 | 5541 | 2614 | 1587 | 10840 | 1479 | 1978 | 1928.8 | 2959.5 | 478 |
| MEAN | 33.5 | 24.0 | 25.9 | 179 | 90.1 | 51.2 | 361 | 47.7 | 65.9 | 62.2 | 95.5 | 15.9 |
| MAX | 229 | 80 | 134 | 1010 | 631 | 394 | 4500 | 320 | 529 | 340 | 890 | 35 |
| MIN | 10 | 12 | 15 | 15 | 14 | 19 | 15 | 12 | 13 | 5.8 | 8.5 | 12 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 73.1 | 62.7 | 98.3 | 163 | 172 | 168 | 145 | 88.1 | 68.8 | 67.9 | 59.1 | 62.4 |
| MAX | 661 | 233 | 275 | 644 | 468 | 479 | 613 | 365 | 477 | 596 | 315 | 534 |
| (WY) | 1960 | 1950 | 1933 | 1978 | 1960 | 1952 | 1987 | 1978 | 1982 | 1984 | 1940 | 1947 |
| MIN | 2.85 | 6.70 | 5.97 | 11.1 | 19.9 | 16.4 | 11.2 | 7.43 | 6.08 | 2.83 | 2.82 | 2.27 |
| (WY) | 1969 | 1970 | 1969 | 1981 | 1977 | 1976 | 1976 | 1986 | 1986 | 1986 | 1977 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1929 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 48598.7 | | 31966.3 | | | |
| ANNUAL MEAN | 133 | | 87.3 | | 102 | |
| HIGHEST ANNUAL MEAN | | | | | 188 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 20.1 | 1967 |
| HIGHEST DAILY MEAN | 3430 | Mar 30 | 4500 | Apr 22 | 7240 | Sep 25 1947 |
| LOWEST DAILY MEAN | 8.3 | Sep 16 | 5.8 | Jul 21 | .40 | Oct 14 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 8.6 | Sep 12 | 6.6 | Jul 15 | 1.2 | Oct 8 1954 |
| INSTANTANEOUS PEAK FLOW | | | 5010 | Apr 22 | 5660* | Jun 21 1972 |
| INSTANTANEOUS PEAK STAGE | | | 14.19 | Apr 22 | 14.92* | Jun 21 1972 |
| INSTANTANEOUS LOW FLOW | | | 5.8 | Jul 21 | 1.4* | Jul 29 1977 |
| ANNUAL RUNOFF (CFSM) | 1.02 | | .67 | | .78 | |
| ANNUAL RUNOFF (INCHES) | 13.80 | | 9.08 | | 10.58 | |
| 10 PERCENT EXCEEDS | 388 | | 136 | | 236 | |
| 50 PERCENT EXCEEDS | 28 | | 22 | | 37 | |
| 90 PERCENT EXCEEDS | 14 | | 13 | | 7.7 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02096500 HAW RIVER AT HAW RIVER, NC

LOCATION.--Lat 36°05'13", long 79°22'02", Alamance County, Hydrologic Unit 03030002, on left bank at Haw River, 650 ft downstream of Southern Railway bridge, 800 ft downstream of bridge on U.S. Highway 70 and State Highway 49, and 3 mi downstream of Stony Creek.

DRAINAGE AREA.--606 $mi^2$.

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 757: 1929(M). WSP 782: 1934. WSP 1383: 1930, 1932(M), 1933(m), 1936, 1943, 1944(M), 1947(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 471.69 ft above National Geodetic Vertical Datum of 1929. U.S. Army Corps of Engineers gage-height telephone telemeter and satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation and occasional regulation at low flows. City of Burlington diverted an average of 13.0 $ft^3/s$ from two Stony Creek Reservoirs (stations 02096003 and 02096432) for municipal water supply, about half of which was returned upstream from station as treated effluent, the remainder was returned downstream of station. Maximum discharge: 37,000 $ft^3/s$; gage height: 31.10 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 169 | 170 | 184 | 333 | 276 | 634 | 318 | 416 | 327 | 211 | 311 | 141 |
| 2 | 169 | 166 | 300 | 268 | 258 | 465 | 296 | 343 | 266 | 370 | 224 | 141 |
| 3 | 201 | 168 | 328 | 803 | 231 | 393 | 279 | 300 | 222 | 331 | 174 | 145 |
| 4 | 254 | 168 | 646 | 9680 | 226 | 356 | 279 | 261 | 271 | 509 | 166 | 174 |
| 5 | 170 | 170 | 343 | 5070 | 225 | 332 | 289 | 314 | 809 | 416 | 161 | 173 |
| 6 | 2550 | 167 | 266 | 2520 | 222 | 364 | 281 | 346 | 418 | 274 | 161 | 334 |
| 7 | 755 | 173 | 237 | 1820 | 214 | 2150 | 258 | 350 | 348 | 564 | 154 | 243 |
| 8 | 393 | 179 | 234 | 1530 | 218 | 1220 | 253 | 715 | 287 | 419 | 157 | 172 |
| 9 | 298 | 182 | 226 | 963 | 205 | 650 | 250 | 772 | 1540 | 205 | 181 | 195 |
| 10 | 248 | 627 | 255 | 546 | 199 | 573 | 256 | 407 | 1660 | 172 | 166 | 190 |
| 11 | 226 | 646 | 297 | 350 | 195 | 1360 | 241 | 327 | 619 | 155 | 143 | 167 |
| 12 | 214 | 313 | 248 | 298 | 208 | 724 | 244 | 267 | 565 | 140 | 206 | 170 |
| 13 | 195 | 259 | 227 | 279 | 202 | 521 | 333 | 245 | 469 | 132 | 380 | 145 |
| 14 | 186 | 223 | 220 | 383 | 198 | 430 | 282 | 229 | 282 | 129 | 3080 | 131 |
| 15 | 191 | 196 | 220 | 396 | 288 | 386 | 423 | 215 | 327 | 137 | 1880 | 130 |
| 16 | 232 | 173 | 202 | 296 | 1580 | 350 | 379 | 236 | 2510 | 126 | 1430 | 128 |
| 17 | 245 | 182 | 181 | 257 | 663 | 314 | 288 | 217 | 1470 | 119 | 772 | 128 |
| 18 | 242 | 181 | 169 | 247 | 670 | 297 | 277 | 280 | 723 | 124 | 728 | 124 |
| 19 | 201 | 178 | 162 | 240 | 571 | 465 | 240 | 301 | 440 | 135 | 346 | 135 |
| 20 | 183 | 181 | 153 | 226 | 520 | 575 | 221 | 231 | 463 | 129 | 253 | 211 |
| 21 | 179 | 179 | 150 | 229 | 385 | 402 | 3190 | 211 | 347 | 124 | 217 | 167 |
| 22 | 191 | 189 | 154 | 222 | 345 | 346 | 14900 | 195 | 314 | 236 | 194 | 148 |
| 23 | 199 | 230 | 153 | 377 | 321 | 359 | 10500 | 183 | 236 | 3040 | 175 | 211 |
| 24 | 193 | 191 | 175 | 1470 | 418 | 357 | 3650 | 168 | 206 | 1710 | 169 | 336 |
| 25 | 189 | 174 | 250 | 576 | 659 | 293 | 1680 | 158 | 253 | 1220 | 163 | 186 |
| 26 | 189 | 169 | 171 | 424 | 5100 | 432 | 916 | 161 | 284 | 500 | 164 | 226 |
| 27 | 181 | 163 | 165 | 347 | 2700 | 867 | 691 | 196 | 596 | 341 | 248 | 184 |
| 28 | 191 | 150 | 244 | 326 | 1670 | 491 | 806 | 199 | 524 | 2110 | 322 | 174 |
| 29 | 184 | 154 | 1800 | 320 | 1210 | 414 | 590 | 288 | 324 | 770 | 263 | 201 |
| 30 | 164 | 158 | 805 | 287 | --- | 356 | 372 | 409 | 234 | 436 | 174 | 218 |
| 31 | 163 | --- | 437 | 288 | --- | 333 | --- | 630 | --- | 283 | 147 | --- |
| TOTAL | 9345 | 6459 | 9602 | 31371 | 20177 | 17209 | 42982 | 9570 | 17334 | 15567 | 13309 | 5428 |
| MEAN | 301 | 215 | 310 | 1012 | 696 | 555 | 1433 | 309 | 578 | 502 | 429 | 181 |
| MAX | 2550 | 646 | 1800 | 9680 | 5100 | 2150 | 14900 | 772 | 2510 | 3040 | 3080 | 336 |
| MIN | 163 | 150 | 150 | 222 | 195 | 293 | 221 | 158 | 206 | 119 | 143 | 124 |
| CFSM | .50 | .36 | .51 | 1.67 | 1.15 | .92 | 2.36 | .51 | .95 | .83 | .71 | .30 |
| IN. | .57 | .40 | .59 | 1.93 | 1.24 | 1.06 | 2.64 | .59 | 1.06 | .96 | .82 | .33 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 398 | 399 | 575 | 875 | 999 | 964 | 799 | 491 | 415 | 398 | 352 | 361 |
| MAX | 2480 | 1286 | 1487 | 2977 | 2394 | 2764 | 2771 | 1948 | 2145 | 2348 | 1662 | 2884 |
| (WY) | 1960 | 1948 | 1946 | 1937 | 1960 | 1975 | 1987 | 1978 | 1982 | 1984 | 1939 | 1945 |
| MIN | 48.9 | 61.1 | 118 | 172 | 272 | 289 | 184 | 139 | 101 | 70.9 | 57.2 | 33.4 |
| (WY) | 1942 | 1954 | 1934 | 1956 | 1931 | 1967 | 1967 | 1986 | 1986 | 1932 | 1953 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1929 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 246105 | | 198353 | | | |
| ANNUAL MEAN | 674 | | 542 | | 583 | |
| HIGHEST ANNUAL MEAN | | | | | 1033 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 229 | 1967 |
| HIGHEST DAILY MEAN | 14500 | Mar 30 | 14900 | Apr 22 | 32000 | Sep 18 1945 |
| LOWEST DAILY MEAN | 105 | Sep 5 | 119 | Jul 17 | 5.0 | Sep 6 1930 |
| ANNUAL SEVEN-DAY MINIMUM | 133 | Sep 1 | 128 | Jul 15 | 16 | Oct 7 1954 |
| INSTANTANEOUS PEAK FLOW | | | 18000 | Apr 22 | 37000 | Sep 18 1945 |
| INSTANTANEOUS PEAK STAGE | | | 23.35 | Apr 22 | 31.10* | Sep 18 1945 |
| INSTANTANEOUS LOW FLOW | | | 93 | Sep 25 | 3.0 | Sep 5 1930 |
| ANNUAL RUNOFF (CFSM) | 1.11 | | .89 | | .96 | |
| ANNUAL RUNOFF (INCHES) | 15.11 | | 12.18 | | 13.08 | |
| 10 PERCENT EXCEEDS | 1720 | | 807 | | 1210 | |
| 50 PERCENT EXCEEDS | 306 | | 257 | | 294 | |
| 90 PERCENT EXCEEDS | 160 | | 161 | | 99 | |

See REMARKS.

CAPE FEAR RIVER BASIN

02096846 CANE CREEK NEAR ORANGE GROVE, NC

LOCATION.--Lat 35°59'13", long 79°12'23", Orange County, Hydrologic Unit 03030002, on right bank at downstream side of bridge on Secondary Road 1114, and 1.0 mi northwest of Orange Grove.

DRAINAGE AREA.--7.54 mi

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 510 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow occurs most years. Minimum discharge for current year also occurred Sept. 22, 25, 26, and 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.3 | .53 | e.55 | .81 | 3.9 | 4.7 | 5.4 | 3.0 | 3.0 | 4.4 | .48 | .23 |
| 2 | 1.1 | .78 | e.65 | .66 | 3.4 | 4.0 | 5.0 | 2.7 | 2.3 | 5.9 | .35 | .21 |
| 3 | 1.6 | .42 | e.90 | 63 | 3.1 | 3.5 | 4.7 | 2.5 | 2.0 | 3.5 | .35 | .24 |
| 4 | 1.4 | .43 | e1.6 | 206 | 2.9 | 3.1 | 4.7 | 2.0 | 2.5 | 6.7 | .34 | .21 |
| 5 | .92 | .42 | .65 | 34 | 2.7 | 2.9 | 5.1 | 1.6 | 5.0 | 3.3 | .30 | .19 |
| 6 | .82 | .40 | .57 | 19 | 2.4 | 18 | 4.9 | 1.6 | 3.6 | 2.5 | .25 | .21 |
| 7 | .85 | .43 | .46 | 13 | 2.3 | 65 | 5.0 | 1.9 | 2.3 | 2.2 | .25 | .20 |
| 8 | .56 | .43 | .41 | 10 | 2.1 | 27 | 4.6 | 2.4 | e2.0 | 1.7 | .30 | .18 |
| 9 | .56 | .44 | .39 | 9.0 | 1.8 | 13 | 4.4 | 2.1 | e95 | 1.5 | .73 | .16 |
| 10 | .55 | 1.9 | .42 | 8.2 | 1.6 | 28 | 4.2 | 1.7 | e40 | 1.2 | .40 | .15 |
| 11 | .76 | 1.4 | .39 | 7.1 | 1.6 | 25 | 4.0 | 1.5 | e12 | 1.0 | .25 | .14 |
| 12 | .67 | .85 | .36 | 6.4 | 1.5 | 12 | 3.8 | 1.4 | e8.0 | .88 | .91 | .13 |
| 13 | .53 | .67 | .35 | 6.5 | 1.5 | 9.1 | 3.3 | 1.4 | e4.5 | .74 | 6.3 | .12 |
| 14 | .53 | .58 | .35 | 6.8 | 1.6 | 7.3 | 2.6 | 1.4 | e3.8 | .66 | 7.4 | .10 |
| 15 | .72 | .51 | .34 | 5.9 | 2.5 | 6.5 | 2.3 | 11 | e10 | .58 | 2.4 | .10 |
| 16 | .81 | .47 | .32 | 5.6 | 6.0 | 5.8 | 2.3 | 9.9 | e7.0 | .51 | 2.0 | .10 |
| 17 | 1.6 | .43 | .29 | 5.4 | 3.6 | 5.6 | 2.3 | 3.0 | e6.0 | .50 | 1.6 | .10 |
| 18 | 1.1 | .37 | .28 | 5.4 | 3.1 | 5.3 | 2.1 | 2.2 | 3.6 | .45 | 1.4 | .09 |
| 19 | .89 | .36 | .27 | 5.1 | 3.9 | 8.3 | 2.0 | 2.3 | 11 | .38 | .99 | .08 |
| 20 | .80 | .36 | .26 | 4.9 | 3.8 | 6.9 | 1.9 | 2.0 | 10 | .36 | .68 | .08 |
| 21 | .74 | .36 | .25 | 4.9 | 3.0 | 5.9 | 40 | 1.7 | 5.0 | .32 | .58 | .08 |
| 22 | .74 | e.40 | .28 | 4.8 | 2.6 | 5.5 | 55 | 1.5 | 3.9 | .33 | .48 | .08 |
| 23 | .85 | e1.0 | .31 | 8.0 | 2.5 | 9.9 | 11 | 1.3 | 2.9 | 1.6 | .40 | .09 |
| 24 | .98 | e1.4 | .44 | 9.7 | 3.1 | 7.7 | 7.1 | 1.3 | 2.4 | .98 | .35 | .09 |
| 25 | .87 | e.95 | .39 | 6.7 | 26 | 6.4 | 5.5 | 1.2 | 5.5 | .71 | .32 | .08 |
| 26 | .83 | e.50 | .33 | 5.7 | 82 | 14 | 4.2 | 2.6 | 74 | .55 | .29 | .07 |
| 27 | .76 | e.37 | .37 | 5.0 | 15 | 11 | 3.7 | 2.2 | 36 | .46 | .43 | .08 |
| 28 | .71 | e.43 | .66 | 5.4 | 8.3 | 7.9 | 3.7 | 2.2 | 9.1 | .44 | .95 | .82 |
| 29 | .60 | e.48 | 7.2 | 5.1 | 6.2 | 6.7 | 3.2 | 2.0 | 5.6 | .37 | .55 | e.30 |
| 30 | .58 | e.50 | 2.2 | 4.6 | --- | 6.2 | 2.9 | 5.4 | 4.5 | .31 | .35 | e.15 |
| 31 | .55 | --- | 1.1 | 4.3 | --- | 5.9 | --- | 5.3 | --- | .87 | .28 | --- |
| TOTAL | 26.28 | 18.57 | 23.34 | 486.97 | 204.0 | 348.1 | 210.9 | 84.3 | 382.5 | 45.90 | 32.66 | 4.86 |
| MEAN | .85 | .62 | .75 | 15.7 | 7.03 | 11.2 | 7.03 | 2.72 | 12.7 | 1.48 | 1.05 | .16 |
| MAX | 1.6 | 1.9 | 7.2 | 206 | 82 | 65 | 55 | 11 | 95 | 6.7 | 7.4 | .82 |
| MIN | .53 | .36 | .25 | .66 | 1.5 | 2.9 | 1.9 | 1.2 | 2.0 | .31 | .25 | .07 |
| CFSM | .11 | .08 | .10 | 2.08 | .93 | 1.49 | .93 | .36 | 1.69 | .20 | .14 | .02 |
| IN. | .13 | .09 | .12 | 2.40 | 1.01 | 1.72 | 1.04 | .42 | 1.89 | .23 | .16 | .02 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 3.11 | 2.07 | 5.48 | 14.4 | 13.4 | 17.2 | 9.31 | 10.7 | 5.02 | 3.91 | .84 | 2.24 |
| MAX | 5.24 | 3.34 | 10.2 | 26.0 | 23.9 | 28.6 | 11.4 | 18.7 | 12.7 | 10.2 | 1.41 | 7.84 |
| (WY) | 1990 | 1990 | 1990 | 1991 | 1989 | 1989 | 1990 | 1989 | 1992 | 1989 | 1989 | 1991 |
| MIN | .85 | .62 | .75 | 3.89 | 4.66 | 10.4 | 7.03 | 2.72 | 1.62 | .49 | .20 | .018 |
| (WY) | 1992 | 1992 | 1992 | 1989 | 1991 | 1990 | 1992 | 1992 | 1990 | 1990 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1989 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2477.02 | | 1868.38 | | | |
| ANNUAL MEAN | 6.79 | | 5.10 | | 6.67 | |
| HIGHEST ANNUAL MEAN | | | | | 7.73 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 5.10 | 1992 |
| HIGHEST DAILY MEAN | 171 | Jan 11 | 206 | Jan 4 | 260 | Feb 21 1989 |
| LOWEST DAILY MEAN | .10 | Sep 17 | .07 | Sep 26 | 0 | Sep 17 1990 |
| ANNUAL SEVEN-DAY MINIMUM | .11 | Sep 12 | .08 | Sep 20 | 0 | Sep 17 1990 |
| INSTANTANEOUS PEAK FLOW | | | 433 | Jun 26 | 864 | Jul 16 1989 |
| INSTANTANEOUS PEAK STAGE | | | 4.69 | Jun 26 | 6.04 | Jul 16 1989 |
| INSTANTANEOUS LOW FLOW | | | .07* | Sep 20 | 0* | Sep 17 1990 |
| ANNUAL RUNOFF (CFSM) | .90 | | .68 | | .88 | |
| ANNUAL RUNOFF (INCHES) | 12.22 | | 9.22 | | 12.02 | |
| 10 PERCENT EXCEEDS | 14 | | 8.5 | | 14 | |
| 50 PERCENT EXCEEDS | 1.4 | | 1.6 | | 2.3 | |
| 90 PERCENT EXCEEDS | .29 | | .28 | | .27 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02096846 CANE CREEK NEAR ORANGE GROVE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1988 to September 1989.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 19... | 1200 | 0.36 | 98 | 6.6 | 12.0 | 28 | 14.0 | 130 | 8.1 | 3.2 | 6.0 |
| DEC | | | | | | | | | | | |
| 04... | 1140 | 0.34 | 95 | 6.9 | 11.5 | 25 | 11.4 | 105 | 8.0 | 3.1 | 6.2 |
| JAN | | | | | | | | | | | |
| 03... | 1815 | 164 | 87 | 7.0 | -- | 250 | -- | -- | 5.2 | 2.4 | 3.6 |
| 13... | 1200 | 6.4 | 81 | 6.9 | 8.5 | 46 | 11.3 | 98 | 6.2 | 2.4 | 4.8 |
| FEB | | | | | | | | | | | |
| 06... | 1145 | 2.4 | 79 | 7.6 | 6.0 | 30 | 15.4 | 125 | 6.0 | 2.2 | 4.9 |
| MAR | | | | | | | | | | | |
| 12... | 1200 | 12 | 57 | 6.9 | 8.5 | 80 | 12.0 | 104 | 4.6 | 1.7 | 3.8 |
| APR | | | | | | | | | | | |
| 21... | 1230 | 21 | 81 | 6.8 | 19.0 | 80 | 8.2 | 89 | 7.4 | 2.5 | 4.9 |
| MAY | | | | | | | | | | | |
| 06... | 1200 | 1.6 | 84 | 6.8 | 12.0 | 45 | 8.7 | 81 | 6.9 | 2.3 | 5.0 |
| JUN | | | | | | | | | | | |
| 03... | 1215 | 2.0 | 84 | 6.7 | 17.5 | 55 | 8.7 | 91 | 6.8 | 2.4 | 4.7 |
| JUL | | | | | | | | | | | |
| 14... | 1230 | 0.67 | 100 | 7.3 | 25.0 | 40 | 14.2 | 169 | 8.7 | 3.0 | 5.5 |
| AUG | | | | | | | | | | | |
| 04... | 1200 | 0.34 | 124 | 7.1 | 21.0 | 53 | 8.0 | 92 | 9.9 | 3.6 | 5.7 |
| SEP | | | | | | | | | | | |
| 02... | 1200 | 0.20 | 152 | 7.4 | 22.0 | 38 | 7.5 | 87 | 12 | 4.5 | 6.1 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 19... | 3.1 | 3.8 | 7.8 | 0.10 | 8.3 | 62 | 63 | 0.087 | 0.110 | 0.020 | 0.030 |
| DEC | | | | | | | | | | | |
| 04... | 2.3 | 2.7 | 7.3 | 0.10 | 11 | 55 | 63 | 0.140 | 0.120 | 0.020 | 0.010 |
| JAN | | | | | | | | | | | |
| 03... | 6.4 | 5.8 | 5.7 | 0.20 | 6.8 | 50 | 53 | 0.770 | 0.790 | 0.280 | 0.220 |
| 13... | 1.3 | 5.6 | 6.9 | 0.20 | 15 | 47 | 61 | 1.10 | 1.10 | 0.010 | 0.010 |
| FEB | | | | | | | | | | | |
| 06... | 0.90 | 3.9 | 6.6 | 0.20 | 8.3 | 58 | 50 | 0.650 | 0.630 | 0.020 | <0.010 |
| MAR | | | | | | | | | | | |
| 12... | 0.70 | 5.2 | 4.2 | <0.10 | 11 | 58 | 42 | 0.380 | 0.410 | 0.020 | 0.020 |
| APR | | | | | | | | | | | |
| 21... | 0.90 | 2.5 | 5.4 | <0.10 | 12 | 68 | 54 | 0.520 | 0.530 | 0.090 | 0.070 |
| MAY | | | | | | | | | | | |
| 06... | 1.1 | 2.6 | 5.6 | <0.10 | 14 | 66 | 58 | 0.880 | 0.870 | 0.010 | 0.020 |
| JUN | | | | | | | | | | | |
| 03... | 1.5 | 3.1 | 5.8 | <0.10 | 15 | 72 | 60 | -- | 0.930 | -- | 0.030 |
| JUL | | | | | | | | | | | |
| 14... | 1.9 | 2.2 | 6.2 | <0.10 | 17 | 66 | 67 | -- | 0.990 | -- | 0.030 |
| AUG | | | | | | | | | | | |
| 04... | 7.8 | 2.9 | 8.7 | <0.10 | 15 | 78 | 82 | -- | 1.00 | -- | 0.070 |
| SEP | | | | | | | | | | | |
| 02... | 9.8 | 2.7 | 10 | <0.10 | 16 | 80 | 99 | -- | 1.20 | -- | 0.040 |

02096846 CANE CREEK NEAR ORANGE GROVE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 19... | 0.90 | 1.0 | 0.090 | 0.040 | 0.020 | 0.010 | 50 | <1 | <1 | 1 | <1 |
| DEC | | | | | | | | | | | |
| 04... | 0.30 | <0.20 | 0.050 | 0.020 | 0.020 | 0.020 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 03... | 1.7 | 1.2 | 0.790 | 0.370 | 0.450 | 0.320 | -- | -- | -- | -- | -- |
| 13... | <0.20 | <0.20 | 0.050 | 0.020 | 0.030 | 0.020 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 06... | <0.20 | <0.20 | 0.030 | <0.010 | 0.020 | 0.010 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 12... | 0.30 | 0.30 | 0.040 | 0.020 | 0.020 | <0.010 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 21... | 0.90 | 0.40 | 0.160 | 0.020 | 0.040 | 0.010 | 950 | <1 | <1 | 20 | 2 |
| MAY | | | | | | | | | | | |
| 06... | <0.20 | <0.20 | 0.060 | 0.020 | 0.030 | 0.020 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 03... | 0.30 | 0.20 | 0.100 | 0.070 | -- | 0.060 | 130 | <1 | <1 | 3 | <1 |
| JUL | | | | | | | | | | | |
| 14... | 0.30 | <0.20 | 0.090 | 0.090 | -- | 0.070 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 04... | 0.20 | 0.40 | 0.320 | 0.170 | -- | 0.130 | 10 | <1 | <1 | <1 | <1 |
| SEP | | | | | | | | | | | |
| 02... | 0.60 | 0.50 | 0.290 | 0.240 | -- | 0.200 | -- | -- | -- | -- | -- |

| DATE | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 19... | -- | 270 | 2 | <10 | <0.10 | <1 | 2 | <1 | <1 | <10 | 5.0 |
| DEC | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.1 |
| JAN | | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 20 |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.1 |
| FEB | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.9 |
| MAR | | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 |
| APR | | | | | | | | | | | |
| 21... | 14 | 2500 | 2 | 450 | <0.10 | <1 | <1 | <1 | <1 | <10 | 13 |
| MAY | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.8 |
| JUN | | | | | | | | | | | |
| 03... | 1 | 1000 | <1 | 30 | <0.10 | <1 | <1 | <1 | <1 | <10 | 4.7 |
| JUL | | | | | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.8 |
| AUG | | | | | | | | | | | |
| 04... | 2 | 830 | 2 | 80 | <0.10 | <1 | <1 | <1 | <1 | <10 | 7.8 |
| SEP | | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 |

CAPE FEAR RIVER BASIN

02096846 CANE CREEK NEAR ORANGE GROVE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | PCB, TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| DEC 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 03... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | ENDRIN WATER UNFLTRD REC (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- | -- | -- |
| DEC 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN 03... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 21... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | <0.05 | <0.05 | <0.05 | 0.16 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 0.00 |
| DEC 04... | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 0.00 |
| JAN 03... | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | 8 | 0.14 |
| FEB 06... | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 0.02 |
| MAR 12... | -- | -- | -- | -- | -- | -- | -- | -- | 9 | 0.29 |
| APR 21... | <0.05 | 0.05 | <0.20 | <0.05 | <0.05 | <0.05 | 0.15 | <0.05 | 106 | 6.0 |
| MAY 06... | -- | -- | -- | -- | -- | -- | -- | -- | 5 | 0.02 |
| JUN 03... | -- | -- | -- | -- | -- | -- | -- | -- | 3 | 0.02 |
| JUL 14... | -- | -- | -- | -- | -- | -- | -- | -- | 13 | 0.02 |
| AUG 04... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.00 |
| SEP 02... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.00 |

## 0209684980 CANE CREEK AT DAM NEAR WHITE CROSS, NC

LOCATION.--Lat 35°56'59", long 79°51'47", Orange County, Hydrologic Unit 03030002, at Orange Water and Sewage Authority intakes, 0.7 mi above State Highway 54, and 3.6 mi northwest of White Cross.

DRAINAGE AREA.--31.4 mi².

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | 1300 | 92 | 6.5 | 11.5 | 55 | 3.0 | 28 | 7.0 | 2.6 | 4.1 | 3.3 |
| APR 30... | 1045 | 75 | 8.4 | 17.5 | 70 | 11.4 | 120 | 5.7 | 2.4 | 3.8 | 2.4 |
| JUN 04... | 1430 | 80 | 6.8 | 23.0 | 30 | 8.6 | 103 | 7.2 | 2.5 | 5.4 | 2.0 |
| AUG 10... | 1000 | 82 | 7.5 | 26.5 | 20 | 9.1 | 110 | 6.7 | 2.7 | 4.1 | 3.2 |

| DATE | SULFATE DISSOLVED (MG/L AS SO4) | 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | 2.6 | 5.8 | 0.10 | 5.1 | 58 | 52 | <0.050 | <0.050 | 0.660 | 0.650 | 1.3 |
| APR 30... | 5.1 | 5.6 | 0.20 | 6.2 | 58 | 45 | <0.050 | <0.050 | 0.020 | 0.020 | 1.2 |
| JUN 04... | 5.8 | 5.3 | <0.10 | 13 | 88 | 59 | -- | 0.140 | -- | 0.180 | 0.60 |
| AUG 10... | 4.0 | 6.0 | <0.10 | 5.7 | 42 | 49 | -- | <0.050 | -- | 0.010 | 0.50 |

| DATE | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | 1.1 | 0.020 | <0.010 | <0.010 | <0.010 | 30 | <1 | <1 | <1 | <1 | -- |
| APR 30... | 0.40 | 0.030 | <0.010 | <0.010 | <0.010 | 70 | <1 | <1 | <1 | <1 | 4 |
| JUN 04... | 0.50 | 0.040 | 0.020 | -- | <0.010 | 50 | <1 | <1 | <1 | <1 | 2 |
| AUG 10... | 0.20 | 0.020 | <0.010 | -- | <0.010 | 30 | <1 | <1 | <1 | <1 | 2 |

| DATE | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | 1900 | 2 | 1900 | <0.10 | <1 | 3 | <1 | <1 | 70 | 9.4 | -- |
| APR 30... | 380 | <1 | 70 | <0.10 | <1 | <1 | <1 | <1 | <10 | 8.9 | <0.1 |
| JUN 04... | 430 | <1 | 220 | <0.10 | <1 | 1 | <1 | <1 | <10 | 3.5 | -- |
| AUG 10... | 170 | 2 | 130 | <0.10 | <1 | <1 | <1 | <1 | 20 | 49 | -- |

CAPE FEAR RIVER BASIN

0209684980 CANE CREEK AT DAM NEAR WHITE CROSS, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 30... | <0.10 | <0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 30... | <0.001 | <0.001 | <0.001 | 0.001 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | <0.01 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 30... | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.05 | <0.05 | <0.05 | 0.27 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | -- | -- | -- | -- | -- | -- | -- | -- | <0.100 | <0.100 |
| APR 30... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | 0.06 | <0.05 | 19.0 | <0.100 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | 8.10 | 0.400 |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | 2.20 | <0.100 |

CAPE FEAR RIVER BASIN

02096960 HAW RIVER NEAR BYNUM, NC

LOCATION.--Lat 35°45'48", long 79°08'02", Chatham County, Hydrologic Unit 03030002, on right bank 500 ft upstream from Pokeberry Creek, 0.9 mi south-southeast of Bynum, and 1.1 mi downstream of U.S. Highways 15 and 501.

DRAINAGE AREA.--1,275 mi².

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 above National Geodetic Vertical Datum of 1929. Satellite data transmitter at the station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation for short periods at low flow caused by powerplant above station. Minimum discharge for period of record also occurred Sept. 27, 1983.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 269 | 189 | 233 | 737 | 574 | 1450 | 678 | 649 | 799 | 416 | 399 | 233 |
| 2 | 271 | 236 | 311 | 574 | 511 | 997 | 654 | 760 | 471 | 574 | 430 | 206 |
| 3 | 313 | 195 | 451 | 539 | 474 | 876 | 611 | 540 | 459 | 638 | 307 | 285 |
| 4 | 360 | 226 | 576 | 12400 | 466 | 766 | 571 | 549 | 430 | 534 | 272 | 407 |
| 5 | 364 | 183 | 844 | 11200 | 455 | 698 | 600 | 484 | 919 | 812 | 260 | 359 |
| 6 | 1520 | 214 | 539 | 4180 | 461 | 757 | 581 | 612 | 968 | 562 | 249 | 292 |
| 7 | 1940 | 204 | 409 | 2750 | 450 | 4550 | 556 | 575 | 625 | 506 | 262 | 468 |
| 8 | 693 | 213 | 373 | 2160 | 431 | 3730 | 534 | 1180 | 539 | 758 | 246 | 344 |
| 9 | 518 | 245 | 358 | 1680 | 417 | 1940 | 533 | 1670 | 3780 | 504 | 263 | 232 |
| 10 | 419 | 375 | 386 | 1210 | 386 | 1350 | 519 | 968 | 3970 | 302 | 286 | 273 |
| 11 | 356 | 1150 | 406 | 807 | 394 | 2660 | 498 | 675 | 1910 | 286 | 276 | 263 |
| 12 | 323 | 643 | 447 | 625 | 393 | 1990 | 475 | 585 | 1080 | 259 | 235 | 228 |
| 13 | 295 | 464 | 382 | 606 | 413 | 1310 | 493 | 518 | 1030 | 236 | 387 | 220 |
| 14 | 266 | 347 | 364 | 601 | 407 | 1000 | 656 | 488 | 864 | 220 | 2580 | 195 |
| 15 | 272 | 322 | 349 | 749 | 411 | 859 | 514 | 467 | 457 | 225 | 2350 | 179 |
| 16 | 281 | 259 | 331 | 649 | 1500 | 791 | 758 | 512 | 5180 | 216 | 1930 | 168 |
| 17 | 360 | 248 | 317 | 511 | 1580 | 695 | 521 | 590 | 3130 | 205 | 1220 | 141 |
| 18 | 367 | 234 | 296 | 488 | 967 | 680 | 513 | 480 | 1620 | 198 | 922 | 148 |
| 19 | 335 | 252 | 292 | 485 | 1050 | 789 | 479 | 689 | 980 | 187 | 819 | 154 |
| 20 | 283 | 242 | 258 | 468 | 992 | 1100 | 432 | 543 | 880 | 202 | 366 | 195 |
| 21 | 264 | 252 | 270 | 451 | 829 | 968 | 2350 | 460 | 754 | 202 | 382 | 289 |
| 22 | 254 | 269 | 246 | 454 | 661 | 756 | 18300 | 366 | 675 | 270 | 323 | 145 |
| 23 | 265 | 286 | 250 | 479 | 625 | 771 | 14800 | 374 | 596 | 3480 | 286 | 175 |
| 24 | 283 | 332 | 297 | 1750 | 645 | 858 | 5060 | 298 | 433 | 2630 | 251 | 248 |
| 25 | 276 | 286 | 343 | 1370 | 930 | 767 | 2750 | 301 | 391 | 2160 | 252 | 408 |
| 26 | 271 | 192 | 423 | 857 | 9610 | 797 | 1690 | 356 | 577 | 1110 | 240 | 255 |
| 27 | 253 | 274 | 314 | 729 | 6280 | 1530 | 1120 | 398 | 1320 | 669 | 336 | 214 |
| 28 | 232 | 238 | 334 | 621 | 2970 | 1210 | 1250 | 416 | 1160 | 1640 | 631 | 226 |
| 29 | 293 | 234 | 2170 | 655 | 2210 | 887 | 1080 | 487 | 706 | 1430 | 513 | 232 |
| 30 | 249 | 175 | 2400 | 627 | --- | 782 | 821 | 697 | 494 | 731 | 366 | 206 |
| 31 | 220 | --- | 1040 | 583 | --- | 727 | --- | 1030 | --- | 548 | 236 | --- |
| TOTAL | 12665 | 8979 | 16009 | 51995 | 37492 | 39041 | 60397 | 18717 | 37197 | 22710 | 17875 | 7388 |
| MEAN | 409 | 299 | 516 | 1677 | 1293 | 1259 | 2013 | 604 | 1240 | 733 | 577 | 246 |
| MAX | 1940 | 1150 | 2400 | 12400 | 9610 | 4550 | 18300 | 1670 | 5180 | 3480 | 2580 | 468 |
| MIN | 220 | 175 | 233 | 451 | 386 | 680 | 432 | 298 | 391 | 187 | 235 | 141 |
| CFSM | .32 | .23 | .41 | 1.32 | 1.01 | .99 | 1.58 | .47 | .97 | .57 | .45 | .19 |
| IN. | .37 | .26 | .47 | 1.52 | 1.09 | 1.14 | 1.76 | .55 | 1.09 | .66 | .52 | .22 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 679 | 703 | 1219 | 2294 | 2201 | 2475 | 1643 | 1269 | 917 | 887 | 594 | 730 |
| MAX | 2906 | 2888 | 2681 | 5895 | 5465 | 6110 | 4044 | 3936 | 4632 | 4477 | 1893 | 2809 |
| (WY) | 1991 | 1986 | 1984 | 1978 | 1979 | 1975 | 1987 | 1978 | 1982 | 1975 | 1985 | 1979 |
| MIN | 154 | 225 | 275 | 262 | 627 | 648 | 419 | 256 | 155 | 135 | 118 | 111 |
| (WY) | 1987 | 1974 | 1981 | 1981 | 1977 | 1988 | 1986 | 1986 | 1986 | 1986 | 1987 | 1983 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1973 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 431469 | | 330465 | | | |
| ANNUAL MEAN | 1182 | | 903 | | 1298 | |
| HIGHEST ANNUAL MEAN | | | | | 2181 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 603 | 1988 |
| HIGHEST DAILY MEAN | 25200 | Jan 12 | 18300 | Apr 22 | 39400 | Mar 1 1987 |
| LOWEST DAILY MEAN | 136 | Sep 6 | 141 | Sep 17 | .18 | Sep 10 1983 |
| ANNUAL SEVEN-DAY MINIMUM | 161 | Sep 1 | 169 | Sep 14 | 46 | Sep 7 1983 |
| INSTANTANEOUS PEAK FLOW | | | 19600 | Apr 22 | 46800 | Mar 1 1987 |
| INSTANTANEOUS PEAK STAGE | | | 12.68 | Apr 22 | 17.67 | Mar 14 1975 |
| INSTANTANEOUS LOW FLOW | | | 52 | Aug 30 | .18* | Sep 10 1983 |
| ANNUAL RUNOFF (CFSM) | .93 | | .71 | | 1.02 | |
| ANNUAL RUNOFF (INCHES) | 12.59 | | 9.64 | | 13.83 | |
| 10 PERCENT EXCEEDS | 2550 | | 1670 | | 2840 | |
| 50 PERCENT EXCEEDS | 519 | | 482 | | 579 | |
| 90 PERCENT EXCEEDS | 208 | | 233 | | 164 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to 1985, 1991 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 27... | 1700 | 4710 | 88 | 7.3 | 10.0 | 230 | 11.2 | 100 | 6.2 | 2.4 | 6.3 | 1.4 |
| APR | | | | | | | | | | | | |
| 23... | 1130 | 16300 | 68 | 7.1 | 19.0 | 200 | 9.4 | 101 | 4.8 | 1.8 | 4.4 | 2.7 |
| JUN | | | | | | | | | | | | |
| 10... | 1100 | 3800 | 122 | 7.0 | 22.0 | 280 | 7.8 | 91 | 6.4 | 2.6 | 12 | 4.0 |
| 16... | 1130 | 8130 | 85 | 6.7 | 21.0 | 350 | 9.1 | 103 | 4.9 | 2.0 | 6.8 | 3.3 |
| JUL | | | | | | | | | | | | |
| 23... | 1430 | 4940 | 366 | 7.2 | 28.0 | 80 | 7.1 | 92 | 9.8 | 3.9 | 54 | 6.2 |
| AUG | | | | | | | | | | | | |
| 06... | 1115 | 247 | 207 | 7.3 | 26.0 | -- | 8.0 | -- | -- | -- | -- | -- |

| DATE | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) | PHOS-PHORUS ORTHO TOTAL (MG/L AS P) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 27... | 11 | 5.7 | 0.10 | 9.8 | 83 | 55 | -- | -- | -- | -- | -- | 2000 |
| APR | | | | | | | | | | | | |
| 23... | 6.9 | 4.3 | 0.10 | 7.9 | 56 | 43 | 0.270 | 0.060 | 0.60 | 0.140 | 0.030 | 3200 |
| JUN | | | | | | | | | | | | |
| 10... | 14 | 8.8 | <0.10 | 9.8 | 102 | 73 | 0.420 | 0.050 | 0.80 | 0.070 | 0.020 | 3700 |
| 16... | 7.7 | 6.5 | 0.10 | 7.8 | 74 | 50 | 0.660 | 0.090 | 0.90 | 0.220 | 0.060 | 5900 |
| JUL | | | | | | | | | | | | |
| 23... | 51 | 41 | 0.40 | 11 | 222 | 210 | 2.00 | 0.130 | 1.7 | 0.580 | 0.280 | 1800 |
| AUG | | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 27... | <1 | <1 | 5 | 2 | 7 | 3600 | 11 | 210 | <0.10 | <1 | 3 | <1 |
| APR | | | | | | | | | | | | |
| 23... | <1 | <1 | 9 | 3 | 16 | 5000 | 13 | 220 | <0.10 | <1 | 4 | <1 |
| JUN | | | | | | | | | | | | |
| 10... | <1 | <1 | 6 | 4 | 18 | 4100 | 45 | 460 | <0.10 | <1 | 5 | <1 |
| 16... | <1 | <1 | 11 | 10 | 32 | 9200 | 59 | 730 | <0.10 | <1 | 7 | <1 |
| JUL | | | | | | | | | | | | |
| 23... | 2 | <1 | 1 | 4 | 22 | 2700 | 13 | 530 | <0.10 | 4 | 6 | <1 |
| AUG | | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | PER-THANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 27... | <1 | 30 | 13 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| APR | | | | | | | | | | | | |
| 23... | <1 | 60 | 14 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| JUN | | | | | | | | | | | | |
| 10... | <1 | 30 | 14 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | <1 | 50 | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | | |
| 23... | <1 | 40 | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SI-MAZINE, WATER, DISS, REC (UG/L) | PRO-METRYN, WATER, DISS, REC (UG/L) | PRO-METON, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 27... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- | -- |
| APR | | | | | | | | | | | |
| 23... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 0.28 | <0.05 | <0.05 |
| JUN | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | ATRA-ZINE, WATER, DISS, REC (UG/L) | DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) | CYANA-ZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROP-AZINE WATER DISS REC (UG/L) | METO-LACHLOR WATER DISSOLV (UG/L) | ALA-CHLOR, WATER, DISS, REC, (UG/L) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 96 | 1220 |
| APR | | | | | | | | | | | |
| 23... | 0.54 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.29 | <0.05 | <0.05 | 163 | 7170 |
| JUN | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 199 | 2040 |
| 16... | -- | -- | -- | -- | -- | -- | -- | -- | -- | 525 | 11500 |
| JUL | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0209699980 HAW RIVER AT U.S. HIGHWAY 64 NEAR PITTSBORO, NC

LOCATION.--Lat 35°43'53", long 79°06'25", Chatham County, Hydrologic Unit 03030002, 0.5 mi above B. Everett Jordan Dam, and 1.4 mi southwest of Merry Oaks.

DRAINAGE AREA.--1,296 $mi^2$.

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 28... | 1520 | 197 | 7.0 | 20.0 | 23 | 11.6 | 128 | 7.8 | 2.9 | 27 | 3.9 | 25 |
| MAY | | | | | | | | | | | | |
| 13... | 1410 | 142 | 7.9 | 19.0 | 50 | 10.6 | 115 | 6.8 | 2.7 | 15 | 2.9 | 16 |
| JUN | | | | | | | | | | | | |
| 09... | 1015 | 216 | 9.7 | 27.0 | 40 | 11.6 | 147 | 8.1 | 3.2 | 29 | 4.1 | 30 |

| 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) | 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, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 28... | 20 | 0.30 | 5.6 | 118 | 118 | 0.350 | 0.360 | 0.020 | 0.020 | 1.0 | 0.50 | 0.080 |
| MAY | | | | | | | | | | | | |
| 13... | 11 | 0.20 | 6.2 | 98 | 79 | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 09... | 21 | 0.20 | 8.0 | 122 | 131 | -- | 0.430 | -- | 0.020 | 0.90 | 0.40 | 0.180 |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 28... | 0.040 | <0.010 | <0.010 | 90 | <1 | <1 | 2 | <1 | 5 | 340 | 8 | 30 |
| MAY | | | | | | | | | | | | |
| 13... | -- | -- | -- | 160 | <1 | <1 | <1 | <1 | 3 | 360 | 1 | 60 |
| JUN | | | | | | | | | | | | |
| 09... | 0.040 | -- | 0.020 | 90 | 2 | <1 | 1 | <1 | 3 | 230 | <1 | 30 |

| DATE | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DI-CHLORO-BROMO-METHANE TOTAL (UG/L) | CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) | 1,2-DI-CHLORO-ETHANE TOTAL (UG/L) | BROMO-FORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 28... | <0.10 | 2 | 3 | <1 | <1 | 20 | 7.7 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY | | | | | | | | | | | | |
| 13... | <0.10 | <1 | 1 | <1 | <1 | 40 | 10 | <0.1 | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 09... | <0.10 | 2 | 3 | <1 | <1 | <10 | 8.9 | -- | -- | -- | -- | -- |

| DATE | CHLORO-DI-BROMO-METHANE TOTAL (UG/L) | CHLORO-FORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLORO-BENZENE TOTAL (UG/L) | CHLORO-ETHANE TOTAL (UG/L) | ETHYL-BENZENE TOTAL (UG/L) | METHYL-BROMIDE TOTAL (UG/L) | METHYL-CHLO-RIDE TOTAL (UG/L) | METHYL-ENE CHLO-RIDE TOTAL (UG/L) | TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) | TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY | | | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0209699980 HAW RIVER AT U.S. HIGHWAY 64 NEAR PITTSBORO, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DICHLORODIFLUOROMETHANE TOTAL (UG/L) | TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | 1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 13... | -- | -- | -- | -- | -- | <0.10 | -- | -- | <0.01 | <0.01 | <0.01 | <0.1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 13... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 13... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.20 | <0.05 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.90 | <0.100 |
| MAY 13... | <0.05 | 0.32 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.14 | <0.05 | <0.05 | 8.20 | 0.300 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.20 | 0.600 |

CAPE FEAR RIVER BASIN

02097314 NEW HOPE CREEK NEAR BLANDS, NC

LOCATION.--Lat 35°53'05", long 78°57'58", Durham County, Hydrologic Unit 03030002, on right bank 15 ft downstream of bridge on Secondary Road 1107, 0.5 mi southwest of Blands, and 2 mi downstream of Third Fork Creek.

DRAINAGE AREA.--75.9 $mi^2$.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges due to beaver activity, which are poor. Slight diurnal fluctuation at low flow. An average of 36.5 $ft^3/s$ was diverted from the Neuse River basin for Durham municipal water supply; 17.7 $ft^3/s$ was returned to the Cape Fear River basin, of which 11.8 $ft^3/s$ entered upstream from station as treated effluent. About 11.8 $ft^3/s$ was returned to the Neuse River basin. Maximum gage height for period of record, result of backwater from B. Everett Jordan Lake. Minimum discharge and gage height for period of record, result of regulation. Minimum discharge unregulated, 4.2 $ft^3/s$, Apr. 28, 29, May 1, 2, and July 10, 1985.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | e17 | e26 | 78 | 78 | 268 | 71 | 39 | 59 | 153 | 27 | 20 |
| 2 | 22 | e16 | e35 | 76 | 74 | 216 | 64 | 38 | 34 | 248 | 23 | 18 |
| 3 | 43 | e15 | e54 | 90 | 71 | 177 | 58 | 34 | 27 | 120 | 18 | 18 |
| 4 | 45 | e21 | e35 | 844 | 68 | 160 | 52 | 31 | 26 | 177 | 17 | 20 |
| 5 | 28 | e25 | e25 | 1250 | 66 | 138 | 64 | 28 | 37 | 96 | 16 | 21 |
| 6 | 23 | e21 | e18 | 624 | 63 | 103 | 57 | 28 | 30 | 53 | 14 | 15 |
| 7 | 20 | e18 | e15 | 365 | 60 | 608 | 54 | 28 | 24 | 38 | 14 | 16 |
| 8 | 19 | e13 | e13 | 243 | 58 | 845 | 48 | 51 | 26 | 32 | 14 | 19 |
| 9 | 18 | e13 | e11 | 200 | 55 | 627 | 47 | 56 | 403 | 28 | 15 | 21 |
| 10 | 17 | e25 | e10 | 174 | 53 | 265 | 45 | 35 | 675 | 27 | 32 | 22 |
| 11 | 17 | e60 | e9.8 | 148 | 52 | 298 | 42 | 29 | 547 | 24 | 26 | 18 |
| 12 | 16 | e25 | e9.2 | 127 | 51 | 215 | 42 | 26 | 149 | 23 | 20 | 15 |
| 13 | 16 | e17 | e8.8 | 110 | 49 | 126 | 90 | 25 | 62 | 23 | 95 | 13 |
| 14 | 17 | e13 | e8.4 | 99 | 49 | 96 | 63 | 32 | 45 | 22 | 224 | 13 |
| 15 | 17 | e12 | e8.1 | 89 | 50 | 79 | 50 | 36 | 46 | 20 | 164 | 15 |
| 16 | 52 | e11 | e7.8 | 80 | 55 | 70 | 48 | 28 | 134 | 19 | 82 | 14 |
| 17 | 149 | e10 | e7.5 | 71 | 57 | 62 | 45 | 50 | 112 | 18 | 64 | 15 |
| 18 | 66 | e9.0 | e7.4 | 68 | 125 | 60 | 42 | 34 | 58 | 16 | 55 | 17 |
| 19 | 34 | e10 | e7.2 | 64 | 238 | 103 | 38 | 61 | 42 | 16 | 40 | 15 |
| 20 | 24 | e11 | e7.0 | 61 | 214 | 115 | 39 | 48 | 89 | 16 | 50 | 46 |
| 21 | 21 | e15 | e6.8 | 59 | 204 | 78 | 67 | 31 | 75 | 16 | 63 | 34 |
| 22 | 20 | e20 | e6.8 | 57 | 194 | 62 | 430 | 25 | 87 | 17 | 32 | 21 |
| 23 | 19 | e35 | e9.0 | 60 | 176 | 113 | 687 | 20 | 44 | 40 | 23 | 20 |
| 24 | 19 | e28 | e11 | 64 | 159 | 139 | 463 | 18 | 32 | 42 | 20 | 19 |
| 25 | 20 | e20 | e15 | 66 | 133 | 88 | 217 | 18 | 31 | 28 | 19 | 19 |
| 26 | 20 | e14 | e19 | 71 | 198 | 162 | 111 | 71 | 145 | 21 | 19 | 15 |
| 27 | 21 | e10 | e27 | 73 | 615 | 380 | 56 | 86 | 359 | 18 | 19 | 19 |
| 28 | 24 | 14 | e28 | 77 | 531 | 214 | 44 | 36 | 516 | 17 | 29 | 89 |
| 29 | 29 | e14 | 42 | 79 | 334 | 117 | 41 | 27 | 180 | 25 | 35 | 33 |
| 30 | 21 | e20 | 53 | 79 | --- | 89 | 39 | 113 | 63 | 22 | 29 | 18 |
| 31 | e18 | --- | 72 | 79 | --- | 77 | --- | 195 | --- | 17 | 23 | --- |
| TOTAL | 899 | 552.0 | 612.8 | 5625 | 4130 | 6150 | 3214 | 1377 | 4157 | 1432 | 1321 | 658 |
| MEAN | 29.0 | 18.4 | 19.8 | 181 | 142 | 198 | 107 | 44.4 | 139 | 46.2 | 42.6 | 21.9 |
| MAX | 149 | 60 | 72 | 1250 | 615 | 845 | 687 | 195 | 675 | 248 | 224 | 89 |
| MIN | 16 | 9.0 | 6.8 | 57 | 49 | 60 | 38 | 18 | 24 | 16 | 14 | 13 |
| CFSM | .38 | .24 | .26 | 2.39 | 1.88 | 2.61 | 1.41 | .59 | 1.83 | .61 | .56 | .29 |
| IN. | .44 | .27 | .30 | 2.76 | 2.02 | 3.01 | 1.58 | .67 | 2.04 | .70 | .65 | .32 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 43.8 | 76.0 | 89.2 | 167 | 210 | 197 | 160 | 93.8 | 41.1 | 42.9 | 45.6 | 29.0 |
| MAX | 122 | 371 | 264 | 509 | 402 | 339 | 618 | 207 | 139 | 126 | 97.8 | 60.8 |
| (WY) | 1990 | 1986 | 1984 | 1991 | 1985 | 1984 | 1987 | 1989 | 1992 | 1989 | 1986 | 1987 |
| MIN | 12.8 | 16.1 | 17.0 | 38.6 | 62.3 | 42.0 | 13.5 | 34.8 | 14.3 | 16.0 | 17.3 | 10.8 |
| (WY) | 1987 | 1985 | 1989 | 1986 | 1986 | 1985 | 1985 | 1988 | 1985 | 1983 | 1987 | 1984 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 36514.8 | | 30127.8 | | | |
| ANNUAL MEAN | 100 | | 82.3 | | 99.2 | |
| HIGHEST ANNUAL MEAN | | | | | 156 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 48.3 | 1988 |
| HIGHEST DAILY MEAN | 2400 | Jan 14 | 1250 | Jan 5 | 4620 | Apr 19 1987 |
| LOWEST DAILY MEAN | 6.8 | Dec 21 | 6.8 | Dec 21 | .39 | Dec 30 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 7.2 | Dec 16 | 7.2 | Dec 16 | 4.8 | Nov 29 1990 |
| INSTANTANEOUS PEAK FLOW | | | 2150 | Jan 4 | 4980 | Apr 19 1987 |
| INSTANTANEOUS PEAK STAGE | | | 10.34 | Jan 4 | 15.03* | Mar 4 1987 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .28* | Dec 30 1988 |
| ANNUAL RUNOFF (CFSM) | 1.32 | | 1.08 | | 1.31 | |
| ANNUAL RUNOFF (INCHES) | 17.90 | | 14.77 | | 17.75 | |
| 10 PERCENT EXCEEDS | 206 | | 184 | | 214 | |
| 50 PERCENT EXCEEDS | 32 | | 37 | | 33 | |
| 90 PERCENT EXCEEDS | 14 | | 15 | | 13 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02097314 NEW HOPE CREEK NEAR BLANDS, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1991 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB 26... | 1315 | 206 | 140 | 6.9 | 11.5 | 130 | 7.8 | 72 | 10 | 3.1 | 11 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB 26... | 2.7 | 15 | 11 | 0.20 | 7.3 | 95 | 79 | 2400 | <1 | 4 | 1 |

| DATE | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 26... | 3 | 2800 | 5 | 210 | <0.10 | 1 | 4 | <1 | <1 | 30 |

| DATE | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | PER-THANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 26... | 14 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |

| DATE | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 26... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 66 | 37 |

CAPE FEAR RIVER BASIN

0209736050 LITTLE CREEK TRIBUTARY NEAR CHAPEL HILL, NC

FLOOD-HYDROGRAPH RAINFALL-RUNOFF STATION

LOCATION.--Lat 35°55'02", long 79°01'57", Orange County, Hydrologic Unit 03030002, 0.8 mi upstream from mouth, and 1.2 mi east of Chapel Hill.

DRAINAGE AREA.--0.42 $mi^2$.

PERIOD OF RECORD.--February 1987 to current year. Daily average discharge only, February 1987 to September 1990.

GAGE.--Water-stage recorder. Datum of gage is 377 ft above National Geodetic Vertical Datum of 1929, from topographic map.

MAXIMUM FOR PERIOD OF RECORD.--Maximum discharge: 542 $ft^3/s$, June 15, 1992; gage height: 3.05 ft.

MAXIMUM FOR CURRENT YEAR.--Maximum discharge: 542 $ft^3/s$, June 15, 1992; gage height: 3.05 ft.

RAINFALL AND DISCHARGES FOR PEAKS ABOVE 30 CUBIC FEET PER SECOND

03/06 92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <1530> | .07 | .07 | .07 | .07 | .08 | .10 | .10 | .12 | .14 | .23 | .66 | .74 |
| <1630> | .82 | .90 | .82 | .82 | .82 | 1.1 | 6.8 | 6.5 | 5.9 | 5.3 | 5.1 | 4.8 |
| <1730> | 4.8 | 4.8 | 4.6 | 4.4 | 4.4 | 4.1 | 4.1 | 4.4 | 4.8 | 5.1 | 5.3 | 5.3 |
| <1830> | 5.3 | 5.6 | 5.9 | 6.5 | 6.8 | 7.1 | 7.1 | 7.4 | 7.4 | 8.0 | 9.1 | 11 |
| <1930> | 13 | 14 | 15 | 18 | 31 | 38 | 38 | 39 | 47 | 47 | 45 | 46 |
| <2030> | 52 | 55 | 48 | 44 | 44 | 46 | 45 | 41 | 39 | 36 | 33 | 32 |
| <2130> | 29 | 26 | 24 | 23 | 21 | 21 | 20 | 20 | 18 | 18 | 17 | 17 |
| <2230> | 16 | 17 | 18 | 18 | 18 | 17 | 16 | 16 | 15 | 14 | 13 | 13 |
| <2330> | 12 | 11 | 11 | 10 | 10 | 9.8 | 9.8 | | | | | |

03/07/92

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <0005> | 9.5 | 9.1 | 9.1 | 8.7 | 8.7 | 8.4 | 8.4 | 8.4 | 8.0 | 8.0 | 8.0 | 8.0 |

<03/06/92 UNIT RAINFALL, INCREMENTAL (INCHES)

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <1530> | 0 | .01 | .03 | .04 | .03 | .02 | .02 | .02 | .01 | .01 | .01 | .02 |
| <1630> | .01 | .01 | 0 | .01 | 0 | .02 | 0 | .02 | .01 | .01 | .01 | .02 |
| <1730> | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| <1830> | .01 | .01 | .01 | .02 | .03 | .02 | .06 | .05 | .05 | .07 | .02 | .02 |
| <1930> | .06 | .07 | .04 | .03 | .07 | .03 | .01 | .02 | .06 | .05 | .03 | .02 |
| <2030> | .01 | .02 | .01 | .01 | 0 | 0 | .01 | .01 | .01 | .01 | .01 | 0 |
| <2130> | .01 | .01 | .01 | 0 | .01 | .02 | .01 | 0 | .01 | .01 | .01 | 0 |
| <2230> | 0 | 0 | 0 | .01 | .01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <2330> | 0 | .01 | 0 | .01 | 0 | .01 | 0 | | | | | |

03/07/92

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <0005> | 0 | .02 | .01 | 0 | 0 | .01 | 0 | .01 | 0 | 0 | 0 | 0 |

04/21/92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <2005> | .47 | .66 | 1.1 | 5.3 | 15 | 18 | 104 | 137 | 146 | 135 | 122 | 114 |
| <2105> | 113 | 94 | 77 | 65 | 49 | 37 | 38 | 36 | 30 | 28 | 25 | 24 |
| <2205> | 22 | 20 | 19 | 18 | 16 | 15 | 14 | 14 | 13 | 13 | 12 | 11 |
| <2305> | 11 | 11 | 9.8 | 9.5 | 8.7 | 8.0 | 7.7 | 7.4 | 7.1 | 6.8 | 6.5 | 6.2 |

04/22/92

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <0005> | 5.9 | 5.9 | 5.6 | 5.3 | 5.1 | 4.8 | 4.8 | 4.8 | 4.6 | 4.4 | 4.4 | 4.4 |
| <0110 | 4.1 | 3.9 | 3.9 | 3.7 | 3.7 | 3.7 | 3.5 | 3.5 | 3.5 | 3.3 | 3.3 | 3.3 |

04/21/92 UNIT RAINFALL, INCREMENTAL (INCHES)

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <1930> | 0 | .01 | .01 | .02 | .02 | .01 | .01 | .02 | .03 | .14 | .13 | .09 |
| <2030> | .09 | .08 | .08 | .06 | .05 | .04 | .03 | .03 | .03 | .02 | .02 | .01 |
| <2130> | .02 | .02 | 0 | .02 | .01 | .01 | .01 | 0 | .01 | .01 | .01 | 0 |
| <2230> | 0 | .01 | 0 | .01 | 0 | 0 | 0 | .01 | 0 | 0 | 0 | 0 |

05/26/92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <0335> | .59 | 1.3 | 1.1 | 1.2 | 11 | 11 | 11 | 8.4 | 7.1 | 6.2 | 5.3 | 4.6 |
| <0435> | 3.9 | 3.3 | 2.9 | 2.6 | 2.3 | 2.1 | 2.1 | 2.3 | 3.9 | 8.7 | 7.7 | 41 |
| <0535> | 49 | 36 | 28 | 43 | 49 | 34 | 23 | 17 | 12 | 9.8 | 7.7 | 6.5 |
| <0635> | 5.3 | 4.6 | 4.1 | 3.7 | 3.1 | 2.8 | 2.6 | 2.4 | 2.3 | 2.1 | 1.9 | 1.7 |
| <0735> | 1.6 | 1.5 | 1.3 | 1.3 | 1.2 | 1.1 | 1.1 | .98 | | | | |

05/26/92 UNIT RAINFALL, INCREMENTAL (INCHES)

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <0310> | 0 | .01 | .06 | .12 | .09 | .04 | .03 | .03 | .01 | .01 | 0 | 0 |
| <0410> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .01 | 0 | 0 | 0 |
| <0510> | .10 | .16 | .05 | .05 | .03 | .07 | .07 | .01 | 0 | .01 | 0 | 0 |
| <0610> | .01 | 0 | .01 | 0 | 0 | .01 | 0 | 0 | 0 | 0 | .01 | 0 |

06/08/92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

| <TIME> | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <2110> | .66 | .66 | .66 | .66 | .66 | .66 | .66 | 1.6 | 1.7 | 2.6 | 4.1 | 36 |
| <2210> | 35 | 37 | 43 | 104 | 146 | 163 | 133 | 122 | 85 | 56 | 39 | 31 |
| <1310> | 28 | 27 | 44 | 72 | 152 | 322 | 366 | 339 | 350 | 244 | 129 | |

0209736050 LITTLE CREEK TRIBUTARY NEAR CHAPEL HILL, NC

06/09/92

<TIME>

<0005> 80 59 47 38 33 28 25 22 20 18 16 14
<0105> 13 12 11 10 9.5 9.1 8.4 7.7 7.4 6.8 6.5 6.2

06/08/92 UNIT RAINFALL, INCREMENTAL (INCHES)

<TIME>

<2110> 0 .04 .02 .06 .19 .07 .07 .05 .04 .01 .08 .10
<2210> .15 .12 .11 .09 .07 .02 .01 .03 .04 .03 .03 .02
<2310> .05 .24 .14 .12 .08 .03 .02 .01 .01 .01 .01

06/09/92

<TIME>

<0005> .01 .01 0 .01 0 .01 0 0 0 .01 0 0
<0105> 0 .01 0 0 0 0 0 0 0 .01 0

06/15/92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

<TIME>

<2250> .90 .90 .90 .90 .90 .14 9.5 30 79 208 413 533
<2350> 542 456 350

06/16/92

<TIME>

<0005> 213 99 63 50 32 23 20 18 18 17 17 17
<0105> 16 16 15 14 15 13 13 12 11 9.1 8.4 8.7
<0205> 7.4 8.0 7.7 7.1 7.4 6.8 7.1 6.8 6.5 5.9 5.6 5.3

06/15/92 UNIT RAINFALL, INCREMENTAL (INCHES)

<TIME>

<2250> 0 .01 .04 .05 .11 .27 .20 .17 .14 .06 .04 .02
<2350> .02 .01 .01

06/16/92

<TIME>

<0005> 0 .02 .01 .01 .02 .02 .02 .02 .01 .02 .01 .01
<0105> 0 .01 0 .01 0 .01 0 .01 0 .01 0 0

07/22/92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

<TIME>

<2000> 8.7 8.7 8.7 8.7 8.7 8.7 9.5 9.8 12 18 20 102
<2100> 85 77 79 72 59 51 46 40 36 33 31 29
<2200> 28 28 29 29 30 31 30 28 27 25 24 23
<2300> 21 18 15 12 10 8.0

07/22/92 UNIT RAINFALL, INCREMENTAL (INCHES)

<TIME>

<2000> 0 .01 0 .01 .05 .05 .10 .05 .06 .05 .03 .01
<2100> .02 .01 .01 .01 .01 .02 .01 .01 .01 .02 .02 0
<2200> .01 .01 0 .01 0 0 .01 0 0 .01 0 0
<2300> 0 0 0 .01 0 0 0 0 0 0 0 0

08/12/92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

<TIME>

<1800> .17 .17 .17 .17 .17 .17 1.9 6.2 5.9 6.8 36 65
<1900> 58 50 45 36 27 20 15 12 10 8.7 8.0 7.4
<2000> 6.5 5.9 5.1 4.8 4.4 4.1 3.9 3.5 3.1 2.8 2.4 2.4

08/12/92 UNIT RAINFALL, INCREMENTAL (INCHES)

<TIME>

<1800> 0 0 .05 .14 .10 .12 .10 .08 .11 .07 .04 .02
<1900> .04 .03 .02 .02 .02 .02 .01 .01 .01 .02 .01 .01
<2000> .01 .01 .01 .01 .01 0 .01 0 0 .01 0 .01

08/26/92 UNIT DISCHARGE (CUBIC FEET PER SECOND)

<TIME>

<1730> 0 11 16 12 8.4 34 23 18 16 13 9.5 7.4
<1830> 5.6 4.6 3.7 3.1 2.4 2.1 1.7 1.5 1.3 1.2 1.1 .90

08/26/92 UNIT RAINFALL, INCREMENTAL (INCHES)

<TIME>

<1715> 0 .01 .16 .01 0 0 0 0 0 0 0 0

CAPE FEAR RIVER BASIN

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC

LOCATION.--Lat 35°52'20", long 78°54'49", Durham County, Hydrologic Unit 03030002, on left bank at downstream side of bridge on Secondary Road 1100, 1.3 mi west of Genlee, and 1.6 mi downstream of Burdens Creek.

DRAINAGE AREA.--21.1 $mi^2$.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 235 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges due to beaver activity and those below 5 $ft^3/s$, which are poor. Slight diurnal fluctuation at low flow. An average of 36.5 $ft^3/s$ was diverted from the Neuse River basin for Durham municipal water supply; 17.7 $ft^3/s$ was returned to the Cape Fear River basin, of which 5.8 $ft^3/s$ entered upstream from station as treated effluent. About 11.8 $ft^3/s$ was returned to Neuse River basin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.8 | 20 | e15 | 10 | 7.1 | 13 | 13 | 7.6 | 11 | 52 | 6.7 | 8.4 |
| 2 | 8.0 | 18 | e25 | 8.9 | 5.6 | 11 | 11 | 7.5 | 6.3 | 224 | 7.0 | 8.6 |
| 3 | 59 | 16 | e35 | 90 | 6.2 | 10 | 12 | 8.8 | 5.0 | 22 | 10 | 8.2 |
| 4 | 22 | 16 | e70 | 817 | 6.1 | 9.6 | 8.7 | 10 | 4.9 | 35 | 11 | 8.2 |
| 5 | 12 | 14 | 38 | 339 | 5.6 | 9.1 | 12 | 11 | 3.4 | 13 | 12 | 6.9 |
| 6 | 8.9 | 12 | 9.2 | 55 | 5.4 | 36 | 11 | 11 | 1.4 | 28 | 12 | 5.7 |
| 7 | 8.2 | 11 | 7.6 | 23 | 5.4 | 587 | 9.9 | 9.4 | 1.6 | 14 | 12 | 12 |
| 8 | 7.5 | 9.6 | 6.9 | 16 | 4.8 | 137 | 14 | 15 | 11 | 12 | 12 | 8.6 |
| 9 | 7.0 | 8.0 | e6.3 | 13 | 5.7 | 37 | 11 | 11 | 747 | 13 | 13 | 7.5 |
| 10 | 7.5 | 9.6 | e6.0 | 12 | 7.0 | 38 | 8.6 | 9.1 | 147 | 13 | 21 | 7.4 |
| 11 | 11 | e8.0 | e5.8 | 13 | 8.0 | 112 | 6.4 | 11 | 17 | 9.5 | 17 | 7.0 |
| 12 | 20 | e7.5 | e5.4 | 8.5 | 9.9 | 41 | 7.5 | 11 | 6.8 | 9.4 | 28 | 5.1 |
| 13 | 27 | e7.0 | e5.0 | 8.5 | 8.5 | 28 | 14 | 10 | 3.5 | 8.6 | 72 | 5.4 |
| 14 | 33 | e6.8 | e4.6 | 14 | 8.6 | 22 | 9.3 | 11 | 2.4 | 9.9 | 275 | 6.8 |
| 15 | 41 | e6.5 | e4.2 | 13 | 12 | 19 | 7.8 | 11 | 3.0 | 9.9 | 51 | 7.0 |
| 16 | 67 | e6.3 | e3.9 | 9.4 | 22 | 18 | 7.0 | 8.9 | 44 | 8.4 | 42 | 6.6 |
| 17 | 197 | e6.0 | e3.7 | 8.6 | 8.6 | 20 | 5.8 | 8.7 | 10 | 8.8 | 28 | 9.7 |
| 18 | 40 | e5.5 | e3.5 | 7.2 | 6.9 | 20 | 4.5 | 10 | 4.3 | 6.8 | 28 | 8.0 |
| 19 | 27 | e5.0 | e3.1 | 6.4 | 24 | 41 | 5.3 | 12 | 4.1 | 12 | 16 | 6.2 |
| 20 | 24 | e4.5 | e3.0 | 6.9 | 17 | 27 | 6.2 | 12 | 10 | 9.9 | 80 | 7.1 |
| 21 | 23 | e4.3 | e3.0 | 7.2 | 8.7 | 17 | 18 | 11 | 9.7 | 8.7 | 26 | 8.4 |
| 22 | 25 | e9.0 | 7.3 | 7.2 | 6.0 | 14 | 304 | 10 | 9.4 | 9.1 | 12 | 7.9 |
| 23 | 27 | e12 | 8.8 | 13 | 5.7 | 50 | 43 | 8.3 | 3.3 | 31 | 8.9 | 19 |
| 24 | 29 | e16 | 19 | 18 | 14 | 36 | 13 | 7.8 | 2.4 | 13 | 9.5 | 12 |
| 25 | 28 | e9.0 | 9.3 | 9.0 | 37 | 22 | 6.1 | 9.8 | 2.9 | 8.1 | 9.4 | 7.4 |
| 26 | 26 | e6.0 | 6.7 | 6.9 | 396 | 112 | 3.6 | 28 | 55 | 6.8 | 27 | 5.1 |
| 27 | 25 | e4.5 | 17 | 7.1 | 176 | 110 | 5.6 | 14 | 185 | 8.1 | 39 | 4.8 |
| 28 | 26 | e4.0 | 28 | 18 | 35 | 31 | 5.2 | 6.6 | 13 | 11 | 13 | 32 |
| 29 | 26 | e6.0 | 219 | 15 | 19 | 20 | 6.0 | 4.9 | 4.3 | 10 | 9.4 | 12 |
| 30 | 25 | e9.5 | 64 | 12 | --- | 17 | 6.2 | 65 | 3.8 | 8.5 | 7.3 | 7.6 |
| 31 | 22 | --- | 16 | 9.6 | --- | 16 | --- | 47 | --- | 8.3 | 8.2 | --- |
| TOTAL | 916.9 | 277.6 | 659.3 | 1602.4 | 881.8 | 1680.7 | 595.7 | 418.4 | 1332.5 | 641.8 | 923.4 | 266.6 |
| MEAN | 29.6 | 9.25 | 21.3 | 51.7 | 30.4 | 54.2 | 19.9 | 13.5 | 44.4 | 20.7 | 29.8 | 8.89 |
| MAX | 197 | 20 | 219 | 817 | 396 | 587 | 304 | 65 | 747 | 224 | 275 | 32 |
| MIN | 7.0 | 4.0 | 3.0 | 6.4 | 4.8 | 9.1 | 3.6 | 4.9 | 1.4 | 6.8 | 6.7 | 4.8 |
| CFSM | 1.40 | .44 | 1.01 | 2.45 | 1.44 | 2.57 | .94 | .64 | 2.11 | .98 | 1.41 | .42 |
| IN. | 1.62 | .49 | 1.16 | 2.83 | 1.55 | 2.96 | 1.05 | .74 | 2.35 | 1.13 | 1.63 | .47 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 16.3 | 20.4 | 31.5 | 48.3 | 61.9 | 60.9 | 31.4 | 24.3 | 14.5 | 17.0 | 20.3 | 9.68 |
| MAX | 49.2 | 73.8 | 86.3 | 87.4 | 102 | 111 | 69.6 | 59.1 | 44.4 | 48.6 | 66.7 | 26.1 |
| (WY) | 1990 | 1986 | 1984 | 1991 | 1989 | 1989 | 1984 | 1990 | 1992 | 1989 | 1986 | 1987 |
| MIN | 3.27 | 3.89 | 4.32 | 12.6 | 10.7 | 8.18 | 4.00 | 8.57 | 4.55 | 3.33 | 3.50 | 2.49 |
| (WY) | 1986 | 1985 | 1989 | 1986 | 1991 | 1985 | 1985 | 1987 | 1987 | 1983 | 1983 | 1983 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 10440.47 | | 10197.1 | | | |
| ANNUAL MEAN | 28.6 | | 27.9 | | 29.6 | |
| HIGHEST ANNUAL MEAN | | | | | 45.0 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 14.7 | 1988 |
| HIGHEST DAILY MEAN | 667 | Jan 12 | 817 | Jan 4 | 1000 | Jan 11 1984 |
| LOWEST DAILY MEAN | .74 | Jul 16 | 1.4 | Jun 6 | .74 | Jul 16 1991 |
| ANNUAL SEVEN-DAY MINIMUM | 2.2 | Jul 12 | 3.5 | Dec 15 | 1.5 | Oct 7 1985 |
| INSTANTANEOUS PEAK FLOW | | | 1210 | Jun 9 | 2220 | Aug 20 1986 |
| INSTANTANEOUS PEAK STAGE | | | 10.29 | Jun 9 | 11.07 | Aug 20 1986 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .76 | Oct 7 1985 |
| ANNUAL RUNOFF (CFSM) | 1.36 | | 1.32 | | 1.40 | |
| ANNUAL RUNOFF (INCHES) | 18.41 | | 17.98 | | 19.05 | |
| 10 PERCENT EXCEEDS | 48 | | 41 | | 56 | |
| 50 PERCENT EXCEEDS | 10 | | 10 | | 7.9 | |
| 90 PERCENT EXCEEDS | 4.6 | | 5.2 | | 3.5 | |

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 26... | 1200 | 474 | 112 | 7.0 | 10.0 | 230 | 9.2 | 82 | 8.3 | 2.9 | 8.7 |
| APR | | | | | | | | | | | |
| 22... | 1000 | 394 | 102 | 6.7 | 19.0 | 150 | 4.7 | 51 | 8.1 | 2.5 | 7.2 |
| MAY | | | | | | | | | | | |
| 08... | 1000 | 16 | 51 | 6.7 | 14.0 | 40 | 7.2 | 70 | 14 | 5.2 | 66 |
| 30... | 1330 | 95 | 138 | 7.0 | 18.0 | 100 | -- | -- | 8.9 | 2.8 | 12 |
| 30... | 1445 | 102 | 138 | 7.0 | 18.0 | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 26... | 1500 | 28 | 211 | 7.0 | 22.5 | 110 | 5.6 | 66 | 14 | 4.1 | 21 |
| AUG | | | | | | | | | | | |
| 06... | 1415 | 14 | 530 | 6.9 | 23.0 | -- | 6.1 | -- | -- | -- | -- |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 26... | 2.3 | 9.6 | 9.1 | 0.20 | 6.2 | 87 | 63 | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 22... | 2.9 | 8.6 | 7.8 | 0.20 | 5.5 | 81 | 58 | 0.700 | -- | 0.150 | -- |
| MAY | | | | | | | | | | | |
| 08... | 8.3 | 46 | 73 | 0.90 | 12 | 298 | 256 | 1.30 | 1.30 | 0.100 | 0.100 |
| 30... | 2.9 | 11 | 12 | 0.20 | 4.6 | 84 | 77 | -- | 0.840 | -- | 0.070 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 26... | 4.3 | 33 | 28 | 0.30 | 6.8 | 138 | 134 | 1.30 | -- | 0.020 | -- |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | 2500 | -- | <1 | 4 | 1 |
| APR | | | | | | | | | | | |
| 22... | 0.90 | -- | 0.230 | -- | 0.080 | -- | 2000 | 1 | <1 | 11 | 2 |
| MAY | | | | | | | | | | | |
| 08... | 0.60 | 0.50 | 0.150 | 0.030 | 0.040 | 0.030 | 720 | <1 | <1 | 5 | 2 |
| 30... | 0.60 | 0.40 | 0.160 | 0.170 | -- | 0.140 | 2300 | 1 | <1 | 2 | 2 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 26... | 0.70 | -- | 0.140 | -- | 0.040 | -- | 2000 | <1 | <1 | <1 | 1 |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 26... | 4 | 2800 | 3 | 110 | <0.10 | 2 | 3 | <1 | <1 | 20 | 15 |
| APR | | | | | | | | | | | |
| 22... | 11 | 2900 | 8 | 380 | 0.10 | <1 | 4 | <1 | <1 | 30 | 25 |
| MAY | | | | | | | | | | | |
| 08... | 8 | 910 | 2 | 160 | <0.10 | 21 | 4 | 1 | <1 | 100 | 9.0 |
| 30... | 10 | 2700 | 5 | 290 | <0.10 | 5 | 3 | <1 | <1 | 40 | 13 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 26... | 11 | 2300 | 3 | 190 | <0.10 | 9 | 3 | <1 | <1 | 30 | 10 |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | PCB, TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 26... | <0.1 | <0.10 | -- | -- | -- | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 |
| APR | | | | | | | | | | | |
| 22... | <0.1 | <0.10 | -- | -- | -- | <0.1 | -- | <0.010 | <0.010 | <0.1 | <0.010 |
| MAY | | | | | | | | | | | |
| 08... | <0.1 | <0.10 | 0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | 0.003 | <0.1 | <0.001 |
| 30... | <0.1 | <0.10 | <0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | |
| 26... | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 | <0.010 | <0.010 | <0.01 | -- |
| APR | | | | | | | | | | | |
| 22... | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | -- | <1 | <0.010 | <0.010 | <0.01 | -- |
| MAY | | | | | | | | | | | |
| 08... | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | <0.01 |
| 30... | <0.001 | <0.001 | 0.001 | <0.001 | <0.001 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | <0.01 |
| 30... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 26... | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 22... | -- | -- | -- | <0.01 | -- | -- | 0.07 | <0.05 | 0.08 | 0.05 |
| MAY | | | | | | | | | | |
| 08... | <0.01 | 0.04 | <0.01 | <0.01 | <0.01 | <0.01 | 0.47 | <0.05 | <0.05 | 0.30 |
| 30... | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | 0.07 | <0.05 | <0.05 | 0.37 |
| 30... | -- | -- | -- | -- | -- | -- | <0.05 | <0.05 | <0.05 | 0.38 |
| JUN | | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 22... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 156 | 166 |
| MAY | | | | | | | | | | |
| 08... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.05 | <0.05 | <0.05 | 65 | 2.8 |
| 30... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.05 | 0.07 | <0.05 | 202 | 52 |
| 30... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | 0.05 | <0.05 | -- | -- |
| JUN | | | | | | | | | | |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | 128 | 9.7 |
| AUG | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

02097464 MORGAN CREEK NEAR WHITE CROSS, NC

LOCATION.--Lat 35°55'25", long 79°06'56", Orange County, Hydrologic Unit 030200201, at bridge on State Highway 54, 2 mi upstream from University Lake, and 3.5 miles east of White Cross.

DRAINAGE AREA.--8.35 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges due to beaver activity, which are poor. Minimum discharge for period of record also occurred Sept. 25-30 and Oct. 1-4, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .43 | e1.3 | e.85 | e2.0 | e4.0 | 7.2 | 7.0 | 3.1 | 2.4 | 4.3 | 2.0 | 1.3 |
| 2 | .42 | e1.8 | e1.0 | e1.9 | e3.5 | 7.1 | 6.6 | 2.8 | 1.8 | 9.2 | 1.6 | 1.3 |
| 3 | 2.8 | e2.5 | e1.5 | 24 | e3.5 | 7.3 | 6.1 | 2.5 | 1.4 | 4.4 | 1.8 | 1.3 |
| 4 | 1.6 | e1.8 | e2.0 | 98 | e4.3 | 7.1 | 6.1 | 2.1 | 2.7 | 4.8 | 1.8 | 1.7 |
| 5 | e1.5 | e1.6 | e2.8 | 23 | e5.7 | 6.8 | 6.3 | 2.3 | 3.2 | 3.6 | 1.4 | 2.5 |
| 6 | e1.4 | e1.4 | e2.1 | 12 | e5.5 | 16 | 5.5 | 2.4 | 2.9 | 3.2 | 1.5 | 2.7 |
| 7 | e1.3 | e1.3 | e1.7 | 7.3 | e6.9 | 54 | 6.5 | 2.9 | 1.5 | 2.7 | 1.8 | 2.8 |
| 8 | e1.1 | e1.2 | e1.2 | 4.8 | e6.1 | 20 | 6.3 | 3.9 | 21 | 2.1 | 2.4 | 2.6 |
| 9 | e1.0 | e2.5 | e1.0 | 3.6 | e4.2 | 13 | 5.6 | 3.4 | 101 | 1.9 | 3.6 | 2.4 |
| 10 | e.95 | e4.2 | e.90 | 2.9 | e3.0 | 15 | 4.6 | 3.0 | 27 | 1.6 | 2.9 | 2.2 |
| 11 | e1.1 | e3.0 | e1.0 | 2.7 | e2.4 | 19 | 4.1 | 2.6 | 11 | 1.3 | 1.9 | 2.2 |
| 12 | e.95 | e2.5 | e.80 | 2.1 | e2.0 | 12 | 3.8 | 2.4 | 6.9 | 1.5 | 5.2 | 1.8 |
| 13 | e.85 | e1.6 | e.70 | e1.8 | 1.9 | 9.7 | 3.5 | 2.8 | 5.3 | 1.8 | 14 | 1.3 |
| 14 | e.80 | e1.4 | e.64 | e1.4 | 2.3 | 8.6 | 3.2 | 2.2 | 5.3 | 2.0 | 13 | .98 |
| 15 | e1.2 | e1.2 | e.62 | e1.3 | 2.9 | 7.9 | 3.2 | 1.7 | 4.9 | 2.1 | 4.5 | .71 |
| 16 | e2.1 | e1.1 | e.58 | e1.2 | 7.2 | 7.2 | 3.2 | 4.7 | 17 | 2.0 | 5.6 | .60 |
| 17 | e1.8 | e1.3 | e.52 | e1.1 | 6.5 | 7.1 | 3.0 | 4.8 | 6.2 | 2.0 | 3.8 | .52 |
| 18 | e1.7 | e1.2 | e.48 | e1.1 | 8.9 | 6.8 | 2.6 | 2.5 | 4.4 | 2.2 | 3.3 | .54 |
| 19 | e1.6 | e1.0 | e.45 | e1.0 | 13 | 10 | 2.4 | 3.0 | 18 | 2.3 | 2.3 | .40 |
| 20 | e1.3 | e1.0 | e.43 | e1.0 | 14 | 8.2 | 2.5 | 2.5 | 19 | 1.8 | 2.6 | .52 |
| 21 | e1.1 | e1.0 | e.40 | e3.0 | 14 | 7.1 | 19 | 2.1 | 11 | 1.0 | 1.9 | .52 |
| 22 | e1.0 | e1.5 | e.50 | e8.0 | 15 | 6.8 | 43 | 1.5 | 7.9 | 1.5 | 1.6 | .48 |
| 23 | e1.3 | e1.8 | e.70 | e12 | 18 | 9.5 | 12 | 1.1 | 5.0 | 5.2 | 1.2 | .46 |
| 24 | e1.7 | e2.8 | e.85 | e8.0 | 22 | 7.8 | 7.4 | .88 | 4.1 | 3.2 | 1.0 | .48 |
| 25 | e1.6 | e1.0 | e.70 | e4.6 | 31 | 7.0 | 5.9 | .79 | 3.8 | 2.5 | 1.0 | .36 |
| 26 | e1.4 | e.90 | e.60 | e3.5 | 72 | 22 | 4.4 | 4.5 | 49 | 1.9 | 1.0 | .50 |
| 27 | e1.3 | e.80 | e1.5 | e3.1 | 20 | 16 | 4.0 | 2.8 | 34 | 1.5 | 1.1 | .83 |
| 28 | e1.2 | e.70 | e3.0 | e7.4 | 11 | 11 | 4.1 | 1.9 | 11 | 1.6 | 2.2 | 2.1 |
| 29 | e1.1 | e.70 | e7.5 | e6.0 | 8.5 | 8.9 | 3.4 | 2.2 | 6.4 | 1.3 | 2.5 | 1.1 |
| 30 | e1.0 | e.60 | e5.0 | e5.2 | --- | 8.2 | 3.1 | 6.2 | 4.8 | 1.3 | 1.6 | .53 |
| 31 | e.90 | --- | e2.5 | e5.2 | --- | 7.8 | --- | 4.4 | --- | 3.1 | 1.3 | --- |
| TOTAL | 39.50 | 46.70 | 44.52 | 260.2 | 319.3 | 362.1 | 198.4 | 85.97 | 399.9 | 80.9 | 93.4 | 37.73 |
| MEAN | 1.27 | 1.56 | 1.44 | 8.39 | 11.0 | 11.7 | 6.61 | 2.77 | 13.3 | 2.61 | 3.01 | 1.26 |
| MAX | 2.8 | 4.2 | 7.5 | 98 | 72 | 54 | 43 | 6.2 | 101 | 9.2 | 14 | 2.8 |
| MIN | .42 | .60 | .40 | 1.0 | 1.9 | 6.8 | 2.4 | .79 | 1.4 | 1.0 | 1.0 | .36 |
| CFSM | .15 | .19 | .17 | 1.01 | 1.32 | 1.40 | .79 | .33 | 1.60 | .31 | .36 | .15 |
| IN. | .18 | .21 | .20 | 1.16 | 1.42 | 1.61 | .88 | .38 | 1.78 | .36 | .42 | .17 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 6.16 | 3.78 | 5.34 | 11.2 | 14.9 | 17.7 | 11.9 | 14.9 | 6.30 | 4.09 | 2.38 | 1.76 |
| MAX | 13.1 | 7.61 | 13.2 | 20.6 | 22.7 | 27.9 | 17.2 | 30.1 | 13.3 | 7.37 | 3.01 | 3.47 |
| (WY) | 1990 | 1990 | 1990 | 1991 | 1990 | 1989 | 1989 | 1989 | 1992 | 1991 | 1992 | 1991 |
| MIN | 1.27 | 1.56 | 1.44 | 2.54 | 4.15 | 11.7 | 6.61 | 2.77 | 3.26 | 1.09 | 1.08 | .075 |
| (WY) | 1992 | 1992 | 1992 | 1989 | 1991 | 1992 | 1992 | 1992 | 1991 | 1990 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1989 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2374.87 | | 1968.62 | | | |
| ANNUAL MEAN | 6.51 | | 5.38 | | 7.67 | |
| HIGHEST ANNUAL MEAN | | | | | 10.5 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 5.38 | 1992 |
| HIGHEST DAILY MEAN | 125 | Jan 11 | 101 | Jun 9 | 258 | May 2 1989 |
| LOWEST DAILY MEAN | .17 | Sep 18 | .36 | Sep 25 | .02 | Sep 27 1990 |
| ANNUAL SEVEN-DAY MINIMUM | .31 | Sep 12 | .46 | Sep 19 | .02 | Sep 26 1990 |
| INSTANTANEOUS PEAK FLOW | | | 431 | Jun 9 | 770 | May 1 1989 |
| INSTANTANEOUS PEAK STAGE | | | 6.71 | Jun 9 | 7.87 | May 1 1989 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .02* | Sep 24 1990 |
| ANNUAL RUNOFF (CFSM) | .78 | | .64 | | .92 | |
| ANNUAL RUNOFF (INCHES) | 10.58 | | 8.77 | | 12.48 | |
| 10 PERCENT EXCEEDS | 13 | | 11 | | 17 | |
| 50 PERCENT EXCEEDS | 3.5 | | 2.5 | | 3.8 | |
| 90 PERCENT EXCEEDS | .83 | | .84 | | .88 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02097464 MORGAN CREEK NEAR WHITE CROSS, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 25... | 1115 | 0.90 | 128 | 6.7 | 7.5 | 45 | 9.8 | 82 | 12 | 4.1 | 5.8 |
| DEC | | | | | | | | | | | |
| 04... | 1300 | 0.73 | 118 | 6.8 | 11.0 | 35 | 10.3 | 94 | 11 | 3.6 | 6.1 |
| JAN | | | | | | | | | | | |
| 03... | 1900 | 75 | 136 | 6.8 | -- | 150 | -- | -- | 7.4 | 2.8 | 4.3 |
| 13... | 1340 | 3.2 | 104 | 7.1 | 9.0 | 40 | 11.1 | 97 | 8.6 | 3.0 | 5.2 |
| FEB | | | | | | | | | | | |
| 06... | 1330 | 2.4 | 95 | 7.4 | 6.0 | 25 | 14.4 | 117 | 8.5 | 2.8 | 5.1 |
| MAR | | | | | | | | | | | |
| 12... | 1315 | 11 | 77 | 7.0 | 9.5 | 80 | 13.0 | 115 | 6.4 | 2.4 | 4.6 |
| APR | | | | | | | | | | | |
| 20... | 1530 | 2.4 | 100 | 7.5 | 20.0 | 30 | 10.2 | 113 | 9.3 | 3.0 | 5.3 |
| MAY | | | | | | | | | | | |
| 06... | 1330 | 2.6 | 87 | 7.2 | 12.0 | 40 | 10.2 | 94 | 7.6 | 2.5 | 4.6 |
| JUN | | | | | | | | | | | |
| 03... | 1345 | 1.3 | 102 | 6.9 | 17.0 | 40 | 8.6 | 89 | 8.7 | 2.9 | 5.2 |
| JUL | | | | | | | | | | | |
| 14... | 1400 | 2.2 | 114 | 7.4 | 24.0 | 50 | 14.6 | 171 | 9.8 | 3.4 | 5.4 |
| AUG | | | | | | | | | | | |
| 04... | 1345 | 1.8 | 116 | 6.8 | 21.5 | 43 | 9.3 | 108 | 11 | 3.8 | 5.5 |
| SEP | | | | | | | | | | | |
| 02... | 1330 | 0.56 | 123 | 7.4 | 21.0 | 35 | 8.0 | 91 | 11 | 3.9 | 5.9 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 25... | 4.3 | 3.2 | 8.2 | <0.10 | 11 | 84 | 82 | 0.170 | 0.180 | 0.030 | 0.040 |
| DEC | | | | | | | | | | | |
| 04... | 3.9 | 3.2 | 6.9 | 0.20 | 11 | 62 | 76 | 0.420 | 0.400 | 0.020 | 0.020 |
| JAN | | | | | | | | | | | |
| 03... | 13 | 8.9 | 11 | 0.10 | 8.4 | 112 | 84 | 0.680 | 0.710 | 0.560 | 0.540 |
| 13... | 2.5 | 7.1 | 7.5 | <0.10 | 15 | 61 | 73 | 1.20 | 1.20 | 0.050 | 0.050 |
| FEB | | | | | | | | | | | |
| 06... | 1.5 | 4.4 | 6.3 | 0.20 | 9.0 | 72 | 60 | 0.590 | 0.580 | 0.020 | <0.010 |
| MAR | | | | | | | | | | | |
| 12... | 1.7 | 5.5 | 5.5 | <0.10 | 11 | 61 | 53 | 0.520 | 0.540 | 0.020 | 0.020 |
| APR | | | | | | | | | | | |
| 20... | 2.3 | 3.4 | 6.5 | 0.20 | 7.6 | 56 | 62 | 0.700 | 0.720 | 0.060 | 0.060 |
| MAY | | | | | | | | | | | |
| 06... | 1.2 | 3.4 | 5.0 | 0.10 | 13 | 78 | 58 | 0.610 | 0.610 | 0.010 | 0.030 |
| JUN | | | | | | | | | | | |
| 03... | 2.1 | 3.4 | 6.2 | <0.10 | 17 | 84 | 70 | -- | 0.610 | -- | 0.040 |
| JUL | | | | | | | | | | | |
| 14... | 3.8 | 3.1 | 6.0 | <0.10 | 17 | 72 | 78 | -- | 1.40 | -- | 0.030 |
| AUG | | | | | | | | | | | |
| 04... | 3.8 | 2.8 | 6.7 | <0.10 | 18 | 100 | 83 | -- | 0.890 | -- | 0.060 |
| SEP | | | | | | | | | | | |
| 02... | 4.1 | 3.2 | 6.6 | <0.10 | 19 | 68 | 85 | -- | 0.840 | -- | 0.020 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | |
| 25... | 0.50 | 0.30 | 0.390 | 0.310 | 0.290 | 0.280 | 50 | <1 | <1 | <1 | <1 |
| DEC | | | | | | | | | | | |
| 04... | 0.40 | 0.20 | 0.370 | 0.330 | 0.320 | 0.280 | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | | |
| 03... | 2.4 | 2.0 | 1.20 | 0.970 | 0.900 | 0.900 | -- | -- | -- | -- | -- |
| 13... | 0.50 | 0.40 | 0.170 | 0.100 | 0.110 | 0.090 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 06... | 0.20 | <0.20 | 0.100 | 0.060 | 0.080 | 0.070 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 12... | 0.30 | 0.30 | 0.120 | 0.080 | 0.100 | 0.060 | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 20... | 0.50 | 0.40 | 0.180 | 0.120 | 0.130 | 0.100 | 50 | <1 | <1 | <1 | <1 |
| MAY | | | | | | | | | | | |
| 06... | <0.20 | <0.20 | 0.140 | 0.100 | 0.100 | 0.080 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 03... | 0.40 | 0.20 | 0.200 | 0.140 | -- | 0.140 | 80 | <1 | <1 | 1 | <1 |
| JUL | | | | | | | | | | | |
| 14... | 0.40 | 0.20 | 0.340 | 0.320 | -- | 0.250 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 04... | 0.50 | <0.20 | 0.230 | 0.300 | -- | 0.260 | 40 | 1 | <1 | <1 | <1 |
| SEP | | | | | | | | | | | |
| 02... | <0.20 | 0.20 | 0.320 | 0.300 | -- | 0.280 | -- | -- | -- | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 25... | <1 | 490 | 1 | 30 | <0.10 | <1 | <1 | <1 | <1 | 10 |
| DEC | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 20... | 6 | 710 | <1 | 40 | <0.10 | <1 | <1 | <1 | <1 | <10 |
| MAY | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 03... | <1 | 820 | <1 | 40 | <0.10 | <1 | <1 | <1 | <1 | <10 |
| JUL | | | | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 04... | <1 | 680 | 2 | 40 | <0.10 | <1 | <1 | <1 | <1 | <10 |
| SEP | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) | PER-THANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLOR-DANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 25... | 6.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | | |
| 04... | 5.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 03... | 25 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| 13... | 4.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 06... | 3.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | | |
| 12... | 6.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 20... | 5.7 | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 |
| MAY | | | | | | | | | | |
| 06... | 3.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 03... | 4.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | |
| 14... | 5.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 04... | 4.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | |
| 02... | 4.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DI-ELDRIN TOTAL (UG/L) | ENDO-SULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | TOX-APHENE, TOTAL (UG/L) | HEPTA-CHLOR, TOTAL (UG/L) | HEPTA-CHLOR EPOXIDE TOTAL (UG/L) | METH-OXY-CHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | 7 | 0.02 |
| DEC | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.01 |
| JAN | | | | | | | | | | |
| 03... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 582 | 118 |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | 6 | 0.05 |
| FEB | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.03 |
| MAR | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 20... | <0.010 | <0.010 | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 11 | 0.07 |
| MAY | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.03 |
| JUN | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | 2 | 0.01 |
| JUL | | | | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 0.06 |
| AUG | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | 6 | 0.03 |
| SEP | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 0.01 |

CAPE FEAR RIVER BASIN

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'48", long 79°05'33", Orange County, Hydrologic Unit 03030002, at Orange Water and Sewage Authority intakes, and 1.8 mi southwest of Chapel Hill.

DRAINAGE AREA.--30 $mi^2$.

PERIOD OF RECORD.--Water year 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | 1245 | 95 | 6.9 | 12.5 | 25 | 10.2 | 96 | 7.9 | 2.8 | 4.9 | 3.3 |
| APR 30... | 1245 | 79 | 7.1 | 19.0 | 40 | 9.8 | 106 | 6.3 | 2.2 | 5.0 | 1.8 |
| JUN 04... | 1630 | 86 | 6.7 | 24.0 | 25 | 10.2 | 124 | 6.2 | 2.6 | 4.1 | 2.7 |
| AUG 10... | 1230 | 89 | 7.2 | 28.5 | 30 | 10.2 | 133 | 8.0 | 2.7 | 4.9 | 2.9 |

| DATE | SULFATE DISSOLVED (MG/L AS SO4) | 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | 4.0 | 4.8 | 0.10 | 9.8 | 66 | 60 | 0.057 | 0.062 | 0.100 | 0.090 | 0.90 |
| APR 30... | 6.5 | 5.1 | 0.20 | 11 | 66 | 53 | <0.050 | <0.050 | 0.010 | 0.020 | 0.40 |
| JUN 04... | 4.9 | 6.8 | <0.10 | 6.0 | 64 | 48 | -- | <0.050 | -- | 0.040 | 0.40 |
| AUG 10... | 5.3 | 5.1 | <0.10 | 13 | 58 | 61 | -- | <0.050 | -- | 0.030 | 0.60 |

| DATE | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | 0.40 | 0.050 | 0.010 | 0.010 | <0.010 | 70 | <1 | <1 | <1 | <1 | <1 |
| APR 30... | 0.30 | 0.020 | <0.010 | <0.010 | <0.010 | 60 | <1 | <1 | 1 | <1 | 4 |
| JUN 04... | 0.30 | 0.050 | 0.010 | -- | <0.010 | 30 | <1 | <1 | <1 | <1 | 4 |
| AUG 10... | 0.20 | 0.030 | <0.010 | -- | <0.010 | 30 | <1 | <1 | <1 | <1 | 2 |

| DATE | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | 510 | 2 | 180 | <0.10 | <1 | 1 | <1 | <1 | 10 | 8.9 | -- |
| APR 30... | 320 | <1 | 130 | <0.10 | <1 | <1 | <1 | <1 | 20 | 6.8 | <0.1 |
| JUN 04... | 240 | <1 | 160 | <0.10 | <1 | 1 | <1 | <1 | <10 | 8.1 | -- |
| AUG 10... | 290 | 2 | 180 | <0.10 | <1 | <1 | <1 | <1 | 20 | 9.8 | -- |

| DATE | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 30... | <0.10 | <0.01 | <0.01 | <0.01 | <0.1 | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 30... | <0.001 | <0.001 | <0.001 | 0.001 | <0.01 | <1 | <0.001 | <0.001 | <0.01 | <0.01 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR 30... | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.13 | <0.05 | <0.05 | 0.06 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 25... | -- | -- | -- | -- | -- | -- | -- | -- | 13.0 | <0.100 |
| APR 30... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 9.10 | <0.100 |
| JUN 04... | -- | -- | -- | -- | -- | -- | -- | -- | 1.10 | <0.100 |
| AUG 10... | -- | -- | -- | -- | -- | -- | -- | -- | 6.90 | <0.100 |

CAPE FEAR RIVER BASIN

02097517 MORGAN CREEK NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'36", long 79°01'10", Orange County, Hydrologic Unit 03030002, on left bank 2.5 mi southeast of Chapel Hill, and 3.8 mi downstream of U.S. Highway 501.

DRAINAGE AREA.--41.0 $mi^2$.

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

GAGE.--Water-stage recorder. Datum of gage is 245 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those daily discharges below 30 $ft^3/s$, which are poor. Slight diurnal fluctuation at low flow. Minimum discharge for current water year also occurred August 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 16 | 15 | 14 | 15 | 45 | 27 | 17 | 17 | 25 | 13 | 14 |
| 2 | 17 | 17 | 16 | 14 | 14 | 34 | 26 | 16 | 16 | 49 | 12 | 14 |
| 3 | 28 | 16 | 29 | 103 | 15 | 31 | 23 | 15 | 16 | 23 | 12 | 14 |
| 4 | 18 | 16 | 23 | 494 | 15 | 27 | 22 | 15 | 18 | 22 | 12 | 14 |
| 5 | 16 | 17 | 17 | 240 | 15 | 25 | 24 | 15 | 17 | 14 | 13 | 13 |
| 6 | 16 | 15 | 16 | 106 | 15 | 118 | 21 | 15 | 16 | 14 | 12 | 13 |
| 7 | 16 | 14 | 15 | 50 | 14 | 414 | 20 | 16 | 16 | 13 | 12 | 14 |
| 8 | 15 | 15 | 13 | 30 | 14 | 175 | 20 | 18 | 51 | 13 | 13 | 15 |
| 9 | 16 | 16 | 14 | 25 | 14 | 109 | 19 | 15 | 861 | 13 | 16 | 16 |
| 10 | 17 | 49 | 14 | 22 | 14 | 104 | 19 | 15 | 208 | 13 | 13 | 15 |
| 11 | 16 | 17 | 14 | 19 | 14 | 126 | 18 | 15 | 70 | 13 | 12 | 15 |
| 12 | 16 | 16 | 14 | 17 | 14 | 76 | 18 | 15 | 26 | 12 | 47 | 14 |
| 13 | 16 | 15 | 13 | 17 | 14 | 50 | 19 | 29 | 18 | 13 | 83 | 14 |
| 14 | 16 | 16 | 13 | 18 | 14 | 38 | 18 | 16 | 19 | 13 | 44 | 14 |
| 15 | 27 | 15 | 13 | 18 | 19 | 32 | 17 | 15 | 23 | 13 | 18 | 14 |
| 16 | 25 | 15 | 13 | 16 | 17 | 30 | 18 | 15 | 468 | 13 | 19 | 14 |
| 17 | 23 | 15 | 13 | 16 | 15 | 27 | 17 | 14 | 82 | 13 | 16 | 15 |
| 18 | 17 | 15 | 13 | 15 | 15 | 25 | 16 | 15 | 24 | 13 | 16 | 16 |
| 19 | 16 | 15 | 13 | 15 | 21 | 52 | 15 | 19 | 38 | 13 | 14 | 25 |
| 20 | 16 | 15 | 13 | 15 | 16 | 36 | 17 | 15 | 50 | 13 | 46 | 21 |
| 21 | 16 | 16 | 13 | 16 | 15 | 28 | 123 | 15 | 35 | 13 | 16 | 16 |
| 22 | 16 | 17 | 12 | 15 | 14 | 26 | 349 | 15 | 23 | 31 | 14 | 16 |
| 23 | 17 | 16 | 12 | 44 | 16 | 42 | 117 | 14 | 16 | 40 | 14 | 21 |
| 24 | 16 | 15 | 22 | 19 | 17 | 30 | 47 | 14 | 13 | 15 | 15 | 17 |
| 25 | 16 | 15 | 13 | 17 | 55 | 27 | 29 | 14 | 13 | 13 | 14 | 16 |
| 26 | 16 | 15 | 12 | 16 | 480 | 122 | 22 | 60 | 78 | 13 | 23 | 16 |
| 27 | 16 | 15 | 17 | 16 | 215 | 121 | 19 | 17 | 235 | 13 | 15 | 25 |
| 28 | 17 | 14 | 32 | 19 | 117 | 62 | 19 | 16 | 38 | 13 | 17 | 21 |
| 29 | 17 | 14 | 73 | 17 | 76 | 40 | 18 | 17 | 18 | 13 | 15 | 16 |
| 30 | 16 | 14 | 17 | 16 | --- | 34 | 17 | 54 | 24 | 13 | 14 | 16 |
| 31 | 16 | --- | 15 | 16 | --- | 30 | --- | 20 | --- | 16 | 14 | --- |
| TOTAL | 543 | 496 | 542 | 1475 | 1309 | 2136 | 1154 | 581 | 2547 | 521 | 614 | 484 |
| MEAN | 17.5 | 16.5 | 17.5 | 47.6 | 45.1 | 68.9 | 38.5 | 18.7 | 84.9 | 16.8 | 19.8 | 16.1 |
| MAX | 28 | 49 | 73 | 494 | 480 | 414 | 349 | 60 | 861 | 49 | 83 | 25 |
| MIN | 15 | 14 | 12 | 14 | 14 | 25 | 15 | 14 | 13 | 12 | 12 | 13 |
| CFSM | .43 | .40 | .43 | 1.16 | 1.10 | 1.68 | .94 | .46 | 2.07 | .41 | .48 | .39 |
| IN. | .49 | .45 | .49 | 1.34 | 1.19 | 1.94 | 1.05 | .53 | 2.31 | .47 | .56 | .44 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 23.0 | 33.1 | 40.8 | 61.2 | 78.1 | 93.1 | 57.3 | 41.1 | 25.7 | 20.0 | 22.2 | 14.6 |
| MAX | 47.8 | 141 | 105 | 122 | 141 | 181 | 131 | 91.2 | 84.9 | 51.5 | 65.0 | 22.7 |
| (WY) | 1991 | 1986 | 1984 | 1991 | 1984 | 1984 | 1984 | 1990 | 1992 | 1984 | 1985 | 1991 |
| MIN | 13.3 | 10.5 | 12.9 | 15.2 | 17.2 | 18.0 | 17.5 | 14.5 | 11.1 | 8.93 | 12.1 | 8.77 |
| (WY) | 1985 | 1983 | 1989 | 1989 | 1991 | 1988 | 1986 | 1986 | 1986 | 1988 | 1988 | 1983 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 13102 | | 12402 | | | |
| ANNUAL MEAN | 35.9 | | 33.9 | | 40.7 | |
| HIGHEST ANNUAL MEAN | | | | | 75.6 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 21.7 | 1988 |
| HIGHEST DAILY MEAN | 767 | Jan 12 | 861 | Jun 9 | 1270 | Nov 21 1985 |
| LOWEST DAILY MEAN | 12 | Dec 22 | 12 | Dec 22 | .60 | Nov 26 1982 |
| ANNUAL SEVEN-DAY MINIMUM | 13 | Dec 17 | 12 | Aug 1 | 2.1 | Nov 22 1982 |
| INSTANTANEOUS PEAK FLOW | | | 1750 | Jun 9 | 2240 | Mar 6 1984 |
| INSTANTANEOUS PEAK STAGE | | | 11.56 | Jun 9 | 12.75 | Mar 6 1984 |
| INSTANTANEOUS LOW FLOW | | | 9.2* | Jul 20 | NOT DETERMINED | |
| ANNUAL RUNOFF (CFSM) | .88 | | .83 | | .99 | |
| ANNUAL RUNOFF (INCHES) | 11.89 | | 11.25 | | 13.49 | |
| 10 PERCENT EXCEEDS | 58 | | 50 | | 88 | |
| 50 PERCENT EXCEEDS | 17 | | 16 | | 17 | |
| 90 PERCENT EXCEEDS | 15 | | 13 | | 11 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

0209771550 JORDAN LAKE AT BUOY 9 NEAR FARRINGTON, NC

LOCATION.--Lat 35°46'30", long 79°01'38", Hydrologic Unit 03030002, at buoy 9, and 2.0 mi south southwest of Farrington.

DRAINAGE AREA.--250mi².

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 1140 | 151 | 6.5 | 19.0 | 42 | 12.0 | 129 | 7.5 | 2.8 | 18 | 2.9 | 16 |
| MAY 13... | 1110 | 145 | 8.5 | 19.0 | 30 | 12.0 | 130 | 7.0 | 2.6 | 15 | 3.0 | 17 |
| JUN 09... | 1150 | 143 | 8.2 | 22.0 | 20 | 9.2 | 106 | 7.2 | 2.7 | 16 | 3.1 | 16 |

| 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 14 | 0.30 | 4.3 | 86 | 88 | 0.290 | 0.310 | 0.150 | 0.130 | 0.90 | 0.50 | 0.070 |
| MAY 13... | 13 | 0.30 | 2.6 | 80 | 80 | 0.083 | 0.074 | 0.030 | 0.030 | 0.50 | 0.30 | 0.030 |
| JUN 09... | 13 | 0.20 | 2.3 | 90 | 80 | -- | 0.052 | -- | 0.020 | 0.70 | 0.30 | 0.020 |

| DATE | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 0.060 | 0.020 | <0.010 | 310 | <1 | <1 | <1 | <1 | 7 | 650 | 11 | 470 |
| MAY 13... | 0.020 | 0.010 | 0.020 | 50 | <1 | <1 | 2 | <1 | 3 | 140 | <1 | 100 |
| JUN 09... | <0.010 | -- | <0.010 | 50 | <1 | <1 | <1 | <1 | 1 | 60 | <1 | 60 |

| DATE | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DICHLOROBROMOMETHANE TOTAL (UG/L) | CARBONTETRACHLORIDE TOTAL (UG/L) | 1,2-DICHLOROETHANE TOTAL (UG/L) | BROMOFORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.10 | 2 | 2 | <1 | <1 | <10 | 8.0 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | <0.10 | <1 | 1 | <1 | <1 | 10 | 11 | <0.1 | -- | -- | -- | -- |
| JUN 09... | <0.10 | 1 | 1 | <1 | <1 | <10 | 9.1 | -- | -- | -- | -- | -- |

| DATE | CHLORODIBROMOMETHANE TOTAL (UG/L) | CHLOROFORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLOROBENZENE TOTAL (UG/L) | CHLOROETHANE TOTAL (UG/L) | ETHYLBENZENE TOTAL (UG/L) | METHYLBROMIDE TOTAL (UG/L) | METHYLENE CHLORIDE TOTAL (UG/L) | METHYLENE CHLORIDE TOTAL (UG/L) | TETRACHLOROETHYLENE TOTAL (UG/L) | TRICHLOROFLUOROMETHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0209771550 JORDAN LAKE AT BUOY 9 NEAR FARRINGTON, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DICHLORODIFLUOROMETHANE TOTAL (UG/L) | TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | 1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 13... | -- | -- | -- | -- | -- | <0.10 | -- | -- | <0.01 | <0.01 | <0.01 | <0.1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 13... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 13... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.23 | <0.05 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.900 | <0.100 |
| MAY 13... | <0.05 | 0.06 | 0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 8.60 | 0.500 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.90 | 0.200 |

0209799050 JORDAN LAKE BELOW U.S. HIGHWAY 64 AT BUOY 7 NEAR GRIFFINS CROSSROADS, NC

LOCATION.--Lat 35°44'39", long 79°00'29", Chatham County, Hydrologic Unit 03030002, 600 ft south of U.S. Highway 64, and 3.2 mi east southeast of Griffins Crossroads.

DRAINAGE AREA.--280 $mi^2$.

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) | PH WATER WHOLE FIELD (STANDARD UNITS) | TEMPERATURE WATER (DEG C) | COLOR (PLATINUM-COBALT UNITS) | OXYGEN, DISSOLVED (MG/L) | OXYGEN, DISSOLVED (PERCENT SATURATION) | CALCIUM DISSOLVED (MG/L AS CA) | MAGNESIUM, DISSOLVED (MG/L AS MG) | SODIUM, DISSOLVED (MG/L AS NA) | POTASSIUM, DISSOLVED (MG/L AS K) | SULFATE DISSOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 1330 | 155 | 6.9 | 20.0 | 25 | 11.1 | 122 | 7.1 | 2.8 | 18 | 3.0 | 17 |
| MAY 13... | 1240 | 148 | 8.3 | 20.0 | 30 | 11.0 | 121 | 6.9 | 2.6 | 16 | 3.0 | 17 |
| JUN 09... | 1115 | 151 | 9.0 | 26.0 | 25 | 9.2 | 115 | 7.0 | 2.7 | 16 | 3.2 | 17 |

| 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) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA TOTAL (MG/L AS N) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 14 | 0.30 | 4.7 | 94 | 89 | 0.290 | 0.300 | 0.110 | 0.100 | 0.80 | 0.50 | 0.060 |
| MAY 13... | 13 | 0.20 | 2.4 | 96 | 80 | 0.160 | 0.160 | 0.030 | 0.010 | 0.50 | 0.30 | 0.020 |
| JUN 09... | 14 | 0.20 | 2.3 | 84 | 82 | -- | <0.050 | -- | 0.020 | 0.70 | 0.50 | 0.020 |

| DATE | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.010 | 0.020 | <0.010 | 300 | <1 | <1 | 1 | <1 | 8 | 570 | 12 | 390 |
| MAY 13... | <0.010 | <0.010 | <0.010 | 80 | <1 | <1 | 1 | <1 | 1 | 160 | <1 | 80 |
| JUN 09... | 0.020 | -- | <0.010 | 40 | <1 | <1 | 1 | <1 | 1 | 60 | <1 | 30 |

| DATE | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DICHLOROBROMOMETHANE TOTAL (UG/L) | CARBONTETRACHLORIDE TOTAL (UG/L) | 1,2-DICHLOROETHANE TOTAL (UG/L) | BROMOFORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.10 | 2 | 2 | <1 | <1 | <10 | 8.0 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | <0.10 | <1 | 1 | <1 | <1 | 10 | 26 | <0.1 | -- | -- | -- | -- |
| JUN 09... | <0.10 | 1 | 1 | <1 | <1 | <10 | 8.7 | -- | -- | -- | -- | -- |

| DATE | CHLORODIBROMOMETHANE TOTAL (UG/L) | CHLOROFORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLOROBENZENE TOTAL (UG/L) | CHLOROETHANE TOTAL (UG/L) | ETHYLBENZENE TOTAL (UG/L) | METHYLBROMIDE TOTAL (UG/L) | METHYLCHLORIDE TOTAL (UG/L) | METHYLENE CHLORIDE TOTAL (UG/L) | TETRACHLOROETHYLENE TOTAL (UG/L) | TRICHLOROFLUOROMETHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0209799050 JORDAN LAKE BELOW U.S. HIGHWAY 64 AT BUOY 7 NEAR GRIFFINS CROSSROADS, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DICHLORODIFLUOROMETHANE TOTAL (UG/L) | TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | 1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | 0.30 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 13... | -- | -- | -- | -- | -- | <0.10 | -- | -- | <0.01 | <0.01 | <0.01 | <0.1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 13... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 13... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.22 | <0.05 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 13... | <0.05 | 0.14 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 3.10 | <0.100 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.00 | <0.100 |

0209799150 JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, NC

LOCATION.--Lat 35°44'29", long 79°01'10", Chatham County, Hydrologic Unit 03030002, below bridge on U.S. Highway 64, and 1.3 mi west of Wilsonville.

DRAINAGE AREA.--

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.-- Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 1200 | 147 | 9.0 | 22.0 | 22 | 12.0 | 138 | 7.2 | 2.7 | 17 | 3.2 | 15 |
| MAY 13... | 1200 | 148 | 7.1 | 18.0 | 30 | 8.0 | 85 | 7.2 | 2.7 | 16 | 3.0 | 17 |
| JUN 09... | 1315 | 144 | 8.4 | 25.0 | 25 | 9.0 | 110 | 7.2 | 2.7 | 16 | 3.0 | 16 |
| AUG 27... | 1115 | 144 | 8.8 | 26.5 | 22 | 8.7 | 109 | 7.5 | 2.8 | 15 | 3.3 | 13 |

| 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) | 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, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 14 | 0.30 | 4.1 | 87 | 85 | <0.050 | <0.050 | 0.030 | 0.020 | 0.80 | 0.40 | 0.040 |
| MAY 13... | 13 | 0.20 | 2.7 | 86 | 80 | 0.130 | 0.130 | 0.070 | 0.060 | 0.50 | 0.30 | 0.020 |
| JUN 09... | 13 | 0.20 | 2.3 | 90 | 80 | -- | 0.055 | -- | <0.010 | 0.70 | 0.40 | 0.020 |
| AUG 27... | 13 | 0.20 | 3.4 | 80 | 80 | -- | <0.050 | -- | 0.040 | 0.50 | 0.30 | 0.020 |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 0.030 | <0.010 | <0.010 | 50 | <1 | <1 | <1 | <1 | 3 | 130 | 5 | 70 |
| MAY 13... | <0.010 | <0.010 | <0.010 | 50 | <1 | <1 | 1 | <1 | 1 | 120 | <1 | 80 |
| JUN 09... | 0.020 | -- | <0.010 | 50 | <1 | <1 | <1 | <1 | 1 | 70 | <1 | 60 |
| AUG 27... | <0.010 | -- | <0.010 | 30 | 1 | <1 | <1 | <1 | 1 | 40 | <1 | 50 |

| DATE | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DI-CHLORO-BROMO-METHANE TOTAL (UG/L) | CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) | 1,2-DI-CHLORO-ETHANE TOTAL (UG/L) | BROMO-FORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.10 | 2 | 1 | <1 | <1 | <10 | 8.3 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | <0.10 | <1 | <1 | <1 | <1 | <10 | 17 | <0.1 | -- | -- | -- | -- |
| JUN 09... | <0.10 | 1 | 1 | <1 | <1 | <10 | 9.6 | -- | -- | -- | -- | -- |
| AUG 27... | <0.10 | 2 | <1 | <1 | <1 | 40 | 12 | -- | -- | -- | -- | -- |

| DATE | CHLORO-DI-BROMO-METHANE TOTAL (UG/L) | CHLORO-FORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLORO-BENZENE TOTAL (UG/L) | CHLORO-ETHANE TOTAL (UG/L) | ETHYL-BENZENE TOTAL (UG/L) | METHYL-BROMIDE TOTAL (UG/L) | METHYL-CHLO-RIDE TOTAL (UG/L) | METHYL-ENE CHLO-RIDE TOTAL (UG/L) | TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) | TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | 0.6 | 0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0209799150 JORDAN LAKE ABOVE U.S. HIGHWAY 64 AT WILSONVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DICHLORODIFLUOROMETHANE TOTAL (UG/L) | TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | 1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) | XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | 0.50 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 13... | -- | -- | -- | -- | -- | <0.10 | -- | -- | <0.01 | <0.01 | <0.01 | <0.1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 13... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 13... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.25 | <0.05 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.40 | <0.100 |
| MAY 13... | <0.05 | 0.17 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.06 | <0.05 | <0.05 | 3.20 | <0.100 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.40 | <0.100 |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12.0 | <0.100 |

CAPE FEAR RIVER BASIN

0209801100 JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC

LOCATION.--Lat 35°43'38", long 79°03'00", Chatham County, Hydrologic Unit 03030002, and 2.0 mi southeast of Griffins Crossroads.

DRAINAGE AREA.--300 mi².

PERIOD OF RECORD.--Water years 1991 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assesment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 1400 | 156 | 7.2 | 20.0 | 21 | 10.6 | 117 | 7.1 | 2.8 | 20 | 3.2 | 18 |
| MAY 13... | 1315 | 149 | 8.5 | 20.0 | 40 | 11.2 | 123 | 6.8 | 2.6 | 17 | 3.0 | 18 |
| JUN 09... | 1100 | 146 | 9.1 | 26.0 | 30 | 9.8 | 122 | 6.8 | 2.6 | 16 | 3.2 | 18 |
| AUG 27... | 1145 | 150 | 9.0 | 28.0 | 110 | 10.0 | 129 | 7.3 | 2.8 | 15 | 3.3 | 15 |

| 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) | 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, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) | PHOS-PHORUS TOTAL (MG/L AS P) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | 16 | 0.30 | 4.7 | 97 | 94 | 0.210 | 0.240 | 0.030 | 0.030 | 0.70 | <0.40 | 0.040 |
| MAY 13... | 13 | 0.30 | 2.5 | 92 | 83 | 0.170 | 0.170 | 0.030 | 0.010 | 0.50 | 0.30 | <0.010 |
| JUN 09... | 15 | <0.10 | 2.2 | 94 | 83 | -- | <0.050 | -- | 0.010 | 0.80 | 0.30 | 0.020 |
| AUG 27... | 13 | 0.20 | 3.7 | 90 | 80 | -- | <0.050 | -- | 0.040 | 0.50 | 0.30 | 0.020 |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) | CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.010 | <0.010 | <0.010 | 160 | 1 | <1 | <1 | <1 | 6 | 290 | 2 | 20 |
| MAY 13... | <0.010 | <0.010 | <0.010 | 70 | <1 | <1 | <1 | <1 | 1 | 120 | <1 | 60 |
| JUN 09... | <0.010 | -- | <0.010 | 50 | <1 | <1 | <1 | <1 | 3 | 80 | <1 | 50 |
| AUG 27... | <0.010 | -- | <0.010 | 30 | <1 | <1 | <1 | <1 | 2 | 50 | <1 | 40 |

| DATE | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) | MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) | SELE-NIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) | PCB, TOTAL (UG/L) | DI-CHLORO-BROMO-METHANE TOTAL (UG/L) | CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) | 1,2-DI-CHLORO-ETHANE TOTAL (UG/L) | BROMO-FORM TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.10 | 2 | 2 | <1 | <1 | <10 | 7.9 | <0.1 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | <0.10 | 1 | 1 | <1 | <1 | <10 | 9.1 | <0.1 | -- | -- | -- | -- |
| JUN 09... | <0.10 | 1 | 1 | <1 | <1 | <10 | 7.7 | -- | -- | -- | -- | -- |
| AUG 27... | <0.10 | 1 | <1 | <1 | <1 | 20 | 9.4 | -- | -- | -- | -- | -- |

| DATE | CHLORO-DI-BROMO-METHANE TOTAL (UG/L) | CHLORO-FORM TOTAL (UG/L) | TOLUENE TOTAL (UG/L) | BENZENE TOTAL (UG/L) | CHLORO-BENZENE TOTAL (UG/L) | CHLORO-ETHANE TOTAL (UG/L) | ETHYL-BENZENE TOTAL (UG/L) | METHYL-BROMIDE TOTAL (UG/L) | METHYL-CHLO-RIDE TOTAL (UG/L) | METHYL-ENE CHLO-RIDE TOTAL (UG/L) | TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) | TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0209801100 JORDAN LAKE AT BELLS LANDING NEAR GRIFFINS CROSSROADS, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | 1,1-DICHLOROETHANE TOTAL (UG/L) | 1,1-DICHLOROETHYLENE TOTAL (UG/L) | 1,1,1-TRICHLOROETHANE TOTAL (UG/L) | 1,1,2-TRICHLOROETHANE TOTAL (UG/L) | ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) | BENZENE O-CHLORO-WATER UNFLTRD REC (UG/L) | 1,2-DICHLOROPROPANE TOTAL (UG/L) | 1,2-TRANSDICHLOROETHENE TOTAL (UG/L) | 1,3-DICHLOROPROPENE TOTAL (UG/L) | BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) | BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) | 2-CHLOROETHYLVINYLETHER TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 | <0.2 | <0.2 | <0.20 | <0.20 | <0.20 | <0.2 |
| MAY 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | CHLORODIFLUOROMETHANE TOTAL (UG/L) | DI-TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) | CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) | VINYL CHLORIDE TOTAL (UG/L) | TRICHLOROETHYLENE TOTAL (UG/L) | THALENES, POLYCHLOR. TOTAL (UG/L) | NAPHDIBROMO ETHANE WATER WHOLE TOTAL (UG/L) | 1,2-XYLENE WATER UNFLTRD REC (UG/L) | CHLORPYRIFOS TOTAL RECOVER (UG/L) | DISYSTON TOTAL (UG/L) | PHORATE TOTAL (UG/L) | PERTHANE TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.10 | <0.2 | <0.20 | <0.01 | <0.01 | <0.01 | <0.1 |
| MAY 13... | -- | -- | -- | -- | -- | <0.10 | -- | -- | <0.01 | <0.01 | <0.01 | <0.1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | DEF TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) | ENDRIN WATER UNFLTRD REC (UG/L) | ETHION, TOTAL (UG/L) | TOXAPHENE, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.01 | <0.001 | 0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| MAY 13... | <0.01 | <0.001 | <0.001 | <0.1 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 | <1 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MALATHION, TOTAL (UG/L) | PARATHION, TOTAL (UG/L) | DIAZINON, TOTAL (UG/L) | METHYL PARATHION, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | TOTAL TRITHION (UG/L) | FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | -- | -- |
| MAY 13... | <0.001 | <0.001 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.22 | <0.05 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) | DEISOPROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) | CYANAZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROPAZINE WATER DISS REC (UG/L) | METOLACHLOR WATER DISSOLV (UG/L) | ALACHLOR, WATER, DISS, REC, (UG/L) | METRIBUZIN SENCOR WATER DISSOLV (UG/L) | CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) | CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 28... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.20 | <0.100 |
| MAY 13... | <0.05 | 0.17 | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.07 | <0.05 | <0.05 | 11.0 | 0.300 |
| JUN 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.10 | <0.100 |
| AUG 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.90 | <0.100 |

## 02098198 HAW RIVER BELOW B. EVERETT JORDAN DAM NEAR MONCURE, NC

LOCATION.--Lat 35°39'11", long 79°04'03", Chatham County, Hydrologic Unit 03030002, on right bank 300 ft downstream from B. Everett Jordan Dam, 2.5 mi north of Moncure, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--1,689 $mi^2$.

PERIOD OF RECORD.--October 1965 to September 1992 (discontinued). Published as Haw River near Haywood, NC (0209820) October 1965 to September 1978.

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

GAGE.--Water-stage recorder. Datum of gage is 155.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1978, water-stage recorder at site 0.3 mi downstream at same datum. Since June 22, 1966, auxiliary water-stage recorder 2.9 mi downstream. U.S. Army Corps of Engineers satellite data transmitter at station.

REMARKS.--Records fair except those for estimated daily discharges and those below 1,000 $ft^3/s$, which are poor. Prior to 1972, some regulation for short periods at low flow caused by powerplants upstream from station and Dec. 16, 1972, to Aug. 31, 1981, by temporary storage in B. Everett Jordan Lake (station 02098197). Prior to regulation from B. Everett Jordan Lake, maximum discharge: 25,800 $ft^3/s$, Oct. 25, 1971; gage height, 22.41 ft, at former site. Minimum discharge: no flow for part of Aug. 1, 1980, result of gate closure by U.S. Army Corps of Engineers to facilitate construction of gaging station and part of June 19, 1981, and Aug. 19, 1982, for maintenance work at dam and at gaging station. Minimum daily discharge: 35 $ft^3/s$, Sept. 12, 1966, at former site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 754 | 712 | 683 | 254 | 599 | 6510 | 1820 | 1020 | 831 | 2080 | 926 | 657 |
| 2 | 754 | 715 | 690 | 244 | 605 | 6430 | 1290 | 740 | 1030 | 2050 | 929 | 682 |
| 3 | 759 | 705 | 693 | 243 | 603 | 5370 | 810 | 741 | 738 | 2100 | 727 | 665 |
| 4 | 714 | 709 | 685 | 560 | 597 | 2730 | 733 | 722 | 543 | 1590 | 631 | 684 |
| 5 | 665 | 712 | 681 | 861 | 595 | 1450 | 725 | 724 | 587 | 822 | 644 | 706 |
| 6 | 664 | 717 | 611 | 2810 | 596 | 1040 | 729 | 724 | 639 | 852 | 654 | 713 |
| 7 | 667 | 720 | 546 | 6160 | 597 | 1130 | 735 | 720 | 650 | 850 | 659 | 725 |
| 8 | 668 | 711 | 543 | 7150 | 590 | 2800 | 738 | 724 | 654 | 857 | 657 | 667 |
| 9 | 672 | 716 | 547 | 8040 | 595 | 4170 | 737 | 787 | 652 | 861 | 663 | 631 |
| 10 | 669 | 712 | 508 | 5480 | 542 | 4650 | 630 | 766 | 1210 | 703 | 671 | 631 |
| 11 | 676 | 745 | 468 | 2340 | 466 | 5430 | 476 | 742 | 3340 | 500 | 677 | 631 |
| 12 | 678 | 656 | 418 | 1620 | 467 | 5900 | 480 | 855 | 4770 | 528 | 684 | 631 |
| 13 | 679 | 375 | 385 | 1210 | 459 | 4630 | 464 | 984 | 4900 | 532 | 696 | 631 |
| 14 | 683 | 368 | 493 | 1220 | 457 | 1630 | 469 | 989 | 3800 | 568 | 715 | 631 |
| 15 | 679 | 585 | 490 | 1220 | 458 | 871 | 475 | 993 | 2420 | 511 | 754 | 736 |
| 16 | 685 | 752 | 491 | 1220 | 464 | 967 | 479 | 980 | 3620 | 507 | 761 | 766 |
| 17 | 676 | 754 | 482 | 976 | 477 | 962 | 481 | 975 | 3790 | 527 | 761 | 749 |
| 18 | 686 | 742 | 483 | 655 | 484 | 1000 | 482 | 852 | 4950 | 556 | 761 | 723 |
| 19 | 687 | 751 | 481 | 652 | 1170 | 1150 | 482 | 757 | 2790 | 561 | 761 | 731 |
| 20 | 689 | 735 | 536 | 652 | 2670 | 1190 | 479 | 742 | 2040 | 561 | 1300 | 782 |
| 21 | 694 | 694 | 596 | 555 | 2390 | 1190 | 487 | 751 | 1300 | 551 | 1870 | 766 |
| 22 | 696 | 694 | 586 | 472 | 1120 | 1170 | e903 | 762 | 1310 | 548 | 1870 | 787 |
| 23 | 702 | 689 | 595 | 474 | 966 | 1120 | 1710 | 628 | 1490 | 563 | 1870 | 744 |
| 24 | 702 | 687 | 544 | 533 | 961 | 1130 | 5250 | 785 | 1230 | 766 | 1550 | 727 |
| 25 | 700 | 680 | 493 | 632 | 974 | 1120 | 12500 | 759 | 906 | 1190 | 764 | 727 |
| 26 | 703 | 677 | 492 | 610 | 1090 | 1100 | 15400 | 741 | 800 | 1160 | 641 | 748 |
| 27 | 702 | 682 | 493 | 1220 | 1220 | 1420 | 13600 | 654 | 1560 | 1170 | 635 | 776 |
| 28 | 705 | 674 | 497 | 2470 | 4350 | 1940 | 7640 | 595 | 1690 | 1570 | 631 | 806 |
| 29 | 714 | 678 | 513 | 1630 | 6700 | 1870 | 3130 | 584 | 1850 | 1760 | 631 | 764 |
| 30 | 712 | 680 | 425 | 658 | --- | 1850 | 1690 | 530 | 2090 | 1760 | 631 | 731 |
| 31 | 712 | --- | 285 | 606 | --- | 1790 | --- | 511 | --- | 1200 | 635 | --- |
| TOTAL | 21546 | 20427 | 16433 | 53427 | 33262 | 75710 | 76024 | 23837 | 58180 | 30354 | 26759 | 21348 |
| MEAN | 695 | 681 | 530 | 1723 | 1147 | 2442 | 2534 | 769 | 1939 | 979 | 863 | 712 |
| MAX | 759 | 754 | 693 | 8040 | 6700 | 6510 | 15400 | 1020 | 4950 | 2100 | 1870 | 806 |
| MIN | 664 | 368 | 285 | 243 | 457 | 871 | 464 | 511 | 543 | 500 | 631 | 631 |
| † | -150 | -277 | +102 | +516 | +590 | -529 | -24 | 0 | +48 | -47 | -68 | -378 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 980 | 819 | 1493 | 2461 | 2962 | 3678 | 2853 | 1461 | 1657 | 926 | 1038 | 566 |
| MAX | 3104 | 3254 | 3823 | 5908 | 5169 | 8158 | 5412 | 3460 | 7837 | 2309 | 2828 | 765 |
| (WY) | 1990 | 1986 | 1984 | 1991 | 1990 | 1989 | 1984 | 1989 | 1982 | 1984 | 1984 | 1989 |
| MIN | 402 | 314 | 219 | 738 | 1147 | 651 | 422 | 496 | 482 | 470 | 416 | 325 |
| (WY) | 1983 | 1989 | 1987 | 1986 | 1992 | 1988 | 1985 | 1986 | 1987 | 1985 | 1986 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1982 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 607175 | | 457307 | | | |
| ANNUAL MEAN | 1663 | | 1249 | ‡ 1229 | ‡ 1751 | |
| HIGHEST ANNUAL MEAN | | | | | 2802 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 853 | 1988 |
| HIGHEST DAILY MEAN | 15200 | Jan 19 | 15400 | Apr 26 | 16400 | Mar 7 1987 |
| LOWEST DAILY MEAN | 285 | Dec 31 | 243 | Jan 3 | 136 | Oct 3 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 446 | Jun 8 | 352 | Dec 28 | 139 | Oct 1 1981 |
| INSTANTANEOUS PEAK FLOW | | | 15800 | Apr 25 | 16800 | Mar 10 1989 |
| INSTANTANEOUS PEAK STAGE | | | 14.39 | Apr 25 | 14.91 | Mar 10 1989 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | 0* | Aug 19 1982 |
| ANNUAL RUNOFF (CFSM) | .98 | | .74 | | 1.03 | |
| ANNUAL RUNOFF (INCHES) | 13.37 | | 10.07 | | 13.96 | |
| 10 PERCENT EXCEEDS | 3320 | | 2170 | | 4790 | |
| 50 PERCENT EXCEEDS | 715 | | 718 | | 632 | |
| 90 PERCENT EXCEEDS | 493 | | 492 | | 378 | |

† Change in contents, equivalent in cubic feet per second, in B. Everett Jordan Reservoir; furnished by U.S. Army Corp of Engineers.
‡ Adjusted for change in contents.
* Regulated period only (1982-1992). See REMARKS.

CAPE FEAR RIVER BASIN

02099000 EAST FORK DEEP RIVER NEAR HIGH POINT, NC

LOCATION.--Lat 36°02'15", long 79°56'46", Guilford County, Hydrologic Unit 03030003, on left bank 5 ft upstream from bridge on Secondary Road 1541, 3.3 mi upstream from High Point Dam, and 5.2 mi northeast of High Point College, High Point.

DRAINAGE AREA.--14.8 mi².

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 1723: 1929(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 764.02 ft above National Geodetic Vertical Datum of 1929. Intake pipe extended to downstream side of bridge since Mar. 1, 1934.

REMARKS.--No estimated daily discharges. Records good. Slight diurnal fluctuation at low flow during growing season. Maximum discharge: 6,300 ft³/s, from rating curve extended above 1,600 ft³/s on basis of contracted-opening measurement of peak flow; gage height: 10.87 ft, from floodmark. Minimum discharge: 0.6 ft³/s, result of temporary regulation. Minimum unregulated discharge: 1.0 ft³/s, Aug. 8, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.4 | 6.4 | 15 | 6.5 | 5.4 | 8.7 | 7.1 | 15 | 6.7 | 5.1 | 5.2 | 4.1 |
| 2 | 4.6 | 6.4 | 12 | 5.8 | 5.0 | 7.9 | 6.7 | 8.6 | 5.9 | 7.2 | 3.8 | 4.0 |
| 3 | 6.3 | 6.2 | 27 | 152 | 5.0 | 7.4 | 6.6 | 7.5 | 5.8 | 6.5 | 3.8 | 7.2 |
| 4 | 4.4 | 6.2 | 11 | 246 | 5.0 | 7.0 | 7.2 | 6.7 | 25 | 13 | 3.7 | 6.1 |
| 5 | 4.3 | 6.0 | 6.1 | 27 | 5.0 | 6.7 | 7.1 | 8.1 | 17 | 5.6 | 3.4 | 6.8 |
| 6 | 73 | 6.2 | 5.2 | 15 | 4.9 | 22 | 6.3 | 7.5 | 8.2 | 12 | 3.4 | 8.0 |
| 7 | 9.0 | 6.2 | 5.0 | 11 | 4.8 | 35 | 6.3 | 11 | 6.4 | 5.9 | 3.6 | 4.1 |
| 8 | 6.1 | 6.6 | 4.7 | 8.7 | 4.7 | 14 | 6.3 | 29 | 6.3 | 4.7 | 3.6 | 3.9 |
| 9 | 5.1 | 6.8 | 5.6 | 7.8 | 4.5 | 10 | 6.0 | 14 | 63 | 4.7 | 3.4 | 3.8 |
| 10 | 4.7 | 65 | 9.8 | 7.2 | 4.5 | 22 | 5.9 | 9.3 | 21 | 4.2 | 3.2 | 3.6 |
| 11 | 4.7 | 9.9 | 5.4 | 6.5 | 4.8 | 18 | 5.8 | 7.5 | 12 | 3.8 | 3.0 | 18 |
| 12 | 4.6 | 7.1 | 5.0 | 6.2 | 4.7 | 10 | 22 | 6.9 | 11 | 3.7 | 3.5 | 3.9 |
| 13 | 4.5 | 5.7 | 5.0 | 6.2 | 4.8 | 8.6 | 12 | 6.8 | 7.8 | 3.6 | 112 | 3.7 |
| 14 | 4.5 | 5.2 | 8.7 | 8.2 | 4.8 | 7.5 | 7.4 | 7.3 | 9.1 | 3.5 | 25 | 3.7 |
| 15 | 4.4 | 4.9 | 5.7 | 6.4 | 61 | 7.1 | 6.6 | 7.4 | 7.0 | 3.5 | 8.2 | 3.5 |
| 16 | 4.3 | 4.5 | 5.0 | 5.7 | 24 | 6.6 | 6.7 | 6.6 | 10 | 3.6 | 5.7 | 3.4 |
| 17 | 5.1 | 4.3 | 5.0 | 5.3 | 12 | 6.4 | 7.1 | 9.3 | 6.4 | 4.2 | 5.5 | 3.1 |
| 18 | 4.0 | 4.2 | 5.2 | 5.3 | 11 | 6.4 | 6.5 | 11 | 5.8 | 4.4 | 5.2 | 3.1 |
| 19 | 4.0 | 4.1 | 5.4 | 5.1 | 14 | 16 | 6.3 | 8.0 | 5.7 | 3.6 | 4.2 | 5.2 |
| 20 | 3.9 | 4.0 | 5.5 | 5.0 | 9.3 | 11 | 8.7 | 6.5 | 5.8 | 3.2 | 4.0 | 4.7 |
| 21 | 3.9 | 4.0 | 5.4 | 5.0 | 7.4 | 7.5 | 974 | 5.8 | 7.0 | 3.2 | 4.1 | 3.8 |
| 22 | 4.1 | 7.3 | 5.6 | 5.2 | 6.9 | 7.0 | 227 | 5.7 | 5.9 | 17 | 6.5 | 3.5 |
| 23 | 4.1 | 5.1 | 5.9 | 51 | 16 | 8.8 | 24 | 5.3 | 5.7 | 35 | 4.7 | 8.3 |
| 24 | 4.1 | 4.3 | 7.6 | 17 | 15 | 6.7 | 22 | 5.2 | 7.8 | 14 | 4.0 | 3.9 |
| 25 | 4.2 | 4.0 | 5.7 | 11 | 108 | 6.4 | 19 | 5.2 | 6.7 | 7.1 | 4.0 | 3.4 |
| 26 | 4.8 | 3.9 | 5.1 | 8.2 | 165 | 67 | 11 | 6.9 | 8.4 | 6.1 | 4.1 | 4.2 |
| 27 | 6.6 | 3.9 | 6.4 | 7.6 | 22 | 18 | 9.1 | 5.6 | 6.9 | 5.8 | 5.7 | 3.8 |
| 28 | 6.9 | 3.9 | 18 | 7.3 | 15 | 12 | 15 | 5.7 | 4.9 | 9.1 | 6.4 | 30 |
| 29 | 7.1 | 3.9 | 48 | 6.5 | 11 | 9.4 | 9.7 | 7.0 | 4.6 | 4.3 | 4.5 | 5.5 |
| 30 | 7.3 | 5.6 | 11 | 6.2 | --- | 8.4 | 14 | 24 | 4.5 | 3.8 | 4.1 | 3.9 |
| 31 | 7.1 | --- | 8.5 | 6.1 | --- | 8.3 | --- | 9.5 | --- | 9.1 | 4.1 | --- |
| TOTAL | 226.1 | 221.8 | 284.5 | 678.0 | 565.5 | 397.8 | 1479.4 | 279.9 | 308.3 | 220.5 | 265.6 | 174.2 |
| MEAN | 7.29 | 7.39 | 9.18 | 21.9 | 19.5 | 12.8 | 49.3 | 9.03 | 10.3 | 7.11 | 8.57 | 5.81 |
| MAX | 73 | 65 | 48 | 246 | 165 | 67 | 974 | 29 | 63 | 35 | 112 | 30 |
| MIN | 3.9 | 3.9 | 4.7 | 5.0 | 4.5 | 6.4 | 5.8 | 5.2 | 4.5 | 3.2 | 3.0 | 3.1 |
| CFSM | .49 | .50 | .62 | 1.48 | 1.32 | .87 | 3.33 | .61 | .69 | .48 | .58 | .39 |
| IN. | .57 | .56 | .72 | 1.70 | 1.42 | 1.00 | 3.72 | .70 | .77 | .55 | .67 | .44 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 12.2 | 11.5 | 16.4 | 23.2 | 27.7 | 25.4 | 19.9 | 15.2 | 12.4 | 12.8 | 12.1 | 12.5 |
| MAX | 79.5 | 39.2 | 48.5 | 82.9 | 83.0 | 106 | 71.6 | 58.8 | 61.5 | 97.5 | 55.9 | 88.9 |
| (WY) | 1960 | 1980 | 1933 | 1978 | 1979 | 1975 | 1987 | 1978 | 1969 | 1975 | 1949 | 1979 |
| MIN | 1.88 | 2.35 | 3.53 | 4.32 | 6.48 | 6.76 | 5.52 | 4.57 | 3.41 | 2.93 | 2.87 | 1.74 |
| (WY) | 1942 | 1942 | 1942 | 1942 | 1931 | 1967 | 1942 | 1941 | 1986 | 1977 | 1941 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1929 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 6950.7 | | 5101.6 | | | |
| ANNUAL MEAN | 19.0 | | 13.9 | | 16.7 | |
| HIGHEST ANNUAL MEAN | | | | | 34.1 | 1978 |
| LOWEST ANNUAL MEAN | | | | | 7.28 | 1967 |
| HIGHEST DAILY MEAN | 517 | Mar 29 | 974 | Apr 21 | 1670 | Sep 24 1947 |
| LOWEST DAILY MEAN | 3.7 | Aug 22 | 3.0 | Aug 11 | 1.1 | Aug 8 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 3.9 | Aug 20 | 3.4 | Aug 5 | 1.2 | Aug 7 1977 |
| INSTANTANEOUS PEAK FLOW | | | 2120 | Apr 21 | 6300* | Sep 24 1947 |
| INSTANTANEOUS PEAK STAGE | | | 6.98 | Apr 21 | 10.87* | Sep 24 1947 |
| INSTANTANEOUS LOW FLOW | | | 2.5 | Aug 11 | .60* | Jan 17 1981 |
| ANNUAL RUNOFF (CFSM) | 1.29 | | .94 | | 1.13 | |
| ANNUAL RUNOFF (INCHES) | 17.47 | | 12.82 | | 15.36 | |
| 10 PERCENT EXCEEDS | 27 | | 17 | | 25 | |
| 50 PERCENT EXCEEDS | 8.7 | | 6.3 | | 7.0 | |
| 90 PERCENT EXCEEDS | 4.2 | | 3.9 | | 3.6 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02099500 DEEP RIVER NEAR RANDLEMAN, NC

LOCATION.--Lat 35°54'06", long 79°51'05", Randolph County, Hydrologic Unit 03030003, on left bank 500 ft downstream of bridge on Secondary Road 1929, 0.2 mi downstream of Coltrane's Mill, 0.5 mi south of Guilford County line, 4.8 mi upstream from Muddy Creek, and 7 mi north of Randleman.

DRAINAGE AREA.--125 $mi^2$.

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 782: 1929-30. WSP 1383: 1934-35, 1941. WSP 1723: 1929(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 638.11 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Large diurnal fluctuation at times at low flow caused by Coltrane's Mill. Some regulation by Oak Hollow Reservoir (station 02098495) and High Point Lake (station 02099096). City of High Point diverted an average of 17.8 $ft^3/s$ for municipal water supply during water year; 5.9 $ft^3/s$ was discharged as treated effluent into Richland Creek upstream from station and 1.7 $ft^3/s$ into Rich Fork Creek in Pee Dee River basin. Maximum discharge: 20,000 $ft^3/s$, from rating curve extended above 7,100 $ft^3/s$ on basis of contracted-opening measurement of peak flow at bridge 1.5 mi upstream; gage height: 32.2 ft, from floodmark. Minimum discharge for the current year also occurred September 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26 | 23 | 25 | 41 | 53 | 83 | 73 | 104 | 46 | 32 | 40 | 31 |
| 2 | 24 | 25 | 43 | 36 | 47 | 71 | 68 | 80 | 38 | 28 | 32 | 11 |
| 3 | 32 | 23 | 81 | 284 | 44 | 63 | 63 | 65 | 35 | 26 | 30 | 27 |
| 4 | 29 | 20 | 184 | 1800 | 44 | 57 | 57 | 57 | 64 | 32 | 27 | 31 |
| 5 | 25 | 21 | 96 | 414 | 43 | 54 | 57 | 61 | 122 | 28 | 11 | 65 |
| 6 | 129 | 22 | 84 | 221 | 42 | 87 | 54 | 56 | 76 | 33 | 24 | 54 |
| 7 | 101 | 23 | 49 | 169 | 41 | 490 | 51 | 62 | 49 | 34 | 30 | 41 |
| 8 | 51 | 23 | 37 | 147 | 39 | 217 | 49 | 198 | 43 | 32 | 28 | 39 |
| 9 | 33 | 23 | 36 | 138 | 37 | 134 | 46 | 130 | 294 | 29 | 31 | 37 |
| 10 | 27 | 348 | 35 | 128 | 35 | 172 | 46 | 86 | 349 | 26 | 13 | 32 |
| 11 | 23 | 146 | 41 | 115 | 36 | 237 | 44 | 64 | 145 | 16 | 13 | 17 |
| 12 | 22 | 103 | 37 | 109 | 38 | 138 | 60 | 55 | 118 | 6.8 | 54 | 34 |
| 13 | 19 | 90 | 30 | 113 | 37 | 103 | 160 | 51 | 72 | 17 | 95 | 35 |
| 14 | 19 | 82 | 28 | 141 | 38 | 85 | 66 | 48 | 70 | 16 | 271 | 17 |
| 15 | 21 | 80 | 19 | 73 | 210 | 73 | 54 | 44 | 64 | 28 | 77 | 12 |
| 16 | 22 | 72 | 27 | 70 | 367 | 68 | 51 | 42 | 133 | 13 | 49 | 35 |
| 17 | 24 | 82 | 25 | 57 | 119 | 61 | 44 | 41 | 110 | 10 | 41 | 16 |
| 18 | 24 | 83 | 23 | 53 | 88 | 59 | 41 | 86 | 64 | 29 | 39 | 8.5 |
| 19 | 22 | 82 | 29 | 51 | 102 | 114 | 40 | 68 | 48 | 26 | 38 | 31 |
| 20 | 20 | 80 | 18 | 49 | 79 | 100 | 41 | 50 | 40 | 18 | 34 | 7.0 |
| 21 | 19 | 81 | 23 | 51 | 61 | 75 | 4510 | 39 | 66 | 9.2 | 27 | 29 |
| 22 | 21 | 54 | 21 | 48 | 52 | 67 | 4560 | 34 | 46 | 186 | 15 | 28 |
| 23 | 21 | 40 | 29 | 317 | 63 | 89 | 555 | 34 | 37 | 841 | 29 | 9.0 |
| 24 | 22 | 30 | 72 | 261 | 123 | 77 | 276 | 33 | 34 | 202 | 29 | 33 |
| 25 | 22 | 24 | 38 | 114 | 372 | 68 | 301 | 30 | 72 | 114 | 15 | 34 |
| 26 | 21 | 23 | 29 | 89 | 1100 | 361 | 171 | 43 | 73 | 84 | 27 | 29 |
| 27 | 19 | 22 | 26 | 75 | 287 | 274 | 121 | 45 | 108 | 40 | 10 | 8.8 |
| 28 | 20 | 21 | 40 | 76 | 151 | 153 | 116 | 39 | 49 | 35 | 16 | 35 |
| 29 | 22 | 20 | 285 | 81 | 109 | 109 | 111 | 35 | 35 | 31 | 31 | 36 |
| 30 | 22 | 20 | 80 | 66 | --- | 92 | 85 | 86 | 30 | 28 | 25 | 30 |
| 31 | 23 | --- | 51 | 57 | --- | 86 | --- | 64 | --- | 110 | 6.8 | --- |
| TOTAL | 925 | 1786 | 1641 | 5444 | 3857 | 3917 | 11971 | 1930 | 2530 | 2160.0 | 1207.8 | 852.3 |
| MEAN | 29.8 | 59.5 | 52.9 | 176 | 133 | 126 | 399 | 62.3 | 84.3 | 69.7 | 39.0 | 28.4 |
| MAX | 129 | 348 | 285 | 1800 | 1100 | 490 | 4560 | 198 | 349 | 841 | 271 | 65 |
| MIN | 19 | 20 | 18 | 36 | 35 | 54 | 40 | 30 | 30 | 6.8 | 6.8 | 7.0 |
| CFSM | .24 | .48 | .42 | 1.40 | 1.06 | 1.01 | 3.19 | .50 | .67 | .56 | .31 | .23 |
| IN. | .28 | .53 | .49 | 1.62 | 1.15 | 1.17 | 3.56 | .57 | .75 | .64 | .36 | .25 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 78.6 | 80.3 | 128 | 196 | 232 | 221 | 170 | 108 | 79.0 | 83.4 | 75.7 | 75.4 |
| MAX | 474 | 354 | 389 | 645 | 584 | 697 | 529 | 445 | 351 | 465 | 311 | 543 |
| (WY) | 1991 | 1986 | 1933 | 1937 | 1960 | 1975 | 1936 | 1978 | 1982 | 1975 | 1949 | 1947 |
| MIN | 5.78 | 9.56 | 16.8 | 15.8 | 38.6 | 54.4 | 27.6 | 23.5 | 16.7 | 17.2 | 17.1 | 10.5 |
| (WY) | 1931 | 1932 | 1934 | 1942 | 1986 | 1967 | 1985 | 1977 | 1933 | 1947 | 1945 | 1941 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1929 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 53844 | | 38221.1 | | | |
| ANNUAL MEAN | 148 | | 104 | | 127 | |
| HIGHEST ANNUAL MEAN | | | | | 230 | 1978 |
| LOWEST ANNUAL MEAN | | | | | 45.9 | 1967 |
| HIGHEST DAILY MEAN | 3350 | Mar 30 | 4560 | Apr 22 | 12000 | Sep 25 1947 |
| LOWEST DAILY MEAN | 17 | Aug 25 | 6.8 | Jul 12 | 1.2 | Nov 12 1933 |
| ANNUAL SEVEN-DAY MINIMUM | 20 | Sep 12 | 15 | Jul 11 | 3.9 | Sep 30 1930 |
| INSTANTANEOUS PEAK FLOW | | | 7890 | Apr 22 | 20000* | Sep 25 1947 |
| INSTANTANEOUS PEAK STAGE | | | 23.35 | Apr 22 | 32.20* | Sep 25 1947 |
| INSTANTANEOUS LOW FLOW | | | 3.2* | Sep 23 | .50 | Nov 28 1931 |
| ANNUAL RUNOFF (CFSM) | 1.18 | | .84 | | 1.01 | |
| ANNUAL RUNOFF (INCHES) | 16.02 | | 11.37 | | 13.77 | |
| 10 PERCENT EXCEEDS | 285 | | 152 | | 239 | |
| 50 PERCENT EXCEEDS | 74 | | 44 | | 51 | |
| 90 PERCENT EXCEEDS | 22 | | 21 | | 16 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02100500 DEEP RIVER AT RAMSEUR, NC

LOCATION.--Lat 35°43'34", long 79°39'20", Randolph County, Hydrologic Unit 03030003, on right bank 0.2 mi downstream of Main Street bridge in Ramseur, 0.5 mi downstream of mill dam, and 1.5 mi downstream of Sandy Creek.

DRAINAGE AREA.--349 mi².

PERIOD OF RECORD.--November 1922 to current year.

REVISED RECORDS.--WSP 1032: 1923-24, 1925(M), 1926, 1927-28(M), 1929, 1930(M), 1932-33, 1934(M), 1935, 1936-37(M), 1944(M). WSP 1383: 1923(m), 1925, 1927, 1930, 1936. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 419.50 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Oak Hollow Reservoir (station 02098495), High Point Municipal Lake (station 02099096), and small powerplant reservoirs. Prior to January 1963, large diurnal fluctuation caused by powerplant immediately upstream from station. Town of Asheboro diverted an average of 6.8 ft³/s from Pee Dee River basin for water supply and discharged an average of 7.4 ft³/s of treated effluent upstream from the station into Deep River. Maximum discharge: 43,000 ft³/s, from rating curve extended above 18,000 ft³/s on basis of slope-area measurement of peak flow; gage height: 34.04 ft. Minimum discharge occurred frequently in 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1901 reached a stage of 28.75 ft, from floodmarks 0.2 mi upstream; discharge, 30,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 59 | 58 | 51 | 125 | 147 | 273 | 208 | 181 | 133 | 86 | 158 | 37 |
| 2 | 40 | 47 | 77 | 117 | 85 | 249 | 195 | 222 | 88 | 100 | 68 | 42 |
| 3 | 82 | 48 | 104 | 388 | 143 | 155 | 127 | 131 | 68 | 110 | 63 | 35 |
| 4 | 71 | 50 | 322 | 3950 | 116 | 194 | 159 | 101 | 127 | 195 | 69 | 29 |
| 5 | 48 | 54 | 240 | 1510 | 118 | 160 | 169 | 181 | 243 | 84 | 58 | 43 |
| 6 | 52 | 53 | 126 | 529 | 121 | 199 | 171 | 95 | 199 | 112 | 56 | 112 |
| 7 | 159 | 54 | 142 | 364 | 109 | 1490 | 137 | 140 | 128 | 136 | 58 | 109 |
| 8 | 120 | 55 | 78 | 293 | 166 | 635 | 108 | 340 | 97 | 78 | 58 | 101 |
| 9 | 78 | 57 | 85 | 263 | 82 | 376 | 131 | 363 | 1310 | 72 | 69 | 93 |
| 10 | 67 | 628 | 109 | 243 | 59 | 336 | 147 | 221 | 918 | 93 | 125 | 53 |
| 11 | 55 | 383 | 88 | 213 | 110 | 669 | 112 | 162 | 384 | 64 | 72 | 48 |
| 12 | 51 | 206 | 100 | 188 | 94 | 383 | 131 | 136 | 278 | 52 | 55 | 42 |
| 13 | 49 | 118 | 75 | 213 | 102 | 274 | 209 | 127 | 231 | 52 | 121 | 41 |
| 14 | 44 | 133 | 95 | 186 | 99 | 237 | 216 | 109 | 275 | 57 | 335 | 40 |
| 15 | 34 | 133 | 69 | 263 | 161 | 207 | 114 | 121 | 260 | 49 | 227 | 42 |
| 16 | 34 | 101 | 81 | 162 | 916 | 219 | 121 | 122 | 2150 | 44 | 142 | 46 |
| 17 | 40 | 89 | 74 | 104 | 362 | 123 | 165 | 138 | 522 | 41 | 97 | 38 |
| 18 | 54 | 122 | 64 | 115 | 245 | 154 | 94 | 85 | 283 | 41 | 71 | 29 |
| 19 | 57 | 123 | 56 | 112 | 229 | 311 | 99 | 146 | 194 | 46 | 63 | 30 |
| 20 | 53 | 145 | 54 | 118 | 268 | 350 | 81 | 134 | 146 | 51 | 55 | 32 |
| 21 | 54 | 94 | 68 | 150 | 182 | 240 | 7020 | 114 | 197 | 74 | 52 | 42 |
| 22 | 49 | 97 | 62 | 113 | 135 | 166 | 11800 | 96 | 179 | 124 | 58 | 41 |
| 23 | 40 | 131 | 77 | 343 | 177 | 259 | 1620 | 92 | 141 | 1250 | 59 | 37 |
| 24 | 38 | 157 | 109 | 816 | 288 | 255 | 633 | 68 | 118 | 1870 | 54 | 61 |
| 25 | 40 | 96 | 148 | 344 | 621 | 194 | 599 | 57 | 84 | 400 | 50 | 53 |
| 26 | 47 | 59 | 100 | 223 | 4230 | 591 | 414 | 122 | 228 | 215 | 47 | 40 |
| 27 | 49 | 27 | 74 | 191 | 1330 | 712 | 305 | 170 | 280 | 191 | 46 | 37 |
| 28 | 49 | 27 | 123 | 209 | 515 | 378 | 272 | 105 | 230 | 128 | 74 | 41 |
| 29 | 48 | 27 | 808 | 187 | 356 | 282 | 240 | 86 | 89 | 63 | 81 | 63 |
| 30 | 44 | 82 | 385 | 174 | --- | 242 | 227 | 172 | 95 | 52 | 52 | 63 |
| 31 | 53 | --- | 210 | 212 | --- | 197 | --- | 171 | --- | 109 | 42 | --- |
| TOTAL | 1758 | 3454 | 4254 | 12418 | 11566 | 10510 | 26024 | 4508 | 9675 | 6039 | 2635 | 1520 |
| MEAN | 56.7 | 115 | 137 | 401 | 399 | 339 | 867 | 145 | 322 | 195 | 85.0 | 50.7 |
| MAX | 159 | 628 | 808 | 3950 | 4230 | 1490 | 11800 | 363 | 2150 | 1870 | 335 | 112 |
| MIN | 34 | 27 | 51 | 104 | 59 | 123 | 81 | 57 | 68 | 41 | 42 | 29 |
| CFSM | .16 | .33 | .39 | 1.15 | 1.14 | .97 | 2.49 | .42 | .92 | .56 | .24 | .15 |
| IN. | .19 | .37 | .45 | 1.32 | 1.23 | 1.12 | 2.77 | .48 | 1.03 | .64 | .28 | .16 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 213 | 212 | 353 | 545 | 661 | 627 | 489 | 297 | 218 | 229 | 214 | 230 |
| MAX | 1193 | 1237 | 1050 | 1660 | 1642 | 1842 | 1440 | 944 | 978 | 1434 | 896 | 1934 |
| (WY) | 1991 | 1986 | 1933 | 1937 | 1979 | 1975 | 1936 | 1978 | 1982 | 1975 | 1939 | 1928 |
| MIN | 8.69 | 14.1 | 39.1 | 40.8 | 131 | 144 | 116 | 71.3 | 48.1 | 36.5 | 32.4 | 17.7 |
| (WY) | 1942 | 1942 | 1934 | 1942 | 1931 | 1967 | 1967 | 1986 | 1933 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1923 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 133188 | | 94361 | | | |
| ANNUAL MEAN | 365 | | 258 | | 356 | |
| HIGHEST ANNUAL MEAN | | | | | 665 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 155 | 1967 |
| HIGHEST DAILY MEAN | 8120 | Mar 30 | 11800 | Apr 22 | 27800 | Sep 18 1945 |
| LOWEST DAILY MEAN | 20 | Jul 17 | 27 | Nov 27 | .70 | Nov 29 1941 |
| ANNUAL SEVEN-DAY MINIMUM | 32 | Jul 17 | 36 | Sep 17 | 3.6 | Oct 19 1941 |
| INSTANTANEOUS PEAK FLOW | | | 15900 | Apr 22 | 43000* | Sep 18 1945 |
| INSTANTANEOUS PEAK STAGE | | | 21.80 | Apr 22 | 34.04* | Sep 18 1945 |
| INSTANTANEOUS LOW FLOW | | | 26 | Nov 29 | .40* | May 27 1941 |
| ANNUAL RUNOFF (CFSM) | 1.05 | | .74 | | 1.02 | |
| ANNUAL RUNOFF (INCHES) | 14.20 | | 10.06 | | 13.85 | |
| 10 PERCENT EXCEEDS | 710 | | 368 | | 682 | |
| 50 PERCENT EXCEEDS | 173 | | 116 | | 152 | |
| 90 PERCENT EXCEEDS | 46 | | 46 | | 36 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

## 0210166029 ROCKY RIVER NEAR CRUTCHFIELD CROSSROADS, NC

LOCATION.--Lat 35°48'25", long 79°31'41", Chatham County, Hydrologic Unit 03030003, on right bank at downstream side of culvert on Secondary Road 1300, and 5.5 mi west of Crutchfields Crossroads.

DRAINAGE AREA.--7.42 mi².

PERIOD OF RECORD.--May 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 620 ft, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several days of zero flow occurred in August 1988. Minimum discharge for current water year also occurred Sept. 13, 15, and 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .66 | 1.5 | 1.2 | 2.2 | 1.8 | 5.3 | 3.3 | 2.6 | 1.7 | 2.1 | 1.1 | .76 |
| 2 | .86 | 1.5 | 1.3 | 1.9 | 1.6 | 4.6 | 2.9 | 2.3 | 1.4 | 5.0 | .98 | .79 |
| 3 | 1.1 | 1.5 | 2.0 | 26 | 1.5 | 4.1 | 2.6 | 2.1 | 1.3 | 2.4 | 1.2 | 1.8 |
| 4 | 1.2 | 1.5 | 3.9 | 65 | 1.6 | 3.1 | 2.8 | 2.0 | 2.7 | 2.0 | 1.0 | 3.1 |
| 5 | .84 | 1.5 | 1.6 | 18 | 1.7 | 2.7 | 3.5 | 1.9 | 4.7 | 1.6 | .88 | .94 |
| 6 | .71 | 1.5 | 1.8 | 7.4 | 1.6 | 3.1 | 2.9 | 1.8 | 2.2 | 1.8 | .82 | 1.0 |
| 7 | .66 | 1.6 | 1.2 | 5.1 | 1.6 | 37 | 3.0 | 4.5 | 1.5 | 1.6 | .81 | .90 |
| 8 | .61 | 1.6 | 1.4 | 3.7 | 1.6 | 12 | 2.7 | 12 | 1.2 | 1.3 | .87 | .75 |
| 9 | .61 | 1.7 | 1.3 | 2.9 | 1.4 | 6.4 | 2.6 | 5.3 | 15 | 1.2 | 2.0 | .72 |
| 10 | .64 | 16 | 1.3 | 2.7 | 1.3 | 9.0 | 2.5 | 3.1 | 8.8 | 1.1 | 1.8 | .65 |
| 11 | .71 | 2.8 | 1.2 | 2.2 | 1.6 | 18 | 2.3 | 2.5 | 3.6 | .90 | .99 | .68 |
| 12 | .77 | 1.5 | 1.1 | 1.9 | 1.7 | 7.9 | 4.1 | 2.2 | 2.6 | .91 | .73 | .53 |
| 13 | .76 | 1.1 | 1.1 | 2.0 | 1.6 | 6.1 | 6.1 | 2.1 | 1.9 | .85 | 8.8 | .45 |
| 14 | .83 | 1.0 | 1.1 | 2.7 | 1.7 | 4.9 | 3.0 | 2.1 | 11 | .79 | 7.5 | .43 |
| 15 | .80 | .96 | 1.0 | 2.2 | 3.3 | 4.0 | 2.5 | 1.8 | 7.0 | .75 | 2.3 | .42 |
| 16 | 1.1 | .91 | .89 | 1.8 | 22 | 3.4 | 2.3 | 1.6 | 66 | .73 | 1.8 | .42 |
| 17 | 1.7 | 1.0 | .90 | 1.7 | 5.9 | 3.1 | 2.2 | 1.5 | 20 | .75 | 1.5 | .44 |
| 18 | 1.4 | 1.8 | 1.1 | 1.7 | 4.4 | 2.9 | 2.1 | 1.5 | 7.0 | .87 | e1.7 | .42 |
| 19 | 1.1 | .74 | .86 | 1.5 | 4.4 | 11 | 2.0 | 1.4 | 4.2 | .89 | e1.3 | .48 |
| 20 | .99 | .71 | .78 | 1.4 | 5.7 | 6.3 | 2.6 | 1.6 | 3.2 | .76 | 2.0 | .98 |
| 21 | .96 | .81 | .90 | 1.4 | 3.4 | 4.2 | 96 | 1.8 | 6.7 | .51 | 1.3 | .68 |
| 22 | 1.0 | 1.1 | .87 | 1.4 | 3.1 | 3.5 | 68 | 1.5 | 4.5 | 3.4 | 1.1 | .56 |
| 23 | 1.2 | 1.3 | .97 | 12 | 2.9 | 7.9 | 14 | 1.2 | 3.3 | 17 | .92 | .68 |
| 24 | 1.3 | 1.2 | 1.9 | 6.8 | 5.8 | 5.1 | 7.0 | 1.1 | 2.6 | 29 | .79 | .83 |
| 25 | 1.3 | 1.1 | 1.6 | 3.7 | 4.7 | 4.5 | 7.8 | 1.0 | 4.4 | 5.4 | .72 | .78 |
| 26 | 1.4 | 1.0 | 1.3 | 2.8 | 102 | 11 | 5.5 | 3.9 | 10 | 4.8 | .71 | .81 |
| 27 | 1.5 | .97 | 1.4 | 2.3 | 37 | 7.1 | 4.3 | 2.3 | 14 | 2.8 | .68 | .83 |
| 28 | 1.5 | 1.1 | 1.9 | 4.1 | 13 | 5.7 | 3.7 | 1.7 | 5.5 | 1.7 | .92 | .88 |
| 29 | 1.5 | 1.0 | 24 | 3.1 | 7.3 | 4.3 | 3.1 | 1.6 | 3.8 | 1.3 | 1.1 | .89 |
| 30 | 1.5 | 1.0 | 5.3 | 2.5 | --- | 3.8 | 2.6 | 3.1 | 2.8 | 1.1 | .84 | .81 |
| 31 | 1.5 | --- | 3.0 | 2.2 | --- | 3.3 | --- | 2.6 | --- | 1.2 | .72 | --- |
| TOTAL | 32.71 | 53.00 | 70.17 | 196.3 | 247.2 | 215.3 | 270.0 | 77.7 | 224.6 | 96.51 | 49.88 | 24.41 |
| MEAN | 1.06 | 1.77 | 2.26 | 6.33 | 8.52 | 6.95 | 9.00 | 2.51 | 7.49 | 3.11 | 1.61 | .81 |
| MAX | 1.7 | 16 | 24 | 65 | 102 | 37 | 96 | 12 | 66 | 29 | 8.8 | 3.1 |
| MIN | .61 | .71 | .78 | 1.4 | 1.3 | 2.7 | 2.0 | 1.0 | 1.2 | .51 | .68 | .42 |
| CFSM | .14 | .24 | .31 | .85 | 1.15 | .94 | 1.21 | .34 | 1.01 | .42 | .22 | .11 |
| IN. | .16 | .27 | .35 | .98 | 1.24 | 1.08 | 1.35 | .39 | 1.13 | .48 | .25 | .12 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 9.37 | 5.36 | 5.34 | 10.1 | 12.1 | 15.0 | 9.49 | 7.76 | 3.44 | 4.19 | 1.19 | 1.74 |
| MAX | 17.1 | 9.84 | 10.6 | 17.5 | 19.4 | 25.0 | 12.0 | 19.2 | 7.49 | 14.8 | 1.77 | 3.64 |
| (WY) | 1990 | 1990 | 1990 | 1991 | 1989 | 1989 | 1990 | 1990 | 1992 | 1989 | 1988 | 1988 |
| MIN | 1.06 | 1.77 | 1.36 | 2.33 | 4.89 | 6.95 | 7.87 | 1.58 | .44 | .50 | .44 | .26 |
| (WY) | 1992 | 1992 | 1989 | 1989 | 1991 | 1992 | 1991 | 1988 | 1988 | 1988 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1879.77 | | 1557.78 | | | |
| ANNUAL MEAN | 5.15 | | 4.26 | | 7.29 | |
| HIGHEST ANNUAL MEAN | | | | | 9.49 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 4.26 | 1992 |
| HIGHEST DAILY MEAN | 155 | Jan 12 | 102 | Feb 26 | 213 | Oct 23 1990 |
| LOWEST DAILY MEAN | .27 | Jul 9 | .42 | Sep 15 | 0 | Aug 20 1988 |
| ANNUAL SEVEN-DAY MINIMUM | .32 | Jul 19 | .44 | Sep 13 | .02 | Aug 17 1988 |
| INSTANTANEOUS PEAK FLOW | | | 238 | Apr 21 | 469 | Oct 23 1990 |
| INSTANTANEOUS PEAK STAGE | | | 5.92 | Apr 21 | 10.38 | Oct 23 1990 |
| INSTANTANEOUS LOW FLOW | | | .33* | Oct 3 | 0* | Aug 19 1988 |
| ANNUAL RUNOFF (CFSM) | .69 | | .57 | | .98 | |
| ANNUAL RUNOFF (INCHES) | 9.42 | | 7.81 | | 13.35 | |
| 10 PERCENT EXCEEDS | 9.7 | | 7.2 | | 14 | |
| 50 PERCENT EXCEEDS | 1.5 | | 1.7 | | 1.8 | |
| 90 PERCENT EXCEEDS | .37 | | .77 | | .35 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02102000 DEEP RIVER AT MONCURE, NC

LOCATION.--Lat 35°37'38", long 79°06'58", Lee County, Hydrologic Unit 03030003, on right bank 1.0 mi upstream from Lockville Dam, 1.2 mi upstream from bridge on U.S. Highway 1, 1.5 mi northwest of Moncure, 2.2 mi downstream of Rocky River, and 4.5 mi upstream from confluence with Haw River.

DRAINAGE AREA.--1,434 $mi^2$.

PERIOD OF RECORD.--July 1930 to current year. Records for May 1898 to December 1899 published in 21st Annual Report, Part 4, and in Bulletins 34 and 39 of North Carolina Department of Conservation and Development have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1082: (1930-46 not previously published). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 185.06 ft above National Geodetic Vertical Datum of 1929. Satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation and some regulation at low flow caused by small powerplants upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 160 | 85 | 96 | 848 | 500 | 1350 | 763 | 600 | 443 | 490 | 150 | 118 |
| 2 | 170 | 88 | 104 | 606 | 411 | 981 | 711 | 562 | 476 | 482 | 109 | 110 |
| 3 | 215 | 90 | 149 | 506 | 531 | 853 | 693 | 487 | 453 | 391 | 145 | 101 |
| 4 | 247 | 89 | 354 | 4910 | 268 | 752 | 621 | 502 | 226 | 189 | 221 | 93 |
| 5 | 246 | 95 | 303 | 7960 | 217 | 608 | 369 | 383 | 158 | 639 | 144 | 99 |
| 6 | 240 | 91 | 545 | 3870 | 352 | 677 | 477 | 323 | 284 | 574 | 120 | 100 |
| 7 | 171 | 84 | 486 | 1750 | 247 | 3950 | 613 | 356 | 532 | 356 | 121 | 83 |
| 8 | 144 | 90 | 229 | 1100 | 318 | 4280 | 557 | 748 | 444 | 140 | 113 | 83 |
| 9 | 141 | 99 | 249 | 843 | 302 | 2380 | 405 | 2260 | 296 | 257 | 102 | 105 |
| 10 | 191 | 258 | 302 | 694 | 301 | 1480 | 357 | 1550 | 2780 | 239 | 92 | 345 |
| 11 | 171 | 1310 | 278 | 600 | 307 | 1450 | 478 | 919 | 2500 | 203 | 94 | 170 |
| 12 | 142 | 1340 | 180 | 597 | 220 | 1880 | 457 | 641 | 1250 | 174 | 130 | 75 |
| 13 | 140 | 673 | 134 | 482 | 223 | 1390 | 288 | 480 | 785 | 167 | 245 | 56 |
| 14 | 137 | 512 | 275 | 406 | 220 | 884 | 392 | 534 | 623 | 147 | 890 | 50 |
| 15 | 128 | 305 | 212 | 582 | 309 | 778 | 539 | 702 | 1450 | 132 | 1460 | 48 |
| 16 | 100 | 119 | 166 | 512 | 307 | 691 | 612 | 397 | 4730 | 115 | 912 | 51 |
| 17 | 189 | 348 | 255 | 500 | 924 | 630 | 388 | 369 | 8610 | 93 | 555 | 55 |
| 18 | 170 | 185 | 208 | 517 | 1030 | 563 | 267 | 501 | 3060 | 94 | 540 | 56 |
| 19 | 137 | 204 | 88 | 257 | 708 | 472 | 396 | 354 | 1330 | 92 | 304 | 54 |
| 20 | 104 | 292 | 152 | 299 | 860 | 2050 | 345 | 175 | 964 | 97 | 232 | 51 |
| 21 | 85 | 108 | 224 | 260 | 972 | 2020 | 352 | 272 | 778 | 99 | 360 | 52 |
| 22 | 112 | 174 | 92 | 353 | 734 | 1240 | 11600 | 342 | 960 | 94 | 225 | 50 |
| 23 | 116 | 383 | 75 | 232 | 559 | 1060 | 14500 | 403 | 939 | 964 | 246 | 47 |
| 24 | 111 | 199 | 115 | 539 | 490 | 1960 | 12200 | 343 | 640 | 1010 | 112 | 59 |
| 25 | 109 | 85 | 157 | 1600 | 1300 | 1470 | 2660 | 136 | 547 | 2410 | 92 | 78 |
| 26 | 105 | 288 | 180 | 1020 | 8770 | 1210 | 1730 | 131 | 474 | 1090 | 103 | 70 |
| 27 | 95 | 191 | 429 | 661 | 12300 | 2560 | 1320 | 186 | 2440 | 509 | 113 | 65 |
| 28 | 86 | 105 | 353 | 542 | 5950 | 2440 | 926 | 192 | 2480 | 358 | 110 | 64 |
| 29 | 83 | 143 | 901 | 522 | 2070 | 1410 | 758 | 281 | 1370 | 254 | 96 | 65 |
| 30 | 83 | 114 | 2340 | 639 | --- | 1060 | 683 | 321 | 700 | 223 | 90 | 64 |
| 31 | 84 | --- | 1600 | 507 | --- | 925 | --- | 365 | --- | 195 | 94 | --- |
| TOTAL | 4412 | 8147 | 11231 | 34714 | 41700 | 45454 | 56457 | 15815 | 42722 | 12277 | 8320 | 2517 |
| MEAN | 142 | 272 | 362 | 1120 | 1438 | 1466 | 1882 | 510 | 1424 | 396 | 268 | 83.9 |
| MAX | 247 | 1340 | 2340 | 7960 | 12300 | 4280 | 14500 | 2260 | 8610 | 2410 | 1460 | 345 |
| MIN | 83 | 84 | 75 | 232 | 217 | 472 | 267 | 131 | 158 | 92 | 90 | 47 |
| CFSM | .10 | .19 | .25 | .78 | 1.00 | 1.02 | 1.31 | .36 | .99 | .28 | .19 | .06 |
| IN. | .11 | .21 | .29 | .90 | 1.08 | 1.18 | 1.46 | .41 | 1.11 | .32 | .22 | .07 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 716 | 814 | 1354 | 2359 | 2882 | 2802 | 2072 | 1151 | 796 | 857 | 872 | 754 |
| MAX | 3590 | 4789 | 4765 | 7182 | 7945 | 7103 | 6455 | 3590 | 4147 | 5528 | 3861 | 10580 |
| (WY) | 1965 | 1986 | 1973 | 1978 | 1960 | 1952 | 1936 | 1989 | 1982 | 1975 | 1931 | 1945 |
| MIN | 28.2 | 14.1 | 34.6 | 130 | 424 | 566 | 393 | 193 | 135 | 79.7 | 75.2 | 24.1 |
| (WY) | 1931 | 1942 | 1934 | 1934 | 1931 | 1981 | 1981 | 1981 | 1977 | 1986 | 1980 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1930 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 438402 | | 283766 | | | |
| ANNUAL MEAN | 1201 | | 775 | | 1447 | |
| HIGHEST ANNUAL MEAN | | | | | 2711 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 606 | 1988 |
| HIGHEST DAILY MEAN | 18400 | Jan 12 | 14500 | Apr 23 | 66400 | Sep 18 1945 |
| LOWEST DAILY MEAN | 60 | Sep 19 | 47 | Sep 23 | 6.0 | Oct 9 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 67 | Sep 13 | 52 | Sep 14 | 6.6 | Oct 8 1954 |
| INSTANTANEOUS PEAK FLOW | | | 15300 | Apr 23 | 80300 | Sep 18 1945 |
| INSTANTANEOUS PEAK STAGE | | | 7.55 | Apr 23 | 17.20 | Sep 18 1945 |
| INSTANTANEOUS LOW FLOW | | | 44 | Sep 23 | 5.5 | Oct 10 1954 |
| ANNUAL RUNOFF (CFSM) | .84 | | .54 | | 1.01 | |
| ANNUAL RUNOFF (INCHES) | 11.37 | | 7.36 | | 13.71 | |
| 10 PERCENT EXCEEDS | 2420 | | 1470 | | 3310 | |
| 50 PERCENT EXCEEDS | 504 | | 342 | | 539 | |
| 90 PERCENT EXCEEDS | 104 | | 91 | | 98 | |

0210215985 CAPE FEAR RIVER AT STATE HIGHWAY 42 NEAR BRICKHAVEN, NC

LOCATION.--Lat 35°43'00", long 79°01'34", Hydrologic Unit 03030004, at bridge on State Highway 42, and 1.8 mi south of Brickhaven.

DRAINAGE AREA.--3,160 $mi^2$.

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six county regional surface-water quality assessment.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | COLOR (PLAT-INUM-COBALT UNITS) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | 1010 | 838 | 282 | 6.7 | 12.0 | 25 | 10.1 | 95 | 9.0 | 3.3 | 38 |
| JAN | | | | | | | | | | | |
| 09... | 1030 | 8920 | 123 | 7.1 | 9.0 | 230 | 12.2 | 105 | 6.6 | 2.5 | 12 |
| FEB | | | | | | | | | | | |
| 10... | 1100 | 933 | 167 | 6.9 | 7.0 | 55 | 12.2 | 98 | 7.2 | 2.8 | 17 |
| 27... | 1345 | 13600 | 97 | 6.9 | 11.0 | 200 | 10.9 | 99 | 5.9 | 2.2 | 8.9 |
| MAR | | | | | | | | | | | |
| 11... | 1345 | 7370 | 133 | 7.1 | 14.0 | 100 | 10.4 | 101 | 6.9 | 2.7 | 14 |
| APR | | | | | | | | | | | |
| 20... | 1200 | 829 | 156 | 6.9 | 20.0 | 20 | 8.8 | 96 | 7.4 | 3.0 | 17 |
| 23... | 1645 | 16800 | 72 | 6.8 | 19.0 | 230 | 8.5 | 91 | 4.8 | 1.8 | 4.8 |
| MAY | | | | | | | | | | | |
| 07... | 1330 | 1050 | 120 | 6.6 | 17.0 | 55 | 7.7 | 79 | 6.3 | 2.3 | 12 |
| JUN | | | | | | | | | | | |
| 04... | 1100 | 755 | 173 | 7.2 | 22.0 | 45 | 8.7 | 101 | 7.5 | 3.1 | 22 |
| JUL | | | | | | | | | | | |
| 21... | 1030 | 666 | 161 | 7.5 | 29.5 | 30 | 13.5 | 172 | 7.7 | 3.1 | 19 |
| AUG | | | | | | | | | | | |
| 06... | 1030 | 1450 | 147 | 6.7 | 26.0 | 70 | 3.8 | 47 | 7.2 | 2.8 | 16 |
| 14... | 1700 | 1820 | 146 | 6.6 | 26.0 | 25 | 4.1 | 51 | 7.2 | 2.8 | 16 |
| SEP | | | | | | | | | | | |
| 08... | 1030 | 776 | 170 | 8.1 | 22.0 | 13 | 10.7 | 123 | 7.4 | 2.9 | 20 |

| DATE | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | 5.1 | 37 | 30 | 0.20 | 5.6 | 126 | 162 | 1.00 | 1.10 | 0.090 | 0.070 |
| JAN | | | | | | | | | | | |
| 09... | 3.7 | 14 | 8.5 | 0.10 | 8.3 | -- | 74 | 0.740 | 0.770 | 0.140 | 0.120 |
| FEB | | | | | | | | | | | |
| 10... | 3.7 | 20 | 14 | 0.20 | 8.9 | 98 | 97 | 0.830 | 0.850 | 0.100 | 0.100 |
| 27... | 2.2 | 11 | 7.6 | 0.10 | 8.4 | 100 | 57 | -- | -- | -- | -- |
| MAR | | | | | | | | | | | |
| 11... | 2.9 | 15 | 12 | <0.10 | 9.4 | 92 | 78 | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 20... | 2.9 | 17 | 16 | 0.20 | 3.0 | 92 | 87 | 0.480 | 0.470 | 0.080 | 0.080 |
| 23... | 3.0 | 7.8 | 5.6 | <0.10 | 6.6 | 64 | 43 | 0.400 | -- | 0.180 | -- |
| MAY | | | | | | | | | | | |
| 07... | 2.8 | 12 | 11 | 0.10 | 7.8 | 78 | 72 | 0.470 | 0.480 | 0.060 | 0.040 |
| JUN | | | | | | | | | | | |
| 04... | 3.6 | 20 | 17 | 0.10 | 5.0 | 120 | 101 | -- | 0.520 | -- | 0.030 |
| JUL | | | | | | | | | | | |
| 21... | 3.7 | 15 | 12 | 0.10 | 7.0 | 102 | 89 | -- | <0.050 | -- | 0.030 |
| AUG | | | | | | | | | | | |
| 06... | 3.7 | 16 | 13 | 0.10 | 7.5 | 94 | 89 | -- | 0.590 | -- | 0.040 |
| 14... | 3.8 | 15 | 13 | 0.20 | 7.0 | 90 | 86 | 0.350 | -- | 0.080 | -- |
| SEP | | | | | | | | | | | |
| 08... | 4.2 | 20 | 17 | 0.20 | 6.6 | 100 | 102 | -- | <0.050 | -- | 0.020 |

CAPE FEAR RIVER BASIN

0210215985 CAPE FEAR RIVER AT STATE HIGHWAY 42 NEAR BRICKHAVEN, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS DISSOLVED (MG/L AS P) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) | ARSENIC TOTAL (UG/L AS AS) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) | COBALT, TOTAL RECOVERABLE (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | 0.70 | 0.60 | 0.130 | 0.080 | 0.080 | 0.060 | 300 | 2 | <1 | 2 | 1 |
| JAN | | | | | | | | | | | |
| 09... | 0.80 | 0.80 | 0.190 | 0.080 | 0.090 | 0.050 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 10... | 0.60 | 0.50 | 0.110 | 0.070 | 0.070 | 0.050 | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | 3400 | <1 | <1 | 30 | 3 |
| MAR | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | 1200 | <1 | <1 | 3 | <1 |
| APR | | | | | | | | | | | |
| 20... | 0.60 | 0.40 | 0.080 | 0.030 | 0.050 | 0.040 | 170 | <1 | <1 | <1 | <1 |
| 23... | 0.90 | -- | 0.160 | -- | 0.050 | -- | 2800 | 1 | <1 | 4 | 2 |
| MAY | | | | | | | | | | | |
| 07... | 0.40 | 0.30 | 0.050 | 0.030 | 0.050 | 0.030 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 04... | 0.70 | 0.40 | 0.100 | 0.030 | -- | 0.010 | 160 | <1 | <1 | <1 | <1 |
| JUL | | | | | | | | | | | |
| 21... | 1.0 | 0.50 | 0.080 | 0.020 | -- | <0.010 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | 0.80 | 0.50 | 0.180 | 0.080 | -- | 0.070 | 410 | 1 | <1 | <1 | <1 |
| 14... | 0.70 | -- | 0.130 | -- | 0.070 | -- | 280 | 1 | <1 | <1 | <1 |
| SEP | | | | | | | | | | | |
| 08... | 0.90 | 0.40 | 0.100 | 0.020 | -- | <0.010 | -- | -- | -- | -- | -- |

| DATE | COPPER, TOTAL RECOVERABLE (UG/L AS CU) | IRON, TOTAL RECOVERABLE (UG/L AS FE) | LEAD, TOTAL RECOVERABLE (UG/L AS PB) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) | MERCURY TOTAL RECOVERABLE (UG/L AS HG) | MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) | NICKEL, TOTAL RECOVERABLE (UG/L AS NI) | SELENIUM, TOTAL (UG/L AS SE) | SILVER, TOTAL RECOVERABLE (UG/L AS AG) | ZINC, TOTAL RECOVERABLE (UG/L AS ZN) | CARBON, ORGANIC TOTAL (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | -- | 550 | 1 | 80 | <0.10 | 2 | 4 | <1 | <1 | 20 | 9.4 |
| JAN | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11 |
| FEB | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.1 |
| 27... | 2 | 4700 | 4 | 290 | <0.10 | <1 | 3 | <1 | <1 | 30 | 18 |
| MAR | | | | | | | | | | | |
| 11... | 11 | 2000 | 12 | 130 | <0.10 | <1 | 2 | 1 | <1 | 20 | 10 |
| APR | | | | | | | | | | | |
| 20... | 3 | 520 | <1 | 100 | <0.10 | 1 | 2 | <1 | <1 | 10 | 6.9 |
| 23... | 16 | 4400 | 6 | 230 | 0.30 | <1 | 3 | <1 | <1 | 30 | 15 |
| MAY | | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 |
| JUN | | | | | | | | | | | |
| 04... | 3 | 490 | <1 | 90 | <0.10 | 1 | 2 | <1 | <1 | <10 | 7.9 |
| JUL | | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 |
| AUG | | | | | | | | | | | |
| 06... | 4 | 840 | 2 | 300 | <0.10 | 2 | 1 | <1 | <1 | <10 | 9.5 |
| 14... | 3 | 730 | 3 | 300 | <0.10 | 1 | 3 | <1 | <1 | 20 | 8.8 |
| SEP | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.4 |

CAPE FEAR RIVER BASIN

0210215985 CAPE FEAR RIVER AT STATE HIGHWAY 42 NEAR BRICKHAVEN, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | PCB, TOTAL (UG/L) | NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) | PERTHANE TOTAL (UG/L) | ALDRIN, TOTAL (UG/L) | LINDANE TOTAL (UG/L) | CHLORDANE, TOTAL (UG/L) | DDD, TOTAL (UG/L) | DDE, TOTAL (UG/L) | DDT, TOTAL (UG/L) | DIELDRIN TOTAL (UG/L) | ENDOSULFAN, TOTAL (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| JAN | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| MAR | | | | | | | | | | | |
| 11... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| APR | | | | | | | | | | | |
| 20... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| 23... | <0.1 | <0.10 | <0.1 | <0.010 | <0.010 | <0.1 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 |
| MAY | | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | ENDRIN WATER UNFLTRD REC (UG/L) | TOXAPHENE, TOTAL (UG/L) | HEPTACHLOR, TOTAL (UG/L) | HEPTACHLOR EPOXIDE TOTAL (UG/L) | METHOXYCHLOR, TOTAL (UG/L) | MIREX, TOTAL (UG/L) | SIMAZINE, WATER, DISS, REC (UG/L) | PROMETRYN, WATER, DISS, REC (UG/L) | PROMETON, WATER, DISS, REC (UG/L) | ATRAZINE, WATER, DISS, REC (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | |
| 03... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- | -- | -- |
| MAR | | | | | | | | | | |
| 11... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 20... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | -- | -- | -- | -- |
| 23... | <0.010 | <1 | <0.010 | <0.010 | <0.01 | <0.01 | 0.70 | <0.05 | <0.05 | 0.88 |
| MAY | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

CAPE FEAR RIVER BASIN

0210215985 CAPE FEAR RIVER AT STATE HIGHWAY 42 NEAR BRICKHAVEN, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) | CYANA-ZINE, WATER, DISS, REC (UG/L) | AMETRYN WATER, DISS, REC, (UG/L) | PROP-AZINE WATER DISS REC (UG/L) | METO-LACHLOR WATER DISSOLV (UG/L) | ALA-CHLOR, WATER, DISS, REC, (UG/L) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | 12 | 30 |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | 269 | 9900 |
| MAR | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | 35 | 696 |
| APR | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | 11 | 25 |
| 23... | <0.05 | <0.05 | <0.20 | <0.05 | <0.05 | 0.20 | <0.05 | <0.05 | 172 | 7800 |
| MAY | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | 11 | 22 |
| JUL | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | 21 | 82 |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | 22 | 108 |
| SEP | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | 13 | 27 |

CAPE FEAR RIVER BASIN

02102192 BUCKHORN CREEK NEAR CORINTH, NC

LOCATION.--Lat 35°33'34", long 78°58'25", Chatham County, Hydrologic Unit 03030004, on left bank at upstream side of bridge on State Highway 42, 0.2 mi downstream of White Oak Creek, 1.2 mi downstream of Harris Lake, and 2 mi east of Corinth.

DRAINAGE AREA.--76.3 $mi^2$.

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

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

GAGE.--Water-stage recorder. Datum of gage is 154.63 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair, except those for period October to May which are poor, due to beaver activity. Since Dec. 1, 1980, considerable regulation by Harris Lake (station 02102190). Prior to regulation maximum discharge: 6,920 $ft^3/s$, Feb. 2, 1973; gage height: 20.02 ft; minimum discharge: 0.01 $ft^3/s$, Sept. 2, 1976.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .89 | .71 | .92 | .69 | .61 | 2.0 | .75 | .79 | 2.4 | 107 | 1.5 | .83 |
| 2 | .86 | .79 | 1.1 | .86 | .66 | 1.8 | .67 | .66 | 1.1 | 106 | .89 | .85 |
| 3 | 1.8 | .80 | 1.3 | 5.3 | 1.3 | 1.5 | .66 | .55 | .69 | 121 | 1.0 | .83 |
| 4 | 1.2 | .84 | 2.2 | 14 | .57 | 1.1 | .70 | .44 | 1.0 | 195 | .62 | .89 |
| 5 | 1.2 | .99 | 1.4 | 4.7 | .62 | 1.0 | .71 | .45 | 1.4 | 173 | .85 | 2.1 |
| 6 | 2.1 | 1.2 | 1.2 | 2.4 | .58 | 2.3 | .56 | .52 | .78 | 156 | 1.9 | 1.9 |
| 7 | 2.0 | 1.0 | 1.1 | 2.6 | .48 | 15 | .64 | .73 | .65 | 137 | .90 | 3.1 |
| 8 | 1.6 | 1.0 | 1.0 | 3.1 | .51 | 2.4 | .58 | 2.0 | .68 | 114 | .70 | 1.2 |
| 9 | 1.5 | 1.6 | 1.0 | 3.1 | .61 | .90 | .89 | 1.0 | 32 | 96 | .73 | 1.9 |
| 10 | 1.3 | 2.3 | 1.8 | 2.8 | .58 | 1.1 | .98 | .67 | 23 | 82 | .69 | 1.2 |
| 11 | 1.1 | 1.2 | 1.5 | 2.9 | .70 | 1.9 | 1.0 | .48 | 4.9 | 71 | .58 | 1.3 |
| 12 | .86 | .91 | 1.3 | 2.6 | .74 | .83 | 1.4 | .43 | 3.0 | 61 | 1.6 | 1.2 |
| 13 | .77 | .70 | 1.2 | 2.8 | .89 | .59 | 2.7 | 1.6 | 2.3 | 50 | 3.9 | .94 |
| 14 | .94 | .55 | 1.2 | 4.0 | .97 | .63 | .91 | 1.5 | 2.1 | 42 | 5.4 | .84 |
| 15 | 1.5 | .42 | 1.3 | 4.3 | 1.2 | .52 | .62 | .78 | 2.1 | 33 | 3.0 | .82 |
| 16 | 2.4 | .42 | 1.1 | 1.6 | 1.5 | .83 | .55 | .58 | 187 | 28 | 4.1 | .85 |
| 17 | 1.1 | .42 | 1.1 | 2.0 | 1.1 | .75 | .53 | .64 | 39 | 22 | 5.0 | .85 |
| 18 | .57 | .44 | 1.1 | 1.7 | 1.0 | .70 | .41 | .41 | 31 | 20 | 4.8 | .84 |
| 19 | .66 | .44 | 1.0 | 1.6 | 1.4 | 2.5 | .36 | .42 | 30 | 23 | 2.3 | 1.6 |
| 20 | .64 | .46 | 1.0 | 1.4 | 1.3 | 1.3 | .39 | .64 | 33 | 19 | 1.7 | 2.4 |
| 21 | .57 | .51 | 1.1 | 1.1 | 1.2 | .94 | 1.6 | 1.1 | 43 | 15 | 1.5 | 1.6 |
| 22 | .56 | .63 | 1.1 | 1.0 | .89 | .83 | 7.3 | .94 | 42 | 13 | 1.0 | 1.5 |
| 23 | .58 | .64 | 1.1 | 1.7 | 1.0 | 2.3 | 1.8 | .67 | 31 | 13 | .93 | 2.3 |
| 24 | .64 | .64 | 1.4 | 1.3 | 1.4 | 1.4 | 1.2 | .53 | 24 | 10 | .67 | 2.9 |
| 25 | .57 | .76 | 1.3 | .82 | 2.3 | .82 | 1.3 | .44 | 22 | 9.0 | .64 | 3.4 |
| 26 | .53 | .75 | 1.1 | .74 | 7.4 | 1.5 | 1.1 | .34 | 145 | 8.2 | .71 | 3.2 |
| 27 | .52 | .84 | 3.2 | .79 | 3.6 | 1.2 | .92 | .43 | 203 | 7.0 | .69 | 3.1 |
| 28 | .45 | .75 | 1.7 | 2.1 | 2.4 | .78 | .99 | .41 | 148 | 7.0 | .69 | 3.0 |
| 29 | .40 | .75 | 5.0 | 1.3 | 2.3 | .70 | .89 | 2.3 | 125 | 4.1 | .92 | 3.1 |
| 30 | .49 | .74 | .89 | .75 | --- | .66 | .79 | 15 | 107 | 2.1 | .87 | 2.8 |
| 31 | .57 | --- | .63 | .69 | --- | .73 | --- | 11 | --- | 1.1 | .83 | --- |
| TOTAL | 30.87 | 24.20 | 43.34 | 76.74 | 39.81 | 51.51 | 33.90 | 48.45 | 1288.10 | 1745.5 | 51.61 | 53.34 |
| MEAN | 1.00 | .81 | 1.40 | 2.48 | 1.37 | 1.66 | 1.13 | 1.56 | 42.9 | 56.3 | 1.66 | 1.78 |
| MAX | 2.4 | 2.3 | 5.0 | 14 | 7.4 | 15 | 7.3 | 15 | 203 | 195 | 5.4 | 3.4 |
| MIN | .40 | .42 | .63 | .69 | .48 | .52 | .36 | .34 | .65 | 1.1 | .58 | .82 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 8.33 | 11.2 | 30.1 | 59.1 | 87.9 | 118 | 87.8 | 44.0 | 27.0 | 23.2 | 27.0 | 5.58 |
| MAX | 60.5 | 48.7 | 143 | 241 | 223 | 335 | 262 | 184 | 138 | 102 | 199 | 40.2 |
| (WY) | 1990 | 1990 | 1984 | 1984 | 1984 | 1989 | 1984 | 1989 | 1984 | 1989 | 1986 | 1986 |
| MIN | .70 | .81 | 1.40 | 2.48 | 1.37 | 1.66 | 1.13 | 1.56 | .67 | .34 | .75 | .88 |
| (WY) | 1982 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1981 | 1981 | 1988 | 1981 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1981 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 9827.18 | | 3487.37 | | | |
| ANNUAL MEAN | 26.9 | | 9.53 | | 43.9 | |
| HIGHEST ANNUAL MEAN | | | | | 126 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 2.47 | 1981 |
| HIGHEST DAILY MEAN | 216 | May 20 | 203 | Jun 27 | 889 | Mar 1 1987 |
| LOWEST DAILY MEAN | .40 | Oct 29 | .34 | May 26 | .11 | Jul 23 1981 |
| ANNUAL SEVEN-DAY MINIMUM | .44 | Nov 15 | .44 | Nov 15 | .12 | Oct 14 1981 |
| INSTANTANEOUS PEAK FLOW | | | 800 | Jun 26 | 2110 | Aug 20 1986 |
| INSTANTANEOUS PEAK STAGE | | | 6.71 | Jun 26 | 11.66 | Aug 20 1986 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .05 | May 10 1988 |
| ANNUAL RUNOFF (CFSM) | .35 | | .12 | | .58 | |
| ANNUAL RUNOFF (INCHES) | 4.79 | | 1.70 | | 7.81 | |
| 10 PERCENT EXCEEDS | 84 | | 19 | | 141 | |
| 50 PERCENT EXCEEDS | 5.4 | | 1.1 | | 4.9 | |
| 90 PERCENT EXCEEDS | .78 | | .57 | | .66 | |

* Regulated period only (1981-1992). See REMARKS.

CAPE FEAR RIVER BASIN

02102500 CAPE FEAR RIVER AT LILLINGTON, NC

LOCATION.--Lat 35°24'22", long 78°48'48", Harnett County, Hydrologic Unit 03030004, on right bank 60 ft downstream of downstream bridge on U.S. Highway 401, 1,860 ft downstream of Southern Railway bridge, 0.5 mi north of Lillington, 1 mile downstream of Neal Creek, and at mile 178.

DRAINAGE AREA.--3,464 mi$^2$.

PERIOD OF RECORD.--December 1923 to current year.

REVISED RECORDS.--WSP 1002: 1930(M). WSP 1032: 1942(m). WSP 1303: 1944(M). WSP 1333: 1945. WSP 1383: 1924-29, 1936. WSP 1703: 1929. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 104.62 ft above National Geodetic Vertical Datum of 1929. Dec. 6, 1923, to Oct. 7, 1927, nonrecording gage and Oct. 8, 1927, to Dec. 2, 1975, water-stage recorder at site 60 ft upstream in bridge pier at same datum. Satellite data transmitter with modem at the station.

REMARKS.--No estimated daily discharges. Records good. Some regulation at high flows, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Diurnal fluctuation and slight regulation at low flow caused by powerplants upstream from station. Fluctuation and regulation by Buckhorn Reservoir, 13 mi upstream from station ended in December 1962. Prior to regulation, maximum discharge: 150,000 ft$^3$/s, Sept. 19, 1945, from rating curve extended above 76,000 ft$^3$/s; gage height: 33.19 ft, from floodmark. Minimum discharge: 11 ft$^3$/s, Oct. 14, 15, 1954; gage height: -0.17 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 754 | 655 | 721 | 1340 | 1090 | 8530 | 2610 | 1960 | 968 | 2680 | 963 | 637 |
| 2 | 748 | 666 | 729 | 1000 | 1110 | 8070 | 2220 | 1250 | 1310 | 2500 | 920 | 628 |
| 3 | 794 | 667 | 751 | 971 | 1080 | 7540 | 1600 | 1180 | 1280 | 2490 | 894 | 629 |
| 4 | 810 | 648 | 895 | 3950 | 1090 | 4200 | 1360 | 1140 | 899 | 2950 | 743 | 638 |
| 5 | 811 | 669 | 1050 | 8670 | 815 | 2370 | 1270 | 1090 | 653 | 1730 | 745 | 627 |
| 6 | 842 | 653 | 959 | 6630 | 924 | 1600 | 1080 | 1000 | 747 | 1790 | 677 | 646 |
| 7 | 801 | 664 | 1060 | 8260 | 916 | 5200 | 1300 | 951 | 904 | 1560 | 684 | 642 |
| 8 | 726 | 664 | 911 | 8540 | 905 | 6910 | 1280 | 1190 | 962 | 1180 | 665 | 637 |
| 9 | 718 | 706 | 712 | 9610 | 887 | 6910 | 1230 | 2340 | 1280 | 1170 | 658 | 616 |
| 10 | 725 | 863 | 826 | 8460 | 890 | 6540 | 995 | 2450 | 3170 | 1220 | 656 | 716 |
| 11 | 759 | 1250 | 739 | 3120 | 793 | 6860 | 955 | 1660 | 5660 | 865 | 626 | 874 |
| 12 | 720 | 2130 | 738 | 2600 | 804 | 8090 | 944 | 1380 | 6340 | 793 | 647 | 627 |
| 13 | 724 | 1280 | 504 | 1740 | 696 | 7240 | 1050 | 1440 | 6050 | 777 | 904 | 629 |
| 14 | 699 | 905 | 582 | 1670 | 752 | 3600 | 818 | 1310 | 5360 | 748 | 1310 | 583 |
| 15 | 723 | 821 | 752 | 1640 | 826 | 1570 | 967 | 1510 | 3990 | 710 | 2060 | 631 |
| 16 | 756 | 790 | 624 | 1710 | 958 | 1630 | 1090 | 1360 | 8790 | 642 | 1910 | 639 |
| 17 | 780 | 792 | 605 | 1570 | 971 | 1540 | 1010 | 1170 | 13700 | 708 | 2180 | 637 |
| 18 | 824 | 971 | 739 | 1230 | 1690 | 1520 | 739 | 1180 | 8720 | 630 | 2560 | 578 |
| 19 | 746 | 725 | 632 | 1110 | 1470 | 1630 | 789 | 1120 | 6260 | 661 | 2200 | 630 |
| 20 | 710 | 918 | 533 | 802 | 2790 | 2380 | 840 | 826 | 3160 | 639 | 1880 | 741 |
| 21 | 641 | 792 | 766 | 1010 | 4140 | 3470 | 804 | 841 | 2640 | 638 | 1940 | 628 |
| 22 | 718 | 734 | 727 | 734 | 1790 | 2450 | 9180 | 916 | 2180 | 612 | 1260 | 646 |
| 23 | 680 | 887 | 649 | 975 | 1550 | 2210 | 15400 | 952 | 2310 | 1170 | 1050 | 649 |
| 24 | 691 | 997 | 682 | 944 | 1420 | 2750 | 17100 | 941 | 1920 | 1200 | 997 | 581 |
| 25 | 692 | 696 | 601 | 1730 | 1770 | 2760 | 14100 | 817 | 1440 | 3120 | 635 | 621 |
| 26 | 669 | 677 | 625 | 1870 | 6760 | 2320 | 16600 | 733 | 1490 | 2610 | 643 | 672 |
| 27 | 699 | 928 | 863 | 1530 | 13900 | 3050 | 15700 | 757 | 6860 | 1650 | 658 | 665 |
| 28 | 662 | 744 | 1110 | 2610 | 11100 | 4540 | 10800 | 674 | 5240 | 1600 | 661 | 633 |
| 29 | 660 | 756 | 1490 | 3140 | 9620 | 3480 | 5690 | 698 | 3440 | 1840 | 654 | 617 |
| 30 | 647 | 735 | 2440 | 1370 | --- | 2880 | 2250 | 1020 | 2850 | 1800 | 658 | 593 |
| 31 | 645 | --- | 2330 | 1290 | --- | 2720 | --- | 1280 | --- | 1580 | 585 | --- |
| TOTAL | 22574 | 25383 | 27345 | 91826 | 73507 | 126560 | 131771 | 37136 | 110573 | 44263 | 33623 | 19290 |
| MEAN | 728 | 846 | 882 | 2962 | 2535 | 4083 | 4392 | 1198 | 3686 | 1428 | 1085 | 643 |
| MAX | 842 | 2130 | 2440 | 9610 | 13900 | 8530 | 17100 | 2450 | 13700 | 3120 | 2560 | 874 |
| MIN | 641 | 648 | 504 | 734 | 696 | 1520 | 739 | 674 | 653 | 612 | 585 | 578 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1792 | 1821 | 3099 | 5156 | 6280 | 7463 | 5199 | 2933 | 2694 | 1714 | 1981 | 833 |
| MAX | 6442 | 7919 | 8595 | 10470 | 11560 | 15160 | 11010 | 7784 | 12510 | 5348 | 5448 | 1318 |
| (WY) | 1990 | 1986 | 1984 | 1991 | 1984 | 1989 | 1984 | 1989 | 1982 | 1984 | 1985 | 1989 |
| MIN | 640 | 655 | 882 | 1373 | 1860 | 1628 | 969 | 824 | 702 | 654 | 634 | 596 |
| (WY) | 1987 | 1982 | 1992 | 1986 | 1986 | 1988 | 1985 | 1986 | 1986 | 1986 | 1983 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1982 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1035480 | | 743851 | | | |
| ANNUAL MEAN | 2837 | | 2032 | | 3401 | |
| HIGHEST ANNUAL MEAN | | | | | 6167 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 1488 | 1988 |
| HIGHEST DAILY MEAN | 24600 | Jan 12 | 17100 | Apr 24 | 33500 | Mar 1 1987 |
| LOWEST DAILY MEAN | 504 | Dec 13 | 504 | Dec 13 | 210 | Oct 23 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 608 | Jun 11 | 618 | Sep 12 | 223 | Oct 2 1981 |
| INSTANTANEOUS PEAK FLOW | | | 18000 | Apr 24 | 36500 | Mar 1 1987 |
| INSTANTANEOUS PEAK STAGE | | | 10.56 | Apr 24 | 15.59 | Mar 1 1987 |
| INSTANTANEOUS LOW FLOW | | | 412 | Dec 13 | 190 | Oct 23 1981 |
| ANNUAL RUNOFF (CFSM) | .82 | | .59 | | .98 | |
| ANNUAL RUNOFF (INCHES) | 11.12 | | 7.99 | | 13.34 | |
| 10 PERCENT EXCEEDS | 7160 | | 5280 | | 10300 | |
| 50 PERCENT EXCEEDS | 1220 | | 969 | | 1230 | |
| 90 PERCENT EXCEEDS | 650 | | 640 | | 634 | |

* Regulated period only (1982-1992). See REMARKS.

CAPE FEAR RIVER BASIN

02102908 FLAT CREEK NEAR INVERNESS, NC

LOCATION.--Lat 35°10'54", long 79°10'40", Hoke County, Hydrologic Unit 03030004, on left bank 15 ft downstream of culvert on Manchester Road, Fort Bragg military reservation, 0.4 mi upstream from mouth, and 3.6 mi east of Inverness.

DRAINAGE AREA.--7.63 mi².

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

REVISED RECORDS.--WDR NC-72-1: 1968-70 (M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 191.18 ft above National Geodetic Vertical Datum of 1929. Recording rain gage at station.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation at low flow during growing season. Minimum discharge some years effected by regulation from unknown source. Minimum discharge for period of record also occurred June 8, 25, 1988. Minimum flow for current year also occurred May 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.6 | 8.0 | 8.4 | 10 | 9.4 | 9.2 | 9.1 | 7.4 | 7.9 | 13 | 7.4 | 8.4 |
| 2 | 7.9 | 8.1 | 8.5 | 9.8 | 9.1 | 9.1 | 8.8 | 7.0 | 6.4 | 12 | 8.2 | 8.4 |
| 3 | 12 | 7.9 | 9.9 | 15 | 9.1 | 8.9 | 8.7 | 6.4 | 5.8 | 12 | 9.9 | 10 |
| 4 | 9.6 | 8.4 | 16 | 22 | 9.1 | 8.7 | 8.7 | 6.3 | 10 | 12 | 9.5 | 14 |
| 5 | 8.6 | 8.2 | 9.8 | 15 | 8.9 | 9.0 | 9.0 | 6.3 | 9.9 | 11 | 11 | 11 |
| 6 | 8.9 | 8.3 | 9.1 | 12 | 8.8 | 11 | 8.6 | 6.8 | 7.4 | 11 | 9.2 | 11 |
| 7 | 8.0 | 8.4 | 8.8 | 11 | 8.8 | 25 | 8.6 | 8.4 | 5.8 | 11 | 9.0 | 14 |
| 8 | 7.9 | 8.2 | 8.5 | 10 | 8.8 | 12 | 8.6 | 27 | 5.3 | 9.9 | 8.6 | 11 |
| 9 | 7.8 | 9.2 | 8.5 | 10 | 8.6 | 10 | 8.2 | 12 | 20 | 9.5 | 8.1 | 9.9 |
| 10 | 7.9 | 32 | 9.2 | 10 | 8.7 | 10 | 8.1 | 8.3 | 33 | 8.8 | 7.7 | 9.6 |
| 11 | 7.8 | 16 | 8.6 | 9.8 | 8.8 | 12 | 7.9 | 7.1 | 13 | 8.5 | 7.4 | 10 |
| 12 | 7.5 | 11 | 8.5 | 9.4 | 8.8 | 10 | 8.2 | 6.5 | 11 | 8.1 | 9.7 | 9.4 |
| 13 | 7.3 | 9.8 | 8.4 | 9.5 | 9.0 | 9.4 | 15 | 7.7 | 11 | 7.8 | 21 | 8.9 |
| 14 | 7.4 | 9.4 | 8.6 | 13 | 9.2 | 9.3 | 9.1 | 8.8 | 8.8 | 7.5 | 48 | 8.8 |
| 15 | 7.9 | 9.1 | 8.6 | 10 | 12 | 9.3 | 8.3 | 6.6 | 8.5 | 7.4 | 30 | 8.6 |
| 16 | 14 | 8.8 | 8.2 | 9.7 | 16 | 9.1 | 8.1 | 6.0 | 31 | 7.4 | 28 | 8.8 |
| 17 | 28 | 8.5 | 8.2 | 9.4 | 10 | 9.1 | 7.9 | 6.9 | 21 | 7.4 | 22 | 8.9 |
| 18 | 11 | 8.4 | 8.2 | 9.4 | 10 | 8.9 | 7.6 | 6.1 | 9.9 | 7.5 | 32 | 8.6 |
| 19 | 9.3 | 8.5 | 8.0 | 9.2 | 13 | 13 | 7.4 | 7.1 | 8.7 | 7.5 | 16 | 8.8 |
| 20 | 8.7 | 8.4 | 8.1 | 9.1 | 10 | 11 | 7.5 | 6.8 | 8.3 | 8.5 | 14 | 9.4 |
| 21 | 8.8 | 8.7 | 8.5 | 9.1 | 9.2 | 10 | 11 | 6.2 | 7.5 | 7.7 | 14 | 9.5 |
| 22 | 8.7 | 9.5 | 8.4 | 9.1 | 9.0 | 9.4 | 23 | 5.5 | 7.4 | 7.6 | 12 | 9.3 |
| 23 | 8.5 | 9.2 | 8.4 | 15 | 9.8 | 17 | 10 | 5.3 | 6.7 | 7.9 | 11 | 8.9 |
| 24 | 8.4 | 8.5 | 17 | 16 | 10 | 12 | 8.0 | 5.1 | 6.5 | 8.4 | 10 | 9.2 |
| 25 | 8.3 | 8.2 | 11 | 11 | 12 | 10 | 14 | 5.2 | 6.2 | 7.9 | 10 | 9.3 |
| 26 | 9.7 | 8.2 | 9.2 | 9.9 | 24 | 14 | 9.1 | 5.8 | 7.0 | 7.4 | 9.7 | 9.7 |
| 27 | 8.8 | 8.3 | 13 | 9.5 | 14 | 12 | 8.2 | 6.0 | 156 | 9.5 | 9.6 | 9.5 |
| 28 | 8.4 | 8.5 | 13 | 15 | 11 | 9.9 | 7.9 | 5.4 | 27 | 8.0 | 9.5 | 9.0 |
| 29 | 8.2 | 8.3 | 29 | 12 | 9.9 | 9.4 | 7.7 | 6.0 | 17 | 7.8 | 9.5 | 8.6 |
| 30 | 8.2 | 8.4 | 14 | 10 | --- | 9.2 | 7.4 | 14 | 14 | 7.5 | 8.8 | 8.3 |
| 31 | 8.1 | --- | 11 | 10 | --- | 9.3 | --- | 17 | --- | 7.9 | 8.6 | --- |
| TOTAL | 289.2 | 290.4 | 322.6 | 349.9 | 305.0 | 336.2 | 279.7 | 247.0 | 498.0 | 275.4 | 429.4 | 288.8 |
| MEAN | 9.33 | 9.68 | 10.4 | 11.3 | 10.5 | 10.8 | 9.32 | 7.97 | 16.6 | 8.88 | 13.9 | 9.63 |
| MAX | 28 | 32 | 29 | 22 | 24 | 25 | 23 | 27 | 156 | 13 | 48 | 14 |
| MIN | 7.3 | 7.9 | 8.0 | 9.1 | 8.6 | 8.7 | 7.4 | 5.1 | 5.3 | 7.4 | 7.4 | 8.3 |
| CFSM | 1.22 | 1.27 | 1.36 | 1.48 | 1.38 | 1.42 | 1.22 | 1.04 | 2.18 | 1.16 | 1.82 | 1.26 |
| IN. | 1.41 | 1.42 | 1.57 | 1.71 | 1.49 | 1.64 | 1.36 | 1.20 | 2.43 | 1.34 | 2.09 | 1.41 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 10.3 | 11.1 | 12.2 | 13.9 | 15.2 | 17.6 | 17.6 | 11.6 | 11.1 | 11.0 | 10.1 | 9.68 |
| MAX | 19.9 | 20.5 | 19.5 | 20.2 | 32.0 | 73.6 | 106 | 18.9 | 22.3 | 24.5 | 16.4 | 20.0 |
| (WY) | 1972 | 1980 | 1973 | 1975 | 1973 | 1974 | 1974 | 1973 | 1973 | 1989 | 1974 | 1979 |
| MIN | 5.73 | 6.10 | 7.64 | 8.69 | 9.76 | 8.77 | 6.50 | 6.59 | 4.85 | 4.70 | 5.28 | 4.35 |
| (WY) | 1987 | 1982 | 1971 | 1969 | 1989 | 1981 | 1981 | 1988 | 1981 | 1986 | 1968 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1968 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 3962.9 | | 3911.6 | | | |
| ANNUAL MEAN | 10.9 | | 10.7 | | 12.6 | |
| HIGHEST ANNUAL MEAN | | | | | 26.3 | 1974 |
| LOWEST ANNUAL MEAN | | | | | 8.12 | 1981 |
| HIGHEST DAILY MEAN | 64 | Aug 8 | 156 | Jun 27 | 314 | Apr 9 1974 |
| LOWEST DAILY MEAN | 4.5 | Jun 10 | 5.1 | May 24 | 2.2 | Jun 24 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 4.6 | Jun 7 | 5.5 | May 22 | 3.2 | Jul 6 1988 |
| INSTANTANEOUS PEAK FLOW | | | 376 | Jun 27 | 394 | Apr 1 1973 |
| INSTANTANEOUS PEAK STAGE | | | 7.04 | Jun 27 | 7.30 | Apr 1 1973 |
| INSTANTANEOUS LOW FLOW | | | 4.4* | May 24 | 1.9* | Jun 7 1988 |
| ANNUAL RUNOFF (CFSM) | 1.42 | | 1.40 | | 1.66 | |
| ANNUAL RUNOFF (INCHES) | 19.32 | | 19.07 | | 22.50 | |
| 10 PERCENT EXCEEDS | 16 | | 14 | | 20 | |
| 50 PERCENT EXCEEDS | 9.1 | | 9.0 | | 9.8 | |
| 90 PERCENT EXCEEDS | 6.1 | | 7.4 | | 5.6 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02104220 ROCKFISH CREEK AT RAEFORD, NC

LOCATION.--Lat 34°59'55", long 79°12'55", Hoke County, Hydrologic Unit 03030004, at upstream side of bridge on U.S. Highway 401, 1.0 mi downstream of Nicholsons Creek, and 1.0 mile north of Raeford.

DRAINAGE AREA.--93.1 mi².

PERIOD OF RECORD.--July 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 67 | 72 | 76 | 98 | 85 | 91 | 83 | 74 | 101 | 88 | 40 | 51 |
| 2 | 67 | 72 | 77 | 88 | 80 | 86 | 81 | 71 | 75 | 78 | 39 | 50 |
| 3 | 87 | 71 | 81 | 96 | 79 | 83 | 78 | 68 | 66 | 75 | 61 | 50 |
| 4 | 97 | 74 | 123 | 141 | 78 | 81 | 77 | 65 | 77 | 111 | 56 | 58 |
| 5 | 82 | 73 | 113 | 153 | 78 | 80 | 83 | 63 | 118 | 82 | 55 | 69 |
| 6 | 83 | 73 | 90 | 132 | 77 | 85 | 80 | 64 | 101 | 74 | 55 | 63 |
| 7 | 75 | 74 | 83 | 101 | 76 | 139 | 81 | 83 | 74 | 69 | 51 | 76 |
| 8 | 70 | 74 | 79 | 90 | 76 | 145 | 80 | 145 | 63 | 62 | 49 | 96 |
| 9 | 69 | 77 | 77 | 87 | 75 | 117 | 77 | 156 | 95 | 58 | 47 | 73 |
| 10 | 69 | 160 | 81 | 88 | 74 | 97 | 75 | 120 | 159 | 55 | 44 | 64 |
| 11 | 68 | 191 | 80 | 84 | 76 | 110 | 73 | 86 | 194 | 52 | 42 | 59 |
| 12 | 66 | 183 | 76 | 80 | 76 | 94 | 74 | 75 | 261 | 49 | 43 | 55 |
| 13 | 64 | 143 | 75 | 80 | 77 | 87 | 112 | 70 | 170 | 47 | 141 | 52 |
| 14 | 63 | 102 | 75 | 99 | 80 | 83 | 90 | 76 | 101 | 44 | 234 | 49 |
| 15 | 65 | 92 | 77 | 103 | 86 | 82 | 79 | 70 | 89 | 42 | 385 | 47 |
| 16 | 81 | 87 | 73 | 87 | 135 | 81 | 75 | 64 | 135 | 40 | 354 | 46 |
| 17 | 141 | 84 | 71 | 81 | 116 | 78 | 73 | 62 | 184 | 41 | 275 | 47 |
| 18 | 142 | 81 | 71 | 79 | 96 | 77 | 70 | 61 | 181 | 42 | 228 | 49 |
| 19 | 98 | 80 | 69 | 78 | 99 | 90 | 68 | 68 | 116 | 49 | 190 | 48 |
| 20 | 83 | 80 | 68 | 76 | 94 | 101 | 68 | 70 | 86 | 51 | 143 | 50 |
| 21 | 78 | 81 | 70 | 76 | 84 | 92 | 83 | 65 | 72 | 46 | 125 | 91 |
| 22 | 76 | 87 | 70 | 76 | 80 | 85 | 167 | 60 | 66 | 44 | 94 | 87 |
| 23 | 75 | 92 | 70 | 89 | 82 | 112 | 167 | 56 | 62 | 44 | 79 | 67 |
| 24 | 74 | 85 | 98 | 124 | 91 | 127 | 111 | 54 | 59 | 48 | 69 | 62 |
| 25 | 73 | 79 | 116 | 104 | 96 | 102 | 117 | 53 | 58 | 45 | 65 | 57 |
| 26 | 73 | 77 | 91 | 88 | 170 | 109 | 109 | 56 | 59 | 43 | 61 | 58 |
| 27 | 74 | 76 | 103 | 83 | 181 | 127 | 86 | 59 | 189 | 43 | 59 | 59 |
| 28 | 73 | 76 | 109 | 106 | 145 | 104 | 81 | 57 | 521 | 42 | 61 | 58 |
| 29 | 72 | 76 | 146 | 114 | 104 | 90 | 78 | 57 | 318 | 41 | 61 | 55 |
| 30 | 72 | 76 | 163 | 96 | --- | 86 | 74 | 85 | 162 | 40 | 55 | 52 |
| 31 | 72 | --- | 135 | 89 | --- | 86 | --- | 143 | --- | 41 | 53 | --- |
| TOTAL | 2449 | 2748 | 2786 | 2966 | 2746 | 3007 | 2650 | 2356 | 4012 | 1686 | 3314 | 1798 |
| MEAN | 79.0 | 91.6 | 89.9 | 95.7 | 94.7 | 97.0 | 88.3 | 76.0 | 134 | 54.4 | 107 | 59.9 |
| MAX | 142 | 191 | 163 | 153 | 181 | 145 | 167 | 156 | 521 | 111 | 385 | 96 |
| MIN | 63 | 71 | 68 | 76 | 74 | 77 | 68 | 53 | 58 | 40 | 39 | 46 |
| CFSM | .85 | .99 | .97 | 1.03 | 1.02 | 1.05 | .95 | .82 | 1.44 | .59 | 1.15 | .65 |
| IN. | .98 | 1.10 | 1.12 | 1.19 | 1.10 | 1.21 | 1.06 | .95 | 1.61 | .68 | 1.33 | .72 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 127 | 117 | 116 | 124 | 117 | 141 | 140 | 123 | 116 | 110 | 124 | 93.0 |
| MAX | 201 | 169 | 186 | 164 | 167 | 173 | 180 | 182 | 175 | 224 | 176 | 162 |
| (WY) | 1990 | 1990 | 1990 | 1990 | 1990 | 1989 | 1989 | 1989 | 1989 | 1989 | 1989 | 1989 |
| MIN | 77.6 | 87.7 | 84.0 | 95.7 | 94.7 | 97.0 | 88.3 | 76.0 | 73.1 | 54.4 | 65.2 | 59.9 |
| (WY) | 1989 | 1991 | 1989 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1988 | 1992 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 39300 | | 32518 | | | |
| ANNUAL MEAN | 108 | | 88.8 | | 122 | |
| HIGHEST ANNUAL MEAN | | | | | 147 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 88.8 | 1992 |
| HIGHEST DAILY MEAN | 356 | Aug 8 | 521 | Jun 28 | 699 | Jul 18 1989 |
| LOWEST DAILY MEAN | 48 | Jul 15 | 39 | Aug 2 | 39 | Aug 2 1992 |
| ANNUAL SEVEN-DAY MINIMUM | 52 | Jun 8 | 41 | Jul 27 | 41 | Jul 27 1992 |
| INSTANTANEOUS PEAK FLOW | | | 614 | Jun 28 | 740 | Jul 18 1989 |
| INSTANTANEOUS PEAK STAGE | | | 7.43 | Jun 28 | 7.67 | Jul 18 1989 |
| INSTANTANEOUS LOW FLOW | | | 38 | Aug 2 | 38 | Aug 2 1992 |
| ANNUAL RUNOFF (CFSM) | 1.16 | | .96 | | 1.32 | |
| ANNUAL RUNOFF (INCHES) | 15.77 | | 13.05 | | 17.92 | |
| 10 PERCENT EXCEEDS | 171 | | 141 | | 203 | |
| 50 PERCENT EXCEEDS | 93 | | 78 | | 99 | |
| 90 PERCENT EXCEEDS | 64 | | 51 | | 59 | |

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC

LOCATION.--Lat 34°50'05", long 78°49'27", Bladen County, Hydrologic Unit 03030005, on right bank 100 ft upstream from William O. Huske Lock, 1 mi downstream of Cumberland-Bladen County line, 7 mi north of Tar Heel, 9 mi upstream from Phillips Creek, and at mile 123.

DRAINAGE AREA.--4,852 $mi^2$.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1964, published as Cape Fear River at Lock 3 near Tarheel, NC.

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

GAGE.--Water-stage recorder and concrete lock and dam control. Datum of gage is 28.97 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 8, 1939, nonrecording gage on upper lock wall 100 ft downstream at same datum. Auxiliary water-stage recorder 1.8 mi downstream of base gage; prior to Jan. 14, 1943, auxiliary nonrecording gage 400 ft downstream on lower end of lock wall; Jan. 14, 1943, to Sept. 30, 1953, auxiliary water-stage recorder at site 600 ft downstream. U.S. Army Corps of Engineers satellite rain gage and gage-height telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Slight regulation at high flows, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants above station. Prior to regulation, maximum discharge not determined; minimum discharge, 170 $ft^3/s$, Sep. 20, 1950. Minimum discharge during regulation also occurred Oct. 8, 9, 10, 1981. Minimum discharge for the current water year also occurred September 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1480 | 1150 | 1240 | 3680 | 2630 | 10500 | 3690 | 2980 | 2860 | 6400 | 1850 | 1000 |
| 2 | 1270 | 1130 | 1210 | 2700 | 2180 | 9560 | 3460 | 2520 | 2520 | 4840 | 1260 | 1030 |
| 3 | 1280 | 1140 | 1250 | 2320 | 1990 | 8850 | 2840 | 1960 | 2230 | 3860 | 1200 | 997 |
| 4 | 1330 | 1140 | 1710 | 3080 | 1960 | 7200 | 2300 | 1790 | 2010 | 3610 | 1200 | 957 |
| 5 | 1390 | 1120 | 2050 | 8360 | 1900 | 4680 | 2070 | 1720 | 1750 | 3710 | 1120 | 1010 |
| 6 | 1420 | 1130 | 2060 | 9940 | 1700 | 3310 | 1820 | 1560 | 1570 | 2810 | 1240 | 1040 |
| 7 | 1400 | 1160 | 1930 | 9030 | 1660 | 3910 | 1720 | 1500 | 1580 | 2640 | 1150 | 1200 |
| 8 | 1340 | 1110 | 1840 | 9970 | 1540 | 7850 | 1820 | 1620 | 1610 | 2290 | 1070 | 1230 |
| 9 | 1230 | 1120 | 1600 | 10400 | 1510 | 8810 | 1780 | 2150 | 2040 | 1830 | 978 | 1160 |
| 10 | 1230 | 1690 | 1420 | 10700 | 1480 | 8280 | 1700 | 3430 | 3730 | 1720 | 969 | 1140 |
| 11 | 1210 | 2060 | 1500 | 7520 | 1540 | 8260 | 1770 | 3150 | 6570 | 1630 | 985 | 1240 |
| 12 | 1220 | 2660 | 1440 | 4200 | 1510 | 8910 | 1760 | 2400 | 7690 | 1290 | 980 | 1240 |
| 13 | 1170 | 2980 | 1380 | 3330 | 1480 | 9300 | 1690 | 1880 | 7700 | 1160 | 1050 | 1030 |
| 14 | 1140 | 2330 | 1200 | 2820 | 1410 | 7230 | 1660 | 2060 | 7070 | 1100 | 2350 | 987 |
| 15 | 1150 | 1930 | 1200 | 2780 | 1550 | 3900 | 1520 | 2020 | 5710 | 1120 | 4300 | 967 |
| 16 | 1270 | 1750 | 1250 | 2840 | 1810 | 2600 | 1410 | 2160 | 6630 | 1060 | 5130 | 1000 |
| 17 | 1320 | 1580 | 1220 | 2760 | 1910 | 2460 | 1500 | 1880 | 13600 | 972 | 4600 | 987 |
| 18 | 1420 | 1540 | 1200 | 2470 | 2190 | 2360 | 1580 | 1690 | 17800 | 987 | 5740 | 998 |
| 19 | 1490 | 1550 | 1300 | 2170 | 2550 | 2420 | 1400 | 1740 | 10400 | 975 | 5430 | 1140 |
| 20 | 1440 | 1350 | 1260 | 1940 | 2640 | 2800 | 1250 | 1630 | 5660 | 996 | 4120 | 1490 |
| 21 | 1350 | 1520 | 1150 | 1750 | 4060 | 4140 | 1130 | 1400 | 5720 | 970 | 3260 | 1530 |
| 22 | 1230 | 1490 | 1300 | 1830 | 4040 | 4440 | 3660 | 1340 | 4420 | 972 | 2890 | 1370 |
| 23 | 1240 | 1420 | 1270 | 1730 | 2600 | 3800 | 15200 | 1350 | 3830 | 979 | 2130 | 1290 |
| 24 | 1220 | 1550 | 1410 | 2360 | 2330 | 3840 | 21700 | 1330 | 3490 | 1450 | 1800 | 1240 |
| 25 | 1210 | 1530 | 1460 | 2490 | 2200 | 4370 | 17900 | 1290 | 2920 | 1770 | 1610 | 1140 |
| 26 | 1200 | 1240 | 1400 | 3160 | 3830 | 4150 | 16400 | 1140 | 2390 | 3240 | 1280 | 1160 |
| 27 | 1190 | 1320 | 1590 | 2900 | 12200 | 3960 | 16900 | 1090 | 14700 | 2760 | 1190 | 1160 |
| 28 | 1180 | 1510 | 2040 | 3130 | 17600 | 5080 | 15100 | 1100 | 20100 | 2000 | 1140 | 1130 |
| 29 | 1140 | 1390 | 2950 | 4340 | 13600 | 5390 | 7980 | 1050 | 11000 | 1920 | 1150 | 1130 |
| 30 | 1140 | 1330 | 3760 | 3830 | --- | 4440 | 5350 | 1420 | 6070 | 2050 | 1070 | 1070 |
| 31 | 1170 | --- | 4380 | 2770 | --- | 3950 | --- | 2370 | --- | 2030 | 1020 | --- |
| TOTAL | 39470 | 45920 | 51970 | 133300 | 99600 | 170750 | 160060 | 56720 | 185370 | 65141 | 65262 | 34063 |
| MEAN | 1273 | 1531 | 1676 | 4300 | 3434 | 5508 | 5335 | 1830 | 6179 | 2101 | 2105 | 1135 |
| MAX | 1490 | 2980 | 4380 | 10700 | 17600 | 10500 | 21700 | 3430 | 20100 | 6400 | 5740 | 1530 |
| MIN | 1140 | 1110 | 1150 | 1730 | 1410 | 2360 | 1130 | 1050 | 1570 | 970 | 969 | 957 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 2474 | 2667 | 4428 | 7106 | 8193 | 10010 | 6981 | 4117 | 3780 | 2853 | 3109 | 1562 |
| MAX | 8666 | 9035 | 11360 | 12600 | 14160 | 19760 | 14830 | 11770 | 14200 | 8725 | 7358 | 2927 |
| (WY) | 1990 | 1986 | 1984 | 1984 | 1984 | 1989 | 1984 | 1989 | 1982 | 1984 | 1984 | 1989 |
| MIN | 979 | 1297 | 1647 | 2197 | 2799 | 3078 | 1508 | 1184 | 1051 | 958 | 969 | 935 |
| (WY) | 1987 | 1982 | 1989 | 1986 | 1986 | 1988 | 1986 | 1986 | 1986 | 1986 | 1983 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1982 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1447977 | | 1107626 | | | |
| ANNUAL MEAN | 3967 | | 3026 | | 4759 | |
| HIGHEST ANNUAL MEAN | | | | | 8328 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 2426 | 1988 |
| HIGHEST DAILY MEAN | 22100 | Mar 5 | 21700 | Apr 24 | 39100 | Mar 2 1987 |
| LOWEST DAILY MEAN | 883 | Jun 12 | 957 | Sep 4 | 414 | Oct 8 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 923 | Jun 10 | 979 | Jul 17 | 429 | Oct 4 1981 |
| INSTANTANEOUS PEAK FLOW | | | 22200 | Jun 28 | 31800 | Oct 3 1989 |
| INSTANTANEOUS PEAK STAGE | | | 10.68 | Apr 25 | 18.67 | Jun 13 1982 |
| INSTANTANEOUS LOW FLOW | | | 926* | Sep 14 | 408* | Oct 8 1981 |
| ANNUAL RUNOFF (CFSM) | .82 | | .62 | | .98 | |
| ANNUAL RUNOFF (INCHES) | 11.10 | | 8.49 | | 13.33 | |
| 10 PERCENT EXCEEDS | 8990 | | 7110 | | 13100 | |
| 50 PERCENT EXCEEDS | 2330 | | 1730 | | 2280 | |
| 90 PERCENT EXCEEDS | 1140 | | 1120 | | 1020 | |

* Regulated period only (1982-1992). See REMARKS.

CAPE FEAR RIVER BASIN

021057693273 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC
(National stream-quality accounting network station)

LOCATION.--Lat 34°24'15", long 78°17'38", Bladen County, Hydrologic Unit 03030005, on right bank near upstream end of lock No. 1, 1.3 mi upstream from Natmore Creek, 2.0 mi upstream from bridge on State Highway 11, 4.6 mi southeast on Kelly, and at mile 67.

DRAINAGE AREA.--5,255 $mi^2$.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1969 to current year.

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

GAGE.--Water-stage recorder with concrete lock and dam control. Datum of gage is 2.90 ft below National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--No estimated daily discharges. Records good. Slight regulation at high flow December 1972 to August 1981, caused by storage in B. Everett Jordan Lake. Flow regulated since September 1981 by B. Everett Jordan Lake (station 02098197). Slight diurnal fluctuation and some regulation for short periods at low flow caused by powerplants upstream from station. The city of Wilmington diverted an average of 14.6 $ft^3/s$ for municipal water supply, most of which was returned downstream of station as treated effluent. Prior to regulation, maximum discharge: 57,000 $ft^3/s$, March 3, 1979; gage height: 24.92 ft, from floodmarks. Minimum discharge prior to regulation, 406 $ft^3/s$, July 1, 1981.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2140 | 1270 | 1480 | 5080 | 3610 | 14000 | 4670 | 7160 | 3010 | 10400 | 2080 | 1230 |
| 2 | 1820 | 1240 | 1390 | 4070 | 3230 | 12700 | 4280 | 4060 | 3050 | 7600 | 1670 | 1180 |
| 3 | 1690 | 1230 | 1390 | 3270 | 2760 | 11500 | 3820 | 2830 | 2850 | 5580 | 1310 | 1170 |
| 4 | 1680 | 1260 | 1630 | 3220 | 2510 | 10600 | 3180 | 2250 | 2550 | 4480 | 1270 | 1120 |
| 5 | 1750 | 1210 | 2060 | 5540 | 2470 | 8190 | 2720 | 2010 | 2370 | 4350 | 1210 | 1110 |
| 6 | 1890 | 1210 | 2320 | 10100 | 2310 | 5590 | 2380 | 1830 | 2070 | 3830 | 1330 | 1290 |
| 7 | 1830 | 1230 | 2280 | 10700 | 2130 | 4460 | 2040 | 1750 | 1880 | 3170 | 1270 | 1740 |
| 8 | 1750 | 1250 | 2200 | 10900 | 2040 | 6600 | 2110 | 1690 | 1870 | 2880 | 1160 | 1780 |
| 9 | 1620 | 1220 | 2040 | 11400 | 1880 | 9300 | 2170 | 1970 | 1940 | 2410 | 1050 | 1660 |
| 10 | 1510 | 1700 | 1790 | 11800 | 1840 | 10200 | 2090 | 2830 | 3010 | 2010 | 1010 | 1480 |
| 11 | 1460 | 2290 | 1650 | 11800 | 1820 | 10000 | 2100 | 3730 | 5310 | 1900 | 997 | 1440 |
| 12 | 1480 | 2670 | 1680 | 8370 | 1830 | 10000 | 2100 | 3320 | 7880 | 1670 | 1020 | 1480 |
| 13 | 1430 | 3400 | 1610 | 5430 | 1820 | 10600 | 2030 | 2690 | 8800 | 1390 | 1250 | 1360 |
| 14 | 1340 | 3280 | 1520 | 4140 | 1770 | 10500 | 2080 | 2340 | 8750 | 1230 | 2320 | 1180 |
| 15 | 1310 | 2660 | 1350 | 3490 | 1740 | 7960 | 2010 | 2280 | 8030 | 1130 | 4800 | 1080 |
| 16 | 1450 | 2250 | 1380 | 3350 | 1950 | 4530 | 1860 | 2350 | 6570 | 1140 | 7270 | 1070 |
| 17 | 1530 | 2050 | 1360 | 3430 | 2190 | 3260 | 1830 | 2340 | 9310 | 1060 | 9140 | 1090 |
| 18 | 1590 | 1830 | 1360 | 3250 | 2320 | 2990 | 1860 | 2050 | 13000 | 1020 | 9680 | 1090 |
| 19 | 1690 | 1830 | 1350 | 2950 | 2680 | 2900 | 1740 | 1970 | 14000 | 1040 | 9760 | 1150 |
| 20 | 1710 | 1720 | 1400 | 2600 | 2910 | 3100 | 1570 | 1950 | 13000 | 1120 | 8310 | 1420 |
| 21 | 1620 | 1640 | 1360 | 2290 | 3500 | 3760 | 1530 | 1810 | 10000 | 1030 | 6770 | 1680 |
| 22 | 1510 | 1780 | 1330 | 2190 | 5040 | 5160 | 2370 | 1590 | 6950 | 1030 | 5510 | 1620 |
| 23 | 1390 | 1730 | 1430 | 2200 | 4290 | 4970 | 7850 | 1520 | 5130 | 1050 | 4650 | 1470 |
| 24 | 1390 | 1720 | 1500 | 2720 | 3450 | 4490 | 13600 | 1530 | 4400 | 1120 | 3490 | 1360 |
| 25 | 1360 | 1820 | 1620 | 3050 | 3050 | 4700 | 15900 | 1470 | 3790 | 1580 | 2880 | 1260 |
| 26 | 1350 | 1660 | 1640 | 3380 | 3350 | 5240 | 16900 | 1400 | 3100 | 2460 | 2320 | 1180 |
| 27 | 1330 | 1460 | 1700 | 3800 | 7040 | 4990 | 17200 | 1280 | 5620 | 3240 | 1900 | 1200 |
| 28 | 1320 | 1590 | 2090 | 3740 | 12600 | 5150 | 17400 | 1220 | 13100 | 2610 | 1670 | 1180 |
| 29 | 1280 | 1690 | 2870 | 4690 | 14300 | 6350 | 16700 | 1200 | 14600 | 2090 | 1550 | 1170 |
| 30 | 1250 | 1550 | 3910 | 5640 | --- | 6030 | 13300 | 1410 | 13200 | 2110 | 1450 | 1120 |
| 31 | 1270 | --- | 4810 | 4510 | --- | 5130 | --- | 2040 | --- | 2130 | 1320 | --- |
| TOTAL | 47740 | 53440 | 57500 | 163100 | 102430 | 214950 | 171390 | 69870 | 199140 | 79860 | 101417 | 39360 |
| MEAN | 1540 | 1781 | 1855 | 5261 | 3532 | 6934 | 5713 | 2254 | 6638 | 2576 | 3272 | 1312 |
| MAX | 2140 | 3400 | 4810 | 11800 | 14300 | 14000 | 17400 | 7160 | 14600 | 10400 | 9760 | 1780 |
| MIN | 1250 | 1210 | 1330 | 2190 | 1740 | 2900 | 1530 | 1200 | 1870 | 1020 | 997 | 1070 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 2652 | 2866 | 4812 | 7782 | 8743 | 10990 | 8205 | 4404 | 4251 | 3022 | 3536 | 1889 |
| MAX | 9751 | 8260 | 11050 | 13290 | 14970 | 20140 | 16980 | 12110 | 15070 | 8313 | 7883 | 3592 |
| (WY) | 1990 | 1986 | 1984 | 1991 | 1983 | 1989 | 1984 | 1989 | 1982 | 1984 | 1984 | 1989 |
| MIN | 1068 | 1398 | 1855 | 2265 | 3025 | 3629 | 1667 | 1272 | 1147 | 1046 | 1046 | 985 |
| (WY) | 1988 | 1988 | 1992 | 1986 | 1986 | 1988 | 1986 | 1986 | 1986 | 1986 | 1983 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1982 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1703660 | | 1300197 | | | |
| ANNUAL MEAN | 4668 | | 3552 | | 5247 | |
| HIGHEST ANNUAL MEAN | | | | | 8529 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 2865 | 1988 |
| HIGHEST DAILY MEAN | 20100 | Jan 16 | 17400 | Apr 28 | 44300 | Mar 6 1987 |
| LOWEST DAILY MEAN | 1000 | Jul 1 | 997 | Aug 11 | 445 | Oct 9 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 1090 | Jun 11 | 1050 | Jul 17 | 463 | Oct 4 1981 |
| INSTANTANEOUS PEAK FLOW | | | 17500 | Apr 28 | 44500 | Mar 6 1987 |
| INSTANTANEOUS PEAK STAGE | | | 19.90 | Apr 28 | 23.61 | Mar 6 1987 |
| INSTANTANEOUS LOW FLOW | | | 951 | Aug 12 | 380 | Oct 7 1981 |
| ANNUAL RUNOFF (CFSM) | .89 | | .68 | | 1.00 | |
| ANNUAL RUNOFF (INCHES) | 12.06 | | 9.20 | | 13.57 | |
| 10 PERCENT EXCEEDS | 11200 | | 9190 | | 14500 | |
| 50 PERCENT EXCEEDS | 2960 | | 2080 | | 2620 | |
| 90 PERCENT EXCEEDS | 1280 | | 1230 | | 1100 | |

* Regulated period only (1982-1992). See REMARKS.

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1984.
WATER TEMPERATURE: January 1973 to September 1984.

INSTRUMENTATION.--Water-quality monitor from May 1973 to September 1984.

REMARKS.--Station operated as part of NASQAN network from January 1973 to present. Daily records of specific conductance for period October 1956 to September 1961 are available in the district office in Raleigh, NC. During period 1956-73, data were collected at bridge on State Highway 11 located 2 mi downstream and published as Cape Fear River near Acme (station 02105771).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 317 microsiemens, Oct. 19, 20, 1976; minimum, 40 microsiemens, June 26, 1973.
WATER TEMPERATURE: Maximum, 32.0°C, July 9, 19, 20, 21, 1977, Aug. 10, 1979; minimum, 0.5°C, Jan. 24, 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | 1100 | 1430 | 186 | 6.9 | -- | 5.5 | 755 | 9.9 | -- | -- | -- |
| APR | | | | | | | | | | | |
| 28... | 1230 | 17500 | 86 | 6.7 | 19.0 | 110 | 757 | 7.2 | 78 | -- | -- |
| JUL | | | | | | | | | | | |
| 09... | 0900 | 2460 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 10... | 1215 | 1480 | 104 | 7.2 | 28.5 | 9.3 | 762 | 6.4 | 83 | K85 | 200 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | 6.5 | 2.4 | 24 | 62 | 2 | 4.6 | -- | -- | 24 | 26 | 0.30 |
| APR | | | | | | | | | | | |
| 28... | 4.9 | 1.9 | 7.0 | 39 | 0.7 | 2.6 | 12 | 10 | 9.0 | 6.4 | 0.20 |
| JUL | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 10... | 5.2 | 1.7 | 13 | 54 | 1 | 3.1 | 22 | 18 | 15 | 11 | 0.20 |

| 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) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | 5.8 | 112 | 116 | 0.760 | 0.760 | 0.020 | 0.010 | 0.780 | 0.770 | 0.130 | 0.120 |
| APR | | | | | | | | | | | |
| 28... | 7.2 | 76 | 49 | 0.420 | 0.420 | 0.020 | 0.020 | 0.440 | 0.440 | 0.150 | 0.110 |
| JUL | | | | | | | | | | | |
| 09... | -- | -- | -- | 0.530 | 0.540 | 0.010 | 0.010 | 0.540 | 0.550 | 0.110 | 0.100 |
| SEP | | | | | | | | | | | |
| 10... | 7.1 | 87 | 70 | -- | -- | <0.010 | <0.010 | 0.430 | 0.350 | 0.090 | 0.090 |

| DATE | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS NO3) | PHOS-PHORUS TOTAL (MG/L AS P) | PHOS-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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 03... | 0.17 | 0.15 | 0.47 | 0.60 | 1.4 | 6.1 | 0.140 | 0.100 | 0.080 | 0.080 | 0.25 |
| APR | | | | | | | | | | | |
| 28... | 0.19 | 0.14 | 0.55 | 0.70 | 1.1 | 5.0 | 0.120 | 0.060 | 0.050 | 0.040 | 0.12 |
| JUL | | | | | | | | | | | |
| 09... | 0.14 | 0.13 | 0.49 | 0.60 | 1.1 | 5.0 | 0.120 | 0.060 | 0.080 | 0.060 | 0.18 |
| SEP | | | | | | | | | | | |
| 10... | 0.12 | 0.12 | 0.51 | 0.60 | 1.0 | 4.6 | 0.150 | 0.090 | 0.070 | 0.040 | 0.12 |

CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | BARIUM, DISSOLVED (UG/L AS BA) | COBALT, DISSOLVED (UG/L AS CO) | IRON, DISSOLVED (UG/L AS FE) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC 03... | 80 | 24 | <3 | 310 | 7 | 82 | <10 | 2 | <1 | <1.0 | 47 |
| APR 28... | 470 | 26 | <3 | 480 | <4 | 380 | <10 | 2 | <1 | <1.0 | 39 |
| JUL 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 10... | 10 | 25 | <3 | 550 | <4 | 110 | <10 | <1 | <1 | <1.0 | 39 |

| DATE | VANADIUM, DISSOLVED (UG/L AS V) | GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) | GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) | GROSS BETA, DISSOLVED (PCI/L AS CS-137) | GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) | GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) | GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) | RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) | URANIUM NATURAL DISSOLVED (UG/L AS U) | ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC 03... | <6 | <0.6 | 1.4 | 4.3 | <0.6 | 3.7 | <0.6 | 0.06 | 0.04 | 0.56 |
| APR 28... | <6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUL 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP 10... | <6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) | BETA, 2 SIGMA WATER, DISS, AS SR90/Y90 (PCI/L | BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) | URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) | RA-226 2 SIGMA WATER, DISS, (PCI/L) | ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) | BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC 03... | 0.33 | 0.96 | 1.2 | <1.0 | 0.010 | 0.73 | 0.55 | 8 | 31 | 68 |
| APR 28... | -- | -- | -- | -- | -- | -- | -- | 80 | 3780 | 81 |
| JUL 09... | -- | -- | -- | -- | -- | -- | -- | 24 | 159 | 69 |
| SEP 10... | -- | -- | -- | -- | -- | -- | -- | 10 | 40 | 100 |

CAPE FEAR RIVER BASIN

02106500 BLACK RIVER NEAR TOMAHAWK, NC

LOCATION.--Lat 34°45'17", long 78°17'21", Sampson County, Hydrologic Unit 03030006, on left bank 30 ft upstream from bridge on State Highway 411, 0.2 mi downstream of Clear Run Swamp, and 3.8 mi northeast of Tomahawk.

DRAINAGE AREA.--676 $mi^2$.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1723: 1955(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.61 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1951, to June 29, 1961, nonrecording gage on downstream side of bridge. June 30, 1961, to Sept. 30, 1964, water-stage recorder at present site at 24.26 ft. Satellite data transmitter at the station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record, present site and datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 22.0 ft, present datum; discharge, 14,500 $ft^3/s$ and floods in 1945 and 1948 reached a stage of 17.6 ft, present datum; discharge, 5,420 $ft^3/s$, from information furnished by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1870 | 266 | 331 | 815 | 1150 | 736 | 821 | 517 | 346 | 695 | e68 | 469 |
| 2 | 1400 | 264 | 329 | 802 | 1060 | 673 | 755 | 476 | 358 | 733 | e60 | 401 |
| 3 | 1010 | 262 | 335 | 831 | 959 | 599 | 671 | 427 | 354 | 892 | e70 | 359 |
| 4 | 880 | 255 | 379 | 1020 | 870 | 528 | 602 | 383 | 332 | 1010 | e76 | 332 |
| 5 | 839 | 251 | 460 | 1170 | 773 | 489 | 592 | 337 | 294 | 945 | e60 | 528 |
| 6 | 811 | 250 | 459 | 1270 | 687 | 482 | 623 | 303 | 254 | 544 | e90 | 760 |
| 7 | 778 | 251 | 437 | 1360 | 630 | 785 | 594 | 282 | 210 | 247 | e92 | 934 |
| 8 | 708 | 250 | 413 | 1380 | 586 | 1040 | 560 | 306 | 178 | 173 | e54 | 1070 |
| 9 | 608 | 249 | 386 | 1290 | 544 | 1100 | 527 | 358 | 155 | 140 | e56 | 1190 |
| 10 | 536 | 402 | 369 | 1180 | 504 | 1090 | 494 | 361 | 235 | 119 | e60 | 1240 |
| 11 | 476 | 688 | 357 | 1120 | 473 | 1040 | 459 | 329 | 361 | 103 | e65 | 990 |
| 12 | 430 | 736 | 340 | 1060 | 451 | 950 | 430 | 297 | 365 | 88 | e80 | 634 |
| 13 | 387 | 684 | 328 | 983 | 435 | 894 | 425 | 273 | 392 | 76 | e150 | 497 |
| 14 | 350 | 600 | 323 | 899 | 426 | 863 | 438 | 305 | 339 | 65 | e350 | 409 |
| 15 | 325 | 533 | 320 | 845 | 421 | 791 | 401 | 349 | 293 | 57 | e650 | 345 |
| 16 | 328 | 474 | 308 | 781 | 428 | 684 | 375 | 331 | 245 | 50 | e1300 | 310 |
| 17 | 394 | 426 | 296 | 701 | 447 | 607 | 355 | 292 | 204 | 45 | e2600 | 288 |
| 18 | 435 | 390 | 285 | 642 | 455 | 551 | 333 | 255 | 184 | 42 | e5000 | 279 |
| 19 | 438 | 362 | 280 | 603 | 460 | 527 | 314 | 246 | 176 | 40 | 9230 | 305 |
| 20 | 436 | 339 | 272 | 566 | 482 | 600 | 296 | 240 | 171 | 42 | 11100 | 336 |
| 21 | 412 | 331 | 262 | 531 | 489 | 720 | 281 | 229 | 169 | e65 | e8950 | 346 |
| 22 | 376 | 357 | 261 | 500 | 465 | 763 | 527 | 216 | 208 | e82 | e7000 | 324 |
| 23 | 344 | 412 | 261 | 507 | 456 | 723 | 1020 | 196 | 254 | e95 | e6000 | 328 |
| 24 | 324 | 435 | 280 | 716 | 578 | 741 | 1180 | 178 | 210 | e100 | e5000 | 312 |
| 25 | 311 | 421 | 347 | 858 | 674 | 743 | 1320 | 163 | 174 | e88 | e4000 | 294 |
| 26 | 298 | 402 | 387 | 870 | 689 | 778 | 1420 | 151 | 142 | e85 | 2840 | 267 |
| 27 | 288 | 379 | 418 | 811 | 791 | 976 | 1340 | 143 | 149 | e46 | 2110 | 257 |
| 28 | 281 | 361 | 522 | 816 | 818 | 1070 | 1110 | 141 | 204 | e50 | 1640 | 255 |
| 29 | 281 | 347 | 649 | 1010 | 785 | 1070 | 853 | 137 | 356 | e68 | 1240 | 278 |
| 30 | 277 | 338 | 765 | 1120 | --- | 975 | 625 | 158 | 554 | e82 | 874 | 292 |
| 31 | 269 | --- | 814 | 1160 | --- | 873 | --- | 269 | --- | e80 | 590 | --- |
| TOTAL | 16900 | 11715 | 11973 | 28217 | 17986 | 24461 | 19741 | 8648 | 7866 | 6947 | 71455 | 14629 |
| MEAN | 545 | 390 | 386 | 910 | 620 | 789 | 658 | 279 | 262 | 224 | 2305 | 488 |
| MAX | 1870 | 736 | 814 | 1380 | 1150 | 1100 | 1420 | 517 | 554 | 1010 | 11100 | 1240 |
| MIN | 269 | 249 | 261 | 500 | 421 | 482 | 281 | 137 | 142 | 40 | 54 | 255 |
| CFSM | .81 | .58 | .57 | 1.35 | .92 | 1.17 | .97 | .41 | .39 | .33 | 3.41 | .72 |
| IN. | .93 | .64 | .66 | 1.55 | .99 | 1.35 | 1.09 | .48 | .43 | .38 | 3.93 | .81 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 436 | 465 | 684 | 1092 | 1283 | 1434 | 1099 | 562 | 439 | 486 | 747 | 553 |
| MAX | 2613 | 1412 | 2092 | 2069 | 2903 | 3410 | 3070 | 1687 | 1179 | 2088 | 2810 | 3319 |
| (WY) | 1965 | 1963 | 1958 | 1958 | 1973 | 1983 | 1973 | 1978 | 1957 | 1965 | 1974 | 1955 |
| MIN | 29.6 | 57.1 | 238 | 287 | 448 | 460 | 225 | 141 | 113 | 76.7 | 25.2 | 13.4 |
| (WY) | 1955 | 1974 | 1989 | 1986 | 1989 | 1981 | 1981 | 1986 | 1985 | 1953 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1952 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 288218 | | 240538 | | | |
| ANNUAL MEAN | 790 | | 657 | | 771 | |
| HIGHEST ANNUAL MEAN | | | | | 1300 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 327 | 1986 |
| HIGHEST DAILY MEAN | 6860 | Aug 4 | 11100 | Aug 20 | 17000 | Sep 17 1984 |
| LOWEST DAILY MEAN | 42 | Jun 16 | 40 | Jul 19 | 8.9 | Sep 13 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 49 | Jun 12 | 49 | Jul 14 | 9.9 | Oct 9 1954 |
| INSTANTANEOUS PEAK FLOW | | | 11500 | Aug 20 | 17500 | Sep 17 1984 |
| INSTANTANEOUS PEAK STAGE | | | 20.74 | Aug 20 | 22.08 | Sep 17 1984 |
| INSTANTANEOUS LOW FLOW | | | 40 | Jul 19 | 8.5* | Oct 13 1954 |
| ANNUAL RUNOFF (CFSM) | 1.17 | | .97 | | 1.14 | |
| ANNUAL RUNOFF (INCHES) | 15.86 | | 13.24 | | 15.50 | |
| 10 PERCENT EXCEEDS | 1590 | | 1070 | | 1770 | |
| 50 PERCENT EXCEEDS | 558 | | 415 | | 507 | |
| 90 PERCENT EXCEEDS | 221 | | 141 | | 106 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

0210783230 HERRINGS MARSH RUN NEAR SUMMERLINS CROSSROADS, NC

LOCATION.--Lat 35°05'37", long 77°56'35", Duplin County, Hydrologic Unit 03030007, on right bank 150 ft downstream of Secondary Road 1508, and 1.1 mi northeast of Summerlins Crossroads.

DRAINAGE AREA.--2.25 $mi^2$.

PERIOD OF RECORD.--April 1991 to current year.

GAGE.--Water stage recorder. Datum of gage is 102 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those below 0.2 $ft^3/s$, which are poor. Minimum discharge for period April to September 1991 and period of record occurred several days in June 1991.

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD APRIL TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | --- | e4.5 | .48 | 1.1 | .62 | 6.6 | 3.3 |
| 2 | --- | --- | --- | --- | --- | --- | e4.5 | .40 | 1.2 | .86 | 6.9 | 3.7 |
| 3 | --- | --- | --- | --- | --- | --- | e4.6 | .26 | .82 | .24 | 6.0 | 2.3 |
| 4 | --- | --- | --- | --- | --- | --- | 4.5 | .23 | .17 | 3.2 | 3.9 | 1.9 |
| 5 | --- | --- | --- | --- | --- | --- | 4.6 | .22 | .08 | 33 | 2.5 | 1.5 |
| 6 | --- | --- | --- | --- | --- | --- | 4.3 | .22 | .06 | 25 | 1.8 | 1.5 |
| 7 | --- | --- | --- | --- | --- | --- | 3.4 | .16 | .05 | 6.5 | 13 | 1.9 |
| 8 | --- | --- | --- | --- | --- | --- | 2.8 | .13 | .04 | 3.9 | 9.9 | 1.2 |
| 9 | --- | --- | --- | --- | --- | --- | 2.5 | .13 | .03 | 2.4 | 4.8 | .83 |
| 10 | --- | --- | --- | --- | --- | --- | 2.1 | .16 | .02 | 1.5 | 4.0 | .65 |
| 11 | --- | --- | --- | --- | --- | --- | 1.6 | .14 | .02 | 9.3 | 2.8 | .61 |
| 12 | --- | --- | --- | --- | --- | --- | 1.4 | .10 | .02 | 18 | 4.4 | .73 |
| 13 | --- | --- | --- | --- | --- | --- | 1.2 | .10 | .02 | 5.4 | 5.6 | .77 |
| 14 | --- | --- | --- | --- | --- | --- | 1.5 | .09 | .02 | 3.1 | 4.1 | .76 |
| 15 | --- | --- | --- | --- | --- | --- | 1.5 | .10 | .02 | 2.0 | 5.7 | .61 |
| 16 | --- | --- | --- | --- | --- | --- | 1.0 | .09 | .02 | 3.4 | 3.9 | .54 |
| 17 | --- | --- | --- | --- | --- | --- | .82 | .08 | .03 | 3.1 | 2.3 | .44 |
| 18 | --- | --- | --- | --- | --- | --- | .77 | 1.1 | .03 | 2.1 | 2.2 | 1.8 |
| 19 | --- | --- | --- | --- | --- | --- | 2.0 | 3.6 | 3.5 | 3.9 | 1.8 | 3.2 |
| 20 | --- | --- | --- | --- | --- | --- | 12 | 5.2 | 14 | 3.5 | 1.6 | 7.5 |
| 21 | --- | --- | --- | --- | --- | --- | 5.2 | 4.7 | 23 | 1.6 | 1.2 | 2.3 |
| 22 | --- | --- | --- | --- | --- | --- | 3.8 | 1.3 | 7.7 | .93 | .80 | 1.4 |
| 23 | --- | --- | --- | --- | --- | --- | 2.6 | .54 | 4.0 | .62 | 1.2 | 1.2 |
| 24 | --- | --- | --- | --- | --- | --- | 2.0 | .27 | 2.3 | .41 | 7.0 | 3.1 |
| 25 | --- | --- | --- | --- | --- | --- | 1.3 | .21 | 1.4 | 1.2 | 6.3 | 19 |
| 26 | --- | --- | --- | --- | --- | --- | 1.0 | .12 | 1.6 | 1.0 | 4.5 | 29 |
| 27 | --- | --- | --- | --- | --- | --- | .86 | .11 | 1.7 | .63 | 12 | 8.8 |
| 28 | --- | --- | --- | --- | --- | --- | .95 | .12 | .77 | 1.2 | 8.6 | 4.9 |
| 29 | --- | --- | --- | --- | --- | --- | .72 | .08 | .48 | 8.9 | 4.9 | 3.5 |
| 30 | --- | --- | --- | --- | --- | --- | .55 | .06 | .31 | 16 | 3.5 | 2.9 |
| 31 | --- | --- | --- | --- | --- | --- | --- | .04 | --- | 15 | 2.7 | --- |
| TOTAL | --- | --- | --- | --- | --- | --- | 80.57 | 20.54 | 64.51 | 178.51 | 146.50 | 111.84 |
| MEAN | --- | --- | --- | --- | --- | --- | 2.69 | .66 | 2.15 | 5.76 | 4.73 | 3.73 |
| MAX | --- | --- | --- | --- | --- | --- | 12 | 5.2 | 23 | 33 | 13 | 29 |
| MIN | --- | --- | --- | --- | --- | --- | .55 | .04 | .02 | .24 | .80 | .44 |
| CFSM | --- | --- | --- | --- | --- | --- | 1.19 | .29 | .96 | 2.56 | 2.10 | 1.66 |
| IN. | --- | --- | --- | --- | --- | --- | 1.33 | .34 | 1.07 | 2.95 | 2.42 | 1.85 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD APRIL TO SEPTEMBER

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | --- | --- | --- | --- | --- | --- | 2.69 | .66 | 2.15 | 5.76 | 4.73 | 3.73 |
| MAX | --- | --- | --- | --- | --- | --- | 2.69 | .66 | 2.15 | 5.76 | 4.73 | 3.73 |
| (WY) | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 |
| MIN | --- | --- | --- | --- | --- | --- | 2.69 | .66 | 2.15 | 5.76 | 4.73 | 3.73 |
| (WY) | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 |

SUMMARY STATISTICS FOR PERIOD APRIL TO SEPTEMBER 1991

| | | |
|---|---|---|
| INSTANEOUS PEAK FLOW | 96 | Jul 5 |
| INSTANEOUS PEAK STAGE | 4.10 | Jul 5 |
| INSTANEOUS LOW FLOW | .01* | |

* See REMARKS.

0210783230 HERRINGS MARSH RUN NEAR SUMMERLINS CROSSROADS, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.6 | .91 | 1.8 | 1.6 | 2.7 | 1.1 | .89 | .98 | .78 | .25 | .07 | .68 |
| 2 | 2.6 | .95 | 1.8 | 1.5 | 2.3 | 1.0 | .60 | .77 | .55 | .17 | .06 | .59 |
| 3 | 9.3 | .83 | 2.4 | 19 | 2.0 | .97 | .53 | .65 | .46 | .14 | .07 | .51 |
| 4 | 4.5 | 1.2 | 4.1 | 10 | 1.8 | 1.0 | .83 | .53 | .67 | .13 | .08 | .47 |
| 5 | 4.0 | 1.0 | 1.8 | 6.0 | 1.7 | 1.1 | 2.0 | .58 | .63 | .12 | .19 | .61 |
| 6 | 3.8 | 1.1 | 1.6 | 3.7 | 1.6 | 2.5 | .76 | .68 | .38 | .11 | .42 | 1.7 |
| 7 | 3.0 | 1.1 | 1.5 | 2.8 | 1.4 | 6.1 | .67 | 1.2 | .28 | .11 | .14 | 1.6 |
| 8 | 2.6 | .92 | 1.4 | 2.4 | 1.3 | 2.2 | .63 | 8.2 | .26 | .10 | .09 | 1.1 |
| 9 | 2.1 | 2.8 | 1.4 | 2.3 | 1.1 | 1.5 | .54 | 2.0 | 1.7 | .10 | .27 | .84 |
| 10 | 1.9 | 7.0 | 1.5 | 2.4 | 1.0 | 1.4 | .49 | 1.0 | 4.0 | .09 | 1.3 | .88 |
| 11 | 1.7 | 3.1 | 1.2 | 2.3 | 1.1 | 1.3 | .47 | .73 | .83 | .08 | .08 | .86 |
| 12 | 1.5 | 2.1 | 1.1 | 1.7 | 1.0 | 1.2 | .56 | .62 | .82 | .08 | 5.3 | .58 |
| 13 | 1.2 | 1.7 | 1.1 | 1.8 | 1.1 | 1.1 | .50 | .99 | .91 | .07 | 21 | .36 |
| 14 | 1.2 | 1.5 | 1.1 | 3.4 | 1.1 | 1.1 | .47 | .85 | .55 | .06 | 19 | .30 |
| 15 | 1.2 | 1.4 | .94 | 1.9 | 1.6 | 1.1 | .47 | .55 | .49 | .06 | 30 | .21 |
| 16 | 2.5 | 1.3 | .86 | 1.5 | 1.9 | 1.3 | .50 | .45 | .43 | .05 | 19 | .19 |
| 17 | 2.8 | 1.1 | .93 | 1.4 | 1.2 | 1.1 | .48 | .44 | .43 | .06 | 33 | .18 |
| 18 | 1.6 | 1.1 | .94 | 1.4 | 1.2 | .95 | .46 | .94 | .26 | .08 | 18 | .17 |
| 19 | 1.2 | 1.1 | .87 | 1.2 | 1.6 | 2.6 | .37 | 5.3 | .30 | .10 | 7.5 | .23 |
| 20 | 1.1 | 1.1 | .86 | 1.2 | 1.1 | 1.4 | .36 | 1.6 | .32 | .09 | 9.3 | .23 |
| 21 | 1.1 | 1.6 | 1.0 | 1.2 | .97 | 1.0 | .46 | 1.3 | 1.2 | .08 | 7.6 | .45 |
| 22 | 1.1 | 3.1 | 1.0 | 1.0 | .92 | .67 | 19 | .64 | 1.0 | .23 | 5.0 | .32 |
| 23 | 1.1 | 2.3 | 1.1 | 6.2 | 2.0 | 2.0 | 4.5 | .47 | .33 | .21 | 3.7 | .61 |
| 24 | 1.0 | 1.7 | 3.9 | 4.8 | 2.2 | .72 | 2.0 | .38 | .24 | .15 | 2.7 | .50 |
| 25 | 1.1 | 1.3 | 1.9 | 2.7 | 2.1 | .42 | 3.3 | .39 | .19 | .12 | 2.1 | .39 |
| 26 | 1.1 | 1.2 | 1.2 | 2.1 | 4.2 | 3.9 | 1.7 | .98 | .17 | .10 | 1.8 | .37 |
| 27 | 1.2 | 1.2 | 3.8 | 1.8 | 2.0 | 1.5 | 1.4 | .85 | .89 | .10 | 1.5 | .35 |
| 28 | 1.2 | 1.4 | 2.7 | 9.8 | 1.4 | .77 | 1.1 | .55 | .32 | .09 | 1.5 | .25 |
| 29 | 1.1 | 1.3 | 6.0 | 6.0 | 1.3 | .58 | .92 | .49 | .19 | .08 | 1.5 | .34 |
| 30 | 1.1 | 1.5 | 2.8 | 4.3 | --- | .67 | .78 | 3.9 | .17 | .08 | 1.0 | .18 |
| 31 | 1.0 | --- | 1.9 | 3.6 | --- | 1.3 | --- | 1.8 | --- | .07 | .77 | --- |
| TOTAL | 64.5 | 49.91 | 56.50 | 113.0 | 46.89 | 45.55 | 47.74 | 40.81 | 19.75 | 3.36 | 194.04 | 16.05 |
| MEAN | 2.08 | 1.66 | 1.82 | 3.65 | 1.62 | 1.47 | 1.59 | 1.32 | .66 | .11 | 6.26 | .53 |
| MAX | 9.3 | 7.0 | 6.0 | 19 | 4.2 | 6.1 | 19 | 8.2 | 4.0 | .25 | 33 | 1.7 |
| MIN | 1.0 | .83 | .86 | 1.0 | .92 | .42 | .36 | .38 | .17 | .05 | .06 | .17 |
| CFSM | .92 | .74 | .81 | 1.62 | .72 | .65 | .71 | .59 | .29 | .05 | 2.78 | .24 |
| IN. | 1.07 | .83 | .93 | 1.87 | .78 | .75 | .79 | .67 | .33 | .06 | 3.21 | .27 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 2.08 | 1.66 | 1.82 | 3.65 | 1.62 | 1.47 | 2.14 | .99 | 1.40 | 2.93 | 5.49 | 2.13 |
| MAX | 2.08 | 1.66 | 1.82 | 3.65 | 1.62 | 1.47 | 2.69 | 1.32 | 2.15 | 5.76 | 6.26 | 3.73 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1991 | 1991 | 1992 | 1991 |
| MIN | 2.08 | 1.66 | 1.82 | 3.65 | 1.62 | 1.47 | 1.59 | .66 | .66 | .11 | 4.73 | .53 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1992 | 1991 | 1992 |

| SUMMARY STATISTICS | FOR 1992 WATER YEAR | | WATER YEARS 1991 - 1992 | |
|---|---|---|---|---|
| ANNUAL TOTAL | 698.10 | | | |
| ANNUAL MEAN | 1.91 | | 1.91 | |
| HIGHEST ANNUAL MEAN | | | 1.91 | 1992 |
| LOWEST ANNUAL MEAN | | | 1.91 | 1992 |
| HIGHEST DAILY MEAN | 33 | Aug 17 | 33 | Jul 5 1991 |
| LOWEST DAILY MEAN | .05 | Jul 16 | .02 | Jun 10 1991 |
| ANNUAL SEVEN-DAY MINIMUM | .07 | Jul 11 | .02 | Jun 10 1991 |
| INSTANTANEOUS PEAK FLOW | 55 | Aug 15 | 96 | Jul 5 1991 |
| INSTANTANEOUS PEAK STAGE | 3.56 | Aug 15 | 4.10 | Jul 5 1991 |
| INSTANTANEOUS LOW FLOW | .03 | Jul 17 | .01* | Jun 12 1991 |
| ANNUAL RUNOFF (CFSM) | .85 | | .85 | |
| ANNUAL RUNOFF (INCHES) | 11.54 | | 11.52 | |
| 10 PERCENT EXCEEDS | 3.8 | | 4.9 | |
| 50 PERCENT EXCEEDS | 1.1 | | 1.1 | |
| 90 PERCENT EXCEEDS | .17 | | .12 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

0210783240 HERRINGS MARSH RUN TRIBUTARY NEAR SUMMERLINS CROSSROADS, NC.

LOCATION.--Lat 35°05'49", long 77°56'01", Duplin County, Hydrologic Unit 03030007, at upstream side of culvert on Secondary Road 1508, and 1.6 mi northeast of Summerlins Crossroads.

DRAINAGE AREA.--1.49 $mi^2$.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Water stage recorder. Elevation of gage is 95 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for daily dischages below 1 $ft^3/s$, which are poor. Minimum discharge for the period May to September 1991 and period of record also occurred June 16, 17, 1991.

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD MAY TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | --- | --- | 1.2 | .68 | 1.0 | 3.0 | 2.0 |
| 2 | --- | --- | --- | --- | --- | --- | --- | 1.0 | 1.4 | 1.2 | 3.3 | 2.2 |
| 3 | --- | --- | --- | --- | --- | --- | --- | .85 | 1.6 | .82 | 2.9 | 1.5 |
| 4 | --- | --- | --- | --- | --- | --- | --- | .82 | .67 | 3.8 | 2.1 | 1.5 |
| 5 | --- | --- | --- | --- | --- | --- | --- | .79 | .45 | 23 | 1.7 | 1.3 |
| 6 | --- | --- | --- | --- | --- | --- | --- | .73 | .40 | 10 | 1.6 | 1.3 |
| 7 | --- | --- | --- | --- | --- | --- | --- | .59 | .36 | 2.9 | 4.5 | 1.5 |
| 8 | --- | --- | --- | --- | --- | --- | --- | .53 | .34 | 2.0 | 3.7 | 1.2 |
| 9 | --- | --- | --- | --- | --- | --- | --- | .57 | .29 | 1.6 | 2.3 | .92 |
| 10 | --- | --- | --- | --- | --- | --- | --- | .65 | .26 | 1.4 | 2.2 | .84 |
| 11 | --- | --- | --- | --- | --- | --- | --- | .56 | .24 | 7.5 | 1.7 | .89 |
| 12 | --- | --- | --- | --- | --- | --- | --- | .49 | .25 | 5.2 | 2.3 | 1.0 |
| 13 | --- | --- | --- | --- | --- | --- | --- | .48 | .21 | 2.4 | 2.7 | .91 |
| 14 | --- | --- | --- | --- | --- | --- | --- | .48 | .21 | 1.7 | 2.0 | .87 |
| 15 | --- | --- | --- | --- | --- | --- | --- | .57 | .19 | 1.4 | 2.3 | .74 |
| 16 | --- | --- | --- | --- | --- | --- | --- | .53 | .17 | 1.7 | 2.0 | .72 |
| 17 | --- | --- | --- | --- | --- | --- | --- | .50 | .29 | 1.7 | 1.5 | .67 |
| 18 | --- | --- | --- | --- | --- | --- | --- | .60 | .26 | 1.5 | 1.5 | .69 |
| 19 | --- | --- | --- | --- | --- | --- | --- | 2.3 | 2.2 | 2.1 | 1.5 | 1.0 |
| 20 | --- | --- | --- | --- | --- | --- | --- | 3.6 | 13 | 2.0 | 1.3 | 3.2 |
| 21 | --- | --- | --- | --- | --- | --- | --- | 2.4 | 6.0 | 1.3 | 1.2 | 1.1 |
| 22 | --- | --- | --- | --- | --- | --- | --- | 1.3 | 2.9 | 1.1 | 1.0 | .71 |
| 23 | --- | --- | --- | --- | --- | --- | --- | 1.0 | 2.0 | .99 | 1.5 | .70 |
| 24 | --- | --- | --- | --- | --- | --- | --- | .84 | 1.7 | .87 | 2.4 | 1.8 |
| 25 | --- | --- | --- | --- | --- | --- | --- | .78 | 1.4 | 2.1 | 2.1 | 25 |
| 26 | --- | --- | --- | --- | --- | --- | --- | .65 | 1.7 | 2.0 | 2.0 | 17 |
| 27 | --- | --- | --- | --- | --- | --- | --- | .62 | 1.8 | 1.3 | 5.6 | 4.0 |
| 28 | --- | --- | --- | --- | --- | --- | --- | .55 | 1.3 | 1.6 | 3.6 | 3.1 |
| 29 | --- | --- | --- | --- | --- | --- | --- | .47 | 1.1 | 3.7 | 2.3 | 2.6 |
| 30 | --- | --- | --- | --- | --- | --- | --- | .39 | .89 | 6.1 | 1.8 | 2.3 |
| 31 | --- | --- | --- | --- | --- | --- | --- | .34 | --- | 4.9 | 1.6 | --- |
| TOTAL | --- | --- | --- | --- | --- | --- | --- | 27.18 | 44.26 | 100.88 | 71.2 | 83.26 |
| MEAN | --- | --- | --- | --- | --- | --- | --- | .88 | 1.48 | 3.25 | 2.30 | 2.78 |
| MAX | --- | --- | --- | --- | --- | --- | --- | 3.6 | 13 | 23 | 5.6 | 25 |
| MIN | --- | --- | --- | --- | --- | --- | --- | .34 | .17 | .82 | 1.0 | .67 |
| CFSM | --- | --- | --- | --- | --- | --- | --- | .59 | .99 | 2.18 | 1.54 | 1.86 |
| IN. | --- | --- | --- | --- | --- | --- | --- | .68 | 1.11 | 2.52 | 1.78 | 2.08 |

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD MAY TO SEPTEMBER 1991

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | --- | --- | --- | --- | --- | --- | --- | .88 | 1.48 | 3.25 | 2.30 | 2.78 |
| MAX | --- | --- | --- | --- | --- | --- | --- | .88 | 1.48 | 3.25 | 2.30 | 2.78 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 | 1991 | 1991 |
| MIN | --- | --- | --- | --- | --- | --- | --- | .88 | 1.48 | 3.25 | 2.30 | 2.78 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 | 1991 | 1991 |

SUMMARY STATISTICS FOR PERIOD MAY TO SEPTEMBER 1991

| | | |
|---|---|---|
| INSTANTANEOUS PEAK FLOW | 156 | Jul 5 |
| INSTANTANEOUS PEAK STAGE | 4.16 | Jul 5 |
| INSTANTANEOUS LOW FLOW | .04* | Jun 15 |

* See REMARKS.

0210783240 HERRINGS MARSH RUN TRIBUTARY NEAR SUMMERLINS CROSSROADS, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.1 | 1.1 | 1.3 | 1.1 | 1.7 | 1.5 | 1.7 | 1.0 | .89 | .59 | .53 | .83 |
| 2 | 2.1 | 1.3 | 1.2 | 1.1 | 1.6 | 1.5 | 1.7 | .93 | .75 | .57 | .53 | .76 |
| 3 | 5.1 | 1.4 | 1.4 | 11 | 1.5 | 1.4 | 1.4 | .78 | .69 | .56 | .55 | .73 |
| 4 | 3.1 | 1.6 | 2.1 | 3.9 | 1.5 | 1.4 | 1.8 | .72 | .84 | .55 | .55 | .70 |
| 5 | 2.7 | 1.6 | 1.3 | 3.0 | 1.4 | 1.5 | 2.1 | .72 | .80 | .58 | .63 | .80 |
| 6 | 2.6 | 1.7 | 1.2 | 2.3 | 1.4 | 2.1 | 1.7 | .78 | .64 | .56 | 1.0 | 1.5 |
| 7 | 2.0 | 1.7 | 1.1 | 2.1 | 1.4 | 3.0 | 1.6 | 1.4 | .59 | .56 | .57 | 1.7 |
| 8 | 1.8 | 1.7 | 1.0 | 1.9 | 1.4 | 1.9 | 1.4 | 3.1 | .57 | .55 | .49 | 1.3 |
| 9 | 1.7 | 2.5 | 1.0 | 1.9 | 1.3 | 1.7 | 1.4 | 1.4 | 1.5 | .54 | .45 | .93 |
| 10 | 1.6 | 4.5 | 1.1 | 2.0 | 1.4 | 1.6 | 1.3 | .93 | 2.6 | .52 | 3.6 | .74 |
| 11 | 1.6 | 2.4 | .99 | 1.9 | 1.4 | 1.6 | 1.3 | .78 | 1.1 | .51 | .54 | .99 |
| 12 | 1.5 | 2.0 | .96 | 1.7 | 1.4 | 1.5 | 1.2 | .72 | 1.1 | .51 | 1.6 | .73 |
| 13 | 1.4 | 1.9 | .96 | 1.7 | 1.5 | 1.5 | 1.2 | 1.0 | 1.1 | .51 | 9.1 | .59 |
| 14 | 1.3 | 1.8 | .96 | 2.4 | 1.5 | 1.4 | 1.2 | .83 | .91 | .50 | 7.6 | .57 |
| 15 | 1.3 | 1.7 | .87 | 1.8 | 1.9 | 1.5 | 1.2 | .76 | .83 | .50 | 22 | .57 |
| 16 | 1.8 | 1.6 | .87 | 1.6 | 2.0 | 1.5 | 1.1 | .67 | .80 | .49 | 8.1 | .60 |
| 17 | 2.0 | 1.5 | .89 | 1.6 | 1.6 | 1.4 | 1.0 | .66 | .78 | .50 | 19 | .66 |
| 18 | 1.5 | 1.4 | .84 | 1.5 | 1.6 | 1.4 | .93 | .86 | .62 | .55 | 8.4 | .68 |
| 19 | 1.4 | 1.4 | .72 | 1.5 | 1.7 | 2.5 | .93 | 2.2 | .70 | .56 | 4.5 | .77 |
| 20 | 1.3 | 1.4 | .73 | 1.5 | 1.5 | 1.8 | .93 | 1.3 | .69 | .70 | 5.3 | .66 |
| 21 | 1.3 | 1.5 | .89 | 1.4 | 1.4 | 1.7 | 1.1 | 1.1 | 1.4 | .58 | 4.3 | .71 |
| 22 | 1.3 | 1.9 | .85 | 1.4 | 1.4 | 1.6 | 7.5 | .81 | 1.4 | .91 | 3.0 | .65 |
| 23 | 1.3 | 1.6 | .89 | 3.6 | 1.8 | 2.5 | 2.5 | .71 | .76 | 1.0 | 2.5 | .81 |
| 24 | 1.3 | 1.4 | 1.8 | 2.3 | 1.9 | 1.7 | 1.5 | .64 | .66 | .76 | 2.2 | .77 |
| 25 | 1.3 | 1.3 | 1.1 | 1.7 | 1.9 | 1.7 | 1.7 | .65 | .61 | .65 | 1.9 | .77 |
| 26 | 1.3 | 1.2 | .99 | 1.6 | 2.4 | 3.7 | 1.4 | 1.2 | .58 | .59 | 1.7 | .83 |
| 27 | 1.3 | 1.2 | 1.7 | 1.5 | 1.8 | 2.4 | 1.3 | 1.0 | 1.3 | .61 | 1.6 | .86 |
| 28 | 1.3 | 1.2 | 1.4 | 4.3 | 1.7 | 1.7 | 1.2 | .77 | .71 | .56 | 1.4 | .80 |
| 29 | 1.2 | 1.2 | 2.3 | 2.3 | 1.6 | 1.7 | 1.1 | .76 | .59 | .55 | 1.3 | .81 |
| 30 | 1.2 | 1.2 | 1.4 | 2.0 | --- | 1.7 | 1.1 | 2.2 | .57 | .55 | 1.1 | .65 |
| 31 | 1.2 | --- | 1.2 | 1.9 | --- | 2.1 | --- | 1.3 | --- | .54 | .95 | --- |
| TOTAL | 53.9 | 49.9 | 36.01 | 71.5 | 46.6 | 56.2 | 47.49 | 32.68 | 27.08 | 18.21 | 116.99 | 24.47 |
| MEAN | 1.74 | 1.66 | 1.16 | 2.31 | 1.61 | 1.81 | 1.58 | 1.05 | .90 | .59 | 3.77 | .82 |
| MAX | 5.1 | 4.5 | 2.3 | 11 | 2.4 | 3.7 | 7.5 | 3.1 | 2.6 | 1.0 | 22 | 1.7 |
| MIN | 1.2 | 1.1 | .72 | 1.1 | 1.3 | 1.4 | .93 | .64 | .57 | .49 | .45 | .57 |
| CFSM | 1.17 | 1.12 | .78 | 1.55 | 1.08 | 1.22 | 1.06 | .71 | .61 | .39 | 2.53 | .55 |
| IN. | 1.35 | 1.25 | .90 | 1.79 | 1.16 | 1.40 | 1.19 | .82 | .68 | .45 | 2.92 | .61 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1.74 | 1.66 | 1.16 | 2.31 | 1.61 | 1.81 | 1.58 | .97 | 1.19 | 1.92 | 3.04 | 1.80 |
| MAX | 1.74 | 1.66 | 1.16 | 2.31 | 1.61 | 1.81 | 1.58 | 1.05 | 1.48 | 3.25 | 3.77 | 2.78 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1991 | 1992 | 1991 |
| MIN | 1.74 | 1.66 | 1.16 | 2.31 | 1.61 | 1.81 | 1.58 | .88 | .90 | .59 | 2.30 | .82 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1992 | 1991 | 1992 |

| SUMMARY STATISTICS | FOR 1992 WATER YEAR | | WATER YEARS 1991 - 1992 | |
|---|---|---|---|---|
| ANNUAL TOTAL | 581.03 | | | |
| ANNUAL MEAN | 1.59 | | 1.59 | |
| HIGHEST ANNUAL MEAN | | | 1.59 | 1992 |
| LOWEST ANNUAL MEAN | | | 1.59 | 1992 |
| HIGHEST DAILY MEAN | 22 | Aug 15 | 25 | Sep 25 1991 |
| LOWEST DAILY MEAN | .45 | Aug 9 | .17 | Jun 16 1991 |
| ANNUAL SEVEN-DAY MINIMUM | .50 | Jul 11 | .22 | Jun 10 1991 |
| INSTANTANEOUS PEAK FLOW | 112 | Aug 15 | 156 | Jul 5 1991 |
| INSTANTANEOUS PEAK STAGE | 4.19 | Aug 15 | 4.19 | Aug 15 1992 |
| INSTANTANEOUS LOW FLOW | NOT DETERMINED | | .04* | Jun 15 1991 |
| ANNUAL RUNOFF (CFSM) | 1.07 | | 1.07 | |
| ANNUAL RUNOFF (INCHES) | 14.51 | | 14.48 | |
| 10 PERCENT EXCEEDS | 2.3 | | 2.6 | |
| 50 PERCENT EXCEEDS | 1.3 | | 1.3 | |
| 90 PERCENT EXCEEDS | .59 | | .56 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

0210783273 HERRINGS MARSH RUN TRIBUTARY AT RED HILL, NC

LOCATION.--Lat 35°04'32", long 77°54'49", Duplin County, Hydrologic Unit 03030007, on left bank 260 ft upstream from Secondary Road 1306, and 0.1 mi west of Red Hill.

DRAINAGE AREA.--1.14 $mi^2$.

PERIOD OF RECORD.--August 1991 to current year.

GAGE.--Water stage recorder. Elevation of gage is 79 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those below 0.3 $ft^3/s$, which are poor. Minimum discharge for the current water year also occurred August 1-7.

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD AUGUST TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | e1.7 | 1.1 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | e1.5 | 1.0 |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | e1.7 | .53 |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | e1.0 | .42 |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | e.70 | .41 |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | e.60 | .53 |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2.7 | .78 |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.4 | .56 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2.1 | .34 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.6 | .10 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.3 | .08 |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.2 | .32 |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.3 | .25 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.1 | .33 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.1 | .39 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .96 | .26 |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .80 | .26 |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .83 | .23 |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .88 | .23 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.9 | 1.5 |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .83 | .80 |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .49 | .68 |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .64 | 1.5 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.0 | 2.2 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.2 | 14 |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.4 | 37 |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2.7 | 7.3 |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2.8 | 3.9 |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.9 | 2.8 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.3 | 2.3 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.0 | --- |
| TOTAL | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 43.63 | 82.10 |
| MEAN | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.41 | 2.74 |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3.4 | 37 |
| MIN | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .49 | .08 |
| CFSM | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.23 | 2.40 |
| IN. | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.42 | 2.68 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD AUGUST TO SEPTEMBER

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.41 | 2.74 |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.41 | 2.74 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 |
| MIN | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.41 | 2.74 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 |

SUMMARY STATISTICS FOR PERIOD AUGUST TO SEPTEMBER 1991

| | | |
|---|---|---|
| INSTANTANEOUS PEAK FLOW | 80 | Sep 26 |
| INSTANTANEOUS PEAK STAGE | 4.37 | Sep 26 |
| INSTANTANEOUS LOW FLOW | 0 | Sep 11 |

CAPE FEAR RIVER BASIN

0210783273 HERRINGS MARSH RUN TRIBUTARY AT RED HILL, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | .64 | .88 | .92 | 1.4 | .70 | 1.3 | 1.1 | .84 | .12 | .06 | .24 |
| 2 | 1.7 | .68 | .94 | .96 | 1.1 | .61 | 1.2 | 1.0 | .76 | .14 | .06 | .19 |
| 3 | 3.2 | .68 | 1.2 | 7.7 | 1.1 | .63 | .99 | .94 | .68 | .14 | .06 | .18 |
| 4 | 2.5 | .69 | 1.4 | 6.9 | 1.0 | .72 | 1.2 | .73 | .65 | .14 | .06 | .17 |
| 5 | 2.4 | .68 | .99 | 4.3 | 1.2 | .60 | 1.5 | .64 | .61 | .18 | .06 | .23 |
| 6 | 2.2 | .68 | .88 | 2.8 | 1.2 | .79 | 1.3 | .67 | .60 | .20 | .06 | .48 |
| 7 | 1.7 | .68 | .86 | 2.1 | .68 | 1.4 | 1.2 | .87 | .63 | .19 | .07 | .55 |
| 8 | 1.4 | .74 | .82 | 1.6 | .77 | .96 | 1.2 | .82 | .52 | .16 | .09 | .55 |
| 9 | 1.3 | 1.1 | .84 | 1.5 | .73 | .67 | 1.0 | .80 | 1.8 | .13 | .14 | .48 |
| 10 | 1.3 | 2.8 | .97 | 1.5 | .90 | .61 | .96 | .83 | 2.7 | .10 | .17 | .47 |
| 11 | 1.2 | 2.3 | .77 | 1.4 | .64 | .57 | .94 | .71 | 1.2 | .10 | .12 | .44 |
| 12 | 1.0 | 1.7 | .77 | 1.2 | .90 | .48 | 1.0 | 1.1 | 1.0 | .12 | .62 | .45 |
| 13 | .95 | 1.4 | .77 | 1.3 | .67 | .46 | 1.5 | 1.1 | .97 | .12 | .61 | .30 |
| 14 | .81 | 1.2 | .78 | 1.9 | .68 | .45 | .57 | .97 | .77 | .12 | 1.1 | .25 |
| 15 | .85 | 1.0 | .74 | 1.4 | .80 | .50 | .53 | .83 | .66 | .11 | 17 | .21 |
| 16 | 1.2 | .98 | .72 | 1.2 | 1.0 | .51 | .54 | .78 | .74 | .11 | 9.2 | .34 |
| 17 | 1.1 | 1.0 | .72 | 1.0 | .94 | .47 | .61 | .72 | .68 | .11 | 13 | .29 |
| 18 | .97 | .77 | .72 | 1.0 | .70 | .54 | .59 | .77 | .58 | .11 | 9.2 | .23 |
| 19 | .90 | .75 | .72 | 1.0 | .89 | 1.1 | .64 | 1.1 | .59 | .11 | 4.7 | .18 |
| 20 | .97 | .84 | .67 | .88 | .79 | 1.0 | .56 | .89 | .53 | .11 | 4.6 | .21 |
| 21 | .84 | 1.0 | .71 | .91 | .69 | .88 | .57 | .87 | .81 | .10 | 4.2 | .38 |
| 22 | .80 | 1.5 | .72 | .89 | .67 | .87 | 5.6 | .72 | .78 | .09 | 2.6 | .48 |
| 23 | .83 | 1.4 | .72 | 2.0 | .96 | 1.4 | 3.0 | .64 | .54 | .10 | 1.7 | .68 |
| 24 | .83 | 1.2 | 1.2 | 2.1 | 1.1 | 1.1 | 1.8 | .70 | .38 | .10 | 1.0 | .52 |
| 25 | .79 | .92 | .93 | 1.5 | 1.2 | 1.1 | 1.8 | .75 | .35 | .09 | .73 | .21 |
| 26 | .81 | .84 | .83 | 1.3 | 1.9 | 2.2 | 1.3 | .65 | .22 | .09 | .61 | .23 |
| 27 | .80 | .74 | 1.4 | 1.1 | 1.4 | 2.0 | 1.3 | .55 | .46 | .08 | .53 | .28 |
| 28 | .85 | .72 | 1.2 | 3.6 | 1.1 | 1.5 | 1.4 | .48 | .35 | .08 | .46 | .38 |
| 29 | .73 | .74 | 1.9 | 2.7 | .84 | 1.3 | 1.0 | .45 | .15 | .08 | .41 | .61 |
| 30 | .60 | .78 | 1.6 | 2.0 | --- | 1.3 | .88 | .53 | .12 | .07 | .36 | .46 |
| 31 | .61 | --- | 1.3 | 1.7 | --- | 1.5 | --- | .82 | --- | .07 | .22 | --- |
| TOTAL | 38.04 | 31.15 | 29.67 | 62.36 | 27.95 | 28.92 | 37.98 | 24.53 | 21.67 | 3.57 | 73.80 | 10.67 |
| MEAN | 1.23 | 1.04 | .96 | 2.01 | .96 | .93 | 1.27 | .79 | .72 | .12 | 2.38 | .36 |
| MAX | 3.2 | 2.8 | 1.9 | 7.7 | 1.9 | 2.2 | 5.6 | 1.1 | 2.7 | .20 | 17 | .68 |
| MIN | .60 | .64 | .67 | .88 | .64 | .45 | .53 | .45 | .12 | .07 | .06 | .17 |
| CFSM | 1.08 | .91 | .84 | 1.76 | .85 | .82 | 1.11 | .69 | .63 | .10 | 2.09 | .31 |
| IN. | 1.24 | 1.02 | .97 | 2.03 | .91 | .94 | 1.24 | .80 | .71 | .12 | 2.41 | .35 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1.23 | 1.04 | .96 | 2.01 | .96 | .93 | 1.27 | .79 | .72 | .12 | 1.89 | 1.55 |
| MAX | 1.23 | 1.04 | .96 | 2.01 | .96 | .93 | 1.27 | .79 | .72 | .12 | 2.38 | 2.74 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 |
| MIN | 1.23 | 1.04 | .96 | 2.01 | .96 | .93 | 1.27 | .79 | .72 | .12 | 1.41 | .36 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 |

| SUMMARY STATISTICS | FOR 1992 WATER YEAR | | WATER YEARS 1991 - 1992 | |
|---|---|---|---|---|
| ANNUAL TOTAL | 390.31 | | | |
| ANNUAL MEAN | 1.07 | | 1.07 | |
| HIGHEST ANNUAL MEAN | | | 1.07 | 1992 |
| LOWEST ANNUAL MEAN | | | 1.07 | 1992 |
| HIGHEST DAILY MEAN | 17 | Aug 15 | 37 | Sep 26 1991 |
| LOWEST DAILY MEAN | .06 | Aug 1 | .06 | Aug 1 1992 |
| ANNUAL SEVEN-DAY MINIMUM | .06 | Jul 31 | .06 | Jul 31 1992 |
| INSTANTANEOUS PEAK FLOW | 52 | Aug 15 | 80 | Sep 26 1991 |
| INSTANTANEOUS PEAK STAGE | 3.91 | Aug 15 | 4.37 | Sep 26 1991 |
| INSTANTANEOUS LOW FLOW | .06* | Jul 31 | 0 | Sep 11 1991 |
| ANNUAL RUNOFF (CFSM) | .94 | | .94 | |
| ANNUAL RUNOFF (INCHES) | 12.74 | | 12.71 | |
| 10 PERCENT EXCEEDS | 1.7 | | 1.9 | |
| 50 PERCENT EXCEEDS | .79 | | .81 | |
| 90 PERCENT EXCEEDS | .14 | | .17 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

0210783276 HERRINGS MARSH RUN BELOW SECONDARY ROAD 1306 AT RED HILL, NC

LOCATION.--Lat 35°04'25", long 77°54'50", Duplin County, Hydrologic Unit 03030007, on left bank, 200 ft downstream of Secondary Road 1506, and 0.1 mi southwest of Red Hill.

DRAINAGE AREA.--9.11 $mi^2$.

PERIOD OF RECORD.--May 1991 to current year.

Gage.--Water-stage recorder. Elevation of gage is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for daily discharges below 1 $ft^3/s$, which are poor. Minimum discharge for the period May to September 1991 and period of record also occurred June 17, 19, 1991. Minimum discharge for the current water year also occurred August 2-5, and 9.

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD MAY TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | --- | --- | 4.1 | 2.6 | 1.8 | 19 | 8.5 |
| 2 | --- | --- | --- | --- | --- | --- | --- | 3.9 | 11 | 2.1 | 18 | 12 |
| 3 | --- | --- | --- | --- | --- | --- | --- | 3.4 | 12 | 1.7 | 15 | 6.9 |
| 4 | --- | --- | --- | --- | --- | --- | --- | 2.5 | 6.6 | 5.7 | 11 | 5.6 |
| 5 | --- | --- | --- | --- | --- | --- | --- | 2.4 | 4.0 | 89 | 7.1 | 4.6 |
| 6 | --- | --- | --- | --- | --- | --- | --- | 2.2 | 2.6 | 66 | 5.4 | 4.5 |
| 7 | --- | --- | --- | --- | --- | --- | --- | 2.2 | 2.0 | 20 | 16 | 5.9 |
| 8 | --- | --- | --- | --- | --- | --- | --- | 2.2 | 1.6 | 11 | 39 | 4.6 |
| 9 | --- | --- | --- | --- | --- | --- | --- | 2.0 | 1.3 | 6.9 | 15 | 3.8 |
| 10 | --- | --- | --- | --- | --- | --- | --- | 2.3 | 1.0 | 4.9 | 12 | 2.6 |
| 11 | --- | --- | --- | --- | --- | --- | --- | 2.2 | .84 | 13 | 9.2 | 2.6 |
| 12 | --- | --- | --- | --- | --- | --- | --- | 1.4 | .73 | 67 | 10 | 2.9 |
| 13 | --- | --- | --- | --- | --- | --- | --- | 1.2 | .68 | 16 | 17 | 2.8 |
| 14 | --- | --- | --- | --- | --- | --- | --- | 1.3 | .54 | 8.6 | 11 | 2.8 |
| 15 | --- | --- | --- | --- | --- | --- | --- | 1.7 | .45 | 5.8 | 13 | 2.6 |
| 16 | --- | --- | --- | --- | --- | --- | --- | 1.4 | .40 | 6.1 | 11 | 2.2 |
| 17 | --- | --- | --- | --- | --- | --- | --- | 1.1 | .45 | 6.6 | 7.4 | 1.5 |
| 18 | --- | --- | --- | --- | --- | --- | --- | 1.3 | .54 | 4.9 | 6.6 | 1.5 |
| 19 | --- | --- | --- | --- | --- | --- | --- | 12 | 1.6 | 7.3 | 7.0 | 4.3 |
| 20 | --- | --- | --- | --- | --- | --- | --- | 23 | 24 | 8.2 | 7.8 | 16 |
| 21 | --- | --- | --- | --- | --- | --- | --- | 21 | 66 | 4.1 | 5.2 | 6.5 |
| 22 | --- | --- | --- | --- | --- | --- | --- | 9.8 | 21 | 2.6 | 3.4 | 3.6 |
| 23 | --- | --- | --- | --- | --- | --- | --- | 6.3 | 11 | 2.1 | 4.2 | 2.3 |
| 24 | --- | --- | --- | --- | --- | --- | --- | 4.1 | 9.0 | 1.7 | 11 | 4.5 |
| 25 | --- | --- | --- | --- | --- | --- | --- | 3.3 | 7.2 | 4.6 | 17 | 35 |
| 26 | --- | --- | --- | --- | --- | --- | --- | 2.5 | 6.0 | 5.8 | 13 | 120 |
| 27 | --- | --- | --- | --- | --- | --- | --- | 2.3 | 6.0 | 3.6 | 25 | 34 |
| 28 | --- | --- | --- | --- | --- | --- | --- | 2.2 | 4.5 | 6.4 | 35 | 18 |
| 29 | --- | --- | --- | --- | --- | --- | --- | 1.6 | 3.3 | 14 | 18 | 13 |
| 30 | --- | --- | --- | --- | --- | --- | --- | 1.2 | 2.4 | 30 | 12 | 10 |
| 31 | --- | --- | --- | --- | --- | --- | --- | .73 | --- | 50 | 8.6 | --- |
| TOTAL | --- | --- | --- | --- | --- | --- | --- | 128.83 | 211.33 | 477.5 | 409.9 | 345.1 |
| MEAN | --- | --- | --- | --- | --- | --- | --- | 4.16 | 7.04 | 15.4 | 13.2 | 11.5 |
| MAX | --- | --- | --- | --- | --- | --- | --- | 23 | 66 | 89 | 39 | 120 |
| MIN | --- | --- | --- | --- | --- | --- | --- | .73 | .40 | 1.7 | 3.4 | 1.5 |
| CFSM | --- | --- | --- | --- | --- | --- | --- | .46 | .77 | 1.69 | 1.45 | 1.26 |
| IN. | --- | --- | --- | --- | --- | --- | --- | .53 | .86 | 1.95 | 1.67 | 1.41 |

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD MAY TO SEPTEMBER

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | --- | --- | --- | --- | --- | --- | --- | 4.16 | 7.04 | 15.4 | 13.2 | 11.5 |
| MAX | --- | --- | --- | --- | --- | --- | --- | 4.16 | 7.04 | 15.4 | 13.2 | 11.5 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 | 1991 | 1991 |
| MIN | --- | --- | --- | --- | --- | --- | --- | 4.16 | 7.04 | 15.4 | 13.2 | 11.5 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 | 1991 | 1991 |

| SUMMARY STATISTICS | FOR PERIOD MAY TO SEPTEMBER 1991 | |
|---|---|---|
| INSTANTANEOUS PEAK FLOW | 173 | Sept 26 |
| INSTANTANEOUS PEAK STAGE | 6.92 | Sept 26 |
| INSTANTANEOUS LOW FLOW | .37* | |

* See REMARKS.

CAPE FEAR RIVER BASIN

0210783276 HERRINGS MARSH RUN BELOW SECONDARY ROAD 1306 AT RED HILL, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.6 | 3.7 | 5.2 | 5.6 | 9.8 | 5.2 | 7.4 | 4.0 | 3.8 | 1.7 | 1.1 | 2.2 |
| 2 | 8.1 | 4.0 | 5.7 | 5.4 | 8.4 | 5.0 | 5.8 | 3.6 | 2.9 | 1.6 | 1.1 | 2.0 |
| 3 | 29 | 3.5 | 6.9 | 49 | 7.9 | 5.0 | 4.9 | 3.1 | 2.6 | 1.5 | 1.2 | 2.0 |
| 4 | 20 | 4.2 | 14 | 46 | 7.5 | 4.9 | 5.4 | 2.8 | 2.5 | 1.6 | 1.1 | 1.9 |
| 5 | 15 | 3.8 | 6.2 | 25 | 7.2 | 5.0 | 11 | 2.7 | 2.5 | 1.6 | 1.4 | 2.2 |
| 6 | 15 | 3.6 | 5.0 | 16 | 6.8 | 7.3 | 6.1 | 3.1 | 2.4 | 1.5 | 1.7 | 3.2 |
| 7 | 11 | 3.7 | 6.1 | 13 | 5.7 | 20 | 5.1 | 4.0 | 2.2 | 1.5 | 1.4 | 3.7 |
| 8 | 10 | 3.9 | 8.9 | 10 | 5.6 | 11 | 4.8 | 16 | 2.0 | 1.4 | 1.2 | 3.0 |
| 9 | 9.7 | 8.6 | 7.5 | 9.8 | 5.2 | 11 | 4.3 | 8.5 | 7.9 | 1.4 | 1.2 | 2.5 |
| 10 | 8.8 | 30 | 6.8 | 9.8 | 5.3 | 7.1 | 3.9 | 5.7 | 20 | 1.3 | 3.9 | 2.2 |
| 11 | 8.0 | 14 | 5.1 | 9.5 | 5.0 | 6.5 | 3.7 | 4.7 | 8.9 | 1.2 | 1.6 | 2.3 |
| 12 | 6.9 | 9.1 | 4.4 | 7.9 | 5.3 | 5.5 | 3.8 | 4.1 | 5.0 | 1.2 | 4.4 | 2.1 |
| 13 | 6.6 | 7.4 | 4.3 | 8.0 | 4.8 | 5.3 | 4.1 | 3.8 | 4.2 | 1.2 | 40 | 1.7 |
| 14 | 7.2 | 6.3 | 4.1 | 13 | 5.0 | 5.2 | 3.1 | 3.5 | 3.1 | 1.2 | 34 | 1.6 |
| 15 | 6.1 | 5.8 | 3.2 | 9.0 | 6.1 | 5.3 | 3.1 | 3.2 | 2.9 | 1.2 | 124 | 1.5 |
| 16 | 8.8 | 5.5 | 2.8 | 7.0 | 11 | 5.7 | 2.9 | 2.9 | 2.9 | 1.2 | 74 | 1.5 |
| 17 | 10 | 5.3 | 2.7 | 6.1 | 6.6 | 5.0 | 2.8 | 2.7 | 3.0 | 1.2 | 105 | 1.5 |
| 18 | 7.2 | 4.4 | 2.7 | 6.1 | 5.6 | 4.9 | 2.7 | 2.6 | 2.2 | 1.3 | 65 | 1.5 |
| 19 | 6.1 | 4.6 | 2.4 | 5.8 | 7.0 | 9.9 | 2.6 | 11 | 2.2 | 1.3 | 32 | 1.5 |
| 20 | 5.7 | 4.6 | 2.3 | 5.4 | 5.8 | 8.2 | 2.5 | 4.9 | 2.2 | 1.4 | 28 | 1.5 |
| 21 | 5.3 | 6.0 | 2.9 | 5.4 | 4.9 | 7.1 | 2.6 | 4.3 | 5.9 | 1.3 | 28 | 1.9 |
| 22 | 5.4 | 11 | 3.0 | 5.2 | 4.7 | 5.8 | 57 | 3.3 | 6.3 | 1.5 | 15 | 1.9 |
| 23 | 5.3 | 9.3 | 3.2 | 16 | 6.4 | 11 | 17 | 2.6 | 2.7 | 1.7 | 10 | 2.2 |
| 24 | 5.2 | 6.6 | 10 | 19 | 9.9 | 7.9 | 9.3 | 2.4 | 2.3 | 1.4 | 6.8 | 2.1 |
| 25 | 5.1 | 5.0 | 6.0 | 11 | 8.8 | 6.3 | 10 | 2.3 | 2.0 | 1.3 | 5.6 | 1.7 |
| 26 | 5.0 | 4.4 | 4.4 | 8.4 | 15 | 18 | 6.9 | 2.6 | 1.9 | 1.3 | 4.0 | 1.8 |
| 27 | 5.0 | 4.1 | 9.9 | 7.3 | 12 | 13 | 5.6 | 3.1 | 2.8 | 1.3 | 3.5 | 1.8 |
| 28 | 5.2 | 4.2 | 8.4 | 29 | 7.4 | 8.5 | 5.2 | 2.7 | 2.2 | 1.2 | 3.1 | 1.8 |
| 29 | 4.4 | 4.3 | 16 | 19 | 6.2 | 7.1 | 4.3 | 2.5 | 1.8 | 1.2 | 2.9 | 2.1 |
| 30 | 3.9 | 4.5 | 9.6 | 14 | --- | 6.7 | 3.7 | 3.7 | 1.7 | 1.2 | 2.6 | 1.7 |
| 31 | 3.9 | --- | 6.8 | 12 | --- | 8.9 | --- | 5.2 | --- | 1.2 | 2.3 | --- |
| TOTAL | 261.5 | 195.4 | 186.5 | 413.7 | 206.9 | 243.3 | 211.6 | 131.6 | 115.0 | 42.1 | 607.1 | 60.6 |
| MEAN | 8.44 | 6.51 | 6.02 | 13.3 | 7.13 | 7.85 | 7.05 | 4.25 | 3.83 | 1.36 | 19.6 | 2.02 |
| MAX | 29 | 30 | 16 | 49 | 15 | 20 | 57 | 16 | 20 | 1.7 | 124 | 3.7 |
| MIN | 3.9 | 3.5 | 2.3 | 5.2 | 4.7 | 4.9 | 2.5 | 2.3 | 1.7 | 1.2 | 1.1 | 1.5 |
| CFSM | .93 | .71 | .66 | 1.46 | .78 | .86 | .77 | .47 | .42 | .15 | 2.15 | .22 |
| IN. | 1.07 | .80 | .76 | 1.69 | .84 | .99 | .86 | .54 | .47 | .17 | 2.48 | .25 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 8.44 | 6.51 | 6.02 | 13.3 | 7.13 | 7.85 | 7.05 | 4.20 | 5.44 | 8.38 | 16.4 | 6.76 |
| MAX | 8.44 | 6.51 | 6.02 | 13.3 | 7.13 | 7.85 | 7.05 | 4.25 | 7.04 | 15.4 | 19.6 | 11.5 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1991 | 1992 | 1991 |
| MIN | 8.44 | 6.51 | 6.02 | 13.3 | 7.13 | 7.85 | 7.05 | 4.16 | 3.83 | 1.36 | 13.2 | 2.02 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1992 | 1991 | 1992 |

| SUMMARY STATISTICS | FOR 1992 WATER YEAR | | WATER YEARS 1991 - 1992 | |
|---|---|---|---|---|
| ANNUAL TOTAL | 2675.3 | | | |
| ANNUAL MEAN | 7.31 | | 7.31 | |
| HIGHEST ANNUAL MEAN | | | 7.31 | 1992 |
| LOWEST ANNUAL MEAN | | | 7.31 | 1992 |
| HIGHEST DAILY MEAN | 124 | Aug 15 | 124 | Aug 15 1992 |
| LOWEST DAILY MEAN | 1.1 | Aug 1 | .40 | Jun 16 1991 |
| ANNUAL SEVEN-DAY MINIMUM | 1.2 | Jul 29 | .54 | Jun 12 1991 |
| INSTANTANEOUS PEAK FLOW | 160 | Aug 15 | 173 | Sep 26 1991 |
| INSTANTANEOUS PEAK STAGE | 5.84 | Aug 15 | 6.92 | Sep 26 1991 |
| INSTANTANEOUS LOW FLOW | 1.1* | Aug 1 | .37* | Jun 16 1991 |
| ANNUAL RUNOFF (CFSM) | .80 | | .80 | |
| ANNUAL RUNOFF (INCHES) | 10.92 | | 10.90 | |
| 10 PERCENT EXCEEDS | 13 | | 16 | |
| 50 PERCENT EXCEEDS | 4.9 | | 5.0 | |
| 90 PERCENT EXCEEDS | 1.5 | | 1.5 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02108000 NORTHEAST CAPE FEAR RIVER NEAR CHINQUAPIN, NC

LOCATION.--Lat 34°49'40", long 77°50'00", Duplin County, Hydrologic Unit 03030007, on right bank 540 ft downstream of bridge on State Highway 41, 0.5 mi downstream of Muddy Creek, and 1.2 mi west of Chinquapin.

DRAINAGE AREA.--599 mi².

PERIOD OF RECORD.--July 1940 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 17.28 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Oct. 11, 1954. Minimum discharge for current water year also occurred July 22.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage of 22.6 ft at old bridge site 1,000 ft upstream from gage. Flood in 1928 reached a stage 0.8 ft lower than the flood in 1908, from information by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1660 | e199 | 221 | 538 | e950 | 627 | 538 | 320 | 286 | 82 | 27 | 372 |
| 2 | 1310 | e200 | 223 | 531 | e850 | 557 | 481 | 268 | 249 | 89 | 23 | 311 |
| 3 | 979 | e198 | 229 | 503 | e800 | 497 | 432 | 221 | 188 | 106 | 22 | 264 |
| 4 | 751 | e191 | 242 | 699 | e750 | 443 | 390 | 182 | 148 | 105 | 46 | e230 |
| 5 | 645 | e192 | 285 | 1170 | e650 | 398 | 389 | 150 | 134 | 78 | 70 | e300 |
| 6 | 638 | e194 | 305 | 1420 | e570 | 365 | 411 | 130 | 125 | 70 | 117 | e400 |
| 7 | 642 | e193 | 319 | 1580 | e530 | 387 | 413 | 122 | 110 | 58 | 88 | e520 |
| 8 | 619 | e220 | 313 | 1690 | 484 | 462 | 389 | 188 | 92 | 47 | 78 | e600 |
| 9 | 579 | e310 | 295 | 1600 | 447 | 515 | 356 | 291 | 88 | 38 | 91 | e630 |
| 10 | 518 | e420 | 278 | 1340 | 418 | 505 | 325 | 308 | 447 | 32 | 115 | e600 |
| 11 | 447 | e540 | 264 | 1090 | 395 | 466 | 294 | 266 | 744 | 28 | 104 | e500 |
| 12 | 379 | e700 | 249 | 914 | 379 | 443 | 267 | 204 | 777 | 23 | 97 | e400 |
| 13 | 326 | e680 | 243 | 776 | 366 | 424 | 247 | 156 | 661 | 19 | 250 | e350 |
| 14 | 290 | e650 | 234 | 724 | 355 | 389 | 229 | 137 | 513 | 16 | 855 | e280 |
| 15 | e280 | e550 | 226 | 736 | 347 | 351 | 206 | 129 | 431 | 14 | 1400 | e230 |
| 16 | e300 | e450 | 214 | 725 | 345 | 324 | 187 | 126 | 333 | 12 | 2690 | e210 |
| 17 | e310 | e370 | 202 | 691 | 339 | 302 | 173 | 114 | 252 | 11 | 5020 | e190 |
| 18 | e360 | e300 | 195 | 629 | 344 | 285 | 159 | 101 | 201 | 11 | 7360 | e180 |
| 19 | e365 | e260 | 186 | 568 | 359 | 277 | 147 | 118 | 155 | 10 | 9370 | 159 |
| 20 | e362 | e220 | 176 | 513 | 376 | 323 | 135 | 190 | 125 | 10 | 10100 | 149 |
| 21 | e350 | 204 | 168 | 474 | 373 | 399 | 126 | 263 | 165 | 9.6 | 10100 | 234 |
| 22 | e332 | 205 | 163 | 449 | 360 | 440 | 340 | 251 | 316 | 13 | 8790 | 275 |
| 23 | e290 | 233 | 162 | 452 | 363 | 445 | 826 | 200 | 344 | 39 | 7060 | 240 |
| 24 | e263 | 276 | 163 | 666 | 470 | 463 | 1000 | 149 | 299 | 61 | 5340 | 210 |
| 25 | e245 | 303 | 177 | 782 | 536 | 464 | 1060 | 113 | 205 | 74 | 3800 | 224 |
| 26 | e230 | 296 | 225 | 800 | 605 | 490 | 1030 | 98 | 126 | 67 | 2310 | 225 |
| 27 | e219 | 279 | 268 | e770 | 719 | 640 | 902 | 91 | 94 | 62 | 1540 | 193 |
| 28 | e215 | 260 | 300 | e800 | 750 | 730 | 749 | 90 | 87 | 62 | 1080 | 170 |
| 29 | e210 | 245 | 356 | e900 | 711 | 738 | 562 | 89 | 88 | 56 | 767 | 180 |
| 30 | e206 | 232 | 444 | e990 | --- | 676 | 405 | 105 | 84 | 42 | 578 | 186 |
| 31 | e203 | --- | 513 | e980 | --- | 608 | --- | 219 | --- | 33 | 456 | --- |
| TOTAL | 14523 | 9570 | 7838 | 26509 | 14941 | 14433 | 13168 | 5389 | 7867 | 1377.6 | 79744 | 9012 |
| MEAN | 468 | 319 | 253 | 855 | 515 | 466 | 439 | 174 | 262 | 44.4 | 2572 | 300 |
| MAX | 1660 | 700 | 513 | 1690 | 950 | 738 | 1060 | 320 | 777 | 106 | 10100 | 630 |
| MIN | 203 | 191 | 162 | 449 | 339 | 277 | 126 | 89 | 84 | 9.6 | 22 | 149 |
| CFSM | .78 | .53 | .42 | 1.43 | .86 | .78 | .73 | .29 | .44 | .07 | 4.29 | .50 |
| IN. | .90 | .59 | .49 | 1.65 | .93 | .90 | .82 | .33 | .49 | .09 | 4.95 | .56 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 405 | 415 | 648 | 1029 | 1178 | 1226 | 858 | 492 | 394 | 569 | 719 | 528 |
| MAX | 2448 | 1852 | 2225 | 2249 | 3832 | 3506 | 2958 | 1901 | 1953 | 3922 | 2681 | 4754 |
| (WY) | 1943 | 1948 | 1949 | 1978 | 1973 | 1983 | 1973 | 1969 | 1961 | 1962 | 1955 | 1955 |
| MIN | 7.59 | 15.6 | 59.6 | 158 | 249 | 261 | 145 | 71.5 | 20.8 | 25.9 | 13.8 | 11.0 |
| (WY) | 1955 | 1955 | 1955 | 1955 | 1955 | 1955 | 1986 | 1985 | 1985 | 1954 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 258542 | | 204371.6 | | | |
| ANNUAL MEAN | 708 | | 558 | | 705 | |
| HIGHEST ANNUAL MEAN | | | | | 1243 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 279 | 1951 |
| HIGHEST DAILY MEAN | 4380 | Aug 5 | 10100 | Aug 20 | 19500 | Jul 6 1962 |
| LOWEST DAILY MEAN | 34 | Jun 17 | 9.6 | Jul 21 | 5.3 | Oct 10 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 39 | Jun 15 | 11 | Jul 16 | 5.5 | Oct 8 1954 |
| INSTANTANEOUS PEAK FLOW | | | 10400 | Aug 20 | 20400 | Jul 6 1962 |
| INSTANTANEOUS PEAK STAGE | | | 16.59 | Aug 20 | 20.16 | Jul 6 1962 |
| INSTANTANEOUS LOW FLOW | | | 9.5* | Jul 21 | 5.3* | Oct 10 1954 |
| ANNUAL RUNOFF (CFSM) | 1.18 | | .93 | | 1.18 | |
| ANNUAL RUNOFF (INCHES) | 16.06 | | 12.69 | | 15.98 | |
| 10 PERCENT EXCEEDS | 1560 | | 814 | | 1700 | |
| 50 PERCENT EXCEEDS | 484 | | 300 | | 395 | |
| 90 PERCENT EXCEEDS | 129 | | 88 | | 60 | |

* See REMARKS.

CAPE FEAR RIVER BASIN

02108548 LITTLE ROCKFISH CREEK AT WALLACE, NC

LOCATION.--Lat 34°44'02", long 77°58'03", Duplin County, Hydrologic Unit 03030007, on right bank, 0.4 mi downstream of bridge on State Highway 41, 0.6 mi east-southeast of Wallace, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--7.8 mi².

PERIOD OF RECORD.--September 1976 to September 1992 (discontinued).

REVISED RECORDS.--WDR NC-78-1: Drainage area.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 27.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.2 | .15 | 3.1 | 4.5 | 12 | 6.6 | 6.0 | 2.4 | 1.1 | .42 | .04 | e.08 |
| 2 | 1.7 | .24 | 3.4 | 4.2 | 9.2 | 5.7 | 5.0 | 1.9 | .71 | .39 | .43 | e.06 |
| 3 | 3.7 | .79 | 5.1 | 30 | 7.4 | 5.2 | 4.1 | 2.2 | .44 | 1.7 | 1.2 | e.05 |
| 4 | 2.8 | 1.3 | 6.0 | 42 | 6.7 | 4.6 | 4.9 | .98 | 1.1 | 1.9 | 1.1 | e.05 |
| 5 | 4.1 | 1.4 | 3.7 | 23 | 5.9 | 4.2 | 6.5 | .75 | 1.1 | 2.0 | 3.8 | e5.0 |
| 6 | 5.0 | 1.3 | 3.6 | 14 | 5.6 | 6.3 | 4.9 | .84 | 1.0 | .15 | 17 | 23 |
| 7 | 3.8 | 1.3 | 4.0 | 10 | 5.1 | 12 | 3.8 | 2.4 | .42 | .10 | 4.7 | 46 |
| 8 | 2.8 | 1.4 | 4.6 | 8.0 | 4.6 | 10 | 4.1 | 3.5 | .17 | .05 | 1.7 | 13 |
| 9 | 2.2 | 6.8 | 3.6 | 7.0 | 4.1 | 7.1 | 3.5 | 2.3 | 9.6 | .05 | .69 | 6.7 |
| 10 | 1.8 | 15 | 2.8 | 6.6 | 3.8 | 5.8 | 2.6 | 1.7 | 11 | .04 | 4.9 | 4.9 |
| 11 | 1.5 | 7.8 | 2.6 | 6.0 | 3.4 | 5.3 | 2.4 | .48 | 5.1 | .05 | 1.3 | 2.0 |
| 12 | 1.2 | 5.2 | 3.1 | 5.8 | 3.5 | 4.2 | 3.2 | .29 | 3.5 | .04 | 8.1 | e.80 |
| 13 | 1.5 | 4.3 | 3.0 | 5.7 | 3.3 | 3.5 | 2.6 | 2.0 | 2.7 | .06 | 65 | e.50 |
| 14 | .96 | 3.9 | 3.1 | 13 | 3.1 | 3.3 | 1.9 | 1.1 | 21 | .07 | 151 | e.30 |
| 15 | .62 | 3.7 | 2.8 | 11 | 3.5 | 3.5 | 1.8 | .69 | 77 | .06 | 142 | e.25 |
| 16 | 1.6 | 3.2 | 2.1 | 7.5 | 3.5 | 3.4 | 1.8 | .35 | 23 | .05 | 190 | e.20 |
| 17 | 2.2 | 3.3 | 2.3 | 6.0 | 2.9 | 4.1 | 1.4 | .28 | 13 | .05 | 354 | e.15 |
| 18 | 1.2 | 3.1 | 2.6 | 6.4 | 3.2 | 4.0 | 1.1 | .32 | 7.7 | .06 | 332 | e.10 |
| 19 | .68 | 2.8 | 2.0 | 6.6 | 5.1 | 5.2 | 2.5 | .66 | 5.4 | .14 | 190 | 1.1 |
| 20 | 1.1 | 2.6 | 2.1 | 5.0 | 4.2 | 5.4 | 2.3 | .10 | 4.4 | .09 | 183 | 1.2 |
| 21 | 1.0 | 3.7 | 2.8 | 4.3 | 3.2 | 4.8 | 3.0 | .37 | 15 | .04 | 99 | e.80 |
| 22 | .79 | 4.3 | 3.4 | 4.0 | 2.7 | 4.2 | 32 | .23 | 19 | .06 | 13 | e.40 |
| 23 | .70 | 4.2 | 4.0 | 10 | 11 | 5.4 | 17 | .09 | 9.0 | .54 | 4.1 | e.25 |
| 24 | .38 | 4.3 | 6.1 | 18 | 15 | 4.7 | 7.3 | .06 | 5.2 | .08 | 1.8 | e.15 |
| 25 | .31 | 3.7 | 5.6 | 11 | 10 | 3.7 | 7.7 | .06 | 3.8 | .10 | 1.1 | e.12 |
| 26 | .80 | 2.4 | 4.5 | 7.5 | 16 | 21 | 5.9 | .71 | 2.4 | .04 | e.60 | e.15 |
| 27 | 2.2 | 2.3 | 6.8 | 6.3 | 16 | 21 | 4.2 | .19 | 2.2 | .05 | e.40 | e.80 |
| 28 | 1.6 | 3.2 | 7.1 | 23 | 11 | 12 | 3.5 | .10 | 1.7 | .04 | e.30 | e.60 |
| 29 | 1.8 | 3.1 | 8.6 | 26 | 8.4 | 8.7 | 2.6 | .12 | 1.2 | .04 | e.20 | e.50 |
| 30 | .95 | 2.8 | 6.4 | 17 | --- | 7.9 | 1.9 | 4.9 | .73 | .04 | e.15 | e.30 |
| 31 | .31 | --- | 5.2 | 15 | --- | 7.5 | --- | 3.2 | --- | .04 | e.10 | --- |
| TOTAL | 53.50 | 103.58 | 126.1 | 364.4 | 193.4 | 210.3 | 151.5 | 35.27 | 249.67 | 8.54 | 1772.71 | 109.51 |
| MEAN | 1.73 | 3.45 | 4.07 | 11.8 | 6.67 | 6.78 | 5.05 | 1.14 | 8.32 | .28 | 57.2 | 3.65 |
| MAX | 5.0 | 15 | 8.6 | 42 | 16 | 21 | 32 | 4.9 | 77 | 2.0 | 354 | 46 |
| MIN | .31 | .15 | 2.0 | 4.0 | 2.7 | 3.3 | 1.1 | .06 | .17 | .04 | .04 | .05 |
| CFSM | .22 | .44 | .52 | 1.51 | .85 | .87 | .65 | .15 | 1.07 | .04 | 7.33 | .47 |
| IN. | .26 | .49 | .60 | 1.74 | .92 | 1.00 | .72 | .17 | 1.19 | .04 | 8.45 | .52 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 3.14 | 4.70 | 8.95 | 16.6 | 16.1 | 18.8 | 9.78 | 5.06 | 6.39 | 7.02 | 11.8 | 8.23 |
| MAX | 23.6 | 24.7 | 25.1 | 39.0 | 49.1 | 54.0 | 27.5 | 11.7 | 25.1 | 19.8 | 57.2 | 33.9 |
| (WY) | 1990 | 1978 | 1990 | 1987 | 1983 | 1983 | 1983 | 1977 | 1982 | 1984 | 1992 | 1984 |
| MIN | .10 | .17 | .60 | 1.69 | 2.63 | 6.31 | 1.33 | 1.11 | .53 | .28 | .26 | .30 |
| (WY) | 1979 | 1982 | 1989 | 1989 | 1989 | 1988 | 1986 | 1991 | 1978 | 1992 | 1983 | 1983 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1976 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 3631.71 | | 3378.48 | | | |
| ANNUAL MEAN | 9.95 | | 9.23 | | 9.71 | |
| HIGHEST ANNUAL MEAN | | | | | 17.4 | 1983 |
| LOWEST ANNUAL MEAN | | | | | 3.35 | 1986 |
| HIGHEST DAILY MEAN | 180 | Aug 24 | 354 | Aug 17 | 354 | Aug 17 1992 |
| LOWEST DAILY MEAN | .11 | Jun 27 | .04 | Jul 10 | 0 | Jun 19 1978 |
| ANNUAL SEVEN-DAY MINIMUM | .30 | Jun 24 | .04 | Jul 26 | 0 | Oct 10 1978 |
| INSTANTANEOUS PEAK FLOW | | | 385 | Aug 18 | 385 | Aug 18 1992 |
| INSTANTANEOUS PEAK STAGE | | | 8.38 | Aug 18 | 8.38 | Aug 18 1992 |
| INSTANTANEOUS LOW FLOW | | | .01 | Aug 1 | 0* | Jun 19 1978 |
| ANNUAL RUNOFF (CFSM) | 1.28 | | 1.18 | | 1.24 | |
| ANNUAL RUNOFF (INCHES) | 17.32 | | 16.11 | | 16.91 | |
| 10 PERCENT EXCEEDS | 26 | | 13 | | 23 | |
| 50 PERCENT EXCEEDS | 3.9 | | 3.1 | | 3.2 | |
| 90 PERCENT EXCEEDS | .31 | | .12 | | .21 | |

* See REMARKS.

WACCAMAW RIVER BASIN

02109500 WACCAMAW RIVER AT FREELAND, NC

LOCATION.--Lat 34°05'43", long 78°32'55", Brunswick County, Hydrologic Unit 03040206, on left bank 150 ft downstream of New Britton Bridge on State Highway 130, 1 mi southwest of Freeland, 7 mi downstream of Juniper Creek, and 117 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--680 mi$^2$.

PERIOD OF RECORD.--July 1939 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 15.52 ft above National Geodetic Vertical Datum of 1929. Prior to July 15, 1943, nonrecording gage 150 ft upstream at same datum. Auxiliary nonrecording gage 3.3 mi downstream of base gage Oct. 7, 1949, to July 14, 1952. Since July 15, 1952, auxiliary water-stage recorder at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Minimum discharge for period of record also occurred Sept. 9, 19, 28, and Oct. 4-14, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 634 | 135 | 203 | 442 | 1570 | 1060 | 828 | 539 | 277 | 299 | 31 | 1620 |
| 2 | 758 | 126 | 194 | 429 | 1590 | 1060 | 827 | 512 | 262 | 284 | 30 | 1490 |
| 3 | 889 | 116 | 188 | 423 | 1580 | 1050 | 821 | 476 | 228 | 272 | 44 | 1360 |
| 4 | 981 | 105 | 189 | 505 | 1560 | 1030 | 807 | 430 | 211 | 255 | 196 | 1140 |
| 5 | 1040 | 96 | 195 | 587 | 1520 | 997 | 787 | 378 | 223 | 235 | 303 | 955 |
| 6 | 1110 | 90 | 200 | 648 | 1470 | 966 | 761 | 325 | 220 | 204 | 306 | 875 |
| 7 | 1130 | 85 | 199 | 739 | 1410 | 989 | 731 | 287 | 197 | 172 | 354 | 816 |
| 8 | 1130 | 80 | 196 | 766 | 1330 | 1030 | 694 | 282 | 178 | 144 | 381 | 766 |
| 9 | 1090 | 79 | 194 | 786 | 1240 | 1070 | 654 | 284 | 163 | 120 | 351 | 715 |
| 10 | 1040 | 137 | 190 | 801 | 1050 | 1200 | 610 | 270 | 274 | 99 | 356 | 660 |
| 11 | 976 | 218 | 188 | 812 | 990 | 1230 | 562 | 245 | 383 | 82 | 404 | 603 |
| 12 | 898 | 256 | 182 | 806 | 932 | 1080 | 531 | 218 | 437 | 70 | 376 | 548 |
| 13 | 818 | 271 | 177 | 795 | 868 | 1030 | 516 | 192 | 518 | 61 | 380 | 490 |
| 14 | 743 | 271 | 175 | 809 | 811 | 982 | 500 | 166 | 591 | 53 | 476 | 429 |
| 15 | 663 | 257 | 172 | 849 | 756 | 932 | 477 | 144 | 655 | 46 | 624 | 376 |
| 16 | 593 | 243 | 167 | 885 | 701 | 883 | 443 | 125 | 685 | 40 | 780 | 332 |
| 17 | 539 | 229 | 160 | 907 | 650 | 833 | 404 | 108 | 672 | 35 | 1010 | 317 |
| 18 | 491 | 218 | 154 | 908 | 622 | 785 | 365 | 94 | 633 | 32 | 1560 | 345 |
| 19 | 447 | 213 | 147 | 906 | 610 | 745 | 323 | 83 | 581 | 29 | 2360 | 389 |
| 20 | 406 | 207 | 140 | 909 | 609 | 714 | 286 | 74 | 529 | 31 | 3900 | 418 |
| 21 | 367 | 203 | 134 | 926 | 599 | 693 | 254 | 66 | 500 | 37 | 5550 | 418 |
| 22 | 329 | 214 | 129 | 936 | 579 | 678 | 411 | 59 | 509 | 44 | 6060 | 400 |
| 23 | 298 | 233 | 126 | 951 | 591 | 662 | 588 | 52 | 516 | 44 | 5820 | 373 |
| 24 | 270 | 253 | 123 | 1000 | 744 | 649 | 660 | 45 | 515 | 47 | 5180 | 338 |
| 25 | 245 | 260 | 128 | 1050 | 861 | 631 | 709 | 42 | 505 | 50 | 4420 | 302 |
| 26 | 225 | 256 | 130 | 1080 | 953 | 636 | 713 | 40 | 484 | 54 | 3780 | 271 |
| 27 | 203 | 248 | 136 | 1190 | 1000 | 698 | 676 | 38 | 446 | 53 | 3310 | 247 |
| 28 | 186 | 238 | 223 | 1280 | 1030 | 763 | 627 | 37 | 407 | 47 | 2820 | 228 |
| 29 | 170 | 227 | 319 | 1360 | 1050 | 805 | 588 | 37 | 368 | 41 | 2330 | 223 |
| 30 | 156 | 216 | 394 | 1450 | --- | 824 | 564 | 115 | 327 | 38 | 2000 | 212 |
| 31 | 145 | --- | 436 | 1520 | --- | 829 | --- | 250 | --- | 35 | 1770 | --- |
| TOTAL | 18970 | 5780 | 5888 | 27455 | 29276 | 27534 | 17717 | 6013 | 12494 | 3053 | 57262 | 17656 |
| MEAN | 612 | 193 | 190 | 886 | 1010 | 888 | 591 | 194 | 416 | 98.5 | 1847 | 589 |
| MAX | 1130 | 271 | 436 | 1520 | 1590 | 1230 | 828 | 539 | 685 | 299 | 6060 | 1620 |
| MIN | 145 | 79 | 123 | 423 | 579 | 631 | 254 | 37 | 163 | 29 | 30 | 212 |
| CFSM | .90 | .28 | .28 | 1.30 | 1.48 | 1.31 | .87 | .29 | .61 | .14 | 2.72 | .87 |
| IN. | 1.04 | .32 | .32 | 1.50 | 1.60 | 1.51 | .97 | .33 | .68 | .17 | 3.13 | .97 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 381 | 320 | 457 | 954 | 1302 | 1440 | 1001 | 347 | 325 | 537 | 694 | 630 |
| MAX | 1778 | 2332 | 3080 | 2964 | 4197 | 5319 | 2895 | 1928 | 1474 | 3040 | 2740 | 4825 |
| (WY) | 1948 | 1978 | 1949 | 1987 | 1948 | 1983 | 1973 | 1978 | 1969 | 1961 | 1981 | 1955 |
| MIN | 1.14 | .54 | 3.53 | 20.6 | 44.6 | 219 | 120 | 35.6 | 5.51 | 5.72 | 7.59 | .31 |
| (WY) | 1941 | 1955 | 1955 | 1955 | 1941 | 1955 | 1967 | 1950 | 1952 | 1952 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1939 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 260730 | | 229098 | | | |
| ANNUAL MEAN | 714 | | 626 | | 697 | |
| HIGHEST ANNUAL MEAN | | | | | 1392 | 1948 |
| LOWEST ANNUAL MEAN | | | | | 230 | 1941 |
| HIGHEST DAILY MEAN | 2940 | Feb 2 | 6060 | Aug 22 | 9910 | Sep 26 1955 |
| LOWEST DAILY MEAN | 22 | Jul 10 | 29 | Jul 19 | 0 | Sep 27 1983 |
| ANNUAL SEVEN-DAY MINIMUM | 24 | Jul 6 | 35 | Jul 16 | .10 | Oct 4 1954 |
| INSTANTANEOUS PEAK FLOW | | | 6110 | Aug 22 | 10200 | Sep 25 1955 |
| INSTANTANEOUS PEAK STAGE | | | 15.52 | Aug 22 | 16.63 | Sep 26 1955 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .10* | Aug 30 1954 |
| ANNUAL RUNOFF (CFSM) | 1.05 | | .92 | | 1.02 | |
| ANNUAL RUNOFF (INCHES) | 14.26 | | 12.53 | | 13.92 | |
| 10 PERCENT EXCEEDS | 1930 | | 1120 | | 1840 | |
| 50 PERCENT EXCEEDS | 445 | | 433 | | 345 | |
| 90 PERCENT EXCEEDS | 43 | | 83 | | 28 | |

* See REMARKS.

PEE DEE RIVER BASIN

02111000 YADKIN RIVER AT PATTERSON, NC

LOCATION.--Lat 35°59'29", long 81°33'30", Caldwell County, Hydrologic Unit 03040101, on left bank 200 ft upstream from bridge on State Highway 268, 0.4 mi upstream from Warrior Creek, 0.5 mi south of Patterson, 2.0 mi downstream of Walnut Branch, and at mile 416.

DRAINAGE AREA.--28.8 $mi^2$.

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

REVISED RECORDS.--WSP 1303: 1940(m), 1947-48(M). WSP 1553: 1948(P). WDR NC-80-1: 1975(P), drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,211.47 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1939, to Feb. 8, 1940, nonrecording gage at present site at 1,212.47 ft. Feb. 9, 1940, to Oct. 19, 1970, recording gage at present site at 1,212.47 ft. Satellite telemetry (rainfall and gage-height) at station.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge, 16,200 $ft^3/s$, from rating curve extended above 1,400 $ft^3/s$ on basis of computation of peak flow over dam 1 mi upstream at gage heights 4.58, 6.60, 7.70, and 12.70 ft. Minimum discharge for current water year also occurred several days in November.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 19 | 103 | 28 | 33 | 50 | 34 | 50 | 77 | 62 | 35 | 34 |
| 2 | 20 | 19 | 114 | 28 | 31 | 47 | 34 | 47 | 66 | 81 | 32 | 34 |
| 3 | 21 | 19 | 169 | 139 | 31 | 44 | 33 | 45 | 58 | 60 | 33 | 49 |
| 4 | 20 | 18 | 104 | 216 | 30 | 41 | 33 | 42 | 250 | 55 | 37 | 37 |
| 5 | 23 | 18 | 57 | 107 | 30 | 39 | 36 | 42 | 291 | 51 | 31 | 37 |
| 6 | 33 | 18 | 45 | 72 | 29 | 113 | 32 | 47 | 160 | 54 | 30 | 51 |
| 7 | 22 | 18 | 39 | 57 | 28 | 155 | 32 | 63 | 113 | 48 | 31 | 52 |
| 8 | 21 | 19 | 34 | 49 | 28 | 103 | 31 | 116 | 92 | 46 | 31 | 45 |
| 9 | 21 | 19 | 33 | 45 | 27 | 79 | 31 | 103 | 117 | 44 | 31 | 39 |
| 10 | 21 | 36 | 35 | 41 | 26 | 95 | 35 | 79 | 157 | 42 | 29 | 35 |
| 11 | 20 | 26 | 30 | 37 | 26 | 139 | 48 | 67 | 167 | 40 | 28 | 42 |
| 12 | 20 | 22 | 29 | 35 | 26 | 92 | 36 | 59 | 151 | 39 | 34 | 35 |
| 13 | 19 | 21 | 28 | 35 | 27 | 74 | 33 | 82 | 123 | 38 | 66 | 33 |
| 14 | 20 | 20 | 29 | 46 | 27 | 64 | 32 | 62 | 113 | 36 | 65 | 33 |
| 15 | 22 | 20 | 27 | 38 | 51 | 57 | 32 | 205 | 175 | 40 | 42 | 31 |
| 16 | 22 | 20 | 26 | 35 | 47 | 52 | 31 | 177 | 133 | 42 | 38 | 30 |
| 17 | 20 | 19 | 25 | 36 | 37 | 49 | 31 | 97 | 244 | 38 | 34 | 29 |
| 18 | 20 | 19 | 25 | 33 | 37 | 47 | 32 | 76 | 170 | 58 | 35 | 28 |
| 19 | 19 | 21 | 24 | 31 | 35 | 50 | 33 | 75 | 134 | 38 | 50 | 28 |
| 20 | 19 | 22 | 24 | 30 | 33 | 45 | 228 | 73 | 108 | 35 | 35 | 28 |
| 21 | 20 | 22 | 24 | 30 | 31 | 41 | 472 | 65 | 93 | 34 | 32 | 29 |
| 22 | 20 | 39 | 24 | 29 | 30 | 40 | 266 | 56 | 79 | 33 | 32 | 42 |
| 23 | 20 | 32 | 24 | 77 | 40 | 39 | 152 | 51 | 73 | 36 | 31 | 47 |
| 24 | 21 | 23 | 24 | 71 | 47 | 37 | 112 | 48 | 67 | 81 | 30 | 30 |
| 25 | 20 | 21 | 23 | 53 | 73 | 37 | 91 | 47 | 63 | 52 | 29 | 28 |
| 26 | 20 | 21 | 22 | 47 | 145 | 50 | 78 | 46 | 94 | 44 | 30 | 28 |
| 27 | 20 | 20 | 22 | 42 | 95 | 42 | 68 | 44 | 95 | 44 | 37 | 35 |
| 28 | 20 | 20 | 32 | 40 | 71 | 38 | 62 | 43 | 66 | 37 | 89 | 34 |
| 29 | 19 | 19 | 52 | 38 | 59 | 37 | 57 | 93 | 62 | 33 | 60 | 43 |
| 30 | 19 | 20 | 34 | 36 | --- | 36 | 54 | 139 | 66 | 32 | 43 | 31 |
| 31 | 19 | --- | 30 | 35 | --- | 36 | --- | 98 | --- | 52 | 37 | --- |
| TOTAL | 641 | 650 | 1311 | 1636 | 1230 | 1868 | 2279 | 2337 | 3657 | 1425 | 1197 | 1077 |
| MEAN | 20.7 | 21.7 | 42.3 | 52.8 | 42.4 | 60.3 | 76.0 | 75.4 | 122 | 46.0 | 38.6 | 35.9 |
| MAX | 33 | 39 | 169 | 216 | 145 | 155 | 472 | 205 | 291 | 81 | 89 | 52 |
| MIN | 19 | 18 | 22 | 28 | 26 | 36 | 31 | 42 | 58 | 32 | 28 | 28 |
| CFSM | .72 | .75 | 1.47 | 1.83 | 1.47 | 2.09 | 2.64 | 2.62 | 4.23 | 1.60 | 1.34 | 1.25 |
| IN. | .83 | .84 | 1.69 | 2.11 | 1.59 | 2.41 | 2.94 | 3.02 | 4.72 | 1.84 | 1.55 | 1.39 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 37.4 | 41.2 | 45.3 | 49.0 | 61.5 | 72.2 | 70.3 | 55.4 | 49.0 | 39.4 | 43.7 | 37.0 |
| MAX | 149 | 140 | 98.8 | 132 | 143 | 145 | 164 | 125 | 122 | 98.9 | 194 | 136 |
| (WY) | 1991 | 1978 | 1974 | 1946 | 1960 | 1973 | 1980 | 1973 | 1992 | 1941 | 1940 | 1979 |
| MIN | 8.45 | 9.07 | 11.8 | 11.4 | 27.0 | 23.7 | 26.5 | 20.5 | 13.0 | 9.04 | 9.05 | 6.95 |
| (WY) | 1955 | 1982 | 1956 | 1956 | 1988 | 1988 | 1981 | 1940 | 1956 | 1988 | 1988 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 21919 | | 19308 | | | |
| ANNUAL MEAN | 60.1 | | 52.8 | | 50.0 | |
| HIGHEST ANNUAL MEAN | | | | | 78.3 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 21.5 | 1956 |
| HIGHEST DAILY MEAN | 400 | Mar 29 | 472 | Apr 21 | 2130 | Aug 13 1940 |
| LOWEST DAILY MEAN | 18 | Nov 4 | 18 | Nov 4 | 5.3 | Sep 30 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 18 | Nov 1 | 18 | Nov 1 | 5.7 | Sep 25 1954 |
| INSTANTANEOUS PEAK FLOW | | | 811 | May 15 | 16200* | Aug 13 1940 |
| INSTANTANEOUS PEAK STAGE | | | 4.15 | May 15 | 12.70 | Aug 13 1940 |
| INSTANTANEOUS LOW FLOW | | | 18* | Nov 1 | 3.0 | May 15 1940 |
| ANNUAL RUNOFF (CFSM) | 2.09 | | 1.83 | | 1.74 | |
| ANNUAL RUNOFF (INCHES) | 28.31 | | 24.94 | | 23.61 | |
| 10 PERCENT EXCEEDS | 104 | | 103 | | 88 | |
| 50 PERCENT EXCEEDS | 54 | | 37 | | 37 | |
| 90 PERCENT EXCEEDS | 20 | | 20 | | 17 | |

* See REMARKS.

PEE DEE RIVER BASIN

02111180 ELK CREEK AT ELKVILLE, NC

LOCATION.--Lat 36°04'16", long 81°24'13", Wilkes County, Hydrologic Unit 03040101, on left bank 700 ft upstream from bridge on State Highway 268 in Elkville, and 3,400 ft upstream from mouth.

DRAINAGE AREA.--48.1 $mi^2$.

PERIOD OF RECORD.--October 1965 to current year.

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

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,082.40 ft above National Geodetic Vertical Datum of 1929. Satellite telemetry (rainfall and gage-height) at station.

REMARKS --Records fair except those for estimated daily discharges, which are poor. Maximum discharge: 11,600 $ft^3/s$, from rating curve extended above 3,200 $ft^3/s$ on basis of contracted-opening measurement; gage height: 9.58 ft, from floodmarks. Minimum discharge result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 13, 1940, reached a stage of about 22 ft; discharge, about 70,000 $ft^3/s$, on basis of several contracted-opening and slope-area measurements. A discharge of 6.0 $ft^3/s$ was measured Sept. 19, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26 | 28 | 134 | e41 | 44 | 77 | 55 | 80 | 152 | 141 | 57 | 58 |
| 2 | 26 | 29 | 132 | e40 | 42 | 69 | 53 | 74 | 118 | 216 | 48 | 56 |
| 3 | 27 | 29 | 220 | 161 | 40 | 65 | 53 | 71 | 102 | 112 | 49 | 82 |
| 4 | 26 | 28 | 128 | 298 | 40 | 59 | 53 | 67 | 1070 | 97 | 47 | 61 |
| 5 | 31 | 27 | 66 | 145 | 39 | 55 | 56 | 68 | 788 | 85 | 44 | 70 |
| 6 | 48 | 27 | 51 | 95 | 38 | 192 | 50 | 75 | e500 | 98 | 44 | 87 |
| 7 | 30 | 28 | 44 | 73 | 37 | 345 | 50 | 90 | e320 | 90 | 48 | 73 |
| 8 | 29 | 28 | 39 | 62 | 36 | 190 | 50 | 168 | 206 | 77 | 48 | 64 |
| 9 | 29 | 29 | 38 | 57 | 35 | 130 | 48 | 172 | 217 | 72 | 48 | 59 |
| 10 | 30 | 59 | 41 | 52 | 33 | 140 | 50 | 133 | 377 | 68 | 43 | 61 |
| 11 | 30 | 48 | 34 | 48 | 33 | 202 | 54 | 109 | 386 | 64 | 41 | 72 |
| 12 | 31 | 35 | 33 | 44 | 33 | 144 | 47 | 96 | 350 | 61 | 56 | 58 |
| 13 | 30 | 32 | 32 | 43 | 35 | 115 | 44 | 103 | 252 | 60 | 133 | 55 |
| 14 | 30 | 31 | 34 | 62 | 35 | 96 | 42 | 88 | 210 | 59 | 102 | 55 |
| 15 | 34 | 30 | 31 | 52 | 62 | 84 | 41 | 107 | 177 | 60 | 70 | 52 |
| 16 | 37 | 30 | 29 | 46 | 66 | 75 | 64 | 107 | 150 | 66 | 66 | 50 |
| 17 | 35 | 30 | 29 | 45 | 51 | 69 | 95 | 85 | 149 | 58 | e60 | 48 |
| 18 | 34 | 30 | 29 | 43 | 51 | 67 | 75 | 94 | 135 | 101 | e62 | 45 |
| 19 | 33 | 30 | 27 | 40 | 47 | 72 | 64 | 128 | 124 | 59 | e86 | 45 |
| 20 | 33 | 31 | 27 | 38 | 45 | 64 | 796 | 111 | 112 | 54 | e61 | 45 |
| 21 | 34 | 32 | 28 | 38 | 43 | 59 | 1690 | 98 | 102 | 52 | 49 | 48 |
| 22 | 33 | 65 | 27 | 38 | 42 | 57 | 641 | 84 | 93 | 60 | 49 | 59 |
| 23 | 33 | 55 | 27 | 102 | 51 | 58 | 291 | 76 | 88 | 99 | 49 | 65 |
| 24 | 38 | 37 | 29 | 109 | 68 | 54 | 199 | 72 | 83 | 83 | 48 | 48 |
| 25 | 39 | 32 | 27 | 78 | 90 | 52 | 157 | 68 | 79 | 70 | 46 | 46 |
| 26 | 33 | 30 | 27 | 67 | 250 | 80 | 128 | 66 | 85 | 61 | 48 | 46 |
| 27 | 29 | 29 | e27 | 58 | 165 | 64 | 110 | 64 | 93 | 57 | 63 | 58 |
| 28 | 29 | 28 | e45 | 55 | 114 | 59 | 99 | 70 | 75 | 54 | 203 | 60 |
| 29 | 29 | 27 | e78 | 51 | 95 | 57 | 89 | 221 | 74 | 50 | 117 | 80 |
| 30 | 28 | 28 | e57 | 49 | --- | 57 | 84 | 341 | 98 | 52 | 75 | 52 |
| 31 | 28 | --- | e46 | 47 | --- | 57 | --- | 211 | --- | 86 | 63 | --- |
| TOTAL | 982 | 1002 | 1616 | 2177 | 1760 | 2964 | 5328 | 3397 | 6765 | 2422 | 2023 | 1758 |
| MEAN | 31.7 | 33.4 | 52.1 | 70.2 | 60.7 | 95.6 | 178 | 110 | 225 | 78.1 | 65.3 | 58.6 |
| MAX | 48 | 65 | 220 | 298 | 250 | 345 | 1690 | 341 | 1070 | 216 | 203 | 87 |
| MIN | 26 | 27 | 27 | 38 | 33 | 52 | 41 | 64 | 74 | 50 | 41 | 45 |
| CFSM | .66 | .69 | 1.08 | 1.46 | 1.26 | 1.99 | 3.69 | 2.28 | 4.69 | 1.62 | 1.36 | 1.22 |
| IN. | .76 | .77 | 1.25 | 1.68 | 1.36 | 2.29 | 4.12 | 2.63 | 5.23 | 1.87 | 1.56 | 1.36 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 81.7 | 93.7 | 89.9 | 94.9 | 119 | 145 | 148 | 118 | 106 | 70.3 | 73.1 | 66.7 |
| MAX | 298 | 365 | 193 | 194 | 250 | 307 | 379 | 291 | 225 | 185 | 246 | 257 |
| (WY) | 1991 | 1978 | 1974 | 1978 | 1966 | 1979 | 1980 | 1973 | 1992 | 1989 | 1970 | 1979 |
| MIN | 19.8 | 19.8 | 24.7 | 22.5 | 48.2 | 47.9 | 51.5 | 37.3 | 21.7 | 17.6 | 18.9 | 24.9 |
| (WY) | 1982 | 1982 | 1989 | 1981 | 1989 | 1988 | 1986 | 1988 | 1988 | 1988 | 1988 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1966 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 36688 | | 32194 | | | |
| ANNUAL MEAN | 101 | | 88.0 | | 100 | |
| HIGHEST ANNUAL MEAN | | | | | 154 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 43.7 | 1988 |
| HIGHEST DAILY MEAN | 1050 | Apr 19 | 1690 | Apr 21 | 4400 | Nov 6 1977 |
| LOWEST DAILY MEAN | 26 | Sep 29 | 26 | Oct 1 | 12 | Jul 18 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 26 | Sep 28 | 27 | Dec 19 | 14 | Jul 12 1988 |
| INSTANTANEOUS PEAK FLOW | | | 2320 | Apr 21 | 11600* | Nov 6 1977 |
| INSTANTANEOUS PEAK STAGE | | | 4.42 | Apr 21 | 9.58* | Nov 6 1977 |
| INSTANTANEOUS LOW FLOW | | | 21 | Dec 20 | 11* | Jan 5 1981 |
| ANNUAL RUNOFF (CFSM) | 2.09 | | 1.83 | | 2.09 | |
| ANNUAL RUNOFF (INCHES) | 28.37 | | 24.90 | | 28.37 | |
| 10 PERCENT EXCEEDS | 187 | | 149 | | 170 | |
| 50 PERCENT EXCEEDS | 75 | | 57 | | 70 | |
| 90 PERCENT EXCEEDS | 29 | | 30 | | 31 | |

* See REMARKS.

PEE DEE RIVER BASIN

02111500 REDDIES RIVER AT NORTH WILKESBORO, NC

LOCATION.--Lat 36°10'29", long 81°10'09", Wilkes County, Hydrologic Unit 03040101, on left bank 550 ft upstream from bridge on Secondary Road 1517, 1.4 mi upstream from North Wilkesboro municipal dam, 1.2 mi northwest of North Wilkesboro, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--89.2 $mi^2$.

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

REVISED RECORDS.--WSP 1433: 1944. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 978.62 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow during growing season. Several water-temperature measurements were made during the year. Maximum discharge: 27,000 $ft^3/s$, from rating curve extended above 5,600 $ft^3/s$ on basis of computation of peak flow over dam; gage height: 22.02 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 69 | 70 | 263 | 87 | 86 | 124 | 98 | 137 | 211 | 164 | e120 | 76 |
| 2 | 69 | 71 | 374 | 93 | 84 | 116 | 96 | 130 | 183 | 172 | e110 | 77 |
| 3 | 71 | 69 | 143 | 419 | 83 | 109 | 93 | 125 | 166 | 153 | e109 | 121 |
| 4 | 69 | 69 | 114 | 249 | 83 | 104 | 94 | 118 | 1220 | 145 | e107 | 89 |
| 5 | 134 | 69 | 101 | 155 | 81 | 100 | 100 | 129 | 1010 | 138 | e105 | 101 |
| 6 | 105 | 69 | 94 | 126 | 80 | 207 | 92 | 149 | 404 | 155 | e106 | 97 |
| 7 | 74 | 70 | 89 | 112 | 79 | 340 | 91 | 156 | 296 | 138 | e105 | 95 |
| 8 | 72 | 72 | 95 | 104 | 78 | 196 | 92 | 284 | 316 | 133 | e105 | 113 |
| 9 | 73 | 140 | 88 | 99 | 75 | 157 | 89 | 283 | 373 | 130 | e103 | 88 |
| 10 | 72 | 87 | 91 | 93 | 74 | 179 | 88 | 209 | 373 | 126 | e102 | 81 |
| 11 | 72 | 74 | 85 | 89 | 75 | 274 | 90 | 175 | 339 | 124 | e100 | 93 |
| 12 | 71 | 71 | 83 | 88 | 75 | 188 | 88 | 156 | 324 | 124 | e95 | 79 |
| 13 | 69 | 69 | 81 | 95 | 76 | 160 | 86 | 149 | 285 | 124 | 217 | 75 |
| 14 | 69 | 68 | 87 | 115 | 76 | 142 | 84 | 162 | 272 | 122 | 164 | 75 |
| 15 | 72 | 68 | 79 | 93 | 123 | 133 | 84 | 307 | 425 | 134 | e125 | 72 |
| 16 | 74 | 68 | 77 | 83 | 121 | 123 | 93 | 263 | 319 | 156 | e110 | 70 |
| 17 | 69 | 67 | 76 | 93 | 94 | 118 | 93 | 193 | 291 | 135 | e105 | 69 |
| 18 | 69 | 70 | 75 | 85 | 98 | 116 | 98 | 199 | 252 | 170 | e102 | 67 |
| 19 | 69 | 71 | 72 | 80 | 92 | 120 | 87 | 251 | 233 | 126 | e101 | 73 |
| 20 | 68 | 78 | 73 | 83 | 87 | 111 | 258 | 208 | 211 | e122 | 92 | 71 |
| 21 | 69 | 199 | 74 | 80 | 85 | 105 | 1910 | 184 | 198 | e130 | 86 | 73 |
| 22 | 70 | 102 | 73 | 135 | 83 | 103 | 752 | 162 | 187 | e135 | 83 | 73 |
| 23 | 70 | 83 | 74 | 187 | 93 | 102 | 329 | 149 | 181 | e220 | 80 | 95 |
| 24 | 70 | 76 | 73 | 128 | 128 | 98 | 244 | 140 | 176 | e370 | 78 | 72 |
| 25 | 71 | 73 | 69 | 113 | 164 | 98 | 217 | 137 | 171 | e170 | 76 | 69 |
| 26 | 70 | 71 | 69 | 103 | 399 | 156 | 185 | 136 | 178 | e140 | 83 | 70 |
| 27 | 70 | 71 | 71 | 98 | 240 | 121 | 168 | 133 | 176 | e120 | 92 | 95 |
| 28 | 71 | 69 | 206 | 94 | 168 | 109 | 158 | 144 | 158 | e115 | 147 | 90 |
| 29 | 70 | 135 | 141 | 92 | 143 | 104 | 148 | 329 | 156 | e110 | 104 | 112 |
| 30 | 69 | 253 | 104 | 91 | --- | 102 | 141 | 437 | 153 | e112 | 82 | 79 |
| 31 | 71 | --- | 92 | 90 | --- | 102 | --- | 272 | --- | e120 | 78 | --- |
| TOTAL | 2281 | 2622 | 3286 | 3652 | 3223 | 4317 | 6246 | 6006 | 9237 | 4533 | 3272 | 2510 |
| MEAN | 73.6 | 87.4 | 106 | 118 | 111 | 139 | 208 | 194 | 308 | 146 | 106 | 83.7 |
| MAX | 134 | 253 | 374 | 419 | 399 | 340 | 1910 | 437 | 1220 | 370 | 217 | 121 |
| MIN | 68 | 67 | 69 | 80 | 74 | 98 | 84 | 118 | 153 | 110 | 76 | 67 |
| CFSM | .82 | .98 | 1.19 | 1.32 | 1.25 | 1.56 | 2.33 | 2.17 | 3.45 | 1.64 | 1.18 | .94 |
| IN. | .95 | 1.09 | 1.37 | 1.52 | 1.34 | 1.80 | 2.60 | 2.50 | 3.85 | 1.89 | 1.36 | 1.05 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 112 | 119 | 131 | 136 | 165 | 192 | 197 | 163 | 149 | 125 | 122 | 118 |
| MAX | 309 | 379 | 273 | 297 | 386 | 405 | 536 | 353 | 412 | 335 | 587 | 479 |
| (WY) | 1977 | 1978 | 1974 | 1978 | 1960 | 1975 | 1980 | 1973 | 1976 | 1941 | 1940 | 1945 |
| MIN | 34.5 | 46.7 | 49.5 | 44.5 | 71.5 | 77.3 | 78.3 | 68.6 | 47.6 | 43.0 | 31.0 | 30.8 |
| (WY) | 1955 | 1982 | 1956 | 1956 | 1989 | 1940 | 1986 | 1941 | 1956 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 60676 | | 51185 | | | |
| ANNUAL MEAN | 166 | | 140 | | 144 | |
| HIGHEST ANNUAL MEAN | | | | | 218 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 67.5 | 1956 |
| HIGHEST DAILY MEAN | 1260 | Mar 29 | 1910 | Apr 21 | 7600 | Aug 14 1940 |
| LOWEST DAILY MEAN | 67 | Nov 17 | 67 | Nov 17 | 23 | Aug 17 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 69 | Nov 12 | 69 | Nov 12 | 25 | Aug 11 1954 |
| INSTANTANEOUS PEAK FLOW | | | 4010 | Jun 4 | 27000* | Aug 14 1940 |
| INSTANTANEOUS PEAK STAGE | | | 8.74 | Jun 4 | 22.02* | Aug 14 1940 |
| INSTANTANEOUS LOW FLOW | | | 61 | Dec 20 | 22 | Aug 17 1954 |
| ANNUAL RUNOFF (CFSM) | 1.86 | | 1.57 | | 1.61 | |
| ANNUAL RUNOFF (INCHES) | 25.30 | | 21.35 | | 21.92 | |
| 10 PERCENT EXCEEDS | 270 | | 245 | | 232 | |
| 50 PERCENT EXCEEDS | 145 | | 102 | | 113 | |
| 90 PERCENT EXCEEDS | 71 | | 70 | | 61 | |

* See REMARKS.

PEE DEE RIVER BASIN

02112000 YADKIN RIVER AT WILKESBORO, NC

LOCATION.--Lat 36°09'09", long 81°08'45", Wilkes County, Hydrologic Unit 03040101, on right bank 150 ft upstream from bridge on State Highways 18 and 268 between North Wilkesboro and Wilkesboro, 150 ft downstream of Reddies River, 0.5 mi northeast of Wilkesboro, and 382 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--504 $mi^2$.

PERIOD OF RECORD.--April 1903 to June 1909, October 1920 to current year. Prior to October 1928, published as "at North Wilkesboro".

REVISED RECORDS.--WSP 1433: 1903-09, 1922, 1925-26(M), 1930, 1932, 1934, 1946-48(M), drainage area at former site. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 942.35 ft above National Geodetic Vertical Datum of 1929. Apr. 10, 1903, to June 30, 1909, and Oct. 17, 1920, to Apr. 10, 1929, nonrecording gage at site 1.2 mi downstream at different datum. Apr. 11, 1929, to Jan. 9, 1930, nonrecording gage at present site and datum. U.S. Army Corps of Engineers gage-height radio telemeter, gage-height telephone telemeter, and satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records good except those above 1,000 $ft^3/s$, which are fair. Flow regulated since 1962 by W. Kerr Scott Reservoir (station 02111391) 5.5 mi upstream. Maximum discharge prior to regulation: 160,000 $ft^3/s$, Aug. 14, 1940, from rating curve extended above 20,000 $ft^3/s$ on basis of slope-area measurement of peak flow; gage height: 37.6 ft, from floodmarks. Minimum daily discharge: 110 $ft^3/s$, Sept. 18, 19, 1956. Minimum discharge for current water year also occurred Nov. 6.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1916 reached a stage of 34.5 ft present site and datum, from floodmark; discharge, 116,000 $ft^3/s$, from rating curve extended as explained above.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 443 | 383 | 699 | 487 | 507 | 708 | 518 | 788 | 1390 | 866 | 659 | 597 |
| 2 | 446 | 389 | 904 | 495 | 495 | 666 | 504 | 708 | 991 | 1140 | 640 | 599 |
| 3 | 458 | 388 | 1270 | 747 | 487 | 603 | 486 | 665 | 893 | 1200 | 652 | 788 |
| 4 | 418 | 371 | 1390 | 1820 | 479 | 569 | 491 | 661 | 2040 | 973 | 648 | 769 |
| 5 | 462 | 341 | 1580 | 1910 | 477 | 584 | 499 | 678 | 3260 | 881 | 601 | 1100 |
| 6 | 491 | 340 | 1170 | 1190 | 475 | 812 | 483 | 701 | 4370 | 860 | 570 | 1080 |
| 7 | 440 | 342 | 759 | 1040 | 461 | 1510 | 482 | 826 | 3690 | 848 | 554 | 908 |
| 8 | 436 | 343 | 561 | 691 | 473 | 1820 | 471 | 1230 | 2690 | 719 | 558 | 921 |
| 9 | 409 | 355 | 581 | 637 | 469 | 1270 | 495 | 1730 | 1740 | 665 | 555 | 758 |
| 10 | 385 | 468 | 568 | 617 | 462 | 910 | 455 | 1430 | 1880 | 658 | 561 | 642 |
| 11 | 386 | 395 | 498 | 569 | 459 | 1390 | 573 | 985 | 2050 | 658 | 566 | 719 |
| 12 | 389 | 367 | 432 | 548 | 449 | 1240 | 571 | 811 | 2050 | 656 | 555 | 610 |
| 13 | 388 | 373 | 430 | 514 | 461 | 929 | 501 | 854 | 1690 | 645 | 894 | 574 |
| 14 | 381 | 412 | 451 | 599 | 461 | 814 | 444 | 1020 | 1480 | 599 | 1240 | 546 |
| 15 | 386 | 417 | 433 | 595 | 554 | 743 | 445 | 1140 | 1710 | 619 | 1350 | 525 |
| 16 | 389 | 409 | 438 | 526 | 640 | 652 | 467 | 1280 | 1650 | 678 | 880 | 505 |
| 17 | 383 | 409 | 444 | 515 | 587 | 640 | 563 | 1360 | 1680 | 682 | 667 | 503 |
| 18 | 382 | 403 | 423 | 521 | 593 | 633 | 528 | 1110 | 1530 | 993 | 607 | 484 |
| 19 | 383 | 397 | 418 | 515 | 584 | 694 | 565 | 1190 | 1310 | 745 | 686 | 481 |
| 20 | 388 | 386 | 421 | 504 | 543 | 657 | 697 | 1120 | 1120 | 576 | 738 | 484 |
| 21 | 382 | 391 | 432 | 468 | 497 | 561 | 2920 | 963 | 1080 | 602 | 591 | 482 |
| 22 | 384 | 528 | 415 | 454 | 476 | 559 | 2250 | 844 | 1020 | 622 | 544 | 482 |
| 23 | 383 | 439 | 416 | 733 | 505 | 551 | 4860 | 761 | 886 | 763 | 550 | 681 |
| 24 | 386 | 401 | 417 | 1110 | 698 | 532 | 4780 | 754 | 901 | 1080 | 542 | 663 |
| 25 | 386 | 386 | 412 | 834 | 792 | 510 | 3030 | 711 | 883 | 1040 | 544 | 491 |
| 26 | 389 | 378 | 414 | 713 | 1550 | 758 | 1660 | 681 | 918 | 858 | 553 | 445 |
| 27 | 391 | 373 | 435 | 653 | 1760 | 655 | 1180 | 676 | 1150 | 557 | 717 | 603 |
| 28 | 386 | 375 | 548 | 576 | 1080 | 553 | 878 | 702 | 1100 | 589 | 921 | 705 |
| 29 | 383 | 372 | 941 | 550 | 797 | 546 | 801 | 1060 | 892 | 571 | 1030 | 751 |
| 30 | 382 | 375 | 855 | 578 | --- | 557 | 791 | 1930 | 823 | 577 | 790 | 658 |
| 31 | 384 | --- | 555 | 562 | --- | 548 | --- | 2360 | --- | 648 | 576 | --- |
| TOTAL | 12479 | 11706 | 19710 | 22271 | 18271 | 24174 | 33388 | 31729 | 48867 | 23568 | 21539 | 19554 |
| MEAN | 403 | 390 | 636 | 718 | 630 | 780 | 1113 | 1024 | 1629 | 760 | 695 | 652 |
| MAX | 491 | 528 | 1580 | 1910 | 1760 | 1820 | 4860 | 2360 | 4370 | 1200 | 1350 | 1100 |
| MIN | 381 | 340 | 412 | 454 | 449 | 510 | 444 | 661 | 823 | 557 | 542 | 445 |
| † | +24 | +14 | +24 | -3 | +3 | 0 | 0 | +6 | -7 | +9 | -9 | -3 |
| MEAN‡ | 427 | 404 | 660 | 715 | 633 | 780 | 1113 | 1030 | 1622 | 769 | 686 | 649 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 691 | 679 | 765 | 869 | 964 | 1074 | 1078 | 918 | 837 | 706 | 752 | 646 |
| MAX | 3209 | 2571 | 1640 | 2269 | 2303 | 2341 | 2868 | 2334 | 2492 | 1642 | 4088 | 2462 |
| (WY) | 1907 | 1978 | 1907 | 1937 | 1960 | 1975 | 1980 | 1909 | 1909 | 1905 | 1940 | 1928 |
| MIN | 164 | 230 | 212 | 198 | 318 | 426 | 424 | 366 | 232 | 234 | 159 | 136 |
| (WY) | 1955 | 1956 | 1956 | 1956 | 1931 | 1927 | 1927 | 1926 | 1956 | 1988 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1903 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 328755 | | 287256 | | | |
| ANNUAL MEAN | 901 | ‡ 902 | 785 | ‡ 786 | 821 | ‡ 821 |
| HIGHEST ANNUAL MEAN | | | | | 1530 | 1907 |
| LOWEST ANNUAL MEAN | | | | | 345 | 1956 |
| HIGHEST DAILY MEAN | 4090 | Apr 19 | 4860 | Apr 23 | 66900 | Aug 14 1940 |
| LOWEST DAILY MEAN | 340 | Nov 6 | 340 | Nov 6 | 110* | Sep 18 1956 |
| ANNUAL SEVEN-DAY MINIMUM | 354 | Nov 3 | 354 | Nov 3 | 116 | Sep 15 1956 |
| INSTANTANEOUS PEAK FLOW | | | 6160 | Apr 21 | 12800* | Apr 10 1983 |
| INSTANTANEOUS PEAK STAGE | | | 8.46 | Apr 21 | 16.22* | Apr 10 1983 |
| INSTANTANEOUS LOW FLOW | | | 334* | Nov 5 | 86* | Dec 4 1965 |
| ANNUAL RUNOFF (CFSM) | 1.79 | | 1.56 | | 1.63 | |
| ANNUAL RUNOFF (INCHES) | 24.27 | | 21.20 | | 22.13 | |
| 10 PERCENT EXCEEDS | 1480 | | 1350 | | 1390 | |
| 50 PERCENT EXCEEDS | 822 | | 596 | | 634 | |
| 90 PERCENT EXCEEDS | 389 | | 389 | | 330 | |

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; provided by U.S. Army Corps of Engineers.
‡ Adjusted for change in W. Kerr Scott Reservoir.
* For regulated period (1963-1992) only. See REMARKS.

PEE DEE RIVER BASIN

02112120 ROARING RIVER NEAR ROARING RIVER, NC

LOCATION.--Lat 36°14'59", long 81°02'39", Wilkes County, Hydrologic Unit 03040101, on left bank at downstream end of old bridge pier, 800 ft upstream from bridge on Secondary Road 1990, 3.8 mi northwest of Roaring River, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--128 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements water years 1925, 1947, 1949-56, 1963. April 1964 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 964.85 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 1964, nonrecording gage on downstream side of bridge at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge: 26,600 $ft^3/s$, from rating curve extended above 2,400 $ft^3/s$ on basis of slope-area measurement of peak flow; gage heights: 22.54, 14.40, and 10.83 ft. Minimum discharge for current water year also occurred Oct. 30, Nov. 4, 5, Jan. 17.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 28 ft; estimated discharge, 45,000 $ft^3/s$. The flood of August 1940 reached a stage of about 24 ft; estimated discharge, 31,000 $ft^3/s$, from information by local residents and rating curve extended as explained above. A discharge of 24 $ft^3/s$ was measured Sept. 18, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 86 | 83 | 287 | 127 | 110 | 173 | 127 | 182 | 213 | 174 | 128 | 105 |
| 2 | 86 | 85 | 349 | 121 | 107 | 159 | 125 | 172 | 188 | 193 | 115 | 104 |
| 3 | 88 | 83 | 588 | 182 | 105 | 148 | 122 | 161 | 175 | 181 | 118 | 137 |
| 4 | 85 | 83 | 322 | 638 | 104 | 140 | 124 | 150 | 2860 | 161 | 111 | 127 |
| 5 | 146 | 82 | 180 | 285 | 102 | 133 | 130 | 168 | 1470 | 148 | 107 | 236 |
| 6 | 146 | 83 | 148 | 202 | 100 | 263 | 121 | 188 | 633 | 164 | 110 | 266 |
| 7 | 92 | 83 | 132 | 170 | 100 | 572 | 121 | 185 | 462 | 146 | 115 | 193 |
| 8 | 88 | 84 | 122 | 151 | 97 | 292 | 120 | 448 | 474 | 140 | 115 | 151 |
| 9 | 89 | 84 | 121 | 144 | 93 | 225 | 115 | 422 | 505 | 136 | 114 | 133 |
| 10 | 89 | 169 | 129 | 135 | 92 | 254 | 114 | 298 | 505 | 128 | 105 | 151 |
| 11 | 88 | 122 | 113 | 126 | 93 | 420 | 118 | 237 | 424 | 124 | 101 | 177 |
| 12 | 86 | 94 | 109 | 121 | 93 | 270 | 113 | 206 | 393 | 121 | 100 | 125 |
| 13 | 85 | 88 | 107 | 120 | 95 | 225 | 109 | 200 | 332 | 116 | 207 | 119 |
| 14 | 85 | 86 | 115 | 137 | 95 | 198 | 106 | 204 | 327 | 113 | 169 | 116 |
| 15 | 87 | 85 | 105 | 122 | 174 | 183 | 107 | 633 | 325 | 140 | 121 | 111 |
| 16 | 90 | 85 | 100 | 114 | 174 | 169 | 108 | 334 | 320 | 164 | 117 | 109 |
| 17 | 85 | 83 | 97 | 121 | 128 | 162 | 110 | 249 | 295 | 140 | 113 | 107 |
| 18 | 85 | 83 | 97 | 112 | 131 | 157 | 125 | 365 | 283 | 162 | 112 | 105 |
| 19 | 84 | 86 | 93 | 106 | 124 | 166 | 110 | 405 | 281 | 123 | 108 | 105 |
| 20 | 83 | 91 | 96 | 104 | 115 | 149 | 247 | 279 | 244 | 115 | 103 | 104 |
| 21 | 85 | 93 | 95 | 103 | 110 | 140 | 3550 | 228 | 227 | 125 | 101 | 109 |
| 22 | 85 | 230 | 93 | 102 | 108 | 137 | 1230 | 198 | 207 | 118 | 102 | 111 |
| 23 | 85 | 142 | 94 | 217 | 117 | 135 | 554 | 181 | 198 | 126 | 101 | 127 |
| 24 | 86 | 103 | 97 | 240 | 172 | 128 | 414 | 171 | 191 | 1580 | 99 | 104 |
| 25 | 87 | 92 | 91 | 162 | 227 | 130 | 344 | 166 | 185 | 295 | 97 | 101 |
| 26 | 85 | 89 | 89 | 145 | 617 | 216 | 280 | 162 | 185 | 205 | 108 | 105 |
| 27 | 85 | 87 | 90 | 134 | 373 | 165 | 249 | 157 | 197 | 181 | 139 | 141 |
| 28 | 85 | 86 | 162 | 129 | 248 | 145 | 226 | 175 | 170 | 147 | 301 | 132 |
| 29 | 83 | 85 | 378 | 122 | 202 | 138 | 203 | 298 | 165 | 131 | 163 | 126 |
| 30 | 83 | 86 | 177 | 119 | --- | 135 | 191 | 364 | 164 | 122 | 119 | 105 |
| 31 | 85 | --- | 141 | 116 | --- | 134 | --- | 262 | --- | 139 | 109 | --- |
| TOTAL | 2787 | 2915 | 4917 | 4927 | 4406 | 6061 | 9713 | 7848 | 12598 | 6058 | 3828 | 3942 |
| MEAN | 89.9 | 97.2 | 159 | 159 | 152 | 196 | 324 | 253 | 420 | 195 | 123 | 131 |
| MAX | 146 | 230 | 588 | 638 | 617 | 572 | 3550 | 633 | 2860 | 1580 | 301 | 266 |
| MIN | 83 | 82 | 89 | 102 | 92 | 128 | 106 | 150 | 164 | 113 | 97 | 101 |
| CFSM | .70 | .76 | 1.24 | 1.24 | 1.19 | 1.53 | 2.53 | 1.98 | 3.28 | 1.53 | .96 | 1.03 |
| IN. | .81 | .85 | 1.43 | 1.43 | 1.28 | 1.76 | 2.82 | 2.28 | 3.66 | 1.76 | 1.11 | 1.15 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 161 | 156 | 172 | 184 | 223 | 251 | 259 | 220 | 199 | 163 | 140 | 143 |
| MAX | 422 | 426 | 382 | 372 | 413 | 539 | 637 | 430 | 432 | 349 | 355 | 446 |
| (WY) | 1977 | 1978 | 1974 | 1978 | 1990 | 1975 | 1980 | 1991 | 1975 | 1989 | 1970 | 1971 |
| MIN | 56.9 | 63.3 | 72.1 | 83.8 | 99.5 | 97.4 | 100 | 90.7 | 62.2 | 50.8 | 47.3 | 57.9 |
| (WY) | 1989 | 1982 | 1989 | 1981 | 1989 | 1988 | 1986 | 1988 | 1988 | 1986 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 79352 | | 70000 | | | |
| ANNUAL MEAN | 217 | | 191 | | 190 | |
| HIGHEST ANNUAL MEAN | | | | | 258 | 1974 |
| LOWEST ANNUAL MEAN | | | | | 98.5 | 1988 |
| HIGHEST DAILY MEAN | 1820 | Mar 29 | 3550 | Apr 21 | 4530 | Nov 6 1977 |
| LOWEST DAILY MEAN | 82 | Nov 5 | 82 | Nov 5 | 32 | Aug 27 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 83 | Nov 1 | 83 | Nov 1 | 38 | Aug 22 1988 |
| INSTANTANEOUS PEAK FLOW | | | 9010 | Jul 24 | 26600* | Oct 17 1975 |
| INSTANTANEOUS PEAK STAGE | | | 12.88 | Jul 24 | 22.54* | Oct 17 1975 |
| INSTANTANEOUS LOW FLOW | | | 81* | Oct 5 | 31 | Aug 27 1988 |
| ANNUAL RUNOFF (CFSM) | 1.70 | | 1.49 | | 1.48 | |
| ANNUAL RUNOFF (INCHES) | 23.06 | | 20.34 | | 20.13 | |
| 10 PERCENT EXCEEDS | 379 | | 299 | | 304 | |
| 50 PERCENT EXCEEDS | 178 | | 127 | | 144 | |
| 90 PERCENT EXCEEDS | 86 | | 86 | | 82 | |

* See REMARKS.

PEE DEE RIVER BASIN

02112250 YADKIN RIVER AT ELKIN, NC

LOCATION.--Lat 36°14'30", long 80°50'49", Yadkin County, Hydrologic Unit 03040101, on right bank at downstream side of bridge on U.S. Highway 21 at Elkin, 0.3 mi downstream of Elkin River, and 362 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--869 $mi^2$.

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

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

GAGE.--Water-stage recorder. Datum of gage is 866.03 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 28, 1964, nonrecording gage on upstream side of bridge at same datum. U.S. Army Corps of Engineers gage-height, radio telemeter and satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable regulation by W. Kerr Scott Reservoir (station 02111391). Maximum gage height: 24.88 ft, from graph based on hourly gage-height readings and floodmark. Minimum discharge for current water year also occurred November 6, 7, 8, 9.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 36.0 ft, from information by North Carolina State Highway Commission. Flood of August 1940 reached a stage of 37.5 ft. A discharge of 172 $ft^3/s$ was measured on Sept. 19, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 708 | 691 | 1350 | 898 | 843 | 1160 | 902 | 1280 | 2220 | 1250 | 1050 | 873 |
| 2 | 701 | 695 | 1910 | 867 | 806 | 1120 | 897 | 1220 | 1520 | 1520 | 973 | 859 |
| 3 | 709 | 694 | 2680 | 1130 | 805 | 1030 | 871 | 1120 | 1370 | 1740 | 1050 | 1050 |
| 4 | 712 | 683 | 2330 | 3500 | 796 | 974 | 865 | 1090 | 4450 | 1440 | 950 | 1150 |
| 5 | 712 | 654 | 2210 | 2960 | 791 | 947 | 879 | 1110 | 7830 | 1340 | 911 | 1350 |
| 6 | 1190 | 643 | 1750 | 1900 | 782 | 1160 | 864 | 1180 | 5960 | 1350 | 930 | 1930 |
| 7 | 784 | 643 | 1290 | 1640 | 777 | 2880 | 859 | 1240 | 5150 | 1280 | 894 | 1370 |
| 8 | 742 | 645 | 945 | 1250 | 758 | 2590 | 864 | 2280 | 3990 | 1170 | 880 | 1260 |
| 9 | 725 | 648 | 924 | 1010 | 761 | 2140 | 848 | 2430 | 2770 | 1060 | 931 | 1140 |
| 10 | 691 | 938 | 955 | 1050 | 753 | 1520 | 838 | 2390 | 2990 | 1040 | 859 | 917 |
| 11 | 687 | 887 | 889 | 921 | 749 | 2250 | 884 | 1720 | 2840 | 1040 | 882 | 1120 |
| 12 | 687 | 735 | 794 | 919 | 745 | 2090 | 981 | 1340 | 2860 | 1040 | 855 | 999 |
| 13 | 687 | 700 | 781 | 880 | 738 | 1590 | 885 | 1340 | 2520 | 1030 | 1100 | 881 |
| 14 | 687 | 723 | 805 | 939 | 743 | 1360 | 816 | 1640 | 2130 | 1000 | 1670 | 858 |
| 15 | 687 | 722 | 789 | 983 | 886 | 1260 | 798 | 2040 | 2130 | 1040 | 1790 | 835 |
| 16 | 692 | 722 | 760 | 886 | 1130 | 1130 | 864 | 1860 | 2500 | 1200 | 1390 | 798 |
| 17 | 689 | 718 | 760 | 830 | 969 | 1080 | 1050 | 1990 | 2260 | 1090 | e1200 | 793 |
| 18 | 687 | 709 | 758 | 879 | 953 | 1070 | 964 | 1680 | 2220 | 1480 | e1100 | 785 |
| 19 | 679 | 701 | 738 | 847 | 935 | 1080 | 979 | 1980 | 1890 | 1300 | e1150 | 765 |
| 20 | 664 | 700 | 726 | 832 | 897 | 1150 | 1050 | 1800 | 1740 | 981 | e1200 | 783 |
| 21 | 659 | 699 | 750 | 816 | 840 | 988 | 11200 | 1520 | 1540 | 952 | 965 | 771 |
| 22 | 661 | 858 | 739 | 772 | 825 | 956 | 8280 | 1400 | 1550 | 1050 | 850 | 786 |
| 23 | 667 | 999 | 739 | 1120 | 833 | 953 | 6030 | 1220 | 1370 | 1260 | 854 | 872 |
| 24 | 673 | 754 | 750 | 1770 | 1020 | 928 | 6190 | 1170 | 1350 | 3340 | 845 | 1090 |
| 25 | 676 | 704 | 723 | 1420 | 1250 | 894 | 4690 | 1150 | 1330 | 1820 | 833 | 808 |
| 26 | 675 | 686 | 719 | 1120 | 2670 | 1270 | 2580 | 1110 | 1390 | e1500 | 825 | 744 |
| 27 | 687 | 675 | 727 | 1060 | 2930 | 1260 | 1980 | 1100 | 1580 | e1050 | 950 | 831 |
| 28 | 691 | 670 | 913 | 965 | 1880 | 991 | 1540 | 1110 | 1600 | e1000 | 1500 | 1210 |
| 29 | 693 | 665 | 2050 | 888 | 1380 | 960 | 1370 | 1550 | 1370 | 993 | 1540 | 1100 |
| 30 | 685 | 665 | 1550 | 887 | --- | 950 | 1320 | 2530 | 1240 | 972 | 1260 | 1070 |
| 31 | 687 | --- | 1050 | 889 | --- | 969 | --- | 3140 | --- | 1070 | 886 | --- |
| TOTAL | 21974 | 21626 | 34854 | 36828 | 30245 | 40700 | 63138 | 49730 | 75660 | 39398 | 33073 | 29798 |
| MEAN | 709 | 721 | 1124 | 1188 | 1043 | 1313 | 2105 | 1604 | 2522 | 1271 | 1067 | 993 |
| MAX | 1190 | 999 | 2680 | 3500 | 2930 | 2880 | 11200 | 3140 | 7830 | 3340 | 1790 | 1930 |
| MIN | 659 | 643 | 719 | 772 | 738 | 894 | 798 | 1090 | 1240 | 952 | 825 | 744 |
| IN. | .94 | .93 | 1.49 | 1.58 | 1.29 | 1.74 | 2.70 | 2.13 | 3.24 | 1.69 | 1.42 | 1.28 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1180 | 1171 | 1258 | 1362 | 1623 | 1877 | 1909 | 1590 | 1439 | 1102 | 1107 | 1023 |
| MAX | 2911 | 3871 | 2591 | 3129 | 2978 | 3885 | 4510 | 2887 | 2942 | 1922 | 3128 | 2910 |
| (WY) | 1991 | 1978 | 1974 | 1978 | 1990 | 1975 | 1980 | 1973 | 1975 | 1989 | 1970 | 1979 |
| MIN | 372 | 428 | 532 | 617 | 751 | 745 | 737 | 729 | 507 | 433 | 361 | 416 |
| (WY) | 1989 | 1982 | 1989 | 1966 | 1989 | 1988 | 1986 | 1988 | 1988 | 1988 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 553871 | | 477024 | | | |
| ANNUAL MEAN | 1517 | | 1303 | | 1392 | |
| HIGHEST ANNUAL MEAN | | | | | 1951 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 698 | 1988 |
| HIGHEST DAILY MEAN | 8070 | Mar 29 | 11200 | Apr 21 | 21500 | Aug 10 1970 |
| LOWEST DAILY MEAN | 643 | Nov 6 | 643 | Nov 6 | 246 | Aug 31 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 659 | Nov 3 | 659 | Nov 3 | 257 | Aug 25 1981 |
| INSTANTANEOUS PEAK FLOW | | | 22300 | Apr 21 | 28700 | Apr 10 1983 |
| INSTANTANEOUS PEAK STAGE | | | 21.32 | Apr 21 | 24.88* | Apr 10 1983 |
| INSTANTANEOUS LOW FLOW | | | 643* | Nov 5 | 239 | Aug 31 1981 |
| ANNUAL RUNOFF (CFSM) | 1.75 | | 1.50 | | 1.60 | |
| ANNUAL RUNOFF (INCHES) | 23.71 | | 20.42 | | 21.76 | |
| 10 PERCENT EXCEEDS | 2470 | | 2160 | | 2300 | |
| 50 PERCENT EXCEEDS | 1330 | | 981 | | 1060 | |
| 90 PERCENT EXCEEDS | 695 | | 698 | | 623 | |

* See REMARKS.

PEE DEE RIVER BASIN

02112360 MITCHELL RIVER NEAR STATE ROAD, NC

LOCATION.--Lat 36°18'42", long 80°48'26", Surry County, Hydrologic Unit 03040101, on right bank 280 ft upstream from bridge on Secondary Road 1001, 1.8 mi upstream from Grass Creek, and 3.3 mi east of State Road.

DRAINAGE AREA.--78.8 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1952-58, 1963. April 1964 to current year.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 927.12 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharge. Records good. Several measurements of water temperatures were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900, about 18 ft in August 1940, from information by local resident; estimated discharge, 9,000 $ft^3/s$. A discharge of 16 $ft^3/s$ was measured on Sept. 19, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 59 | 57 | 134 | 90 | 79 | 110 | 95 | 141 | 162 | 119 | 102 | 89 |
| 2 | 58 | 57 | 151 | 87 | 77 | 104 | 94 | 135 | 146 | 135 | 88 | 85 |
| 3 | 57 | 57 | 235 | 154 | 75 | 99 | 91 | 129 | 137 | 553 | 87 | 105 |
| 4 | 57 | 57 | 168 | 581 | 73 | 96 | 91 | 121 | 846 | 154 | 85 | 146 |
| 5 | 67 | 62 | 111 | 209 | 73 | 92 | 96 | 131 | 808 | 131 | 81 | 143 |
| 6 | 93 | 56 | 96 | 153 | 71 | 130 | 93 | 145 | 436 | 146 | 82 | 175 |
| 7 | 60 | 56 | 87 | 130 | 71 | 318 | 91 | 142 | 292 | 127 | 87 | 143 |
| 8 | 59 | 56 | 82 | 117 | 70 | 166 | 91 | 270 | 263 | 118 | 87 | 115 |
| 9 | 59 | 56 | 79 | 112 | 68 | 139 | 88 | 248 | 281 | 114 | 87 | 105 |
| 10 | 59 | 109 | 85 | 106 | 67 | 150 | 87 | 193 | 272 | 108 | 83 | 102 |
| 11 | 59 | 94 | 75 | 98 | 67 | 205 | 87 | 166 | 230 | 104 | 79 | 127 |
| 12 | 59 | 73 | 75 | 94 | 67 | 154 | 85 | 151 | 212 | 100 | 75 | 100 |
| 13 | 58 | 66 | 75 | 92 | 67 | 137 | 82 | 144 | 192 | 98 | 128 | 93 |
| 14 | 57 | 64 | 80 | 99 | 67 | 126 | 81 | 141 | 190 | 94 | 121 | 91 |
| 15 | 57 | 64 | 78 | 89 | 109 | 120 | 81 | 208 | 193 | 117 | 96 | 87 |
| 16 | 57 | 63 | 73 | 84 | 120 | 113 | 81 | 198 | 181 | 108 | 93 | 85 |
| 17 | 57 | 62 | 70 | 84 | 90 | 109 | 81 | 162 | 167 | 100 | 90 | 85 |
| 18 | 56 | 62 | 69 | 82 | 89 | 105 | 88 | 164 | 161 | 105 | 103 | 81 |
| 19 | 56 | 62 | 68 | 78 | 88 | 105 | 84 | 160 | 164 | 97 | 100 | 81 |
| 20 | 56 | 63 | 68 | 76 | 81 | 101 | 106 | 147 | 154 | 93 | 87 | 81 |
| 21 | 56 | 65 | 67 | 77 | 77 | 95 | 2700 | 135 | 150 | 97 | 83 | 81 |
| 22 | 56 | 97 | 67 | 77 | 77 | 93 | 811 | 125 | 140 | 100 | 83 | 88 |
| 23 | 56 | 95 | 67 | 99 | 80 | 92 | 352 | 121 | 133 | 190 | 83 | 93 |
| 24 | 55 | 75 | 67 | 125 | 114 | 91 | 259 | 115 | 132 | 315 | 80 | 77 |
| 25 | 54 | 67 | 67 | 99 | 135 | 91 | 219 | 114 | 128 | 135 | 79 | 75 |
| 26 | 56 | 64 | 66 | 93 | 291 | 143 | 188 | 114 | 131 | 112 | 79 | 75 |
| 27 | 58 | 64 | 65 | 86 | 186 | 117 | 173 | 114 | 143 | 107 | 92 | 95 |
| 28 | 58 | 63 | 96 | 85 | 141 | 105 | 165 | 127 | 123 | 98 | 273 | 100 |
| 29 | 57 | 61 | 213 | 82 | 123 | 102 | 153 | 201 | 118 | 91 | 142 | 93 |
| 30 | 57 | 61 | 117 | 81 | --- | 101 | 146 | 256 | 118 | 89 | 104 | 80 |
| 31 | 57 | --- | 100 | 81 | --- | 100 | --- | 193 | --- | 99 | 93 | --- |
| TOTAL | 1820 | 2008 | 2951 | 3600 | 2793 | 3809 | 6939 | 4911 | 6803 | 4154 | 3032 | 2976 |
| MEAN | 58.7 | 66.9 | 95.2 | 116 | 96.3 | 123 | 231 | 158 | 227 | 134 | 97.8 | 99.2 |
| MAX | 93 | 109 | 235 | 581 | 291 | 318 | 2700 | 270 | 846 | 553 | 273 | 175 |
| MIN | 54 | 56 | 65 | 76 | 67 | 91 | 81 | 114 | 118 | 89 | 75 | 75 |
| CFSM | .75 | .85 | 1.21 | 1.47 | 1.22 | 1.56 | 2.94 | 2.01 | 2.88 | 1.70 | 1.24 | 1.26 |
| IN. | .86 | .95 | 1.39 | 1.70 | 1.32 | 1.80 | 3.28 | 2.32 | 3.21 | 1.96 | 1.43 | 1.40 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 115 | 106 | 115 | 122 | 145 | 168 | 172 | 153 | 130 | 110 | 107 | 108 |
| MAX | 248 | 211 | 230 | 218 | 258 | 321 | 426 | 264 | 233 | 228 | 247 | 313 |
| (WY) | 1991 | 1980 | 1974 | 1978 | 1966 | 1975 | 1983 | 1973 | 1975 | 1989 | 1970 | 1979 |
| MIN | 40.1 | 48.7 | 47.0 | 48.3 | 64.9 | 72.8 | 69.1 | 69.4 | 50.0 | 35.9 | 32.1 | 54.3 |
| (WY) | 1989 | 1982 | 1989 | 1981 | 1989 | 1981 | 1981 | 1988 | 1988 | 1986 | 1981 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 52542 | | 45796 | | | |
| ANNUAL MEAN | 144 | | 125 | | 129 | |
| HIGHEST ANNUAL MEAN | | | | | 175 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 66.5 | 1981 |
| HIGHEST DAILY MEAN | 1140 | Mar 29 | 2700 | Apr 21 | 3260 | Aug 10 1970 |
| LOWEST DAILY MEAN | 54 | Oct 25 | 54 | Oct 25 | 23 | Aug 27 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 56 | Oct 19 | 56 | Oct 19 | 25 | Aug 25 1981 |
| INSTANTANEOUS PEAK FLOW | | | 6510 | Apr 21 | 7470 | Sep 22 1979 |
| INSTANTANEOUS PEAK STAGE | | | 14.07 | Apr 21 | 16.42 | Sep 22 1979 |
| INSTANTANEOUS LOW FLOW | | | 53 | Oct 5 | 16 | Jul 22 1986 |
| ANNUAL RUNOFF (CFSM) | 1.83 | | 1.59 | | 1.64 | |
| ANNUAL RUNOFF (INCHES) | 24.80 | | 21.62 | | 22.29 | |
| 10 PERCENT EXCEEDS | 233 | | 189 | | 200 | |
| 50 PERCENT EXCEEDS | 130 | | 94 | | 102 | |
| 90 PERCENT EXCEEDS | 60 | | 60 | | 57 | |

PEE DEE RIVER BASIN

02113000 FISHER RIVER NEAR COPELAND, NC

LOCATION.--Lat 36°21'26", long 80°41'10", Surry County, Hydrologic Unit 03040101, on left bank 500 ft upstream from bridge on State Highway 268, 1 mi upstream from Cody Creek, and 2 mi northwest of Copeland.

DRAINAGE AREA.--128 $mi^2$.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 1303: 1933(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 913 ft, by barometer. Prior to Sept. 5, 1936, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Some irrigation diversions at times in the growing season. Several measurements of water temperature were made during the year. Maximum discharge: 34,200 $ft^3/s$, from rating curve extended above 6,200 $ft^3/s$ on basis of slope-area measurement of peak flow; gage height: 18.4 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 72 | 67 | 162 | 130 | 103 | 156 | 136 | 203 | 226 | 170 | 140 | 99 |
| 2 | 70 | 68 | 222 | 121 | 100 | 146 | 133 | 192 | 198 | 259 | 105 | 96 |
| 3 | 71 | 67 | 456 | 200 | 98 | 137 | 130 | 186 | 181 | 247 | 109 | 119 |
| 4 | 69 | 65 | 299 | 1170 | 98 | 130 | 131 | 169 | 765 | 183 | 105 | 112 |
| 5 | 69 | 65 | 156 | 319 | 97 | 126 | 142 | 188 | 1160 | 159 | 99 | 185 |
| 6 | 131 | 65 | 127 | 218 | 95 | 161 | 133 | 207 | 505 | 183 | 102 | 208 |
| 7 | 80 | 67 | 114 | 178 | 91 | 722 | 133 | 195 | 342 | 158 | 109 | 183 |
| 8 | 73 | 68 | 106 | 150 | 90 | 283 | 134 | 368 | 367 | 149 | 112 | 132 |
| 9 | 74 | 69 | 103 | 143 | 88 | 222 | 129 | 374 | 414 | 147 | 109 | 144 |
| 10 | 75 | 157 | 115 | 134 | 86 | 252 | 127 | 277 | 472 | 137 | 99 | 122 |
| 11 | 73 | 139 | 101 | 122 | 86 | 402 | 128 | 230 | 337 | 131 | 94 | 248 |
| 12 | 71 | 93 | 96 | 115 | 87 | 258 | 124 | 208 | 305 | 127 | 90 | 126 |
| 13 | 70 | 81 | 94 | 112 | 87 | 220 | 117 | 202 | 268 | 122 | 196 | 110 |
| 14 | 69 | 76 | 102 | 127 | 87 | 207 | 115 | 201 | 263 | 117 | 193 | 102 |
| 15 | 70 | 75 | 98 | 112 | 141 | 188 | 115 | 242 | 294 | 130 | 123 | 98 |
| 16 | 71 | 73 | 90 | 107 | 187 | 174 | 115 | 288 | 543 | 131 | 112 | 95 |
| 17 | 67 | 73 | 87 | 103 | 129 | 166 | 118 | 201 | 283 | 134 | 103 | 91 |
| 18 | 67 | 71 | 86 | 106 | 121 | 163 | 143 | 245 | 258 | 133 | 110 | 88 |
| 19 | 68 | 72 | 92 | 101 | 116 | 169 | 127 | 216 | 257 | 120 | 101 | 88 |
| 20 | 65 | 75 | 92 | 97 | 107 | 157 | 139 | 185 | 229 | 112 | 95 | 92 |
| 21 | 66 | 79 | 94 | 98 | 102 | 149 | 6970 | 167 | 212 | 109 | 92 | 91 |
| 22 | 68 | 108 | 94 | 97 | 100 | 143 | 5380 | 157 | 199 | 110 | 92 | 94 |
| 23 | 70 | 136 | 93 | 174 | 108 | 141 | 602 | 151 | 189 | 180 | 91 | 92 |
| 24 | 70 | 92 | 97 | 231 | 166 | 134 | 405 | 145 | 185 | 252 | 89 | 85 |
| 25 | 68 | 81 | 88 | 147 | 233 | 133 | 330 | 148 | 180 | 154 | 86 | 82 |
| 26 | 69 | 77 | 78 | 131 | 686 | 228 | 282 | 146 | 179 | 126 | 88 | 86 |
| 27 | 69 | 75 | 77 | 121 | 320 | 182 | 255 | 148 | 227 | 119 | 98 | 104 |
| 28 | 68 | 75 | 110 | 117 | 220 | 154 | 243 | 172 | 174 | 115 | 391 | 126 |
| 29 | 66 | 74 | 465 | 113 | 185 | 148 | 222 | 302 | 165 | 106 | 200 | 108 |
| 30 | 64 | 74 | 180 | 109 | --- | 143 | 211 | 466 | 162 | 103 | 123 | 89 |
| 31 | 65 | --- | 134 | 107 | --- | 143 | --- | 291 | --- | 116 | 107 | --- |
| TOTAL | 2218 | 2457 | 4308 | 5310 | 4214 | 6137 | 17469 | 6870 | 9539 | 4539 | 3763 | 3495 |
| MEAN | 71.5 | 81.9 | 139 | 171 | 145 | 198 | 582 | 222 | 318 | 146 | 121 | 116 |
| MAX | 131 | 157 | 465 | 1170 | 686 | 722 | 6970 | 466 | 1160 | 259 | 391 | 248 |
| MIN | 64 | 65 | 77 | 97 | 86 | 126 | 115 | 145 | 162 | 103 | 86 | 82 |
| CFSM | .56 | .64 | 1.09 | 1.34 | 1.14 | 1.55 | 4.55 | 1.73 | 2.48 | 1.14 | .95 | .91 |
| IN. | .64 | .71 | 1.25 | 1.54 | 1.22 | 1.78 | 5.08 | 2.00 | 2.77 | 1.32 | 1.09 | 1.02 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 142 | 145 | 170 | 182 | 222 | 246 | 251 | 204 | 184 | 151 | 150 | 144 |
| MAX | 377 | 323 | 365 | 437 | 539 | 551 | 746 | 387 | 491 | 397 | 510 | 735 |
| (WY) | 1977 | 1980 | 1974 | 1978 | 1960 | 1975 | 1983 | 1950 | 1947 | 1943 | 1940 | 1979 |
| MIN | 40.2 | 57.6 | 58.1 | 54.4 | 103 | 103 | 103 | 77.6 | 47.5 | 31.3 | 24.6 | 27.9 |
| (WY) | 1942 | 1956 | 1956 | 1956 | 1941 | 1981 | 1981 | 1941 | 1956 | 1986 | 1981 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1939 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 66755 | | 70319 | | | |
| ANNUAL MEAN | 183 | | 192 | | 182 | |
| HIGHEST ANNUAL MEAN | | | | | 281 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 87.6 | 1956 |
| HIGHEST DAILY MEAN | 2560 | Mar 29 | 6970 | Apr 21 | 12100 | Sep 22 1979 |
| LOWEST DAILY MEAN | 64 | Oct 30 | 64 | Oct 30 | 13 | Aug 28 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 66 | Oct 30 | 66 | Oct 30 | 15 | Aug 25 1981 |
| INSTANTANEOUS PEAK FLOW | | | 26100 | Apr 22 | 34200* | Sep 22 1979 |
| INSTANTANEOUS PEAK STAGE | | | 18.22 | Apr 22 | 19.61 | Sep 22 1979 |
| INSTANTANEOUS LOW FLOW | | | 62 | Oct 20 | 12 | Aug 30 1981 |
| ANNUAL RUNOFF (CFSM) | 1.43 | | 1.50 | | 1.42 | |
| ANNUAL RUNOFF (INCHES) | 19.40 | | 20.44 | | 19.32 | |
| 10 PERCENT EXCEEDS | 286 | | 271 | | 290 | |
| 50 PERCENT EXCEEDS | 147 | | 126 | | 137 | |
| 90 PERCENT EXCEEDS | 72 | | 73 | | 69 | |

* See REMARKS.

PEE DEE RIVER BASIN

02113850 ARARAT RIVER AT ARARAT, NC

LOCATION.--Lat 36°24'16", long 80°33'43", Surry County, Hydrologic Unit 03040101, on right bank 265 ft upstream from bridge on Secondary Road 2019 at Ararat, and 300 ft downstream of Flat Shoal Creek.

DRAINAGE AREA.--231 $mi^2$.

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

GAGE.--Water-stage recorder. Datum of gage is 880.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge, 19 $ft^3/s$, also occurred Aug. 30, 1981. Minimum discharge for current water year also occurred Oct. 18.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 14, 1947, reached a stage of 21.4 ft, result of failure of dams upstream; discharge, 26,000 $ft^3/s$, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 141 | 141 | 327 | 222 | 234 | 263 | 208 | 400 | 386 | 317 | 274 | 196 |
| 2 | 142 | 145 | 406 | 214 | 222 | 252 | 205 | 383 | 385 | 447 | 204 | 184 |
| 3 | 145 | 142 | 989 | 269 | 218 | 245 | 204 | 366 | 326 | 487 | 206 | 240 |
| 4 | 142 | 141 | 575 | 893 | 216 | 241 | 205 | 346 | 830 | 312 | 202 | 257 |
| 5 | 268 | 140 | 288 | 382 | 212 | 256 | 218 | 393 | 1490 | 278 | 190 | 486 |
| 6 | 318 | 141 | 239 | 290 | 211 | 298 | 206 | 403 | 740 | 319 | 196 | 355 |
| 7 | 159 | 142 | 215 | 255 | 209 | 1300 | 204 | 362 | 521 | 279 | 200 | 286 |
| 8 | 146 | 147 | 198 | 239 | 206 | 460 | 203 | 512 | 570 | 264 | 204 | 293 |
| 9 | 142 | 150 | 208 | 236 | 200 | 336 | 198 | 497 | 609 | 261 | 205 | 233 |
| 10 | 142 | 398 | 264 | 227 | 196 | 426 | 195 | 419 | 781 | 243 | 195 | 363 |
| 11 | 140 | 305 | 227 | 214 | 196 | 678 | 193 | 369 | 546 | 233 | 192 | 775 |
| 12 | 138 | 203 | 216 | 210 | 200 | 401 | 192 | 344 | 505 | 228 | 204 | 291 |
| 13 | 136 | 174 | 212 | 209 | 202 | 329 | 191 | 338 | 446 | 220 | 705 | 238 |
| 14 | 135 | 165 | 246 | 254 | 204 | 296 | 187 | 362 | 439 | 210 | 449 | 225 |
| 15 | 137 | 161 | 226 | 225 | 301 | 282 | 187 | 394 | 422 | 235 | 270 | 216 |
| 16 | 144 | 157 | 211 | 210 | 357 | 263 | 185 | 548 | 441 | 226 | 243 | 213 |
| 17 | 137 | 156 | 206 | 198 | 236 | 251 | 189 | 346 | 385 | 241 | 228 | 199 |
| 18 | 136 | 153 | 200 | 214 | 241 | 246 | 249 | 385 | 377 | 234 | 230 | 189 |
| 19 | 140 | 153 | 191 | 204 | 244 | 262 | 207 | 380 | 403 | 222 | 223 | 199 |
| 20 | 137 | 159 | 182 | 196 | 245 | 242 | 227 | 300 | 367 | 207 | 205 | 215 |
| 21 | 138 | 167 | 197 | 216 | 236 | 226 | 6300 | 279 | 339 | 203 | 194 | 197 |
| 22 | 141 | 204 | 192 | 232 | 227 | 218 | 8340 | 270 | 322 | 199 | 193 | 202 |
| 23 | 141 | 245 | 196 | 376 | 228 | 218 | e1700 | 270 | 307 | 418 | 190 | 214 |
| 24 | 143 | 178 | 203 | 443 | 312 | 211 | e1400 | 270 | 302 | 701 | 184 | 184 |
| 25 | 145 | 164 | 187 | 282 | 440 | 208 | e1200 | 270 | 293 | 512 | 183 | 176 |
| 26 | 143 | 157 | 179 | 253 | 1090 | 366 | e990 | 270 | 316 | 262 | 180 | 186 |
| 27 | 144 | 155 | 178 | 241 | 545 | 270 | e785 | 268 | 498 | 259 | 197 | 226 |
| 28 | 143 | 156 | 262 | 238 | 353 | 232 | e610 | 300 | 311 | 247 | 458 | 256 |
| 29 | 141 | 159 | 741 | 233 | 294 | 222 | e500 | 475 | 293 | 215 | 385 | 224 |
| 30 | 139 | 159 | 304 | 233 | --- | 218 | 419 | 527 | 289 | 201 | 228 | 189 |
| 31 | 141 | --- | 242 | 238 | --- | 218 | --- | 410 | --- | 233 | 211 | --- |
| TOTAL | 4684 | 5217 | 8707 | 8346 | 8275 | 9934 | 26297 | 11456 | 14239 | 8913 | 7628 | 7707 |
| MEAN | 151 | 174 | 281 | 269 | 285 | 320 | 877 | 370 | 475 | 288 | 246 | 257 |
| MAX | 318 | 398 | 989 | 893 | 1090 | 1300 | 8340 | 548 | 1490 | 701 | 705 | 775 |
| MIN | 135 | 140 | 178 | 196 | 196 | 208 | 185 | 268 | 289 | 199 | 180 | 176 |
| CFSM | .65 | .75 | 1.22 | 1.17 | 1.24 | 1.39 | 3.79 | 1.60 | 2.05 | 1.24 | 1.07 | 1.11 |
| IN. | .75 | .84 | 1.40 | 1.34 | 1.33 | 1.60 | 4.23 | 1.84 | 2.29 | 1.44 | 1.23 | 1.24 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 255 | 243 | 285 | 317 | 368 | 421 | 446 | 367 | 326 | 260 | 244 | 237 |
| MAX | 587 | 469 | 584 | 743 | 691 | 851 | 1048 | 591 | 736 | 554 | 536 | 879 |
| (WY) | 1977 | 1972 | 1974 | 1978 | 1990 | 1975 | 1980 | 1973 | 1982 | 1989 | 1985 | 1979 |
| MIN | 104 | 111 | 124 | 120 | 187 | 172 | 170 | 167 | 110 | 81.9 | 45.4 | 98.2 |
| (WY) | 1987 | 1982 | 1989 | 1981 | 1989 | 1981 | 1967 | 1988 | 1988 | 1986 | 1981 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 132661 | | 121403 | | | |
| ANNUAL MEAN | 363 | | 332 | | 314 | |
| HIGHEST ANNUAL MEAN | | | | | 462 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 150 | 1981 |
| HIGHEST DAILY MEAN | 3370 | Mar 29 | 8340 | Apr 22 | 13600 | Sep 22 1979 |
| LOWEST DAILY MEAN | 135 | Oct 14 | 135 | Oct 14 | 19 | Aug 29 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 138 | Oct 12 | 138 | Oct 12 | 23 | Aug 24 1981 |
| INSTANTANEOUS PEAK FLOW | | | 25500 | Apr 22 | 35000 | Sep 22 1979 |
| INSTANTANEOUS PEAK STAGE | | | 21.17 | Apr 22 | 24.46 | Sep 22 1979 |
| INSTANTANEOUS LOW FLOW | | | 130* | Oct 17 | 19* | Aug 29 1981 |
| ANNUAL RUNOFF (CFSM) | 1.57 | | 1.44 | | 1.36 | |
| ANNUAL RUNOFF (INCHES) | 21.36 | | 19.55 | | 18.47 | |
| 10 PERCENT EXCEEDS | 579 | | 486 | | 504 | |
| 50 PERCENT EXCEEDS | 310 | | 232 | | 239 | |
| 90 PERCENT EXCEEDS | 144 | | 149 | | 129 | |

* See REMARKS.

PEE DEE RIVER BASIN

02114450 LITTLE YADKIN RIVER AT DALTON, NC

LOCATION.--Lat 36°17'56", long 80°25'53", Stokes County, Hydrologic Unit 03040101, on left bank 1,200 ft downstream of bridge on U.S. Highway 52, 1.0 mi southwest of Dalton, 1.3 mi downstream of Southern Railway bridge, and 2.0 mi downstream of Danbury Creek.

DRAINAGE AREA.--42.8 $mi^2$.

PERIOD OF RECORD.--August 1960 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 813.7 ft above National Geodetic Vertical Datum of 1929 (North Carolina State Highway Commission bench mark).

REMARKS.--No estimated daily discharges. Records good. A Soil Conservation Service flood-control dam on upstream tributary, drainage area 4.7 $mi^2$ with flood storage of 695 acre-ft, was completed on June 21, 1977. Maximum discharge: 9,400 $ft^3/s$, from rating curve extended above 2,700 $ft^3/s$ on basis of slope-area measurement; gage height: 17.86 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 18 | 74 | 29 | 26 | 36 | 29 | 30 | 27 | 32 | 16 | 24 |
| 2 | 13 | 18 | 135 | 26 | 25 | 34 | 28 | 28 | 24 | 38 | 13 | 18 |
| 3 | 13 | 18 | 212 | 86 | 25 | 32 | 27 | 25 | 23 | 51 | 14 | 18 |
| 4 | 13 | 18 | 102 | 523 | 25 | 30 | 27 | 23 | 95 | 29 | 14 | 23 |
| 5 | 12 | 18 | 43 | 118 | 25 | 28 | 28 | 29 | 126 | 23 | 13 | 351 |
| 6 | 26 | 18 | 32 | 58 | 25 | 45 | 26 | 37 | 56 | 28 | 13 | 72 |
| 7 | 16 | 18 | 28 | 42 | 24 | 212 | 26 | 29 | 37 | 23 | 14 | 42 |
| 8 | 15 | 18 | 25 | 35 | 24 | 75 | 26 | 60 | 497 | 21 | 14 | 31 |
| 9 | 14 | 19 | 25 | 34 | 23 | 49 | 25 | 55 | 449 | 20 | 14 | 26 |
| 10 | 15 | 58 | 29 | 31 | 23 | 51 | 25 | 42 | 222 | 19 | 12 | 31 |
| 11 | 15 | 28 | 24 | 28 | 24 | 193 | 25 | 34 | 126 | 18 | 11 | 145 |
| 12 | 15 | 21 | 23 | 27 | 24 | 70 | 25 | 29 | 95 | 17 | 12 | 51 |
| 13 | 15 | 19 | 23 | 27 | 25 | 48 | 24 | 43 | 69 | 16 | 624 | 38 |
| 14 | 15 | 18 | 24 | 28 | 24 | 40 | 23 | 97 | 71 | 15 | 169 | 33 |
| 15 | 16 | 18 | 22 | 26 | 51 | 36 | 23 | 36 | 93 | 15 | 54 | 29 |
| 16 | 17 | 18 | 21 | 25 | 61 | 32 | 23 | 29 | 70 | 20 | 32 | 27 |
| 17 | 17 | 18 | 21 | 25 | 38 | 31 | 24 | 26 | 44 | 17 | 25 | 26 |
| 18 | 17 | 17 | 21 | 24 | 38 | 31 | 23 | 26 | 38 | 17 | 23 | 24 |
| 19 | 17 | 17 | 19 | 24 | 35 | 33 | 22 | 29 | 35 | 16 | 20 | 24 |
| 20 | 17 | 18 | 20 | 24 | 31 | 30 | 26 | 25 | 33 | 15 | 18 | 52 |
| 21 | 17 | 18 | 20 | 23 | 29 | 28 | 584 | 22 | 29 | 14 | 18 | 35 |
| 22 | 17 | 22 | 20 | 23 | 28 | 28 | 376 | 21 | 27 | 14 | 18 | 30 |
| 23 | 18 | 23 | 21 | 58 | 31 | 28 | 111 | 20 | 25 | 32 | 18 | 28 |
| 24 | 18 | 19 | 23 | 66 | 46 | 26 | 63 | 20 | 25 | 21 | 18 | 25 |
| 25 | 19 | 18 | 20 | 41 | 106 | 26 | 48 | 20 | 25 | 25 | 18 | 24 |
| 26 | 19 | 17 | 20 | 35 | 235 | 77 | 42 | 25 | 25 | 18 | 17 | 25 |
| 27 | 19 | 17 | 20 | 31 | 93 | 52 | 37 | 23 | 27 | 16 | 19 | 29 |
| 28 | 19 | 17 | 35 | 30 | 56 | 38 | 36 | 25 | 23 | 15 | 30 | 36 |
| 29 | 19 | 17 | 128 | 29 | 44 | 33 | 36 | 38 | 22 | 13 | 22 | 38 |
| 30 | 18 | 17 | 51 | 28 | --- | 32 | 33 | 51 | 21 | 12 | 18 | 29 |
| 31 | 18 | --- | 35 | 27 | --- | 31 | --- | 35 | --- | 14 | 18 | --- |
| TOTAL | 511 | 598 | 1316 | 1631 | 1264 | 1535 | 1871 | 1032 | 2479 | 644 | 1339 | 1384 |
| MEAN | 16.5 | 19.9 | 42.5 | 52.6 | 43.6 | 49.5 | 62.4 | 33.3 | 82.6 | 20.8 | 43.2 | 46.1 |
| MAX | 26 | 58 | 212 | 523 | 235 | 212 | 584 | 97 | 497 | 51 | 624 | 351 |
| MIN | 12 | 17 | 19 | 23 | 23 | 26 | 22 | 20 | 21 | 12 | 11 | 18 |
| CFSM | .39 | .47 | .99 | 1.23 | 1.02 | 1.16 | 1.46 | .78 | 1.93 | .49 | 1.01 | 1.08 |
| IN. | .44 | .52 | 1.14 | 1.42 | 1.10 | 1.33 | 1.63 | .90 | 2.15 | .56 | 1.16 | 1.20 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 39.4 | 31.4 | 48.1 | 57.0 | 67.4 | 79.8 | 61.1 | 48.0 | 41.9 | 33.7 | 31.1 | 28.5 |
| MAX | 171 | 79.9 | 113 | 136 | 163 | 250 | 217 | 154 | 155 | 128 | 120 | 172 |
| (WY) | 1991 | 1986 | 1974 | 1978 | 1990 | 1975 | 1987 | 1984 | 1962 | 1978 | 1970 | 1979 |
| MIN | 7.47 | 11.2 | 16.4 | 17.2 | 25.0 | 20.1 | 18.0 | 14.0 | 7.15 | 4.27 | 6.48 | 5.08 |
| (WY) | 1987 | 1968 | 1966 | 1981 | 1977 | 1967 | 1967 | 1986 | 1986 | 1986 | 1986 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1960 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 18117 | | 15604 | | | |
| ANNUAL MEAN | 49.6 | | 42.6 | | 47.1 | |
| HIGHEST ANNUAL MEAN | | | | | 75.2 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 22.1 | 1967 |
| HIGHEST DAILY MEAN | 1540 | Mar 29 | 624 | Aug 13 | 3350 | Jun 21 1972 |
| LOWEST DAILY MEAN | 12 | Sep 22 | 11 | Aug 11 | 1.6 | Aug 2 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 12 | Sep 29 | 13 | Aug 6 | 2.3 | Jul 28 1986 |
| INSTANTANEOUS PEAK FLOW | | | 2730 | Jun 8 | 9400* | Sep 22 1979 |
| INSTANTANEOUS PEAK STAGE | | | 7.96 | Jun 8 | 20.29 | Sep 22 1979 |
| INSTANTANEOUS LOW FLOW | | | 11 | Aug 11 | 1.3 | Aug 2 1977 |
| ANNUAL RUNOFF (CFSM) | 1.16 | | 1.00 | | 1.10 | |
| ANNUAL RUNOFF (INCHES) | 15.75 | | 13.56 | | 14.95 | |
| 10 PERCENT EXCEEDS | 77 | | 67 | | 73 | |
| 50 PERCENT EXCEEDS | 30 | | 25 | | 26 | |
| 90 PERCENT EXCEEDS | 15 | | 16 | | 12 | |

* See REMARKS.

PEE DEE RIVER BASIN

## 02115360 YADKIN RIVER AT ENON, NC

LOCATION.--Lat 36°07'55", long 80°26'39", Forsyth County, Hydrologic Unit 03040101, on left bank 50 ft upstream from bridge on Secondary Road 1525, 1.5 mi east of Enon, 4 mi upstream from Forbush Creek, and 324 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--1,694 mi².

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

REVISED RECORDS.--WDR NC-72-1: 1970 (M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 701.71 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1968, nonrecording gage on downstream side of bridge at same site and datum. U.S. Army Corps of Engineers gage-height radio telemeter and satellite data transmitter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation by W. Kerr Scott Reservoir (station 02111391). Minimum discharge for period of record also occurred Sept. 1, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 15, 1940, reached a stage of 737.5 ft (35.8 ft above gage datum), from information by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1240 | 1280 | 1920 | 1930 | 1610 | 2320 | 1810 | 2450 | 4070 | 2260 | 1760 | 1730 |
| 2 | 1230 | 1290 | 4000 | 1770 | 1490 | 2100 | 1730 | 2370 | 2980 | 3400 | 1700 | 1560 |
| 3 | 1240 | 1290 | 4530 | 1870 | 1450 | 1990 | 1690 | 2260 | 2600 | 3670 | 1650 | 1430 |
| 4 | 1260 | 1280 | 6240 | 9540 | 1440 | 1860 | 1650 | 2170 | 3100 | 2890 | 1620 | 1520 |
| 5 | 1290 | 1280 | 3400 | 5810 | 1440 | 1770 | 1690 | 2150 | 16400 | 2390 | 1600 | 2290 |
| 6 | 2520 | 1270 | 3010 | 4060 | 1420 | 1900 | 1690 | 2310 | 9540 | 2440 | 1570 | 3200 |
| 7 | 1630 | 1270 | 2480 | 3040 | 1400 | 7290 | 1640 | 2340 | 7580 | 2380 | 1540 | 2510 |
| 8 | 1300 | 1270 | 2000 | 2640 | 1390 | 4690 | 1630 | 3060 | 5940 | 2190 | 1520 | 2140 |
| 9 | 1260 | 1290 | 1740 | 2180 | 1360 | 3910 | 1610 | 4570 | 5730 | 2080 | 1520 | 2150 |
| 10 | 1240 | 1780 | 1880 | 2050 | 1340 | 3090 | 1600 | 4070 | 5880 | 1950 | 1530 | 2150 |
| 11 | 1210 | 2340 | 1800 | 1910 | 1330 | 4590 | 1570 | 3270 | 4690 | 1840 | 1520 | 3000 |
| 12 | 1220 | 1690 | 1660 | 1760 | 1330 | 4020 | 1710 | 2700 | 4470 | 1780 | 1470 | 2110 |
| 13 | 1190 | 1470 | 1550 | 1700 | 1320 | 3200 | 1690 | 2470 | 4130 | 1720 | 3210 | 1850 |
| 14 | 1180 | 1410 | 1550 | 1710 | e1330 | 2700 | 1560 | 2830 | 3600 | 1670 | 4000 | 1680 |
| 15 | 1190 | 1430 | 1630 | 1890 | e1700 | 2450 | 1480 | 2990 | 3500 | 1630 | 2810 | 1530 |
| 16 | 1220 | 1450 | 1500 | 1730 | e2250 | 2270 | 1470 | 3460 | 4160 | 2050 | 2590 | 1530 |
| 17 | 1250 | 1430 | 1450 | 1560 | e2000 | 2110 | 1670 | 3160 | 3650 | 2000 | 2180 | 1510 |
| 18 | 1220 | 1430 | 1440 | 1580 | e1900 | 2080 | 1740 | 2930 | 3560 | 1960 | 1990 | 1480 |
| 19 | 1200 | 1410 | 1400 | 1570 | 1830 | 2090 | 1720 | 3220 | 3290 | 2120 | 1900 | 1460 |
| 20 | 1200 | 1460 | 1370 | 1510 | 1730 | 2140 | 1700 | 3000 | 3080 | 1950 | 1770 | 1410 |
| 21 | 1200 | 1480 | 1370 | 1490 | 1600 | 2010 | 12700 | 2710 | 2740 | 1870 | 1850 | 1360 |
| 22 | 1210 | 1550 | 1410 | 1470 | 1530 | 1860 | 39200 | 2480 | 2670 | 1800 | 1870 | e1420 |
| 23 | 1260 | 2130 | 1390 | 1700 | 1500 | 1850 | 9650 | 2310 | 2500 | 2270 | 1780 | e1700 |
| 24 | 1260 | 1770 | 1420 | 3390 | 1830 | 1790 | 9590 | 2200 | 2370 | 4400 | 1750 | e1950 |
| 25 | 1260 | 1550 | 1400 | 2810 | 2300 | 1750 | 7810 | 2150 | 2350 | 3480 | 1710 | 1600 |
| 26 | 1270 | 1490 | 1340 | 2220 | 5500 | 2310 | 4930 | 2130 | 2310 | 2600 | 1640 | 1500 |
| 27 | 1280 | 1480 | 1310 | 1980 | 5460 | 2730 | 3650 | 2110 | 2730 | 2280 | 1590 | 1460 |
| 28 | 1280 | 1470 | 1420 | 1870 | 3800 | 2150 | 3110 | 2100 | 2650 | 2000 | 1920 | 1630 |
| 29 | 1270 | 1460 | 4240 | 1740 | 2830 | 1920 | 2690 | 2650 | 2460 | 1920 | 3190 | 1990 |
| 30 | 1260 | 1460 | 3340 | 1670 | --- | 1870 | 2510 | 4110 | 2240 | 1860 | 2170 | 1940 |
| 31 | 1260 | --- | 2450 | 1680 | --- | 1860 | --- | 4580 | --- | 1810 | 1910 | --- |
| TOTAL | 40100 | 44660 | 67640 | 73830 | 57410 | 80670 | 128890 | 87310 | 126970 | 70660 | 60830 | 54790 |
| MEAN | 1294 | 1489 | 2182 | 2382 | 1980 | 2602 | 4296 | 2816 | 4232 | 2279 | 1962 | 1826 |
| MAX | 2520 | 2340 | 6240 | 9540 | 5500 | 7290 | 39200 | 4580 | 16400 | 4400 | 4000 | 3200 |
| MIN | 1180 | 1270 | 1310 | 1470 | 1320 | 1750 | 1470 | 2100 | 2240 | 1630 | 1470 | 1360 |
| IN. | .88 | .98 | 1.49 | 1.62 | 1.26 | 1.77 | 2.83 | 1.92 | 2.79 | 1.55 | 1.34 | 1.20 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 2172 | 2054 | 2345 | 2596 | 2992 | 3463 | 3451 | 2921 | 2579 | 2001 | 2000 | 1862 |
| MAX | 5371 | 5128 | 4814 | 5725 | 5645 | 7848 | 7337 | 4989 | 5435 | 3485 | 5611 | 5810 |
| (WY) | 1991 | 1978 | 1974 | 1978 | 1990 | 1975 | 1980 | 1973 | 1972 | 1989 | 1970 | 1979 |
| MIN | 689 | 896 | 1107 | 1051 | 1560 | 1443 | 1390 | 1298 | 748 | 654 | 623 | 815 |
| (WY) | 1989 | 1982 | 1966 | 1981 | 1989 | 1981 | 1985 | 1988 | 1988 | 1986 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1964 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1047790 | | 893760 | | | |
| ANNUAL MEAN | 2871 | | 2442 | | 2531 | |
| HIGHEST ANNUAL MEAN | | | | | 3605 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 1332 | 1988 |
| HIGHEST DAILY MEAN | 22100 | Mar 30 | 39200 | Apr 22 | 48400 | Sep 22 1979 |
| LOWEST DAILY MEAN | 1180 | Oct 14 | 1180 | Oct 14 | 368 | Sep 1 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 1210 | Oct 10 | 1210 | Oct 10 | 384 | Aug 26 1981 |
| INSTANTANEOUS PEAK FLOW | | | 50600 | Apr 22 | 73300 | Jun 21 1972 |
| INSTANTANEOUS PEAK STAGE | | | 26.58 | Apr 22 | 29.52 | Sep 22 1979 |
| INSTANTANEOUS LOW FLOW | | | 1170 | Oct 5 | 363* | Aug 31 1981 |
| ANNUAL RUNOFF (CFSM) | 1.69 | | 1.44 | | 1.49 | |
| ANNUAL RUNOFF (INCHES) | 23.01 | | 19.63 | | 20.30 | |
| 10 PERCENT EXCEEDS | 4720 | | 3940 | | 4210 | |
| 50 PERCENT EXCEEDS | 2520 | | 1860 | | 1930 | |
| 90 PERCENT EXCEEDS | 1280 | | 1290 | | 1090 | |

* See REMARKS.

PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°51'23", long 80°23'14", Davie County, Hydrologic Unit 03040101, on right bank on downstream side of bridge on U.S. Highway 64, 1.5 mi south of Yadkin College, 6.2 mi downstream of Reedy Creek, and 295 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--2,280 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 822: Drainage area. WSP 852: 1935-37(m).

GAGE.--Water-stage recorder. Datum of gage is 638.45 ft above National Geodetic Vertical Datum of 1929. Prior to July 26, 1957, at site on left bank 100 ft downstream at same datum. July 27, 1957, to Sept. 19, 1984, at site 20 ft downstream on bridge pier near left bank, at same datum. U.S. Army Corps of Engineers satellite data transmitter and Yadkin, Inc. gage-height telephone telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diurnal fluctuation and occcasional regulation during low flow caused by small hydroelectric plant 10 mi upstream with little storage capacity. Since August 1962, some regulation by W. Kerr Scott Reservoir (station 02111391). Maximum discharge prior to regulation: 80,200 ft³/s, Aug. 15, 1940; gage height: 33.75 ft. Minimum observed discharge prior to regulation: 177 ft³/s, Oct. 12, 1954; gage height: -0.42 ft. Minimum discharge for period of record, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916, reached a stage of 36.3 ft, from floodmarks; discharge, 94,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1500 | 1500 | 1860 | 2630 | e2000 | e3900 | 2430 | 3250 | 5040 | 2710 | 2260 | 1900 |
| 2 | 1490 | 1540 | 4250 | 2350 | e1950 | e3400 | 2320 | 3140 | 3920 | 3930 | 2200 | 1810 |
| 3 | 1500 | 1500 | 5020 | 2270 | e1820 | e3000 | 2310 | 3010 | 3180 | 3890 | 1990 | 1770 |
| 4 | 1490 | 1460 | 8630 | 9420 | e1800 | 2510 | 2260 | 2830 | 3340 | 4170 | 1960 | 2280 |
| 5 | 1460 | 1420 | 4730 | 9500 | e1780 | 2430 | 2280 | 2780 | 13000 | 3010 | 1890 | 2860 |
| 6 | 4260 | 1410 | 3920 | 5670 | e1770 | 2510 | 2270 | 3200 | 12200 | 2800 | 1820 | 3440 |
| 7 | 3210 | 1400 | 3270 | 3980 | e1750 | 7540 | 2210 | 3160 | 8890 | 3100 | 1780 | 3510 |
| 8 | 1890 | 1480 | 2760 | 2570 | e1710 | 7620 | 2200 | 3600 | 7210 | 2670 | 1830 | 2840 |
| 9 | 1630 | 1470 | 2300 | 2990 | e1700 | 5260 | 2180 | 5670 | 8170 | 2460 | 1870 | 2510 |
| 10 | 1620 | 2140 | 2320 | 2810 | e1700 | 4340 | 2130 | 5220 | 8730 | 2260 | 1820 | 2240 |
| 11 | 1570 | 2730 | 2280 | 2680 | e1720 | 4870 | 2140 | 4510 | 6350 | 2120 | 1750 | 2880 |
| 12 | 1520 | 2240 | 2070 | 2270 | e1700 | 4270 | 2210 | 3660 | 5600 | 2060 | 1750 | 3000 |
| 13 | 1500 | 1780 | 1940 | 2300 | e1680 | 4440 | 2360 | 3200 | 5160 | 2000 | 3210 | 2180 |
| 14 | 1510 | 1600 | 1940 | 2250 | e1690 | 3390 | 2100 | 3260 | 4570 | 1930 | 7320 | 1850 |
| 15 | 1520 | 1630 | 2000 | 2360 | e2200 | 3100 | 2010 | 3470 | 4240 | 1870 | 3960 | 1790 |
| 16 | 1490 | 1650 | 1900 | 1960 | e2800 | 2950 | 1960 | 3990 | 4930 | 2090 | 3420 | 1700 |
| 17 | 1530 | 1630 | 1800 | 1880 | e2400 | 2790 | 2300 | 3840 | 4750 | 2380 | 2850 | 1660 |
| 18 | 1440 | 1620 | 1810 | 2040 | e2200 | 2690 | 2280 | 3730 | 4210 | 2160 | 2310 | 1620 |
| 19 | 1460 | 1630 | 1750 | 2190 | e2100 | 2790 | 2280 | 3530 | 4080 | 2480 | 2170 | 1600 |
| 20 | 1470 | 1630 | 1710 | 1860 | e2050 | 2790 | 2250 | 3720 | 3750 | 2320 | 2030 | 1630 |
| 21 | 1520 | 1690 | 1700 | 2000 | e2000 | 2730 | 4910 | 3440 | 3490 | 1920 | 2110 | 1670 |
| 22 | 1470 | 1880 | 1730 | 2000 | e1950 | 2470 | 29000 | 3000 | 3190 | 1900 | 1980 | 1650 |
| 23 | 1490 | 2010 | 1710 | e2400 | e2000 | 2450 | 39600 | 2830 | 3150 | 2980 | 1810 | 2280 |
| 24 | 1480 | 2230 | 1810 | e4800 | e2500 | 2370 | 14100 | 2590 | 2890 | 4170 | 1800 | 2270 |
| 25 | 1480 | 1760 | 1760 | e4300 | e4400 | 2330 | 9990 | 2500 | 2910 | 5250 | 1810 | 2130 |
| 26 | 1520 | 1630 | 1670 | e3800 | e6800 | 3260 | 7550 | 2530 | 2820 | 3480 | 1750 | 1820 |
| 27 | 1510 | 1600 | 1620 | e3100 | e6000 | 4000 | 5190 | 2530 | 3150 | 2970 | 1680 | 1790 |
| 28 | 1570 | 1600 | 1730 | e2650 | e5000 | 3220 | 4310 | 2500 | 3300 | 2680 | 1950 | 2450 |
| 29 | 1530 | 1600 | 4640 | e2450 | e4500 | 2690 | 3740 | 2870 | 3110 | 2190 | 3310 | 2820 |
| 30 | 1400 | 1620 | 5320 | e2200 | --- | 2540 | 3390 | 4490 | 2800 | 1970 | 2900 | 2400 |
| 31 | 1490 | --- | 3360 | e2050 | --- | 2470 | --- | 5430 | --- | 1930 | 2340 | --- |
| TOTAL | 51520 | 51080 | 85310 | 97730 | 73670 | 107120 | 166260 | 107480 | 152130 | 83850 | 73630 | 66350 |
| MEAN | 1662 | 1703 | 2752 | 3153 | 2540 | 3455 | 5542 | 3467 | 5071 | 2705 | 2375 | 2212 |
| MAX | 4260 | 2730 | 8630 | 9500 | 6800 | 7620 | 39600 | 5670 | 13000 | 5250 | 7320 | 3510 |
| MIN | 1400 | 1400 | 1620 | 1860 | 1680 | 2330 | 1960 | 2500 | 2800 | 1870 | 1680 | 1600 |
| IN. | .84 | .83 | 1.39 | 1.59 | 1.20 | 1.75 | 2.71 | 1.75 | 2.48 | 1.37 | 1.20 | 1.08 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 2587 | 2410 | 2826 | 3367 | 3763 | 4184 | 4016 | 3202 | 2785 | 2368 | 2465 | 2235 |
| MAX | 8125 | 5995 | 5784 | 10590 | 10110 | 10380 | 9419 | 6277 | 7755 | 4861 | 7858 | 7985 |
| (WY) | 1930 | 1958 | 1974 | 1937 | 1960 | 1975 | 1987 | 1984 | 1972 | 1943 | 1928 | 1928 |
| MIN | 800 | 845 | 910 | 891 | 1369 | 1798 | 1691 | 1340 | 927 | 749 | 584 | 494 |
| (WY) | 1954 | 1932 | 1956 | 1956 | 1931 | 1981 | 1985 | 1941 | 1956 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1928 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1361060 | | 1116130 | | | |
| ANNUAL MEAN | 3729 | | 3050 | | 2999 | |
| HIGHEST ANNUAL MEAN | | | | | 4740 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 1516 | 1956 |
| HIGHEST DAILY MEAN | 34300 | Mar 30 | 39600 | Apr 23 | 66000 | Jun 22 1972 |
| LOWEST DAILY MEAN | 1400 | Oct 30 | 1400 | Oct 30 | 330 | Oct 9 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 1450 | Nov 3 | 1450 | Nov 3 | 363 | Sep 18 1956 |
| INSTANTANEOUS PEAK FLOW | | | 46300 | Apr 23 | 75200 | Jun 22 1972 |
| INSTANTANEOUS PEAK STAGE | | | 26.28 | Apr 23 | 32.81* | Jun 22 1972 |
| INSTANTANEOUS LOW FLOW | | | 999 | Oct 30 | 110* | Aug 28 1988 |
| ANNUAL RUNOFF (CFSM) | 1.64 | | 1.34 | | 1.32 | |
| ANNUAL RUNOFF (INCHES) | 22.21 | | 18.21 | | 17.87 | |
| 10 PERCENT EXCEEDS | 6250 | | 4820 | | 5050 | |
| 50 PERCENT EXCEEDS | 3200 | | 2300 | | 2270 | |
| 90 PERCENT EXCEEDS | 1530 | | 1600 | | 1190 | |

* See REMARKS.

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1944, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1967, October 1970 to September 1978, February 1979 to September 1989.
WATER TEMPERATURE: October 1943 to September 1944, October 1950 to September 1951, October 1955 to September 1967, October 1970 to September 1989.
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 September 1992. Miscellaneous chemical data published for water years 1947-49, 1955. Daily records of specific conductance for water years 1956-64 and specific conductance and water temperature for water years 1990 to present are available in files of district office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 815 microsiemens, Aug. 26, 1971; minimum recorded, 20 microsiemens, Nov. 2, 16, 28, Dec. 1, 6, 7, 1971.
WATER TEMPERATURE: Maximum daily, 35.0°C, July 20, 1986; minimum daily, 0.0°C, on many days during most winter months.
SEDIMENT CONCENTRATION: Maximum daily mean, 2,970 mg/L, May 26, 1952; minimum daily mean, 1 mg/L, Dec. 3, 1953.
SEDIMENT LOAD: Maximum daily, 182,000 tons, June 22, 1972; minimum daily, 3 tons, Dec. 3, 1953.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 1,850 mg/L, Apr. 22; minimum daily mean, 8 mg/L, Nov. 9.
SEDIMENT LOAD: Maximum daily, 180,000 tons, Apr. 23; minimum daily, 32 tons, Nov. 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | | |
| 19... | 0930 | 1650 | -- | 7.7 | 17.0 | 6.7 | 747 | -- | -- | 460 | 560 | 5.2 |
| JAN | | | | | | | | | | | | |
| 07... | 1230 | 3470 | 68 | -- | 8.0 | 34 | 742 | -- | -- | -- | -- | 4.3 |
| MAR | | | | | | | | | | | | |
| 03... | 1000 | 2680 | -- | -- | 9.0 | 16 | 745 | -- | -- | K80 | K41 | 4.6 |
| MAY | | | | | | | | | | | | |
| 26... | 1000 | 2490 | 90 | -- | 19.0 | 17 | 738 | -- | -- | K79 | 100 | 4.8 |
| SEP | | | | | | | | | | | | |
| 08... | 1330 | 2650 | 71 | 7.0 | 23.5 | 67 | 747 | 7.9 | 95 | 140 | 110 | 3.7 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | | |
| 19... | 1.8 | 14 | 55 | 1 | 3.4 | -- | -- | 9.6 | 11 | 0.10 | 13 | 81 |
| JAN | | | | | | | | | | | | |
| 07... | 1.5 | 6.4 | 41 | 0.7 | 2.5 | -- | -- | 4.9 | 3.6 | <0.10 | 13 | 63 |
| MAR | | | | | | | | | | | | |
| 03... | 1.6 | 8.9 | 48 | 0.9 | 2.0 | -- | -- | -- | -- | -- | 12 | -- |
| MAY | | | | | | | | | | | | |
| 26... | 1.5 | 8.8 | 48 | 0.9 | 2.0 | -- | -- | 6.6 | 7.4 | <0.10 | 12 | 66 |
| SEP | | | | | | | | | | | | |
| 08... | 1.2 | 6.1 | 43 | 0.7 | 2.7 | 18 | 15 | 5.3 | 4.9 | <0.10 | 11 | 64 |

| DATE | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | | | |
| 19... | 79 | 0.900 | 0.860 | 0.020 | 0.020 | 0.920 | 0.880 | 0.060 | 0.060 | 0.08 | 0.08 | 0.34 |
| JAN | | | | | | | | | | | | |
| 07... | 50 | 0.660 | 0.680 | 0.020 | 0.010 | 0.680 | 0.690 | 0.080 | 0.070 | 0.10 | 0.09 | 0.52 |
| MAR | | | | | | | | | | | | |
| 03... | -- | 0.680 | 0.570 | 0.080 | 0.070 | 0.760 | 0.640 | 0.140 | 0.130 | 0.18 | 0.17 | 0.36 |
| MAY | | | | | | | | | | | | |
| 26... | 59 | 0.760 | 0.760 | 0.020 | 0.020 | 0.780 | 0.780 | 0.050 | 0.060 | 0.06 | 0.08 | 0.35 |
| SEP | | | | | | | | | | | | |
| 08... | 48 | 0.800 | 0.820 | 0.020 | 0.010 | 0.820 | 0.830 | 0.050 | 0.040 | 0.06 | 0.05 | 0.25 |

PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS NO3) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS 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) | ALUMINUM, DISSOLVED (UG/L AS AL) | BARIUM, DISSOLVED (UG/L AS BA) | COBALT, DISSOLVED (UG/L AS CO) | IRON, DISSOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | 0.40 | 1.3 | 5.8 | 0.200 | 0.150 | 0.140 | 0.120 | 0.37 | 40 | 15 | <3 | 190 |
| JAN 07... | 0.60 | 1.3 | 5.7 | 0.160 | 0.050 | 0.060 | 0.040 | 0.12 | 30 | 18 | <3 | 39 |
| MAR 03... | 0.50 | 1.3 | 5.6 | 0.180 | 0.080 | 0.070 | 0.080 | 0.25 | 30 | 16 | <3 | 95 |
| MAY 26... | 0.40 | 1.2 | 5.2 | 0.140 | 0.070 | 0.080 | 0.070 | 0.21 | 50 | 12 | <3 | 120 |
| SEP 08... | 0.30 | 1.1 | 5.0 | 0.140 | 0.090 | 0.080 | 0.080 | 0.25 | 90 | 16 | <3 | 150 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | <4 | 27 | <10 | 7 | <1 | <1.0 | 42 | <6 | 9 | 40 | 75 |
| JAN 07... | <4 | 11 | <10 | 7 | <1 | <1.0 | 31 | <6 | 143 | 1340 | 33 |
| MAR 03... | <4 | 18 | <10 | 1 | <1 | <1.0 | 39 | <6 | 65 | 470 | 36 |
| MAY 26... | <4 | 26 | <10 | 2 | <1 | <1.0 | 39 | <6 | -- | -- | -- |
| SEP 08... | <4 | 5 | <10 | 1 | <1 | <1.0 | 33 | <6 | 86 | 615 | 88 |

PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| 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 | 35 | 142 | 19 | 77 | 22 | 110 | 108 | 767 | 22 | 119 | 79 | 832 |
| 2 | 29 | 117 | 19 | 79 | 201 | 2830 | 39 | 247 | 21 | 111 | 68 | 624 |
| 3 | 25 | 101 | 17 | 69 | 375 | 5080 | 31 | 190 | 18 | 88 | 60 | 486 |
| 4 | 28 | 113 | 15 | 59 | 966 | 23400 | 519 | 18400 | 16 | 78 | 76 | 515 |
| 5 | 17 | 67 | 12 | 46 | 470 | 6000 | 560 | 14400 | 18 | 87 | 50 | 328 |
| 6 | 389 | 5580 | 10 | 38 | 349 | 3690 | 310 | 4750 | 11 | 53 | 46 | 312 |
| 7 | 277 | 2400 | 10 | 38 | 210 | 1850 | 180 | 1930 | 11 | 52 | 377 | 9360 |
| 8 | 128 | 653 | 9 | 36 | 79 | 589 | 78 | 18600 | 11 | 51 | 450 | 9260 |
| 9 | 52 | 229 | 8 | 32 | 50 | 310 | 88 | 710 | 12 | 55 | 248 | 3520 |
| 10 | 39 | 171 | 117 | 738 | 71 | 445 | 54 | 410 | 10 | 46 | 168 | 1970 |
| 11 | 35 | 148 | 100 | 737 | 69 | 425 | 47 | 340 | 11 | 51 | 220 | 2890 |
| 12 | 35 | 144 | 42 | 254 | 48 | 268 | 29 | 178 | 19 | 87 | 220 | 2540 |
| 13 | 30 | 121 | 30 | 144 | 30 | 157 | 25 | 155 | 33 | 150 | 160 | 1920 |
| 14 | 25 | 102 | 23 | 99 | 35 | 183 | 30 | 182 | 25 | 114 | 107 | 979 |
| 15 | 22 | 90 | 18 | 79 | 34 | 184 | 32 | 204 | 32 | 190 | 72 | 603 |
| 16 | 26 | 105 | 15 | 2670 | 28 | 144 | 21 | 111 | 111 | 839 | 60 | 478 |
| 17 | 25 | 103 | 12 | 53 | 16 | 78 | 19 | 96 | 62 | 402 | 50 | 377 |
| 18 | 25 | 97 | 13 | 57 | 19 | 93 | 12 | 66 | 39 | 232 | 64 | 465 |
| 19 | 21 | 83 | 12 | 53 | 14 | 66 | 11 | 65 | 40 | 227 | 72 | 542 |
| 20 | 19 | 75 | 13 | 57 | 11 | 51 | 10 | 50 | 39 | 216 | 60 | 452 |
| 21 | 25 | 103 | 16 | 73 | 10 | 46 | 13 | 70 | 28 | 151 | 49 | 361 |
| 22 | 23 | 91 | 40 | 203 | 10 | 47 | 20 | 108 | 21 | 111 | 43 | 287 |
| 23 | 28 | 113 | 41 | 223 | 10 | 46 | 40 | 259 | 23 | 124 | 49 | 324 |
| 24 | 25 | 100 | 60 | 361 | 25 | 122 | 71 | 920 | 55 | 371 | 54 | 346 |
| 25 | 20 | 80 | 31 | 147 | 27 | 128 | 99 | 1150 | 82 | 974 | 32 | 201 |
| 26 | 20 | 82 | 22 | 97 | 17 | 77 | 115 | 1180 | 364 | 6680 | 155 | 1580 |
| 27 | 20 | 82 | 18 | 78 | 16 | 70 | 51 | 427 | 279 | 4520 | 185 | 2000 |
| 28 | 21 | 89 | 13 | 56 | 18 | 84 | 31 | 222 | 190 | 2570 | 90 | 782 |
| 29 | 20 | 83 | 10 | 43 | 256 | 4200 | 30 | 198 | 161 | 1960 | 57 | 414 |
| 30 | 17 | 64 | 15 | 66 | 375 | 5390 | 27 | 160 | --- | --- | 39 | 267 |
| 31 | 15 | 60 | --- | --- | 220 | 2000 | 22 | 122 | --- | --- | 34 | 227 |
| TOTAL | --- | 11588 | --- | 6762 | --- | 58163 | --- | 66667 | --- | 20709 | --- | 45242 |

| DAY | MEAN CONCEN-TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN-TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN-TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN-TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN-TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN-TRATION (MG/L) | LOADS (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 28 | 184 | 79 | 693 | 168 | 2290 | 50 | 366 | 60 | 366 | 30 | 154 |
| 2 | 25 | 157 | 81 | 687 | 112 | 1190 | 214 | 2430 | 52 | 309 | 29 | 142 |
| 3 | 20 | 125 | 65 | 528 | 122 | 1050 | 199 | 2090 | 50 | 269 | 25 | 119 |
| 4 | 19 | 116 | 52 | 397 | 79 | 712 | 362 | 4080 | 60 | 318 | 33 | 203 |
| 5 | 15 | 92 | 56 | 420 | 933 | 39400 | 111 | 902 | 61 | 311 | 140 | 1080 |
| 6 | 14 | 86 | 91 | 786 | 670 | 22100 | 73 | 552 | 35 | 172 | 189 | 1760 |
| 7 | 33 | 197 | 71 | 606 | 320 | 7680 | 107 | 896 | 30 | 144 | 141 | 1340 |
| 8 | 40 | 238 | 105 | 1020 | 255 | 4960 | 103 | 743 | 43 | 212 | 89 | 682 |
| 9 | 30 | 177 | 380 | 5820 | 530 | 11700 | 69 | 458 | 39 | 197 | 67 | 454 |
| 10 | 28 | 161 | 191 | 2690 | 595 | 14000 | 60 | 366 | 25 | 123 | 48 | 290 |
| 11 | 22 | 127 | 115 | 1400 | 495 | 8490 | 48 | 275 | 29 | 137 | 85 | 661 |
| 12 | 27 | 161 | 58 | 573 | 370 | 5590 | 45 | 250 | 24 | 113 | 71 | 575 |
| 13 | 31 | 198 | 52 | 449 | 205 | 2860 | 39 | 211 | 309 | 5060 | 75 | 2740 |
| 14 | 33 | 187 | 58 | 511 | 140 | 1730 | 35 | 182 | 569 | 11200 | 65 | 325 |
| 15 | 30 | 163 | 78 | 731 | 115 | 1320 | 28 | 141 | 197 | 2110 | 43 | 208 |
| 16 | 30 | 159 | 120 | 1290 | 220 | 2930 | 45 | 254 | 111 | 1020 | 34 | 156 |
| 17 | 61 | 379 | 140 | 1450 | 220 | 2820 | 48 | 308 | 70 | 539 | 35 | 157 |
| 18 | 50 | 308 | 121 | 1220 | 150 | 1710 | 68 | 397 | 46 | 287 | 33 | 144 |
| 19 | 40 | 246 | 95 | 905 | 180 | 1980 | 65 | 435 | 52 | 305 | 30 | 130 |
| 20 | 46 | 279 | 97 | 974 | 171 | 1730 | 51 | 319 | 50 | 274 | 30 | 132 |
| 21 | 625 | 12000 | 107 | 994 | 102 | 961 | 39 | 202 | 61 | 348 | 28 | 126 |
| 22 | 1850 | 145000 | 87 | 705 | 60 | 517 | 30 | 154 | 42 | 225 | 35 | 156 |
| 23 | 1680 | 180000 | 72 | 550 | 69 | 587 | 123 | 1080 | 30 | 147 | 50 | 308 |
| 24 | 850 | 32400 | 51 | 357 | 46 | 359 | 298 | 3870 | 30 | 146 | 62 | 380 |
| 25 | 600 | 16200 | 52 | 351 | 43 | 338 | 418 | 5930 | 26 | 127 | 50 | 288 |
| 26 | 440 | 8970 | 41 | 280 | 44 | 335 | 215 | 2020 | 25 | 118 | 46 | 226 |
| 27 | 280 | 3920 | 41 | 280 | 52 | 442 | 128 | 1030 | 26 | 118 | 37 | 179 |
| 28 | 200 | 2330 | 39 | 263 | 66 | 588 | 105 | 760 | 30 | 158 | 78 | 516 |
| 29 | 154 | 1560 | 39 | 302 | 72 | 605 | 59 | 349 | 110 | 983 | 85 | 647 |
| 30 | 76 | 696 | 187 | 2670 | 60 | 454 | 51 | 271 | 117 | 916 | 52 | 337 |
| 31 | --- | --- | 232 | 3400 | --- | --- | 47 | 245 | 61 | 385 | --- | --- |
| TOTAL | --- | 406816 | --- | 33302 | --- | 141428 | --- | 31566 | --- | 27137 | --- | 14615 |

TOTAL LOAD FOR YEAR: 863995 TONS.

PEE DEE RIVER BASIN

02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC

LOCATION.--Lat 35°50'41", long 80°39'34", Rowan County, Hydrologic Unit 03040102, on right bank 90 ft downstream of bridge on Secondary Road 1972, 1 mi upstream from Little Creek, 4 mi downstream of Fifth Creek, 4.5 mi upstream from Hunting Creek, and 6.5 mi southwest of Mocksville.

DRAINAGE AREA.--306 $mi^2$.

PERIOD OF RECORD.--October 1938 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 663.62 ft above National Geodetic Vertical Datum of 1929. Yadkin Inc. stage telephone telemeter at station.

REMARKS.--No estimated daily discharges. Records good. The city of Statesville diverted an average of 8.1 $ft^3/s$ for water supply and waste treatment dilution. The Alexander Water Corporation withdrew an average of 2.0 $ft^3/s$ for water supply. Maximum discharge also occurred Mar. 2, 1987. Minimum discharge also occurred July 24, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Oct. 3, 1929, reached a stage of 22.6 ft, from floodmark established by local resident (discharge, about 22,000 $ft^3/s$).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 163 | 167 | 196 | 303 | 226 | 349 | 263 | 322 | 286 | 315 | 253 | 173 |
| 2 | 163 | 166 | 607 | 273 | 218 | 313 | 251 | 296 | 244 | 240 | 236 | 164 |
| 3 | 167 | 165 | 619 | 273 | 214 | 296 | 245 | 280 | 230 | 249 | 204 | 167 |
| 4 | 172 | 166 | 707 | 573 | 217 | 287 | 243 | 266 | 774 | 223 | 196 | 178 |
| 5 | 164 | 165 | 431 | 668 | 210 | 268 | 246 | 255 | 2270 | 212 | 182 | 189 |
| 6 | 165 | 162 | 296 | 422 | 204 | 339 | 236 | 275 | 1570 | 190 | 174 | 204 |
| 7 | 227 | 168 | 256 | 336 | 201 | 1220 | 232 | 297 | 536 | 192 | 178 | 230 |
| 8 | 182 | 169 | 238 | 297 | 199 | 1170 | 235 | 612 | 388 | 188 | 184 | 207 |
| 9 | 168 | 173 | 228 | 279 | 199 | 610 | 231 | 724 | 839 | 178 | 194 | 194 |
| 10 | 166 | 223 | 242 | 267 | 194 | 460 | 226 | 523 | 1070 | 174 | 189 | 175 |
| 11 | 164 | 266 | 233 | 257 | 194 | 635 | 228 | 391 | 826 | 167 | 169 | 187 |
| 12 | 161 | 214 | 216 | 239 | 196 | 541 | 235 | 331 | 767 | 161 | 158 | 203 |
| 13 | 160 | 186 | 210 | 234 | 193 | 412 | 240 | 305 | 472 | 154 | 433 | 168 |
| 14 | 160 | 181 | 213 | 243 | 199 | 364 | 231 | 290 | 389 | 148 | 930 | 158 |
| 15 | 162 | 175 | 220 | 235 | 243 | 346 | 225 | 277 | 388 | 139 | 432 | 155 |
| 16 | 164 | 174 | 208 | 221 | 447 | 318 | 220 | 266 | 387 | 137 | 290 | 150 |
| 17 | 163 | 177 | 199 | 211 | 346 | 300 | 267 | 250 | 428 | 146 | 247 | 147 |
| 18 | 165 | 176 | 196 | 210 | 290 | 290 | 244 | 244 | 408 | 200 | 231 | 144 |
| 19 | 163 | 174 | 190 | 217 | 297 | 337 | 218 | 289 | 332 | 167 | 219 | 143 |
| 20 | 154 | 180 | 185 | 209 | 269 | 332 | 215 | 259 | 306 | 154 | 204 | 151 |
| 21 | 154 | 178 | 187 | 204 | 247 | 288 | 1370 | 232 | 272 | 142 | 194 | 152 |
| 22 | 160 | 188 | 194 | 204 | 237 | 280 | 3650 | 219 | 267 | 138 | 189 | 155 |
| 23 | 169 | 212 | 194 | 300 | 265 | 283 | 5410 | 213 | 247 | 202 | 184 | 878 |
| 24 | 160 | 211 | 204 | 446 | 376 | 261 | 1350 | 206 | 242 | 900 | 187 | 556 |
| 25 | 161 | 183 | 205 | 350 | 435 | 249 | 633 | 204 | 230 | 1300 | 175 | 260 |
| 26 | 166 | 173 | 199 | 287 | 1170 | 465 | 478 | 210 | 222 | 447 | 170 | 212 |
| 27 | 169 | 171 | 190 | 263 | 944 | 424 | 401 | 223 | 222 | 481 | 168 | 238 |
| 28 | 164 | 174 | 225 | 251 | 569 | 325 | 385 | 216 | 228 | 500 | 183 | 418 |
| 29 | 166 | 171 | 795 | 244 | 414 | 295 | 352 | 231 | 210 | 312 | 358 | 521 |
| 30 | 161 | 179 | 660 | 235 | --- | 288 | 324 | 471 | 231 | 237 | 249 | 418 |
| 31 | 171 | --- | 378 | 229 | --- | 278 | --- | 397 | --- | 213 | 193 | --- |
| TOTAL | 5154 | 5467 | 9321 | 8980 | 9413 | 12623 | 19084 | 9574 | 15281 | 8606 | 7553 | 7295 |
| MEAN | 166 | 182 | 301 | 290 | 325 | 407 | 636 | 309 | 509 | 278 | 244 | 243 |
| MAX | 227 | 266 | 795 | 668 | 1170 | 1220 | 5410 | 724 | 2270 | 1300 | 930 | 878 |
| MIN | 154 | 162 | 185 | 204 | 193 | 249 | 215 | 204 | 210 | 137 | 158 | 143 |
| CFSM | .54 | .60 | .98 | .95 | 1.06 | 1.33 | 2.08 | 1.01 | 1.66 | .91 | .80 | .79 |
| IN. | .63 | .66 | 1.13 | 1.09 | 1.14 | 1.53 | 2.32 | 1.16 | 1.86 | 1.05 | .92 | .89 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 259 | 258 | 340 | 405 | 500 | 533 | 468 | 371 | 304 | 238 | 228 | 240 |
| MAX | 1246 | 791 | 738 | 1088 | 1458 | 1485 | 1110 | 885 | 774 | 628 | 706 | 880 |
| (WY) | 1965 | 1958 | 1962 | 1978 | 1960 | 1975 | 1958 | 1984 | 1972 | 1941 | 1970 | 1979 |
| MIN | 70.4 | 99.7 | 102 | 97.7 | 181 | 220 | 159 | 127 | 75.0 | 47.3 | 61.2 | 45.7 |
| (WY) | 1955 | 1956 | 1956 | 1956 | 1941 | 1955 | 1986 | 1986 | 1986 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1939 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 160212 | | 118351 | | | |
| ANNUAL MEAN | 439 | | 323 | | 344 | |
| HIGHEST ANNUAL MEAN | | | | | 592 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 171 | 1986 |
| HIGHEST DAILY MEAN | 5000 | Mar 30 | 5410 | Apr 23 | 9750 | Mar 2 1987 |
| LOWEST DAILY MEAN | 154 | Oct 20 | 137 | Jul 16 | 22 | Jul 22 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 160 | Oct 19 | 149 | Sep 15 | 28 | Jul 19 1986 |
| INSTANTANEOUS PEAK FLOW | | | 6950 | Apr 23 | 11800* | Oct 17 1964 |
| INSTANTANEOUS PEAK STAGE | | | 15.67 | Apr 23 | 18.88 | Mar 2 1987 |
| INSTANTANEOUS LOW FLOW | | | 134 | Jul 16 | 21* | Jul 22 1986 |
| ANNUAL RUNOFF (CFSM) | 1.43 | | 1.06 | | 1.13 | |
| ANNUAL RUNOFF (INCHES) | 19.48 | | 14.39 | | 15.29 | |
| 10 PERCENT EXCEEDS | 701 | | 522 | | 585 | |
| 50 PERCENT EXCEEDS | 333 | | 230 | | 240 | |
| 90 PERCENT EXCEEDS | 168 | | 164 | | 121 | |

* See REMARKS.

PEE DEE RIVER BASIN

02118500 HUNTING CREEK NEAR HARMONY, NC

LOCATION.--Lat 36°00'00", long 80°44'44", Iredell County, Hydrologic Unit 03040102, on right bank 52 ft downstream of bridge on Secondary Road 2115, 0.8 mi downstream of Kennedy Creek, 1 mi east of Houstonville, 2 mi downstream of U.S. Highway 21, and 3.5 mi northeast of Harmony.

DRAINAGE AREA.--155 mi².

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1723.

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

GAGE.--Water-stage recorder. Datum of gage is 734.78 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1951, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--No estimated daily discharges. Records good. Maximum gage height: 25.05 ft, from floodmark in gage house.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 105 | 103 | 274 | 168 | 132 | 180 | 154 | 187 | 204 | 148 | 148 | 112 |
| 2 | 105 | 105 | 873 | 153 | 126 | 166 | 150 | 175 | 174 | 455 | 123 | 108 |
| 3 | 104 | 103 | 626 | 166 | 125 | 160 | 145 | 166 | 158 | 190 | 121 | 110 |
| 4 | 104 | 102 | 671 | 502 | 125 | 156 | 144 | 157 | 1140 | 164 | 119 | 120 |
| 5 | 102 | 102 | 248 | 349 | 125 | 150 | 143 | 155 | 2270 | 144 | 113 | 135 |
| 6 | 488 | 101 | 181 | 229 | 125 | 211 | 140 | 170 | 514 | 152 | 110 | 289 |
| 7 | 162 | 102 | 159 | 184 | 123 | 1130 | 139 | 186 | 323 | 149 | 114 | 171 |
| 8 | 122 | 103 | 146 | 161 | 123 | 668 | 139 | 469 | 316 | 137 | 119 | 142 |
| 9 | 114 | 103 | 140 | 154 | 116 | 338 | 139 | 418 | 403 | 136 | 124 | 128 |
| 10 | 111 | 176 | 146 | 152 | 114 | 276 | 139 | 303 | 396 | 130 | 115 | 120 |
| 11 | 109 | 172 | 136 | 141 | 116 | 571 | 148 | 237 | 298 | 125 | 108 | 119 |
| 12 | 108 | 126 | 131 | 134 | 117 | 308 | 149 | 203 | 283 | 122 | 105 | 114 |
| 13 | 105 | 115 | 129 | 133 | 117 | 245 | 143 | 183 | 244 | 119 | 405 | 107 |
| 14 | 104 | 110 | 130 | 139 | 119 | 209 | 135 | 252 | 220 | 113 | 413 | 105 |
| 15 | 104 | 110 | 130 | 136 | 167 | 190 | 134 | 192 | 228 | 111 | 200 | 103 |
| 16 | 107 | 109 | 122 | 127 | 252 | 176 | 143 | 179 | 308 | 144 | 168 | 101 |
| 17 | 105 | 108 | 116 | 119 | 163 | 172 | 293 | 167 | 272 | 150 | 150 | 100 |
| 18 | 104 | 108 | 116 | 127 | 159 | 172 | 173 | 170 | 250 | 131 | 141 | 98 |
| 19 | 104 | 107 | 113 | 124 | 156 | 173 | 154 | 178 | 209 | 125 | 129 | 98 |
| 20 | 102 | 108 | 109 | 120 | 146 | 168 | 156 | 168 | 190 | 116 | 123 | 102 |
| 21 | 101 | 110 | 113 | 120 | 136 | 158 | 3130 | 155 | 182 | 111 | 121 | 102 |
| 22 | 102 | 119 | 111 | 120 | 134 | 155 | 5540 | 145 | 178 | 108 | 119 | 104 |
| 23 | 102 | 150 | 112 | 204 | 141 | 154 | 702 | 139 | 164 | 352 | 118 | 146 |
| 24 | 103 | 122 | 132 | 301 | 190 | 148 | 436 | 136 | 160 | 346 | 116 | 115 |
| 25 | 104 | 111 | 120 | 195 | 278 | 145 | 350 | 134 | 157 | 183 | 113 | 103 |
| 26 | 104 | 106 | 114 | 169 | 834 | 252 | 276 | 145 | 152 | 146 | 111 | 102 |
| 27 | 104 | 103 | 113 | 151 | 460 | 211 | 230 | 144 | 194 | 141 | 113 | 140 |
| 28 | 104 | 101 | 158 | 145 | 277 | 178 | 215 | 140 | 157 | 138 | 192 | 220 |
| 29 | 104 | 101 | 865 | 143 | 216 | 168 | 192 | 237 | 147 | 123 | 253 | 354 |
| 30 | 102 | 103 | 333 | 139 | --- | 165 | 183 | 395 | 146 | 118 | 131 | 164 |
| 31 | 102 | --- | 208 | 137 | --- | 164 | --- | 282 | --- | 155 | 119 | --- |
| TOTAL | 3701 | 3399 | 7075 | 5342 | 5412 | 7717 | 14314 | 6367 | 10037 | 4982 | 4654 | 4032 |
| MEAN | 119 | 113 | 228 | 172 | 187 | 249 | 477 | 205 | 335 | 161 | 150 | 134 |
| MAX | 488 | 176 | 873 | 502 | 834 | 1130 | 5540 | 469 | 2270 | 455 | 413 | 354 |
| MIN | 101 | 101 | 109 | 119 | 114 | 145 | 134 | 134 | 146 | 108 | 105 | 98 |
| CFSM | .77 | .73 | 1.47 | 1.11 | 1.20 | 1.61 | 3.08 | 1.33 | 2.16 | 1.04 | .97 | .87 |
| IN. | .89 | .82 | 1.70 | 1.28 | 1.30 | 1.85 | 3.44 | 1.53 | 2.41 | 1.20 | 1.12 | .97 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 162 | 158 | 201 | 224 | 279 | 317 | 304 | 231 | 198 | 150 | 141 | 150 |
| MAX | 654 | 508 | 373 | 585 | 752 | 959 | 713 | 527 | 636 | 355 | 383 | 615 |
| (WY) | 1965 | 1978 | 1974 | 1978 | 1960 | 1975 | 1987 | 1990 | 1972 | 1987 | 1970 | 1979 |
| MIN | 50.0 | 56.9 | 53.1 | 56.4 | 132 | 123 | 102 | 92.8 | 63.3 | 41.2 | 43.5 | 40.4 |
| (WY) | 1955 | 1956 | 1956 | 1956 | 1977 | 1956 | 1985 | 1981 | 1956 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1951 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 103957 | | 77032 | | | |
| ANNUAL MEAN | 285 | | 210 | | 210 | |
| HIGHEST ANNUAL MEAN | | | | | 346 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 101 | 1956 |
| HIGHEST DAILY MEAN | 3350 | Mar 29 | 5540 | Apr 22 | 10400 | Sep 22 1979 |
| LOWEST DAILY MEAN | 101 | Oct 21 | 98 | Sep 18 | 22 | Sep 16 1956 |
| ANNUAL SEVEN-DAY MINIMUM | 102 | Nov 3 | 101 | Sep 15 | 24 | Sep 16 1956 |
| INSTANTANEOUS PEAK FLOW | | | 9570 | Apr 22 | 14800 | Sep 22 1979 |
| INSTANTANEOUS PEAK STAGE | | | 19.75 | Apr 22 | 25.05* | Sep 22 1979 |
| INSTANTANEOUS LOW FLOW | | | 86 | Nov 17 | 18 | Oct 8 1954 |
| ANNUAL RUNOFF (CFSM) | 1.84 | | 1.36 | | 1.36 | |
| ANNUAL RUNOFF (INCHES) | 24.95 | | 18.49 | | 18.43 | |
| 10 PERCENT EXCEEDS | 484 | | 308 | | 340 | |
| 50 PERCENT EXCEEDS | 219 | | 143 | | 147 | |
| 90 PERCENT EXCEEDS | 106 | | 104 | | 74 | |

* See REMARKS.

PEE DEE RIVER BASIN

02120780 SECOND CREEK NEAR BARBER, NC

LOCATION.--Lat 35°43'05", long 80°35'45", Rowan County, Hydrologic Unit 03040102, on right bank 70 ft upstream from bridge on U.S. Highway 70, 1.3 mi downstream of Withrow Creek, and 2.7 mi east of Barber.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-57, 1961-63. April 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 642.31 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some diurnal fluctuation caused by industry 0.7 mi upstream. Minimum daily discharge for period of record also occurred Oct. 7, 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 32 | e37 | e130 | 57 | 47 | 86 | 114 | 111 | 98 | 113 | 72 | 63 |
| 2 | 31 | e36 | e180 | 55 | 46 | 78 | 112 | 104 | 95 | 135 | 73 | 62 |
| 3 | 35 | e37 | e320 | 74 | 46 | 70 | 110 | 102 | 93 | 110 | 76 | 64 |
| 4 | 32 | e37 | e210 | 124 | 45 | 63 | 109 | 99 | 575 | 123 | 72 | 96 |
| 5 | 34 | e36 | e110 | 81 | 45 | 105 | 107 | 99 | 2300 | 104 | 70 | 74 |
| 6 | 37 | e35 | e68 | 68 | 44 | 156 | 106 | 100 | 326 | 102 | 70 | 107 |
| 7 | 31 | e36 | e58 | 62 | 44 | 265 | 106 | 119 | 152 | 99 | 74 | 80 |
| 8 | 29 | e36 | e55 | 58 | 43 | 198 | 106 | 209 | 171 | 96 | 75 | 75 |
| 9 | 30 | e35 | e52 | 57 | 43 | 135 | 104 | 151 | 420 | 95 | 73 | 69 |
| 10 | 31 | e60 | e45 | 55 | 42 | 199 | 102 | 126 | 235 | 93 | 70 | 68 |
| 11 | 30 | e54 | 39 | 52 | 44 | 177 | 102 | 115 | 317 | 91 | 69 | 77 |
| 12 | 32 | e46 | 37 | 51 | 43 | 144 | 102 | 110 | 262 | 88 | 67 | 69 |
| 13 | 34 | e43 | 38 | 48 | 43 | 133 | 100 | 107 | 164 | 87 | 138 | 70 |
| 14 | 31 | e42 | 43 | 47 | 44 | 125 | 99 | 105 | 155 | 86 | 164 | 68 |
| 15 | 30 | e41 | 43 | 44 | 68 | 120 | 100 | 102 | 149 | 84 | 89 | 64 |
| 16 | 31 | e41 | 39 | 43 | 96 | e120 | 99 | 99 | 142 | 83 | 85 | 64 |
| 17 | 30 | e40 | 36 | 43 | 63 | e115 | 99 | 98 | 133 | 83 | 84 | 64 |
| 18 | 30 | e41 | 37 | 42 | 61 | 114 | 97 | 98 | 126 | 83 | 89 | 63 |
| 19 | 33 | e40 | 35 | 41 | 61 | 126 | 97 | 102 | 122 | 84 | 80 | 67 |
| 20 | 35 | e41 | 35 | 43 | 55 | 123 | 98 | 98 | 118 | 81 | 77 | 71 |
| 21 | 32 | e42 | 37 | 44 | 51 | 114 | 760 | 95 | 116 | 80 | 76 | 69 |
| 22 | 31 | e45 | 36 | 39 | 49 | 112 | 713 | 93 | 114 | 85 | 75 | 66 |
| 23 | 31 | e53 | 37 | 97 | 78 | 118 | 168 | 92 | 111 | 86 | 75 | 82 |
| 24 | 33 | e46 | 41 | 87 | 206 | 112 | 132 | 91 | 109 | 86 | 74 | 69 |
| 25 | 32 | e43 | 41 | 65 | 173 | 110 | 122 | 91 | 107 | 84 | 74 | 66 |
| 26 | 38 | e40 | 41 | 63 | 614 | 378 | 115 | 100 | 117 | 81 | 72 | 70 |
| 27 | 39 | e39 | 43 | 56 | 185 | 171 | 112 | 96 | 117 | 79 | 69 | 104 |
| 28 | e38 | e39 | 56 | 54 | 118 | 134 | 112 | 93 | 105 | 77 | 74 | 128 |
| 29 | e37 | e39 | 161 | 51 | 99 | 125 | 109 | 99 | 104 | 75 | 69 | 85 |
| 30 | e38 | e41 | 72 | 50 | --- | 121 | 107 | 125 | 137 | 73 | 65 | 67 |
| 31 | e38 | --- | 62 | 49 | --- | 118 | --- | 106 | --- | 76 | 63 | --- |
| TOTAL | 1025 | 1241 | 2237 | 1800 | 2596 | 4265 | 4519 | 3335 | 7290 | 2802 | 2453 | 2241 |
| MEAN | 33.1 | 41.4 | 72.2 | 58.1 | 89.5 | 138 | 151 | 108 | 243 | 90.4 | 79.1 | 74.7 |
| MAX | 39 | 60 | 320 | 124 | 614 | 378 | 760 | 209 | 2300 | 135 | 164 | 128 |
| MIN | 29 | 35 | 35 | 39 | 42 | 63 | 97 | 91 | 93 | 73 | 63 | 62 |
| CFSM | .28 | .35 | .61 | .49 | .76 | 1.17 | 1.28 | .91 | 2.06 | .77 | .67 | .63 |
| IN. | .32 | .39 | .71 | .57 | .82 | 1.34 | 1.42 | 1.05 | 2.30 | .88 | .77 | .71 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 104 | 95.8 | 110 | 137 | 180 | 197 | 153 | 95.6 | 95.9 | 56.2 | 51.1 | 58.5 |
| MAX | 419 | 246 | 222 | 276 | 301 | 441 | 390 | 178 | 243 | 98.3 | 126 | 196 |
| (WY) | 1991 | 1986 | 1984 | 1991 | 1990 | 1991 | 1987 | 1990 | 1992 | 1989 | 1985 | 1979 |
| MIN | 15.8 | 33.3 | 54.1 | 38.9 | 70.7 | 67.2 | 45.5 | 29.6 | 13.0 | 13.2 | 16.7 | 11.7 |
| (WY) | 1987 | 1982 | 1985 | 1981 | 1986 | 1981 | 1986 | 1986 | 1986 | 1986 | 1983 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1979 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 46771 | | 35804 | | | |
| ANNUAL MEAN | 128 | | 97.8 | | 109 | |
| HIGHEST ANNUAL MEAN | | | | | 171 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 62.1 | 1981 |
| HIGHEST DAILY MEAN | 2900 | Mar 29 | 2300 | Jun 5 | 4470 | Mar 1 1987 |
| LOWEST DAILY MEAN | 25 | Sep 16 | 29 | Oct 8 | 5.0* | Oct 6 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 28 | Sep 11 | 31 | Oct 7 | 5.6 | Oct 3 1986 |
| INSTANTANEOUS PEAK FLOW | | | 2740 | Jun 5 | 5820 | Apr 16 1987 |
| INSTANTANEOUS PEAK STAGE | | | 13.73 | Jun 5 | 16.92 | Apr 16 1987 |
| INSTANTANEOUS LOW FLOW | | | 20 | Dec 20 | 4.4 | Oct 1 1986 |
| ANNUAL RUNOFF (CFSM) | 1.09 | | .83 | | .92 | |
| ANNUAL RUNOFF (INCHES) | 14.74 | | 11.29 | | 12.56 | |
| 10 PERCENT EXCEEDS | 180 | | 137 | | 172 | |
| 50 PERCENT EXCEEDS | 72 | | 76 | | 67 | |
| 90 PERCENT EXCEEDS | 34 | | 37 | | 26 | |

* See REMARKS.

PEE DEE RIVER BASIN

02121500 ABBOTTS CREEK AT LEXINGTON, NC

LOCATION.--Lat 35°48'23", long 80°14'05", Davidson County, Hydrologic Unit 03040103, on right bank 150 ft upstream from bridge on Secondary Road 1243, 1.5 mi southeast of Lexington, and 4.5 mi downstream of Rich Fork Creek.

DRAINAGE AREA.--174 mi².

PERIOD OF RECORD.--March 1940 to December 1957. October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 630 ft, from topographic map. March 1, 1940, to December 1957 at site 100 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. The city of Lexington diverts an average of 5.6 ft³/s for water supply. City of High Point diverted water from Deep River and discharged an average of 1.6 ft³/s of treated sewage effluent into Rich Fork Creek, upstream from station. Maximum discharge: 14,800 ft³/s, at former site, from floodmark. Minimum discharge: 0.4 ft³/s, at former site. Minimum discharge also occurred Sept. 5, 1990. Minimum discharge for current water year also occurred Sept. 21, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 38 | 28 | 45 | 93 | 72 | 134 | 104 | 105 | 56 | 38 | 51 | 11 |
| 2 | 35 | 28 | 83 | 79 | 65 | 112 | 95 | 91 | 42 | 50 | 34 | 11 |
| 3 | 41 | 26 | 95 | 89 | 63 | 102 | 87 | 84 | 35 | 78 | 25 | 12 |
| 4 | 45 | 25 | 191 | 604 | 63 | 95 | 84 | 74 | 82 | 60 | 23 | 66 |
| 5 | 34 | 26 | 99 | 1160 | 63 | 88 | 85 | 72 | 182 | 41 | 20 | 49 |
| 6 | 39 | 25 | 70 | 292 | 61 | 122 | 79 | 79 | 144 | 33 | 16 | 62 |
| 7 | 47 | 27 | 62 | 160 | 57 | 685 | 76 | 85 | 130 | 65 | 14 | 49 |
| 8 | 38 | 29 | 57 | 116 | 58 | 387 | 77 | 190 | 143 | 43 | 17 | 31 |
| 9 | 31 | 36 | 55 | 99 | 54 | 193 | 76 | 196 | 227 | 30 | 21 | 29 |
| 10 | 28 | 154 | 63 | 94 | 52 | 184 | 72 | 117 | 313 | 26 | 17 | 25 |
| 11 | 26 | 179 | 69 | 83 | 53 | 305 | 70 | 86 | 211 | 21 | 15 | 22 |
| 12 | 26 | 80 | 58 | 75 | 57 | 199 | 70 | 70 | 187 | 17 | 16 | 29 |
| 13 | 23 | 60 | 55 | 73 | 55 | 144 | 113 | 65 | 142 | 13 | 45 | 19 |
| 14 | 22 | 49 | 55 | 78 | 57 | 114 | 80 | 65 | 104 | 13 | 178 | 11 |
| 15 | 22 | 45 | 57 | 76 | 98 | 103 | 71 | 62 | 92 | 13 | 106 | 9.6 |
| 16 | 24 | 43 | 52 | 66 | 403 | 94 | 68 | 60 | 257 | 12 | 65 | 11 |
| 17 | 24 | 41 | 47 | 61 | 231 | 87 | 73 | 56 | 146 | 11 | 54 | 10 |
| 18 | 27 | 36 | 49 | 61 | 141 | 85 | 68 | 106 | 85 | 15 | 51 | 9.1 |
| 19 | 23 | 38 | 48 | 61 | 138 | 143 | 64 | 93 | 68 | 24 | 43 | 11 |
| 20 | 22 | 38 | 37 | 58 | 134 | 165 | 65 | 76 | 60 | 11 | 32 | 9.5 |
| 21 | 18 | 39 | 38 | 59 | 100 | 108 | 1380 | 55 | 51 | 12 | 28 | 8.8 |
| 22 | 20 | 44 | 41 | 58 | 90 | 95 | 5060 | 44 | 65 | 12 | 24 | 10 |
| 23 | 24 | 57 | 43 | 162 | 94 | 109 | 2200 | 39 | 46 | 153 | 20 | 37 |
| 24 | 25 | 50 | 83 | 323 | 203 | 100 | 402 | 35 | 41 | 320 | 18 | 37 |
| 25 | 25 | 40 | 108 | 169 | 254 | 86 | 297 | 34 | 39 | 98 | 18 | 31 |
| 26 | 24 | 38 | 67 | 110 | 1280 | 503 | 258 | 51 | 45 | 62 | 18 | 18 |
| 27 | 23 | 35 | 62 | 92 | 1080 | 549 | 227 | 59 | 61 | 45 | 22 | 15 |
| 28 | 24 | 35 | 79 | 88 | 283 | 225 | 209 | 42 | 55 | 37 | 31 | 25 |
| 29 | 29 | 35 | 381 | 85 | 188 | 155 | 201 | 42 | 39 | 34 | 28 | 41 |
| 30 | 27 | 36 | 302 | 78 | --- | 125 | 139 | 62 | 34 | 28 | 23 | 26 |
| 31 | 27 | --- | 132 | 76 | --- | 117 | --- | 86 | --- | 39 | 15 | --- |
| TOTAL | 881 | 1422 | 2683 | 4778 | 5547 | 5713 | 11950 | 2381 | 3182 | 1454 | 1088 | 735.0 |
| MEAN | 28.4 | 47.4 | 86.5 | 154 | 191 | 184 | 398 | 76.8 | 106 | 46.9 | 35.1 | 24.5 |
| MAX | 47 | 179 | 381 | 1160 | 1280 | 685 | 5060 | 196 | 313 | 320 | 178 | 66 |
| MIN | 18 | 25 | 37 | 58 | 52 | 85 | 64 | 34 | 34 | 11 | 14 | 8.8 |
| CFSM | .16 | .27 | .50 | .89 | 1.10 | 1.06 | 2.29 | .44 | .61 | .27 | .20 | .14 |
| IN. | .19 | .30 | .57 | 1.02 | 1.19 | 1.22 | 2.55 | .51 | .68 | .31 | .23 | .16 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 395 | 131 | 171 | 283 | 393 | 419 | 323 | 318 | 111 | 55.9 | 58.1 | 71.9 |
| MAX | 731 | 210 | 319 | 500 | 753 | 705 | 398 | 515 | 182 | 89.5 | 102 | 158 |
| (WY) | 1990 | 1989 | 1990 | 1991 | 1990 | 1989 | 1992 | 1989 | 1989 | 1989 | 1989 | 1989 |
| MIN | 28.4 | 47.4 | 84.6 | 108 | 137 | 184 | 224 | 76.8 | 73.0 | 35.1 | 14.9 | 22.6 |
| (WY) | 1992 | 1992 | 1989 | 1989 | 1991 | 1992 | 1989 | 1992 | 1990 | 1990 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 68927.4 | | 41814.0 | | | |
| ANNUAL MEAN | 189 | | 114 | | 227 | |
| HIGHEST ANNUAL MEAN | | | | | 281 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 114 | 1992 |
| HIGHEST DAILY MEAN | 4240 | Mar 30 | 5060 | Apr 22 | 7120 | Oct 2 1989 |
| LOWEST DAILY MEAN | 7.3 | Sep 13 | 8.8 | Sep 21 | 2.7 | Sep 4 1990 |
| ANNUAL SEVEN-DAY MINIMUM | 13 | Jul 18 | 9.9 | Sep 15 | 3.9 | Sep 1 1990 |
| INSTANTANEOUS PEAK FLOW | | | 5520 | Apr 22 | 5520* | Apr 22 1992 |
| INSTANTANEOUS PEAK STAGE | | | 20.30 | Apr 22 | 20.30 | Apr 22 1992 |
| INSTANTANEOUS LOW FLOW | | | 8.1* | Jul 21 | 2.4* | Sep 4 1990 |
| ANNUAL RUNOFF (CFSM) | 1.09 | | .66 | | 1.30 | |
| ANNUAL RUNOFF (INCHES) | 14.74 | | 8.94 | | 17.72 | |
| 10 PERCENT EXCEEDS | 372 | | 192 | | 401 | |
| 50 PERCENT EXCEEDS | 83 | | 59 | | 90 | |
| 90 PERCENT EXCEEDS | 24 | | 20 | | 22 | |

* See REMARKS.

PEE DEE RIVER BASIN

02123567 DUTCHMANS CREEK NEAR UWHARRIE, NC

LOCATION.--Lat 35°22'05", long 80°01'49", Montgomery County, Hydrologic Unit 03040103, near midstream at upstream end of two 6-ft corrugated metal-pipe culverts on Secondary Road 1150, 1.0 mi upstream from mouth, and 3.0 mi southwest of Uwharrie.

DRAINAGE AREA.--3.44 $mi^2$.

PERIOD OF RECORD.--October 1981 to September 1983, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those below 3.0 $ft^3/s$, which are fair, and estimated daily discharges which are poor. Minimum discharge and minimum daily discharge for period of record also occurred periodically in July and October 1986. Maximum stage for current water year 11.96 ft, from floodmark. Minimum discharge for current water year also occurred July 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .85 | e.46 | 1.1 | 1.3 | 1.4 | 2.5 | 2.1 | 2.6 | 1.1 | 1.1 | .23 | .37 |
| 2 | .94 | e.43 | .93 | 1.2 | 1.3 | 2.1 | 1.9 | 2.4 | 1.0 | 1.0 | 3.1 | .35 |
| 3 | 1.6 | e.40 | 2.4 | 2.1 | 1.3 | 1.9 | 1.8 | 2.3 | .95 | .91 | .75 | .41 |
| 4 | 1.0 | e.38 | 2.1 | 2.6 | 1.3 | 1.8 | 1.8 | 2.1 | 1.5 | .84 | .38 | .56 |
| 5 | .90 | e.36 | 1.3 | 2.0 | 1.3 | 1.7 | 1.8 | 2.1 | 1.5 | .71 | .29 | .95 |
| 6 | .89 | e.36 | 1.1 | 1.6 | 1.2 | 4.5 | 1.6 | 2.1 | 1.1 | .88 | .25 | 1.1 |
| 7 | .76 | e.36 | 1.0 | 1.4 | 1.2 | 8.0 | 1.7 | 2.7 | .91 | 1.2 | .28 | .63 |
| 8 | e.54 | .61 | 1.0 | 1.3 | 1.2 | 5.5 | 1.7 | 6.1 | .94 | .64 | .32 | .50 |
| 9 | e.54 | 1.1 | 1.0 | 1.2 | 1.1 | 3.1 | 1.6 | 3.2 | 2.5 | .54 | .41 | .45 |
| 10 | e.54 | 4.6 | 1.2 | 1.2 | 1.1 | 3.2 | 1.6 | 2.5 | 1.9 | .43 | .29 | .41 |
| 11 | e.52 | 1.5 | 1.0 | 1.1 | 1.2 | 3.1 | 1.5 | 2.2 | 1.6 | .37 | .22 | .37 |
| 12 | e.49 | 1.1 | .94 | 1.1 | 1.2 | 2.4 | 1.5 | 2.0 | 1.6 | .32 | 9.6 | .33 |
| 13 | e.45 | 1.0 | .94 | 1.1 | 1.2 | 2.1 | 1.9 | 2.0 | 1.2 | .28 | 7.9 | .28 |
| 14 | e.42 | .94 | .97 | 1.5 | 1.2 | 1.9 | 1.5 | 2.0 | 12 | .25 | 3.2 | .25 |
| 15 | e.60 | .87 | .89 | 1.2 | 2.1 | 1.9 | 1.5 | 1.9 | 2.8 | .22 | 1.3 | .24 |
| 16 | e.58 | .85 | .85 | 1.1 | 2.6 | 1.8 | 1.5 | 1.8 | 1.9 | .20 | 1.1 | .24 |
| 17 | e.55 | .83 | .85 | 1.0 | 1.7 | 1.7 | 1.4 | 1.7 | 1.6 | .22 | 1.2 | .24 |
| 18 | e.51 | .79 | .85 | 1.1 | 1.9 | 1.7 | 1.4 | 1.6 | 1.3 | .25 | 2.0 | .24 |
| 19 | e.48 | .82 | .79 | 1.0 | 2.7 | 5.4 | 1.3 | 1.6 | 1.3 | .35 | .99 | .24 |
| 20 | e.46 | .85 | .76 | 1.0 | 2.2 | 2.9 | 1.4 | 1.9 | 1.1 | .24 | .75 | 3.3 |
| 21 | e.45 | .91 | .82 | 1.0 | 1.8 | 2.4 | 206 | 2.0 | 1.4 | .20 | .62 | .76 |
| 22 | e.45 | 1.1 | .85 | 1.0 | 1.6 | 2.2 | 33 | 1.9 | 1.1 | .18 | .51 | .60 |
| 23 | e.45 | 1.0 | .89 | 4.8 | 2.1 | 5.1 | 8.2 | 1.9 | .91 | .19 | .49 | .56 |
| 24 | e.45 | .90 | 1.1 | 2.7 | 4.9 | 3.0 | 5.1 | 1.9 | .88 | .22 | .43 | .47 |
| 25 | e.43 | .76 | .87 | 1.9 | 16 | 2.6 | 4.6 | 1.9 | 1.2 | .20 | .40 | .39 |
| 26 | e.43 | .72 | .79 | 1.7 | 52 | 17 | 3.3 | 2.0 | 19 | .15 | .38 | .42 |
| 27 | e.43 | .72 | 1.6 | 1.5 | 9.1 | 6.2 | 3.1 | 1.7 | 8.8 | .14 | .98 | .55 |
| 28 | e.43 | .72 | 1.8 | 1.7 | 5.0 | 3.5 | 3.2 | 1.0 | 2.1 | .12 | 1.2 | .70 |
| 29 | e.40 | .77 | 5.2 | 1.6 | 3.4 | 2.8 | 2.9 | 1.4 | 1.5 | .10 | .65 | .51 |
| 30 | e.40 | .79 | 2.0 | 1.5 | --- | 2.5 | 2.7 | 2.0 | 1.2 | .11 | .48 | .36 |
| 31 | e.44 | --- | 1.5 | 1.6 | --- | 2.3 | --- | 1.5 | --- | .55 | .43 | --- |
| TOTAL | 18.38 | 27.00 | 39.39 | 48.1 | 126.3 | 108.8 | 304.6 | 66.0 | 77.89 | 13.11 | 41.13 | 16.79 |
| MEAN | .59 | .90 | 1.27 | 1.55 | 4.36 | 3.51 | 10.2 | 2.13 | 2.60 | .42 | 1.33 | .56 |
| MAX | 1.6 | 4.6 | 5.2 | 4.8 | 52 | 17 | 206 | 6.1 | 19 | 1.2 | 9.6 | 3.3 |
| MIN | .40 | .36 | .76 | 1.0 | 1.1 | 1.7 | 1.3 | 1.0 | .88 | .10 | .22 | .24 |
| CFSM | .17 | .26 | .37 | .45 | 1.27 | 1.02 | 2.95 | .62 | .75 | .12 | .39 | .16 |
| IN. | .20 | .29 | .43 | .52 | 1.37 | 1.18 | 3.29 | .71 | .84 | .14 | .44 | .18 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 2.97 | 2.45 | 2.80 | 4.78 | 6.09 | 6.59 | 5.34 | 3.08 | 1.43 | .86 | 1.27 | .75 |
| MAX | 11.9 | 8.69 | 4.81 | 10.3 | 9.62 | 12.3 | 10.2 | 6.49 | 2.60 | 1.58 | 3.64 | 1.46 |
| (WY) | 1991 | 1986 | 1991 | 1991 | 1990 | 1989 | 1992 | 1990 | 1992 | 1982 | 1991 | 1988 |
| MIN | .19 | .82 | 1.27 | 1.55 | 1.83 | 3.05 | 1.41 | .82 | .24 | .26 | .35 | .20 |
| (WY) | 1987 | 1987 | 1992 | 1992 | 1986 | 1988 | 1986 | 1986 | 1986 | 1986 | 1990 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1982 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1234.71 | | 887.49 | | | |
| ANNUAL MEAN | 3.38 | | 2.42 | | 3.19 | |
| HIGHEST ANNUAL MEAN | | | | | 4.84 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 1.60 | 1988 |
| HIGHEST DAILY MEAN | 87 | Jan 11 | 206 | Apr 21 | 206 | Apr 21 1992 |
| LOWEST DAILY MEAN | .30 | Sep 17 | .10 | Jul 29 | .01* | Jul 15 1986 |
| ANNUAL SEVEN-DAY MINIMUM | .36 | Sep 12 | .15 | Jul 24 | .03 | Jul 10 1986 |
| INSTANTANEOUS PEAK FLOW | | | 1560 | Apr 21 | 1560 | Apr 21 1992 |
| INSTANTANEOUS PEAK STAGE | | | 11.96* | Apr 21 | 11.96* | Apr 21 1992 |
| INSTANTANEOUS LOW FLOW | | | .08 | Jul 29 | .01* | Jul 15 1986 |
| ANNUAL RUNOFF (CFSM) | .98 | | .70 | | .93 | |
| ANNUAL RUNOFF (INCHES) | 13.35 | | 9.60 | | 12.59 | |
| 10 PERCENT EXCEEDS | 5.6 | | 3.1 | | 5.4 | |
| 50 PERCENT EXCEEDS | 1.8 | | 1.1 | | 1.5 | |
| 90 PERCENT EXCEEDS | .51 | | .36 | | .33 | |

* See REMARKS.

PEE DEE RIVER BASIN

## 0212429930 WIBERLY BRANCH NEAR WILGROVE, NC

LOCATION (REVISED).--Lat 35°13'31", long 80°41'31", Mecklenburg County, Hydrologic Unit 03050103, on left bank 1,700 ft upstream from mouth, 0.1 mi downstream of Smith Lake, 1.2 mi upstream from Secondary Road 2822, and 1.7 mi northwest of Wilgrove. Located within Harrisburg Road Landfill.

DRAINAGE AREA.--0.35 $mi^2$.

PERIOD OF RECORD.--December 1984 to current year.

REVISED RECORDS.--WDR NC-87-1: Drainage area.

GAGE.--Water-stage recorder and wooden, V-notch, sharp-crested weir. Datum of gage is 675.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Smith Lake acts as a sediment basin for the landfill runoff and has a surface area of 1.83 acres. Minimum discharge for period of record, no flow, occurs most water years. Minimum discharge for current water year also occurred December 13-18 and was affected by dredging operation in Smith Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .10 | .16 | .20 | .26 | .18 | .23 | .21 | .14 | .11 | .50 | .08 | e.10 |
| 2 | .35 | .14 | .16 | .22 | .16 | .21 | .19 | .11 | .11 | .17 | .08 | e.10 |
| 3 | .18 | .14 | 1.5 | 5.8 | .16 | .19 | .19 | .11 | .11 | .15 | .08 | e.09 |
| 4 | .15 | .14 | .37 | 3.1 | .16 | .19 | .19 | .11 | 4.5 | .11 | .08 | e.10 |
| 5 | .15 | .12 | .26 | .77 | .16 | .19 | .16 | .12 | 1.2 | .11 | .08 | e1.1 |
| 6 | .14 | .13 | .22 | .41 | .16 | 3.5 | .16 | .29 | .35 | .13 | .08 | e.41 |
| 7 | .12 | .13 | .20 | .28 | .16 | 1.8 | .16 | 3.8 | .21 | .10 | .08 | e.26 |
| 8 | .13 | .12 | .19 | .23 | .16 | .54 | .16 | 5.3 | .16 | .11 | .95 | e.16 |
| 9 | .14 | .34 | .18 | .22 | .16 | .32 | .15 | 1.2 | .22 | .10 | .12 | e.14 |
| 10 | .15 | 3.0 | .16 | .20 | .16 | .61 | .14 | .43 | 1.4 | .10 | .08 | e.12 |
| 11 | .14 | .39 | .13 | .19 | .16 | .37 | .13 | .27 | 6.9 | .09 | .09 | e.11 |
| 12 | .13 | .27 | .05 | .19 | .16 | .26 | .14 | .21 | .69 | .09 | 4.2 | e.10 |
| 13 | .11 | .22 | .01 | .22 | .16 | .22 | .13 | .20 | .34 | .09 | 1.9 | e.10 |
| 14 | .12 | .18 | .01 | .28 | .16 | .19 | .11 | .18 | 1.6 | .09 | .65 | e.09 |
| 15 | .13 | .16 | .01 | .19 | 1.5 | .19 | .12 | .16 | 2.7 | .09 | .23 | e.09 |
| 16 | .19 | .16 | .01 | .16 | .54 | .18 | .13 | .14 | 2.6 | .09 | .14 | e.08 |
| 17 | .14 | .13 | .01 | .16 | .35 | .18 | .12 | .14 | .55 | .09 | 3.0 | .08 |
| 18 | .11 | .13 | .06 | .16 | .45 | .18 | .11 | .15 | .33 | .09 | .63 | .08 |
| 19 | .11 | .15 | .11 | .16 | .62 | 3.3 | .11 | .16 | .24 | .09 | .23 | .08 |
| 20 | .16 | .14 | .13 | .16 | .32 | .90 | .24 | .81 | .20 | .09 | e.16 | .08 |
| 21 | .12 | .15 | .16 | .16 | .25 | .45 | 18 | 1.2 | .18 | .08 | e.13 | .08 |
| 22 | .12 | .24 | .16 | .16 | .22 | .30 | 4.4 | .26 | .15 | .09 | e.12 | .09 |
| 23 | .13 | .16 | .16 | 3.2 | 1.9 | 1.3 | .67 | .11 | .16 | .11 | e.11 | .08 |
| 24 | .13 | .14 | .22 | .70 | .97 | .37 | .33 | .11 | .14 | .09 | e.11 | .08 |
| 25 | .15 | .13 | .16 | .37 | 8.1 | .62 | .22 | .11 | .35 | .08 | e.11 | .08 |
| 26 | .14 | .12 | .13 | .26 | 8.4 | 3.3 | .18 | .12 | .20 | .08 | e.11 | .08 |
| 27 | .11 | .13 | .25 | .29 | 1.1 | .61 | .16 | .13 | .16 | .08 | e.24 | .09 |
| 28 | .13 | .13 | 4.7 | .37 | .46 | .34 | .16 | .11 | .14 | .08 | e.20 | .09 |
| 29 | .12 | .16 | 2.6 | .25 | .29 | .27 | .14 | .47 | 1.6 | .07 | e.12 | .09 |
| 30 | .13 | .18 | .62 | .22 | --- | .25 | .14 | .30 | 1.5 | .08 | e.11 | .07 |
| 31 | .15 | --- | .35 | .21 | --- | .23 | --- | .15 | --- | .08 | e.11 | --- |
| TOTAL | 4.38 | 7.89 | 13.48 | 19.55 | 27.73 | 21.79 | 27.45 | 17.10 | 29.10 | 3.40 | 14.41 | 4.30 |
| MEAN | .14 | .26 | .43 | .63 | .96 | .70 | .91 | .55 | .97 | .11 | .46 | .14 |
| MAX | .35 | 3.0 | 4.7 | 5.8 | 8.4 | 3.5 | 18 | 5.3 | 6.9 | .50 | 4.2 | 1.1 |
| MIN | .10 | .12 | .01 | .16 | .16 | .18 | .11 | .11 | .11 | .07 | .08 | .07 |
| CFSM | .40 | .75 | 1.24 | 1.80 | 2.73 | 2.01 | 2.61 | 1.58 | 2.77 | .31 | 1.33 | .41 |
| IN. | .47 | .84 | 1.43 | 2.08 | 2.95 | 2.32 | 2.92 | 1.82 | 3.09 | .36 | 1.53 | .46 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | .89 | .47 | .39 | .69 | .77 | .81 | .41 | .38 | .39 | .28 | .50 | .66 |
| MAX | 3.84 | .93 | .74 | 1.21 | 1.39 | 2.05 | .91 | .88 | .97 | .75 | 1.48 | 2.67 |
| (WY) | 1991 | 1988 | 1988 | 1991 | 1990 | 1991 | 1992 | 1989 | 1992 | 1988 | 1988 | 1987 |
| MIN | .085 | .20 | .019 | .022 | .023 | .036 | .013 | .013 | .003 | .072 | .043 | .022 |
| (WY) | 1988 | 1990 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1990 | 1987 | 1985 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1985 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 219.30 | | 190.58 | | | |
| ANNUAL MEAN | .60 | | .52 | | .55 | |
| HIGHEST ANNUAL MEAN | | | | | .94 | 1991 |
| LOWEST ANNUAL MEAN | | | | | .14 | 1986 |
| HIGHEST DAILY MEAN | 30 | Mar 3 | 18 | Apr 21 | 47 | Sep 7 1987 |
| LOWEST DAILY MEAN | 0 | Jul 20 | .01 | Dec 13 | 0 | May 30 1986 |
| ANNUAL SEVEN-DAY MINIMUM | .01 | Jul 19 | .02 | Dec 12 | 0 | Jun 1 1986 |
| INSTANTANEOUS PEAK FLOW | | | 83 | Apr 21 | 190 | Oct 22 1990 |
| INSTANTANEOUS PEAK STAGE | | | 2.80 | Apr 21 | 2.94 | Oct 22 1990 |
| INSTANTANEOUS LOW FLOW | | | .01* | Dec 12 | 0* | May 1 1986 |
| ANNUAL RUNOFF (CFSM) | 1.72 | | 1.49 | | 1.57 | |
| ANNUAL RUNOFF (INCHES) | 23.31 | | 20.26 | | 21.36 | |
| 10 PERCENT EXCEEDS | .92 | | 1.0 | | .94 | |
| 50 PERCENT EXCEEDS | .14 | | .16 | | .13 | |
| 90 PERCENT EXCEEDS | .08 | | .09 | | .02 | |

* See REMARKS.

PEE DEE RIVER BASIN

## 0212429960 REEDY CREEK TRIBUTARY NO. 2 BELOW WIBERLY BRANCH NEAR MINT HILL, NC

LOCATION.--Lat 35°13'52", long 80°41'32", Mecklenburg County, Hydrologic Unit 03050103, on left bank 700 ft downstream of Wiberly Branch, 1.0 mi upstream from bridge on Secondary Road 2822, and 4.4 mi northwest of Mint Hill.

DRAINAGE AREA.--1.0 mi².

PERIOD OF RECORD.--April 1988 to current year.

GAGE.--Water-stage recorder and wooden, V-notch, sharp-crested weir. Datum of gage is 755 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Minimum daily discharge for period of record also occurred Sept. 4, 7, 8, 1990. Maximum stage for period of record from floodmark. Maximum discharge for period of record determined by slope-area indirect measurement. Minimum discharge for current water year may have been affected by upstream irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .22 | e.31 | .41 | .38 | e.28 | .86 | e.51 | e.42 | .58 | .66 | .25 | .23 |
| 2 | .53 | e.28 | .30 | .29 | e.26 | .77 | e.45 | e.40 | .56 | .35 | .28 | .22 |
| 3 | .31 | e.27 | 2.6 | 12 | e.25 | .72 | e.41 | e.39 | .48 | .33 | .28 | .21 |
| 4 | .25 | e.26 | 1.0 | 10 | e.24 | .70 | e.37 | .38 | 8.9 | .28 | .27 | .22 |
| 5 | .25 | e.26 | .43 | 4.2 | e.24 | .68 | e.34 | .36 | 2.8 | .25 | .27 | 1.4 |
| 6 | .23 | e.25 | .36 | e1.4 | e.23 | 6.0 | e.32 | .75 | 1.0 | .27 | .27 | .81 |
| 7 | .21 | .25 | .36 | e.75 | e.23 | 4.0 | e.30 | 6.8 | .56 | .23 | .30 | .44 |
| 8 | .23 | .28 | .33 | e.45 | e.23 | 1.3 | e.37 | 12 | .54 | .23 | 1.3 | .35 |
| 9 | .22 | .55 | .31 | e.36 | e.22 | .91 | .49 | 4.0 | .61 | .22 | .38 | .44 |
| 10 | .23 | 6.6 | .27 | e.33 | e.22 | 1.5 | .44 | 2.0 | 2.1 | .21 | .20 | .28 |
| 11 | .24 | .87 | .25 | e.29 | e.22 | 1.2 | .41 | 1.3 | 14 | .20 | .21 | .34 |
| 12 | .24 | .48 | .20 | e.27 | e.22 | .80 | .42 | 1.2 | 2.7 | .19 | 7.7 | .25 |
| 13 | .23 | .39 | .17 | e.34 | e.21 | .60 | .40 | 1.0 | 1.4 | .21 | 2.6 | .23 |
| 14 | e.22 | .32 | .18 | e.50 | e.21 | .49 | .38 | .97 | 2.9 | .21 | 1.1 | .22 |
| 15 | e.26 | .30 | .16 | e.32 | 4.3 | .44 | .38 | .86 | 7.3 | .17 | .48 | .20 |
| 16 | e.35 | .30 | .16 | e.28 | 1.6 | .37 | .40 | .74 | 8.6 | .18 | .31 | .19 |
| 17 | e.27 | .28 | .16 | e.26 | .77 | .34 | .39 | .54 | 2.2 | .19 | 3.6 | .19 |
| 18 | e.24 | .27 | .20 | e.25 | .78 | .33 | .37 | .57 | 1.4 | .19 | 1.3 | .18 |
| 19 | e.23 | .26 | .25 | e.24 | .97 | 5.8 | .36 | .56 | .83 | .18 | .53 | .19 |
| 20 | e.30 | .26 | .27 | e.23 | .61 | 2.1 | .64 | 1.3 | .56 | .18 | .37 | .19 |
| 21 | e.25 | .29 | .28 | e.22 | .51 | .96 | 35 | 1.6 | .51 | .18 | .30 | .20 |
| 22 | e.24 | .46 | .28 | e.22 | .46 | .54 | 7.0 | .70 | .67 | .20 | .28 | .22 |
| 23 | e.25 | .28 | .31 | 8.2 | 3.6 | 2.1 | 2.3 | .48 | .56 | .24 | .26 | .20 |
| 24 | e.24 | .29 | .40 | e1.3 | 2.4 | .67 | 1.3 | .50 | .43 | .24 | .25 | .19 |
| 25 | e.23 | .29 | .28 | e.68 | 17 | .81 | .94 | .50 | .78 | .23 | .25 | .19 |
| 26 | e.23 | .27 | .27 | e.45 | 20 | 7.1 | .82 | .54 | .59 | .23 | .24 | .21 |
| 27 | e.22 | .27 | .40 | e.49 | 3.3 | 1.7 | .56 | .56 | .46 | .23 | .51 | .25 |
| 28 | e.25 | .27 | 8.7 | e.71 | 1.8 | .99 | .50 | .53 | .40 | .23 | .46 | .23 |
| 29 | e.24 | .28 | 5.7 | e.55 | 1.2 | .76 | .45 | 1.4 | 1.6 | .24 | .29 | .20 |
| 30 | e.26 | .34 | 1.3 | e.42 | --- | e.66 | e.44 | 1.3 | 1.5 | .25 | .25 | .19 |
| 31 | e.28 | --- | .61 | e.33 | --- | e.57 | --- | .66 | --- | .25 | .24 | --- |
| TOTAL | 7.95 | 16.08 | 26.90 | 46.71 | 62.56 | 46.77 | 57.46 | 45.31 | 67.52 | 7.45 | 25.33 | 8.86 |
| MEAN | .26 | .54 | .87 | 1.51 | 2.16 | 1.51 | 1.92 | 1.46 | 2.25 | .24 | .82 | .30 |
| MAX | .53 | 6.6 | 8.7 | 12 | 20 | 7.1 | 35 | 12 | 14 | .66 | 7.7 | 1.4 |
| MIN | .21 | .25 | .16 | .22 | .21 | .33 | .30 | .36 | .40 | .17 | .20 | .18 |
| CFSM | .26 | .54 | .87 | 1.51 | 2.16 | 1.51 | 1.92 | 1.46 | 2.25 | .24 | .82 | .30 |
| IN. | .30 | .60 | 1.00 | 1.74 | 2.33 | 1.74 | 2.14 | 1.69 | 2.51 | .28 | .94 | .33 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 2.44 | .64 | .98 | 1.76 | 2.13 | 2.53 | 1.23 | 1.08 | .96 | .58 | 1.05 | .82 |
| MAX | 6.17 | .84 | 1.38 | 2.58 | 3.18 | 3.82 | 1.92 | 1.94 | 2.25 | 1.09 | 2.26 | 1.62 |
| (WY) | 1991 | 1991 | 1990 | 1991 | 1990 | 1991 | 1992 | 1989 | 1992 | 1988 | 1988 | 1989 |
| MIN | .26 | .54 | .38 | .75 | .78 | 1.33 | .58 | .36 | .39 | .23 | .24 | .30 |
| (WY) | 1992 | 1992 | 1989 | 1989 | 1991 | 1990 | 1988 | 1988 | 1988 | 1990 | 1990 | 1992 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 429.43 | | 418.90 | | | |
| ANNUAL MEAN | 1.18 | | 1.14 | | 1.35 | |
| HIGHEST ANNUAL MEAN | | | | | 1.74 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 1.14 | 1992 |
| HIGHEST DAILY MEAN | 52 | Mar 3 | 35 | Apr 21 | 52 | Mar 3 1991 |
| LOWEST DAILY MEAN | .16 | Dec 15 | .16 | Dec 15 | .12* | Sep 3 1990 |
| ANNUAL SEVEN-DAY MINIMUM | .18 | Dec 12 | .18 | Dec 12 | .12 | Sep 2 1990 |
| INSTANTANEOUS PEAK FLOW | | | 217 | Apr 21 | 398* | Oct 22 1990 |
| INSTANTANEOUS PEAK STAGE | | | 4.40 | Apr 21 | 5.86* | Oct 22 1990 |
| INSTANTANEOUS LOW FLOW | | | .10* | Jul 13 | .09 | Sep 3 1990 |
| ANNUAL RUNOFF (CFSM) | 1.18 | | 1.14 | | 1.35 | |
| ANNUAL RUNOFF (INCHES) | 15.97 | | 15.58 | | 18.29 | |
| 10 PERCENT EXCEEDS | 1.8 | | 2.1 | | 2.2 | |
| 50 PERCENT EXCEEDS | .46 | | .36 | | .41 | |
| 90 PERCENT EXCEEDS | .24 | | .21 | | .21 | |

* See REMARKS.

PEE DEE RIVER BASIN

02125000 BIG BEAR CREEK NEAR RICHFIELD, NC

LOCATION.--Lat 35°20'02", long 80°20'09", Stanly County, Hydrologic Unit 03040105, on left bank 300 ft downstream of Little Creek, 400 ft upstream from bridge on Secondary Road 1134, and 10 mi southwest of Richfield.

DRAINAGE AREA.--55.6 $mi^2$.

PERIOD OF RECORD.--May 1954 to current year.

REVISED RECORDS.--WSP 1503: 1955, 1956(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 426.62 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No flow occurs periodically. Minimum discharge for current water year, no flow, also occurred September 14-22, 25-26, and 29-30.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1921 reached a stage of about 19 ft, information from State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.8 | 1.6 | 3.0 | 16 | 19 | 53 | 37 | 20 | 10 | 6.1 | .52 | .32 |
| 2 | 4.1 | 1.8 | 3.1 | 13 | 16 | 43 | 32 | 17 | 7.8 | 5.2 | 2.4 | .28 |
| 3 | 4.8 | 1.6 | 7.0 | 42 | 14 | 37 | 27 | 15 | 6.3 | 4.6 | 1.0 | .22 |
| 4 | 4.7 | 1.6 | 20 | 101 | 13 | 32 | 25 | 13 | 22 | 4.0 | .64 | .20 |
| 5 | 4.2 | 1.5 | 11 | 63 | 13 | 28 | 23 | 12 | 111 | 3.4 | .49 | .23 |
| 6 | 3.7 | 1.5 | 7.2 | 37 | 12 | 140 | 20 | 12 | 28 | 2.8 | .40 | .29 |
| 7 | 3.1 | 1.5 | 5.6 | 27 | 11 | 449 | 19 | 20 | 15 | 2.6 | .40 | .26 |
| 8 | 3.0 | 1.5 | 5.5 | 20 | 11 | 166 | 19 | 204 | 10 | 2.2 | .42 | .27 |
| 9 | 2.8 | 1.8 | 4.3 | 18 | 9.7 | 80 | 17 | 113 | 9.2 | 1.9 | 1.6 | .26 |
| 10 | 2.8 | 21 | 4.5 | 17 | 8.8 | 64 | 16 | 53 | 24 | 1.6 | .50 | .22 |
| 11 | 2.8 | 11 | 4.2 | 14 | 8.5 | 71 | 15 | 33 | 201 | 1.4 | .24 | .20 |
| 12 | 2.6 | 7.0 | 4.0 | 12 | 8.5 | 48 | 14 | 24 | 129 | 1.2 | 11 | .16 |
| 13 | 2.3 | 4.6 | 3.9 | 12 | 8.5 | 40 | 22 | 20 | 47 | 1.0 | 9.9 | .06 |
| 14 | 2.2 | 3.8 | 3.8 | 13 | 8.5 | 33 | 16 | 18 | 420 | .89 | 3.8 | .00 |
| 15 | 2.1 | 3.4 | 3.7 | 13 | 36 | 30 | 14 | 15 | 184 | .77 | 2.0 | .00 |
| 16 | 2.1 | 3.3 | 3.4 | 11 | 157 | 26 | 13 | 12 | 985 | .68 | 1.3 | .00 |
| 17 | 2.4 | 3.1 | 3.2 | 9.9 | 51 | 23 | 12 | 11 | 153 | .63 | 1.5 | .00 |
| 18 | 2.3 | 2.9 | 3.2 | 9.5 | 47 | 22 | 11 | 9.5 | 62 | .62 | 4.1 | .00 |
| 19 | 2.0 | 2.8 | 3.1 | 8.8 | 63 | 138 | 10 | 9.1 | 40 | .69 | 3.2 | .00 |
| 20 | 1.9 | 2.7 | 2.8 | 8.1 | 55 | 145 | 9.8 | 9.2 | 28 | .60 | 1.9 | .00 |
| 21 | 1.7 | 3.2 | 2.9 | 8.1 | 38 | 66 | 698 | 8.0 | 26 | .49 | 1.3 | .00 |
| 22 | 1.7 | 2.6 | 3.3 | 7.9 | 30 | 48 | 1070 | 7.1 | 24 | .85 | .90 | .01 |
| 23 | 1.7 | 2.6 | 3.0 | 128 | 80 | 122 | 143 | 6.4 | 16 | 22 | .80 | .25 |
| 24 | 1.7 | 2.4 | 3.3 | 105 | 348 | 76 | 67 | 5.8 | 13 | 6.6 | .69 | .23 |
| 25 | 1.7 | 2.4 | 3.5 | 44 | 524 | 51 | 147 | 5.3 | 12 | 2.8 | .55 | .08 |
| 26 | 1.6 | 2.5 | 3.4 | 32 | 1280 | 429 | 58 | 5.5 | 20 | 2.0 | .48 | .04 |
| 27 | 1.6 | 2.4 | 3.8 | 24 | 262 | 200 | 41 | 9.0 | 13 | 1.3 | .44 | .10 |
| 28 | 1.6 | 2.4 | 6.0 | 29 | 124 | 89 | 33 | 7.1 | 9.9 | .88 | .49 | .18 |
| 29 | 1.6 | 2.4 | 100 | 28 | 75 | 61 | 28 | 7.9 | 7.6 | .69 | .44 | .13 |
| 30 | 1.5 | 2.4 | 39 | 24 | --- | 51 | 23 | 22 | 6.6 | .56 | .38 | .00 |
| 31 | 1.5 | --- | 23 | 22 | --- | 45 | --- | 15 | --- | .69 | .35 | --- |
| TOTAL | 78.6 | 105.3 | 297.7 | 917.3 | 3331.5 | 2906 | 2679.8 | 738.9 | 2640.4 | 81.74 | 54.13 | 3.99 |
| MEAN | 2.54 | 3.51 | 9.60 | 29.6 | 115 | 93.7 | 89.3 | 23.8 | 88.0 | 2.64 | 1.75 | .13 |
| MAX | 4.8 | 21 | 100 | 128 | 1280 | 449 | 1070 | 204 | 985 | 22 | 11 | .32 |
| MIN | 1.5 | 1.5 | 2.8 | 7.9 | 8.5 | 22 | 9.8 | 5.3 | 6.3 | .49 | .24 | 0 |
| CFSM | .05 | .06 | .17 | .53 | 2.07 | 1.69 | 1.61 | .43 | 1.58 | .05 | .03 | 0 |
| IN. | .05 | .07 | .20 | .61 | 2.23 | 1.94 | 1.79 | .49 | 1.77 | .05 | .04 | 0 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 40.7 | 27.7 | 57.7 | 104 | 137 | 121 | 73.4 | 40.5 | 31.3 | 30.1 | 26.6 | 17.2 |
| MAX | 355 | 212 | 186 | 293 | 284 | 267 | 247 | 234 | 140 | 220 | 223 | 116 |
| (WY) | 1991 | 1986 | 1977 | 1978 | 1984 | 1980 | 1958 | 1975 | 1957 | 1984 | 1967 | 1975 |
| MIN | .006 | .34 | 2.12 | 4.38 | 16.2 | 13.2 | 6.87 | 1.32 | .24 | .31 | .002 | .009 |
| (WY) | 1962 | 1962 | 1966 | 1981 | 1986 | 1981 | 1967 | 1986 | 1986 | 1986 | 1980 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1954 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 23866.9 | | 13835.36 | | | |
| ANNUAL MEAN | 65.4 | | 37.8 | | 58.8 | |
| HIGHEST ANNUAL MEAN | | | | | 112 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 27.3 | 1976 |
| HIGHEST DAILY MEAN | 1650 | Mar 3 | 1280 | Feb 26 | 5240 | Oct 11 1990 |
| LOWEST DAILY MEAN | 1.5 | Oct 30 | 0 | Sep 14 | 0 | Sep 12 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 1.6 | Oct 26 | 0 | Sep 14 | 0 | Sep 12 1954 |
| INSTANTANEOUS PEAK FLOW | | | 3290 | Jun 16 | 11100 | Aug 22 1967 |
| INSTANTANEOUS PEAK STAGE | | | 9.14 | Jun 16 | 15.95 | Aug 22 1967 |
| INSTANTANEOUS LOW FLOW | | | 0* | Sep 13 | 0* | Sep 12 1954 |
| ANNUAL RUNOFF (CFSM) | 1.18 | | .68 | | 1.06 | |
| ANNUAL RUNOFF (INCHES) | 15.97 | | 9.26 | | 14.37 | |
| 10 PERCENT EXCEEDS | 167 | | 72 | | 118 | |
| 50 PERCENT EXCEEDS | 18 | | 7.7 | | 11 | |
| 90 PERCENT EXCEEDS | 2.3 | | .43 | | .45 | |

* See REMARKS.

PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°08'54", long 80°10'33", Stanly County, Hydrologic Unit 03040105, on left bank 1,000 ft downstream of Lanes Creek, 1.5 mi upstream from bridge on Secondary Road 1935, 6 mi southwest of Norwood, and 11.2 mi upstream from mouth.

DRAINAGE AREA.--1,372 mi$^2$.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 852: 1937. WSP 1052: 1936(M). WSP 1503: 1935, 1945. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 212.91 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Satellite telemetry at site.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1908 reached a stage of 35 ft, from information by local residents; discharge, 67,600 ft$^3$/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 157 | 173 | 145 | 534 | 433 | 1490 | 962 | 555 | 427 | 318 | 122 | 118 |
| 2 | 153 | 181 | 179 | 386 | 380 | 1160 | 829 | 526 | 320 | 363 | 169 | 107 |
| 3 | 173 | 182 | 246 | 894 | 342 | 1000 | 700 | 437 | 275 | 314 | 285 | 109 |
| 4 | 201 | 175 | 456 | 6910 | 330 | 864 | 621 | 390 | 273 | 657 | 177 | 111 |
| 5 | 206 | 177 | 601 | 3720 | 322 | 756 | 580 | 354 | 3480 | 408 | 146 | 115 |
| 6 | 173 | 178 | 314 | 1500 | 308 | 752 | 524 | 340 | 4850 | 284 | 132 | 234 |
| 7 | 145 | 181 | 229 | 943 | 297 | 9400 | 491 | 471 | 1440 | 255 | 121 | 393 |
| 8 | 136 | 180 | 200 | 684 | 291 | 5500 | 482 | 7190 | 655 | 230 | 118 | 239 |
| 9 | 136 | 191 | 186 | 547 | 273 | 2640 | 470 | 6130 | 874 | 212 | 121 | 179 |
| 10 | 137 | 453 | 186 | 490 | 256 | 1610 | 438 | 2570 | 1810 | 197 | 127 | 161 |
| 11 | 133 | 1060 | 186 | 440 | 245 | 1750 | 416 | 1310 | 5840 | 189 | 135 | 140 |
| 12 | 131 | 495 | 188 | 381 | 250 | 1560 | 393 | 909 | 13700 | 174 | 114 | 128 |
| 13 | 127 | 299 | 180 | 346 | 258 | 1110 | 505 | 722 | 4450 | 161 | 272 | 123 |
| 14 | 128 | 225 | 176 | 370 | 256 | 911 | 450 | 655 | 2670 | 148 | 286 | 116 |
| 15 | 169 | 194 | 172 | 440 | 274 | 768 | 370 | 560 | 4690 | 146 | 392 | 105 |
| 16 | 174 | 179 | 165 | 383 | 1670 | 670 | 351 | 475 | 8780 | 140 | 262 | 103 |
| 17 | 179 | 172 | 156 | 330 | 1270 | 596 | 338 | 402 | 5950 | 133 | 198 | 104 |
| 18 | 195 | 164 | 155 | 299 | 821 | 556 | 328 | 360 | 2100 | 131 | 517 | 102 |
| 19 | 199 | 158 | 154 | 281 | 928 | 1210 | 312 | 557 | 1210 | 132 | 588 | 96 |
| 20 | 188 | 155 | 153 | 265 | 1160 | 2880 | 294 | 696 | 942 | 155 | 299 | 108 |
| 21 | 171 | 155 | 145 | 257 | 867 | 1620 | 12100 | 413 | 740 | 155 | 224 | 108 |
| 22 | 173 | 158 | 139 | 264 | 639 | 1140 | 29100 | 332 | 620 | 145 | 206 | 106 |
| 23 | 179 | 161 | 146 | 641 | 579 | 1630 | 15000 | 293 | 542 | 297 | 213 | 116 |
| 24 | 179 | 165 | 157 | 3380 | 4090 | 2360 | 2810 | 271 | 471 | 266 | 183 | 111 |
| 25 | 183 | 160 | 163 | 1480 | 5100 | 1270 | 1920 | 255 | 421 | 202 | 153 | 109 |
| 26 | 194 | 150 | 182 | 853 | 25400 | 4540 | 1400 | 240 | 438 | 155 | 158 | 112 |
| 27 | 191 | 143 | 174 | 623 | 13300 | 5920 | 1030 | 258 | 595 | 147 | 141 | 114 |
| 28 | 176 | 143 | 178 | 573 | 3930 | 2640 | 865 | 287 | 435 | 133 | 134 | 108 |
| 29 | 177 | 140 | 2680 | 611 | 2290 | 1550 | 762 | 276 | 354 | 128 | 134 | 305 |
| 30 | 183 | 136 | 2400 | 540 | --- | 1210 | 655 | 426 | 294 | 124 | 137 | 346 |
| 31 | 175 | --- | 883 | 483 | --- | 1090 | --- | 606 | --- | 123 | 131 | --- |
| TOTAL | 5221 | 6683 | 11674 | 29848 | 66559 | 62153 | 75496 | 29266 | 69646 | 6622 | 6395 | 4426 |
| MEAN | 168 | 223 | 377 | 963 | 2295 | 2005 | 2517 | 944 | 2322 | 214 | 206 | 148 |
| MAX | 206 | 1060 | 2680 | 6910 | 25400 | 9400 | 29100 | 7190 | 13700 | 657 | 588 | 393 |
| MIN | 127 | 136 | 139 | 257 | 245 | 556 | 294 | 240 | 273 | 123 | 114 | 96 |
| CFSM | .12 | .16 | .27 | .70 | 1.67 | 1.46 | 1.83 | .69 | 1.69 | .16 | .15 | .11 |
| IN. | .14 | .18 | .32 | .81 | 1.80 | 1.69 | 2.05 | .79 | 1.89 | .18 | .17 | .12 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 891 | 751 | 1325 | 2407 | 2783 | 2706 | 1757 | 857 | 704 | 754 | 757 | 662 |
| MAX | 6837 | 4763 | 4564 | 7263 | 7922 | 6663 | 7097 | 3998 | 3017 | 3443 | 2917 | 8262 |
| (WY) | 1991 | 1949 | 1933 | 1936 | 1960 | 1980 | 1936 | 1975 | 1982 | 1941 | 1967 | 1945 |
| MIN | 45.9 | 54.1 | 105 | 152 | 321 | 412 | 234 | 142 | 88.5 | 95.6 | 82.4 | 41.0 |
| (WY) | 1931 | 1942 | 1934 | 1934 | 1938 | 1981 | 1967 | 1981 | 1986 | 1986 | 1957 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1930 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 582131 | | 373989 | | | |
| ANNUAL MEAN | 1595 | | 1022 | | 1356 | |
| HIGHEST ANNUAL MEAN | | | | | 2492 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 449 | 1951 |
| HIGHEST DAILY MEAN | 33700 | Mar 4 | 29100 | Apr 22 | 85600 | Sep 18 1945 |
| LOWEST DAILY MEAN | 127 | Sep 17 | 96 | Sep 19 | 19 | Oct 28 1931 |
| ANNUAL SEVEN-DAY MINIMUM | 133 | Oct 8 | 104 | Sep 15 | 26 | Oct 7 1954 |
| INSTANTANEOUS PEAK FLOW | | | 31900 | Feb 26 | 105000 | Sep 18 1945 |
| INSTANTANEOUS PEAK STAGE | | | 21.28 | Feb 26 | 46.37* | Sep 18 1945 |
| INSTANTANEOUS LOW FLOW | | | 93 | Sep 19 | 17 | Oct 8 1954 |
| ANNUAL RUNOFF (CFSM) | 1.16 | | .74 | | .99 | |
| ANNUAL RUNOFF (INCHES) | 15.78 | | 10.14 | | 13.43 | |
| 10 PERCENT EXCEEDS | 3250 | | 1970 | | 2990 | |
| 50 PERCENT EXCEEDS | 606 | | 294 | | 400 | |
| 90 PERCENT EXCEEDS | 156 | | 132 | | 103 | |

* See REMARKS.

02126000 ROCKY RIVER NEAR NORWOOD, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948, 1956-73, 1977-80, October 1986 to present.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1955 to September 1967, October 1976 to September 1980.
WATER TEMPERATURE: October 1947 to September 1948, October 1955 to September 1967, October 1976 to September 1980.

REMARKS.--Station operated as part of NASQAN network from October 1986 to present. Miscellaneous chemical data published for water years 1945, 1955-56, 1958, 1960, 1963-64, 1966. Daily records of specific conductance for water years 1956-64 are available in files of district office in Raleigh, NC. Data for water years 1958-67, data were published as Rocky River at Gaddy, near Norwood (station 02125681).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 microsiemens, Sept. 9, 10, 11, 1966; minimum daily, 38 microsiemens, Jan. 31, 1960.
WATER TEMPERATURE: Maximum daily, 35.0°C, July 18, 1977, Aug. 6, 1980; minimum daily, 0.0°C, on several days during most winters.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | 1100 | 225 | 155 | 7.4 | 7.5 | 11 | 771 | 11.2 | 92 | 530 | 720 | 10 |
| JAN 09... | 1030 | 549 | 195 | 7.4 | 7.0 | 1.1 | 758 | 11.8 | 98 | K170 | 360 | 10 |
| MAR 03... | 1000 | 1020 | 150 | 7.2 | 11.5 | 14 | 760 | 10.2 | 94 | 220 | 200 | 9.1 |
| MAY 05... | 1100 | 354 | 231 | 7.8 | 19.0 | 2.6 | 752 | 8.5 | 93 | K72 | K99 | 10 |
| JUL 08... | 1100 | 229 | 216 | 8.0 | 27.0 | 2.1 | 760 | 7.9 | 100 | K40 | K860 | 10 |
| SEP 09... | 1200 | 162 | 387 | 7.8 | 26.0 | 11 | 760 | 7.3 | 90 | 320 | 510 | 8.8 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | 4.4 | 28 | 54 | 2 | 7.0 | 62 | 51 | 34 | 19 | 0.20 | 11 | 147 |
| JAN 09... | 4.3 | 18 | 45 | 1 | 4.1 | 51 | 42 | 25 | 20 | 0.20 | 12 | 123 |
| MAR 03... | 4.0 | 11 | 36 | 0.8 | 2.8 | 49 | 40 | 16 | 12 | <0.10 | 13 | 103 |
| MAY 05... | 4.5 | 30 | 58 | 2 | 3.6 | 63 | 52 | 33 | 18 | 0.20 | 13 | 143 |
| JUL 08... | 4.6 | 23 | 50 | 2 | 5.3 | 56 | 46 | 23 | 16 | 0.10 | 8.4 | 131 |
| SEP 09... | 3.6 | 56 | 73 | 4 | 6.4 | 78 | 64 | 61 | 30 | 0.30 | 11 | 232 |

| DATE | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | 151 | 1.18 | 1.18 | 0.020 | 0.020 | 1.20 | 1.20 | 0.030 | 0.040 | 0.04 | 0.05 | 0.57 |
| JAN 09... | 126 | 1.47 | 1.47 | 0.030 | 0.030 | 1.50 | 1.50 | 0.120 | 0.100 | 0.15 | 0.13 | 0.48 |
| MAR 03... | 100 | 1.68 | 1.68 | 0.020 | 0.020 | 1.70 | 1.70 | 0.040 | 0.040 | 0.05 | 0.05 | 0.36 |
| MAY 05... | 149 | 1.19 | -- | 0.010 | <0.010 | 1.20 | 1.20 | 0.010 | 0.030 | 0.01 | 0.04 | 0.19 |
| JUL 08... | 125 | 1.38 | 1.39 | 0.020 | 0.010 | 1.40 | 1.40 | 0.030 | 0.030 | 0.04 | 0.04 | 0.37 |
| SEP 09... | 224 | 1.48 | 1.59 | 0.020 | 0.010 | 1.50 | 1.60 | 0.050 | 0.040 | 0.06 | 0.05 | 0.55 |

PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS N) | NITROGEN, TOTAL (MG/L AS NO3) | PHOSPHORUS TOTAL (MG/L AS P) | PHOSPHORUS 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) | ALUMINUM, DISSOLVED (UG/L AS AL) | BARIUM, DISSOLVED (UG/L AS BA) | COBALT, DISSOLVED (UG/L AS CO) | IRON, DISSOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | 0.60 | 1.8 | 8.0 | 0.260 | 0.250 | 0.200 | 0.200 | 0.61 | 110 | 19 | <3 | 250 |
| JAN 09... | 0.60 | 2.1 | 9.3 | 0.140 | 0.120 | 0.120 | 0.100 | 0.31 | 150 | 10 | <3 | 290 |
| MAR 03... | 0.40 | 2.1 | 9.3 | 0.130 | 0.090 | 0.070 | 0.060 | 0.18 | -- | -- | -- | -- |
| MAY 05... | 0.20 | 1.4 | 6.2 | 0.100 | 0.120 | 0.110 | 0.100 | 0.31 | 20 | 23 | <3 | 140 |
| JUL 08... | 0.40 | 1.8 | 8.0 | 0.280 | 0.260 | 0.220 | 0.220 | 0.67 | -- | -- | -- | -- |
| SEP 09... | 0.60 | 2.1 | 9.3 | 0.460 | 0.410 | 0.420 | 0.410 | 1.3 | 140 | 23 | <3 | 170 |

| DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) | VANADIUM, DISSOLVED (UG/L AS V) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | 4 | 7 | <10 | <1 | <1 | <1.0 | 86 | <6 | 12 | 7.3 | 85 |
| JAN 09... | <4 | 11 | <10 | 1 | <1 | <1.0 | 78 | <6 | 12 | 18 | 74 |
| MAR 03... | -- | -- | -- | -- | -- | -- | -- | -- | 14 | 39 | 74 |
| MAY 05... | 7 | 10 | <10 | 1 | <1 | <1.0 | 99 | <6 | 10 | 9.6 | 72 |
| JUL 08... | -- | -- | -- | -- | -- | -- | -- | -- | 8 | 4.9 | 84 |
| SEP 09... | <4 | 10 | <10 | 2 | <1 | <1.0 | 97 | <6 | 13 | 5.7 | 92 |

## 02128000 LITTLE RIVER NEAR STAR, NC

LOCATION.--Lat 35°23'11", long 79°49'56", Montgomery County, Hydrologic Unit 03040104, on left bank 9 ft downstream of bridge on Secondary Road 1340, 50 ft upstream from Black Rock Branch, 0.2 mi upstream from Norfolk Southern Railway bridge, 0.3 mi downstream of West Fork Little River, and 3 mi west of Star.

DRAINAGE AREA.--106 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54. April 1954 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 409.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Minimum discharge for period of record also occurred Oct. 5, 1968, as a result of upstream withdrawals for water supply. Minimum discharge for current water year also occurred September 20.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached a stage of about 20 ft, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | e16 | 20 | 18 | 34 | 35 | 91 | 144 | 60 | 48 | 38 | 9.1 | 11 |
| 2 | e17 | 19 | 20 | 29 | 32 | 74 | 137 | 58 | 39 | 36 | 23 | 9.9 |
| 3 | e18 | 19 | 25 | 29 | 30 | 67 | 129 | 53 | 35 | 36 | 34 | 9.0 |
| 4 | 21 | 17 | 80 | 238 | 30 | 66 | 126 | 49 | 41 | 36 | 17 | 8.1 |
| 5 | 22 | 18 | 50 | 168 | 30 | 68 | 127 | 46 | 58 | 35 | 12 | 8.0 |
| 6 | 17 | 18 | 30 | 71 | 29 | 74 | 122 | 46 | 50 | 31 | 10 | 7.9 |
| 7 | 14 | 20 | 24 | 48 | 29 | 223 | 118 | 48 | 39 | 33 | 9.5 | 14 |
| 8 | 13 | 19 | 21 | 38 | 28 | 153 | 120 | 147 | 34 | 38 | 9.3 | 14 |
| 9 | 13 | 20 | 21 | 34 | 28 | 84 | 117 | 140 | 305 | 30 | 9.2 | 12 |
| 10 | 14 | 93 | 21 | 31 | 26 | 75 | 113 | 73 | 243 | 26 | 8.8 | 9.7 |
| 11 | 15 | 75 | 21 | 30 | 26 | 117 | 109 | 56 | 96 | 23 | 8.1 | 8.7 |
| 12 | 14 | 34 | 21 | 28 | 27 | 89 | 111 | 50 | 74 | 21 | 72 | 7.3 |
| 13 | 15 | 23 | 20 | 28 | 27 | 64 | 195 | 49 | 64 | 19 | 80 | 6.5 |
| 14 | 14 | 19 | 19 | 30 | 27 | 56 | 149 | 63 | 353 | 18 | 199 | 5.7 |
| 15 | 15 | 18 | 19 | 30 | 31 | 51 | 123 | 55 | 358 | 16 | 45 | 5.3 |
| 16 | 19 | 16 | 19 | 29 | 94 | 48 | 113 | 46 | 1400 | 14 | 30 | 5.2 |
| 17 | 19 | 16 | 18 | 26 | 70 | 44 | 110 | 43 | 255 | 14 | 24 | 4.9 |
| 18 | 19 | 16 | 18 | 25 | 49 | 43 | 108 | 41 | 109 | 15 | 25 | 4.6 |
| 19 | 19 | 16 | 18 | 26 | 67 | 204 | 105 | 41 | 77 | 21 | 23 | 4.0 |
| 20 | 21 | 15 | 17 | 24 | 90 | 282 | 103 | 39 | 63 | 16 | 19 | 4.1 |
| 21 | 15 | 17 | 17 | 24 | 57 | 113 | 2080 | 37 | 81 | 13 | 16 | 5.0 |
| 22 | 16 | 19 | 18 | 24 | 45 | 78 | 3020 | 35 | 115 | 12 | 14 | 5.6 |
| 23 | e16 | 19 | 19 | 87 | 43 | 166 | 304 | 33 | 61 | 13 | 13 | 5.4 |
| 24 | e16 | 19 | 21 | 212 | 254 | 149 | 148 | 32 | 50 | 15 | 12 | 4.6 |
| 25 | e16 | 18 | 23 | 69 | 235 | 86 | 108 | 31 | 50 | 13 | 11 | 5.0 |
| 26 | 16 | 19 | 21 | 47 | 2320 | 264 | 87 | 32 | 212 | 17 | 11 | 6.1 |
| 27 | 18 | 18 | 25 | 39 | 514 | 295 | 71 | 38 | 209 | 12 | 10 | 6.0 |
| 28 | 17 | 17 | 28 | 39 | 194 | 225 | 66 | 40 | 66 | 9.7 | 22 | 5.6 |
| 29 | 17 | 17 | 125 | 42 | 126 | 178 | 62 | 37 | 48 | 8.3 | 29 | 5.3 |
| 30 | 17 | 18 | 92 | 41 | --- | 160 | 59 | 52 | 41 | 7.5 | 20 | 4.6 |
| 31 | 17 | --- | 47 | 37 | --- | 153 | --- | 64 | --- | 8.3 | 14 | --- |
| TOTAL | 516 | 692 | 936 | 1657 | 4593 | 3840 | 8484 | 1634 | 4674 | 644.8 | 839.0 | 213.1 |
| MEAN | 16.6 | 23.1 | 30.2 | 53.5 | 158 | 124 | 283 | 52.7 | 156 | 20.8 | 27.1 | 7.10 |
| MAX | 22 | 93 | 125 | 238 | 2320 | 295 | 3020 | 147 | 1400 | 38 | 199 | 14 |
| MIN | 13 | 15 | 17 | 24 | 26 | 43 | 59 | 31 | 34 | 7.5 | 8.1 | 4.0 |
| CFSM | .16 | .22 | .28 | .50 | 1.49 | 1.17 | 2.67 | .50 | 1.47 | .20 | .26 | .07 |
| IN. | .18 | .24 | .33 | .58 | 1.61 | 1.35 | 2.98 | .57 | 1.64 | .23 | .29 | .07 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 69.7 | 63.5 | 101 | 164 | 216 | 214 | 170 | 103 | 73.3 | 61.1 | 54.9 | 43.2 |
| MAX | 337 | 366 | 361 | 463 | 467 | 450 | 429 | 296 | 273 | 465 | 249 | 261 |
| (WY) | 1991 | 1986 | 1973 | 1978 | 1960 | 1989 | 1958 | 1990 | 1972 | 1975 | 1985 | 1979 |
| MIN | 4.03 | 10.7 | 18.7 | 26.7 | 56.1 | 47.0 | 38.0 | 30.3 | 12.8 | 6.37 | 4.80 | .76 |
| (WY) | 1987 | 1962 | 1966 | 1981 | 1986 | 1967 | 1967 | 1981 | 1967 | 1977 | 1983 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1954 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 35951.9 | | 28722.9 | | | |
| ANNUAL MEAN | 98.5 | | 78.5 | | 110 | |
| HIGHEST ANNUAL MEAN | | | | | 209 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 42.4 | 1967 |
| HIGHEST DAILY MEAN | 2210 | Jan 12 | 3020 | Apr 22 | 5640 | Mar 24 1989 |
| LOWEST DAILY MEAN | 7.0 | Sep 18 | 4.0 | Sep 19 | .27 | Oct 4 1968 |
| ANNUAL SEVEN-DAY MINIMUM | 8.3 | Sep 13 | 4.7 | Sep 15 | .30 | Sep 28 1968 |
| INSTANTANEOUS PEAK FLOW | | | 7090 | Apr 22 | 10400 | Oct 15 1954 |
| INSTANTANEOUS PEAK STAGE | | | 12.47 | Apr 22 | 16.46 | Oct 15 1954 |
| INSTANTANEOUS LOW FLOW | | | 3.7* | Sep 19 | .24* | Oct 4 1968 |
| ANNUAL RUNOFF (CFSM) | .93 | | .74 | | 1.04 | |
| ANNUAL RUNOFF (INCHES) | 12.62 | | 10.08 | | 14.14 | |
| 10 PERCENT EXCEEDS | 181 | | 145 | | 194 | |
| 50 PERCENT EXCEEDS | 38 | | 30 | | 50 | |
| 90 PERCENT EXCEEDS | 15 | | 10 | | 9.7 | |

* See REMARKS.

PEE DEE RIVER BASIN

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC

LOCATION.--Lat 34°56'46", long 79°52'11", Richmond County, Hydrologic Unit 03040201, on left bank at bridge on U.S. Highway 74, 2.5 mi upstream from Falling Creek, 3.3 mi downstream of Blewett Falls hydroelectric plant, 6 mi west of Rockingham, and 192 mi upstream from mouth in Winyah Bay.

DRAINAGE AREA.--6,863 mi$^2$.

PERIOD OF RECORD.--August 1906 to January 1912, October 1927 to current year. Published as Yadkin River near Pee Dee, 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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). August 1906 to January 1912 nonrecording gage at site 3.3 mi upstream at different datum. Sept. 1927 to Sept. 30, 1931, water-stage recorder at present site at 121.68 ft. Landline telemetry at site.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1928 by Blewett Falls Lake and five other reservoirs upstream. Maximum discharge prior to regulation: 276,000 ft$^3$/s, Aug. 27, 1908; gage height: 31.28 ft, present site and datum, from records of State Highway Commission. Minimum discharge prior to regulation: 2,210 ft$^3$/s, Sept. 3, 1907; minimum discharge during regulation: 50 ft$^3$/s, Dec. 2, 3, 1951; minimum daily discharge: 58 ft$^3$/s, Dec 2, 1951, a result of abnormally low shutdown of Blewett Falls hydroelectric plant to produce steady flow for current-meter measurements at this gaging station. Minimum discharge from normal regulations: 96 ft$^3$/s, Oct. 25, 1943; minimum daily discharge: 120 ft$^3$/s, Oct. 8, 1961. Minimum discharge for current water year also occurred May 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4740 | 6310 | 413 | 5360 | 373 | 13200 | 11200 | 10900 | 1660 | 3890 | 3620 | 1480 |
| 2 | 2370 | 2480 | 1440 | 4480 | 1560 | 7580 | 9820 | 9080 | 5420 | 3650 | 358 | 5470 |
| 3 | 3090 | 1900 | 2640 | 8790 | 4090 | 2750 | 5260 | 4050 | 7580 | 2350 | 3760 | 4400 |
| 4 | 2930 | 2330 | 7560 | 9510 | 5910 | 8090 | 310 | 2830 | 7430 | 7600 | 3860 | 4360 |
| 5 | 2490 | 3960 | 5820 | 9420 | 7120 | 10200 | 341 | 8400 | 5940 | 2560 | 4030 | 456 |
| 6 | 2930 | 6670 | 3120 | 9420 | 2570 | 10000 | 5150 | 8490 | 11100 | 3430 | 3610 | 353 |
| 7 | 232 | 2350 | 4900 | 9350 | 4180 | 14900 | 7840 | 9030 | 20700 | 7620 | 4130 | 1710 |
| 8 | 3920 | 609 | 7970 | 9460 | 1250 | 17900 | 6590 | 9860 | 13000 | 3530 | 3150 | 4150 |
| 9 | 1540 | 1900 | 7550 | 9440 | 3280 | 11300 | 2860 | 11900 | 17000 | 4800 | 397 | 5190 |
| 10 | 3030 | 2510 | 7560 | 9520 | 1810 | 12200 | 4250 | 10000 | 23000 | 2600 | 2560 | 4110 |
| 11 | 3280 | 786 | 4990 | 9310 | 5110 | 11500 | 2440 | 9670 | 24200 | 3670 | 4110 | 4290 |
| 12 | 819 | 3660 | 3920 | 3840 | 1350 | 11900 | 637 | 9520 | 33500 | 636 | 3180 | 2600 |
| 13 | 216 | 7830 | 5650 | 2860 | 4160 | 10800 | 5170 | 9050 | 19600 | 2870 | 7790 | 3730 |
| 14 | 4010 | 4700 | 4600 | 9320 | 3530 | 9810 | 3550 | 3270 | 15000 | 2250 | 9520 | 3060 |
| 15 | 6710 | 1500 | 3660 | 9260 | 4220 | 8010 | 3140 | 4390 | 17000 | 3540 | 4580 | 2870 |
| 16 | 6630 | 4200 | 4740 | 9140 | 1540 | 7990 | 3160 | 5730 | 22500 | 3190 | 4030 | 1140 |
| 17 | 3410 | 2890 | 4460 | 8070 | 6060 | 9550 | 2820 | 2290 | 27400 | 3720 | 1890 | 4410 |
| 18 | 1150 | 900 | 4310 | 953 | 7520 | 9570 | 2100 | 4360 | 14400 | 2720 | 4250 | 2290 |
| 19 | 1190 | 7710 | 4740 | 269 | 4010 | 9680 | 1440 | 5610 | 11600 | 335 | 4500 | 4120 |
| 20 | 1180 | 9000 | 4910 | 3240 | 4550 | 9720 | 3940 | 8810 | 10100 | 1370 | 5890 | 514 |
| 21 | 2280 | 3630 | 641 | 5020 | 6450 | 8020 | 16500 | 7610 | 4180 | 2960 | 7220 | 1770 |
| 22 | 3500 | 2930 | 254 | 5720 | 7580 | 2170 | 68800 | 4850 | 7350 | 5170 | 404 | 3720 |
| 23 | 3170 | 399 | 3120 | 7420 | 3380 | 6210 | 82800 | 2930 | 8330 | 4160 | 282 | 2070 |
| 24 | 4090 | 429 | 2740 | 7000 | 578 | 9450 | 76000 | 2740 | 9390 | 4730 | 2430 | 3240 |
| 25 | 7330 | 475 | 5730 | 3260 | 9400 | 12400 | 37600 | 2920 | 6500 | 4380 | 4810 | 5210 |
| 26 | 1200 | 579 | 975 | 2950 | 29500 | 10100 | 19900 | 6290 | 2710 | 7430 | 4900 | 2910 |
| 27 | 1320 | 369 | 7220 | 3730 | 45500 | 19400 | 13700 | 3950 | 7420 | 4130 | 3760 | 628 |
| 28 | 2600 | 531 | 8910 | 7650 | 19600 | 14100 | 9400 | 5970 | 5260 | 3460 | 5000 | 4040 |
| 29 | 4950 | 419 | 6350 | 7720 | 15400 | 10700 | 10700 | 8420 | 2940 | 3500 | 4230 | 2100 |
| 30 | 5770 | 386 | 3850 | 7750 | --- | 10200 | 11400 | 9490 | 6660 | 5080 | 298 | 4510 |
| 31 | 1150 | --- | 2890 | 7010 | --- | 10100 | --- | 5730 | --- | 2640 | 2210 | --- |
| TOTAL | 93227 | 84342 | 137633 | 206242 | 211581 | 319500 | 428818 | 208140 | 368870 | 113971 | 114759 | 90901 |
| MEAN | 3007 | 2811 | 4440 | 6653 | 7296 | 10310 | 14290 | 6714 | 12300 | 3676 | 3702 | 3030 |
| MAX | 7330 | 9000 | 8910 | 9520 | 45500 | 19400 | 82800 | 11900 | 33500 | 7620 | 9520 | 5470 |
| MIN | 216 | 369 | 254 | 269 | 373 | 2170 | 310 | 2290 | 1660 | 335 | 282 | 353 |
| † | -780 | -221 | 68.0 | -287 | 1220 | -93.3 | 771 | -329 | 67.5 | 57.5 | -66.5 | -117 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1992*, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 6134 | 5531 | 7742 | 10770 | 12440 | 13020 | 10650 | 7386 | 6359 | 5422 | 5928 | 5611 |
| MAX | 25850 | 16120 | 20300 | 31270 | 36040 | 33010 | 31340 | 16030 | 19500 | 16790 | 30600 | 35690 |
| (WY) | 1991 | 1958 | 1933 | 1937 | 1960 | 1929 | 1936 | 1909 | 1909 | 1975 | 1908 | 1928 |
| MIN | 1293 | 1607 | 2640 | 2475 | 3704 | 4117 | 2692 | 2026 | 1853 | 1692 | 1456 | 1008 |
| (WY) | 1954 | 1954 | 1940 | 1956 | 1934 | 1981 | 1981 | 1986 | 1986 | 1986 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1906 - 1992* | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 3419134 | | 2377984 | | | |
| ANNUAL MEAN | 9367 | | 6497 | ‡6481 | 8049 | (UNADJUSTED) |
| HIGHEST ANNUAL MEAN | | | | | 13000 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 3944 | 1981 |
| HIGHEST DAILY MEAN | 64900 | Apr 1 | 82800 | Apr 23 | 242000 | Sep 18 1945 |
| LOWEST DAILY MEAN | 216 | Oct 13 | 216 | Oct 13 | 58* | Dec 2 1951 |
| ANNUAL SEVEN-DAY MINIMUM | 453 | Nov 25 | 453 | Nov 25 | 185 | Sep 28 1985 |
| INSTANTANEOUS PEAK FLOW | | | 87700 | Apr 24 | 270000 | Sep 18 1945 |
| INSTANTANEOUS PEAK STAGE | | | 13.96 | Apr 24 | 30.80 | Sep 18 1945 |
| INSTANTANEOUS LOW FLOW | | | 179 | Nov 23 | 50* | Dec 2 1951 |
| 10 PERCENT EXCEEDS | 18000 | | 11200 | | 14300 | |
| 50 PERCENT EXCEEDS | 7450 | | 4360 | | 5650 | |
| 90 PERCENT EXCEEDS | 1190 | | 1090 | | 1960 | |

† Change in contents, equivalent in cubic feet per second, in W. Kerr Scott Reservoir; provided by U.S. Army Corps of Engineers; High Rock Lake, Tuckertown Reservoir, and Badin Lake, provided by Yadkin, Inc.; and Lake Tillery and Blewett Falls Lake, provided by Carolina Power and Light Co.
‡ Adjusted for change in contents.
* Regulated period only (1928-1992). See REMARKS.

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC
(National Acid Precipitation Assessment Program)

LOCATION.--Lat 34°58'12", long 79°31'34", Scotland County, Hydrologic Unit 03040204, on right bank 8 ft upstream from culvert on Gardner Farm Road Extension in State Sandhills Game Management Area, 0.15 mi west of Secondary Road 1328, 3.5 mi east of Marston, 4.9 mi south of Hoffman, and 6.0 mi southwest of Silver Hill.

DRAINAGE AREA.--0.36 $mi^2$.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1983 to current year.

GAGE.--Water-stage recorder. V-notch sharp-crested weir since Nov. 8, 1984. Elevation of gage is 385 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Diurnal fluctuation at low flows in the growing season. Maximum gage height and discharge prior to installation of weir occurred July 17, 1984, discharge not determined. Maximum discharge since installation of weir, 7.9 $ft^3/s$, July 31, 1987. Minimum discharge for period of record occurred many times in June, July, and Aug. 1988, periodically in July and August 1990, and on May 24 and June 8, 1992. Minimum discharge for the current water year also occurred June 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .16 | .16 | .18 | .16 | .15 | .15 | .15 | .13 | .12 | .13 | .13 | .17 |
| 2 | .17 | .16 | .18 | .16 | .15 | .15 | .15 | .12 | .11 | .21 | .16 | .17 |
| 3 | .24 | .16 | .23 | .19 | .15 | .15 | .15 | .12 | .11 | .32 | .15 | .28 |
| 4 | .17 | .16 | .22 | .20 | .15 | .15 | .14 | .11 | .17 | .28 | .13 | .24 |
| 5 | .20 | .15 | .18 | .18 | .15 | .15 | .15 | .12 | .15 | .16 | .13 | .23 |
| 6 | .21 | .15 | .18 | .17 | .15 | .17 | .14 | .12 | .12 | .15 | .13 | .21 |
| 7 | .24 | .15 | .18 | .16 | .15 | .23 | .14 | .16 | .11 | .14 | .13 | .20 |
| 8 | .24 | .15 | .18 | .16 | .15 | .16 | .14 | .24 | .11 | .14 | .13 | .19 |
| 9 | .24 | .23 | .18 | .16 | .14 | .15 | .14 | .15 | .18 | .14 | .13 | .18 |
| 10 | .27 | .42 | .18 | .16 | .14 | .15 | .14 | .13 | .24 | .13 | .12 | .18 |
| 11 | .28 | .23 | .17 | .16 | .14 | .15 | .14 | .12 | .19 | .12 | .12 | .18 |
| 12 | .28 | .23 | .18 | .16 | .14 | .15 | .14 | .12 | .16 | .12 | .25 | .17 |
| 13 | .28 | .21 | .17 | .17 | .15 | .15 | .14 | .12 | .14 | .12 | .51 | .17 |
| 14 | .28 | .21 | .18 | .19 | .15 | .15 | .14 | .12 | .14 | .12 | .71 | .17 |
| 15 | .27 | .20 | .17 | .16 | .18 | .15 | .14 | .11 | .13 | .12 | .30 | .17 |
| 16 | .21 | .19 | .16 | .16 | .17 | .15 | .14 | .11 | .44 | .12 | .28 | .17 |
| 17 | .21 | .19 | .16 | .16 | .15 | .15 | .14 | .11 | .17 | .12 | .31 | .17 |
| 18 | .17 | .18 | .16 | .16 | .15 | .14 | .14 | .12 | .14 | .24 | .30 | .17 |
| 19 | .16 | .18 | .16 | .15 | .15 | .16 | .13 | .13 | .14 | .24 | .26 | .17 |
| 20 | .16 | .18 | .16 | .15 | .15 | .15 | .13 | .12 | .13 | .15 | .43 | .20 |
| 21 | .16 | .19 | .16 | .15 | .15 | .15 | .24 | .11 | .13 | .13 | .29 | .26 |
| 22 | .16 | .19 | .16 | .15 | .15 | .15 | .21 | .11 | .13 | .14 | .26 | .18 |
| 23 | .16 | .19 | .17 | .19 | .16 | .20 | .13 | .11 | .12 | .16 | .24 | .18 |
| 24 | .16 | .18 | .22 | .17 | .15 | .15 | .13 | .10 | .12 | .14 | .21 | .18 |
| 25 | .16 | .18 | .17 | .15 | .20 | .15 | .16 | .11 | .12 | .13 | .18 | .18 |
| 26 | .16 | .18 | .17 | .15 | .27 | .17 | .13 | .12 | .22 | .13 | .18 | .18 |
| 27 | .16 | .18 | .21 | .16 | .17 | .15 | .12 | .11 | .36 | .12 | .18 | .18 |
| 28 | .16 | .18 | .19 | .20 | .16 | .15 | .12 | .11 | .15 | .12 | .19 | .17 |
| 29 | .16 | .18 | .26 | .16 | .15 | .15 | .12 | .12 | .14 | .12 | .18 | .17 |
| 30 | .16 | .18 | .18 | .15 | --- | .15 | .12 | .15 | .13 | .12 | .17 | .16 |
| 31 | .16 | --- | .17 | .15 | --- | .15 | --- | .13 | --- | .12 | .17 | --- |
| TOTAL | 6.20 | 5.72 | 5.62 | 5.10 | 4.57 | 4.83 | 4.30 | 3.86 | 4.82 | 4.70 | 7.06 | 5.63 |
| MEAN | .20 | .19 | .18 | .16 | .16 | .16 | .14 | .12 | .16 | .15 | .23 | .19 |
| MAX | .28 | .42 | .26 | .20 | .27 | .23 | .24 | .24 | .44 | .32 | .71 | .28 |
| MIN | .16 | .15 | .16 | .15 | .14 | .14 | .12 | .10 | .11 | .12 | .12 | .16 |
| CFSM | .56 | .53 | .50 | .46 | .44 | .43 | .40 | .35 | .45 | .42 | .63 | .52 |
| IN. | .64 | .59 | .58 | .53 | .47 | .50 | .44 | .40 | .50 | .49 | .73 | .58 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | .26 | .26 | .25 | .25 | .25 | .27 | .27 | .24 | .24 | .25 | .29 | .25 |
| MAX | .36 | .41 | .41 | .37 | .33 | .39 | .46 | .40 | .44 | .58 | .55 | .46 |
| (WY) | 1986 | 1986 | 1986 | 1986 | 1985 | 1984 | 1984 | 1984 | 1984 | 1984 | 1984 | 1984 |
| MIN | .16 | .17 | .15 | .16 | .16 | .16 | .14 | .12 | .15 | .15 | .17 | .14 |
| (WY) | 1987 | 1987 | 1987 | 1989 | 1992 | 1992 | 1992 | 1992 | 1988 | 1988 | 1988 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1983 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 80.85 | | 62.41 | | | |
| ANNUAL MEAN | .22 | | .17 | | .26 | |
| HIGHEST ANNUAL MEAN | | | | | .40 | 1984 |
| LOWEST ANNUAL MEAN | | | | | .17 | 1992 |
| HIGHEST DAILY MEAN | .50 | Jul 27 | .71 | Aug 14 | 2.1 | Jul 17 1984 |
| LOWEST DAILY MEAN | .14 | Jul 13 | .10 | May 24 | .10 | May 24 1992 |
| ANNUAL SEVEN-DAY MINIMUM | .15 | Jul 9 | .11 | May 21 | .11 | May 21 1992 |
| INSTANTANEOUS PEAK FLOW | | | 1.6 | Aug 13 | NOT DETERMINED* | Jul 17 1984 |
| INSTANTANEOUS PEAK STAGE | | | 1.51 | Aug 13 | 2.70 | Jul 17 1984 |
| INSTANTANEOUS LOW FLOW | | | .09* | May 24 | .09* | Jun 19 1988 |
| ANNUAL RUNOFF (CFSM) | .62 | | .47 | | .71 | |
| ANNUAL RUNOFF (INCHES) | 8.35 | | 6.45 | | 9.68 | |
| 10 PERCENT EXCEEDS | .29 | | .24 | | .39 | |
| 50 PERCENT EXCEEDS | .21 | | .16 | | .23 | |
| 90 PERCENT EXCEEDS | .16 | | .12 | | .14 | |

* See REMARKS.

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1984 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1983 to current year.
pH: October 1983 to current year.
WATER TEMPERATURE: October 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since Oct. 1983. Automatic water sampler from May 1987 to Apr. 1988.

REMARKS.--Station operated as a continuous-record index station in the National Acid Precipitation Assessment Program for defining effects of atmospheric deposition on surface-water chemistry. Precipitation monitoring station, which is part of the National Atmospheric Deposition Program/National Trends Network, is located at this site. Interruptions in the record were due to malfunctions of the water-quality monitor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 65 microsiemens, March 3, 1991; minimum, 7 microsiemens, Nov. 5-15, 1986.
pH: Maximum, 5.97 units May 16, 1988; minimum, 3.6 units Nov. 16, 17, 18, 20, 1983.
WATER TEMPERATURE: Maximum, 22.3°C, July 27, 1991; minimum, 8.3°C, Dec. 25, 1989.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 60 microsiemens, Aug. 13, 14; minimum, 13 microsiemens, on many days throughout the current year.
pH: Maximum, 5.07 units, July 29, 30; minimum, 3.98 units, Jan. 14.
WATER TEMPERATURE: Maximum, 21.2°C, Aug. 13; minimum, 10.7°C, Feb. 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | SULFATE DIS-SOLVED (MG/L AS SO4) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 29... | 1510 | 0.15 | 15 | 4.5 | 16.5 | 0.24 | 0.11 | 0.80 | 0.71 | 0.26 |
| DEC | | | | | | | | | | |
| 05... | 1330 | 0.15 | 16 | 4.5 | 14.0 | 0.12 | 0.15 | 0.80 | 0.08 | 0.69 |
| FEB | | | | | | | | | | |
| 20... | 1540 | 0.14 | 15 | 4.5 | 13.5 | 0.12 | 0.16 | 0.90 | 0.07 | 0.72 |
| 20... | 1545 | 0.14 | 15 | 4.5 | 13.5 | <0.10 | 0.14 | 0.70 | 0.07 | 0.73 |
| APR | | | | | | | | | | |
| 29... | 1515 | 0.11 | 15 | 4.6 | 15.5 | 0.15 | 0.14 | 0.80 | 0.09 | 0.65 |
| JUN | | | | | | | | | | |
| 30... | 1410 | 0.11 | 17 | 4.5 | 17.5 | 0.11 | 0.10 | 0.70 | 0.13 | 0.65 |
| AUG | | | | | | | | | | |
| 24... | 1415 | 0.14 | 18 | 4.5 | 19.5 | <0.10 | 0.13 | 0.80 | 0.06 | 0.63 |

| DATE | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) | IRON, DIS-SOLVED (UG/L AS FE) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 29... | 1.3 | 0.06 | 3.8 | <0.010 | 0.046 | 0.003 | 6 | 4 | 1 | 2.7 |
| DEC | | | | | | | | | | |
| 05... | 1.5 | <0.01 | 4.5 | <0.020 | 0.014 | <0.001 | 40 | 18 | 2 | 2.1 |
| FEB | | | | | | | | | | |
| 20... | 1.4 | <0.01 | 4.2 | <0.010 | 0.006 | 0.001 | 30 | 13 | <1 | 1.7 |
| 20... | 1.4 | <0.01 | 4.2 | <0.010 | 0.002 | 0.001 | 30 | 10 | 1 | 1.8 |
| APR | | | | | | | | | | |
| 29... | 1.4 | 0.01 | 4.6 | 0.010 | 0.005 | 0.001 | 32 | 12 | 1 | 2.1 |
| JUN | | | | | | | | | | |
| 30... | 1.5 | 0.07 | 3.5 | <0.010 | 0.001 | <0.001 | 8 | <3 | <1 | 2.9 |
| AUG | | | | | | | | | | |
| 24... | 1.4 | 0.02 | 4.5 | <0.010 | 0.029 | <0.001 | 70 | 24 | 1 | 3.2 |

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

SPECIFIC CONDUCTANCE, US/CM AT 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 16 | 15 | 16 |
| 2 | 15 | 13 | 14 | 15 | 15 | 15 | 15 | 14 | 14 | 15 | 15 | 15 |
| 3 | 13 | 13 | 13 | 15 | 15 | 15 | 23 | 14 | 17 | 19 | 15 | 16 |
| 4 | 14 | 13 | 14 | 15 | 15 | 15 | 22 | 17 | 19 | 19 | 17 | 18 |
| 5 | 14 | 13 | 14 | 15 | 15 | 15 | 17 | 16 | 16 | 18 | 16 | 16 |
| 6 | 15 | 14 | 14 | 15 | 15 | 15 | 16 | 15 | 16 | 16 | 15 | 15 |
| 7 | 15 | 15 | 15 | 15 | 15 | 15 | 16 | 15 | 16 | 16 | 14 | 15 |
| 8 | 16 | 15 | 16 | 15 | 15 | 15 | 16 | 15 | 15 | 17 | 14 | 15 |
| 9 | 17 | 16 | 17 | 43 | 15 | 19 | 16 | 15 | 15 | 17 | 15 | 16 |
| 10 | 18 | 17 | 17 | 59 | 26 | 39 | 16 | 15 | 15 | 17 | 14 | 15 |
| 11 | 19 | 18 | 18 | 26 | 21 | 23 | 15 | 15 | 15 | 17 | 14 | 15 |
| 12 | 20 | 19 | 19 | 21 | 19 | 20 | 15 | 15 | 15 | 15 | 14 | 15 |
| 13 | 20 | 19 | 20 | 19 | 18 | 19 | 15 | 14 | 15 | 15 | 14 | 14 |
| 14 | 20 | 20 | 20 | 18 | 18 | 18 | 15 | 14 | 15 | 17 | 14 | 16 |
| 15 | 20 | 18 | 20 | 18 | 17 | 17 | 15 | 14 | 14 | 15 | 14 | 15 |
| 16 | 17 | 15 | 16 | 17 | 16 | 17 | 14 | 14 | 14 | 15 | 14 | 14 |
| 17 | 15 | 14 | 15 | 17 | 15 | 15 | 14 | 14 | 14 | 15 | 14 | 15 |
| 18 | 16 | 15 | 16 | 15 | 15 | 15 | 15 | 14 | 15 | 15 | 14 | 14 |
| 19 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 15 | 14 | 14 | 14 |
| 20 | 14 | 14 | 14 | 15 | 15 | 15 | 15 | 14 | 15 | 15 | 14 | 14 |
| 21 | 14 | 14 | 14 | 15 | 15 | 15 | 15 | 14 | 14 | 16 | 14 | 15 |
| 22 | 14 | 14 | 14 | 15 | 14 | 15 | 14 | 13 | 14 | 15 | 14 | 15 |
| 23 | 15 | 14 | 14 | 15 | 14 | 15 | 15 | 13 | 14 | 16 | 14 | 15 |
| 24 | 15 | 14 | 14 | 15 | 14 | 14 | 21 | 15 | 18 | 16 | 15 | 16 |
| 25 | 14 | 14 | 14 | 15 | 14 | 15 | 16 | 15 | 16 | 15 | 14 | 15 |
| 26 | 14 | 14 | 14 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 15 |
| 27 | 15 | 14 | 15 | 15 | 15 | 15 | 19 | 15 | 18 | 15 | 14 | 14 |
| 28 | 15 | 15 | 15 | 15 | 14 | 15 | 19 | 16 | 17 | 16 | 14 | 15 |
| 29 | 15 | 15 | 15 | 15 | 14 | 15 | 30 | 19 | 24 | 15 | 15 | 15 |
| 30 | 15 | 14 | 15 | 15 | 14 | 15 | 19 | 17 | 18 | 15 | 15 | 15 |
| 31 | 15 | 15 | 15 | --- | --- | --- | 17 | 15 | 16 | 15 | 15 | 15 |
| MONTH | 20 | 13 | 16 | 59 | 14 | 17 | 30 | 13 | 16 | 19 | 14 | 15 |
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 16 | 15 | 16 | 16 | 15 | 15 | 17 | 14 | 15 | 15 | 14 | 15 |
| 2 | 17 | 15 | 16 | 15 | 15 | 15 | 16 | 14 | 14 | 15 | 14 | 14 |
| 3 | 16 | 15 | 16 | 15 | 14 | 15 | 16 | 14 | 14 | 14 | 13 | 14 |
| 4 | 15 | 15 | 15 | 17 | 14 | 15 | 16 | 14 | 14 | 14 | 13 | 14 |
| 5 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 6 | 15 | 15 | 15 | 22 | 14 | 15 | 14 | 14 | 14 | 14 | 14 | 14 |
| 7 | 15 | 15 | 15 | 27 | 18 | 22 | 15 | 14 | 14 | 16 | 14 | 16 |
| 8 | 15 | 15 | 15 | 18 | 16 | 17 | 14 | 14 | 14 | 30 | 16 | 24 |
| 9 | 15 | 15 | 15 | 16 | 15 | 15 | 14 | 13 | 14 | 21 | 17 | 19 |
| 10 | 15 | 14 | 15 | 16 | 14 | 15 | 15 | 13 | 14 | 17 | 15 | 16 |
| 11 | 15 | 13 | 14 | 15 | 14 | 15 | 14 | 13 | 14 | 16 | 14 | 15 |
| 12 | 14 | 13 | 14 | 16 | 14 | 15 | 14 | 13 | 14 | 15 | 14 | 15 |
| 13 | 14 | 14 | 14 | 15 | 14 | 14 | 14 | 13 | 13 | 15 | 14 | 14 |
| 14 | 15 | 13 | 14 | 15 | 14 | 15 | 15 | 13 | 13 | 14 | 14 | 14 |
| 15 | 17 | 15 | 15 | 15 | 14 | 14 | 14 | 13 | 14 | 14 | 13 | 14 |
| 16 | 16 | 15 | 16 | 14 | 14 | 14 | 14 | 13 | 14 | 14 | 13 | 14 |
| 17 | 16 | 16 | 16 | 14 | 14 | 14 | 15 | 13 | 13 | 14 | 13 | 14 |
| 18 | 16 | 14 | 15 | 14 | 14 | 14 | 14 | 13 | 13 | 16 | 14 | 15 |
| 19 | 14 | 13 | 14 | 15 | 14 | 15 | 14 | 13 | 14 | 15 | 15 | 15 |
| 20 | 15 | 14 | 15 | 15 | 14 | 14 | 14 | 13 | 13 | 15 | 14 | 15 |
| 21 | 15 | 14 | 14 | 15 | 14 | 14 | 30 | 13 | 18 | 15 | 14 | 15 |
| 22 | 14 | 14 | 14 | 14 | 14 | 14 | 30 | 18 | 23 | 15 | 14 | 14 |
| 23 | 15 | 14 | 15 | 19 | 14 | 17 | 18 | 16 | 17 | 15 | 14 | 14 |
| 24 | 15 | 14 | 15 | 16 | 15 | 15 | 16 | 15 | 15 | 14 | 14 | 14 |
| 25 | 23 | 14 | 16 | 16 | 14 | 15 | 18 | 15 | 16 | 15 | 14 | 14 |
| 26 | 31 | 22 | 25 | 15 | 14 | 15 | 15 | 14 | 15 | 15 | 14 | 15 |
| 27 | 21 | 18 | 20 | 15 | 14 | 14 | 15 | 14 | 15 | 15 | 14 | 15 |
| 28 | 20 | 16 | 17 | 14 | 13 | 14 | 15 | 14 | 15 | 15 | 14 | 15 |
| 29 | 16 | 16 | 16 | 14 | 13 | 14 | 15 | 14 | 15 | 15 | 15 | 15 |
| 30 | --- | --- | --- | 15 | 13 | 14 | 15 | 14 | 15 | 17 | 15 | 16 |
| 31 | --- | --- | --- | 17 | 14 | 15 | --- | --- | --- | 17 | 15 | 16 |
| MONTH | 31 | 13 | 16 | 27 | 13 | 15 | 30 | 13 | 15 | 30 | 13 | 15 |

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

SPECIFIC CONDUCTANCE, US/CM AT 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 16 | 15 | 15 | 19 | 17 | 18 | 15 | 14 | 15 | 15 | 15 | 15 |
| 2 | 16 | 15 | 15 | 29 | 17 | 21 | 16 | 14 | 15 | 15 | 14 | 15 |
| 3 | 16 | 15 | 15 | 54 | 21 | 28 | 16 | 15 | 16 | 35 | 15 | 22 |
| 4 | 18 | 15 | 16 | 47 | 22 | 31 | 16 | 15 | 15 | 25 | 19 | 21 |
| 5 | 19 | 16 | 17 | 23 | 19 | 21 | 16 | 15 | 15 | 19 | 18 | 19 |
| 6 | 17 | 15 | 16 | 20 | 18 | 19 | 16 | 15 | 15 | 19 | 18 | 18 |
| 7 | 16 | 15 | 15 | 18 | 17 | 18 | 16 | 15 | 16 | 18 | 17 | 18 |
| 8 | 16 | 15 | 15 | 18 | 16 | 17 | 15 | 14 | 15 | 18 | 17 | 18 |
| 9 | 21 | 15 | 17 | 17 | 16 | 16 | 15 | 13 | 14 | 18 | 16 | 17 |
| 10 | 30 | 21 | 25 | 16 | 16 | 16 | 14 | 13 | 14 | 17 | 16 | 17 |
| 11 | 24 | 19 | 22 | 16 | 16 | 16 | 14 | 13 | 14 | 16 | 16 | 16 |
| 12 | 22 | 19 | 20 | 16 | 16 | 16 | 46 | 13 | 23 | 16 | 16 | 16 |
| 13 | 20 | 17 | 18 | 16 | 15 | 16 | 60 | 19 | 35 | 16 | 15 | 16 |
| 14 | 18 | 17 | 17 | 16 | 15 | 16 | 60 | 36 | 48 | 16 | 15 | 16 |
| 15 | 18 | 16 | 17 | 16 | 15 | 15 | 35 | 27 | 30 | 16 | 15 | 16 |
| 16 | 22 | 16 | 20 | 16 | 15 | 15 | 30 | 23 | 26 | 16 | 16 | 16 |
| 17 | --- | --- | --- | 16 | 15 | 15 | 23 | 21 | 23 | 16 | 15 | 16 |
| 18 | --- | --- | --- | 21 | 15 | 16 | 24 | 19 | 21 | 16 | 15 | 16 |
| 19 | --- | --- | --- | 29 | 21 | 25 | 19 | 18 | 19 | 16 | 15 | 16 |
| 20 | --- | --- | --- | 21 | 18 | 19 | 34 | 17 | 26 | 31 | 15 | 17 |
| 21 | --- | --- | --- | 18 | 17 | 18 | 25 | 20 | 22 | 30 | 19 | 23 |
| 22 | --- | --- | --- | 50 | 18 | 22 | 20 | 20 | 20 | 19 | 17 | 18 |
| 23 | --- | --- | --- | --- | --- | --- | 19 | 18 | 19 | 18 | 15 | 17 |
| 24 | --- | --- | --- | --- | --- | --- | 18 | 17 | 18 | 14 | 13 | 14 |
| 25 | --- | --- | --- | --- | --- | --- | 18 | 17 | 17 | 13 | 13 | 13 |
| 26 | --- | --- | --- | --- | --- | --- | 17 | 16 | 17 | 14 | 13 | 14 |
| 27 | --- | --- | --- | --- | --- | --- | 17 | 16 | 16 | 15 | 14 | 15 |
| 28 | --- | --- | --- | --- | --- | --- | 16 | 15 | 16 | 15 | 14 | 15 |
| 29 | --- | --- | --- | 15 | 14 | 15 | 16 | 15 | 16 | 15 | 14 | 14 |
| 30 | --- | --- | --- | 15 | 14 | 15 | 16 | 15 | 16 | 15 | 14 | 14 |
| 31 | --- | --- | --- | 15 | 14 | 14 | 16 | 15 | 15 | --- | --- | --- |
| MONTH | --- | --- | --- | --- | --- | --- | 60 | 13 | 20 | 35 | 13 | 17 |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 19.0 | 18.2 | 18.7 | 17.1 | 15.8 | 16.5 | 15.4 | 14.7 | 15.0 | 13.5 | 12.8 | 13.2 |
| 2 | 19.0 | 18.8 | 18.9 | 17.6 | 16.6 | 17.2 | 16.0 | 15.0 | 15.6 | 13.6 | 13.0 | 13.4 |
| 3 | 19.6 | 18.8 | 19.2 | 16.5 | 15.9 | 16.1 | 16.4 | 15.4 | 15.9 | 13.9 | 13.5 | 13.8 |
| 4 | 19.6 | 18.9 | 19.3 | 16.5 | 15.4 | 16.0 | 15.2 | 13.5 | 14.5 | 14.1 | 13.6 | 13.9 |
| 5 | 19.6 | 19.0 | 19.4 | 15.6 | 14.7 | 15.2 | 14.0 | 13.0 | 13.5 | 14.3 | 13.6 | 14.0 |
| 6 | 19.6 | 18.3 | 19.2 | 15.3 | 14.1 | 14.7 | 14.1 | 13.0 | 13.5 | 14.2 | 13.3 | 13.8 |
| 7 | 18.2 | 17.1 | 17.7 | 15.3 | 14.1 | 14.7 | 14.2 | 12.9 | 13.5 | 13.6 | 12.7 | 13.1 |
| 8 | 17.7 | 16.6 | 17.1 | 14.9 | 14.2 | 14.6 | 14.4 | 13.1 | 13.8 | 13.5 | 12.3 | 12.9 |
| 9 | 17.7 | 16.3 | 17.1 | 14.6 | 13.4 | 14.1 | 15.0 | 14.0 | 14.6 | 13.6 | 13.0 | 13.4 |
| 10 | 17.9 | 16.9 | 17.5 | 14.1 | 12.9 | 13.7 | 15.0 | 14.0 | 14.6 | 13.7 | 12.9 | 13.5 |
| 11 | 18.0 | 17.1 | 17.6 | 15.1 | 14.0 | 14.5 | 14.6 | 13.5 | 14.1 | 13.4 | 12.4 | 12.9 |
| 12 | 17.7 | 16.7 | 17.3 | 15.0 | 14.1 | 14.6 | 14.5 | 13.3 | 14.0 | 13.5 | 12.4 | 13.0 |
| 13 | 17.5 | 16.5 | 17.0 | 15.0 | 14.0 | 14.5 | 15.3 | 14.1 | 14.7 | 14.0 | 13.1 | 13.5 |
| 14 | 17.4 | 16.3 | 16.9 | 15.1 | 13.9 | 14.5 | 15.5 | 14.7 | 15.1 | 14.2 | 12.2 | 13.6 |
| 15 | 17.5 | 16.5 | 17.1 | 15.4 | 14.4 | 14.9 | 14.7 | 13.0 | 13.9 | 12.7 | 11.5 | 12.1 |
| 16 | 17.4 | 16.6 | 17.1 | 15.6 | 14.5 | 15.1 | 13.3 | 12.5 | 12.9 | 12.4 | 10.9 | 11.7 |
| 17 | 17.3 | 16.5 | 16.8 | 15.4 | 14.6 | 15.2 | 13.4 | 12.0 | 12.8 | 12.6 | 10.8 | 11.7 |
| 18 | 17.3 | 16.0 | 16.7 | 14.9 | 14.1 | 14.6 | 13.4 | 12.4 | 12.9 | 12.8 | 11.8 | 12.4 |
| 19 | 17.4 | 16.1 | 16.8 | 15.6 | 14.7 | 15.2 | 12.3 | 11.2 | 11.9 | 12.6 | 11.6 | 12.3 |
| 20 | 16.9 | 16.5 | 16.7 | 15.9 | 15.0 | 15.5 | 12.3 | 10.8 | 11.7 | 12.7 | 11.3 | 12.0 |
| 21 | 16.8 | 16.3 | 16.6 | 16.3 | 15.4 | 16.0 | 13.0 | 12.1 | 12.5 | 12.9 | 11.6 | 12.2 |
| 22 | 17.1 | 16.0 | 16.6 | 16.4 | 15.5 | 16.1 | 13.1 | 11.9 | 12.5 | 13.0 | 11.7 | 12.4 |
| 23 | 17.3 | 16.5 | 16.9 | 16.3 | 15.0 | 15.7 | 13.9 | 12.8 | 13.4 | 13.5 | 12.5 | 13.1 |
| 24 | 17.6 | 16.8 | 17.2 | 15.7 | 14.2 | 15.3 | 14.0 | 13.1 | 13.6 | 13.3 | 12.3 | 13.0 |
| 25 | 17.6 | 17.0 | 17.3 | 14.5 | 13.5 | 14.0 | 13.6 | 12.6 | 13.1 | 12.7 | 11.7 | 12.3 |
| 26 | 17.7 | 16.9 | 17.3 | 13.8 | 12.8 | 13.3 | 13.3 | 12.3 | 12.9 | 12.9 | 11.8 | 12.4 |
| 27 | 17.7 | 16.8 | 17.3 | 13.5 | 12.4 | 12.9 | 13.4 | 12.7 | 13.1 | 12.7 | 12.2 | 12.4 |
| 28 | 17.5 | 16.6 | 17.2 | 13.8 | 12.3 | 13.0 | 13.3 | 13.0 | 13.1 | 13.1 | 12.2 | 12.6 |
| 29 | 17.1 | 16.5 | 16.8 | 14.3 | 12.9 | 13.7 | 13.3 | 12.7 | 13.0 | 13.4 | 12.6 | 13.0 |
| 30 | 17.0 | 15.9 | 16.5 | 14.9 | 13.8 | 14.4 | 13.6 | 12.8 | 13.1 | 13.4 | 12.4 | 12.9 |
| 31 | 17.1 | 16.2 | 16.7 | --- | --- | --- | 13.4 | 12.8 | 13.1 | 13.3 | 12.2 | 12.8 |
| MONTH | 19.6 | 15.9 | 17.4 | 17.6 | 12.3 | 14.9 | 16.4 | 10.8 | 13.6 | 14.3 | 10.8 | 12.9 |

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 12.9 | 12.1 | 12.6 | 13.9 | 12.3 | 13.1 | 14.6 | 13.2 | 14.0 | 15.6 | 14.3 | 15.0 |
| 2 | 12.5 | 11.5 | 12.0 | 14.2 | 12.5 | 13.4 | 14.2 | 13.0 | 13.6 | 16.5 | 14.9 | 15.7 |
| 3 | 13.0 | 11.5 | 12.2 | 14.5 | 12.8 | 13.7 | 13.7 | 12.3 | 13.0 | 16.7 | 15.6 | 16.1 |
| 4 | 13.1 | 11.7 | 12.5 | 14.4 | 13.6 | 13.9 | 13.5 | 12.1 | 12.9 | 16.4 | 15.4 | 15.8 |
| 5 | 12.8 | 12.0 | 12.5 | 14.5 | 13.5 | 14.1 | 14.0 | 12.3 | 13.0 | 15.9 | 15.0 | 15.4 |
| 6 | 12.5 | 12.0 | 12.3 | 14.5 | 13.9 | 14.2 | 14.0 | 12.4 | 13.3 | 15.0 | 14.7 | 15.0 |
| 7 | 12.8 | 11.8 | 12.2 | 15.1 | 14.1 | 14.6 | 14.3 | 13.4 | 13.8 | 14.6 | 14.2 | 14.4 |
| 8 | 12.4 | 11.5 | 12.0 | 15.4 | 14.2 | 14.8 | 15.1 | 13.4 | 14.2 | 14.6 | 14.2 | 14.4 |
| 9 | 12.0 | 10.8 | 11.3 | 15.4 | 13.9 | 14.6 | 15.4 | 13.7 | 14.6 | 15.4 | 14.4 | 14.9 |
| 10 | 11.7 | 10.7 | 11.3 | 15.3 | 14.4 | 14.9 | 15.8 | 14.2 | 15.0 | 15.9 | 15.0 | 15.4 |
| 11 | 12.2 | 11.3 | 11.7 | 14.8 | 13.0 | 13.9 | 15.9 | 14.7 | 15.3 | 16.3 | 14.9 | 15.6 |
| 12 | 12.7 | 11.5 | 12.1 | 14.0 | 12.5 | 13.3 | 16.1 | 14.8 | 15.3 | 16.4 | 15.3 | 15.8 |
| 13 | 12.0 | 11.5 | 11.7 | 13.7 | 12.8 | 13.4 | 15.6 | 14.5 | 15.0 | 16.1 | 15.8 | 16.0 |
| 14 | 13.1 | 11.7 | 12.4 | 13.2 | 12.1 | 12.7 | 15.4 | 13.8 | 14.7 | 16.7 | 15.5 | 16.1 |
| 15 | 13.4 | 12.6 | 12.9 | 13.6 | 12.0 | 12.8 | 15.8 | 14.2 | 15.0 | 16.9 | 15.8 | 16.4 |
| 16 | 13.9 | 12.8 | 13.3 | 13.2 | 11.9 | 12.6 | 15.9 | 14.8 | 15.4 | 16.9 | 15.9 | 16.3 |
| 17 | 12.9 | 12.3 | 12.6 | 13.6 | 11.7 | 12.8 | 16.5 | 15.1 | 15.8 | 16.6 | 15.7 | 16.1 |
| 18 | 13.0 | 12.4 | 12.8 | 14.0 | 12.7 | 13.5 | 16.7 | 14.7 | 15.7 | 16.8 | 15.8 | 16.2 |
| 19 | 14.0 | 13.0 | 13.4 | 14.9 | 13.7 | 14.2 | 16.4 | 15.4 | 15.9 | 16.4 | 15.8 | 16.1 |
| 20 | 13.5 | 12.5 | 13.0 | 14.0 | 12.8 | 13.3 | 16.5 | 15.2 | 16.0 | 16.4 | 15.5 | 15.9 |
| 21 | 13.4 | 12.0 | 12.7 | 14.0 | 12.3 | 13.1 | 16.4 | 15.9 | 16.2 | 16.5 | 15.4 | 15.9 |
| 22 | 13.4 | 11.8 | 12.7 | 13.6 | 12.5 | 13.2 | 16.7 | 15.7 | 16.4 | 16.3 | 14.8 | 15.6 |
| 23 | 13.4 | 12.8 | 13.2 | 14.0 | 12.8 | 13.4 | 16.8 | 15.5 | 16.1 | 16.5 | 15.1 | 15.9 |
| 24 | 14.2 | 13.4 | 13.8 | 13.8 | 12.3 | 13.0 | 16.9 | 15.3 | 16.1 | 16.9 | 15.6 | 16.2 |
| 25 | 14.1 | 13.7 | 13.9 | 13.7 | 12.3 | 13.1 | 16.3 | 15.5 | 15.9 | 16.3 | 16.1 | 16.2 |
| 26 | 14.1 | 13.5 | 13.9 | 13.9 | 13.3 | 13.6 | 15.5 | 14.9 | 15.2 | 16.1 | 15.8 | 16.0 |
| 27 | 14.0 | 13.0 | 13.5 | 14.4 | 13.1 | 13.6 | 15.4 | 14.3 | 15.0 | 16.2 | 15.5 | 15.8 |
| 28 | 14.2 | 12.7 | 13.5 | 14.2 | 12.5 | 13.3 | 15.2 | 14.3 | 14.8 | 15.9 | 15.1 | 15.6 |
| 29 | 14.3 | 12.9 | 13.7 | 14.0 | 12.6 | 13.4 | 15.6 | 14.1 | 14.9 | 15.4 | 14.9 | 15.1 |
| 30 | --- | --- | --- | 14.2 | 13.5 | 13.9 | 15.6 | 14.3 | 15.0 | 15.3 | 14.9 | 15.1 |
| 31 | --- | --- | --- | 14.6 | 13.6 | 14.1 | --- | --- | --- | 15.9 | 15.2 | 15.5 |
| MONTH | 14.3 | 10.7 | 12.7 | 15.4 | 11.7 | 13.6 | 16.9 | 12.1 | 14.9 | 16.9 | 14.2 | 15.7 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 15.8 | 15.0 | 15.5 | 17.8 | 17.2 | 17.5 | 19.0 | 18.4 | 18.7 | 18.9 | 18.4 | 18.7 |
| 2 | 16.1 | 15.2 | 15.6 | 18.5 | 17.4 | 17.8 | 18.8 | 18.3 | 18.6 | 19.0 | 18.5 | 18.7 |
| 3 | 16.4 | 15.4 | 15.8 | 19.8 | 17.5 | 18.0 | 18.7 | 18.4 | 18.6 | 19.9 | 18.6 | 19.2 |
| 4 | 15.8 | 15.4 | 15.6 | 18.9 | 17.7 | 18.2 | 18.9 | 18.4 | 18.6 | 19.4 | 19.0 | 19.2 |
| 5 | 16.0 | 15.3 | 15.6 | 18.0 | 17.4 | 17.7 | 18.8 | 18.4 | 18.6 | 19.1 | 19.0 | 19.1 |
| 6 | 16.3 | 15.4 | 15.8 | 17.9 | 17.5 | 17.7 | 18.6 | 18.3 | 18.5 | 19.1 | 18.9 | 19.0 |
| 7 | 16.7 | 15.9 | 16.3 | 17.9 | 17.5 | 17.7 | 18.6 | 18.2 | 18.4 | 19.1 | 18.7 | 18.9 |
| 8 | 17.0 | 16.3 | 16.6 | 18.1 | 17.4 | 17.7 | 18.8 | 18.2 | 18.5 | 19.1 | 18.7 | 18.9 |
| 9 | 17.1 | 16.3 | 16.5 | 18.3 | 17.7 | 17.9 | 19.1 | 18.4 | 18.7 | 19.1 | 18.7 | 18.9 |
| 10 | 16.8 | 16.6 | 16.7 | 18.4 | 17.7 | 18.0 | 19.2 | 18.4 | 18.7 | 19.0 | 18.6 | 18.8 |
| 11 | 16.6 | 16.2 | 16.4 | 18.4 | 17.8 | 18.1 | 19.3 | 18.4 | 18.8 | 19.0 | 18.7 | 18.9 |
| 12 | 16.2 | 16.0 | 16.1 | 18.7 | 17.9 | 18.2 | 20.5 | 18.7 | 19.4 | 18.7 | 18.2 | 18.5 |
| 13 | 16.4 | 15.9 | 16.2 | 18.7 | 18.0 | 18.3 | 21.2 | 19.5 | 20.1 | 18.3 | 17.7 | 18.0 |
| 14 | 16.3 | 16.1 | 16.2 | 18.8 | 18.1 | 18.4 | 21.0 | 19.8 | 20.4 | 18.1 | 17.5 | 17.8 |
| 15 | 16.6 | 16.0 | 16.4 | 18.8 | 18.1 | 18.4 | 19.7 | 19.4 | 19.6 | 18.1 | 17.4 | 17.8 |
| 16 | 18.4 | 16.3 | 17.2 | 18.4 | 18.1 | 18.2 | 19.5 | 19.2 | 19.4 | 18.2 | 17.6 | 17.9 |
| 17 | 17.3 | 16.7 | 17.0 | 18.4 | 18.0 | 18.2 | 19.3 | 19.1 | 19.2 | 18.4 | 18.0 | 18.2 |
| 18 | 17.2 | 16.5 | 16.9 | 19.9 | 18.0 | 18.5 | 19.4 | 19.0 | 19.3 | 18.5 | 18.1 | 18.3 |
| 19 | 17.0 | 16.5 | 16.8 | 19.2 | 17.8 | 18.4 | 19.4 | 18.9 | 19.1 | 18.7 | 18.2 | 18.4 |
| 20 | 17.4 | 16.8 | 17.1 | 18.0 | 17.5 | 17.7 | 20.0 | 19.2 | 19.6 | 19.4 | 18.2 | 18.5 |
| 21 | 17.4 | 16.8 | 17.0 | 18.1 | 17.5 | 17.7 | 19.6 | 19.2 | 19.4 | 19.4 | 18.7 | 19.0 |
| 22 | 17.0 | 16.4 | 16.7 | 18.3 | 17.6 | 17.9 | 19.3 | 19.1 | 19.2 | 18.8 | 18.4 | 18.6 |
| 23 | 16.9 | 16.0 | 16.5 | 17.9 | 17.6 | 17.7 | 19.5 | 19.1 | 19.3 | 18.5 | 17.9 | 18.4 |
| 24 | 17.1 | 16.4 | 16.8 | 18.1 | 17.7 | 17.9 | 19.5 | 19.1 | 19.2 | 17.8 | 17.4 | 17.6 |
| 25 | 17.7 | 16.8 | 17.2 | --- | --- | --- | 19.3 | 19.0 | 19.2 | 17.4 | 17.2 | 17.3 |
| 26 | 19.2 | 17.2 | 17.6 | --- | --- | --- | 19.3 | 18.9 | 19.1 | 17.6 | 17.1 | 17.4 |
| 27 | 18.5 | 17.4 | 17.7 | --- | --- | --- | 19.4 | 19.0 | 19.2 | 18.1 | 17.6 | 17.9 |
| 28 | 17.8 | 17.2 | 17.4 | --- | --- | --- | 19.5 | 19.1 | 19.3 | 18.3 | 17.9 | 18.1 |
| 29 | 17.8 | 17.0 | 17.4 | 19.0 | 18.3 | 18.6 | 19.1 | 18.4 | 18.8 | 18.1 | 17.4 | 17.9 |
| 30 | 17.6 | 17.1 | 17.4 | 19.0 | 18.3 | 18.7 | 18.8 | 18.2 | 18.5 | 17.3 | 16.3 | 17.0 |
| 31 | --- | --- | --- | 19.2 | 18.5 | 18.8 | 18.9 | 18.1 | 18.6 | --- | --- | --- |
| MONTH | 19.2 | 15.0 | 16.6 | --- | --- | --- | 21.2 | 18.1 | 19.1 | 19.9 | 16.3 | 18.4 |

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 4.69 | 4.66 | 4.68 | 4.71 | 4.64 | 4.69 | 4.80 | 4.63 | 4.72 | 4.55 | 4.44 | 4.52 |
| 2 | 4.68 | 4.44 | 4.60 | 4.71 | 4.65 | 4.68 | 4.79 | 4.70 | 4.74 | 4.49 | 4.37 | 4.47 |
| 3 | 4.61 | 4.48 | 4.53 | 4.72 | 4.59 | 4.67 | 4.75 | 4.27 | 4.62 | 4.48 | 4.44 | 4.46 |
| 4 | 4.68 | 4.60 | 4.62 | 4.74 | 4.58 | 4.67 | 4.51 | 4.31 | 4.42 | 4.45 | 4.42 | 4.44 |
| 5 | 4.63 | 4.59 | 4.62 | 4.76 | 4.74 | 4.75 | 4.67 | 4.51 | 4.58 | 4.58 | 4.38 | 4.47 |
| 6 | 4.64 | 4.60 | 4.62 | 4.77 | 4.76 | 4.77 | 4.73 | 4.67 | 4.70 | 4.60 | 4.51 | 4.54 |
| 7 | 4.66 | 4.62 | 4.64 | 4.78 | 4.76 | 4.77 | 4.79 | 4.72 | 4.75 | 4.61 | 4.56 | 4.58 |
| 8 | 4.69 | 4.61 | 4.65 | 4.78 | 4.77 | 4.78 | 4.80 | 4.73 | 4.78 | 4.64 | 4.59 | 4.61 |
| 9 | 4.73 | 4.58 | 4.64 | 4.77 | 4.14 | 4.49 | 4.78 | 4.67 | 4.77 | 4.60 | 4.18 | 4.31 |
| 10 | 4.71 | 4.60 | 4.63 | 4.10 | 4.04 | 4.07 | 4.73 | 4.46 | 4.61 | 4.23 | 4.15 | 4.18 |
| 11 | 4.72 | 4.53 | 4.61 | 4.27 | 4.09 | 4.17 | 4.83 | 4.72 | 4.75 | 4.41 | 4.23 | 4.31 |
| 12 | 4.65 | 4.53 | 4.60 | 4.43 | 4.28 | 4.36 | 4.79 | 4.76 | 4.78 | 4.42 | 4.22 | 4.37 |
| 13 | 4.65 | 4.53 | 4.61 | 4.54 | 4.44 | 4.49 | 4.79 | 4.75 | 4.76 | 4.20 | 4.13 | 4.15 |
| 14 | 4.65 | 4.58 | 4.61 | 4.60 | 4.54 | 4.57 | 4.79 | 4.57 | 4.72 | 4.24 | 3.98 | 4.13 |
| 15 | 4.63 | 4.43 | 4.56 | 4.62 | 4.59 | 4.61 | 4.81 | 4.76 | 4.78 | 4.35 | 4.22 | 4.29 |
| 16 | 4.54 | 4.35 | 4.48 | 4.64 | 4.61 | 4.63 | 4.83 | 4.79 | 4.81 | 4.56 | 4.36 | 4.43 |
| 17 | 4.59 | 4.54 | 4.57 | 4.67 | 4.63 | 4.65 | 4.92 | 4.75 | 4.83 | 4.48 | 4.40 | 4.44 |
| 18 | 4.62 | 4.56 | 4.59 | 4.67 | 4.64 | 4.65 | 4.83 | 4.74 | 4.80 | 4.51 | 4.46 | 4.49 |
| 19 | 4.62 | 4.51 | 4.57 | 4.67 | 4.61 | 4.64 | 4.84 | 4.74 | 4.81 | 4.54 | 4.35 | 4.48 |
| 20 | 4.60 | 4.58 | 4.59 | 4.73 | 4.59 | 4.64 | 4.84 | 4.73 | 4.82 | 4.55 | 4.46 | 4.52 |
| 21 | 4.61 | 4.58 | 4.59 | 4.79 | 4.57 | 4.65 | 4.86 | 4.80 | 4.83 | 4.55 | 4.49 | 4.53 |
| 22 | 4.61 | 4.56 | 4.59 | 4.87 | 4.63 | 4.76 | 4.91 | 4.84 | 4.86 | 4.56 | 4.36 | 4.49 |
| 23 | 4.60 | 4.57 | 4.58 | 4.63 | 4.48 | 4.54 | 4.84 | 4.54 | 4.76 | 4.45 | 4.25 | 4.34 |
| 24 | 4.61 | 4.57 | 4.59 | 4.62 | 4.50 | 4.58 | 4.54 | 4.26 | 4.40 | 4.48 | 4.39 | 4.43 |
| 25 | 4.64 | 4.58 | 4.61 | 4.62 | 4.55 | 4.60 | 4.72 | 4.57 | 4.65 | 4.51 | 4.48 | 4.50 |
| 26 | 4.69 | 4.64 | 4.66 | 4.64 | 4.61 | 4.62 | 4.74 | 4.63 | 4.72 | 4.55 | 4.42 | 4.51 |
| 27 | 4.65 | 4.60 | 4.62 | 4.67 | 4.63 | 4.65 | 4.64 | 4.33 | 4.51 | 4.50 | 4.33 | 4.43 |
| 28 | 4.70 | 4.55 | 4.63 | 4.68 | 4.61 | 4.66 | 4.63 | 4.27 | 4.35 | 4.69 | 4.40 | 4.51 |
| 29 | 4.67 | 4.47 | 4.60 | 4.66 | 4.62 | 4.63 | 4.34 | 4.08 | 4.23 | 4.60 | 4.46 | 4.53 |
| 30 | 4.70 | 4.67 | 4.69 | 4.64 | 4.61 | 4.63 | 4.51 | 4.30 | 4.37 | 4.61 | 4.49 | 4.55 |
| 31 | 4.72 | 4.67 | 4.69 | --- | --- | --- | 4.58 | 4.51 | 4.54 | 4.64 | 4.54 | 4.61 |
| MONTH | 4.73 | 4.35 | 4.61 | 4.87 | 4.04 | 4.60 | 4.92 | 4.08 | 4.67 | 4.69 | 3.98 | 4.44 |

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 4.67 | 4.60 | 4.63 | 4.78 | 4.60 | 4.68 | 4.91 | 4.66 | 4.85 | 4.59 | 4.39 | 4.48 |
| 2 | 4.64 | 4.49 | 4.59 | 4.81 | 4.67 | 4.71 | 5.01 | 4.72 | 4.88 | 4.71 | 4.59 | 4.65 |
| 3 | 4.73 | 4.64 | 4.66 | 4.77 | 4.67 | 4.73 | 4.96 | 4.87 | 4.92 | 4.74 | 4.69 | 4.72 |
| 4 | 4.67 | 4.61 | 4.63 | 4.77 | 4.70 | 4.74 | 4.96 | 4.51 | 4.83 | 4.75 | 4.71 | 4.74 |
| 5 | 4.65 | 4.62 | 4.64 | 4.75 | 4.48 | 4.60 | 4.84 | 4.51 | 4.67 | 4.76 | 4.74 | 4.75 |
| 6 | 4.67 | 4.64 | 4.65 | 4.71 | 4.29 | 4.59 | 4.91 | 4.81 | 4.86 | 4.76 | 4.68 | 4.75 |
| 7 | 4.71 | 4.65 | 4.68 | 4.49 | 4.24 | 4.35 | 5.04 | 4.88 | 4.93 | 4.57 | 4.35 | 4.40 |
| 8 | 4.73 | 4.69 | 4.70 | 4.59 | 4.49 | 4.54 | 4.98 | 4.63 | 4.77 | 4.33 | 4.19 | 4.24 |
| 9 | 4.74 | 4.72 | 4.73 | 4.66 | 4.58 | 4.63 | 4.83 | 4.74 | 4.80 | 4.36 | 4.24 | 4.30 |
| 10 | 4.76 | 4.73 | 4.75 | 4.67 | 4.53 | 4.64 | 4.84 | 4.81 | 4.83 | 4.50 | 4.36 | 4.43 |
| 11 | 4.73 | 4.35 | 4.45 | 4.74 | 4.55 | 4.68 | 4.85 | 4.80 | 4.82 | 4.60 | 4.49 | 4.55 |
| 12 | 4.72 | 4.50 | 4.64 | 4.79 | 4.62 | 4.70 | 4.83 | 4.50 | 4.75 | 4.64 | 4.56 | 4.61 |
| 13 | 4.77 | 4.35 | 4.53 | 4.75 | 4.65 | 4.72 | 4.76 | 4.50 | 4.67 | 4.68 | 4.54 | 4.64 |
| 14 | 4.45 | 4.32 | 4.37 | 4.75 | 4.72 | 4.73 | 4.80 | 4.76 | 4.78 | 4.70 | 4.67 | 4.69 |
| 15 | 4.48 | 4.30 | 4.36 | 4.77 | 4.68 | 4.74 | 4.82 | 4.78 | 4.80 | 4.73 | 4.68 | 4.70 |
| 16 | 4.41 | 4.29 | 4.34 | 4.80 | 4.73 | 4.75 | 4.82 | 4.75 | 4.80 | 4.72 | 4.50 | 4.67 |
| 17 | 4.49 | 4.33 | 4.43 | 4.84 | 4.69 | 4.79 | 4.80 | 4.46 | 4.68 | 4.51 | 4.36 | 4.43 |
| 18 | 4.43 | 4.29 | 4.35 | 4.79 | 4.59 | 4.71 | 4.61 | 4.40 | 4.51 | 4.63 | 4.37 | 4.55 |
| 19 | 4.47 | 4.33 | 4.40 | 4.63 | 4.47 | 4.57 | 4.51 | 4.47 | 4.50 | 4.45 | 4.32 | 4.38 |
| 20 | 4.63 | 4.46 | 4.53 | 4.69 | 4.52 | 4.61 | 4.50 | 4.49 | 4.49 | 4.56 | 4.34 | 4.47 |
| 21 | 4.69 | 4.62 | 4.66 | 4.79 | 4.68 | 4.73 | 4.50 | 4.48 | 4.49 | 4.57 | 4.43 | 4.52 |
| 22 | 4.75 | 4.68 | 4.70 | 4.77 | 4.62 | 4.71 | 4.48 | 4.43 | 4.47 | 4.62 | 4.56 | 4.59 |
| 23 | 4.73 | 4.41 | 4.54 | 4.66 | 4.39 | 4.53 | 4.48 | 4.43 | 4.46 | 4.81 | 4.56 | 4.63 |
| 24 | 4.52 | 4.36 | 4.44 | 4.73 | 4.67 | 4.70 | 4.64 | 4.43 | 4.48 | 4.66 | 4.59 | 4.61 |
| 25 | 4.55 | 4.26 | 4.42 | 4.75 | 4.40 | 4.66 | 4.47 | 4.34 | 4.42 | 4.88 | 4.55 | 4.78 |
| 26 | 4.34 | 4.18 | 4.27 | 4.67 | 4.51 | 4.57 | 4.59 | 4.38 | 4.51 | 4.94 | 4.63 | 4.89 |
| 27 | 4.55 | 4.30 | 4.40 | 4.82 | 4.67 | 4.75 | 4.63 | 4.56 | 4.61 | 4.82 | 4.30 | 4.56 |
| 28 | 4.58 | 4.48 | 4.55 | 4.87 | 4.81 | 4.84 | 4.64 | 4.40 | 4.52 | 4.59 | 4.52 | 4.56 |
| 29 | 4.64 | 4.55 | 4.58 | 4.91 | 4.87 | 4.89 | 4.66 | 4.47 | 4.58 | 4.40 | 4.21 | 4.29 |
| 30 | --- | --- | --- | 4.91 | 4.68 | 4.82 | 4.70 | 4.52 | 4.68 | 4.23 | 4.18 | 4.21 |
| 31 | --- | --- | --- | 4.89 | 4.65 | 4.77 | --- | --- | --- | 4.29 | 4.17 | 4.23 |
| MONTH | 4.77 | 4.18 | 4.54 | 4.91 | 4.24 | 4.68 | 5.04 | 4.34 | 4.68 | 4.94 | 4.17 | 4.55 |

PEE DEE RIVER BASIN

0213228795 JORDAN CREEK NEAR SILVER HILL, NC--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 4.37 | 4.29 | 4.33 | 4.59 | 4.54 | 4.57 | 5.03 | 5.01 | 5.02 | 4.64 | 4.56 | 4.61 |
| 2 | 4.42 | 4.35 | 4.39 | 4.61 | 4.32 | 4.51 | 5.03 | 4.93 | 4.98 | 4.73 | 4.61 | 4.64 |
| 3 | 4.45 | 4.24 | 4.41 | 4.47 | 4.33 | 4.40 | 4.95 | 4.91 | 4.93 | 4.69 | 4.59 | 4.63 |
| 4 | 4.24 | 4.14 | 4.19 | 4.44 | 4.32 | 4.37 | 4.92 | 4.86 | 4.89 | 4.67 | 4.58 | 4.62 |
| 5 | 4.22 | 4.12 | 4.15 | 4.55 | 4.44 | 4.51 | 4.86 | 4.82 | 4.84 | 4.60 | 4.58 | 4.59 |
| 6 | 4.25 | 4.14 | 4.20 | 4.62 | 4.55 | 4.59 | 4.83 | 4.74 | 4.81 | 4.62 | 4.59 | 4.60 |
| 7 | 4.40 | 4.25 | 4.32 | 4.67 | 4.62 | 4.65 | 4.81 | 4.77 | 4.79 | 4.65 | 4.61 | 4.63 |
| 8 | 4.51 | 4.24 | 4.41 | 4.70 | 4.65 | 4.68 | 4.78 | 4.75 | 4.77 | 4.66 | 4.62 | 4.64 |
| 9 | 4.49 | 4.26 | 4.33 | 4.72 | 4.68 | 4.70 | 4.77 | 4.72 | 4.74 | 4.67 | 4.64 | 4.65 |
| 10 | 4.23 | 4.10 | 4.14 | 4.76 | 4.71 | 4.74 | 4.75 | 4.70 | 4.72 | 4.67 | 4.64 | 4.65 |
| 11 | 4.48 | 4.17 | 4.31 | 4.81 | 4.75 | 4.78 | 4.73 | 4.67 | 4.70 | 4.67 | 4.64 | 4.65 |
| 12 | 4.46 | 4.28 | 4.40 | 4.84 | 4.81 | 4.83 | 4.70 | 4.61 | 4.68 | 4.70 | 4.66 | 4.68 |
| 13 | 4.65 | 4.28 | 4.34 | 4.86 | 4.84 | 4.85 | 4.71 | 4.56 | 4.67 | 4.94 | 4.66 | 4.72 |
| 14 | 4.37 | 4.19 | 4.26 | 4.89 | 4.86 | 4.87 | 4.57 | 4.53 | 4.55 | 4.71 | 4.67 | 4.69 |
| 15 | 4.51 | 4.20 | 4.30 | 4.92 | 4.89 | 4.90 | 4.60 | 4.57 | 4.58 | 4.70 | 4.67 | 4.68 |
| 16 | 4.32 | 4.15 | 4.24 | 4.97 | 4.91 | 4.93 | 4.58 | 4.55 | 4.57 | 4.68 | 4.66 | 4.67 |
| 17 | 4.46 | 4.26 | 4.36 | 5.01 | 4.97 | 4.98 | 4.56 | 4.50 | 4.54 | 4.68 | 4.66 | 4.66 |
| 18 | 4.50 | 4.16 | 4.31 | 5.05 | 4.47 | 4.93 | 4.55 | 4.49 | 4.51 | 4.70 | 4.66 | 4.68 |
| 19 | 4.67 | 4.24 | 4.55 | 4.60 | 4.46 | 4.52 | 4.55 | 4.49 | 4.52 | 4.70 | 4.67 | 4.69 |
| 20 | 4.50 | 4.41 | 4.46 | 4.78 | 4.60 | 4.70 | 4.51 | 4.39 | 4.44 | 4.69 | 4.56 | 4.67 |
| 21 | 4.52 | 4.37 | 4.44 | 4.86 | 4.79 | 4.82 | 4.47 | 4.43 | 4.45 | 4.64 | 4.54 | 4.60 |
| 22 | 4.49 | 4.26 | 4.41 | 4.92 | 4.62 | 4.83 | 4.45 | 4.42 | 4.44 | 4.67 | 4.64 | 4.65 |
| 23 | 4.61 | 4.40 | 4.49 | 4.76 | 4.53 | 4.62 | 4.45 | 4.43 | 4.44 | 4.74 | 4.65 | 4.68 |
| 24 | 4.53 | 4.46 | 4.49 | 4.88 | 4.76 | 4.82 | 4.51 | 4.41 | 4.45 | 4.81 | 4.67 | 4.75 |
| 25 | 4.51 | 4.47 | 4.49 | --- | --- | --- | 4.51 | 4.47 | 4.49 | 4.79 | 4.71 | 4.76 |
| 26 | 4.53 | 4.18 | 4.46 | --- | --- | --- | 4.55 | 4.51 | 4.53 | 4.86 | 4.76 | 4.81 |
| 27 | 4.29 | 4.12 | 4.18 | --- | --- | --- | 4.57 | 4.54 | 4.55 | 4.89 | 4.81 | 4.84 |
| 28 | 4.42 | 4.29 | 4.36 | --- | --- | --- | 4.58 | 4.55 | 4.57 | 4.84 | 4.71 | 4.75 |
| 29 | 4.48 | 4.41 | 4.46 | 5.07 | 5.03 | 5.05 | 4.68 | 4.57 | 4.60 | 4.75 | 4.55 | 4.70 |
| 30 | 4.55 | 4.34 | 4.49 | 5.07 | 5.03 | 5.05 | 4.64 | 4.61 | 4.62 | 4.65 | 4.50 | 4.58 |
| 31 | --- | --- | --- | 5.06 | 5.01 | 5.03 | 4.64 | 4.57 | 4.61 | --- | --- | --- |
| MONTH | 4.67 | 4.10 | 4.36 | 5.07 | 4.32 | 4.75 | 5.03 | 4.39 | 4.65 | 4.94 | 4.50 | 4.67 |

PEE DEE RIVER BASIN

02132320 BIG SHOE HEEL CREEK NEAR LAURINBURG, NC

LOCATION.--Lat 34°45'01", long 79°23'12", Scotland County, Hydrologic Unit 03040204, at downstream side of bridge near center of span on U.S. Highway 74, 2.5 mi downstream of Jordan Creek, and 4.5 mi southeast of Laurinburg.

DRAINAGE AREA.-- 83.3 mi$^2$.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1949-54, 1959, 1962, 1968-69. June 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Instantaneous peak flow, peak stage, and low flow for current water year not determined due to recorder malfunction.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 52 | 46 | 56 | 128 | 81 | 141 | e109 | e61 | 49 | e139 | e24 | e41 |
| 2 | 50 | 46 | 64 | 100 | 75 | 106 | e97 | e56 | 44 | e119 | e28 | e39 |
| 3 | 56 | 46 | 66 | 85 | 71 | 84 | e88 | e53 | 43 | e154 | e29 | e38 |
| 4 | 64 | 48 | 76 | 100 | 68 | 77 | e81 | e56 | e57 | e211 | e37 | e37 |
| 5 | 69 | 47 | 83 | 106 | 66 | e72 | e76 | e71 | e70 | e165 | e40 | 48 |
| 6 | 93 | 47 | 80 | 105 | 65 | e84 | e72 | e87 | e65 | e131 | e47 | 48 |
| 7 | 100 | 47 | 73 | 95 | 63 | e98 | e69 | e107 | e62 | e85 | e41 | 51 |
| 8 | 80 | 48 | 68 | 79 | 59 | e117 | e67 | e140 | e72 | e66 | e47 | 54 |
| 9 | 69 | 57 | 65 | 76 | 58 | e137 | e65 | e101 | e88 | e56 | e33 | 54 |
| 10 | 58 | 95 | 64 | 75 | 58 | e160 | e64 | e76 | e107 | e50 | e38 | 52 |
| 11 | 54 | 113 | 57 | 73 | 58 | e124 | e65 | e73 | e110 | e46 | e46 | 50 |
| 12 | 51 | 134 | 56 | 70 | 59 | e101 | e65 | e70 | e112 | e41 | e82 | 47 |
| 13 | 50 | 143 | 56 | 68 | 59 | e93 | e66 | e65 | e108 | e37 | e152 | 44 |
| 14 | 48 | 125 | 57 | 74 | 61 | e85 | e64 | 48 | e100 | e33 | e250 | 42 |
| 15 | 51 | 92 | 62 | 91 | 64 | e81 | e60 | 40 | e96 | e31 | e285 | 40 |
| 16 | 58 | 76 | 61 | 98 | 73 | e78 | e57 | 35 | e102 | e30 | e360 | 39 |
| 17 | 74 | 70 | 59 | 96 | 84 | e74 | e54 | 32 | e128 | e36 | e350 | 39 |
| 18 | 80 | 66 | 58 | 83 | 85 | e77 | e54 | 30 | e200 | e46 | e332 | 39 |
| 19 | 76 | 63 | 57 | 76 | 79 | e84 | e54 | 32 | e234 | e51 | e285 | 38 |
| 20 | 67 | 62 | 56 | 71 | 76 | e100 | e57 | 33 | e180 | e45 | e226 | 40 |
| 21 | 56 | 61 | 56 | 69 | 72 | e121 | e67 | 32 | e102 | e37 | e173 | 41 |
| 22 | 52 | 61 | 56 | 62 | 73 | e138 | e81 | 30 | e80 | e35 | e132 | 41 |
| 23 | 51 | 60 | 56 | 72 | 73 | e142 | e98 | 28 | e64 | e45 | e111 | 40 |
| 24 | 51 | 57 | 56 | 94 | 79 | e144 | e120 | 26 | e56 | e50 | e92 | 39 |
| 25 | 50 | 56 | 62 | 95 | 82 | e149 | e147 | 25 | e99 | e44 | e75 | 38 |
| 26 | 50 | 55 | 63 | 83 | 120 | e150 | e175 | 25 | e154 | e36 | e66 | 38 |
| 27 | 54 | 54 | 76 | 75 | 143 | e143 | e142 | 25 | e210 | e30 | e59 | 39 |
| 28 | 50 | 54 | 90 | 80 | 173 | e140 | e100 | 25 | e242 | e26 | e50 | 39 |
| 29 | 48 | 55 | 113 | 88 | 175 | e135 | e73 | 25 | e217 | e21 | e45 | 38 |
| 30 | 47 | 55 | 125 | 85 | --- | e129 | e66 | 39 | e190 | e20 | e43 | 35 |
| 31 | 46 | --- | 135 | 83 | --- | e119 | --- | 49 | --- | e21 | e42 | --- |
| TOTAL | 1855 | 2039 | 2162 | 2635 | 2352 | 3483 | 2453 | 1595 | 3441 | 1937 | 3620 | 1268 |
| MEAN | 59.8 | 68.0 | 69.7 | 85.0 | 81.1 | 112 | 81.8 | 51.5 | 115 | 62.5 | 117 | 42.3 |
| MAX | 100 | 143 | 135 | 128 | 175 | 160 | 175 | 140 | 242 | 211 | 360 | 54 |
| MIN | 46 | 46 | 56 | 62 | 58 | 72 | 54 | 25 | 43 | 20 | 24 | 35 |
| CFSM | .72 | .82 | .84 | 1.02 | .97 | 1.35 | .98 | .62 | 1.38 | .75 | 1.40 | .51 |
| IN. | .83 | .91 | .97 | 1.18 | 1.05 | 1.56 | 1.10 | .71 | 1.54 | .87 | 1.62 | .57 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 73.1 | 74.1 | 84.6 | 103 | 90.7 | 113 | 99.7 | 75.8 | 71.1 | 63.9 | 85.1 | 62.0 |
| MAX | 116 | 93.1 | 141 | 134 | 120 | 140 | 153 | 157 | 115 | 175 | 171 | 82.9 |
| (WY) | 1990 | 1990 | 1990 | 1988 | 1990 | 1991 | 1989 | 1989 | 1992 | 1989 | 1991 | 1987 |
| MIN | 41.3 | 67.0 | 50.2 | 69.3 | 62.0 | 72.0 | 64.6 | 43.8 | 28.3 | 15.6 | 26.8 | 20.3 |
| (WY) | 1988 | 1989 | 1989 | 1989 | 1989 | 1988 | 1988 | 1988 | 1990 | 1990 | 1988 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1987 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 34045 | | 28840 | | | |
| ANNUAL MEAN | 93.3 | | 78.8 | | 82.2 | |
| HIGHEST ANNUAL MEAN | | | | | 99.0 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 62.1 | 1987 |
| HIGHEST DAILY MEAN | 383 | Aug 3 | 360 | Aug 16 | 508 | May 4 1989 |
| LOWEST DAILY MEAN | 29 | Jun 13 | 20 | Jul 30 | 4.7 | Aug 1 1990 |
| ANNUAL SEVEN-DAY MINIMUM | 35 | Jun 8 | 24 | Jul 28 | 5.9 | Jul 30 1990 |
| INSTANTANEOUS PEAK FLOW | | | NOT DETERMINED | | 546 | May 3 1989 |
| INSTANTANEOUS PEAK STAGE | | | NOT DETERMINED | | 4.63 | May 3 1989 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINRD | | 3.9 | Aug 1 1990 |
| ANNUAL RUNOFF (CFSM) | 1.12 | | .95 | | .99 | |
| ANNUAL RUNOFF (INCHES) | 15.20 | | 12.88 | | 13.41 | |
| 10 PERCENT EXCEEDS | 157 | | 139 | | 145 | |
| 50 PERCENT EXCEEDS | 76 | | 65 | | 67 | |
| 90 PERCENT EXCEEDS | 47 | | 38 | | 28 | |

PEE DEE RIVER BASIN

02133500 DROWNING CREEK NEAR HOFFMAN, NC

LOCATION.--Lat 35°03'38", long 79°29'39", Richmond County, Hydrologic Unit 03040203, on right bank 10 ft downstream of bridge on U.S. Highway 1, 1 mi upstream from Seaboard Coast Line Railroad bridge, 0.8 mi downstream of Deep Creek, and 4 mi northeast of Hoffman.

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

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 972: 1941(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Since 1984, the town of Southern Pines withdraws water for public supply 0.5 mi upstream from the gage causing some diurnal fluctuation at low to medium flows; a daily average of 2.49 $ft^3/s$ was diverted during the year. Minimum discharge for period of record also occurred Aug. 18, 1988. Minimum daily discharge for period of record also occurred July 10, Aug. 20, 1988. Minimum discharge for current water year also occurred August 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 71 | 78 | 100 | 234 | 134 | 170 | 147 | 144 | 132 | 108 | 32 | 44 |
| 2 | 68 | 75 | 103 | 159 | 123 | 149 | 138 | 141 | 91 | 98 | 33 | 38 |
| 3 | 90 | 81 | 109 | 158 | 116 | 139 | 131 | 121 | 77 | 97 | 40 | 37 |
| 4 | 149 | 85 | 176 | 218 | 115 | 131 | 119 | 108 | 81 | 178 | 53 | 41 |
| 5 | 131 | 82 | 219 | 266 | 112 | 127 | 125 | 98 | 139 | 180 | 52 | 42 |
| 6 | 97 | 81 | 193 | 267 | 109 | 137 | 125 | 91 | 136 | 105 | 87 | 46 |
| 7 | 91 | 82 | 137 | 205 | 105 | 221 | 118 | 110 | 101 | 86 | 57 | 60 |
| 8 | 82 | 85 | 123 | 162 | 101 | 302 | 115 | 214 | 78 | 75 | 46 | 63 |
| 9 | 76 | 82 | 116 | 148 | 100 | 300 | 112 | 302 | 78 | 68 | 45 | 59 |
| 10 | 75 | 171 | 125 | 146 | 99 | 212 | 112 | 304 | 255 | 62 | 46 | 90 |
| 11 | 74 | 264 | 137 | 145 | 103 | 175 | 101 | 186 | 319 | 53 | 38 | 63 |
| 12 | 68 | 298 | 127 | 135 | 105 | 172 | 100 | 124 | 333 | 44 | 33 | 46 |
| 13 | 64 | 208 | 116 | 129 | 106 | 148 | 120 | 107 | 270 | 45 | 83 | 51 |
| 14 | 66 | 137 | 112 | 153 | 110 | 132 | 119 | 110 | 176 | 41 | 205 | 43 |
| 15 | 68 | 122 | 115 | 183 | 109 | 126 | 104 | 115 | 152 | 36 | 285 | 38 |
| 16 | 81 | 108 | 110 | 179 | 151 | 126 | 98 | 96 | 245 | 33 | 338 | 36 |
| 17 | 112 | 106 | 103 | 144 | 160 | 121 | 94 | 90 | 495 | 32 | 291 | 36 |
| 18 | 110 | 106 | 100 | 132 | 133 | 117 | 95 | 88 | 553 | 30 | 256 | 35 |
| 19 | 88 | 102 | 100 | 130 | 138 | 139 | 89 | 106 | 489 | 32 | 245 | 34 |
| 20 | 85 | 100 | 96 | 125 | 167 | 203 | 88 | 117 | 329 | 36 | 142 | 62 |
| 21 | 82 | 102 | 97 | 121 | 158 | 225 | 109 | 94 | 169 | 36 | 114 | 71 |
| 22 | 80 | 104 | 102 | 127 | 123 | 174 | 271 | 85 | 135 | 33 | 93 | 61 |
| 23 | 85 | 101 | 103 | 128 | 119 | 194 | 438 | 75 | 117 | 55 | 82 | 55 |
| 24 | 82 | 107 | 134 | 189 | 152 | 269 | 528 | 63 | 101 | 118 | 73 | 52 |
| 25 | 81 | 103 | 155 | 207 | 158 | 263 | 451 | 61 | 94 | 72 | 62 | 49 |
| 26 | 75 | 97 | 128 | 155 | 232 | 205 | 319 | 62 | 106 | 50 | 57 | 49 |
| 27 | 78 | 96 | 140 | 135 | 313 | 239 | 267 | 66 | 241 | 45 | 54 | 53 |
| 28 | 79 | 93 | 180 | 159 | 326 | 252 | 187 | 68 | 280 | 37 | 55 | 56 |
| 29 | 78 | 97 | 250 | 188 | 272 | 196 | 166 | 66 | 268 | 38 | 50 | 52 |
| 30 | 77 | 93 | 299 | 167 | --- | 160 | 157 | 91 | 194 | 33 | 48 | 49 |
| 31 | 78 | --- | 301 | 145 | --- | 152 | --- | 165 | --- | 37 | 46 | --- |
| TOTAL | 2621 | 3446 | 4406 | 5139 | 4249 | 5676 | 5143 | 3668 | 6234 | 1993 | 3141 | 1511 |
| MEAN | 84.5 | 115 | 142 | 166 | 147 | 183 | 171 | 118 | 208 | 64.3 | 101 | 50.4 |
| MAX | 149 | 298 | 301 | 267 | 326 | 302 | 528 | 304 | 553 | 180 | 338 | 90 |
| MIN | 64 | 75 | 96 | 121 | 99 | 117 | 88 | 61 | 77 | 30 | 32 | 34 |
| CFSM | .46 | .63 | .78 | .91 | .80 | 1.00 | .94 | .65 | 1.14 | .35 | .55 | .28 |
| IN. | .53 | .70 | .90 | 1.04 | .86 | 1.15 | 1.05 | .75 | 1.27 | .41 | .64 | .31 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 196 | 227 | 264 | 321 | 357 | 378 | 327 | 234 | 176 | 200 | 193 | 177 |
| MAX | 595 | 499 | 530 | 501 | 687 | 619 | 842 | 465 | 421 | 624 | 497 | 932 |
| (WY) | 1965 | 1980 | 1973 | 1978 | 1960 | 1952 | 1973 | 1958 | 1976 | 1944 | 1985 | 1945 |
| MIN | 48.5 | 93.4 | 135 | 151 | 147 | 173 | 111 | 84.5 | 34.5 | 32.9 | 43.4 | 28.8 |
| (WY) | 1941 | 1942 | 1989 | 1942 | 1992 | 1981 | 1986 | 1988 | 1988 | 1986 | 1968 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 70745 | | 47227 | | | |
| ANNUAL MEAN | 194 | | 129 | | 254 | |
| HIGHEST ANNUAL MEAN | | | | | 397 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 129 | 1992 |
| HIGHEST DAILY MEAN | 707 | Jan 14 | 553 | Jun 18 | 8530 | Sep 18 1945 |
| LOWEST DAILY MEAN | 54 | Jul 15 | 30 | Jul 18 | 20* | Jul 9 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 59 | Sep 11 | 33 | Jul 16 | 24 | Jul 4 1988 |
| INSTANTANEOUS PEAK FLOW | | | 579 | Jun 18 | 10900 | Sep 18 1945 |
| INSTANTANEOUS PEAK STAGE | | | 5.65 | Jun 18 | 10.29 | Sep 18 1945 |
| INSTANTANEOUS LOW FLOW | | | 29* | Jul 18 | 19* | Aug 11 1988 |
| ANNUAL RUNOFF (CFSM) | 1.06 | | .71 | | 1.39 | |
| ANNUAL RUNOFF (INCHES) | 14.38 | | 9.60 | | 18.83 | |
| 10 PERCENT EXCEEDS | 375 | | 251 | | 479 | |
| 50 PERCENT EXCEEDS | 156 | | 108 | | 204 | |
| 90 PERCENT EXCEEDS | 68 | | 46 | | 81 | |

* See REMARKS.

PEE DEE RIVER BASIN

02133624 LUMBER RIVER NEAR MAXTON, NC

LOCATION.--Lat 34°46'22", long 79°19'55", Robeson County, Hydrologic Unit 03040203, at downstream side of bridge, near right center of span, on State Highway 71, 2.6 mi north of Maxton, and 7.5 mi upstream from Gum Swamp.

DRAINAGE AREA.--365 mi².

PERIOD OF RECORD.--Occasional discharge measurements, water years 1974, 1980-85. June 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for current water year also occurred August 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 205 | 187 | 239 | 449 | 357 | 483 | 348 | 344 | 237 | 581 | 100 | 153 |
| 2 | 190 | 188 | 240 | 465 | 329 | 484 | 311 | 297 | 282 | 489 | 112 | 146 |
| 3 | 188 | 190 | 250 | 474 | 297 | 451 | 293 | 275 | 252 | 378 | 122 | 143 |
| 4 | 198 | 193 | 270 | 456 | 276 | 359 | 278 | 255 | 211 | 409 | 128 | 139 |
| 5 | 234 | 196 | 292 | 424 | 264 | 297 | 270 | 231 | 242 | 462 | 138 | 137 |
| 6 | 271 | 199 | 324 | 436 | 258 | 278 | 264 | 232 | 286 | 533 | 160 | 144 |
| 7 | 267 | 200 | 350 | 450 | 253 | 290 | 259 | 210 | 321 | 497 | 147 | 145 |
| 8 | 237 | 199 | 355 | 452 | 249 | 319 | 256 | 253 | 298 | 399 | 153 | 146 |
| 9 | 214 | 202 | 335 | 442 | 244 | 368 | 250 | 323 | 232 | 273 | 139 | 155 |
| 10 | 199 | 241 | 292 | 402 | 239 | 406 | 245 | 398 | 232 | 218 | 129 | 156 |
| 11 | 190 | 280 | 271 | 352 | 235 | 434 | 239 | 435 | 284 | 189 | 120 | 157 |
| 12 | 186 | 345 | 271 | 329 | 235 | 441 | 234 | 440 | 375 | 170 | 121 | 177 |
| 13 | 183 | 406 | 274 | 315 | 239 | 399 | 239 | 423 | 506 | 151 | 174 | 159 |
| 14 | 176 | 436 | 270 | 309 | 242 | 348 | 238 | 317 | 566 | 135 | 289 | 141 |
| 15 | 172 | 456 | 258 | 318 | 248 | 322 | 239 | 247 | 536 | 130 | 417 | 134 |
| 16 | 178 | 428 | 250 | 336 | 262 | 295 | 233 | 234 | 519 | 121 | 618 | 128 |
| 17 | 205 | 338 | 246 | 347 | 294 | 280 | 222 | 223 | 462 | 113 | 690 | 123 |
| 18 | 241 | 288 | 239 | 345 | 334 | 271 | 210 | 203 | 462 | 109 | 683 | 120 |
| 19 | 262 | 263 | 231 | 324 | 340 | 272 | 199 | 192 | 505 | 123 | 654 | 120 |
| 20 | 253 | 254 | 227 | 296 | 321 | 281 | 194 | 188 | 619 | 168 | 631 | 125 |
| 21 | 226 | 254 | 225 | 282 | 304 | 302 | 200 | 204 | 651 | 171 | 581 | 122 |
| 22 | 211 | 254 | 225 | 274 | 305 | 332 | 252 | 201 | 603 | 146 | 539 | 166 |
| 23 | 205 | 258 | 227 | 284 | 309 | 360 | 300 | 180 | 512 | 131 | 459 | 199 |
| 24 | 199 | 263 | 234 | 303 | 293 | 370 | 363 | 166 | 342 | 126 | 342 | 176 |
| 25 | 201 | 259 | 253 | 321 | 286 | 376 | 413 | 155 | 245 | 142 | 260 | 166 |
| 26 | 198 | 252 | 290 | 344 | 358 | 400 | 457 | 142 | 211 | 171 | 221 | 165 |
| 27 | 196 | 247 | 337 | 358 | 412 | 420 | 529 | 139 | 259 | 149 | 200 | 161 |
| 28 | 192 | 241 | 333 | 359 | 454 | 425 | 578 | 139 | 486 | 125 | 193 | 158 |
| 29 | 190 | 242 | 350 | 335 | 476 | 405 | 532 | 143 | 675 | 114 | 183 | 155 |
| 30 | 188 | 239 | 376 | 346 | --- | 390 | 439 | 151 | 635 | 107 | 177 | 149 |
| 31 | 187 | --- | 417 | 363 | --- | 382 | --- | 180 | --- | 106 | 164 | --- |
| TOTAL | 6442 | 7998 | 8751 | 11290 | 8713 | 11240 | 9084 | 7510 | 12046 | 7136 | 9044 | 4465 |
| MEAN | 208 | 267 | 282 | 364 | 300 | 363 | 303 | 242 | 402 | 230 | 292 | 149 |
| MAX | 271 | 456 | 417 | 474 | 476 | 484 | 578 | 440 | 675 | 581 | 690 | 199 |
| MIN | 172 | 187 | 225 | 274 | 235 | 271 | 194 | 139 | 211 | 106 | 100 | 120 |
| CFSM | .57 | .73 | .77 | 1.00 | .82 | .99 | .83 | .66 | 1.10 | .63 | .80 | .41 |
| IN. | .66 | .82 | .89 | 1.15 | .89 | 1.15 | .93 | .77 | 1.23 | .73 | .92 | .46 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 366 | 389 | 409 | 518 | 458 | 562 | 523 | 389 | 303 | 292 | 325 | 269 |
| MAX | 620 | 479 | 650 | 627 | 632 | 888 | 826 | 769 | 524 | 640 | 577 | 433 |
| (WY) | 1990 | 1990 | 1990 | 1988 | 1990 | 1989 | 1989 | 1989 | 1989 | 1989 | 1989 | 1989 |
| MIN | 184 | 267 | 282 | 364 | 300 | 363 | 303 | 218 | 135 | 147 | 154 | 129 |
| (WY) | 1988 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1988 | 1988 | 1990 | 1988 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1987 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 138725 | | 103719 | | | |
| ANNUAL MEAN | 380 | | 283 | | 401 | |
| HIGHEST ANNUAL MEAN | | | | | 539 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 283 | 1992 |
| HIGHEST DAILY MEAN | 961 | Mar 8 | 690 | Aug 17 | 1660 | Jul 22 1989 |
| LOWEST DAILY MEAN | 135 | Jul 16 | 100 | Aug 1 | 86 | Aug 6 1990 |
| ANNUAL SEVEN-DAY MINIMUM | 149 | Jun 10 | 112 | Jul 28 | 91 | Jul 31 1990 |
| INSTANTANEOUS PEAK FLOW | | | 699 | Aug 17 | 1720 | Jul 22 1989 |
| INSTANTANEOUS PEAK STAGE | | | 10.63 | Aug 17 | 11.75 | Jul 22 1989 |
| INSTANTANEOUS LOW FLOW | | | 97* | Aug 1 | 83 | Aug 6 1990 |
| ANNUAL RUNOFF (CFSM) | 1.04 | | .78 | | 1.10 | |
| ANNUAL RUNOFF (INCHES) | 14.14 | | 10.57 | | 14.94 | |
| 10 PERCENT EXCEEDS | 627 | | 456 | | 688 | |
| 50 PERCENT EXCEEDS | 347 | | 255 | | 348 | |
| 90 PERCENT EXCEEDS | 186 | | 143 | | 149 | |

* See REMARKS.

## 02134480 BIG SWAMP NEAR TARHEEL, NC

LOCATION.--Lat 34°42'37", long 78°50'14", Robeson County, Hydrologic Unit 03040203, on left bank at downstream side of bridge on Secondary Road 1004, and 2.8 mi southwest of Tarheel.

DRAINAGE AREA.--229 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54, 1957-58, 1962-68. October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except those from July to September, which are poor due to extensive beaver activity.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 185 | 52 | 61 | 221 | 218 | 338 | 184 | 145 | 118 | 125 | 1.4 | 67 |
| 2 | 124 | 54 | 62 | 262 | 204 | 325 | 161 | 98 | 133 | 125 | .59 | 53 |
| 3 | 101 | 54 | 65 | 269 | 183 | 292 | 142 | 75 | 115 | 106 | 1.7 | 44 |
| 4 | 97 | 54 | 77 | 258 | 162 | 258 | 126 | 63 | 85 | 83 | 3.8 | 38 |
| 5 | 93 | 55 | 87 | 250 | 142 | 229 | 117 | 53 | 90 | 89 | 4.0 | 35 |
| 6 | 91 | 56 | 94 | 262 | 128 | 205 | 110 | 46 | 96 | 87 | 8.0 | 35 |
| 7 | 83 | 56 | 91 | 281 | 118 | 200 | 104 | 43 | 90 | 77 | 9.0 | 49 |
| 8 | 75 | 57 | 84 | 284 | 111 | 203 | 100 | 53 | 71 | 69 | 13 | 60 |
| 9 | 68 | 59 | 80 | 269 | 106 | 212 | 96 | 76 | 61 | 61 | 18 | 72 |
| 10 | 64 | 81 | 76 | 245 | 101 | 220 | 91 | 88 | 68 | 48 | 17 | 78 |
| 11 | 60 | 103 | 73 | 219 | 96 | 219 | 86 | 86 | 61 | 33 | 14 | 70 |
| 12 | 56 | 122 | 71 | 194 | 93 | 209 | 82 | 69 | 56 | 23 | 11 | 52 |
| 13 | 53 | 141 | 71 | 176 | 90 | 196 | 81 | 56 | 59 | 15 | 19 | 41 |
| 14 | 50 | 155 | 70 | 166 | 91 | 184 | 79 | 53 | 60 | 9.3 | 37 | 34 |
| 15 | 48 | 153 | 68 | 158 | 94 | 173 | 76 | 51 | 57 | 6.1 | 87 | 29 |
| 16 | 52 | 127 | 65 | 156 | 98 | 158 | 70 | 46 | 51 | 5.1 | 184 | 26 |
| 17 | 59 | 95 | 63 | 152 | 101 | 142 | 65 | 41 | 50 | 4.5 | 763 | 24 |
| 18 | 67 | 77 | 61 | 145 | 104 | 132 | 61 | 36 | 52 | 3.4 | 1160 | 24 |
| 19 | 67 | 69 | 61 | 135 | 109 | 132 | 57 | 35 | 48 | 2.0 | 1070 | 25 |
| 20 | 61 | 65 | 61 | 126 | 112 | 151 | 54 | 34 | 50 | 1.7 | 912 | 35 |
| 21 | 56 | 63 | 61 | 119 | 109 | 170 | 51 | 33 | 60 | 1.5 | 769 | 49 |
| 22 | 51 | 64 | 63 | 112 | 101 | 184 | 82 | 31 | 58 | 1.3 | 647 | 51 |
| 23 | 50 | 69 | 63 | 113 | 102 | 199 | 122 | 29 | 47 | 3.7 | 555 | 49 |
| 24 | 49 | 71 | 66 | 127 | 126 | 211 | 160 | 26 | 36 | 4.5 | 453 | 46 |
| 25 | 48 | 69 | 75 | 140 | 146 | 214 | 259 | 24 | 30 | 4.6 | 339 | 41 |
| 26 | 48 | 67 | 78 | 155 | 175 | 222 | 355 | 22 | 24 | 4.5 | 248 | 36 |
| 27 | 49 | 64 | 83 | 168 | 214 | 226 | 364 | 23 | 54 | 4.4 | 178 | 32 |
| 28 | 50 | 62 | 96 | 188 | 268 | 225 | 318 | 22 | 85 | 6.1 | 136 | 28 |
| 29 | 52 | 60 | 122 | 202 | 318 | 229 | 256 | 25 | 100 | 6.9 | 117 | 26 |
| 30 | 52 | 60 | 147 | 212 | --- | 223 | 195 | 49 | 114 | 7.1 | 111 | 24 |
| 31 | 52 | --- | 175 | 219 | --- | 208 | --- | 92 | --- | 2.4 | 92 | --- |
| TOTAL | 2111 | 2334 | 2470 | 5983 | 4020 | 6489 | 4104 | 1623 | 2079 | 1020.1 | 7978.49 | 1273 |
| MEAN | 68.1 | 77.8 | 79.7 | 193 | 139 | 209 | 137 | 52.4 | 69.3 | 32.9 | 257 | 42.4 |
| MAX | 185 | 155 | 175 | 284 | 318 | 338 | 364 | 145 | 133 | 125 | 1160 | 78 |
| MIN | 48 | 52 | 61 | 112 | 90 | 132 | 51 | 22 | 24 | 1.3 | .59 | 24 |
| CFSM | .30 | .34 | .35 | .84 | .61 | .91 | .60 | .23 | .30 | .14 | 1.12 | .19 |
| IN. | .34 | .38 | .40 | .97 | .65 | 1.05 | .67 | .26 | .34 | .17 | 1.30 | .21 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 89.9 | 114 | 184 | 321 | 231 | 366 | 255 | 113 | 46.3 | 64.7 | 143 | 113 |
| MAX | 197 | 159 | 396 | 920 | 488 | 856 | 518 | 358 | 77.0 | 257 | 358 | 381 |
| (WY) | 1990 | 1990 | 1990 | 1987 | 1987 | 1987 | 1989 | 1989 | 1989 | 1989 | 1991 | 1988 |
| MIN | 5.05 | 33.5 | 68.8 | 92.9 | 127 | 138 | 66.8 | 17.1 | 15.0 | 18.1 | 17.6 | 30.2 |
| (WY) | 1988 | 1988 | 1988 | 1986 | 1986 | 1988 | 1986 | 1986 | 1986 | 1986 | 1987 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1986 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 65860 | | 41484.59 | | | |
| ANNUAL MEAN | 180 | | 113 | | 170 | |
| HIGHEST ANNUAL MEAN | | | | | 285 | 1987 |
| LOWEST ANNUAL MEAN | | | | | 101 | 1986 |
| HIGHEST DAILY MEAN | 792 | Apr 24 | 1160 | Aug 18 | 2650 | Mar 3 1987 |
| LOWEST DAILY MEAN | 16 | Jul 26 | .59 | Aug 2 | .59 | May 12 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 24 | Jul 21 | 2.6 | Jul 17 | 1.3 | Sep 25 1987 |
| INSTANTANEOUS PEAK FLOW | | | 1180 | Aug 18 | 2670 | Mar 3 1987 |
| INSTANTANEOUS PEAK STAGE | | | 11.75 | Aug 18 | 13.14 | Mar 3 1987 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | .43 | May 12 1986 |
| ANNUAL RUNOFF (CFSM) | .79 | | .49 | | .74 | |
| ANNUAL RUNOFF (INCHES) | 10.70 | | 6.74 | | 10.09 | |
| 10 PERCENT EXCEEDS | 397 | | 221 | | 400 | |
| 50 PERCENT EXCEEDS | 135 | | 76 | | 96 | |
| 90 PERCENT EXCEEDS | 46 | | 24 | | 19 | |

PEE DEE RIVER BASIN

02134500 LUMBER RIVER AT BOARDMAN, NC

LOCATION.--Lat 34°26'32", long 78°57'38", Robeson County, Hydrologic Unit 03040203, on right bank 50 ft downstream of bridge on U.S. Highway 74, 1 mi downstream of Seaboard Coast Line Railroad bridge at Boardman, 1.5 mi downstream of Big Swamp, and 40.5 mi upstream from mouth.

DRAINAGE AREA.--1,228 mi$^2$.

PERIOD OF RECORD.--September 1929 to current year.

REVISED RECORDS.--WSP 1303: 1932(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 72.05 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1936, nonrecording gage at site 100 ft downstream at same datum. Sept. 30, 1936, to June 8, 1943, nonrecording gage at present site and datum. Satellite data transmitter at station.

REMARKS.--No estimated daily discharges. Records fair. Minimum discharge for current water year also occurred August 5.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1928 reached a stage of 11.8 ft, from floodmark witnessed by local resident; discharge, 25,000 ft$^3$/s. Flood of July 22, 1901, the highest during the period 1896-1913, reached a stage of 10.8 ft, from observations by Butters Lumber Co.; discharge, 14,800 ft$^3$/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 847 | 316 | 513 | 856 | 1180 | 1260 | 1130 | 997 | 630 | 624 | 226 | 1140 |
| 2 | 805 | 310 | 500 | 899 | 1180 | 1280 | 1120 | 1010 | 630 | 641 | 209 | 978 |
| 3 | 810 | 305 | 492 | 966 | 1150 | 1290 | 1100 | 1020 | 601 | 711 | 193 | 849 |
| 4 | 790 | 302 | 513 | 1070 | 1120 | 1300 | 1070 | 1040 | 625 | 802 | 189 | 750 |
| 5 | 766 | 296 | 525 | 1150 | 1090 | 1300 | 1030 | 972 | 679 | 900 | 198 | 665 |
| 6 | 739 | 290 | 540 | 1210 | 1070 | 1310 | 974 | 862 | 705 | 951 | 222 | 606 |
| 7 | 680 | 288 | 554 | 1260 | 1010 | 1340 | 915 | 736 | 716 | 944 | 217 | 706 |
| 8 | 624 | 288 | 568 | 1300 | 964 | 1340 | 851 | 699 | 694 | 891 | 220 | 880 |
| 9 | 583 | 299 | 587 | 1310 | 909 | 1290 | 790 | 640 | 653 | 814 | 235 | 926 |
| 10 | 559 | 459 | 602 | 1290 | 852 | 1210 | 741 | 608 | 646 | 753 | 244 | 863 |
| 11 | 544 | 509 | 614 | 1250 | 800 | 1150 | 705 | 605 | 632 | 740 | 250 | 752 |
| 12 | 522 | 567 | 623 | 1220 | 759 | 1110 | 681 | 611 | 625 | 747 | 243 | 654 |
| 13 | 486 | 606 | 629 | 1220 | 727 | 1070 | 654 | 615 | 618 | 711 | 253 | 577 |
| 14 | 447 | 634 | 625 | 1240 | 704 | 1060 | 631 | 622 | 587 | 526 | 420 | 511 |
| 15 | 408 | 657 | 603 | 1220 | 686 | 1070 | 619 | 622 | 573 | 379 | 640 | 451 |
| 16 | 433 | 678 | 574 | 1180 | 671 | 1090 | 611 | 619 | 573 | 303 | 859 | 411 |
| 17 | 428 | 700 | 551 | 1130 | 663 | 1090 | 599 | 613 | 592 | 274 | 1430 | 377 |
| 18 | 399 | 728 | 533 | 1070 | 678 | 1060 | 582 | 585 | 632 | 245 | 2390 | 341 |
| 19 | 389 | 759 | 511 | 1040 | 690 | 1020 | 561 | 509 | 697 | 227 | 3010 | 327 |
| 20 | 387 | 787 | 491 | 989 | 698 | 973 | 537 | 460 | 770 | 227 | 4240 | 329 |
| 21 | 392 | 799 | 476 | 955 | 709 | 934 | 517 | 403 | 827 | 236 | 5150 | 390 |
| 22 | 410 | 791 | 464 | 935 | 728 | 899 | 599 | 363 | 856 | 249 | 5410 | 395 |
| 23 | 427 | 745 | 455 | 953 | 770 | 905 | 643 | 335 | 861 | 254 | 5000 | 417 |
| 24 | 433 | 675 | 463 | 1000 | 857 | 915 | 736 | 315 | 859 | 271 | 4360 | 424 |
| 25 | 421 | 617 | 475 | 985 | 925 | 918 | 856 | 302 | 855 | 275 | 3520 | 408 |
| 26 | 399 | 581 | 477 | 979 | 1000 | 994 | 967 | 289 | 851 | 261 | 2960 | 398 |
| 27 | 377 | 559 | 497 | 981 | 1060 | 1060 | 1050 | 273 | 868 | 247 | 2500 | 392 |
| 28 | 361 | 545 | 550 | 1060 | 1130 | 1090 | 1060 | 262 | 826 | 245 | 2230 | 372 |
| 29 | 345 | 536 | 642 | 1110 | 1210 | 1130 | 1030 | 257 | 745 | 238 | 1880 | 363 |
| 30 | 333 | 525 | 716 | 1140 | --- | 1140 | 1000 | 396 | 668 | 244 | 1590 | 342 |
| 31 | 324 | --- | 792 | 1170 | --- | 1140 | --- | 600 | --- | 241 | 1340 | --- |
| TOTAL | 15868 | 16151 | 17155 | 34138 | 25990 | 34738 | 24359 | 18240 | 21094 | 15171 | 51828 | 16994 |
| MEAN | 512 | 538 | 553 | 1101 | 896 | 1121 | 812 | 588 | 703 | 489 | 1672 | 566 |
| MAX | 847 | 799 | 792 | 1310 | 1210 | 1340 | 1130 | 1040 | 868 | 951 | 5410 | 1140 |
| MIN | 324 | 288 | 455 | 856 | 663 | 899 | 517 | 257 | 573 | 227 | 189 | 327 |
| CFSM | .42 | .44 | .45 | .90 | .73 | .91 | .66 | .48 | .57 | .40 | 1.36 | .46 |
| IN. | .48 | .49 | .52 | 1.03 | .79 | 1.05 | .74 | .55 | .64 | .46 | 1.57 | .51 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 791 | 864 | 1282 | 1780 | 2158 | 2330 | 1887 | 1008 | 763 | 815 | 958 | 973 |
| MAX | 4721 | 4142 | 3977 | 3375 | 5486 | 5259 | 5688 | 3430 | 2587 | 2808 | 3741 | 4787 |
| (WY) | 1965 | 1948 | 1949 | 1946 | 1973 | 1983 | 1936 | 1978 | 1969 | 1943 | 1974 | 1945 |
| MIN | 141 | 211 | 237 | 262 | 429 | 611 | 420 | 276 | 215 | 174 | 138 | 92.2 |
| (WY) | 1941 | 1934 | 1934 | 1934 | 1934 | 1934 | 1981 | 1986 | 1941 | 1990 | 1954 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1930 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 401635 | | 291726 | | | |
| ANNUAL MEAN | 1100 | | 797 | | 1296 | |
| HIGHEST ANNUAL MEAN | | | | | 2391 | 1965 |
| LOWEST ANNUAL MEAN | | | | | 524 | 1934 |
| HIGHEST DAILY MEAN | 2880 | Apr 3 | 5410 | Aug 22 | 13400 | Sep 24 1945 |
| LOWEST DAILY MEAN | 226 | Jun 15 | 189 | Aug 4 | 68 | Oct 1 1968 |
| ANNUAL SEVEN-DAY MINIMUM | 272 | Jun 11 | 207 | Aug 2 | 72 | Oct 3 1968 |
| INSTANTANEOUS PEAK FLOW | | | 5470 | Aug 22 | 13400 | Sep 24 1945 |
| INSTANTANEOUS PEAK STAGE | | | 8.55 | Aug 22 | 10.64 | Sep 24 1945 |
| INSTANTANEOUS LOW FLOW | | | 188* | Aug 4 | 66 | Oct 9 1968 |
| ANNUAL RUNOFF (CFSM) | .90 | | .65 | | 1.06 | |
| ANNUAL RUNOFF (INCHES) | 12.17 | | 8.84 | | 14.34 | |
| 10 PERCENT EXCEEDS | 2190 | | 1190 | | 2800 | |
| 50 PERCENT EXCEEDS | 833 | | 678 | | 940 | |
| 90 PERCENT EXCEEDS | 376 | | 298 | | 295 | |

* See REMARKS.

02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC

LOCATION.--Lat 35°41'09", long 82°03'40", McDowell County, Hydrologic Unit 03050101, on right bank 18 ft downstream of bridge on Secondary Road 1221, 0.8 mi upstream from Buck Creek, 0.8 mi southeast of Pleasant Gardens, and at mile 297.

DRAINAGE AREA.--126 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1963, 1970-73, 1975. October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,230 ft above National Geodetic Vertical Datum of 1929, from topographic map. Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge, 11,000 $ft^3/s$, from rating curve extended above 7,130 $ft^3/s$ on basis of contracted-opening measurement of peak flow. Minimum discharge for current water year also occurred November 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 147 | 122 | 347 | 163 | 176 | 275 | 210 | 259 | 364 | 296 | 150 | 199 |
| 2 | 147 | 127 | 488 | 162 | 172 | 254 | 204 | 247 | 323 | 286 | 147 | 191 |
| 3 | 149 | 121 | 539 | 927 | 170 | 239 | 199 | 236 | 300 | 273 | 149 | 214 |
| 4 | 144 | 119 | 420 | 755 | 168 | 228 | 197 | 225 | 2350 | 257 | 176 | 193 |
| 5 | 142 | 118 | 272 | 425 | 166 | 217 | 192 | 219 | 1700 | 245 | 144 | 234 |
| 6 | 144 | 119 | 229 | 327 | 163 | 751 | 185 | 267 | 780 | 262 | 146 | 480 |
| 7 | 136 | 120 | 205 | 277 | 160 | 829 | 187 | 440 | 581 | 242 | 157 | 300 |
| 8 | 137 | 120 | 192 | 250 | 157 | 499 | 184 | 1610 | 568 | 233 | 176 | 360 |
| 9 | 137 | 120 | 184 | 236 | 152 | 390 | 179 | 959 | 798 | 223 | 182 | 285 |
| 10 | 136 | 156 | 187 | 222 | 151 | 404 | 175 | 606 | 756 | 216 | 151 | 356 |
| 11 | 135 | 136 | 171 | 208 | 152 | 397 | 176 | 471 | 858 | 209 | 162 | 517 |
| 12 | 129 | 123 | 166 | 201 | 152 | 345 | 182 | 403 | 871 | 203 | 189 | 312 |
| 13 | 127 | 121 | 163 | 200 | 156 | 315 | 172 | 389 | 727 | 197 | 440 | 262 |
| 14 | 127 | 120 | 167 | 237 | 159 | 290 | 168 | 364 | 673 | 207 | 303 | 238 |
| 15 | 135 | 120 | 156 | 199 | 210 | 272 | 179 | 376 | 835 | 243 | 207 | 219 |
| 16 | 137 | 120 | 151 | 189 | 206 | 255 | 185 | 388 | 774 | 237 | 250 | 204 |
| 17 | 130 | 119 | 149 | 182 | 177 | 247 | 174 | 333 | 1030 | 201 | 221 | 194 |
| 18 | 127 | 119 | 147 | 180 | 195 | 241 | 181 | 311 | 708 | 195 | 216 | 184 |
| 19 | 124 | 126 | 143 | 175 | 182 | 268 | 170 | 336 | 589 | 188 | 190 | 195 |
| 20 | 123 | 125 | 141 | 172 | 171 | 262 | 812 | 604 | 500 | 189 | 181 | 182 |
| 21 | 125 | 130 | 144 | 170 | 166 | 242 | 3670 | 412 | 443 | 200 | 230 | 182 |
| 22 | 127 | 336 | 144 | 168 | 163 | 236 | 1130 | 348 | 402 | 278 | 230 | 184 |
| 23 | 128 | 197 | 146 | 396 | 273 | 236 | 656 | 309 | 379 | 212 | 297 | 236 |
| 24 | 129 | 152 | 146 | 295 | 272 | 220 | 496 | 286 | 360 | 199 | 236 | 192 |
| 25 | 131 | 138 | 142 | 242 | 565 | 223 | 411 | 272 | 344 | 184 | 207 | 176 |
| 26 | 130 | 132 | 140 | 224 | 920 | 285 | 361 | 270 | 333 | 179 | 189 | 176 |
| 27 | 122 | 128 | 140 | 209 | 500 | 250 | 329 | 259 | 332 | 177 | 191 | 277 |
| 28 | 122 | 126 | 183 | 203 | 369 | 235 | 304 | 255 | 302 | 174 | 544 | 245 |
| 29 | 122 | 125 | 248 | 196 | 318 | 227 | 284 | 534 | 298 | 166 | 336 | 298 |
| 30 | 122 | 126 | 179 | 190 | --- | 226 | 270 | 659 | 295 | 163 | 248 | 222 |
| 31 | 123 | --- | 168 | 184 | --- | 221 | --- | 448 | --- | 154 | 216 | --- |
| TOTAL | 4094 | 4061 | 6397 | 8164 | 6941 | 9579 | 12222 | 13095 | 19573 | 6688 | 6861 | 7507 |
| MEAN | 132 | 135 | 206 | 263 | 239 | 309 | 407 | 422 | 652 | 216 | 221 | 250 |
| MAX | 149 | 336 | 539 | 927 | 920 | 829 | 3670 | 1610 | 2350 | 296 | 544 | 517 |
| MIN | 122 | 118 | 140 | 162 | 151 | 217 | 168 | 219 | 295 | 154 | 144 | 176 |
| CFSM | 1.04 | 1.07 | 1.62 | 2.07 | 1.88 | 2.43 | 3.21 | 3.33 | 5.14 | 1.70 | 1.74 | 1.97 |
| IN. | 1.20 | 1.19 | 1.87 | 2.39 | 2.03 | 2.81 | 3.58 | 3.84 | 5.73 | 1.96 | 2.01 | 2.20 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 185 | 220 | 249 | 232 | 342 | 342 | 330 | 266 | 234 | 188 | 188 | 189 |
| MAX | 505 | 606 | 573 | 345 | 629 | 622 | 688 | 444 | 652 | 339 | 295 | 435 |
| (WY) | 1991 | 1986 | 1984 | 1990 | 1990 | 1990 | 1983 | 1984 | 1992 | 1991 | 1991 | 1989 |
| MIN | 69.2 | 69.0 | 77.6 | 107 | 159 | 130 | 138 | 109 | 70.7 | 57.9 | 50.5 | 71.5 |
| (WY) | 1982 | 1982 | 1989 | 1981 | 1988 | 1988 | 1986 | 1988 | 1988 | 1988 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1981 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 101963 | | 105182 | | | |
| ANNUAL MEAN | 279 | | 287 | | 246 | |
| HIGHEST ANNUAL MEAN | | | | | 351 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 126 | 1988 |
| HIGHEST DAILY MEAN | 2340 | Jul 30 | 3670 | Apr 21 | 5210 | Feb 2 1983 |
| LOWEST DAILY MEAN | 118 | Nov 5 | 118 | Nov 5 | 33 | Aug 19 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 120 | Nov 3 | 120 | Nov 3 | 42 | Jul 18 1986 |
| INSTANTANEOUS PEAK FLOW | | | 6640 | Apr 21 | 11000* | Feb 2 1983 |
| INSTANTANEOUS PEAK STAGE | | | 10.21 | Apr 21 | 13.60 | Feb 2 1983 |
| INSTANTANEOUS LOW FLOW | | | 117* | Oct 31 | 32 | Aug 28 1988 |
| ANNUAL RUNOFF (CFSM) | 2.20 | | 2.26 | | 1.94 | |
| ANNUAL RUNOFF (INCHES) | 29.87 | | 30.81 | | 26.36 | |
| 10 PERCENT EXCEEDS | 411 | | 500 | | 426 | |
| 50 PERCENT EXCEEDS | 247 | | 206 | | 183 | |
| 90 PERCENT EXCEEDS | 129 | | 129 | | 89 | |

* See REMARKS.

SANTEE RIVER BASIN

02138500 LINVILLE RIVER NEAR NEBO, NC

LOCATION.--Lat 35°47'41", long 81°53'25", Burke County, Hydrologic Unit 03050101, in Pisgah National Forest on right bank 370 ft upstream from bridge on State Highway 126, 0.2 mi downstream of Shooks Creek, 0.5 mi upstream from Lake James, 2.0 mi northeast of Longtown, and 6.0 mi northeast of Nebo.

DRAINAGE AREA.--66.7 $mi^2$.

PERIOD OF RECORD.--May 1907 to August 1908 (fragmentary). June 1922 to current year. Published as "at Fonta Flora" prior to 1908 and as "at Branch" 1923-70. Records for October to December 1908, "at Fonta Flora", published in WSP 242 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 892: 1929, 1935, 1937. WSP 1503: 1923(M), 1924-28, 1930, 1932-33(M), 1938(M), 1939(P). WDR NC-80-1: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,203.87 ft above National Geodetic Vertical Datum of 1929. May 1907 to August 1908, nonrecording gage about 1.2 mi downstream at different datum. June 1922 to Aug. 27, 1937, nonrecording gage and Aug. 28, 1937, to Sept. 30, 1970, water-stage recorder at site on right bank 20 ft downstream of bridge on State Highway 126 at 1,204.87 ft. Oct. 1, 1970, to Sept. 30, 1973, at present site at 1,204.87 ft. Oct. 1, 1973, to Aug. 25, 1981, at present site at 1,204.87 ft.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge: 39,500 $ft^3/s$, site and datum then in use, from rating curve extended above 6,400 $ft^3/s$ on basis of slope area measurement of peak flow. Minimum discharge result of freezeup. Minimum daily discharge also occurred Sept. 8 and 9, 1925. Minimum discharge for current water year occurred several days in November.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of about 11 ft at former site and datum; discharge, 34,600 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 45 | 105 | 93 | 101 | 169 | 116 | 139 | 257 | 115 | 53 | 84 |
| 2 | 34 | 36 | 252 | 89 | 94 | 148 | 113 | 128 | 219 | 121 | 46 | 78 |
| 3 | 34 | 27 | 547 | 1010 | 90 | 137 | 107 | 118 | 193 | 104 | 47 | 75 |
| 4 | 33 | 26 | 458 | 1270 | 87 | 126 | 103 | 111 | 3460 | 95 | 47 | 71 |
| 5 | 54 | 25 | 241 | 470 | 78 | 117 | 103 | 105 | 2580 | 86 | 45 | 69 |
| 6 | 83 | 25 | 184 | 313 | 60 | 339 | 101 | 113 | 760 | 85 | 43 | 84 |
| 7 | 77 | 25 | 148 | 242 | 59 | 646 | 99 | 161 | 480 | 83 | 46 | 114 |
| 8 | 85 | 25 | 130 | 195 | 57 | 335 | 99 | 1080 | 375 | 79 | 46 | 95 |
| 9 | 95 | 25 | 115 | 171 | 56 | 262 | 96 | 889 | 614 | 71 | 55 | 85 |
| 10 | 71 | 43 | 117 | 153 | 58 | 255 | 92 | 458 | 805 | 69 | 51 | 75 |
| 11 | 43 | 69 | 112 | 135 | 64 | 280 | 114 | 316 | 726 | 67 | 46 | 128 |
| 12 | 38 | 53 | 105 | 124 | 63 | 226 | 108 | 247 | 626 | 62 | 44 | 112 |
| 13 | 34 | 45 | 98 | 122 | 65 | 196 | 101 | 591 | 490 | 57 | 193 | 85 |
| 14 | 34 | 38 | 94 | 146 | 67 | 179 | 95 | 329 | 421 | 54 | 164 | 76 |
| 15 | 33 | 32 | 92 | 134 | 82 | 164 | 91 | 299 | 515 | 64 | 100 | 74 |
| 16 | 34 | 30 | e90 | e123 | 105 | 149 | 98 | 244 | 442 | 64 | 77 | 68 |
| 17 | 34 | 27 | e85 | e117 | 81 | 139 | 90 | 203 | 374 | 60 | 69 | 61 |
| 18 | 34 | 26 | e79 | e104 | 81 | 137 | 97 | 185 | 318 | 59 | 76 | 57 |
| 19 | 33 | 26 | e73 | e99 | 87 | 146 | 94 | 236 | 277 | 57 | 78 | 66 |
| 20 | 31 | 30 | e69 | e94 | 94 | 149 | 1120 | 348 | 232 | 54 | 66 | 62 |
| 21 | 30 | 31 | e69 | e90 | 92 | 132 | 4980 | 276 | 193 | 54 | 60 | 62 |
| 22 | 30 | 427 | 73 | 89 | 85 | 122 | 1230 | 214 | 165 | 54 | 55 | 62 |
| 23 | 30 | 278 | 73 | 164 | 99 | 125 | 593 | 181 | 151 | 56 | 61 | 59 |
| 24 | 37 | 126 | 77 | 247 | 124 | 121 | 395 | 162 | 141 | 66 | 57 | 55 |
| 25 | 36 | 92 | 75 | 169 | 171 | 116 | 301 | 150 | 131 | 58 | 53 | 54 |
| 26 | 35 | 78 | 72 | 153 | 415 | 133 | 237 | 141 | 129 | 56 | 50 | 53 |
| 27 | 32 | 70 | 69 | 135 | 315 | 147 | 201 | 132 | 125 | 55 | 84 | 59 |
| 28 | 32 | 64 | 74 | 125 | 225 | 144 | 179 | 125 | 117 | 55 | 458 | 68 |
| 29 | 31 | 59 | 116 | 118 | 194 | 131 | 161 | 179 | 112 | 47 | 274 | 103 |
| 30 | 41 | 56 | 115 | 112 | --- | 124 | 148 | 627 | 105 | 44 | 123 | 86 |
| 31 | 49 | --- | 101 | 107 | --- | 120 | --- | 360 | --- | 61 | 96 | --- |
| TOTAL | 1333 | 1959 | 4108 | 6713 | 3249 | 5714 | 11462 | 8847 | 15533 | 2112 | 2763 | 2280 |
| MEAN | 43.0 | 65.3 | 133 | 217 | 112 | 184 | 382 | 285 | 518 | 68.1 | 89.1 | 76.0 |
| MAX | 95 | 427 | 547 | 1270 | 415 | 646 | 4980 | 1080 | 3460 | 121 | 458 | 128 |
| MIN | 30 | 25 | 69 | 89 | 56 | 116 | 90 | 105 | 105 | 44 | 43 | 53 |
| CFSM | .64 | .98 | 1.99 | 3.25 | 1.68 | 2.76 | 5.73 | 4.28 | 7.76 | 1.02 | 1.34 | 1.14 |
| IN. | .74 | 1.09 | 2.29 | 3.74 | 1.81 | 3.19 | 6.39 | 4.93 | 8.66 | 1.18 | 1.54 | 1.27 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 126 | 137 | 139 | 165 | 189 | 227 | 202 | 152 | 130 | 100 | 117 | 117 |
| MAX | 433 | 678 | 349 | 443 | 454 | 632 | 479 | 369 | 598 | 449 | 1084 | 605 |
| (WY) | 1937 | 1978 | 1984 | 1937 | 1983 | 1979 | 1983 | 1976 | 1972 | 1989 | 1940 | 1979 |
| MIN | 18.9 | 27.8 | 30.9 | 31.8 | 60.7 | 74.3 | 62.0 | 48.9 | 33.7 | 23.0 | 15.5 | 13.8 |
| (WY) | 1955 | 1932 | 1940 | 1940 | 1941 | 1988 | 1986 | 1941 | 1941 | 1930 | 1925 | 1925 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1922 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 54308 | | 66073 | | | |
| ANNUAL MEAN | 149 | | 181 | | 150 | |
| HIGHEST ANNUAL MEAN | | | | | 246 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 77.6 | 1988 |
| HIGHEST DAILY MEAN | 1320 | Mar 29 | 4980 | Apr 21 | 14000 | Aug 13 1940 |
| LOWEST DAILY MEAN | 25 | Nov 5 | 25 | Nov 5 | 8.0* | Sep 7 1925 |
| ANNUAL SEVEN-DAY MINIMUM | 25 | Nov 3 | 25 | Nov 3 | 10 | Aug 22 1925 |
| INSTANTANEOUS PEAK FLOW | | | 9310 | Jun 4 | 39500* | Aug 13 1940 |
| INSTANTANEOUS PEAK STAGE | | | 6.62 | Jun 4 | 11.40 | Aug 13 1940 |
| INSTANTANEOUS LOW FLOW | | | 25* | Nov 4 | 2.0* | Jan 9 1956 |
| ANNUAL RUNOFF (CFSM) | 2.23 | | 2.71 | | 2.25 | |
| ANNUAL RUNOFF (INCHES) | 30.29 | | 36.85 | | 30.56 | |
| 10 PERCENT EXCEEDS | 275 | | 336 | | 267 | |
| 50 PERCENT EXCEEDS | 120 | | 96 | | 100 | |
| 90 PERCENT EXCEEDS | 38 | | 38 | | 38 | |

* See REMARKS.

## 0213903612 CATAWBA RIVER AT CALVIN, NC

LOCATION.--Lat 35°44'23", long 81°43'44", Burke County, Hydrologic Unit 03050101, on right bank at city of Morganton's water intake, 0.5 mi upstream from Canoe Creek, and 0.5 mi north of Calvin.

DRAINAGE AREA.--508 $mi^2$.

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,002.40 ft above National Geodetic Vertical Datum of 1929 (levels by city of Morganton).

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e500 | 2290 | 1170 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e600 | 1140 | 346 |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e700 | 830 | 366 |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e800 | 471 | 440 |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | e900 | 591 | 689 |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1150 | 892 | 976 |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 735 | 712 | 624 |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 668 | 448 | 676 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 629 | 438 | 1360 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 756 | 580 | 501 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 522 | 747 |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 967 | 651 | 561 |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1630 | 337 | 585 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1190 | 1450 | 798 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 498 | 1780 | 361 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 163 | 2080 | 1060 |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 162 | 1190 | 1000 |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 200 | 405 | 355 |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 271 | 1160 | 512 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 281 | 540 | 983 |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 265 | 377 | 752 |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 253 | 349 | 1030 |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 250 | 224 | 525 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 871 | 214 | 1000 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1020 | 675 | 727 |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 512 | 309 |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 630 | 1120 | 214 |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 538 | 1210 | 214 |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1120 | 1080 | 214 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1720 | 1140 | 903 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1950 | 873 | --- |
| TOTAL | --- | --- | --- | --- | --- | --- | --- | --- | --- | 22827 | 26281 | 19998 |
| MEAN | --- | --- | --- | --- | --- | --- | --- | --- | --- | 736 | 848 | 667 |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1950 | 2290 | 1360 |
| MIN | --- | --- | --- | --- | --- | --- | --- | --- | --- | 162 | 214 | 214 |
| CFSM | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.45 | 1.67 | 1.31 |
| IN. | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1.67 | 1.92 | 1.46 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1991, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | --- | --- | --- | --- | --- | --- | --- | --- | --- | 736 | 848 | 667 |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | 736 | 848 | 667 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 |
| MIN | --- | --- | --- | --- | --- | --- | --- | --- | --- | 736 | 848 | 667 |
| (WY) | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1991 | 1991 | 1991 |

SANTEE RIVER BASIN

0213903612 CATAWBA RIVER AT CALVIN, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 583 | 389 | 690 | 263 | 1120 | 1300 | 703 | 1360 | 1430 | 1520 | 328 | 928 |
| 2 | 1210 | 370 | 1220 | 494 | 1300 | 1260 | 315 | 1370 | 1430 | 1470 | 312 | 532 |
| 3 | 676 | 268 | 847 | 537 | 671 | 1280 | 290 | 1360 | 1410 | 1430 | 472 | 551 |
| 4 | 1390 | 340 | 1550 | 1000 | 877 | 1260 | 191 | 1350 | 1900 | 1430 | 393 | 1170 |
| 5 | 675 | 373 | 1900 | 1760 | 1070 | 1290 | 188 | 1340 | 2910 | 1430 | 450 | 1090 |
| 6 | 270 | 599 | 1610 | 1970 | 582 | 1430 | 184 | 1360 | 3220 | 1430 | 369 | 1230 |
| 7 | 385 | 447 | 1130 | 1990 | 431 | 1380 | 183 | 1440 | 2820 | 861 | 362 | 886 |
| 8 | 380 | 203 | 700 | 1970 | 400 | 1230 | 185 | 1980 | 2340 | 859 | 624 | 989 |
| 9 | 352 | 205 | 640 | 1970 | 404 | 1120 | 182 | 1740 | 2420 | 784 | 380 | 710 |
| 10 | 323 | 235 | 1010 | 2000 | 837 | 1230 | 179 | 1650 | 2930 | 903 | 668 | 773 |
| 11 | 247 | 269 | 374 | 2360 | 979 | 1280 | 181 | 1580 | 3110 | 625 | 631 | 1200 |
| 12 | 483 | 483 | 563 | 2350 | 846 | 1270 | 191 | 1540 | 3200 | 443 | 485 | 1190 |
| 13 | 161 | 241 | 645 | 2220 | 1230 | 1280 | 697 | 1510 | 2990 | 768 | 748 | 1100 |
| 14 | 197 | 282 | 532 | 1470 | 939 | 1270 | 648 | 1500 | 2720 | 447 | 1350 | 935 |
| 15 | 149 | 356 | 285 | 789 | 936 | 1230 | 513 | 1460 | 2570 | 328 | 1030 | 822 |
| 16 | 226 | 258 | 315 | 496 | 1040 | 1240 | 489 | 1400 | 2430 | 341 | 856 | 647 |
| 17 | 211 | 290 | 590 | 932 | 419 | 1190 | 271 | 1390 | 2280 | 350 | 771 | 912 |
| 18 | 219 | 294 | 519 | 672 | 893 | 1190 | 402 | 1380 | 2210 | 707 | 691 | 552 |
| 19 | 170 | 476 | 1190 | 918 | 167 | 1190 | 566 | 1390 | 2050 | 472 | 666 | 700 |
| 20 | 171 | 224 | 1010 | 481 | 219 | 1180 | 569 | 1380 | 1900 | 422 | 493 | 615 |
| 21 | 169 | 354 | 265 | 1010 | 735 | 1130 | 1240 | 1380 | 1710 | 662 | 540 | 719 |
| 22 | 169 | 561 | 629 | 880 | 1040 | 996 | 1960 | 1410 | 1590 | 544 | 399 | 749 |
| 23 | 170 | 1260 | 351 | 1680 | 725 | 1190 | 1830 | 1400 | 1480 | 470 | 782 | 1100 |
| 24 | 184 | 1260 | 366 | 1920 | 801 | 615 | 1810 | 1400 | 1450 | 635 | 1020 | 604 |
| 25 | 198 | 1450 | 241 | 900 | 772 | 374 | 1700 | 1400 | 1440 | 896 | 899 | 519 |
| 26 | 206 | 1140 | 233 | 493 | 795 | 962 | 1600 | 1360 | 1430 | 790 | 656 | 454 |
| 27 | 224 | 686 | 236 | 1580 | 466 | 1040 | 1470 | 1380 | 1460 | 376 | 615 | 790 |
| 28 | 351 | 218 | 1030 | 1150 | 1140 | 1120 | 1440 | 1340 | 1410 | 994 | 562 | 1170 |
| 29 | 702 | 221 | 736 | 1420 | 1330 | 1210 | 1380 | 1500 | 1420 | 859 | 307 | 1180 |
| 30 | 668 | 219 | 534 | 431 | --- | 1020 | 1340 | 1590 | 1440 | 463 | 733 | 1000 |
| 31 | 402 | --- | 318 | 1150 | --- | 601 | --- | 1480 | --- | 292 | 1030 | --- |
| TOTAL | 11921 | 13971 | 22259 | 39256 | 23164 | 35358 | 22897 | 45120 | 63100 | 24001 | 19622 | 25817 |
| MEAN | 385 | 466 | 718 | 1266 | 799 | 1141 | 763 | 1455 | 2103 | 774 | 633 | 861 |
| MAX | 1390 | 1450 | 1900 | 2360 | 1330 | 1430 | 1960 | 1980 | 3220 | 1520 | 1350 | 1230 |
| MIN | 149 | 203 | 233 | 263 | 167 | 374 | 179 | 1340 | 1410 | 292 | 307 | 454 |
| CFSM | .76 | .92 | 1.41 | 2.49 | 1.57 | 2.25 | 1.50 | 2.87 | 4.14 | 1.52 | 1.25 | 1.69 |
| IN. | .87 | 1.02 | 1.63 | 2.87 | 1.70 | 2.59 | 1.68 | 3.30 | 4.62 | 1.76 | 1.44 | 1.89 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 385 | 466 | 718 | 1266 | 799 | 1141 | 763 | 1455 | 2103 | 755 | 740 | 764 |
| MAX | 385 | 466 | 718 | 1266 | 799 | 1141 | 763 | 1455 | 2103 | 774 | 848 | 861 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 |
| MIN | 385 | 466 | 718 | 1266 | 799 | 1141 | 763 | 1455 | 2103 | 736 | 633 | 667 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1991 |

| SUMMARY STATISTICS | FOR 1992 WATER YEAR | | WATER YEARS 1991 - 1992 | |
|---|---|---|---|---|
| ANNUAL TOTAL | 346486 | | | |
| ANNUAL MEAN | 947 | | 947 | |
| HIGHEST ANNUAL MEAN | | | 947 | 1992 |
| LOWEST ANNUAL MEAN | | | 947 | 1992 |
| HIGHEST DAILY MEAN | 3220 | Jun 6 | 3220 | Jun 6 1992 |
| LOWEST DAILY MEAN | 149 | Oct 15 | 149 | Oct 15 1991 |
| ANNUAL SEVEN-DAY MINIMUM | 176 | Oct 19 | 176 | Oct 19 1991 |
| INSTANTANEOUS PEAK FLOW | 3270 | Jun 5 | 3270 | Jun 5 1992 |
| INSTANTANEOUS PEAK STAGE | 4.60 | Jun 5 | 4.60 | Jun 5 1992 |
| INSTANTANEOUS LOW FLOW | 141 | Feb 20 | 141 | Feb 20 1992 |
| ANNUAL RUNOFF (CFSM) | 1.86 | | 1.86 | |
| ANNUAL RUNOFF (INCHES) | 25.37 | | 25.32 | |
| 10 PERCENT EXCEEDS | 1660 | | 1590 | |
| 50 PERCENT EXCEEDS | 846 | | 777 | |
| 90 PERCENT EXCEEDS | 241 | | 246 | |

## 02140991 JOHNS RIVER AT ARNEYS STORE, NC

LOCATION.--Lat 35°50'01", long 81°42'43", Burke County, Hydrologic Unit 03050101, on right bank 12 ft downstream of bridge on Secondary Road 1438, 0.2 mi downstream of Sims Branch, and 0.8 mi northeast of Arneys Store.

DRAINAGE AREA.--201 $mi^2$.

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

REVISED RECORDS.--WDR NC-87-1: 1985-86 (P).

GAGE.--Water-stage recorder. Datum of gage is 1,001.74 ft above National Geodetic Vertical Datum of 1929. Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good except those above 1,500 ft/s, which are fair. Minimum discharge also occurred Aug. 20, 1988. Minimum discharge for current water year also occurred several days in November.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 138 | 132 | 443 | 190 | 234 | 370 | 246 | 353 | 618 | 371 | 212 | 230 |
| 2 | 138 | 134 | 629 | 186 | 222 | 336 | 238 | 329 | 506 | 479 | 185 | 218 |
| 3 | 140 | 133 | 860 | 970 | 217 | 310 | 231 | 309 | 443 | 357 | 183 | 260 |
| 4 | 138 | 130 | 767 | 1490 | 213 | 292 | 229 | 289 | 3360 | 324 | 192 | 234 |
| 5 | 139 | 129 | 417 | 670 | 209 | 277 | 247 | 281 | 3700 | 295 | 175 | 244 |
| 6 | 194 | 129 | 321 | 476 | 204 | 735 | 225 | 304 | 1440 | 313 | 172 | 430 |
| 7 | 149 | 129 | 277 | 384 | 201 | 1370 | 221 | 377 | 925 | 291 | 180 | 338 |
| 8 | 139 | 130 | 248 | 334 | 196 | 760 | 221 | 781 | 748 | 274 | 185 | 329 |
| 9 | 138 | 131 | 233 | 307 | 189 | 579 | 215 | 791 | 1010 | 262 | 219 | 279 |
| 10 | 138 | 199 | 245 | 284 | 184 | 557 | 214 | 561 | 1830 | 251 | 180 | 247 |
| 11 | 138 | 202 | 215 | 261 | 183 | 658 | 322 | 456 | 1520 | 241 | 183 | 455 |
| 12 | 136 | 150 | 204 | 247 | 183 | 513 | 254 | 399 | 1310 | 233 | 314 | 304 |
| 13 | 132 | 139 | 197 | 246 | 187 | 451 | 235 | 422 | 1010 | 225 | 654 | 261 |
| 14 | 131 | 136 | 198 | 325 | 190 | 404 | 221 | 385 | 892 | 216 | 522 | 244 |
| 15 | 136 | 133 | 191 | 283 | 270 | 375 | 219 | 384 | 858 | 227 | 316 | 225 |
| 16 | 149 | 132 | 180 | 249 | 375 | 347 | 221 | 604 | 1000 | 266 | 278 | 210 |
| 17 | 138 | 132 | 175 | 227 | 257 | 327 | 218 | 429 | 1060 | 236 | 240 | 200 |
| 18 | 134 | 132 | 174 | 239 | 254 | 316 | 235 | 388 | 879 | 294 | 227 | 192 |
| 19 | 132 | 134 | 167 | 222 | 243 | 345 | 219 | 445 | 763 | 228 | 296 | 193 |
| 20 | 132 | 139 | 161 | 213 | 229 | 310 | 2120 | 534 | 661 | 209 | 223 | 203 |
| 21 | 132 | 139 | 166 | 211 | 218 | 284 | 4980 | 448 | 586 | 203 | 206 | 197 |
| 22 | 135 | 558 | 165 | 207 | 213 | 275 | 2460 | 384 | 515 | 209 | 203 | 203 |
| 23 | 135 | 381 | 168 | 439 | 267 | 276 | 1170 | 348 | 474 | 235 | 207 | 237 |
| 24 | 140 | 219 | 179 | 513 | 409 | 258 | 822 | 324 | 443 | 383 | 197 | 197 |
| 25 | 146 | 182 | 163 | 367 | 449 | 253 | 673 | 312 | 417 | 282 | 189 | 184 |
| 26 | 139 | 166 | 157 | 321 | 1140 | 338 | 557 | 309 | 399 | 228 | 183 | 183 |
| 27 | 138 | 156 | 156 | 290 | 717 | 296 | 486 | 295 | 451 | 221 | 231 | 219 |
| 28 | 138 | 151 | 179 | 274 | 519 | 268 | 439 | 288 | 366 | 207 | 762 | 236 |
| 29 | 136 | 149 | 351 | 262 | 436 | 258 | 400 | 766 | 349 | 191 | 486 | 294 |
| 30 | 132 | 149 | 240 | 251 | --- | 255 | 374 | 1420 | 348 | 184 | 304 | 211 |
| 31 | 133 | --- | 204 | 244 | --- | 256 | --- | 830 | --- | 273 | 256 | --- |
| TOTAL | 4313 | 5055 | 8430 | 11182 | 8808 | 12649 | 18912 | 14545 | 28881 | 8208 | 8360 | 7457 |
| MEAN | 139 | 168 | 272 | 361 | 304 | 408 | 630 | 469 | 963 | 265 | 270 | 249 |
| MAX | 194 | 558 | 860 | 1490 | 1140 | 1370 | 4980 | 1420 | 3700 | 479 | 762 | 455 |
| MIN | 131 | 129 | 156 | 186 | 183 | 253 | 214 | 281 | 348 | 184 | 172 | 183 |
| CFSM | .69 | .84 | 1.35 | 1.79 | 1.51 | 2.03 | 3.14 | 2.33 | 4.79 | 1.32 | 1.34 | 1.24 |
| IN. | .80 | .94 | 1.56 | 2.07 | 1.63 | 2.34 | 3.50 | 2.69 | 5.35 | 1.52 | 1.55 | 1.38 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 319 | 354 | 319 | 339 | 374 | 504 | 491 | 367 | 346 | 253 | 247 | 266 |
| MAX | 890 | 754 | 456 | 548 | 838 | 878 | 883 | 575 | 963 | 570 | 510 | 808 |
| (WY) | 1991 | 1986 | 1987 | 1990 | 1990 | 1990 | 1987 | 1991 | 1992 | 1989 | 1985 | 1989 |
| MIN | 85.7 | 161 | 113 | 180 | 206 | 179 | 206 | 166 | 96.9 | 75.5 | 65.5 | 99.5 |
| (WY) | 1989 | 1989 | 1989 | 1989 | 1988 | 1988 | 1986 | 1988 | 1988 | 1988 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1985 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 138857 | | 136800 | | | |
| ANNUAL MEAN | 380 | | 374 | | 350 | |
| HIGHEST ANNUAL MEAN | | | | | 488 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 169 | 1988 |
| HIGHEST DAILY MEAN | 2550 | Apr 19 | 4980 | Apr 21 | 6440 | Oct 13 1990 |
| LOWEST DAILY MEAN | 129 | Nov 5 | 129 | Nov 5 | 35 | Aug 19 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 130 | Nov 3 | 130 | Nov 3 | 45 | Aug 14 1988 |
| INSTANTANEOUS PEAK FLOW | | | 8130 | Jun 4 | 15900 | Oct 13 1990 |
| INSTANTANEOUS PEAK STAGE | | | 14.60 | Jun 4 | 18.03 | Oct 13 1990 |
| INSTANTANEOUS LOW FLOW | | | 129* | Oct 14 | 33* | Aug 19 1988 |
| ANNUAL RUNOFF (CFSM) | 1.89 | | 1.86 | | 1.74 | |
| ANNUAL RUNOFF (INCHES) | 25.70 | | 25.32 | | 23.68 | |
| 10 PERCENT EXCEEDS | 680 | | 686 | | 608 | |
| 50 PERCENT EXCEEDS | 327 | | 247 | | 241 | |
| 90 PERCENT EXCEEDS | 138 | | 138 | | 115 | |

* See REMARKS.

SANTEE RIVER BASIN

02142000 LOWER LITTLE RIVER NEAR ALL HEALING SPRINGS, NC

LOCATION.--Lat 35°56'44", long 81°14'13", Alexander County, Hydrologic Unit 03050101, on left bank at upstream side of bridge on Secondary Road 1313, 0.3 mi downstream of Grassy Creek, 0.4 mi upstream from Lambert Creek, 2.2 mi northeast of All Healing Springs, and 4 mi northwest of Taylorsville.

DRAINAGE AREA.--28.2 $mi^2$.

PERIOD OF RECORD.--October to December 1952 (monthly discharge only), January 1953 to current year.

REVISED RECORDS.--WDR NC-79-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,070 ft, by barometer. Prior to June 13, 1953, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Sept. 21, 1955. Minimum discharge for current water year also occurred Nov. 30, Dec. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22 | 21 | 118 | 32 | 25 | 38 | 31 | 35 | 39 | 28 | 36 | 22 |
| 2 | 22 | 21 | 122 | 30 | 24 | 35 | 30 | 33 | 34 | 30 | 31 | 22 |
| 3 | 23 | 21 | 164 | 77 | 23 | 33 | 30 | 32 | 32 | 27 | 30 | 25 |
| 4 | 22 | 21 | 86 | 114 | 23 | 31 | 30 | 30 | 140 | 26 | 29 | 27 |
| 5 | 23 | 21 | 49 | 71 | 22 | 33 | 30 | 31 | 127 | 25 | 28 | 24 |
| 6 | 36 | 21 | 39 | 51 | 21 | 179 | 29 | 33 | 90 | 26 | 28 | 33 |
| 7 | 25 | 21 | 34 | 41 | 21 | 114 | 29 | 45 | 74 | 27 | 28 | 37 |
| 8 | 24 | 21 | 31 | 36 | 21 | 74 | 29 | 76 | 59 | 25 | 29 | 30 |
| 9 | 23 | 21 | 31 | 34 | 20 | 61 | 28 | 68 | 79 | 25 | 28 | 25 |
| 10 | 23 | 31 | 31 | 32 | 20 | 97 | 30 | 54 | 87 | 23 | 27 | 85 |
| 11 | 23 | 25 | 29 | 31 | 20 | 74 | 35 | 45 | 78 | 23 | 26 | 70 |
| 12 | 23 | 23 | 28 | 30 | 20 | 59 | 30 | 39 | 72 | 22 | 27 | 43 |
| 13 | 22 | 22 | 27 | 29 | 20 | 50 | 29 | 35 | 62 | 21 | 110 | 36 |
| 14 | 22 | 21 | 27 | 35 | 25 | 45 | 28 | 35 | 55 | 21 | 75 | 32 |
| 15 | 23 | 21 | 26 | 31 | 54 | e42 | 28 | 33 | 50 | 21 | 45 | 29 |
| 16 | 23 | 20 | 25 | 28 | 32 | e40 | 30 | 33 | 45 | 22 | 37 | 27 |
| 17 | 22 | 20 | 24 | 27 | 31 | 38 | 30 | 31 | 50 | 22 | 32 | 26 |
| 18 | 22 | 20 | 24 | 27 | 29 | 38 | 28 | 37 | 47 | 22 | 30 | 23 |
| 19 | 21 | 20 | 23 | 26 | 27 | 38 | 27 | 41 | 41 | 21 | 29 | 22 |
| 20 | 21 | 21 | 22 | 25 | 24 | 35 | 63 | 33 | 37 | 20 | 28 | 22 |
| 21 | 21 | 21 | 23 | 25 | 24 | 33 | 766 | 31 | 34 | 23 | 27 | 22 |
| 22 | 22 | 27 | 23 | 23 | 25 | 33 | 283 | 30 | 31 | 24 | 26 | 80 |
| 23 | 22 | 25 | 23 | 66 | 40 | 32 | 110 | 29 | 30 | 24 | 25 | 90 |
| 24 | 22 | 23 | 28 | 56 | 35 | 31 | 81 | 29 | 29 | 195 | 25 | 40 |
| 25 | 22 | 21 | 24 | 41 | 143 | 32 | 65 | 29 | 28 | 81 | 24 | 32 |
| 26 | 22 | 20 | 23 | 36 | 108 | 57 | 53 | 29 | 31 | 49 | 24 | 30 |
| 27 | 22 | 19 | 22 | 32 | 68 | 40 | 46 | 29 | 35 | 43 | 24 | 56 |
| 28 | 22 | 19 | 41 | 30 | 52 | 37 | 42 | 29 | 28 | 36 | 40 | 98 |
| 29 | 21 | 19 | 86 | 28 | 42 | 35 | 38 | 64 | 27 | 32 | 27 | 97 |
| 30 | 21 | 19 | 47 | 27 | --- | 34 | 37 | 68 | 27 | 30 | 24 | 53 |
| 31 | 21 | --- | 37 | 26 | --- | 33 | --- | 47 | --- | 50 | 23 | --- |
| TOTAL | 703 | 646 | 1337 | 1197 | 1039 | 1551 | 2145 | 1213 | 1598 | 1064 | 1022 | 1258 |
| MEAN | 22.7 | 21.5 | 43.1 | 38.6 | 35.8 | 50.0 | 71.5 | 39.1 | 53.3 | 34.3 | 33.0 | 41.9 |
| MAX | 36 | 31 | 164 | 114 | 143 | 179 | 766 | 76 | 140 | 195 | 110 | 98 |
| MIN | 21 | 19 | 22 | 23 | 20 | 31 | 27 | 29 | 27 | 20 | 23 | 22 |
| CFSM | .80 | .76 | 1.53 | 1.37 | 1.27 | 1.77 | 2.54 | 1.39 | 1.89 | 1.22 | 1.17 | 1.49 |
| IN. | .93 | .85 | 1.76 | 1.58 | 1.37 | 2.05 | 2.83 | 1.60 | 2.11 | 1.40 | 1.35 | 1.66 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 29.3 | 28.1 | 36.6 | 40.6 | 51.7 | 57.6 | 59.3 | 42.6 | 38.6 | 28.1 | 27.6 | 26.7 |
| MAX | 103 | 115 | 76.3 | 117 | 134 | 153 | 137 | 98.5 | 106 | 88.1 | 123 | 102 |
| (WY) | 1965 | 1978 | 1984 | 1978 | 1960 | 1975 | 1958 | 1975 | 1975 | 1984 | 1970 | 1979 |
| MIN | 6.04 | 7.03 | 8.16 | 9.36 | 22.4 | 21.1 | 18.8 | 16.4 | 10.1 | 9.11 | 4.86 | 4.75 |
| (WY) | 1955 | 1956 | 1956 | 1956 | 1956 | 1956 | 1966 | 1956 | 1956 | 1954 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1953 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 20029 | | 14773 | | | |
| ANNUAL MEAN | 54.9 | | 40.4 | | 39.0 | |
| HIGHEST ANNUAL MEAN | | | | | 63.2 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 14.9 | 1956 |
| HIGHEST DAILY MEAN | 1400 | Apr 19 | 766 | Apr 21 | 2270 | Aug 10 1970 |
| LOWEST DAILY MEAN | 19 | Nov 27 | 19 | Nov 27 | 3.1 | Sep 20 1955 |
| ANNUAL SEVEN-DAY MINIMUM | 20 | Nov 24 | 20 | Nov 24 | 3.4 | Sep 17 1955 |
| INSTANTANEOUS PEAK FLOW | | | 1750 | Apr 21 | 4850 | Aug 10 1970 |
| INSTANTANEOUS PEAK STAGE | | | 10.29 | Apr 21 | 15.68 | Aug 10 1970 |
| INSTANTANEOUS LOW FLOW | | | 19* | Nov 29 | 2.9* | Sep 20 1955 |
| ANNUAL RUNOFF (CFSM) | 1.95 | | 1.43 | | 1.38 | |
| ANNUAL RUNOFF (INCHES) | 26.42 | | 19.49 | | 18.81 | |
| 10 PERCENT EXCEEDS | 88 | | 71 | | 66 | |
| 50 PERCENT EXCEEDS | 37 | | 30 | | 26 | |
| 90 PERCENT EXCEEDS | 22 | | 21 | | 12 | |

* See REMARKS.

SANTEE RIVER BASIN

0214253830 NORWOOD CREEK NEAR TROUTMAN, NC

LOCATION.--Lat 35°40'48", long 80°56'44", Iredell County, Hydrologic Unit 03040102, on left upstream wingwall of culvert on Secondary Road 1328, 0.4 mi upstream from Lake Norman, 0.7 mi downstream of Powder Spring Branch, 1.0 mi northeast of East Monbo, and 3.7 mi southwest of Troutman.

DRAINAGE AREA.--7.18 $mi^2$.

PERIOD OF RECORD.--December 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 761.09 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Maximum discharge, 1,320 $ft^3/s$, from rating curve extended above 400 $ft^3/s$ by logarithmic plotting.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.8 | 4.8 | 5.6 | 5.3 | 4.9 | e6.8 | 5.8 | 7.1 | 6.2 | 6.1 | 4.2 | 4.5 |
| 2 | 3.9 | 4.9 | 5.1 | 5.2 | 4.8 | e6.3 | 5.8 | 6.9 | 5.9 | 6.0 | 4.0 | 4.5 |
| 3 | 3.9 | 4.8 | 6.8 | e10 | 4.9 | e5.8 | 5.7 | 6.8 | 5.9 | 5.9 | 4.0 | 4.6 |
| 4 | 3.8 | 4.8 | 5.5 | e16 | 4.8 | e5.8 | 5.8 | 6.7 | 292 | 5.7 | 4.0 | 4.7 |
| 5 | 3.8 | 4.8 | 5.0 | e11 | 4.7 | e6.0 | 5.7 | 6.8 | 63 | 5.4 | 4.0 | 6.3 |
| 6 | 3.8 | 4.8 | 4.9 | e7.8 | 4.7 | e30 | 5.7 | 7.2 | 16 | 5.4 | 4.0 | 5.7 |
| 7 | 3.7 | 4.9 | 5.0 | e6.4 | 4.7 | e20 | 5.6 | 9.5 | 10 | 5.4 | 4.0 | 5.1 |
| 8 | 3.8 | 4.9 | 5.1 | e5.9 | 4.6 | e14 | 5.4 | 15 | 19 | 5.1 | 4.0 | 4.7 |
| 9 | 3.8 | 5.1 | 5.0 | e5.7 | 4.5 | e11 | 5.4 | 12 | 97 | 5.1 | 4.0 | 4.7 |
| 10 | 3.8 | 8.6 | 4.8 | e5.5 | 4.5 | e16 | 5.5 | 8.7 | 24 | 4.8 | 4.0 | 5.5 |
| 11 | 3.8 | 5.8 | 4.7 | e5.3 | 4.5 | e13 | 5.4 | 7.6 | 28 | 4.8 | 4.0 | 11 |
| 12 | 3.8 | 5.3 | 4.8 | e5.0 | 4.5 | e11 | 5.4 | 7.1 | e17 | 4.8 | 4.0 | 5.7 |
| 13 | 3.8 | 5.1 | 4.8 | e4.9 | 4.5 | e9.0 | 5.3 | 6.9 | e15 | 4.8 | 4.0 | 5.3 |
| 14 | 3.9 | 5.0 | 4.8 | e5.3 | 4.5 | e8.0 | 5.4 | 6.7 | e13 | 4.5 | 4.2 | 5.1 |
| 15 | 4.2 | 5.0 | 4.7 | e5.0 | 6.9 | e7.5 | 5.3 | 6.4 | e12 | 4.5 | 4.4 | 5.0 |
| 16 | 4.1 | 5.0 | 4.7 | e4.7 | 6.5 | e6.0 | 5.3 | 6.3 | e9.6 | 4.5 | 4.7 | 5.0 |
| 17 | 4.0 | 4.9 | 4.7 | e4.6 | 5.3 | 5.9 | 5.2 | 6.2 | e11 | 4.5 | 4.9 | 5.0 |
| 18 | 4.0 | 4.9 | 4.6 | e4.6 | 5.3 | 5.8 | 5.1 | 6.5 | e9.0 | 4.5 | 5.1 | 4.9 |
| 19 | 4.0 | 5.0 | 4.6 | e4.5 | 31 | 6.7 | 5.1 | 6.6 | e8.0 | 4.4 | 5.1 | 5.0 |
| 20 | 4.1 | 4.9 | 4.7 | e4.3 | 32 | 6.1 | 5.7 | 6.3 | 6.7 | 4.4 | 4.9 | 5.0 |
| 21 | 4.2 | 4.9 | 4.7 | e4.5 | 11 | 5.9 | 334 | 6.0 | 6.7 | 4.4 | 4.9 | 5.0 |
| 22 | 4.4 | 5.3 | 4.7 | e5.2 | 6.8 | 5.9 | 68 | 5.9 | 6.7 | 4.4 | 4.8 | 5.0 |
| 23 | 4.4 | 5.0 | 4.8 | 9.1 | e10 | 6.0 | 14 | 5.8 | 6.6 | 4.6 | 4.8 | 6.0 |
| 24 | 4.5 | 4.9 | 4.9 | 6.9 | e9.4 | 5.8 | 9.5 | 5.7 | 6.3 | 4.5 | 4.8 | 5.2 |
| 25 | 4.5 | 4.8 | 4.6 | 5.9 | e27 | 5.8 | 8.0 | 5.7 | 6.4 | 4.4 | 4.8 | 5.0 |
| 26 | 4.5 | 4.9 | 4.6 | 5.6 | e18 | 11 | 7.8 | 6.1 | 6.4 | 4.3 | 4.7 | 5.1 |
| 27 | 4.5 | 4.9 | 4.6 | 5.4 | e12 | 7.6 | 7.6 | 5.9 | 6.6 | 4.3 | 4.7 | 6.2 |
| 28 | 4.6 | 4.9 | 7.5 | 5.3 | e8.6 | 6.8 | 7.6 | 5.9 | 6.2 | 4.3 | 5.6 | 6.1 |
| 29 | 4.6 | 5.0 | 11 | 5.1 | e7.5 | 6.4 | 7.6 | 6.6 | 6.0 | 4.3 | 4.9 | 5.8 |
| 30 | 4.7 | 5.0 | 6.2 | 5.1 | --- | 6.1 | 7.3 | 9.6 | 6.4 | 4.3 | 4.7 | 5.4 |
| 31 | 4.8 | --- | 5.5 | 5.0 | --- | 5.9 | --- | 6.7 | --- | 4.3 | 4.6 | --- |
| TOTAL | 127.5 | 152.9 | 163.0 | 190.1 | 262.4 | 273.9 | 581.0 | 223.2 | 732.6 | 148.7 | 138.8 | 162.1 |
| MEAN | 4.11 | 5.10 | 5.26 | 6.13 | 9.05 | 8.84 | 19.4 | 7.20 | 24.4 | 4.80 | 4.48 | 5.40 |
| MAX | 4.8 | 8.6 | 11 | 16 | 32 | 30 | 334 | 15 | 292 | 6.1 | 5.6 | 11 |
| MIN | 3.7 | 4.8 | 4.6 | 4.3 | 4.5 | 5.8 | 5.1 | 5.7 | 5.9 | 4.3 | 4.0 | 4.5 |
| CFSM | .57 | .71 | .73 | .85 | 1.26 | 1.23 | 2.70 | 1.00 | 3.40 | .67 | .62 | .75 |
| IN. | .66 | .79 | .84 | .98 | 1.36 | 1.42 | 3.01 | 1.16 | 3.80 | .77 | .72 | .84 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 11.5 | 7.77 | 9.43 | 10.4 | 15.2 | 13.7 | 11.6 | 8.12 | 7.36 | 6.74 | 5.34 | 5.02 |
| MAX | 36.1 | 9.98 | 15.8 | 17.9 | 25.1 | 30.1 | 19.9 | 15.2 | 24.4 | 22.1 | 11.4 | 10.5 |
| (WY) | 1991 | 1988 | 1984 | 1991 | 1990 | 1991 | 1984 | 1990 | 1992 | 1989 | 1985 | 1989 |
| MIN | 3.01 | 4.83 | 4.23 | 4.97 | 5.14 | 6.23 | 3.60 | 2.86 | 1.61 | 1.90 | 2.62 | 2.43 |
| (WY) | 1987 | 1985 | 1989 | 1986 | 1986 | 1985 | 1986 | 1986 | 1986 | 1986 | 1987 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1984 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 3622.9 | | 3156.2 | | | |
| ANNUAL MEAN | 9.93 | | 8.62 | | 8.99 | |
| HIGHEST ANNUAL MEAN | | | | | 13.1 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 4.73 | 1986 |
| HIGHEST DAILY MEAN | 286 | Mar 29 | 334 | Apr 21 | 387 | Oct 1 1989 |
| LOWEST DAILY MEAN | 3.6 | Sep 16 | 3.7 | Oct 7 | .82 | Aug 2 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 3.8 | Sep 27 | 3.8 | Oct 4 | .99 | Jul 29 1986 |
| INSTANTANEOUS PEAK FLOW | | | 1320* | Jun 4 | 1320* | Oct 1 1989 |
| INSTANTANEOUS PEAK STAGE | | | 7.69 | Jun 4 | 8.22 | Oct 1 1989 |
| INSTANTANEOUS LOW FLOW | | | 3.5 | Oct 1 | .67 | Aug 2 1986 |
| ANNUAL RUNOFF (CFSM) | 1.38 | | 1.20 | | 1.25 | |
| ANNUAL RUNOFF (INCHES) | 18.77 | | 16.35 | | 17.01 | |
| 10 PERCENT EXCEEDS | 14 | | 10 | | 14 | |
| 50 PERCENT EXCEEDS | 6.0 | | 5.2 | | 5.5 | |
| 90 PERCENT EXCEEDS | 4.1 | | 4.3 | | 3.0 | |

* See REMARKS.

PEE DEE RIVER BASIN

0214269560 KILLIAN CREEK NEAR MARIPOSA, NC

LOCATION.--Lat 35°26'03", long 81°01'49", Lincoln County, Hydrologic Unit 03050305, on right bank 1,000 ft upstream from Forney Creek, 1.5 mi northwest of Lowesville, 1.7 mi upstream from bridge on Secondary Road 1511, and 2.4 mi northeast of Mariposa.

DRAINAGE AREA.--36.4 $mi^2$.

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 643.085 ft above National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).

REMARKS.--Records good except for estimated daily discharges, which are poor. Station was established to study low-flow conditions for Duke Power Co., no structure exists near the site for measuring high-stage flow; therefore, a peak flow was not determined to coincide with the peak stage for the year. Missing values on the daily value table are days when the flow exceeded the rating. Minimum discharges may be affected by regulation of an unknown origin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | e11 | 13 | 18 | 19 | 20 | 33 | 51 | 28 | 38 | 29 | 14 | 16 |
| 2 | e11 | 14 | 21 | 19 | 20 | 30 | 48 | 27 | 34 | 33 | 14 | 16 |
| 3 | e15 | 13 | 23 | --- | 20 | 29 | 45 | 25 | 31 | 27 | 14 | 16 |
| 4 | e12 | 13 | 25 | --- | 20 | 27 | 43 | 24 | --- | 25 | 14 | 17 |
| 5 | e10 | 13 | 18 | 41 | 20 | 26 | 40 | 24 | --- | 23 | 13 | 17 |
| 6 | e14 | 14 | 17 | 30 | 20 | --- | 38 | 26 | --- | 23 | 13 | 25 |
| 7 | e13 | 14 | 17 | 25 | 20 | --- | 36 | 65 | --- | 23 | 14 | 20 |
| 8 | e12 | 14 | 18 | 23 | 19 | 63 | 34 | --- | 105 | 22 | 14 | 18 |
| 9 | 12 | 14 | 17 | 23 | 18 | 43 | 32 | --- | 91 | 21 | 14 | 17 |
| 10 | 12 | 35 | 17 | 22 | 18 | 43 | 31 | 62 | 150 | 20 | 13 | 16 |
| 11 | 13 | 23 | 17 | 20 | 19 | 42 | 30 | 49 | --- | 19 | 12 | 35 |
| 12 | 11 | 19 | 16 | 20 | 18 | 34 | 29 | 44 | --- | 19 | 19 | 19 |
| 13 | 9.6 | 17 | 16 | 20 | 19 | 32 | 28 | 38 | --- | 18 | --- | 17 |
| 14 | 11 | 16 | 16 | 21 | 19 | 38 | 28 | 34 | --- | 17 | --- | 16 |
| 15 | 12 | 16 | 16 | 19 | 32 | 29 | 27 | 31 | --- | 17 | 37 | 15 |
| 16 | 13 | 16 | 16 | 19 | 41 | 27 | 26 | 29 | --- | 17 | 26 | 15 |
| 17 | 13 | 16 | 16 | 19 | 26 | 27 | 26 | 28 | --- | 16 | 23 | 15 |
| 18 | 12 | 16 | 16 | 19 | 27 | 27 | 25 | 26 | 63 | 21 | 26 | 15 |
| 19 | 12 | 16 | 16 | 18 | 27 | 58 | 25 | 26 | 53 | 21 | 22 | 15 |
| 20 | 12 | 16 | 16 | 18 | 24 | 48 | 25 | 25 | 46 | 17 | 20 | 16 |
| 21 | 13 | 17 | 16 | 18 | 23 | 35 | --- | 24 | 36 | 18 | 20 | 16 |
| 22 | 14 | 18 | 16 | 18 | 22 | 32 | --- | 23 | 34 | 20 | 19 | 16 |
| 23 | 14 | 17 | 16 | --- | --- | 38 | 98 | 22 | 32 | 18 | 19 | 16 |
| 24 | 14 | 16 | 17 | 44 | --- | 32 | 72 | 22 | 31 | 18 | 18 | 15 |
| 25 | 15 | 16 | 16 | 27 | --- | 31 | 58 | 21 | 36 | 17 | 18 | 15 |
| 26 | 15 | 16 | 16 | 25 | --- | --- | 48 | 24 | 34 | 16 | 17 | 15 |
| 27 | 15 | 16 | 16 | 23 | --- | --- | 38 | 25 | 30 | 16 | 17 | 33 |
| 28 | 15 | 16 | 24 | 24 | 56 | 85 | 32 | 24 | 27 | 15 | 21 | 25 |
| 29 | 15 | 16 | 58 | 22 | 39 | 70 | 31 | 24 | 26 | 15 | 21 | 21 |
| 30 | 15 | 16 | 25 | 22 | --- | 62 | 29 | 41 | 31 | 15 | 18 | 18 |
| 31 | 14 | --- | 21 | 21 | --- | 55 | --- | 44 | --- | 14 | 17 | --- |
| TOTAL | 399.6 | 492 | 593 | 639 | 587 | 1096 | 1073 | 905 | 928 | 610 | 527 | 546 |
| MEAN | 12.9 | 16.4 | 19.1 | 22.8 | 24.5 | 40.6 | 38.3 | 31.2 | 48.8 | 19.7 | 18.2 | 18.2 |
| MAX | 15 | 35 | 58 | 44 | 56 | 85 | 98 | 65 | 150 | 33 | 37 | 35 |
| MIN | 9.6 | 13 | 16 | 18 | 18 | 26 | 25 | 21 | 26 | 14 | 12 | 15 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 17.7 | 23.8 | 25.5 | 38.4 | 30.1 | 44.7 | 48.4 | 37.0 | 40.3 | 20.3 | 22.2 | 16.6 |
| MAX | 24.7 | 31.8 | 32.2 | 58.2 | 34.9 | 49.6 | 59.7 | 42.4 | 48.8 | 20.9 | 26.7 | 18.2 |
| (WY) | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 | 1992 | 1991 | 1991 | 1992 |
| MIN | 12.9 | 16.4 | 19.1 | 22.8 | 24.5 | 40.6 | 38.3 | 31.2 | 34.5 | 19.7 | 18.2 | 15.0 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1992 | 1991 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | FOR 1992 WATER YEAR | WATER YEARS 1991 - 1992 |
|---|---|---|---|
| ANNUAL TOTAL | NOT DETERMINED | NOT DETERMINED | NOT DETERMINED |
| ANNUAL MEAN | NOT DETERMINED | NOT DETERMINED | NOT DETERMINED |
| HIGHEST ANNUAL MEAN | NOT DETERMINED | NOT DETERMINED | NOT DETERMINED |
| LOWEST ANNUAL MEAN | NOT DETERMINED | NOT DETERMINED | NOT DETERMINED |
| HIGHEST DAILY MEAN | NOT DETERMINED | NOT DETERMINED | NOT DETERMINED |
| LOWEST DAILY MEAN | 9.6 Oct 13 | 9.6 Oct 13 | 9.4 Oct 3 1990 |
| ANNUAL SEVEN-DAY MINIMUM | 12 Oct 8 | 12 Oct 8 | 9.9 Oct 3 1990 |
| INSTANTANEOUS PEAK FLOW | NOT DETERMINED | NOT DETERMINED Jun 11 | NOT DETERMINED |
| INSTANTANEOUS PEAK STAGE | | 13.44 Jun 11 | 13.44 Jun 11 1992 |
| INSTANTANEOUS LOW FLOW | | 8.2* Dec 20 | 8.2* Dec 20 1991 |

* See REMARKS.

## 02142900 LONG CREEK NEAR PAW CREEK, NC

LOCATION.--Lat 35°19'42", long 80°54'35", Mecklenburg County, Hydrologic Unit 03050101, on right bank at upstream side of bridge on Secondary Road 2042, 600 ft downstream of McIntyre Creek, 1.2 mi upstream from Gutter Branch, and 3.6 mi north of Paw Creek.

DRAINAGE AREA.--16.4 $mi^2$.

PERIOD OF RECORD.--June 1965 to current year.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 648.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Frequent diversions during summer months for irrigation by upstream golf course. Minimum discharge for period of record also occurred Oct. 2, 3, 1986, and Sept. 3, 1987. Minimum discharge for current water year also occurred October 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 | 1.5 | 17 | 4.9 | 5.5 | 11 | 9.4 | 6.4 | 4.9 | 6.8 | 1.7 | 1.8 |
| 2 | 1.4 | 1.6 | 4.7 | 4.5 | 5.1 | 9.3 | 8.6 | 6.0 | 4.3 | 4.5 | 1.6 | 2.1 |
| 3 | 3.7 | 1.6 | 22 | 229 | 5.0 | 8.4 | 8.0 | 5.6 | 4.0 | 4.2 | 1.7 | 2.5 |
| 4 | 1.7 | 1.4 | 11 | 93 | 4.9 | 8.0 | 7.8 | 5.0 | 374 | 4.0 | 1.5 | 3.4 |
| 5 | 1.4 | 1.4 | 4.2 | 18 | 4.9 | 7.6 | 7.5 | 5.2 | 192 | 3.5 | 1.4 | 6.7 |
| 6 | 2.5 | 1.5 | 3.1 | 9.9 | 4.7 | 171 | 7.1 | 12 | 20 | 3.4 | 1.4 | 10 |
| 7 | 1.5 | 1.6 | 2.8 | 7.6 | 4.6 | 169 | 7.1 | 85 | 11 | 3.1 | 1.7 | 3.4 |
| 8 | 1.2 | 1.6 | 2.6 | 6.6 | 4.5 | 28 | 7.1 | 145 | 8.5 | 3.0 | 12 | 2.9 |
| 9 | 1.3 | 1.8 | 2.4 | 6.2 | 4.4 | 16 | 6.8 | 43 | 19 | 2.8 | 4.9 | 2.6 |
| 10 | 1.3 | 48 | 2.9 | 5.8 | 4.7 | 23 | 6.6 | 19 | 17 | 2.6 | 2.3 | 2.5 |
| 11 | 1.3 | 5.6 | 2.3 | 5.2 | 5.4 | 29 | 6.4 | 12 | 304 | 2.5 | 1.8 | 4.5 |
| 12 | 1.3 | 3.1 | 2.3 | 4.9 | 5.1 | 14 | 7.6 | 9.1 | 50 | 2.3 | 1.6 | 2.6 |
| 13 | 1.1 | 2.6 | 2.3 | 5.1 | 4.9 | 11 | 8.4 | 8.2 | 24 | 2.2 | 13 | 2.3 |
| 14 | 1.1 | 2.3 | 2.4 | 7.4 | 4.8 | 9.6 | 6.1 | 7.7 | 53 | 2.2 | 12 | 2.1 |
| 15 | 1.1 | 2.1 | 2.2 | 5.2 | 32 | 8.9 | 6.1 | 6.7 | 29 | 2.2 | 3.4 | 1.6 |
| 16 | 1.2 | 2.1 | 2.1 | 4.6 | 23 | 8.1 | 7.3 | 6.1 | 35 | 2.1 | 2.7 | 1.7 |
| 17 | 3.3 | 2.0 | 2.1 | 4.3 | 9.7 | 7.8 | 6.8 | 5.7 | 15 | 2.1 | 8.4 | 2.0 |
| 18 | 1.5 | 1.9 | 2.1 | 4.3 | 13 | 7.8 | 5.7 | 5.3 | 11 | 7.5 | 6.7 | 1.8 |
| 19 | 1.3 | 1.9 | 2.0 | 4.1 | 13 | 53 | 5.3 | 6.2 | 9.5 | 5.4 | 3.0 | 2.0 |
| 20 | 1.3 | 1.8 | 1.9 | 4.1 | 9.2 | 17 | 8.9 | 5.4 | 8.2 | 2.5 | 2.8 | 2.0 |
| 21 | 1.1 | 1.8 | 2.1 | 4.1 | 7.7 | 12 | 358 | 4.4 | 7.2 | 2.2 | 2.5 | 2.2 |
| 22 | 1.3 | 5.6 | 2.1 | 4.0 | 7.2 | 10 | 176 | 4.2 | 6.7 | 19 | 2.3 | 2.2 |
| 23 | 1.3 | 3.6 | 2.2 | 53 | 98 | 28 | 30 | 4.1 | 6.2 | 3.4 | 2.5 | 1.9 |
| 24 | 1.3 | 2.2 | 3.9 | 18 | 55 | 13 | 16 | 3.8 | 5.8 | 3.1 | 2.3 | 1.8 |
| 25 | 1.4 | 1.9 | 2.4 | 8.8 | 260 | 11 | 12 | 3.7 | 7.9 | 2.8 | 2.0 | 1.8 |
| 26 | 1.5 | 1.8 | 2.1 | 7.2 | 281 | 131 | 9.1 | 4.3 | 9.6 | 2.4 | 1.9 | 2.3 |
| 27 | 1.4 | 1.7 | 2.7 | 6.6 | 37 | 28 | 8.4 | 5.6 | 5.7 | 2.3 | 3.4 | 8.0 |
| 28 | 1.3 | 1.8 | 51 | 8.3 | 20 | 15 | 7.9 | 4.1 | 4.8 | 2.3 | 5.7 | 246 |
| 29 | 1.4 | 1.8 | 91 | 6.7 | 14 | 12 | 7.4 | 18 | 4.6 | 1.8 | 2.5 | 10 |
| 30 | 1.4 | 1.8 | 9.3 | 6.2 | --- | 11 | 6.7 | 15 | 5.3 | 1.8 | 1.7 | 5.5 |
| 31 | 1.5 | --- | 6.1 | 6.0 | --- | 11 | --- | 6.4 | --- | 3.2 | 1.6 | --- |
| TOTAL | 46.8 | 111.4 | 269.3 | 563.6 | 948.3 | 899.5 | 776.1 | 478.2 | 1257.2 | 113.2 | 114.0 | 342.2 |
| MEAN | 1.51 | 3.71 | 8.69 | 18.2 | 32.7 | 29.0 | 25.9 | 15.4 | 41.9 | 3.65 | 3.68 | 11.4 |
| MAX | 3.7 | 48 | 91 | 229 | 281 | 171 | 358 | 145 | 374 | 19 | 13 | 246 |
| MIN | 1.1 | 1.4 | 1.9 | 4.0 | 4.4 | 7.6 | 5.3 | 3.7 | 4.0 | 1.8 | 1.4 | 1.6 |
| CFSM | .09 | .23 | .53 | 1.11 | 1.99 | 1.77 | 1.58 | .94 | 2.56 | .22 | .22 | .70 |
| IN. | .11 | .25 | .61 | 1.28 | 2.15 | 2.04 | 1.76 | 1.08 | 2.85 | .26 | .26 | .78 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 13.2 | 13.5 | 20.2 | 28.7 | 33.7 | 34.6 | 19.4 | 18.2 | 12.1 | 6.40 | 8.16 | 9.23 |
| MAX | 70.8 | 91.3 | 59.5 | 68.7 | 78.4 | 75.6 | 44.3 | 101 | 66.5 | 16.2 | 59.0 | 66.2 |
| (WY) | 1991 | 1986 | 1984 | 1978 | 1979 | 1975 | 1987 | 1975 | 1982 | 1984 | 1967 | 1975 |
| MIN | 1.48 | 2.42 | 2.53 | 4.04 | 8.92 | 8.80 | 4.38 | 3.60 | 1.68 | 1.08 | 1.44 | 1.27 |
| (WY) | 1984 | 1982 | 1966 | 1981 | 1968 | 1967 | 1967 | 1981 | 1986 | 1986 | 1987 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1965 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 6353.5 | | 5919.8 | | | |
| ANNUAL MEAN | 17.4 | | 16.2 | | 18.1 | |
| HIGHEST ANNUAL MEAN | | | | | 36.2 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 6.79 | 1981 |
| HIGHEST DAILY MEAN | 564 | Mar 3 | 374 | Jun 4 | 1600 | Oct 9 1976 |
| LOWEST DAILY MEAN | 1.0 | Sep 16 | 1.1 | Oct 13 | .43 | Oct 3 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 1.2 | Oct 10 | 1.2 | Oct 10 | .49 | Oct 2 1986 |
| INSTANTANEOUS PEAK FLOW | | | 1360 | Jun 4 | 4300 | Jun 18 1982 |
| INSTANTANEOUS PEAK STAGE | | | 10.23 | Jun 4 | 11.70 | Jun 18 1982 |
| INSTANTANEOUS LOW FLOW | | | .80* | Oct 8 | .35* | Sep 26 1986 |
| ANNUAL RUNOFF (CFSM) | 1.06 | | .99 | | 1.10 | |
| ANNUAL RUNOFF (INCHES) | 14.41 | | 13.43 | | 15.01 | |
| 10 PERCENT EXCEEDS | 29 | | 23 | | 30 | |
| 50 PERCENT EXCEEDS | 5.2 | | 4.9 | | 6.5 | |
| 90 PERCENT EXCEEDS | 1.4 | | 1.6 | | 1.8 | |

* See REMARKS.

SANTEE RIVER BASIN

02143000 HENRY FORK NEAR HENRY RIVER, NC

LOCATION.--Lat 35°41'03", long 81°24'10", Catawba County, Hydrologic Unit 03050102, on left bank 325 ft downstream of bridge on Secondary Road 1124, at site of Old Link Ford, 1.2 mi downstream of Burke-Catawba County line, and 2 mi southeast of Henry River.

DRAINAGE AREA.--83.2 mi².

PERIOD OF RECORD.--July 1925 to November 1931, December 1941 to current year.

REVISED RECORDS.--WSP 952: 1928, 1930. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 891.0 ft above National Geodetic Vertical Datum of 1929. July 1925 to November 1931, at site 450 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation at times during the year following activities of upstream mill. An average of 1.8 ft³/s was diverted for water supply by city of Morganton and returned as treated effluent into Catawba River. Maximum discharge: 15,300 ft³/s, from rating curve extended above 2,300 ft³/s on basis of computation of peak flow over dam at Henry River; gage height: 29.2 ft. Minimum discharge for current water year occurred during period of no gage height record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known: 29.2 ft Aug. 13, 1940, at former site, from floodmarks; discharge: 31,300 ft³/s. The flood of July 16, 1916, reached a stage of about 23 ft at former site; discharge: 20,700 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 57 | 57 | 82 | e76 | 68 | 115 | 95 | 116 | 194 | 94 | 69 | 64 |
| 2 | 57 | 58 | 276 | e70 | 66 | 103 | 89 | 108 | 144 | 96 | 66 | 62 |
| 3 | 59 | 58 | 150 | e320 | 65 | 95 | 88 | 105 | 110 | 100 | 66 | 61 |
| 4 | 57 | 57 | 196 | e580 | 65 | 90 | 88 | 99 | 667 | 93 | 65 | 62 |
| 5 | 64 | 55 | e96 | e240 | 64 | 85 | 84 | 97 | 743 | 83 | 63 | 67 |
| 6 | 63 | 57 | e83 | e160 | 63 | 129 | 81 | 104 | 283 | 82 | 62 | 171 |
| 7 | 57 | 57 | e74 | e120 | 63 | 298 | 81 | 140 | 231 | 83 | 66 | 181 |
| 8 | 55 | 57 | e64 | e100 | 62 | 291 | 81 | 658 | 205 | 78 | 68 | 128 |
| 9 | 56 | 59 | e64 | e90 | 60 | 189 | 79 | 418 | 181 | 76 | 66 | 78 |
| 10 | 57 | 91 | e64 | e82 | 58 | 139 | 77 | 265 | 180 | 72 | 63 | 72 |
| 11 | 56 | 76 | e58 | e76 | 59 | 193 | 76 | 237 | 172 | 70 | 60 | 71 |
| 12 | 55 | 63 | e58 | e68 | 59 | 181 | 76 | 198 | 170 | 69 | 59 | 69 |
| 13 | 53 | 58 | e56 | e68 | 61 | 142 | 76 | 153 | 163 | 67 | 97 | 65 |
| 14 | 53 | 57 | e60 | e78 | 63 | 121 | 73 | 138 | 164 | 66 | 158 | 65 |
| 15 | 55 | 57 | e54 | e68 | 81 | 111 | 73 | 126 | 156 | 65 | 117 | 63 |
| 16 | 59 | 55 | e50 | e66 | 115 | 102 | 82 | 117 | 149 | 67 | 77 | 61 |
| 17 | 56 | 55 | e49 | e66 | 86 | 97 | 79 | 111 | 143 | 67 | 71 | 60 |
| 18 | 54 | 55 | e49 | e62 | 87 | 94 | 76 | 107 | 133 | 66 | 69 | 58 |
| 19 | 53 | 56 | e48 | e60 | 84 | 118 | 75 | 129 | 126 | 66 | 66 | 57 |
| 20 | 53 | 59 | e49 | e60 | 79 | 114 | 147 | 111 | 118 | 64 | 65 | 60 |
| 21 | 54 | 63 | e49 | e60 | 73 | 101 | 2180 | 104 | 111 | 78 | 66 | 65 |
| 22 | 56 | 77 | e49 | e54 | 70 | 97 | 942 | 96 | 105 | 201 | 67 | 66 |
| 23 | 57 | 86 | e49 | e270 | 86 | 96 | 306 | 92 | 100 | 457 | 67 | 80 |
| 24 | 57 | 64 | e50 | e200 | 163 | 91 | 241 | 90 | 98 | 195 | 67 | 72 |
| 25 | 58 | 58 | e49 | e140 | 169 | 91 | 219 | 89 | 96 | 161 | 66 | 65 |
| 26 | 57 | 55 | e46 | e110 | 612 | 146 | 187 | 93 | 100 | 105 | 64 | 64 |
| 27 | 58 | 54 | e46 | e100 | 348 | 174 | 147 | 94 | 109 | 82 | 64 | 106 |
| 28 | 57 | 53 | e84 | e83 | 254 | 130 | 134 | 89 | 103 | 81 | 89 | 150 |
| 29 | 57 | 53 | e200 | 77 | 142 | 112 | 127 | 130 | 92 | 72 | 115 | 139 |
| 30 | 56 | 54 | e120 | 73 | --- | 106 | 120 | 224 | 95 | 69 | 72 | 109 |
| 31 | 57 | --- | e92 | 71 | --- | 101 | --- | 225 | --- | 68 | 66 | --- |
| TOTAL | 1753 | 1814 | 2514 | 3748 | 3325 | 4052 | 6279 | 4863 | 5441 | 3093 | 2296 | 2491 |
| MEAN | 56.5 | 60.5 | 81.1 | 121 | 115 | 131 | 209 | 157 | 181 | 99.8 | 74.1 | 83.0 |
| MAX | 64 | 91 | 276 | 580 | 612 | 298 | 2180 | 658 | 743 | 457 | 158 | 181 |
| MIN | 53 | 53 | 46 | 54 | 58 | 85 | 73 | 89 | 92 | 64 | 59 | 57 |
| CFSM | .68 | .73 | .97 | 1.45 | 1.38 | 1.57 | 2.52 | 1.89 | 2.18 | 1.20 | .89 | 1.00 |
| IN. | .78 | .81 | 1.12 | 1.68 | 1.49 | 1.81 | 2.81 | 2.17 | 2.43 | 1.38 | 1.03 | 1.11 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 110 | 107 | 131 | 149 | 193 | 208 | 193 | 144 | 124 | 93.0 | 92.9 | 97.3 |
| MAX | 433 | 392 | 276 | 354 | 473 | 583 | 470 | 322 | 392 | 203 | 389 | 594 |
| (WY) | 1965 | 1978 | 1984 | 1978 | 1960 | 1975 | 1983 | 1984 | 1947 | 1949 | 1970 | 1945 |
| MIN | 26.5 | 35.6 | 31.1 | 32.3 | 78.9 | 69.7 | 61.6 | 57.1 | 41.3 | 34.9 | 39.4 | 25.4 |
| (WY) | 1955 | 1956 | 1956 | 1956 | 1947 | 1985 | 1967 | 1985 | 1988 | 1986 | 1988 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1941 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 50590 | | 41669 | | | |
| ANNUAL MEAN | 139 | | 114 | | 137 | |
| HIGHEST ANNUAL MEAN | | | | | 209 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 65.2 | 1955 |
| HIGHEST DAILY MEAN | 1990 | Mar 29 | 2180 | Apr 21 | 7930 | Jun 14 1947 |
| LOWEST DAILY MEAN | 46 | Dec 26 | 46 | Dec 26 | 4.0 | Nov 15 1942 |
| ANNUAL SEVEN-DAY MINIMUM | 48 | Dec 21 | 48 | Dec 21 | 14 | Oct 16 1951 |
| INSTANTANEOUS PEAK FLOW | | | 5650 | Apr 21 | 15300* | Oct 2 1929 |
| INSTANTANEOUS PEAK STAGE | | | 11.45 | Apr 21 | 18.71 | Oct 12 1990 |
| INSTANTANEOUS LOW FLOW | | | 46* | unknown | 3.0 | Dec 20 1942 |
| ANNUAL RUNOFF (CFSM) | 1.67 | | 1.37 | | 1.65 | |
| ANNUAL RUNOFF (INCHES) | 22.62 | | 18.63 | | 22.36 | |
| 10 PERCENT EXCEEDS | 211 | | 188 | | 225 | |
| 50 PERCENT EXCEEDS | 109 | | 78 | | 95 | |
| 90 PERCENT EXCEEDS | 56 | | 56 | | 47 | |

* See REMARKS.

SANTEE RIVER BASIN

02143040 JACOB FORK AT RAMSEY, NC

LOCATION.--Lat 35°35'26", long 81°34'02", Burke County, Hydrologic Unit 03050102, on left bank 16 ft downstream of bridge on Secondary Road 1924, 0.6 mi downstream of Queens Creek, and 0.6 mi north of Ramsey.

DRAINAGE AREA.--25.7 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1960-61. October 1961 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 1,103.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge: 7,220 $ft^3/s$, from rating curve extended above 3,400 $ft^3/s$ on basis of contracted-opening measurement of peak flow.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1940 reached a stage of about 39 ft, from information by local resident. Flood of July 1916 reached a stage of about 19 ft, from information by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19 | 19 | 28 | 27 | 19 | 37 | 31 | 37 | 50 | 55 | 22 | 19 |
| 2 | 20 | 20 | 57 | 26 | 18 | 33 | 30 | 34 | 42 | 46 | 21 | 18 |
| 3 | 20 | 20 | 65 | 94 | 17 | 30 | 29 | 32 | 38 | 41 | 20 | 20 |
| 4 | 19 | 20 | 53 | 153 | 17 | 28 | 28 | 31 | 505 | 38 | 18 | 23 |
| 5 | 30 | 20 | 32 | 62 | 17 | 27 | 27 | 30 | 226 | 34 | 17 | 36 |
| 6 | 27 | 20 | 26 | 38 | 16 | 127 | 25 | 43 | 104 | 34 | 18 | 104 |
| 7 | 21 | 20 | 23 | 29 | 15 | 197 | 25 | 75 | 73 | 35 | 20 | 57 |
| 8 | 20 | 20 | 21 | 25 | 15 | 82 | 25 | 272 | 65 | 31 | 21 | 36 |
| 9 | 20 | 21 | 21 | 22 | 15 | 55 | 24 | 143 | 71 | 29 | 20 | 29 |
| 10 | 20 | 38 | 22 | 21 | 14 | 53 | 23 | 88 | 69 | 27 | 18 | 29 |
| 11 | 19 | 25 | 20 | 19 | 14 | 80 | 22 | 65 | 76 | 26 | 17 | 42 |
| 12 | 19 | 20 | 19 | 18 | 14 | 62 | 23 | 55 | 76 | 25 | 27 | 29 |
| 13 | 18 | 19 | 19 | 18 | 16 | 49 | 23 | 58 | 68 | 24 | 72 | 25 |
| 14 | 18 | 18 | 20 | 21 | 16 | 42 | 21 | 53 | 63 | 23 | 53 | 23 |
| 15 | 20 | 18 | 19 | 18 | 39 | 38 | 22 | 45 | 59 | 23 | 32 | 21 |
| 16 | 20 | 18 | 18 | 17 | 49 | 34 | 28 | 41 | 94 | 25 | 27 | 19 |
| 17 | 19 | 18 | 18 | 16 | 33 | 32 | 22 | 39 | 67 | 24 | 25 | 18 |
| 18 | 18 | 18 | 18 | 16 | 31 | 32 | 21 | 38 | 58 | 28 | 23 | 18 |
| 19 | 18 | 18 | 18 | 16 | 29 | 44 | 23 | 38 | 53 | 26 | 21 | 19 |
| 20 | 18 | 20 | 17 | 15 | 27 | 38 | 120 | 38 | 48 | 22 | 21 | 22 |
| 21 | 19 | 22 | 18 | 15 | 23 | 34 | 983 | 33 | 44 | 23 | 26 | 22 |
| 22 | 20 | 37 | 18 | 15 | 22 | 33 | 282 | 29 | 40 | 72 | 22 | 22 |
| 23 | 20 | 27 | 18 | 74 | 50 | 34 | 110 | 28 | 38 | 75 | 21 | 22 |
| 24 | 21 | 20 | 19 | 64 | 81 | 30 | 79 | 27 | 38 | 36 | 21 | 22 |
| 25 | 20 | 18 | 18 | 38 | 136 | 30 | 64 | 28 | 42 | 31 | 19 | 21 |
| 26 | 20 | 17 | 18 | 30 | 244 | 74 | 54 | 31 | 53 | 27 | 18 | 20 |
| 27 | 20 | 16 | 18 | 25 | 98 | 60 | 49 | 31 | 59 | 26 | 18 | 85 |
| 28 | 19 | 16 | 33 | 24 | 59 | 45 | 45 | 31 | 42 | 25 | 64 | 78 |
| 29 | 19 | 16 | 65 | 22 | 47 | 39 | 41 | 89 | 41 | 22 | 36 | 57 |
| 30 | 19 | 16 | 39 | 21 | --- | 36 | 39 | 119 | 92 | 22 | 25 | 41 |
| 31 | 19 | --- | 31 | 20 | --- | 34 | --- | 73 | --- | 22 | 21 | --- |
| TOTAL | 619 | 615 | 829 | 1019 | 1191 | 1569 | 2338 | 1774 | 2394 | 997 | 804 | 997 |
| MEAN | 20.0 | 20.5 | 26.7 | 32.9 | 41.1 | 50.6 | 77.9 | 57.2 | 79.8 | 32.2 | 25.9 | 33.2 |
| MAX | 30 | 38 | 65 | 153 | 244 | 197 | 983 | 272 | 505 | 75 | 72 | 104 |
| MIN | 18 | 16 | 17 | 15 | 14 | 27 | 21 | 27 | 38 | 22 | 17 | 18 |
| CFSM | .78 | .80 | 1.04 | 1.28 | 1.60 | 1.97 | 3.03 | 2.23 | 3.11 | 1.25 | 1.01 | 1.29 |
| IN. | .90 | .89 | 1.20 | 1.47 | 1.72 | 2.27 | 3.38 | 2.57 | 3.47 | 1.44 | 1.16 | 1.44 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 42.7 | 41.3 | 48.3 | 55.9 | 66.5 | 75.4 | 69.2 | 55.8 | 43.0 | 35.4 | 33.2 | 30.6 |
| MAX | 154 | 130 | 92.6 | 117 | 134 | 177 | 157 | 109 | 82.3 | 72.7 | 152 | 102 |
| (WY) | 1965 | 1978 | 1984 | 1978 | 1966 | 1975 | 1983 | 1984 | 1972 | 1985 | 1970 | 1989 |
| MIN | 11.7 | 12.7 | 14.8 | 20.9 | 27.9 | 27.4 | 22.6 | 19.9 | 11.9 | 9.23 | 8.81 | 15.6 |
| (WY) | 1964 | 1982 | 1989 | 1981 | 1986 | 1988 | 1967 | 1988 | 1988 | 1988 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1962 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 19597 | | 15146 | | | |
| ANNUAL MEAN | 53.7 | | 41.4 | | 49.7 | |
| HIGHEST ANNUAL MEAN | | | | | 68.2 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 23.8 | 1988 |
| HIGHEST DAILY MEAN | 592 | Mar 29 | 983 | Apr 21 | 1730 | Nov 6 1977 |
| LOWEST DAILY MEAN | 16 | Nov 27 | 14 | Feb 10 | 4.7 | Aug 27 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 17 | Nov 24 | 15 | Feb 6 | 5.7 | Aug 15 1988 |
| INSTANTANEOUS PEAK FLOW | | | 2890 | Apr 21 | 7220* | Oct 17 1975 |
| INSTANTANEOUS PEAK STAGE | | | 12.87 | Apr 21 | 19.74 | Oct 17 1975 |
| INSTANTANEOUS LOW FLOW | | | 13 | Jan 17 | 4.4 | Aug 28 1988 |
| ANNUAL RUNOFF (CFSM) | 2.09 | | 1.61 | | 1.93 | |
| ANNUAL RUNOFF (INCHES) | 28.37 | | 21.92 | | 26.27 | |
| 10 PERCENT EXCEEDS | 88 | | 72 | | 83 | |
| 50 PERCENT EXCEEDS | 46 | | 26 | | 34 | |
| 90 PERCENT EXCEEDS | 19 | | 18 | | 16 | |

* See REMARKS.

SANTEE RIVER BASIN

## 02143500 INDIAN CREEK NEAR LABORATORY, NC

LOCATION.--Lat 35°25'20", long 81°15'52", Lincoln County, Hydrologic Unit 03050102, on left bank 250 ft upstream from remains of Rudisill Mill dam, 0.5 mi upstream from bridge on Secondary Road 1252, 1.5 mi south of Laboratory, 1.5 mi upstream from mouth, and 3.5 mi south of Lincolnton.

DRAINAGE AREA.--69.2 $mi^2$.

PERIOD OF RECORD.--August 1951 to current year.

REVISED RECORDS.--WDR NC-71-1: 1970(M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 736 ft above National Geodetic Vertical Datum of 1929, by barometer. Satellite telemetry at site.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for current water year also occurred October 14, 20.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peak discharge of flood in October 1929 was 9,920 $ft^3/s$; flood in July 1916, 7,840 $ft^3/s$; flood in August 1940, 6,000 $ft^3/s$. Discharge based on computation of peak flow over dam 1 mi downstream, using floodmarks and information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 33 | 40 | 42 | 43 | 84 | 73 | 63 | 71 | 61 | 27 | 33 |
| 2 | 24 | 34 | 52 | 42 | 40 | 79 | 70 | 60 | 59 | 58 | 26 | 32 |
| 3 | 27 | 32 | 62 | 78 | 43 | 73 | 68 | 55 | 53 | 55 | 27 | 32 |
| 4 | 25 | 32 | 77 | 192 | 41 | 63 | 67 | 52 | 90 | 55 | 26 | 30 |
| 5 | 26 | 28 | 53 | 100 | 39 | 61 | 64 | 53 | 202 | 49 | 24 | 36 |
| 6 | 28 | 29 | 37 | 80 | 38 | 248 | 64 | 64 | 98 | 48 | 27 | 69 |
| 7 | 25 | 29 | 36 | 68 | 41 | 554 | 66 | 119 | 76 | 48 | 31 | 42 |
| 8 | 24 | 30 | 36 | 53 | 40 | 183 | 69 | 299 | 66 | 44 | 34 | 36 |
| 9 | 26 | 35 | 36 | 52 | 35 | 129 | 65 | 189 | 317 | 42 | 34 | 35 |
| 10 | 28 | 60 | 37 | 48 | 35 | 116 | 60 | 127 | 248 | 40 | 30 | 31 |
| 11 | 28 | 44 | 34 | 45 | 39 | 126 | 59 | 98 | 589 | 37 | 26 | 40 |
| 12 | 26 | 32 | 38 | 41 | 39 | 95 | 61 | 87 | 892 | 34 | 26 | 32 |
| 13 | 24 | 32 | 38 | 41 | 37 | 87 | 62 | 74 | 214 | 35 | 136 | 28 |
| 14 | 24 | 31 | 39 | 47 | 39 | 82 | 56 | 68 | 195 | 34 | 143 | 28 |
| 15 | 24 | 31 | 32 | 43 | 66 | 73 | 55 | 63 | 162 | 33 | 61 | 29 |
| 16 | 26 | 31 | 32 | 42 | 98 | 68 | 55 | 59 | 235 | 32 | 45 | 31 |
| 17 | 26 | 31 | 33 | 40 | 70 | 67 | 56 | 55 | 137 | 32 | 44 | 30 |
| 18 | 25 | 31 | 33 | 39 | 70 | 66 | 52 | 53 | 109 | 36 | 46 | 30 |
| 19 | 24 | 32 | 31 | 38 | 70 | 122 | 49 | 53 | 96 | 38 | 40 | 28 |
| 20 | 24 | 33 | 30 | 39 | 60 | 128 | 71 | 53 | 86 | 34 | 35 | 29 |
| 21 | 26 | 35 | 33 | 41 | 50 | 90 | 482 | 50 | 87 | 34 | 68 | 31 |
| 22 | 29 | 42 | 32 | 42 | 49 | 82 | 570 | 48 | 89 | 41 | 37 | 30 |
| 23 | 27 | 41 | 33 | 105 | 121 | 91 | 180 | 44 | 78 | 91 | 34 | 29 |
| 24 | 26 | 35 | 34 | 100 | 213 | 81 | 127 | 41 | 77 | 48 | 35 | 29 |
| 25 | 28 | 31 | 32 | 72 | 319 | 80 | 100 | 42 | 76 | 48 | 34 | 27 |
| 26 | 28 | 31 | 33 | 59 | 564 | 179 | 84 | 63 | 89 | 43 | 32 | 27 |
| 27 | 28 | 31 | 34 | 50 | 204 | 126 | 80 | 56 | 79 | 37 | 61 | 52 |
| 28 | 28 | 32 | 52 | 52 | 133 | 96 | 72 | 49 | 67 | 34 | 191 | 94 |
| 29 | 27 | 35 | 116 | 46 | 100 | 88 | 68 | 89 | 57 | 30 | 78 | 62 |
| 30 | 27 | 34 | 68 | 44 | --- | 86 | 64 | 178 | 61 | 29 | 45 | 37 |
| 31 | 31 | --- | 45 | 43 | --- | 82 | --- | 93 | --- | 29 | 36 | --- |
| TOTAL | 814 | 1017 | 1318 | 1824 | 2736 | 3585 | 3069 | 2497 | 4755 | 1309 | 1539 | 1099 |
| MEAN | 26.3 | 33.9 | 42.5 | 58.8 | 94.3 | 116 | 102 | 80.5 | 158 | 42.2 | 49.6 | 36.6 |
| MAX | 31 | 60 | 116 | 192 | 564 | 554 | 570 | 299 | 892 | 91 | 191 | 94 |
| MIN | 24 | 28 | 30 | 38 | 35 | 61 | 49 | 41 | 53 | 29 | 24 | 27 |
| CFSM | .38 | .49 | .61 | .85 | 1.36 | 1.67 | 1.48 | 1.16 | 2.29 | .61 | .72 | .53 |
| IN. | .44 | .55 | .71 | .98 | 1.47 | 1.93 | 1.65 | 1.34 | 2.56 | .70 | .83 | .59 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 68.9 | 63.0 | 92.0 | 112 | 135 | 149 | 117 | 89.6 | 74.8 | 54.0 | 55.0 | 46.4 |
| MAX | 324 | 272 | 236 | 313 | 309 | 424 | 301 | 250 | 165 | 130 | 275 | 155 |
| (WY) | 1965 | 1958 | 1968 | 1978 | 1960 | 1952 | 1958 | 1984 | 1962 | 1964 | 1970 | 1959 |
| MIN | 8.30 | 19.2 | 26.0 | 25.8 | 44.0 | 59.8 | 38.1 | 27.6 | 11.8 | 12.7 | 13.7 | 8.62 |
| (WY) | 1955 | 1955 | 1956 | 1956 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 | 1988 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1951 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 31688 | | 25562 | | | |
| ANNUAL MEAN | 86.8 | | 69.8 | | 87.9 | |
| HIGHEST ANNUAL MEAN | | | | | 134 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 40.4 | 1988 |
| HIGHEST DAILY MEAN | 1460 | Mar 30 | 892 | Jun 12 | 4350 | Aug 10 1970 |
| LOWEST DAILY MEAN | 24 | Oct 2 | 24 | Oct 2 | 2.1 | Jul 20 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 25 | Oct 13 | 25 | Oct 13 | 3.1 | Jul 16 1986 |
| INSTANTANEOUS PEAK FLOW | | | 1430 | Jun 12 | 8450 | Aug 10 1970 |
| INSTANTANEOUS PEAK STAGE | | | 4.61 | Jun 12 | 10.61 | Aug 10 1970 |
| INSTANTANEOUS LOW FLOW | | | 23 | Oct 13 | 1.7 | Jul 21 1986 |
| ANNUAL RUNOFF (CFSM) | 1.25 | | 1.01* | | 1.27 | |
| ANNUAL RUNOFF (INCHES) | 17.03 | | 13.74 | | 17.26 | |
| 10 PERCENT EXCEEDS | 146 | | 121 | | 145 | |
| 50 PERCENT EXCEEDS | 62 | | 45 | | 56 | |
| 90 PERCENT EXCEEDS | 28 | | 28 | | 24 | |

* See REMARKS.

SANTEE RIVER BASIN

02144000 LONG CREEK NEAR BESSEMER CITY, NC

LOCATION.--Lat 35°18'23", long 81°14'05", Gaston County, Hydrologic Unit 03050102, on right bank 700 ft upstream from bridge on Secondary Road 1456, 3.3 mi northeast of Bessemer City, and 8.2 mi upstream from mouth.

DRAINAGE AREA.--31.8 $mi^2$.

PERIOD OF RECORD.--October 1952 to current year. Monthly discharge only for some periods, published in WSP 1723.

REVISED RECORDS.--WSP 1723: 1959-60 (M). WSP 1904: 1959-60. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 706.1 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Bessemer City diverts water upstream from gaging station for water supply and returns treated effluent to South Fork Catawba River downstream of mouth of Long Creek causing some diurnal fluctuation; a daily average of 2.00 $ft^3/s$ was diverted during the year. Lowest annual mean for period of record also occurred in 1988 water year. Minimum discharge for current water year also occurred October 5, 20.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 26 ft from high water mark on left bank 1,500 ft upstream, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.8 | 9.0 | 8.9 | 10 | 10 | 32 | 26 | 20 | 19 | 34 | 7.0 | 7.0 |
| 2 | 5.0 | 8.8 | 8.1 | 9.7 | 9.4 | 28 | 24 | 18 | 16 | 20 | 7.0 | 5.6 |
| 3 | 5.6 | 9.1 | 8.0 | 26 | 9.4 | 25 | 23 | 17 | 14 | 19 | 6.9 | 6.5 |
| 4 | 5.2 | 9.2 | 7.9 | 33 | 11 | 23 | 24 | 15 | 61 | 17 | 5.8 | 8.5 |
| 5 | 4.8 | 8.8 | e8.3 | 18 | 11 | 22 | 22 | 15 | 64 | 14 | 5.2 | 67 |
| 6 | 5.4 | 19 | e8.2 | 15 | 11 | 117 | 21 | 20 | 28 | 14 | 5.6 | 167 |
| 7 | 5.1 | 11 | e8.2 | 14 | 11 | 136 | 23 | 57 | 20 | 13 | 7.0 | 31 |
| 8 | 6.2 | 7.7 | e8.2 | 14 | 10 | 53 | 21 | 199 | 20 | 12 | 8.3 | 17 |
| 9 | 7.0 | 7.4 | e8.6 | 13 | 9.7 | 40 | 20 | 63 | 58 | 10 | 8.5 | 13 |
| 10 | 6.7 | 7.2 | 8.7 | 10 | 9.5 | 45 | 19 | 40 | 51 | 11 | 6.0 | 11 |
| 11 | 6.6 | 7.2 | 8.3 | 11 | 10 | 44 | 19 | 30 | 64 | 9.7 | 5.3 | 11 |
| 12 | 6.4 | 7.1 | 8.8 | 11 | 9.6 | 34 | 26 | 24 | 54 | 9.5 | 6.3 | 9.3 |
| 13 | 6.0 | 7.2 | 10 | 11 | 9.4 | 28 | 26 | 22 | 41 | 9.3 | 43 | 8.1 |
| 14 | 6.0 | 7.0 | 9.2 | 12 | 8.4 | 27 | 19 | 20 | 178 | 7.7 | 38 | 8.5 |
| 15 | 6.4 | 7.2 | 8.7 | 10 | 26 | 25 | 19 | 17 | 64 | 7.2 | 15 | 7.9 |
| 16 | 6.6 | 7.3 | 8.6 | 9.3 | 28 | 23 | 20 | 17 | 48 | 7.3 | 11 | 8.1 |
| 17 | 6.8 | 7.3 | 8.5 | 9.2 | 15 | 22 | 19 | 15 | 35 | 7.8 | 12 | 8.1 |
| 18 | 6.4 | 8.5 | 8.6 | 9.3 | 17 | 20 | 17 | 16 | 30 | 27 | 13 | 7.6 |
| 19 | 6.3 | 8.6 | 9.0 | 9.3 | 18 | 74 | 18 | 15 | 26 | 22 | 9.6 | 6.2 |
| 20 | 5.3 | 7.6 | 8.2 | 9.1 | 15 | 58 | 26 | 16 | 22 | 9.6 | 7.9 | 6.2 |
| 21 | 5.7 | 7.3 | 13 | 9.4 | 14 | 38 | 244 | 15 | 53 | 7.6 | 9.1 | 6.9 |
| 22 | 6.9 | 7.1 | 12 | 9.2 | 13 | 32 | 124 | 14 | 40 | 35 | 7.6 | 7.2 |
| 23 | 7.0 | 7.1 | 13 | 53 | 81 | 44 | 50 | 12 | 23 | 13 | 7.4 | 6.7 |
| 24 | 7.3 | 7.3 | 16 | 28 | 60 | 33 | 34 | 12 | 19 | 9.9 | 7.5 | 6.8 |
| 25 | 7.4 | 7.5 | 18 | 17 | 188 | 31 | 29 | 13 | 23 | 9.7 | 6.7 | 6.8 |
| 26 | 7.6 | 7.6 | 14 | 15 | 247 | 127 | 26 | 14 | 23 | 11 | 6.4 | 6.5 |
| 27 | 7.8 | 8.1 | 13 | 14 | 69 | 53 | 24 | 18 | 19 | 9.1 | 7.6 | 36 |
| 28 | 8.1 | 8.8 | 22 | 15 | 46 | 39 | 24 | 14 | 17 | 7.4 | 21 | 86 |
| 29 | 8.2 | 13 | 39 | 14 | 37 | 34 | 24 | 28 | 16 | 7.3 | 7.7 | 27 |
| 30 | 8.2 | 16 | 16 | 14 | --- | 31 | 21 | 53 | 34 | 7.3 | 6.6 | 14 |
| 31 | 8.2 | --- | 12 | 12 | --- | 29 | --- | 26 | --- | 8.2 | 6.3 | --- |
| TOTAL | 201.0 | 262.0 | 359.0 | 464.5 | 1013.4 | 1367 | 1032 | 875 | 1180 | 406.6 | 322.3 | 618.5 |
| MEAN | 6.48 | 8.73 | 11.6 | 15.0 | 34.9 | 44.1 | 34.4 | 28.2 | 39.3 | 13.1 | 10.4 | 20.6 |
| MAX | 8.2 | 19 | 39 | 53 | 247 | 136 | 244 | 199 | 178 | 35 | 43 | 167 |
| MIN | 4.8 | 7.0 | 7.9 | 9.1 | 8.4 | 20 | 17 | 12 | 14 | 7.2 | 5.2 | 5.6 |
| CFSM | .20 | .27 | .36 | .47 | 1.10 | 1.39 | 1.08 | .89 | 1.24 | .41 | .33 | .65 |
| IN. | .24 | .31 | .42 | .54 | 1.19 | 1.60 | 1.21 | 1.02 | 1.38 | .48 | .38 | .72 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 26.1 | 25.3 | 34.5 | 47.1 | 58.0 | 60.4 | 48.2 | 33.7 | 25.6 | 19.3 | 20.2 | 16.5 |
| MAX | 147 | 128 | 85.2 | 127 | 137 | 133 | 142 | 89.2 | 72.5 | 65.9 | 81.7 | 59.3 |
| (WY) | 1972 | 1958 | 1977 | 1978 | 1960 | 1963 | 1958 | 1975 | 1962 | 1975 | 1985 | 1971 |
| MIN | 2.37 | 7.09 | 7.37 | 8.17 | 22.5 | 22.8 | 14.3 | 10.0 | 3.74 | 2.41 | 4.14 | 1.99 |
| (WY) | 1955 | 1954 | 1956 | 1956 | 1986 | 1955 | 1967 | 1986 | 1986 | 1986 | 1987 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1953 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 11467.7 | | 8101.3 | | | |
| ANNUAL MEAN | 31.4 | | 22.1 | | 34.6 | |
| HIGHEST ANNUAL MEAN | | | | | 55.5 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 16.7* | 1955 |
| HIGHEST DAILY MEAN | 514 | Mar 29 | 247 | Feb 26 | 2940 | Oct 16 1971 |
| LOWEST DAILY MEAN | 4.7 | Sep 16 | 4.8 | Oct 1 | .55 | Jul 14 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 5.0 | Sep 29 | 5.1 | Oct 1 | .76 | Jul 9 1986 |
| INSTANTANEOUS PEAK FLOW | | | 533 | Feb 25 | 6500 | Oct 16 1971 |
| INSTANTANEOUS PEAK STAGE | | | 4.17 | Feb 25 | 9.10 | Oct 16 1971 |
| INSTANTANEOUS LOW FLOW | | | 4.6* | Oct 1 | .40 | Oct 7 1954 |
| ANNUAL RUNOFF (CFSM) | .99 | | .70 | | 1.09 | |
| ANNUAL RUNOFF (INCHES) | 13.42 | | 9.48 | | 14.77 | |
| 10 PERCENT EXCEEDS | 58 | | 44 | | 55 | |
| 50 PERCENT EXCEEDS | 18 | | 13 | | 20 | |
| 90 PERCENT EXCEEDS | 6.4 | | 6.8 | | 6.8 | |

* See REMARKS.

## 02145000 SOUTH FORK CATAWBA RIVER AT LOWELL, NC

LOCATION.--Lat 35°17'10", long 81°06'00", Gaston County, Hydrologic Unit 03050102, on right bank 50 ft north of private mill road, 120 ft downstream of Housers Creek, 1.0 mi north of Lowell, 2.5 mi upstream from bridge on Interstate Highway 85, and 3.0 mi downstream of Long Creek.

DRAINAGE AREA.--628 $mi^2$.

PERIOD OF RECORD.--January 1942 to September 1971, October 1983 to current year.

REVISED RECORDS.--WSP 1002: 1943(M). WSP 1303: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 603.10 ft above National Geodetic Vertical Datum of 1929. Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation and slight regulation for short periods at low flow caused by powerplant upstream from station. City of Gastonia diverted an average of 32.1 $ft^3/s$ for water supply from South Fork Catawba River. A part of the diversion is returned to Long Creek as treated effluent. For diversion by town of Morganton, see Henry Fork near Henry River (station 02143000). For diversion by town of Bessemer City, see Long Creek near Bessemer City (station 02144000). Minimum discharge for all water years affected by regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 15, 1940, reached a stage of 21.33 ft, from floodmarks; discharge, 34,000 $ft^3/s$. Depth of flow over dam during the July 1916 flood at High Shoals, 11 mi upstream, was about 1 ft higher than that for August 1940, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 310 | 286 | 351 | 475 | 460 | 821 | 688 | 669 | 882 | 772 | 310 | 330 |
| 2 | 296 | 311 | 434 | 444 | 435 | 744 | 649 | 622 | 735 | 672 | 346 | 337 |
| 3 | 320 | 318 | 733 | 576 | 446 | 691 | 623 | 591 | 630 | 643 | 343 | 320 |
| 4 | 309 | 331 | 807 | 1740 | 437 | 639 | 595 | 567 | 893 | 590 | 322 | 342 |
| 5 | 296 | 333 | 637 | 1550 | 426 | 604 | 580 | 539 | 2140 | 541 | 318 | 336 |
| 6 | 303 | 332 | 482 | 1030 | 408 | 955 | 578 | 584 | 2170 | 516 | 291 | 692 |
| 7 | 371 | 327 | 438 | 713 | 409 | 3800 | 572 | 886 | 1240 | 494 | 313 | 633 |
| 8 | 341 | 286 | 396 | 594 | 402 | 2180 | 569 | 2210 | 888 | 507 | 327 | 580 |
| 9 | 325 | 277 | 390 | 524 | 402 | 1350 | 556 | 2280 | 1520 | 483 | 355 | 477 |
| 10 | 315 | 476 | 370 | 526 | 404 | 1070 | 548 | 1680 | 2000 | 445 | 358 | 399 |
| 11 | 282 | 558 | 378 | 502 | 373 | 1080 | 522 | 1100 | 3110 | 389 | 312 | 460 |
| 12 | 275 | 437 | 381 | 464 | 393 | 1000 | 537 | 930 | 5680 | 365 | 300 | 420 |
| 13 | 265 | 371 | 376 | 436 | 391 | 895 | 554 | 811 | 1830 | 387 | 534 | 374 |
| 14 | 285 | 357 | 370 | 432 | 413 | 789 | 522 | 726 | 1860 | 411 | 1340 | 345 |
| 15 | 279 | 346 | 371 | 441 | 490 | 730 | 498 | 680 | 1720 | 365 | 682 | 305 |
| 16 | 289 | 313 | 352 | 426 | 877 | 691 | 513 | 614 | 2660 | 357 | 523 | 326 |
| 17 | 312 | 306 | 339 | 416 | 707 | 658 | 508 | 590 | 1360 | 348 | 485 | 333 |
| 18 | 296 | 354 | 343 | 402 | 629 | 634 | 494 | 568 | 1050 | 342 | 459 | 322 |
| 19 | 276 | 335 | 337 | 396 | 613 | 951 | 496 | 579 | 912 | 445 | 407 | 250 |
| 20 | 288 | 322 | 341 | 408 | 563 | 1050 | 524 | 609 | 783 | 411 | 367 | 289 |
| 21 | 314 | 348 | 327 | 390 | 516 | 771 | 2490 | 552 | 771 | 368 | 417 | 329 |
| 22 | 294 | 353 | 354 | 388 | 503 | 694 | 4990 | 517 | 935 | 447 | 361 | 339 |
| 23 | 287 | 421 | 364 | 758 | 811 | 775 | 4650 | 475 | 715 | 791 | 365 | 314 |
| 24 | 313 | 429 | 356 | 1050 | 1480 | 702 | 3030 | 444 | 668 | 1220 | 371 | 361 |
| 25 | 282 | 387 | 364 | 857 | 1660 | 645 | 1220 | 462 | 654 | 654 | 358 | 339 |
| 26 | 267 | 344 | 353 | 656 | 3870 | 1590 | 970 | 532 | 745 | 584 | 350 | 315 |
| 27 | 280 | 337 | 342 | 554 | 2510 | 1270 | 865 | 553 | 679 | 487 | 346 | 430 |
| 28 | 340 | 327 | 407 | 547 | 1510 | 963 | 788 | 543 | 722 | 434 | 659 | 873 |
| 29 | 292 | 341 | 1010 | 487 | 1070 | 845 | 726 | 633 | 637 | 399 | 626 | 857 |
| 30 | 288 | 349 | 785 | 510 | --- | 759 | 693 | 1340 | 885 | 372 | 464 | 590 |
| 31 | 292 | --- | 577 | 465 | --- | 722 | --- | 1100 | --- | 360 | 425 | --- |
| TOTAL | 9282 | 10612 | 13865 | 19157 | 23608 | 31068 | 31548 | 24986 | 41474 | 15599 | 13434 | 12617 |
| MEAN | 299 | 354 | 447 | 618 | 814 | 1002 | 1052 | 806 | 1382 | 503 | 433 | 421 |
| MAX | 371 | 558 | 1010 | 1740 | 3870 | 3800 | 4990 | 2280 | 5680 | 1220 | 1340 | 873 |
| MIN | 265 | 277 | 327 | 388 | 373 | 604 | 494 | 444 | 630 | 342 | 291 | 250 |
| CFSM | .48 | .56 | .71 | .98 | 1.30 | 1.60 | 1.67 | 1.28 | 2.20 | .80 | .69 | .67 |
| IN. | .55 | .63 | .82 | 1.13 | 1.40 | 1.84 | 1.87 | 1.48 | 2.46 | .92 | .80 | .75 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 642 | 601 | 790 | 935 | 1214 | 1257 | 1048 | 747 | 627 | 547 | 581 | 512 |
| MAX | 2862 | 2034 | 1748 | 2000 | 3204 | 3511 | 2676 | 1759 | 1424 | 1361 | 2266 | 2460 |
| (WY) | 1965 | 1958 | 1968 | 1946 | 1960 | 1952 | 1958 | 1984 | 1962 | 1943 | 1970 | 1945 |
| MIN | 104 | 215 | 235 | 242 | 499 | 561 | 390 | 337 | 196 | 162 | 182 | 110 |
| (WY) | 1955 | 1955 | 1956 | 1956 | 1986 | 1955 | 1967 | 1986 | 1986 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1942 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 307403 | | 247250 | | | |
| ANNUAL MEAN | 842 | | 676 | | 791 | |
| HIGHEST ANNUAL MEAN | | | | | 1305 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 418 | 1955 |
| HIGHEST DAILY MEAN | 10400 | Mar 30 | 5680 | Jun 12 | 21700 | Aug 11 1970 |
| LOWEST DAILY MEAN | 265 | Oct 13 | 250 | Sep 19 | 31 | Oct 8 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 284 | Oct 11 | 284 | Oct 11 | 73 | Oct 8 1954 |
| INSTANTANEOUS PEAK FLOW | | | 6720 | Jun 11 | 24800 | Aug 11 1970 |
| INSTANTANEOUS PEAK STAGE | | | 9.34 | Jun 11 | 17.38 | Aug 11 1970 |
| INSTANTANEOUS LOW FLOW | | | 103* | Sep 19 | 13* | Aug 22 1988 |
| ANNUAL RUNOFF (CFSM) | 1.34 | | 1.08 | | 1.26 | |
| ANNUAL RUNOFF (INCHES) | 18.21 | | 14.65 | | 17.11 | |
| 10 PERCENT EXCEEDS | 1430 | | 1100 | | 1350 | |
| 50 PERCENT EXCEEDS | 637 | | 486 | | 556 | |
| 90 PERCENT EXCEEDS | 316 | | 313 | | 275 | |

* See REMARKS.

SANTEE RIVER BASIN

## 0214620760 IRWIN CREEK AT STARITA ROAD AT CHARLOTTE, NC

LOCATION.--Lat 35°16'32", long 80°49'35" (revised), Mecklenburg County, Hydrologic Unit 03050103, on right bank 200 ft upstream from Starita Road, 600 ft upstream from Interstate 85 at Charlotte, 0.5 mi northeast from intersection of Starita Road and U.S. Highway 21, and 1.5 mi upstream from Kennedy Branch.

DRAINAGE AREA.--4.40 mi².

PERIOD OF RECORD.--February 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 679.347 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .48 | .56 | 12 | 1.2 | 1.4 | 3.9 | 4.4 | 1.9 | 1.7 | 1.5 | .52 | .41 |
| 2 | 1.5 | .59 | e1.1 | 1.3 | 1.2 | 3.6 | 3.0 | 1.7 | 1.5 | 1.4 | .65 | .39 |
| 3 | .59 | .60 | 10 | 55 | 1.2 | 3.3 | 2.7 | 1.5 | 1.4 | 1.3 | .57 | .37 |
| 4 | .48 | .61 | 3.2 | 24 | 1.2 | 2.9 | 2.6 | 1.4 | 106 | 1.3 | .50 | .39 |
| 5 | .48 | .59 | .97 | 6.3 | 1.2 | 2.6 | 2.4 | 1.4 | 25 | 1.1 | .47 | 4.3 |
| 6 | 1.3 | .63 | .71 | 4.0 | 1.2 | 37 | 2.3 | 6.3 | 5.2 | 1.1 | .46 | 1.4 |
| 7 | .46 | .66 | .58 | 2.7 | 1.1 | 27 | 2.4 | 22 | 3.2 | 1.1 | .50 | .59 |
| 8 | .46 | .73 | .52 | 1.8 | 1.1 | 7.3 | 2.4 | 41 | 2.9 | 1.0 | 1.1 | .50 |
| 9 | .44 | 3.6 | .71 | 1.6 | .98 | 4.6 | 2.3 | 11 | 16 | .98 | .58 | .46 |
| 10 | .45 | 17 | .64 | 1.4 | .97 | 8.9 | 2.2 | 4.7 | 8.2 | .90 | .47 | .43 |
| 11 | .46 | 1.1 | .47 | 1.2 | 1.2 | 9.2 | 2.1 | 3.3 | 105 | .85 | .41 | .75 |
| 12 | .45 | .62 | .46 | 1.2 | 1.1 | 4.2 | 3.8 | 2.6 | 15 | .81 | .73 | .38 |
| 13 | .44 | .55 | .49 | 1.3 | 1.1 | 3.7 | 3.5 | 2.7 | 6.9 | .78 | 6.1 | .34 |
| 14 | .49 | .49 | .52 | 2.1 | 1.2 | 3.1 | 2.5 | 2.3 | 16 | .75 | 2.2 | .37 |
| 15 | .47 | .46 | .42 | 1.2 | 14 | 2.7 | 2.2 | 2.0 | 8.0 | .77 | .82 | .34 |
| 16 | .48 | .44 | .41 | 1.0 | 7.3 | 2.3 | 2.0 | 1.7 | 6.3 | .71 | .66 | .31 |
| 17 | .61 | .44 | .40 | 1.0 | 4.1 | 2.2 | 1.9 | 1.6 | 4.0 | .68 | 6.3 | .29 |
| 18 | .49 | .47 | .41 | 1.0 | 4.8 | 2.1 | 1.7 | 6.4 | 3.3 | 1.4 | 1.8 | .29 |
| 19 | .47 | .46 | .37 | .97 | 4.4 | 20 | e1.7 | 5.5 | 2.9 | .73 | .78 | .28 |
| 20 | .43 | .48 | .35 | .94 | 3.2 | 5.8 | e6.0 | 2.4 | 2.5 | .65 | .66 | .30 |
| 21 | .45 | .50 | .40 | .94 | 2.1 | 4.0 | e84 | 1.8 | 2.4 | .98 | .59 | .36 |
| 22 | .48 | 1.1 | .41 | .95 | 1.9 | 3.5 | 25 | 1.5 | 2.1 | 1.7 | .55 | .41 |
| 23 | .47 | .58 | .68 | 16 | 21 | 10 | 5.7 | 1.4 | 1.9 | .91 | .77 | .34 |
| 24 | .52 | .52 | 1.7 | 5.2 | 41 | 4.2 | 3.7 | 1.2 | 1.8 | .77 | .59 | .28 |
| 25 | .51 | .51 | .51 | 3.0 | 69 | 6.3 | 2.8 | 1.2 | 4.4 | .68 | .58 | .27 |
| 26 | .51 | .52 | .47 | 2.0 | 62 | 27 | 2.2 | 1.5 | 3.2 | .61 | .60 | .30 |
| 27 | .51 | .49 | .76 | 2.5 | 11 | 7.2 | 2.1 | 1.9 | 2.3 | .58 | 1.0 | 1.1 |
| 28 | .51 | .51 | 25 | 3.3 | 6.2 | 4.5 | 2.4 | 1.3 | 1.6 | .57 | 1.5 | 14 |
| 29 | .51 | .51 | 17 | 2.0 | 4.7 | 3.9 | 2.2 | 7.8 | 1.5 | .54 | .52 | 1.1 |
| 30 | .55 | .53 | 3.6 | 1.7 | --- | 3.8 | 2.2 | 5.1 | 1.8 | .57 | .46 | .55 |
| 31 | .57 | --- | 1.7 | 1.6 | --- | 3.6 | --- | 2.5 | --- | .71 | .41 | --- |
| TOTAL | 17.02 | 36.85 | 86.96 | 150.40 | 272.85 | 234.4 | 186.4 | 150.6 | 364.0 | 28.43 | 33.85 | 31.60 |
| MEAN | .55 | 1.23 | 2.81 | 4.85 | 9.41 | 7.56 | 6.21 | 4.86 | 12.1 | .92 | 1.09 | 1.05 |
| MAX | 1.5 | 17 | 25 | 55 | 69 | 37 | 84 | 41 | 106 | 1.7 | 6.3 | 14 |
| MIN | .43 | .44 | .35 | .94 | .97 | 2.1 | 1.7 | 1.2 | 1.4 | .54 | .41 | .27 |
| CFSM | .12 | .28 | .64 | 1.10 | 2.14 | 1.72 | 1.41 | 1.10 | 2.76 | .21 | .25 | .24 |
| IN. | .14 | .31 | .74 | 1.27 | 2.31 | 1.98 | 1.58 | 1.27 | 3.08 | .24 | .29 | .27 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 10.9 | 3.54 | 4.60 | 9.22 | 10.3 | 12.1 | 5.46 | 7.87 | 5.29 | 1.63 | 1.50 | 2.60 |
| MAX | 19.3 | 5.76 | 6.54 | 13.6 | 18.4 | 20.1 | 6.94 | 13.1 | 12.1 | 2.37 | 2.48 | 7.12 |
| (WY) | 1991 | 1991 | 1990 | 1991 | 1990 | 1991 | 1991 | 1990 | 1992 | 1991 | 1991 | 1989 |
| MIN | .55 | 1.23 | 2.81 | 4.85 | 4.14 | 7.05 | 4.18 | 2.65 | 1.74 | .92 | .52 | .82 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1991 | 1990 | 1990 | 1991 | 1990 | 1992 | 1990 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1989 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1902.10 | | 1593.36 | | | |
| ANNUAL MEAN | 5.21 | | 4.35 | | 6.07 | |
| HIGHEST ANNUAL MEAN | | | | | 7.32 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 4.35 | 1992 |
| HIGHEST DAILY MEAN | 178 | Mar 3 | 106 | Jun 4 | 236 | Oct 1 1989 |
| LOWEST DAILY MEAN | .35 | Dec 20 | .27 | Sep 25 | .23 | Aug 31 1990 |
| ANNUAL SEVEN-DAY MINIMUM | .39 | Dec 16 | .31 | Sep 15 | .24 | Sep 27 1990 |
| INSTANTANEOUS PEAK FLOW | | | 492 | Jun 11 | 820 | May 28 1990 |
| INSTANTANEOUS PEAK STAGE | | | 5.06 | Jun 11 | 6.00 | May 28 1990 |
| INSTANTANEOUS LOW FLOW | | | .25 | Sep 19 | .21 | Aug 31 1990 |
| ANNUAL RUNOFF (CFSM) | 1.18 | | .99 | | 1.38 | |
| ANNUAL RUNOFF (INCHES) | 16.08 | | 13.47 | | 18.74 | |
| 10 PERCENT EXCEEDS | 9.7 | | 7.4 | | 10 | |
| 50 PERCENT EXCEEDS | 1.7 | | 1.2 | | 2.1 | |
| 90 PERCENT EXCEEDS | .49 | | .45 | | .51 | |

SANTEE RIVER BASIN

## 02146211 IRWIN CREEK AT STATESVILLE AVENUE AT CHARLOTTE, NC

LOCATION.--Lat 35°15'43", long 80°50'15", Mecklenburg County, Hydrologic Unit 03050103, on right bank 50 ft upstream from bridge on Statesville Avenue (U.S. Highway 21), 1,000 ft upstream from Kennedy Branch, 0.2 mi upstream from Interstate Highway 77, and 2.5 mi north of Trade and Tryon Street intersection in downtown Charlotte.

DRAINAGE AREA.--5.97 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1969-77, 1970-80, October 1981 to current year.

REVISED RECORDS.--WDR NC-84-1: 1982.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 656.85 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--No estimated daily discharges. Records good. A 140-acre solid-waste landfill, used 1940 to 1970, is located just upstream from station. The drainage area is urbanized and has an impervious area of about 15 percent. Minimum discharge for period of record, no flow for parts of Aug. 2-4, 1987, occurred as a result of upstream construction; minimum discharge not affected by construction: 0.12 $ft^3/s$, Aug. 30, 31, 1987. Minimum daily discharge for period of record also occurred Aug. 2, 1986. Minimum discharge for current year also occurred September 25, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .83 | .80 | 19 | 2.2 | 4.4 | 4.1 | 6.1 | 2.9 | 2.8 | 2.3 | .92 | 1.2 |
| 2 | 3.3 | .82 | 1.7 | 2.0 | 3.7 | 3.8 | 4.0 | 2.6 | 2.3 | 2.2 | 1.2 | .87 |
| 3 | 1.2 | .77 | 18 | 87 | 2.4 | 3.4 | 3.4 | 2.4 | 2.2 | 2.1 | .97 | .90 |
| 4 | .92 | .77 | 5.0 | 35 | 3.7 | 3.2 | 3.3 | 2.3 | 157 | 1.9 | .85 | .91 |
| 5 | .88 | .83 | 1.8 | 8.1 | 2.4 | 3.0 | 3.1 | 2.4 | 35 | 1.8 | .82 | 9.9 |
| 6 | 2.8 | .82 | 1.3 | 4.4 | 1.8 | 65 | 3.0 | 12 | 6.8 | 1.8 | .81 | 3.2 |
| 7 | .83 | .87 | 1.1 | 3.1 | 1.7 | 36 | 3.0 | 39 | 4.0 | 1.7 | .92 | 1.4 |
| 8 | .85 | 1.0 | 1.0 | 2.4 | 1.7 | 9.5 | 3.1 | 64 | 4.0 | 1.7 | 2.2 | .88 |
| 9 | .82 | 5.0 | 1.2 | 2.2 | 1.6 | 6.2 | 2.9 | 15 | 26 | 1.7 | 1.1 | .93 |
| 10 | .82 | 35 | 1.3 | 1.9 | 1.6 | 14 | 2.8 | 6.4 | 11 | 1.6 | .86 | .89 |
| 11 | .82 | 2.4 | .99 | 1.7 | 1.9 | 14 | 2.7 | 4.4 | 151 | 1.6 | .76 | 1.6 |
| 12 | .81 | 1.1 | .96 | 1.6 | 1.6 | 6.4 | 5.1 | 3.8 | 19 | 1.5 | 1.6 | .68 |
| 13 | .76 | .97 | .97 | 1.7 | 1.7 | 4.8 | 4.7 | 4.4 | 9.3 | 1.4 | 13 | .65 |
| 14 | .83 | .91 | 1.0 | 3.1 | 1.8 | 4.0 | 3.2 | 3.5 | 25 | 1.4 | 4.8 | .66 |
| 15 | .83 | .86 | .90 | 1.7 | 25 | 3.7 | 2.9 | 3.1 | 11 | 1.3 | 1.7 | .64 |
| 16 | .85 | .88 | .88 | 1.5 | 9.3 | 3.3 | 2.7 | 2.9 | 9.5 | 1.4 | 1.1 | .59 |
| 17 | 1.1 | .82 | .85 | 1.4 | 4.8 | 3.2 | 2.6 | 2.7 | 5.2 | 1.4 | 15 | .59 |
| 18 | .77 | .84 | .89 | 1.4 | 6.6 | 3.6 | 2.5 | 9.9 | 4.2 | 2.8 | 4.1 | .55 |
| 19 | .77 | .84 | .83 | 1.3 | 5.3 | 37 | 2.4 | 7.4 | 3.8 | 1.3 | 1.5 | .52 |
| 20 | .67 | .82 | .82 | 1.3 | 3.4 | 9.3 | 8.6 | 3.6 | 3.4 | 1.2 | 1.1 | .50 |
| 21 | .69 | .86 | .88 | 1.3 | 2.9 | 5.3 | 121 | 2.9 | 3.3 | 1.8 | 1.0 | .55 |
| 22 | .70 | 2.1 | .89 | 1.3 | 2.6 | 4.4 | 35 | 2.6 | 3.0 | 3.3 | 1.0 | .71 |
| 23 | .75 | .97 | 1.2 | 26 | 35 | 16 | 8.1 | 2.5 | 2.7 | 1.7 | 1.4 | .53 |
| 24 | .81 | .90 | 3.3 | 6.9 | 48 | 5.8 | 5.1 | 2.3 | 2.7 | 1.3 | .97 | .46 |
| 25 | .79 | .92 | 1.1 | 3.5 | 101 | 9.3 | 3.9 | 2.2 | 9.2 | 1.2 | .99 | .42 |
| 26 | .77 | .94 | .98 | 2.8 | 84 | 43 | 3.3 | 2.7 | 5.3 | 1.1 | .99 | .43 |
| 27 | .82 | .87 | 1.5 | 4.1 | 13 | 9.4 | 3.2 | 3.3 | 3.9 | 1.1 | 3.7 | 2.5 |
| 28 | .82 | .83 | 47 | 4.1 | 7.3 | 5.7 | 3.4 | 2.4 | 2.6 | 1.0 | 3.9 | 23 |
| 29 | .75 | .83 | 26 | 2.8 | 5.3 | 4.8 | 3.2 | 15 | 2.4 | .92 | 1.2 | 1.9 |
| 30 | .79 | .83 | 4.9 | 2.4 | --- | 4.8 | 3.1 | 8.0 | 3.0 | .90 | 1.1 | .96 |
| 31 | .83 | --- | 3.5 | 2.8 | --- | 4.7 | --- | 3.7 | --- | 1.2 | 1.1 | --- |
| TOTAL | 29.98 | 67.17 | 151.74 | 223.0 | 385.5 | 350.7 | 261.4 | 242.3 | 530.6 | 49.62 | 72.66 | 59.52 |
| MEAN | .97 | 2.24 | 4.89 | 7.19 | 13.3 | 11.3 | 8.71 | 7.82 | 17.7 | 1.60 | 2.34 | 1.98 |
| MAX | 3.3 | 35 | 47 | 87 | 101 | 65 | 121 | 64 | 157 | 3.3 | 15 | 23 |
| MIN | .67 | .77 | .82 | 1.3 | 1.6 | 3.0 | 2.4 | 2.2 | 2.2 | .90 | .76 | .42 |
| CFSM | .16 | .38 | .82 | 1.20 | 2.23 | 1.89 | 1.46 | 1.31 | 2.96 | .27 | .39 | .33 |
| IN. | .19 | .42 | .95 | 1.39 | 2.40 | 2.19 | 1.63 | 1.51 | 3.31 | .31 | .45 | .37 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 5.61 | 6.53 | 8.04 | 10.4 | 14.0 | 13.5 | 7.06 | 7.83 | 7.72 | 3.64 | 4.10 | 3.78 |
| MAX | 23.8 | 27.8 | 21.3 | 18.7 | 23.1 | 24.7 | 13.2 | 16.5 | 24.9 | 8.15 | 11.3 | 16.2 |
| (WY) | 1991 | 1986 | 1984 | 1991 | 1990 | 1991 | 1984 | 1990 | 1982 | 1984 | 1985 | 1987 |
| MIN | .97 | 1.08 | 2.97 | 4.04 | 4.71 | 2.99 | 2.71 | 1.94 | .88 | .93 | .39 | .47 |
| (WY) | 1992 | 1982 | 1989 | 1986 | 1986 | 1985 | 1986 | 1986 | 1986 | 1986 | 1987 | 1983 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1981 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2667.37 | | 2424.19 | | | |
| ANNUAL MEAN | 7.31 | | 6.62 | | 7.66 | |
| HIGHEST ANNUAL MEAN | | | | | 10.7 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 5.44 | 1986 |
| HIGHEST DAILY MEAN | 242 | Mar 3 | 157 | Jun 4 | 388 | Nov 21 1985 |
| LOWEST DAILY MEAN | .67 | Oct 20 | .42 | Sep 25 | .16* | Aug 1 1986 |
| ANNUAL SEVEN-DAY MINIMUM | .74 | Oct 18 | .51 | Sep 20 | .26 | Jul 28 1986 |
| INSTANTANEOUS PEAK FLOW | | | 889 | Jun 11 | 1430 | Jun 18 1982 |
| INSTANTANEOUS PEAK STAGE | | | 5.48 | Jun 11 | 7.58 | Jun 18 1982 |
| INSTANTANEOUS LOW FLOW | | | .40* | Sep 24 | .12* | Aug 1 1987 |
| ANNUAL RUNOFF (CFSM) | 1.22 | | 1.11 | | 1.28 | |
| ANNUAL RUNOFF (INCHES) | 16.62 | | 15.11 | | 17.43 | |
| 10 PERCENT EXCEEDS | 14 | | 12 | | 14 | |
| 50 PERCENT EXCEEDS | 3.0 | | 2.2 | | 2.6 | |
| 90 PERCENT EXCEEDS | .82 | | .82 | | .77 | |

* See REMARKS.

SANTEE RIVER BASIN

02146300 IRWIN CREEK NEAR CHARLOTTE, NC

LOCATION.--Lat 35°11'50", long 80°54'18", Mecklenburg County, Hydrologic Unit 03050103, on left bank at sewage-disposal plant of city of Charlotte, 2,200 ft upstream from Southern Railway bridge, 0.7 mi upstream from Taggart Creek, and 4.2 mi southwest of City Hall, Charlotte.

DRAINAGE AREA.--30.7 $mi^2$.

PERIOD OF RECORD.--May 1962 to current year. Prior to October 1963, published as Sugar (Irwin) Creek at Charlotte.

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

GAGE.--Water-stage recorder. Datum of gage is 591.53 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--No estimated daily discharges, records good. Since July 2, 1981, wastewater from upstream city water filtration plants enters creek downstream of gage via sewer to wastewater treatment plant. Creek channel improved by dredging in 1917 and maintained by Mecklenburg County Drainage Commission to present time. The drainage area is urbanized and has an impervious area of about 20 percent. Minimum discharge for period of record also occurred July 14, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 6, 1936, reached a stage of about 17.3 ft at site 400 ft downstream, from information by plant employee. Peak may have been affected by failure of Lakewood Dam, 5 mi upstream. Flood of Jan. 6, 1962, reached a stage of 14.32 ft, from floodmarks; discharge, 4,120 $ft^3/s$. Flood of April 11, 1962, reached a stage of 15.18 ft, from floodmarks; discharge, 4,740 $ft^3/s$, on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.4 | 9.7 | 134 | 15 | 14 | 24 | 23 | 14 | 20 | 17 | 6.5 | 7.4 |
| 2 | 25 | 10 | 13 | 15 | 14 | 24 | 22 | 13 | 15 | 14 | 7.6 | 7.6 |
| 3 | 14 | 9.8 | 141 | 491 | 12 | 20 | 20 | 14 | 15 | 12 | 6.3 | 7.5 |
| 4 | 7.0 | 10 | 27 | 178 | 14 | 19 | 19 | 12 | 910 | 11 | 5.8 | 8.3 |
| 5 | 6.5 | 10 | 13 | 42 | 12 | 17 | 19 | 13 | 192 | 9.7 | 6.4 | 198 |
| 6 | 24 | 9.9 | 10 | 28 | 11 | 416 | 18 | 86 | 39 | 10 | 7.3 | 35 |
| 7 | 6.9 | 10 | 9.0 | 24 | 11 | 188 | 18 | 222 | 27 | 10 | 28 | 10 |
| 8 | 6.4 | 11 | 8.5 | 19 | 11 | 47 | 18 | 284 | 37 | 9.8 | 54 | 8.1 |
| 9 | 6.3 | 26 | 9.6 | 17 | 9.9 | 34 | 18 | 73 | 133 | 9.3 | 22 | 8.5 |
| 10 | 6.4 | 263 | 13 | 16 | 10 | 68 | 17 | 32 | 57 | 9.2 | 5.7 | 8.7 |
| 11 | 6.6 | 17 | 8.3 | 15 | 13 | 70 | 19 | 23 | 773 | 10 | 5.3 | 36 |
| 12 | 6.2 | 9.8 | 8.2 | 14 | 10 | 29 | 34 | 19 | 97 | 12 | 62 | 7.4 |
| 13 | 6.3 | 8.3 | 8.3 | 16 | 11 | 25 | 23 | 52 | 52 | 11 | 145 | 6.3 |
| 14 | 6.5 | 7.9 | 9.7 | 28 | 12 | 22 | 15 | 22 | 185 | 13 | 35 | 6.4 |
| 15 | 6.7 | 7.4 | 8.0 | 13 | 192 | 21 | 16 | 16 | 86 | 9.3 | 10 | 6.3 |
| 16 | 6.9 | 7.8 | 8.1 | 12 | 48 | 19 | 17 | 16 | 83 | 8.5 | 7.3 | 6.1 |
| 17 | 10 | 7.2 | 8.1 | 12 | 26 | 18 | 14 | 15 | 31 | 8.9 | 175 | 5.9 |
| 18 | 6.9 | 8.0 | 8.3 | 12 | 44 | 19 | 13 | 22 | 26 | 13 | 25 | 5.8 |
| 19 | 7.2 | 7.1 | 7.8 | 12 | 30 | 292 | 13 | 27 | 23 | 9.0 | 8.9 | 5.8 |
| 20 | 7.1 | 7.3 | 7.3 | 11 | 18 | 61 | 88 | 15 | 20 | 7.4 | 6.8 | 7.0 |
| 21 | 7.7 | 8.4 | 7.4 | 11 | 17 | 32 | 605 | 14 | 35 | 14 | 6.0 | 7.0 |
| 22 | 7.9 | 25 | 7.8 | 11 | 14 | 26 | 161 | 12 | 21 | 61 | 5.5 | 12 |
| 23 | 8.3 | 9.1 | 12 | 205 | 234 | 97 | 37 | 12 | 16 | 17 | 10 | 6.9 |
| 24 | 9.0 | 8.0 | 34 | 37 | 196 | 28 | 27 | 21 | 16 | 10 | 7.0 | 6.0 |
| 25 | 9.2 | 7.6 | 8.8 | 19 | 534 | 47 | 24 | 18 | 58 | 7.3 | 5.7 | 5.3 |
| 26 | 9.3 | 7.9 | 8.5 | 16 | 439 | 243 | 20 | 16 | 24 | 6.8 | 5.6 | 5.3 |
| 27 | 9.8 | 8.2 | 17 | 26 | 66 | 46 | 18 | 25 | 34 | 6.7 | 173 | 80 |
| 28 | 10 | 7.6 | 386 | 28 | 39 | 33 | 17 | 15 | 13 | 7.4 | 49 | 235 |
| 29 | 9.4 | 7.4 | 166 | 15 | 30 | 28 | 16 | 122 | 12 | 6.2 | 11 | 21 |
| 30 | 9.3 | 7.8 | 27 | 14 | --- | 29 | 14 | 46 | 36 | 6.0 | 7.4 | 9.4 |
| 31 | 9.8 | --- | 19 | 13 | --- | 25 | --- | 24 | --- | 8.0 | 7.2 | --- |
| TOTAL | 279.0 | 554.2 | 1153.7 | 1385 | 2091.9 | 2067 | 1383 | 1315 | 3086 | 364.5 | 917.3 | 780.0 |
| MEAN | 9.00 | 18.5 | 37.2 | 44.7 | 72.1 | 66.7 | 46.1 | 42.4 | 103 | 11.8 | 29.6 | 26.0 |
| MAX | 25 | 263 | 386 | 491 | 534 | 416 | 605 | 284 | 910 | 61 | 175 | 235 |
| MIN | 6.2 | 7.1 | 7.3 | 11 | 9.9 | 17 | 13 | 12 | 12 | 6.0 | 5.3 | 5.3 |
| CFSM | .29 | .60 | 1.21 | 1.46 | 2.35 | 2.17 | 1.50 | 1.38 | 3.35 | .38 | .96 | .85 |
| IN. | .34 | .67 | 1.40 | 1.68 | 2.53 | 2.50 | 1.68 | 1.59 | 3.74 | .44 | 1.11 | .95 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 36.4 | 34.5 | 43.1 | 57.0 | 64.9 | 70.1 | 40.5 | 42.9 | 37.2 | 29.6 | 31.2 | 34.3 |
| MAX | 157 | 137 | 107 | 119 | 124 | 139 | 81.6 | 204 | 123 | 77.6 | 96.0 | 135 |
| (WY) | 1991 | 1986 | 1984 | 1978 | 1979 | 1980 | 1979 | 1975 | 1982 | 1975 | 1967 | 1975 |
| MIN | 9.00 | 9.32 | 10.2 | 13.4 | 20.7 | 18.5 | 14.9 | 14.0 | 6.95 | 6.67 | 7.97 | 6.00 |
| (WY) | 1992 | 1982 | 1966 | 1981 | 1968 | 1985 | 1981 | 1986 | 1986 | 1986 | 1987 | 1983 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1962 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 16167.6 | | 15376.6 | | | |
| ANNUAL MEAN | 44.3 | | 42.0 | | 43.6 | |
| HIGHEST ANNUAL MEAN | | | | | 78.6 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 24.0 | 1981 |
| HIGHEST DAILY MEAN | 1120 | Mar 3 | 910 | Jun 4 | 2600 | May 30 1975 |
| LOWEST DAILY MEAN | 6.2 | Oct 12 | 5.3 | Aug 11 | 3.1 | Sep 25 1983 |
| ANNUAL SEVEN-DAY MINIMUM | 6.4 | Oct 8 | 6.1 | Sep 13 | 3.5 | Jul 13 1986 |
| INSTANTANEOUS PEAK FLOW | | | 2900 | Jun 11 | 8880 | May 30 1975 |
| INSTANTANEOUS PEAK STAGE | | | 10.40 | Jun 11 | 18.04 | May 30 1975 |
| INSTANTANEOUS LOW FLOW | | | 4.7 | Aug 11 | 2.8* | Jul 13 1986 |
| ANNUAL RUNOFF (CFSM) | 1.44 | | 1.37 | | 1.42 | |
| ANNUAL RUNOFF (INCHES) | 19.59 | | 18.63 | | 19.29 | |
| 10 PERCENT EXCEEDS | 81 | | 86 | | 78 | |
| 50 PERCENT EXCEEDS | 19 | | 14 | | 18 | |
| 90 PERCENT EXCEEDS | 7.2 | | 6.9 | | 8.5 | |

* See REMARKS.

SANTEE RIVER BASIN

## 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 Archdale Drive (Secondary Road 3657) in Charlotte, 0.7 mi downstream of Little Hope Creek, and 5.0 mi south of City Hall, Charlotte.

DRAINAGE AREA.--42.6 $mi^2$.

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

GAGE.--Water-stage recorder. Datum of gage is 564.46 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.-- No estimated daily discharges. Records good. The city of Charlotte diverted a daily average of 107 $ft^3/s$ for municipal water supply from Catawba River at Mountain Island Lake. A daily average of 20.2 $ft^3/s$ of treated sewage effluent from Little Sugar Creek wastewater treatment plant was discharged into the stream 0.4 mi upstream from gage. Since 1911, the creek channel has been dredged and improved periodically. The drainage area is urbanized and has an impervious area of about 20 percent. Minimum discharge for period of record also occurred Oct. 14, 1981. Minimum discharge for current water year also occurred many days in October and November.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 22, 1975, reached a stage of about 12.7 ft, from floodmarks, discharge, 7,360 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 24 | 112 | 34 | 33 | 49 | 48 | 41 | 39 | 36 | 30 | 29 |
| 2 | 58 | 24 | 29 | 34 | 33 | 48 | 46 | 40 | 38 | 36 | 33 | 29 |
| 3 | 41 | 23 | 229 | 776 | 33 | 46 | 45 | 40 | 37 | 37 | 32 | 28 |
| 4 | 26 | 23 | 48 | 244 | 35 | 44 | 44 | 38 | 980 | 35 | 30 | 32 |
| 5 | 25 | 22 | 30 | 63 | 35 | 44 | 43 | 38 | 197 | 34 | 29 | 375 |
| 6 | 35 | 25 | 29 | 45 | 34 | 594 | 43 | 139 | 52 | 35 | 29 | 75 |
| 7 | 24 | 24 | 28 | 40 | 35 | 169 | 40 | 413 | 42 | 34 | 30 | 35 |
| 8 | 23 | 24 | 28 | 37 | 34 | 65 | 44 | 435 | 46 | 33 | 45 | 33 |
| 9 | 23 | 50 | 29 | 37 | 34 | 56 | 43 | 101 | 132 | 33 | 36 | 33 |
| 10 | 24 | 487 | 38 | 36 | 33 | 120 | 43 | 55 | 80 | 33 | 30 | 31 |
| 11 | 24 | 34 | 26 | 34 | 38 | 92 | 41 | 48 | 1000 | 34 | 30 | 47 |
| 12 | 24 | 27 | 26 | 34 | 35 | 53 | 108 | 45 | 114 | 33 | 225 | 31 |
| 13 | 23 | 26 | 25 | 38 | 35 | 48 | 58 | 71 | 68 | 33 | 259 | 29 |
| 14 | 23 | 25 | 28 | 50 | 38 | 47 | 42 | 48 | 286 | 33 | 76 | 29 |
| 15 | 24 | 24 | 25 | 34 | 375 | 46 | 42 | 43 | 377 | 32 | 36 | 29 |
| 16 | 24 | 24 | 24 | 32 | 88 | 44 | 43 | 42 | 345 | 32 | 32 | 30 |
| 17 | 28 | 23 | 23 | 32 | 53 | 43 | 42 | 40 | 63 | 32 | 444 | 30 |
| 18 | 24 | 23 | 24 | 32 | 82 | 45 | 40 | 70 | 53 | 34 | 71 | 30 |
| 19 | 23 | 25 | 25 | 31 | 61 | 490 | 40 | 54 | 49 | 31 | 35 | 29 |
| 20 | 22 | 24 | 26 | 33 | 45 | 98 | 142 | 40 | 47 | 32 | 34 | 29 |
| 21 | 23 | 25 | 26 | 33 | 42 | 61 | 1650 | 37 | 74 | 31 | 31 | 29 |
| 22 | 24 | 46 | 26 | 32 | 41 | 52 | 337 | 38 | 54 | 51 | 28 | 41 |
| 23 | 23 | 28 | 30 | 410 | 321 | 158 | 75 | 38 | 40 | 55 | 30 | 32 |
| 24 | 23 | 25 | 70 | 58 | 102 | 55 | 57 | 37 | 39 | 33 | 28 | 29 |
| 25 | 24 | 24 | 27 | 38 | 782 | 85 | 51 | 35 | 80 | 32 | 28 | 28 |
| 26 | 23 | 25 | 25 | 36 | 655 | 432 | 46 | 40 | 57 | 31 | 28 | 29 |
| 27 | 23 | 25 | 39 | 51 | 93 | 76 | 45 | 54 | 42 | 31 | 105 | 78 |
| 28 | 23 | 24 | 549 | 61 | 61 | 59 | 43 | 37 | 38 | 31 | 71 | 160 |
| 29 | 23 | 24 | 246 | 37 | 51 | 52 | 44 | 201 | 35 | 29 | 32 | 39 |
| 30 | 23 | 25 | 47 | 35 | --- | 56 | 43 | 74 | 44 | 32 | 29 | 29 |
| 31 | 23 | --- | 37 | 35 | --- | 51 | --- | 42 | --- | 31 | 30 | --- |
| TOTAL | 798 | 1252 | 1974 | 2522 | 3337 | 3378 | 3428 | 2474 | 4548 | 1059 | 2006 | 1507 |
| MEAN | 25.7 | 41.7 | 63.7 | 81.4 | 115 | 109 | 114 | 79.8 | 152 | 34.2 | 64.7 | 50.2 |
| MAX | 58 | 487 | 549 | 776 | 782 | 594 | 1650 | 435 | 1000 | 55 | 444 | 375 |
| MIN | 22 | 22 | 23 | 31 | 33 | 43 | 40 | 35 | 35 | 29 | 28 | 28 |
| CFSM | .60 | .98 | 1.49 | 1.91 | 2.70 | 2.56 | 2.68 | 1.87 | 3.56 | .80 | 1.52 | 1.18 |
| IN. | .70 | 1.09 | 1.72 | 2.20 | 2.91 | 2.95 | 2.99 | 2.16 | 3.97 | .92 | 1.75 | 1.32 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 67.7 | 68.3 | 70.5 | 104 | 116 | 121 | 78.3 | 76.4 | 75.1 | 56.3 | 64.7 | 62.5 |
| MAX | 258 | 197 | 164 | 207 | 194 | 215 | 127 | 119 | 152 | 95.7 | 144 | 147 |
| (WY) | 1991 | 1986 | 1984 | 1978 | 1979 | 1980 | 1979 | 1985 | 1992 | 1984 | 1985 | 1979 |
| MIN | 25.7 | 22.6 | 32.8 | 31.6 | 44.7 | 40.0 | 30.8 | 33.8 | 20.5 | 27.2 | 29.5 | 21.7 |
| (WY) | 1992 | 1982 | 1981 | 1981 | 1986 | 1985 | 1981 | 1986 | 1986 | 1986 | 1987 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1978 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 31877 | | 28283 | | | |
| ANNUAL MEAN | 87.3 | | 77.3 | | 79.8 | |
| HIGHEST ANNUAL MEAN | | | | | 110 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 51.7 | 1981 |
| HIGHEST DAILY MEAN | 1830 | Mar 3 | 1650 | Apr 21 | 2180 | Oct 11 1990 |
| LOWEST DAILY MEAN | 22 | Oct 20 | 22 | Oct 20 | 15 | Sep 20 1981 |
| ANNUAL SEVEN-DAY MINIMUM | 23 | Oct 18 | 23 | Oct 18 | 16 | Jul 13 1986 |
| INSTANTANEOUS PEAK FLOW | | | 4510 | Apr 21 | 8100 | Jul 7 1985 |
| INSTANTANEOUS PEAK STAGE | | | 9.88 | Apr 21 | 12.61 | Jul 7 1985 |
| INSTANTANEOUS LOW FLOW | | | 15* | Oct 13 | 11* | Sep 24 1981 |
| ANNUAL RUNOFF (CFSM) | 2.05 | | 1.81 | | 1.87 | |
| ANNUAL RUNOFF (INCHES) | 27.84 | | 24.70 | | 25.47 | |
| 10 PERCENT EXCEEDS | 147 | | 116 | | 145 | |
| 50 PERCENT EXCEEDS | 45 | | 37 | | 37 | |
| 90 PERCENT EXCEEDS | 24 | | 24 | | 24 | |

* See REMARKS.

SANTEE RIVER BASIN

## 02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'14", long 80°46'05", Mecklenburg County, Hydrologic Unit 03050103, near left bank on downstream end of bridge pier at Sardis Road (Secondary Road 3356), 1.7 mi downstream of Irvins Creek, and 7 mi southeast of City Hall, Charlotte.

DRAINAGE AREA.--39.6 $mi^2$.

PERIOD OF RECORD.--April 1962 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 553.39 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte).

REMARKS.--No estimated daily discharges. Records good. Occasional minor fluctuation and regulation of unknown origin. Creek channel improved by dredging in 1917 and maintained by the Mecklenburg County Drainage Commission to present time. This drainage basin, mostly within the city of Charlotte, is urbanized and has an impervious area of about 15 percent; expected development by 1995 is about 22 percent. Minimum discharge for period of record, no flow for part of Nov. 15, 1972, was result of upstream construction; minimum discharge not affected by construction, 0.17 $ft^3/s$, July 19, 1986. Minimum discharge for current water year also occurred August 2.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962, reached a stage of about 14.0 ft, from floodmarks; discharge, 4,150 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.3 | 6.7 | 19 | 12 | 11 | 19 | 18 | 11 | 11 | 9.2 | 2.4 | 5.9 |
| 2 | 14 | 6.4 | 9.6 | 11 | 10 | 17 | 17 | 11 | 9.3 | 8.6 | 6.6 | 5.3 |
| 3 | 17 | 5.5 | 113 | 539 | 10 | 16 | 16 | 9.8 | 8.7 | 10 | 5.6 | 5.3 |
| 4 | 6.4 | 8.9 | 34 | 212 | 9.9 | 15 | 16 | 9.5 | 519 | 8.3 | 3.6 | 6.5 |
| 5 | 5.6 | 11 | 17 | 44 | 10 | 14 | 15 | 9.2 | 210 | 8.0 | 3.6 | 114 |
| 6 | 5.3 | 11 | 14 | 23 | 9.6 | 423 | 14 | 37 | 25 | 7.9 | 3.0 | 30 |
| 7 | 4.8 | 10 | 12 | 18 | 9.4 | 214 | 14 | 253 | 16 | 7.2 | 3.5 | 9.8 |
| 8 | 3.9 | 12 | 8.4 | 13 | 9.2 | 42 | 15 | 416 | 14 | 7.0 | 48 | 9.2 |
| 9 | 5.8 | 19 | 8.8 | 13 | 8.7 | 26 | 14 | 84 | 32 | 6.7 | 13 | 10 |
| 10 | 4.5 | 241 | 14 | 12 | 8.6 | 50 | 13 | 29 | 41 | 6.4 | 4.8 | 9.8 |
| 11 | 5.3 | 20 | 9.5 | 11 | 9.0 | 44 | 13 | 19 | 1300 | 5.9 | 3.4 | 25 |
| 12 | 4.9 | 14 | 8.6 | 11 | 9.1 | 22 | 19 | 16 | 106 | 5.7 | 131 | 6.0 |
| 13 | 4.5 | 13 | 8.6 | 12 | 9.0 | 18 | 20 | 17 | 39 | 5.4 | 119 | 4.7 |
| 14 | 4.2 | 12 | 9.3 | 18 | 9.4 | 16 | 13 | 17 | 123 | 5.1 | 44 | 4.3 |
| 15 | 4.4 | 12 | 9.3 | 12 | 181 | 15 | 12 | 13 | 237 | 4.7 | 12 | 4.0 |
| 16 | 5.1 | 11 | 8.2 | 10 | 72 | 14 | 12 | 11 | 752 | 4.4 | 9.2 | 3.8 |
| 17 | 9.2 | 10 | 8.0 | 9.5 | 25 | 13 | 12 | 11 | 46 | 4.5 | 138 | 3.7 |
| 18 | 5.6 | 11 | 8.2 | 9.3 | 34 | 13 | 11 | 18 | 24 | 4.3 | 43 | 3.8 |
| 19 | 6.2 | 11 | 7.6 | 9.1 | 48 | 225 | 12 | 21 | 20 | 4.3 | 13 | 3.8 |
| 20 | 5.1 | 11 | 7.1 | 8.9 | 23 | 66 | 39 | 12 | 16 | 4.3 | 9.0 | 15 |
| 21 | 5.3 | 11 | 7.4 | 9.0 | 17 | 32 | 1610 | 9.7 | 23 | 4.2 | 7.8 | 4.7 |
| 22 | 7.1 | 30 | 7.4 | 8.7 | 14 | 22 | 1060 | 9.4 | 22 | 6.5 | 7.7 | 5.9 |
| 23 | 5.5 | 16 | 8.0 | 245 | 127 | 102 | 53 | 8.8 | 12 | 7.5 | 8.2 | 5.3 |
| 24 | 6.8 | 12 | 21 | 43 | 69 | 28 | 27 | 8.4 | 11 | 5.3 | 6.7 | 4.3 |
| 25 | 5.9 | 13 | 9.3 | 20 | 781 | 35 | 19 | 8.1 | 13 | 4.9 | 6.3 | 4.1 |
| 26 | 5.6 | 12 | 7.9 | 15 | 940 | 332 | 15 | 8.7 | 21 | 4.0 | 6.2 | 3.3 |
| 27 | 6.1 | 11 | 18 | 18 | 80 | 53 | 14 | 15 | 14 | 3.7 | 36 | 13 |
| 28 | 7.1 | 11 | 359 | 29 | 37 | 28 | 14 | 8.8 | 11 | 3.2 | 19 | 9.1 |
| 29 | 5.6 | 10 | 226 | 16 | 24 | 23 | 14 | 70 | 9.9 | 2.9 | 9.5 | 4.6 |
| 30 | 5.9 | 6.9 | 25 | 13 | --- | 22 | 12 | 32 | 9.3 | 2.8 | 6.3 | 3.3 |
| 31 | 6.3 | --- | 14 | 13 | --- | 21 | --- | 15 | --- | 2.7 | 6.0 | --- |
| TOTAL | 194.3 | 589.4 | 1037.2 | 1437.5 | 2604.9 | 1980 | 3153 | 1218.4 | 3695.2 | 175.6 | 735.4 | 337.5 |
| MEAN | 6.27 | 19.6 | 33.5 | 46.4 | 89.8 | 63.9 | 105 | 39.3 | 123 | 5.66 | 23.7 | 11.2 |
| MAX | 17 | 241 | 359 | 539 | 940 | 423 | 1610 | 416 | 1300 | 10 | 138 | 114 |
| MIN | 3.9 | 5.5 | 7.1 | 8.7 | 8.6 | 13 | 11 | 8.1 | 8.7 | 2.7 | 2.4 | 3.3 |
| CFSM | .16 | .50 | .84 | 1.17 | 2.27 | 1.61 | 2.65 | .99 | 3.11 | .14 | .60 | .28 |
| IN. | .18 | .55 | .97 | 1.35 | 2.45 | 1.86 | 2.96 | 1.14 | 3.47 | .16 | .69 | .32 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 32.7 | 26.5 | 41.2 | 65.2 | 76.3 | 85.4 | 47.0 | 34.2 | 31.2 | 23.5 | 25.7 | 23.5 |
| MAX | 212 | 109 | 128 | 157 | 169 | 200 | 120 | 173 | 123 | 66.5 | 103 | 162 |
| (WY) | 1991 | 1986 | 1984 | 1978 | 1979 | 1977 | 1962 | 1975 | 1992 | 1965 | 1967 | 1987 |
| MIN | 3.16 | 4.65 | 7.55 | 7.46 | 16.9 | 13.6 | 7.45 | 8.04 | 3.60 | 4.04 | 3.42 | 1.46 |
| (WY) | 1963 | 1982 | 1966 | 1981 | 1968 | 1985 | 1967 | 1968 | 1986 | 1977 | 1968 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1962 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 17736.3 | | 17158.4 | | | |
| ANNUAL MEAN | 48.6 | | 46.9 | | 42.6 | |
| HIGHEST ANNUAL MEAN | | | | | 72.4 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 19.6 | 1970 |
| HIGHEST DAILY MEAN | 1750 | Mar 3 | 1610 | Apr 21 | 2550 | Oct 9 1976 |
| LOWEST DAILY MEAN | 3.1 | Sep 23 | 2.4 | Aug 1 | .26 | Jul 19 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 3.9 | Sep 13 | 3.1 | Jul 26 | .40 | Jul 14 1986 |
| INSTANTANEOUS PEAK FLOW | | | 5120 | Apr 21 | 6690 | Mar 24 1979 |
| INSTANTANEOUS PEAK STAGE | | | 14.36 | Apr 21 | 16.70 | Mar 24 1979 |
| INSTANTANEOUS LOW FLOW | | | 2.0* | Aug 1 | .17* | Jul 19 1986 |
| ANNUAL RUNOFF (CFSM) | 1.23 | | 1.18 | | 1.08 | |
| ANNUAL RUNOFF (INCHES) | 16.66 | | 16.12 | | 14.62 | |
| 10 PERCENT EXCEEDS | 75 | | 67 | | 71 | |
| 50 PERCENT EXCEEDS | 17 | | 11 | | 13 | |
| 90 PERCENT EXCEEDS | 5.6 | | 4.7 | | 3.7 | |

* See REMARKS.

SANTEE RIVER BASIN

## 02146700 MCMULLEN CREEK AT SHARON VIEW ROAD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°08'27", long 80°49'13", Mecklenburg County, Hydrologic Unit 03050103, on left bank downstream of culvert wingwall at Sharon View Road (Secondary Road 3673), 3.3 mi south of Queens College, Charlotte, and 6.9 mi upstream from mouth.

DRAINAGE AREA.--6.95 $mi^2$.

PERIOD OF RECORD.--April 1962 to current year.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 592.91 ft above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte). Prior to Oct. 13, 1970, at site 73 ft upstream at same datum. Oct. 13, 1970, to Dec. 30, 1971, at site 154 ft downstream at 590.91 ft.

REMARKS.--No estimated daily discharges. Records good. Creek channel improved by dredging in 1928. The drainage area is in the eastern part of the city and has an impervious area of about 20 percent. Maximum discharge for period of record from rating curve extended above 1,400 $ft^3/s$ on basis of computation of peak flow through culvert. No flow occurred periodically from 1962 to 1973. Maximum stage for current water year from floodmark. Maximum discharge for current water year from computation of peak flow through culvert. Minimum discharge for current water year also occurred August 5-7, September 2, 3 and 16-19.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1962, reached a stage of 7.5 ft, former site and datum, from floodmarks; discharge, 1,040 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .57 | .43 | 2.4 | 1.4 | 1.4 | 2.6 | 2.6 | 1.4 | .90 | 1.5 | .35 | .47 |
| 2 | 6.8 | .44 | .87 | 1.4 | 1.3 | 2.4 | 2.0 | 1.7 | .80 | 1.2 | 1.2 | .42 |
| 3 | 2.0 | .43 | 31 | 118 | 1.3 | 2.1 | 1.8 | 1.7 | 1.2 | 1.1 | .82 | .40 |
| 4 | .73 | .42 | 2.7 | 30 | 1.3 | 2.0 | 1.8 | 1.2 | 148 | 1.1 | .49 | .70 |
| 5 | .66 | .40 | 1.0 | 5.4 | 1.3 | 1.9 | 1.6 | 1.4 | 14 | .98 | .33 | 84 |
| 6 | 1.0 | .48 | .84 | 2.9 | 1.1 | 80 | 1.8 | 16 | 2.1 | .90 | .30 | 6.4 |
| 7 | .81 | .73 | .83 | 2.0 | 1.1 | 19 | 1.8 | 49 | 1.3 | .92 | .35 | 1.4 |
| 8 | .44 | .56 | .81 | 1.7 | 1.1 | 5.5 | 1.7 | 54 | 3.8 | .92 | 3.5 | 1.1 |
| 9 | .45 | 7.5 | 1.3 | 1.6 | .87 | 3.6 | 1.6 | 9.4 | 7.5 | .82 | 1.5 | 4.1 |
| 10 | .48 | 53 | 2.3 | 1.6 | .83 | 14 | 1.6 | 2.8 | 4.4 | .88 | .66 | 2.0 |
| 11 | .55 | 1.7 | .84 | 1.2 | .93 | 5.1 | 1.6 | 1.9 | 171 | .91 | .52 | 2.1 |
| 12 | .53 | .96 | .89 | 1.1 | .97 | 2.9 | 23 | 1.5 | 14 | .96 | 9.8 | .74 |
| 13 | .85 | .83 | .83 | 2.0 | .97 | 2.5 | 3.9 | 2.7 | 4.5 | .80 | 28 | .49 |
| 14 | .50 | .81 | 1.3 | 4.3 | 1.0 | 2.2 | 1.8 | 1.8 | 31 | .69 | 4.5 | .48 |
| 15 | .52 | .73 | 1.1 | 1.3 | 45 | 2.1 | 1.6 | 1.3 | 172 | .57 | .67 | .44 |
| 16 | .65 | .71 | .76 | 1.0 | 8.6 | 2.2 | 1.7 | 1.2 | 202 | .44 | .48 | .42 |
| 17 | 1.0 | .70 | .72 | 1.0 | 3.7 | 1.8 | 1.6 | 1.2 | 6.1 | .56 | 42 | .38 |
| 18 | .52 | .70 | .82 | .97 | 7.7 | 2.0 | 1.5 | 2.5 | 3.8 | .59 | 3.0 | .33 |
| 19 | .42 | .72 | .89 | 1.0 | 7.7 | 53 | 1.4 | 2.5 | 2.8 | .55 | 1.0 | .31 |
| 20 | .38 | .79 | .98 | .94 | 2.3 | 11 | 16 | 1.4 | 2.2 | .51 | 1.0 | 1.2 |
| 21 | .44 | .86 | 1.2 | 1.0 | 1.6 | 4.5 | 264 | .94 | 8.4 | .48 | .68 | .63 |
| 22 | .49 | 4.3 | 1.3 | 1.1 | 1.4 | 3.5 | 32 | .92 | 3.6 | 3.7 | .52 | 2.0 |
| 23 | .51 | 1.1 | 1.8 | 52 | 38 | 21 | 5.3 | .85 | 1.9 | 1.5 | .97 | .77 |
| 24 | .55 | .71 | 6.6 | 4.6 | 9.0 | 4.0 | 3.1 | .81 | 1.8 | .83 | .69 | .90 |
| 25 | .49 | .59 | .95 | 2.1 | 138 | 14 | 2.3 | .79 | 1.5 | .52 | .58 | .49 |
| 26 | .43 | .61 | .80 | 1.7 | 121 | 57 | 1.8 | 1.6 | 1.9 | .50 | .51 | .44 |
| 27 | .49 | .59 | 3.1 | 4.8 | 9.7 | 7.1 | 1.6 | 2.9 | 1.4 | .51 | 16 | 6.8 |
| 28 | .53 | .59 | 99 | 4.7 | 4.8 | 4.0 | 1.5 | .87 | 1.3 | .46 | 4.3 | 3.0 |
| 29 | .36 | .68 | 21 | 1.8 | 3.4 | 3.3 | 1.4 | 24 | 1.2 | .41 | 1.0 | 1.6 |
| 30 | .37 | .80 | 2.9 | 1.6 | --- | 3.6 | 1.5 | 7.2 | 1.5 | .45 | .57 | .58 |
| 31 | .41 | --- | 1.7 | 1.6 | --- | 3.5 | --- | 1.2 | --- | .41 | .54 | --- |
| TOTAL | 24.93 | 83.87 | 193.53 | 257.81 | 417.37 | 343.4 | 386.9 | 198.68 | 817.90 | 26.67 | 126.83 | 125.09 |
| MEAN | .80 | 2.80 | 6.24 | 8.32 | 14.4 | 11.1 | 12.9 | 6.41 | 27.3 | .86 | 4.09 | 4.17 |
| MAX | 6.8 | 53 | 99 | 118 | 138 | 80 | 264 | 54 | 202 | 3.7 | 42 | 84 |
| MIN | .36 | .40 | .72 | .94 | .83 | 1.8 | 1.4 | .79 | .80 | .41 | .30 | .31 |
| CFSM | .12 | .40 | .90 | 1.20 | 2.07 | 1.59 | 1.86 | .92 | 3.92 | .12 | .59 | .60 |
| IN. | .13 | .45 | 1.04 | 1.38 | 2.23 | 1.84 | 2.07 | 1.06 | 4.38 | .14 | .68 | .67 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 5.80 | 5.32 | 8.14 | 12.1 | 13.7 | 15.4 | 7.22 | 6.92 | 6.55 | 5.53 | 4.58 | 5.52 |
| MAX | 30.4 | 21.3 | 24.3 | 33.5 | 28.1 | 38.8 | 19.0 | 31.3 | 27.3 | 14.4 | 21.0 | 23.8 |
| (WY) | 1991 | 1986 | 1977 | 1978 | 1979 | 1977 | 1962 | 1975 | 1992 | 1971 | 1985 | 1987 |
| MIN | .21 | .54 | .86 | 1.02 | 1.77 | 1.74 | 1.13 | 1.08 | .75 | .61 | .24 | .084 |
| (WY) | 1964 | 1970 | 1966 | 1981 | 1968 | 1985 | 1981 | 1962 | 1966 | 1963 | 1968 | 1970 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1962 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 3385.37 | | 3002.98 | | | |
| ANNUAL MEAN | 9.27 | | 8.20 | | 8.05 | |
| HIGHEST ANNUAL MEAN | | | | | 13.8 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 3.19 | 1970 |
| HIGHEST DAILY MEAN | 350 | Mar 3 | 264 | Apr 21 | 463 | Aug 17 1985 |
| LOWEST DAILY MEAN | .23 | Sep 22 | .30 | Aug 6 | 0* | Aug 31 1962 |
| ANNUAL SEVEN-DAY MINIMUM | .36 | Sep 9 | .41 | Sep 13 | .01 | Sep 19 1968 |
| INSTANTANEOUS PEAK FLOW | | | 2950* | Jun 16 | 3150* | Jun 10 1982 |
| INSTANTANEOUS PEAK STAGE | | | 10.85* | Jun 16 | 10.89 | Jun 10 1982 |
| INSTANTANEOUS LOW FLOW | | | .24* | Aug 1 | 0* | Aug 31 1962 |
| ANNUAL RUNOFF (CFSM) | 1.33 | | 1.18 | | 1.16 | |
| ANNUAL RUNOFF (INCHES) | 18.12 | | 16.07 | | 15.73 | |
| 10 PERCENT EXCEEDS | 19 | | 14 | | 14 | |
| 50 PERCENT EXCEEDS | 2.0 | | 1.3 | | 1.5 | |
| 90 PERCENT EXCEEDS | .49 | | .48 | | .28 | |

* See REMARKS.

## 02146750 MCALPINE CREEK BELOW McMULLEN CREEK NEAR PINEVILLE, NC

LOCATION.--Lat 35°03'59", long 80°52'12", Mecklenburg County, Hydrologic Unit, 03050103, on right bank at McAlpine Creek Wastewater Treatment Plant of Charlotte, 150 ft downstream of McMullen Creek, 735 ft upstream from effluent outfall, and 2.1 mi south of Pineville.

DRAINAGE AREA.--92.4 $mi^2$.

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 516.38 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, present site at 517.38 ft. Landline telemetry at site.

REMARKS.--No estimated daily discharges. Records fair except periods when intakes were plugged, which are poor. Records for periods of heavy overbank flow may be affected by variable backwater not adequately defined. The drainage area includes the eastern side of the city of Charlotte and has an impervious area of about 15 percent. Maximum stage for period of record occurred as a result of debris from Hurricane Hugo. Minimum discharge for current water year also occurred October 21, 27, and 30.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1964, about 12.9 ft (former datum), Apr. 1, 1973, from information by wastewater treatment plant operator.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 9.8 | 41 | 40 | 38 | 55 | 41 | 26 | 24 | 21 | 7.9 | 10 |
| 2 | 16 | 10 | 29 | 36 | 34 | 48 | 38 | 24 | 21 | 20 | 8.9 | 9.3 |
| 3 | 40 | 9.1 | 198 | 580 | 32 | 43 | 34 | 22 | 20 | 19 | 14 | 9.3 |
| 4 | 17 | 9.1 | 308 | 1270 | 31 | 40 | 34 | 22 | 745 | 18 | 9.4 | 9.9 |
| 5 | 12 | 11 | 41 | 272 | 31 | 37 | 32 | 21 | 1370 | 15 | 8.5 | 41 |
| 6 | 13 | 11 | 30 | 76 | 32 | 272 | 30 | 39 | 111 | 16 | 8.1 | 134 |
| 7 | 11 | 12 | 27 | 50 | 32 | 1200 | 33 | 372 | 42 | 15 | 8.0 | 17 |
| 8 | 10 | 12 | 22 | 40 | 31 | 299 | 30 | 989 | 34 | 15 | 21 | 13 |
| 9 | 9.9 | 16 | 21 | 35 | 30 | 96 | 29 | 338 | 86 | 14 | 35 | 13 |
| 10 | 11 | 696 | 28 | 33 | 31 | 74 | 28 | 69 | 154 | 14 | 11 | 18 |
| 11 | 10 | 109 | 24 | 30 | 32 | 128 | 27 | 42 | 1200 | 13 | 8.2 | 28 |
| 12 | 9.8 | 26 | 21 | 28 | 33 | 54 | 42 | 33 | 895 | 12 | 9.7 | 16 |
| 13 | 9.0 | 21 | 21 | 28 | 33 | 43 | 71 | 35 | 108 | 12 | 174 | 11 |
| 14 | 11 | 18 | 22 | 38 | 34 | 37 | 30 | 37 | 247 | 13 | 153 | 10 |
| 15 | 9.7 | 18 | 22 | 31 | 144 | 33 | 28 | 28 | 164 | 12 | 19 | 10 |
| 16 | 11 | 18 | 21 | 25 | 669 | 32 | 28 | 25 | 1690 | 11 | 12 | 10 |
| 17 | 15 | 17 | 20 | 24 | 109 | 31 | 26 | 23 | 263 | 11 | 166 | 10 |
| 18 | 14 | 17 | 20 | 22 | 112 | 30 | 24 | 40 | 66 | 11 | 227 | 11 |
| 19 | 11 | 18 | 20 | 21 | 124 | 472 | 22 | 58 | 46 | 10 | 21 | 11 |
| 20 | 11 | 19 | 19 | 21 | 59 | 228 | 46 | 28 | 38 | 9.6 | 20 | 20 |
| 21 | 12 | 19 | 19 | 21 | 36 | 82 | 1460 | 22 | 64 | 9.5 | 16 | 17 |
| 22 | 12 | 43 | 19 | 20 | 29 | 50 | 4540 | 21 | 134 | 14 | 12 | 14 |
| 23 | 13 | 41 | 20 | 370 | 157 | 285 | 373 | 20 | 38 | 17 | 12 | 15 |
| 24 | 11 | 22 | 41 | 404 | 414 | 83 | 75 | 19 | 31 | 12 | 12 | 13 |
| 25 | 12 | 20 | 24 | 68 | 649 | 57 | 50 | 18 | 27 | 9.9 | 11 | 13 |
| 26 | 11 | 22 | 19 | 49 | 3080 | 855 | 40 | 19 | 34 | 9.4 | 10 | 12 |
| 27 | 9.8 | 22 | 31 | 41 | 685 | 284 | 35 | 31 | 30 | 9.1 | 48 | 16 |
| 28 | 11 | 20 | 297 | 68 | 147 | 79 | 31 | 22 | 24 | 8.3 | 45 | 23 |
| 29 | 11 | 19 | 1320 | 51 | 79 | 56 | 29 | 105 | 22 | 8.5 | 17 | 15 |
| 30 | 9.4 | 18 | 195 | 40 | --- | 50 | 27 | 98 | 21 | 8.7 | 12 | 15 |
| 31 | 10 | --- | 58 | 39 | --- | 48 | --- | 32 | --- | 8.4 | 10 | --- |
| TOTAL | 385.6 | 1323.0 | 2998 | 3871 | 6947 | 5181 | 7333 | 2678 | 7749 | 396.4 | 1146.7 | 564.5 |
| MEAN | 12.4 | 44.1 | 96.7 | 125 | 240 | 167 | 244 | 86.4 | 258 | 12.8 | 37.0 | 18.8 |
| MAX | 40 | 696 | 1320 | 1270 | 3080 | 1200 | 4540 | 989 | 1690 | 21 | 227 | 134 |
| MIN | 9.0 | 9.1 | 19 | 20 | 29 | 30 | 22 | 18 | 20 | 8.3 | 7.9 | 9.3 |
| CFSM | .13 | .48 | 1.05 | 1.35 | 2.59 | 1.81 | 2.65 | .93 | 2.80 | .14 | .40 | .20 |
| IN. | .16 | .53 | 1.21 | 1.56 | 2.80 | 2.09 | 2.95 | 1.08 | 3.12 | .16 | .46 | .23 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 101 | 105 | 146 | 243 | 239 | 278 | 125 | 110 | 76.8 | 76.9 | 79.7 | 93.1 |
| MAX | 540 | 414 | 497 | 550 | 506 | 544 | 302 | 397 | 258 | 355 | 407 | 510 |
| (WY) | 1991 | 1986 | 1984 | 1978 | 1984 | 1980 | 1979 | 1975 | 1992 | 1984 | 1985 | 1987 |
| MIN | 6.82 | 11.5 | 24.0 | 18.6 | 39.0 | 35.8 | 21.9 | 18.2 | 7.43 | 7.07 | 8.66 | 5.03 |
| (WY) | 1979 | 1982 | 1981 | 1981 | 1978 | 1981 | 1981 | 1981 | 1986 | 1977 | 1977 | 1983 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1974 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 49646.0 | | 40573.2 | | | |
| ANNUAL MEAN | 136 | | 111 | | 140 | |
| HIGHEST ANNUAL MEAN | | | | | 235 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 70.6 | 1976 |
| HIGHEST DAILY MEAN | 4010 | Mar 4 | 4540 | Apr 22 | 5340 | Jan 11 1984 |
| LOWEST DAILY MEAN | 9.0 | Oct 13 | 7.9 | Aug 1 | .46 | Sep 30 1983 |
| ANNUAL SEVEN-DAY MINIMUM | 9.8 | Oct 29 | 8.5 | Jul 27 | .76 | Sep 28 1983 |
| INSTANTANEOUS PEAK FLOW | | | 7040 | Apr 22 | 7340 | Dec 6 1983 |
| INSTANTANEOUS PEAK STAGE | | | 13.68 | Apr 22 | 15.02* | Oct 23 1990 |
| INSTANTANEOUS LOW FLOW | | | 6.2* | Oct 15 | .45 | Sep 30 1983 |
| ANNUAL RUNOFF (CFSM) | 1.47 | | 1.20 | | 1.51 | |
| ANNUAL RUNOFF (INCHES) | 19.99 | | 16.33 | | 20.53 | |
| 10 PERCENT EXCEEDS | 350 | | 207 | | 275 | |
| 50 PERCENT EXCEEDS | 40 | | 26 | | 32 | |
| 90 PERCENT EXCEEDS | 12 | | 10 | | 8.1 | |

* See REMARKS.

SANTEE RIVER BASIN

0214677974 STEELE CREEK ABOVE SR 1344 NEAR SHOPTON, NC

LOCATION.--Lat 35°07'45", long 80°57'12", Mecklenburg County, Hydrologic Unit 03050103, on right bank 1,500 ft upstream from bridge on Secondary Road 1344 (John Price Road), and 2.9 mi south of Shopton.

DRAINAGE AREA.--3.57 mi².

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.692 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except for discharges below 4 cfs, which are poor. Minimum discharge for current water year also occurred August 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .47 | 1.1 | 4.5 | .91 | 1.4 | 2.2 | 2.2 | .54 | .79 | 1.7 | .33 | .51 |
| 2 | .75 | 1.0 | .61 | .92 | 1.3 | 1.8 | 2.1 | .50 | .79 | .96 | .41 | .49 |
| 3 | .47 | .90 | 9.6 | 32 | 1.3 | 1.5 | 2.2 | .49 | .78 | .82 | .35 | .73 |
| 4 | .41 | .83 | 1.7 | 16 | 1.3 | 1.2 | 2.1 | .57 | 39 | .75 | .31 | .89 |
| 5 | .44 | .87 | .71 | 4.4 | 1.2 | 1.1 | 2.1 | .65 | 8.2 | .59 | .32 | 147 |
| 6 | 1.1 | .89 | .66 | 2.3 | 1.1 | 65 | 2.0 | 5.7 | 2.9 | .58 | .32 | 12 |
| 7 | .32 | .90 | .58 | 1.5 | 1.1 | 21 | 2.2 | 17 | 2.5 | .54 | .32 | 2.0 |
| 8 | .39 | .95 | .53 | 1.1 | 1.1 | 6.9 | 1.7 | 30 | 3.0 | .48 | 6.6 | 1.4 |
| 9 | .44 | 2.4 | .66 | .99 | 1.1 | 4.2 | .81 | 11 | 5.2 | .44 | 1.1 | 2.0 |
| 10 | .44 | 10 | .67 | .87 | 1.2 | 5.6 | .77 | 5.1 | 3.2 | .42 | .63 | .94 |
| 11 | .44 | .75 | .60 | .74 | 1.9 | 5.6 | .78 | 3.1 | 31 | .39 | .63 | 2.6 |
| 12 | .43 | .48 | .59 | .68 | 1.7 | 3.3 | 1.7 | 2.3 | 8.8 | .36 | 8.0 | .65 |
| 13 | .43 | .45 | .57 | .86 | 2.0 | 2.2 | .89 | 1.5 | 5.2 | .34 | 12 | .53 |
| 14 | .45 | .45 | .69 | 1.2 | 1.9 | 1.7 | .77 | .73 | 53 | .32 | 2.2 | .47 |
| 15 | .50 | .45 | .53 | .65 | 18 | 1.5 | 1.0 | .51 | 57 | .29 | .63 | .48 |
| 16 | .53 | .52 | .54 | .59 | 8.4 | 1.1 | .88 | .43 | 49 | .32 | .48 | .45 |
| 17 | .54 | .42 | .54 | .58 | 4.5 | .88 | .76 | .42 | 5.3 | .32 | 24 | .42 |
| 18 | .49 | .44 | .50 | .56 | 6.1 | .91 | .76 | .44 | 3.6 | .34 | 2.2 | .40 |
| 19 | .50 | .51 | .46 | .53 | 5.1 | 27 | .73 | .49 | 2.8 | .31 | .41 | .40 |
| 20 | .47 | .56 | .45 | .53 | 3.4 | 8.8 | 3.2 | .51 | 2.4 | .29 | .36 | .40 |
| 21 | .49 | .58 | .45 | .59 | 2.1 | 5.1 | 37 | .52 | 14 | .45 | .36 | .40 |
| 22 | .52 | 1.1 | .46 | .57 | 1.2 | 3.6 | 14 | .59 | 4.4 | 8.5 | .36 | 1.0 |
| 23 | .55 | .46 | .58 | 21 | 20 | 9.8 | 4.5 | .72 | 2.4 | 2.3 | .36 | .51 |
| 24 | .54 | .43 | 1.5 | 5.3 | 9.2 | 3.8 | 2.4 | .68 | 2.0 | .54 | .36 | .93 |
| 25 | .56 | .45 | .48 | 2.8 | 81 | 7.1 | 1.4 | .62 | 1.9 | .41 | .40 | .49 |
| 26 | .59 | .46 | .45 | 2.0 | 69 | 36 | .92 | 1.5 | 3.2 | .67 | .42 | .43 |
| 27 | .66 | .46 | .84 | 2.5 | 9.4 | 7.2 | .81 | 1.6 | 1.5 | .44 | 1.4 | 11 |
| 28 | .74 | .44 | 29 | 2.8 | 5.2 | 4.5 | .81 | .90 | 1.3 | .29 | 1.3 | 55 |
| 29 | .93 | .44 | 14 | 1.8 | 3.4 | 3.5 | .64 | 7.2 | 1.2 | .28 | .43 | 4.1 |
| 30 | 1.0 | .48 | 2.6 | 1.6 | --- | 3.5 | .58 | 1.8 | 3.5 | .25 | .49 | 1.4 |
| 31 | 1.1 | --- | 1.2 | 1.5 | --- | 2.8 | --- | .95 | --- | .24 | .46 | --- |
| TOTAL | 17.69 | 30.17 | 77.25 | 110.37 | 265.6 | 250.39 | 92.71 | 99.06 | 319.86 | 24.93 | 67.94 | 250.02 |
| MEAN | .57 | 1.01 | 2.49 | 3.56 | 9.16 | 8.08 | 3.09 | 3.20 | 10.7 | .80 | 2.19 | 8.33 |
| MAX | 1.1 | 10 | 29 | 32 | 81 | 65 | 37 | 30 | 57 | 8.5 | 24 | 147 |
| MIN | .32 | .42 | .45 | .53 | 1.1 | .88 | .58 | .42 | .78 | .24 | .31 | .40 |
| CFSM | .16 | .28 | .70 | 1.00 | 2.57 | 2.26 | .87 | .90 | 2.99 | .23 | .61 | 2.33 |
| IN. | .18 | .31 | .80 | 1.15 | 2.77 | 2.61 | .97 | 1.03 | 3.33 | .26 | .71 | 2.61 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 13.4 | 3.47 | 3.73 | 8.66 | 7.10 | 11.2 | 4.47 | 6.03 | 5.86 | 2.04 | 6.74 | 4.56 |
| MAX | 26.3 | 5.94 | 4.96 | 13.8 | 9.16 | 14.3 | 5.85 | 8.85 | 10.7 | 3.28 | 11.3 | 8.33 |
| (WY) | 1991 | 1991 | 1991 | 1991 | 1992 | 1991 | 1991 | 1991 | 1992 | 1991 | 1991 | 1992 |
| MIN | .57 | 1.01 | 2.49 | 3.56 | 4.96 | 8.08 | 3.09 | 3.20 | 1.05 | .80 | 2.19 | .79 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1992 | 1992 | 1991 | 1992 | 1992 | 1991 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1991 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2089.97 | | 1605.99 | | | |
| ANNUAL MEAN | 5.73 | | 4.39 | | 6.46 | |
| HIGHEST ANNUAL MEAN | | | | | 8.53 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 4.39 | 1992 |
| HIGHEST DAILY MEAN | 162 | Mar 3 | 147 | Sep 5 | 196 | Oct 25 1990 |
| LOWEST DAILY MEAN | .09 | Sep 23 | .24 | Jul 31 | .09 | Sep 23 1991 |
| ANNUAL SEVEN-DAY MINIMUM | .11 | Sep 18 | .31 | Jul 28 | .11 | Sep 18 1991 |
| INSTANTANEOUS PEAK FLOW | | | 960 | Sep 5 | 960 | Sep 5 1992 |
| INSTANTANEOUS PEAK STAGE | | | 9.71 | Sep 5 | 9.71 | Sep 5 1992 |
| INSTANTANEOUS LOW FLOW | | | .20* | Aug 1 | .08 | Sep 19 1991 |
| ANNUAL RUNOFF (CFSM) | 1.60 | | 1.23 | | 1.81 | |
| ANNUAL RUNOFF (INCHES) | 21.78 | | 16.73 | | 24.57 | |
| 10 PERCENT EXCEEDS | 10 | | 8.8 | | 13 | |
| 50 PERCENT EXCEEDS | 1.5 | | .89 | | 1.6 | |
| 90 PERCENT EXCEEDS | .30 | | .42 | | .38 | |

* See REMARKS.

SANTEE RIVER BASIN

0214678230 WALKER BRANCH AT SR 1123 NEAR PINE HARBOR, NC

LOCATION.--Lat 35°05'48", long 80°58'22", Mecklenburg County, Hydrologic Unit 03050103, on right bank at upstream side of bridge on Secondary Road 1123 (Smith Road), and 4.1 mi southeast of Pine Harbor.

DRAINAGE AREA.--4.52 mi².

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 567.190 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair except for discharges below 10 cfs, which are poor. Station was established to study high-flow conditions; therefore, an instantaneous low flow was not determined due to unstable low-flow control conditions. Period of missing record due to gage being removed prior to bridge demolition. Gage reestablished October 1992, 200 ft downstream at 565.190 ft. Peak stage for period of record and current water year from floodmark. Peak flow for current water year from Type IV flow culvert determination.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2 | .73 | 1.1 | 1.7 | 1.4 | 3.6 | --- | --- | --- | --- | --- | --- |
| 2 | 1.6 | .73 | 1.2 | 1.5 | 1.4 | 3.1 | --- | --- | --- | --- | --- | --- |
| 3 | 2.0 | .69 | 3.6 | 14 | 1.4 | 2.7 | --- | --- | --- | --- | --- | --- |
| 4 | 1.3 | .80 | 1.4 | 13 | 1.2 | 2.3 | --- | --- | --- | --- | --- | --- |
| 5 | .61 | .84 | .69 | 5.6 | 1.1 | 2.1 | --- | --- | --- | --- | --- | --- |
| 6 | .96 | .84 | .60 | 3.5 | .89 | 67 | --- | --- | --- | --- | --- | --- |
| 7 | .85 | .84 | .54 | 2.5 | .90 | 31 | --- | --- | --- | --- | --- | --- |
| 8 | .65 | .79 | .51 | 2.0 | 1.1 | 9.2 | --- | --- | --- | --- | --- | --- |
| 9 | .63 | 1.1 | .54 | 1.8 | .99 | 5.7 | --- | --- | --- | --- | --- | --- |
| 10 | .67 | 3.8 | .92 | 1.6 | .93 | 6.1 | --- | --- | --- | --- | --- | --- |
| 11 | .63 | .71 | 1.1 | 1.4 | .87 | 6.3 | --- | --- | --- | --- | --- | --- |
| 12 | .63 | .60 | 4.3 | 1.3 | .84 | 4.4 | --- | --- | --- | --- | --- | --- |
| 13 | .64 | .54 | 1.1 | 1.1 | .84 | 3.4 | --- | --- | --- | --- | --- | --- |
| 14 | .70 | .54 | 1.2 | 1.3 | .84 | 2.9 | --- | --- | --- | --- | --- | --- |
| 15 | .70 | .55 | 1.0 | 1.1 | 12 | 2.7 | --- | --- | --- | --- | --- | --- |
| 16 | .70 | .63 | 1.1 | .90 | 10 | --- | --- | --- | --- | --- | --- | --- |
| 17 | .76 | .55 | 1.1 | .83 | 4.9 | --- | --- | --- | --- | --- | --- | --- |
| 18 | .79 | .55 | 1.1 | .84 | 6.0 | --- | --- | --- | --- | --- | --- | --- |
| 19 | .84 | .59 | 1.0 | .87 | 5.8 | --- | --- | --- | --- | --- | --- | --- |
| 20 | .86 | .72 | .92 | .86 | 3.7 | --- | --- | --- | --- | --- | --- | --- |
| 21 | .83 | .61 | .82 | .84 | 2.8 | --- | --- | --- | --- | --- | --- | --- |
| 22 | .80 | .78 | 1.1 | .84 | 2.2 | --- | --- | --- | --- | --- | --- | --- |
| 23 | .82 | .74 | 1.4 | 12 | 13 | --- | --- | --- | --- | --- | --- | --- |
| 24 | .70 | .66 | 1.8 | 5.8 | 11 | --- | --- | --- | --- | --- | --- | --- |
| 25 | .61 | .63 | 1.5 | 2.9 | 90 | --- | --- | --- | --- | --- | --- | --- |
| 26 | .69 | .54 | 1.5 | 2.2 | 97 | --- | --- | --- | --- | --- | --- | --- |
| 27 | .71 | .54 | 1.8 | 1.8 | 14 | --- | --- | --- | --- | --- | --- | --- |
| 28 | .72 | .58 | 12 | 2.2 | 7.3 | --- | --- | --- | --- | --- | --- | --- |
| 29 | .74 | .63 | 13 | 1.7 | 4.8 | --- | --- | --- | --- | --- | --- | --- |
| 30 | .81 | .66 | 3.6 | 1.5 | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 | .79 | --- | 2.2 | 1.6 | --- | --- | --- | --- | --- | --- | --- | --- |
| TOTAL | 25.94 | 23.51 | 65.74 | 91.08 | 299.20 | --- | --- | --- | --- | --- | --- | --- |
| MEAN | .84 | .78 | 2.12 | 2.94 | 10.3 | --- | --- | --- | --- | --- | --- | --- |
| MAX | 2.0 | 3.8 | 13 | 14 | 97 | --- | --- | --- | --- | --- | --- | --- |
| MIN | .61 | .54 | .51 | .83 | .84 | --- | --- | --- | --- | --- | --- | --- |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 11.3 | 3.02 | 2.69 | 8.45 | 7.46 | 16.3 | 5.36 | 4.92 | .57 | 2.62 | 19.4 | 2.04 |
| MAX | 21.8 | 5.25 | 3.25 | 14.0 | 10.3 | 19.3 | 5.36 | 4.92 | .57 | 2.62 | 19.4 | 2.04 |
| (WY) | 1991 | 1991 | 1991 | 1991 | 1992 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 |
| MIN | .84 | .78 | 2.12 | 2.94 | 4.49 | 10.2 | 5.36 | 4.92 | .57 | 2.62 | 19.4 | 2.04 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1991 | 1992 | 1991 | 1991 | 1991 | 1991 | 1991 | 1991 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1991 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2247.62 | | 657.97 | | | |
| ANNUAL MEAN | 6.67 | | 3.94 | | 7.39 | |
| HIGHEST ANNUAL MEAN | | | | | 9.10 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 3.94 | 1992 |
| HIGHEST DAILY MEAN | 237 | Mar 3 | 97 | Feb 26 | 286 | Oct 25 1990 |
| LOWEST DAILY MEAN | .24 | Jul 29 | .51 | Dec 8 | .24 | Jul 29 1991 |
| ANNUAL SEVEN-DAY MINIMUM | .39 | Jun 21 | .56 | Nov 13 | .39 | Jun 21 1991 |
| INSTANTANEOUS PEAK FLOW | | | 900* | Sep 5 | 1120* | Aug 8 1991 |
| INSTANTANEOUS PEAK STAGE | | | 9.83* | Sep 5 | 9.83* | Sep 5 1992 |
| INSTANTANEOUS LOW FLOW | | | NOT DETERMINED | | NOT DETERMINED | |
| 10 PERCENT EXCEEDS | 10 | | 6.5 | | 12 | |
| 50 PERCENT EXCEEDS | 1.9 | | 1.1 | | 1.9 | |
| 90 PERCENT EXCEEDS | .60 | | .61 | | .66 | |

* See REMARKS.

SANTEE RIVER BASIN

02146900 TWELVE MILE CREEK NEAR WAXHAW, NC

LOCATION.--Lat 34°57'08", long 80°45'21", Union County, Hydrologic Unit 03050103, on left bank 90 ft upstream from bridge on State Highway 16, 680 ft downstream of West Fork Twelve Mile Creek, and 2.5 mi north of Waxhaw.

DRAINAGE AREA.--76.5 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-60. October 1960 to current year.

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

GAGE.--Water-stage recorder and cement-block control. Datum of gage is 489.04 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 13, 1962, water-stage recorder at site 70 ft downstream at same datum. Landline telemetry at site.

REMARKS.--No estimated daily discharges. Records good. No flow also occurred Oct. 6, 1968, Oct. 7-15, 1970, and Oct. 1-22, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900 is 23.6 ft, Sept. 7, 1949, from flood-marks. No flow observed on Oct. 6, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.4 | 5.2 | 12 | 33 | 24 | 62 | 46 | 26 | 17 | 16 | 3.4 | 4.7 |
| 2 | 6.2 | 5.1 | 15 | 28 | 22 | 51 | 41 | 24 | 14 | 18 | 62 | 4.4 |
| 3 | 10 | 5.2 | 24 | 341 | 21 | 44 | 36 | 23 | 13 | 16 | 41 | 4.6 |
| 4 | 11 | 5.3 | 91 | 592 | 21 | 39 | 34 | 21 | 50 | 15 | 11 | 24 |
| 5 | 8.1 | 5.4 | 29 | 119 | 21 | 36 | 33 | 20 | 188 | 13 | 7.6 | 11 |
| 6 | 7.3 | 5.2 | 18 | 63 | 20 | 285 | 30 | 20 | 39 | 12 | 6.4 | 7.2 |
| 7 | 6.3 | 5.3 | 14 | 42 | 19 | 1530 | 30 | 163 | 25 | 11 | 5.5 | 6.2 |
| 8 | 5.9 | 5.6 | 13 | 34 | 19 | 184 | 30 | 669 | 25 | 10 | 5.1 | 5.7 |
| 9 | 5.9 | 5.9 | 12 | 30 | 18 | 106 | 29 | 181 | 27 | 9.3 | 6.2 | 18 |
| 10 | 5.6 | 98 | 12 | 29 | 17 | 79 | 27 | 84 | 31 | 8.4 | 6.3 | 9.2 |
| 11 | 5.6 | 45 | 12 | 27 | 17 | 84 | 26 | 49 | 807 | 7.7 | 4.8 | 6.0 |
| 12 | 5.5 | 19 | 11 | 25 | 17 | 62 | 25 | 36 | 342 | 7.1 | 4.1 | 5.1 |
| 13 | 5.3 | 13 | 10 | 23 | 17 | 50 | 24 | 31 | 96 | 6.5 | 5.7 | 4.7 |
| 14 | 5.1 | 11 | 10 | 25 | 18 | 43 | 23 | 30 | 104 | 6.0 | 20 | 4.0 |
| 15 | 4.9 | 9.0 | 10 | 25 | 25 | 39 | 23 | 27 | 101 | 5.5 | 11 | 3.5 |
| 16 | 5.1 | 7.8 | 9.2 | 22 | 112 | 35 | 26 | 24 | 852 | 5.9 | 6.9 | 3.2 |
| 17 | 5.5 | 7.4 | 8.6 | 21 | 44 | 33 | 24 | 22 | 157 | 5.6 | 206 | 3.0 |
| 18 | 6.0 | 6.9 | 8.3 | 20 | 34 | 32 | 22 | 21 | 75 | 5.2 | 142 | 3.0 |
| 19 | 5.7 | 6.8 | 8.1 | 20 | 72 | 154 | 21 | 20 | 49 | 5.1 | 21 | 2.9 |
| 20 | 5.3 | 6.7 | 7.5 | 19 | 67 | 101 | 22 | 20 | 37 | 5.0 | 39 | 3.2 |
| 21 | 5.3 | 6.5 | 7.7 | 19 | 36 | 78 | 728 | 18 | 31 | 4.8 | 138 | 6.7 |
| 22 | 6.4 | 6.7 | 8.1 | 18 | 29 | 56 | 1700 | 17 | 52 | 4.7 | 30 | 5.6 |
| 23 | 6.0 | 7.2 | 9.1 | 144 | 84 | 270 | 152 | 20 | 32 | 4.8 | 14 | 4.1 |
| 24 | 5.5 | 7.3 | 19 | 140 | 261 | 119 | 78 | 19 | 26 | 5.1 | 19 | 3.5 |
| 25 | 5.3 | 7.0 | 18 | 50 | 565 | 73 | 53 | 19 | 23 | 5.0 | 10 | 3.4 |
| 26 | 5.4 | 6.8 | 14 | 35 | 2170 | 449 | 40 | 19 | 20 | 4.8 | 7.2 | 3.3 |
| 27 | 5.4 | 6.7 | 14 | 29 | 588 | 166 | 34 | 19 | 26 | 4.6 | 6.2 | 3.3 |
| 28 | 5.3 | 6.7 | 108 | 30 | 139 | 92 | 31 | 17 | 23 | 4.3 | 6.6 | 3.5 |
| 29 | 5.0 | 6.9 | 666 | 32 | 91 | 69 | 30 | 18 | 18 | 3.9 | 6.0 | 3.5 |
| 30 | 4.8 | 7.0 | 100 | 28 | --- | 58 | 28 | 23 | 17 | 3.6 | 5.3 | 3.0 |
| 31 | 5.1 | --- | 48 | 26 | --- | 53 | --- | 21 | --- | 3.6 | 4.8 | --- |
| TOTAL | 186.2 | 347.6 | 1346.6 | 2089 | 4588 | 4532 | 3446 | 1721 | 3317 | 237.5 | 862.1 | 173.5 |
| MEAN | 6.01 | 11.6 | 43.4 | 67.4 | 158 | 146 | 115 | 55.5 | 111 | 7.66 | 27.8 | 5.78 |
| MAX | 11 | 98 | 666 | 592 | 2170 | 1530 | 1700 | 669 | 852 | 18 | 206 | 24 |
| MIN | 4.8 | 5.1 | 7.5 | 18 | 17 | 32 | 21 | 17 | 13 | 3.6 | 3.4 | 2.9 |
| CFSM | .08 | .15 | .57 | .88 | 2.07 | 1.91 | 1.50 | .73 | 1.45 | .10 | .36 | .08 |
| IN. | .09 | .17 | .65 | 1.02 | 2.23 | 2.20 | 1.68 | .84 | 1.61 | .12 | .42 | .08 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 54.8 | 33.4 | 69.1 | 131 | 166 | 171 | 92.7 | 49.2 | 35.9 | 38.4 | 38.7 | 31.5 |
| MAX | 372 | 161 | 261 | 331 | 351 | 425 | 289 | 178 | 111 | 238 | 249 | 161 |
| (WY) | 1991 | 1986 | 1984 | 1978 | 1990 | 1980 | 1973 | 1989 | 1992 | 1978 | 1981 | 1987 |
| MIN | .39 | 2.18 | 5.97 | 11.5 | 22.7 | 25.8 | 14.2 | 6.19 | 1.26 | 2.33 | .93 | .15 |
| (WY) | 1984 | 1962 | 1966 | 1981 | 1986 | 1985 | 1981 | 1981 | 1986 | 1986 | 1983 | 1968 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1961 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 39086.7 | | 22846.5 | | | |
| ANNUAL MEAN | 107 | | 62.4 | | 75.6 | |
| HIGHEST ANNUAL MEAN | | | | | 150 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 25.4 | 1970 |
| HIGHEST DAILY MEAN | 2910 | Mar 4 | 2170 | Feb 26 | 5180 | Oct 2 1989 |
| LOWEST DAILY MEAN | 3.2 | Sep 19 | 2.9 | Sep 19 | 0* | Oct 6 1968 |
| ANNUAL SEVEN-DAY MINIMUM | 3.6 | Sep 13 | 3.3 | Sep 14 | 0* | Oct 7 1970 |
| INSTANTANEOUS PEAK FLOW | | | 2430 | Feb 26 | 7700 | Apr 1 1973 |
| INSTANTANEOUS PEAK STAGE | | | 13.87 | Feb 26 | 20.92 | Oct 2 1989 |
| INSTANTANEOUS LOW FLOW | | | 2.6 | Sep 30 | 0* | Oct 5 1968 |
| ANNUAL RUNOFF (CFSM) | 1.40 | | .82 | | .99 | |
| ANNUAL RUNOFF (INCHES) | 19.01 | | 11.11 | | 13.42 | |
| 10 PERCENT EXCEEDS | 234 | | 105 | | 138 | |
| 50 PERCENT EXCEEDS | 28 | | 19 | | 19 | |
| 90 PERCENT EXCEEDS | 5.4 | | 5.0 | | 2.4 | |

* See REMARKS.

## 02149000 COVE CREEK NEAR LAKE LURE, NC

LOCATION.--Lat 35°25'24", long 82°06'42", Rutherford County, Hydrologic Unit 03050105, on left bank 40 ft upstream from bridge on U.S. Highways 64 and 74, 1.0 mi upstream from mouth, and 5.0 mi east of town of Lake Lure.

DRAINAGE AREA.--79.0 mi$^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-50. October 1950 to current year. Monthly discharge only for some periods, published in WSP 1723.

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

GAGE.--Water-stage recorder. Datum of gage is 815.4 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 20, 1954, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge occurred several days in September and October, 1954. Minimum discharge for current water year also occurred December 28.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 23 ft, from records of North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 83 | 80 | 173 | 75 | 84 | 130 | 104 | 123 | 135 | 187 | 84 | 95 |
| 2 | 83 | 83 | 289 | 75 | 82 | 120 | 100 | 118 | 124 | 169 | 80 | 91 |
| 3 | 86 | 78 | 222 | 358 | 81 | 112 | 99 | 112 | 119 | 167 | 81 | 194 |
| 4 | 82 | 78 | 181 | 277 | 80 | 106 | 98 | 107 | 597 | 150 | 80 | 134 |
| 5 | 83 | 78 | 122 | 170 | 79 | 101 | 96 | 104 | 580 | 140 | 76 | 119 |
| 6 | 97 | 78 | 107 | 135 | 77 | 405 | 93 | 122 | 282 | 138 | 90 | 252 |
| 7 | 82 | 78 | 97 | 117 | 76 | 423 | 95 | 211 | 211 | 131 | 90 | 157 |
| 8 | 82 | 78 | 91 | 106 | 75 | 232 | 94 | 795 | 283 | 126 | 88 | 273 |
| 9 | 82 | 78 | 88 | 101 | 73 | 178 | 91 | 463 | 480 | 121 | 96 | 186 |
| 10 | 82 | 102 | 88 | 96 | 73 | 182 | 89 | 270 | 471 | 116 | 82 | 155 |
| 11 | 82 | 87 | 81 | 89 | 73 | 203 | 89 | 208 | 447 | 112 | 77 | 293 |
| 12 | 80 | 81 | 80 | 86 | 73 | 165 | 105 | 177 | 336 | 110 | 120 | 181 |
| 13 | 79 | 80 | 78 | 87 | 74 | 147 | 92 | 162 | 286 | 107 | 246 | 143 |
| 14 | 79 | 78 | 79 | 114 | 74 | 136 | 87 | 150 | 273 | 104 | 175 | 128 |
| 15 | 84 | 78 | 74 | 92 | 100 | 128 | 88 | 140 | 435 | 105 | 128 | 117 |
| 16 | 85 | 78 | 73 | 86 | 94 | 120 | 110 | 135 | 432 | 111 | 488 | 109 |
| 17 | 80 | 77 | 72 | 84 | 78 | 116 | 99 | 126 | 827 | 107 | 151 | 103 |
| 18 | 79 | 77 | 72 | 83 | 86 | 113 | 91 | 124 | 463 | 105 | 121 | 99 |
| 19 | 79 | 81 | 70 | 80 | 81 | 133 | 90 | 157 | 319 | 100 | 105 | 144 |
| 20 | 79 | 81 | 69 | 78 | 76 | 127 | 378 | 191 | 253 | 96 | 228 | 127 |
| 21 | 79 | 82 | 71 | 77 | 75 | 119 | 1100 | 140 | 220 | 104 | 234 | 108 |
| 22 | 81 | 127 | 70 | 76 | 73 | 115 | 503 | 125 | 198 | 110 | 152 | 164 |
| 23 | 81 | 98 | 71 | 209 | 158 | 116 | 279 | 117 | 185 | 123 | 155 | 159 |
| 24 | 88 | 83 | 72 | 158 | 178 | 107 | 214 | 112 | 174 | 142 | 129 | 124 |
| 25 | 84 | 78 | 67 | 122 | 359 | 108 | 182 | 109 | 173 | 113 | 115 | 111 |
| 26 | 82 | 76 | 67 | 110 | 543 | 145 | 159 | 110 | 243 | 104 | 106 | 107 |
| 27 | 82 | 76 | 67 | 100 | 260 | 123 | 148 | 109 | 237 | 101 | 107 | 217 |
| 28 | 82 | 75 | 85 | 98 | 183 | 116 | 141 | 109 | 173 | 93 | 210 | 179 |
| 29 | 79 | 75 | 122 | 93 | 151 | 112 | 133 | 185 | 162 | 87 | 133 | 175 |
| 30 | 79 | 76 | 86 | 89 | --- | 111 | 128 | 221 | 166 | 86 | 111 | 135 |
| 31 | 80 | --- | 78 | 87 | --- | 108 | --- | 159 | --- | 87 | 102 | --- |
| TOTAL | 2545 | 2455 | 3062 | 3608 | 3569 | 4657 | 5175 | 5491 | 9284 | 3652 | 4240 | 4579 |
| MEAN | 82.1 | 81.8 | 98.8 | 116 | 123 | 150 | 172 | 177 | 309 | 118 | 137 | 153 |
| MAX | 97 | 127 | 289 | 358 | 543 | 423 | 1100 | 795 | 827 | 187 | 488 | 293 |
| MIN | 79 | 75 | 67 | 75 | 73 | 101 | 87 | 104 | 119 | 86 | 76 | 91 |
| CFSM | 1.04 | 1.04 | 1.25 | 1.47 | 1.56 | 1.90 | 2.18 | 2.24 | 3.92 | 1.49 | 1.73 | 1.93 |
| IN. | 1.20 | 1.16 | 1.44 | 1.70 | 1.68 | 2.19 | 2.44 | 2.59 | 4.37 | 1.72 | 2.00 | 2.16 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 115 | 115 | 129 | 134 | 168 | 193 | 184 | 152 | 135 | 102 | 108 | 99.1 |
| MAX | 381 | 264 | 278 | 259 | 327 | 479 | 391 | 384 | 309 | 189 | 377 | 333 |
| (WY) | 1965 | 1980 | 1984 | 1978 | 1960 | 1979 | 1980 | 1975 | 1992 | 1974 | 1974 | 1979 |
| MIN | 24.5 | 33.1 | 38.2 | 39.5 | 79.8 | 68.6 | 69.6 | 59.2 | 37.3 | 33.1 | 31.5 | 24.5 |
| (WY) | 1955 | 1955 | 1989 | 1956 | 1988 | 1988 | 1989 | 1988 | 1988 | 1988 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1951 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 54306 | | 52317 | | | |
| ANNUAL MEAN | 149 | | 143 | | 137 | |
| HIGHEST ANNUAL MEAN | | | | | 213 | 1974 |
| LOWEST ANNUAL MEAN | | | | | 65.3 | 1956 |
| HIGHEST DAILY MEAN | 1260 | Jul 30 | 1100 | Apr 21 | 3190 | Oct 4 1964 |
| LOWEST DAILY MEAN | 67 | Dec 25 | 67 | Dec 25 | 21 | Sep 8 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 69 | Dec 21 | 69 | Dec 21 | 21 | Sep 30 1954 |
| INSTANTANEOUS PEAK FLOW | | | 1720 | Jun 17 | 7050 | Jun 5 1957 |
| INSTANTANEOUS PEAK STAGE | | | 7.55 | Jun 17 | 18.53 | Jun 5 1957 |
| INSTANTANEOUS LOW FLOW | | | 65* | Dec 27 | 21* | Sep 8 1954 |
| ANNUAL RUNOFF (CFSM) | 1.88 | | 1.81 | | 1.73 | |
| ANNUAL RUNOFF (INCHES) | 25.57 | | 24.64 | | 23.52 | |
| 10 PERCENT EXCEEDS | 230 | | 244 | | 225 | |
| 50 PERCENT EXCEEDS | 125 | | 107 | | 106 | |
| 90 PERCENT EXCEEDS | 79 | | 77 | | 52 | |

* See REMARKS.

SANTEE RIVER BASIN

02151000 SECOND BROAD RIVER AT CLIFFSIDE, NC

LOCATION.--Lat 35°14'08", long 81°45'57", Rutherford County, Hydrologic Unit 03050105, on left bank 0.2 mi downstream of dam at Cliffside Mills, at Cliffside, and 1.3 mi upstream from mouth.

DRAINAGE AREA.--220 mi².

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

REVISED RECORDS.--WSP 892: 1928(M). WSP 1553: 1935-39(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 670.5 ft above National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service).

REMARKS.--Records good except for estimated daily discharges, which are fair. Considerable diurnal fluctuation and some low-flow regulation by mills upstream from station. Minimum discharge for period of record also occurred Aug. 3, 1937, and July 24, 1943. Peak stage for current water year from floodmark inside well.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 130 | 143 | 160 | 164 | 164 | 342 | 224 | 246 | 250 | 243 | 125 | 163 |
| 2 | 148 | 148 | 298 | 159 | 159 | 293 | 216 | 234 | 193 | 259 | 137 | 113 |
| 3 | 151 | 144 | 316 | 230 | 156 | 265 | 210 | 219 | 200 | 237 | 102 | 158 |
| 4 | 111 | 141 | 372 | 579 | 157 | 245 | 207 | 207 | 352 | 234 | 147 | 140 |
| 5 | 138 | 143 | 272 | 390 | 155 | 228 | 201 | 199 | 809 | 194 | 110 | 186 |
| 6 | 152 | 146 | 207 | 299 | 154 | 284 | 192 | 237 | 454 | 187 | 121 | 278 |
| 7 | 102 | 149 | 188 | 236 | 151 | 718 | 196 | 363 | 323 | 197 | 135 | 245 |
| 8 | 132 | 149 | 177 | 208 | 150 | 492 | 196 | 1240 | 296 | 219 | 164 | 194 |
| 9 | 133 | 150 | 172 | 195 | 144 | 383 | 192 | 1090 | 430 | 194 | 125 | 177 |
| 10 | 134 | 173 | 174 | 186 | 141 | 352 | 187 | 616 | 684 | 165 | 145 | 165 |
| 11 | 134 | 185 | 165 | 177 | 143 | 392 | 186 | 447 | 853 | 165 | 126 | 156 |
| 12 | 133 | 162 | 160 | 164 | 144 | 371 | 187 | 373 | 794 | 165 | 120 | 201 |
| 13 | 127 | 156 | 160 | 161 | 144 | 333 | e187 | 339 | 542 | 136 | 218 | 182 |
| 14 | 126 | 152 | 162 | 174 | 148 | 298 | e187 | 327 | 471 | 160 | 450 | 150 |
| 15 | 131 | 155 | 157 | 172 | 179 | 268 | e238 | 291 | 492 | 140 | 246 | 150 |
| 16 | 137 | 154 | 150 | 162 | 248 | 248 | e195 | 265 | 471 | 157 | 197 | 138 |
| 17 | 135 | 152 | 152 | 157 | 191 | 235 | e199 | 248 | 402 | 151 | 193 | 135 |
| 18 | 135 | 151 | 151 | 156 | 191 | 231 | e225 | 230 | 386 | 164 | 141 | 128 |
| 19 | 133 | 158 | 147 | 151 | 188 | 285 | e208 | 221 | 316 | 188 | 167 | 123 |
| 20 | 130 | 163 | 145 | 146 | 179 | 322 | e190 | 218 | 303 | 135 | 166 | 177 |
| 21 | 130 | 163 | 145 | 148 | 168 | 275 | e1000 | 211 | 275 | 167 | 265 | 188 |
| 22 | 137 | 171 | 144 | 147 | 165 | 250 | e2780 | 202 | 258 | 136 | 201 | 158 |
| 23 | 139 | 193 | 144 | 251 | 218 | 260 | e1600 | 192 | 244 | 142 | 198 | 239 |
| 24 | 138 | 170 | 149 | 437 | 462 | 239 | e1300 | 190 | 236 | 195 | 182 | 197 |
| 25 | 146 | 160 | 145 | 299 | 586 | 234 | e830 | 182 | 230 | 193 | 141 | 196 |
| 26 | 144 | 159 | 141 | 231 | 1770 | 298 | e350 | 190 | 276 | 192 | 171 | 146 |
| 27 | 142 | 159 | 138 | 203 | 898 | 319 | e310 | 220 | 249 | 183 | 140 | 273 |
| 28 | 140 | 157 | 159 | 194 | 526 | 279 | 304 | 172 | 237 | 181 | 170 | 406 |
| 29 | 142 | 153 | 269 | 186 | 406 | 255 | 279 | 204 | 224 | 134 | 168 | 282 |
| 30 | 139 | 151 | 211 | 176 | --- | 243 | 259 | 353 | 235 | 123 | 168 | 234 |
| 31 | 142 | --- | 175 | 170 | --- | 239 | --- | 314 | --- | 174 | 125 | --- |
| TOTAL | 4191 | 4710 | 5705 | 6708 | 8485 | 9476 | 13035 | 10040 | 11485 | 5510 | 5264 | 5678 |
| MEAN | 135 | 157 | 184 | 216 | 293 | 306 | 434 | 324 | 383 | 178 | 170 | 189 |
| MAX | 152 | 193 | 372 | 579 | 1770 | 718 | 2780 | 1240 | 853 | 259 | 450 | 406 |
| MIN | 102 | 141 | 138 | 146 | 141 | 228 | 186 | 172 | 193 | 123 | 102 | 113 |
| CFSM | .61 | .71 | .84 | .98 | 1.33 | 1.39 | 1.97 | 1.47 | 1.74 | .81 | .77 | .86 |
| IN. | .71 | .80 | .96 | 1.13 | 1.43 | 1.60 | 2.20 | 1.70 | 1.94 | .93 | .89 | .96 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 266 | 241 | 306 | 368 | 414 | 452 | 397 | 306 | 269 | 232 | 254 | 210 |
| MAX | 1438 | 598 | 674 | 1182 | 999 | 1242 | 1044 | 950 | 588 | 641 | 1421 | 879 |
| (WY) | 1965 | 1978 | 1968 | 1937 | 1960 | 1975 | 1936 | 1975 | 1975 | 1941 | 1928 | 1945 |
| MIN | 57.4 | 91.6 | 90.2 | 91.8 | 152 | 169 | 166 | 124 | 91.5 | 71.3 | 59.9 | 55.8 |
| (WY) | 1955 | 1956 | 1956 | 1956 | 1941 | 1955 | 1986 | 1941 | 1956 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1925 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 114852 | | 90287 | | | |
| ANNUAL MEAN | 315 | | 247 | | 310 | |
| HIGHEST ANNUAL MEAN | | | | | 500 | 1965 |
| LOWEST ANNUAL MEAN | | | | | 151 | 1955 |
| HIGHEST DAILY MEAN | 3240 | Mar 30 | 2780 | Apr 22 | 13200 | Aug 16 1928 |
| LOWEST DAILY MEAN | 90 | Sep 30 | 102 | Oct 7 | 6.0 | Jun 9 1940 |
| ANNUAL SEVEN-DAY MINIMUM | 128 | Oct 7 | 125 | Aug 1 | 39 | Oct 28 1926 |
| INSTANTANEOUS PEAK FLOW | | | 2950* | Apr 22 | 15000 | Aug 14 1940 |
| INSTANTANEOUS PEAK STAGE | | | 5.37* | Apr 22 | 17.93 | Aug 14 1940 |
| INSTANTANEOUS LOW FLOW | | | 26 | May 24 | 4.0* | Sep 27 1935 |
| ANNUAL RUNOFF (CFSM) | 1.43 | | 1.12 | | 1.41 | |
| ANNUAL RUNOFF (INCHES) | 19.42 | | 15.27 | | 19.12 | |
| 10 PERCENT EXCEEDS | 502 | | 376 | | 505 | |
| 50 PERCENT EXCEEDS | 259 | | 187 | | 225 | |
| 90 PERCENT EXCEEDS | 143 | | 137 | | 113 | |

* See REMARKS.

SANTEE RIVER BASIN

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC

LOCATION.--Lat 35°12'39", long 81°41'52", Cleveland County, Hydrologic Unit 03050105, on right bank 0.5 mi upstream from Sandy Run Creek, 3 mi downstream of Second Broad River, and 3.5 mi southwest of Boiling Springs.

DRAINAGE AREA.--875 mi².

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

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-88: 1986(m).

GAGE.--Water-stage recorder. Datum of gage is 639.92 ft above National Geodetic Vertical Datum of 1929 (Duke Power Company bench mark). Prior to July 20, 1934, at site 500 ft upstream at 640.92 ft. Landline telemetry at site.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation and some regulation caused by powerplants upstream from station. Peak stage and peak discharge for period of record from former site, present datum. Minimum discharge for current water year also occurred August 4, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 911 | 717 | 694 | 1020 | 1030 | 1420 | 1330 | 1420 | 1170 | 1720 | 940 | 1110 |
| 2 | 934 | 917 | 1470 | 869 | 734 | 1190 | 1240 | 1310 | 1350 | 1630 | 650 | 1070 |
| 3 | 927 | 583 | 2430 | 1050 | 769 | 1680 | 979 | 1210 | 1190 | 1240 | 652 | 1040 |
| 4 | 896 | 610 | 2520 | 2200 | 933 | 1600 | 1090 | 998 | 2130 | 1430 | 885 | 1500 |
| 5 | 820 | 849 | 1630 | 1640 | 987 | 1250 | 854 | 1310 | 4540 | 1240 | 759 | 1350 |
| 6 | 619 | 707 | 1460 | 1250 | 1020 | 1410 | 920 | 1300 | 3160 | 832 | 651 | 1690 |
| 7 | 681 | 682 | 1190 | 1470 | 774 | 3350 | 1240 | 1720 | 2640 | 1350 | 793 | 1460 |
| 8 | 687 | 681 | 832 | 1150 | 871 | 3050 | 1200 | 5830 | 1720 | 1110 | 830 | 1410 |
| 9 | 735 | 678 | 786 | 1140 | 788 | 1930 | 1030 | 6680 | 2370 | 1090 | 538 | 1210 |
| 10 | 855 | 735 | 1250 | 1040 | 546 | 1900 | 991 | 3540 | 3640 | 997 | 826 | 1180 |
| 11 | 848 | 723 | 927 | 1140 | 891 | 2030 | 1170 | 2830 | 4120 | 1000 | 850 | 1100 |
| 12 | 703 | 884 | 971 | 753 | 961 | 1870 | 942 | 1910 | 4300 | 803 | 893 | 1380 |
| 13 | 546 | 902 | 1060 | 784 | 871 | 1510 | 1280 | 1990 | 3290 | 737 | 1340 | 1290 |
| 14 | 497 | 748 | 1070 | 1080 | 828 | 1770 | 1360 | 1840 | 2770 | 1050 | 3120 | 1010 |
| 15 | 799 | 715 | 855 | 1130 | 908 | 1180 | 1090 | 1720 | 2260 | 1000 | 1280 | 922 |
| 16 | 953 | 889 | 717 | 1040 | 1080 | 1240 | 1060 | 1440 | 2470 | 863 | 944 | 1070 |
| 17 | 703 | 603 | 958 | 869 | 893 | 1330 | 1110 | 1460 | 2240 | 857 | 1320 | 876 |
| 18 | 674 | 609 | 961 | 884 | 1080 | 1450 | 1200 | 1270 | 2820 | 942 | 1230 | 1000 |
| 19 | 663 | 747 | 944 | 694 | 878 | 1590 | 1050 | 1740 | 2370 | 812 | 1090 | 673 |
| 20 | 610 | 903 | 1010 | 646 | 945 | 1580 | 970 | 1600 | 1820 | 862 | 981 | 1090 |
| 21 | 662 | 937 | 1150 | 867 | 844 | 1550 | 6750 | 1760 | 1620 | 1200 | 1760 | 1040 |
| 22 | 684 | 865 | 780 | 848 | 772 | 1240 | 9050 | 1390 | 1560 | 934 | 1470 | 1120 |
| 23 | 738 | 1190 | 724 | 1330 | 837 | 1280 | 3840 | 1200 | 1790 | 984 | 1210 | 1390 |
| 24 | 773 | 832 | 1100 | 2040 | 2140 | 1420 | 2980 | 896 | 1470 | 1160 | 1380 | 1250 |
| 25 | 825 | 734 | 846 | 1610 | 2580 | 1350 | 2040 | 1170 | 1220 | 1160 | 1010 | 1030 |
| 26 | 776 | 830 | 582 | 1200 | 7370 | 1700 | 1750 | 1290 | 1590 | 838 | 1010 | 924 |
| 27 | 666 | 813 | 788 | 1110 | 4230 | 1690 | 1640 | 1330 | 1460 | 791 | 960 | 1360 |
| 28 | 597 | 788 | 910 | 1370 | 2910 | 1540 | 1700 | 1190 | 1450 | 1120 | 1390 | 1910 |
| 29 | 840 | 609 | 1070 | 1210 | 1750 | 1340 | 1390 | 1390 | 1460 | 902 | 1480 | 1820 |
| 30 | 721 | 847 | 1080 | 1050 | --- | 1060 | 1530 | 2360 | 1660 | 872 | 956 | 1450 |
| 31 | 708 | --- | 1170 | 1030 | --- | 1400 | --- | 1600 | --- | 796 | 1030 | --- |
| TOTAL | 23051 | 23327 | 33935 | 35514 | 41220 | 49900 | 54776 | 58694 | 67650 | 32322 | 34228 | 36725 |
| MEAN | 744 | 778 | 1095 | 1146 | 1421 | 1610 | 1826 | 1893 | 2255 | 1043 | 1104 | 1224 |
| MAX | 953 | 1190 | 2520 | 2200 | 7370 | 3350 | 9050 | 6680 | 4540 | 1720 | 3120 | 1910 |
| MIN | 497 | 583 | 582 | 646 | 546 | 1060 | 854 | 896 | 1170 | 737 | 538 | 673 |
| CFSM | .85 | .89 | 1.25 | 1.31 | 1.62 | 1.84 | 2.09 | 2.16 | 2.58 | 1.19 | 1.26 | 1.40 |
| IN. | .98 | .99 | 1.44 | 1.51 | 1.75 | 2.12 | 2.33 | 2.50 | 2.88 | 1.37 | 1.46 | 1.56 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1287 | 1216 | 1458 | 1702 | 1887 | 2081 | 1940 | 1562 | 1331 | 1128 | 1234 | 1088 |
| MAX | 5499 | 2703 | 2875 | 4750 | 4304 | 4868 | 4525 | 3441 | 2812 | 2505 | 6893 | 3100 |
| (WY) | 1965 | 1949 | 1984 | 1937 | 1960 | 1975 | 1936 | 1973 | 1973 | 1949 | 1928 | 1945 |
| MIN | 237 | 407 | 449 | 422 | 820 | 783 | 821 | 682 | 420 | 351 | 295 | 288 |
| (WY) | 1955 | 1955 | 1956 | 1956 | 1941 | 1988 | 1986 | 1988 | 1988 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1925 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 557944 | | 491342 | | | |
| ANNUAL MEAN | 1529 | | 1342 | | 1493 | |
| HIGHEST ANNUAL MEAN | | | | | 2328 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 768 | 1988 |
| HIGHEST DAILY MEAN | 16000 | Mar 30 | 9050 | Apr 22 | 63900 | Aug 16 1928 |
| LOWEST DAILY MEAN | 497 | Oct 14 | 497 | Oct 14 | 105 | Oct 10 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 676 | Oct 17 | 676 | Oct 17 | 185 | Aug 27 1956 |
| INSTANTANEOUS PEAK FLOW | | | 12500 | Apr 21 | 73300* | Aug 16 1928 |
| INSTANTANEOUS PEAK STAGE | | | 9.00 | Apr 21 | 24.30* | Aug 16 1928 |
| INSTANTANEOUS LOW FLOW | | | 433* | Aug 3 | 40 | Oct 17 1954 |
| ANNUAL RUNOFF (CFSM) | 1.75 | | 1.53 | | 1.71 | |
| ANNUAL RUNOFF (INCHES) | 23.72 | | 20.89 | | 23.19 | |
| 10 PERCENT EXCEEDS | 2400 | | 2040 | | 2490 | |
| 50 PERCENT EXCEEDS | 1280 | | 1090 | | 1170 | |
| 90 PERCENT EXCEEDS | 722 | | 717 | | 578 | |

* See REMARKS.

SANTEE RIVER BASIN

02152100 FIRST BROAD RIVER NEAR CASAR, NC

LOCATION.--Lat 35°29'35", long 81°40'56", Cleveland County, Hydrologic Unit 03050105, on right bank 570 ft upstream from bridge on Secondary Road 1530, 0.5 mi upstream from Business Creek, and 4.0 mi southwest of Casar.

DRAINAGE AREA.--60.5 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-56, March 1959 to current year.

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

GAGE.--Water-stage recorder. Elevation of gage is 890 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 and August 1940 reached a stage of about 25 ft, from information by local resident. A discharge of 14.5 $ft^3/s$ was measured on Sept. 21, 1955.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34 | 35 | 44 | 40 | 42 | 68 | 55 | 61 | 52 | 54 | 30 | 29 |
| 2 | 34 | 36 | 91 | 40 | 41 | 62 | 54 | 58 | 49 | 49 | 29 | 29 |
| 3 | 35 | 35 | 88 | 86 | 40 | 58 | 52 | 55 | 48 | 46 | 29 | 31 |
| 4 | 34 | 35 | 80 | 160 | 40 | 55 | 51 | 52 | 314 | 44 | 28 | 31 |
| 5 | 41 | 35 | 51 | 90 | 40 | 53 | 50 | 51 | 290 | 41 | 26 | 49 |
| 6 | 42 | 36 | 45 | 63 | 39 | 122 | 48 | 65 | 128 | 42 | 28 | 101 |
| 7 | 35 | 36 | 42 | 53 | 38 | 241 | 48 | 105 | 88 | 49 | 32 | 51 |
| 8 | 35 | 36 | 41 | 48 | 38 | 128 | 48 | 380 | 72 | 41 | 32 | 41 |
| 9 | 35 | 36 | 40 | 46 | 37 | 91 | 47 | 231 | 92 | 39 | 32 | 37 |
| 10 | 35 | 49 | 41 | 44 | 37 | 85 | 45 | 133 | 108 | 38 | 28 | 36 |
| 11 | 35 | 41 | 39 | 42 | 37 | 120 | 44 | 96 | 110 | 36 | 28 | 77 |
| 12 | 34 | 36 | 38 | 41 | 37 | 93 | 52 | 80 | 105 | 35 | 30 | 44 |
| 13 | 33 | 36 | 38 | 41 | 39 | 79 | 49 | 80 | 92 | 34 | 81 | 37 |
| 14 | 33 | 36 | 40 | 45 | 39 | 69 | 44 | 83 | 86 | 33 | 67 | 35 |
| 15 | 34 | 36 | 37 | 41 | 61 | 64 | 45 | 67 | 80 | 33 | 39 | 33 |
| 16 | 35 | 36 | 37 | 39 | 75 | 59 | 56 | 63 | 89 | 42 | 35 | 31 |
| 17 | 33 | 36 | 37 | 40 | 56 | 57 | 47 | 59 | 75 | 36 | 34 | 31 |
| 18 | 34 | 36 | 37 | 39 | 55 | 56 | 44 | 58 | 69 | 38 | 33 | 30 |
| 19 | 33 | 38 | 36 | 38 | 52 | 80 | 43 | 61 | 64 | 38 | 32 | 38 |
| 20 | 33 | 39 | 36 | 38 | 49 | 70 | 201 | 56 | 59 | 33 | 32 | 40 |
| 21 | 34 | 40 | 36 | 38 | 46 | 63 | 1570 | 54 | 57 | 35 | 39 | 35 |
| 22 | 35 | 53 | 37 | 38 | 44 | 61 | 661 | 51 | 54 | 34 | 33 | 45 |
| 23 | 35 | 48 | 37 | 119 | 77 | 63 | 215 | 49 | 52 | 60 | 34 | 43 |
| 24 | 36 | 39 | 39 | 98 | 114 | 58 | 136 | 48 | 50 | 39 | 33 | 37 |
| 25 | 36 | 37 | 36 | 65 | 202 | 57 | 105 | 48 | 50 | 40 | 33 | 34 |
| 26 | 36 | 37 | 36 | 56 | 498 | 90 | 86 | 50 | 52 | 36 | 31 | 34 |
| 27 | 36 | 36 | 36 | 50 | 190 | 78 | 78 | 51 | 54 | 36 | 31 | 104 |
| 28 | 36 | 36 | 44 | 49 | 110 | 68 | 73 | 48 | 47 | 35 | 59 | 78 |
| 29 | 35 | 36 | 74 | 46 | 83 | 63 | 67 | 71 | 46 | 31 | 40 | 57 |
| 30 | 35 | 38 | 49 | 44 | --- | 61 | 63 | 79 | 55 | 31 | 32 | 44 |
| 31 | 35 | --- | 43 | 43 | --- | 59 | --- | 61 | --- | 30 | 30 | --- |
| TOTAL | 1086 | 1139 | 1405 | 1720 | 2256 | 2431 | 4177 | 2504 | 2587 | 1208 | 1100 | 1342 |
| MEAN | 35.0 | 38.0 | 45.3 | 55.5 | 77.8 | 78.4 | 139 | 80.8 | 86.2 | 39.0 | 35.5 | 44.7 |
| MAX | 42 | 53 | 91 | 160 | 498 | 241 | 1570 | 380 | 314 | 60 | 81 | 104 |
| MIN | 33 | 35 | 36 | 38 | 37 | 53 | 43 | 48 | 46 | 30 | 26 | 29 |
| CFSM | .58 | .63 | .75 | .92 | 1.29 | 1.30 | 2.30 | 1.34 | 1.43 | .64 | .59 | .74 |
| IN. | .67 | .70 | .86 | 1.06 | 1.39 | 1.49 | 2.57 | 1.54 | 1.59 | .74 | .68 | .83 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 80.3 | 68.2 | 86.5 | 96.8 | 125 | 135 | 126 | 101 | 80.8 | 63.3 | 68.3 | 57.5 |
| MAX | 318 | 191 | 185 | 200 | 286 | 386 | 291 | 254 | 168 | 138 | 262 | 132 |
| (WY) | 1965 | 1978 | 1962 | 1978 | 1960 | 1975 | 1983 | 1975 | 1975 | 1984 | 1970 | 1959 |
| MIN | 24.7 | 27.3 | 26.6 | 44.4 | 50.8 | 44.6 | 48.1 | 33.9 | 23.4 | 19.2 | 19.5 | 27.2 |
| (WY) | 1964 | 1982 | 1989 | 1989 | 1988 | 1988 | 1967 | 1988 | 1988 | 1988 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1959 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 30928 | | 22955 | | | |
| ANNUAL MEAN | 84.7 | | 62.7 | | 90.7 | |
| HIGHEST ANNUAL MEAN | | | | | 139 | 1960 |
| LOWEST ANNUAL MEAN | | | | | 43.4 | 1988 |
| HIGHEST DAILY MEAN | 954 | Mar 29 | 1570 | Apr 21 | 3130 | Mar 14 1975 |
| LOWEST DAILY MEAN | 33 | Oct 13 | 26 | Aug 5 | 11 | Aug 27 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 34 | Oct 13 | 29 | Jul 31 | 15 | Aug 21 1988 |
| INSTANTANEOUS PEAK FLOW | | | 3670 | Apr 21 | 7760 | Oct 17 1975 |
| INSTANTANEOUS PEAK STAGE | | | 10.47 | Apr 21 | 16.70 | Oct 17 1975 |
| INSTANTANEOUS LOW FLOW | | | 25 | Aug 12 | 10 | Aug 28 1988 |
| ANNUAL RUNOFF (CFSM) | 1.40 | | 1.04 | | 1.50 | |
| ANNUAL RUNOFF (INCHES) | 19.02 | | 14.11 | | 20.36 | |
| 10 PERCENT EXCEEDS | 134 | | 90 | | 146 | |
| 50 PERCENT EXCEEDS | 70 | | 44 | | 65 | |
| 90 PERCENT EXCEEDS | 36 | | 33 | | 35 | |

**02067800; 02067820 TALBOTT AND TOWNES RESERVOIRS.**--on Dan River. These two reservoirs are operated as a unit for storage of water for Pinnacles hydroelectric plant.
**Talbott Dam.**--Lat 36°40'36", long 80°23'51", Patrick County, Va., Hydrologic Unit 03010103, 4.5 mi northeast of Kibler.
Drainage area.--20.2 mi².
**Townes Dam.**--Lat 36°41'11", long 80°25'49", Patrick County, Va., Hydrologic Unit 03010103, 4 mi north of Kibler.
Drainage area.--32.9 mi².
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.
Remarks.--Total capacity of Talbott Reservoir is 350,000,000 ft³ and Townes Reservoir is 60,000,000 ft³. Filling was started in Talbott Reservoir Feb. 13, 1939, and in Townes Reservoir several months earlier. Records furnished by city of Danville, Virginia. (See station 02068500.)

**02077280 HYCO LAKE.**--Lat 36°30'28", long 79°02'48", Person County, Hydrologic Unit 03010104, at outlet control structure 0.4 mi northwest of dam on Hyco River, 1.1 mi southwest of McGehees Mill, and 8 mi northwest of Roxboro.
DRAINAGE AREA.--189 mi².
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 above National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Co.).
REMARKS.--Lake, used for cooling water at the Roxboro Steam-Electric Generating Plant of Carolina Power and Light Co., first began to fill Sept. 19, 1964, and first reached spillway elevation (9.97 ft gage height) Mar. 19, 1965. Total capacity at top of spillway is 3,288,000,000 ft³. Lake cannot be drawn below -0.03 ft (bottom of gated flume).

**02079964 LAKE GASTON.**--Lat 36°30'04", long 77°48'43", Halifax County, Hydrologic Unit 03010106, at Gaston Dam on Roanoke River, 0.2 mi upstream from Black Gut Creek, and 2.7 mi northwest of Thelma.
DRAINAGE AREA.--8,339 mi².
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.
REMARKS.--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. Usable capacity at top of spillway gates, 20,127,000,000 ft³, is between elevations 165 and 203 ft. Capacity reserved for flood control, 2,788,000 ft³, is between elevations 200 and 203 ft. Storage for power generation, 10,673,000,000 ft³, is between elevations 185 and 200 ft.
COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

**02080100 ROANOKE RAPIDS LAKE.**--Lat 36°29'10", long 77°39'31", Halifax County, Hydrologic Unit 03010107, at Roanoke Rapids Dam on Roanoke River, 1.5 mi upstream from bridge on State Highway 48, and 2.2 mi north of Roanoke Rapids.
DRAINAGE AREA.--8,371 mi².
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.
REMARKS.--Lake, used for hydroelectric power development, was put in operation June 25, 1955, and has a total capacity of 3,360,220,000 ft³ at elevation 132.0 ft (normal high water). Useable capacity is 3,515,290,000 ft³ at 132.75 ft (top of gates).
COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

**02087182 FALLS LAKE.**--Lat 35°56'00", long 78°35'00", Wake County, Hydrologic Unit 03020201, at Falls Dam on Neuse River at Falls, 10 mi north of Raleigh, and 235 mi upstream from mouth.
DRAINAGE AREA.--770 mi².
PERIOD OF RECORD.--February 1979 to current year.
GAGE.--Datum of gage is National Geodetic Vertical Datum of 1929.
REMARKS.--Lake is used for flood control, water supply, low-flow augmentation, and recreation. Temporary filling began May 1981 for water supply for city of Raleigh during drought conditions. Jan. 13, 1983, gates closed and normal pool elevation of 250 ft was reached Dec. 7, 1983. (See station 02087183.)

**02098197 B. EVERETT JORDAN LAKE.**--Lat 35°39'17", long 79°04'02", Chatham County, Hydrologic Unit 03030002, at B. Everett Jordan Dam on Haw River, 0.3 mi downstream of mouth of New Hope River, 2.5 mi north of Moncure, 4.2 mi upstream from mouth of Haw River, and 202.2 mi upstream from mouth of Cape Fear River.
DRAINAGE AREA.--1,689 mi².
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.
REMARKS.--Lake is 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. Reservoir began filling September 1981 and reached normal pool elevation, 216 ft, Feb. 4, 1982. Total capacity is 32,825,074,000 ft³ at 240.0 ft, of which 23,454,011,000 ft³ is controlled flood storage. (See station 02098198.)

**02111391 W. KERR SCOTT RESERVOIR.**--Lat 36°08'04", long 81°13'30", Wilkes County, Hydrologic Unit 03040101, at W. Kerr Scott Dam on Yadkin River, 0.1 mi upstream from Fish Trap Creek, 2.0 mi upstream from Millers Creek, and 4.0 mi west of Wilkesboro.
DRAINAGE AREA.--350 mi², 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.
REMARKS.--Lake is 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. Reservoir reached minimum pool elevation on Sept. 11, 1962. Total capacity is 6,664,680,000 ft³ of which 6,316,200,000 ft³ is controlled storage.
COOPERATION.--Records furnished by Corps of Engineers. (See station 02129000.)

**02122400 HIGH ROCK LAKE.**--Lat 35°36'02", long 80°14'06", Davidson County, Hydrologic Unit 03040103, at High Rock Dam on Yadkin River, 0.8 mi northwest of High Rock, 2 mi upstream from Lick Creek, and 256 mi upstream from mouth of Pee Dee River in Winyah Bay.
DRAINAGE AREA.--4,000 mi², approximately.
PERIOD OF RECORD.--November 1927 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is 30.9 ft below National Geodetic Vertical Datum of 1929.
REMARKS.--Lake, used for hydroelectric power development, was first put in operation Nov. 7, 1927. Total capacity is 11,090,000,000 ft³. Usable capacity, 10,230,000,000 ft³, is between 625 and 655 ft gage datum (top of gates).
COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

**02122699 TUCKERTOWN RESERVOIR.**--Lat 35°29'03", long 80°10'30", Stanly County, Hydrologic Unit 03040103, at Tuckertown Dam on Yadkin River, 2.5 mi upstream from Garr Creek, 3.8 mi northeast of New London, and 250 mi upstream from mouth of Pee Dee River in Winyah Bay.
DRAINAGE AREA.--4,120 mi², approximately.
PERIOD OF RECORD--April 1962 to current year.
GAGE--Remote water-stage recorder in powerhouse. Datum of gage is 30.9 ft below National Geodetic Vertical Datum of 1929.
REMARKS.--Lake, used for hydroelectric power development, was first filled Apr. 6, 1962. Total capacity is 1,852,400,000 ft³. Usable capacity, 293,800,000 ft³, is between 593 and 596 ft gage datum.
COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

Lakes and Reservoirs in South Atlantic Slope basin--continued

**02122844 BADIN LAKE.**--Lat 35°35'10", long 80°05'34", Stanly County, Hydrologic Unit 03040103, at Badin Dam on Yadkin River, 1.5 mi northeast of Badin, 2.5 mi upstream from Falls Dam, and 242 mi upstream from mouth of Pee Dee River in Winyah Bay.
DRAINAGE AREA.--4,180 $mi^2$, approximately.
PERIOD OF RECORD.--December 1917 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is 30.9 ft below National Geodetic Vertical Datum of 1929.
REMARKS.--Lake, generally known as Narrows Reservoir, used for hydroelectric power development, was first put in operation July 12, 1917. Total capacity is 10,497,960,000 $ft^3$. Usable capacity, 5,616,584,000 $ft^3$, is between 510.00 and 541.10 ft.
COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

**02123736 LAKE TILLERY.**--Lat 35°12'24", long 80°03'57", Stanly County, Hydrologic Unit 03040104, at Norwood Dam on Pee Dee River, 700 ft upstream from Norfolk Southern Railroad bridge, 3.5 mi southeast of Norwood, 5 mi upstream from Rocky River, and 224 mi upstream from mouth in Winyah Bay.
DRAINAGE AREA.--4,600 $mi^2$, approximately.
PERIOD OF RECORD.--February 1928 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Water-stage recorder and float-tape gage at dam. Datum of gage is 38.67 ft above National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Co.).
REMARKS.--Lake, used for hydroelectric power development, was first put in operation during January 1928. Total capacity is 7,274,520,000 $ft^3$. Usable capacity, 5,927,040,000 $ft^3$, is between elevations 200.5 and 239.5 ft gage datum (top of gates).
COOPERATION.--Records furnished by Carolina Power and Light Co. (See station 02129000.)

**02128800 BLEWETT FALLS LAKE.**--Lat 34°58'58", long 79°52'40", Richmond County, Hydrologic Unit 03040104, at Blewett Falls Dam on Pee Dee River, 1.2 mi upstream from Cartledge Creek, 6.5 mi northwest of Rockingham, and 195 mi upstream from mouth in Winyah Bay.
DRAINAGE AREA.--6,830 $mi^2$, approximately.
PERIOD OF RECORD.--December 1929 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Self-synchronous motor, dial indicator, and staff gage at dam. Datum of gage is 39.08 ft National Geodetic Vertical Datum of 1929 (levels by Carolina Power and Light Co.).
REMARKS.--Lake, used for hydroelectric power development, was first put in use during 1911. Total capacity is 4,225,320,000 $ft^3$. Usable capacity, 1,850,000,000 $ft^3$, is between 120.0 and 139.0 ft gage datum (top of flashboards).
COOPERATION.--Records furnished by Carolina Power and Light Co. (See station 02129000.)

**02138519 LAKE JAMES.**--Lat 35°44'36", long 81°50'22", Burke County, Hydrologic Unit 03050101, at Linville Dam at intake tower on Catawba River, 2.1 mi northeast of Bridgewater, and 279 mi upstream from mouth of Wateree River.
DRAINAGE AREA.--380 $mi^2$, approximately.
PERIOD OF RECORD.--March 1920 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Float gage with self-synchronous motor to indicator in powerhouse. Staff gage at Catawba River Dam is also read when lake elevation drops below 1,160 ft, 60 ft gage datum, and lake becomes two separate reservoirs. Datum of gage is 1,100.00 ft above National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).
REMARKS.--Lake, generally known as Bridgewater Reservoir, used for hydroelectric power development, was first put in operation May 5, 1919. The total capacity is 12,581,800,000 $ft^3$ at 100.0 ft gage datum (crest of spillway). Usable capacity, 7,943,700,000 $ft^3$, is between 65.0 and 100.0 ft gage datum.
COOPERATION.--Records furnished by Duke Power Co.

**02141490 RHODHISS LAKE.**--Lat 35°46'54", long 81°26'42", Caldwell County, Hydrologic Unit 03030101, at Rhodhiss Dam on Catawba River, 0.8 mi west of Rhodhiss, 1.8 mi south of Granite Falls, and 243 mi upstream from mouth of Wateree River.
DRAINAGE AREA.--1,090 $mi^2$, approximately.
PERIOD OF RECORD.--September 1935 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Float gage, indicator, and reference point at dam. Datum of gage is 895.1 ft National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).
REMARKS.--Lake, used for hydroelectric power development, was first put in operation Feb. 18, 1925. Total capacity is 3,188,592,000 $ft^3$. Usable capacity, 1,717,000,000 $ft^3$, is between elevations 85.0 and 100.0 ft gage datum (crest of spillway).
COOPERATION.--Records furnished by Duke Power Co.

**02141961 LAKE HICKORY.**--Lat 35°49'28", long 81°11'28", Alexander County, Hydrologic Unit 03050101, at Oxford Dam on Catawba River, 2 mi upstream from Lower Little River, 7 mi south of Taylorsville, and 226 mi upstream from mouth of Wateree River.
DRAINAGE AREA.--1,310 $mi^2$, approximately.
PERIOD OF RECORD.--September 1935 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Float gage and indicator at dam. Datum of gage is 835.0 ft above National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).
REMARKS.--Lake, generally known as Oxford Reservoir, used for hydroelectric power development, was first put in operation Apr. 5, 1928. Total capacity is 5,552,985,000 $ft^3$. The usable capacity from Sept. 1, 1935, to Sept. 30, 1957, was considered to be 2,277,970,200 $ft^3$ between 85.0 and 100.0 ft gage datum (top of flood gates). Usable capacity from Apr. 30, 1928, to Aug. 31, 1935, Oct. 1, 1957, to Sept. 30, 1964, was considered to be 3,378,400,000 $ft^3$ between 75.0 and 100.0 ft gage datum (top of flood gates); and from Oct. 1, 1964, to present, is considered to be 2,277,800,000 $ft^3$ between 85.0 and 100.0 ft gage datum (top of flood gates).
COOPERATION.--Records furnished by Duke Power Co.

**02142441 LOOKOUT SHOALS LAKE.**--Lat 35°45'57", long 81°05'36", Catawba County, Hydrologic Unit 03050101, at Lookout Shoals Dam on Catawba River, 4 mi upstream from bridge on U.S. Highways 64 and 70, 4.2 mi north of Catawba, and 216 mi upstream from mouth of Wateree River.
DRAINAGE AREA.-- 1,450 $mi^2$, approximately.
PERIOD OF RECORD.--December 1915 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Float gage, indicator, and staff gage at dam. Datum of gage is 738.1 ft above National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).
REMARKS.--Lake, used for hydroelectric power development, was first put in operation Dec. 2, 1915. Total capacity was originally 1,355,190,000 $ft^3$. Capacity has been reduced by silting. The usable capacity prior to October 1957 was considered to be 473,980,000 $ft^3$ and from October 1957 to Sept. 30, 1964, was considered to be 388,300,000 $ft^3$ between elevations 90.0 and 100.0 ft gage datum (crest of spillway). Usable capacity from Oct. 1, 1964, to present is considered to be 208,200,000 $ft^3$ between 95.0 and 100.0 ft gage datum (crest of spillway). Flood of July 16, 1916, washed out an earth dike.
COOPERATION.--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 upstream from Derr Creek, 7.8 mi southwest of Davidson, and 182 mi upstream from mouth of Wateree River.
DRAINAGE AREA.--1,790 mi$^2$, approximately.
PERIOD OF RECORD.--March 1962 to current year.
GAGE.--Float gage with transmitter to dial meter in control room. Datum of gage is 660 ft above National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).
REMARKS.--Lake, used for hydroelectric power development, began filling in March 1962. Total capacity is 47,586,200,000 ft$^3$. Usable capacity, 26,910,400,000 ft$^3$, is between 75.0 and 100.0 ft gage datum (top of flood gates).
COOPERATION.--Records furnished by Duke Power Co.

**02142676 MOUNTAIN ISLAND LAKE.**--Lat 35°20'03", long 80°59'12", Gaston County, Hydrologic Unit 03050101, at Mountain Island Dam on Catawba River, 1.5 mi downstream of bridge on State Highway 16, 3 mi northeast of Mount Holly, and 167 mi upstream from mouth of Wateree River.
DRAINAGE AREA.--1,860 mi$^2$, approximately.
PERIOD OF RECORD.--December 1923 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.
GAGE.--Float gage, indicator, and stage gage at dam. Datum of gage is 547.5 ft above National Geodetic Vertical Datum of 1929 (levels by Duke Power Co.).
REMARKS.--Lake, used for hydroelectric power development, was first put in operation Dec. 16, 1923. Total capacity is 2,495,988,000 ft$^3$. Usable capacity prior to October 1964 was considered to be 1,132,000,000 ft$^3$ between 90.0 and 100.0 ft gage datum (crest of spillway) and from October 1964 to present, 845,000,000 ft$^3$, is considered to be between 93.0 and 100.0 ft gage datum (crest of spillway).
COOPERATION.--Records furnished by Duke Power Co.

**OTHER RESERVOIRS** The following smaller reservoirs in the South Atlantic Slope basin are described below. Records of contents are not published herein.

**02077229 LAKE ROXBORO.**--Lat 79°08'26", long 36°20'55", Caswell County, Hydrologic Unit 03010104, on South Hyco Creek near Roseville.
Drainage area.--23.2 mi$^2$.
Remarks.--Lake is part of Roxboro's municipal water supply. Total capacity is 380,991,000 ft$^3$. Dam was completed and filled April 1978. (See station 02077250.)

**02077302 ROXBORO STEAM-ELECTRIC GENERATING PLANT AFTERBAY RESERVOIR.**--Lat 36°31'51", long 78°59'50", Person County, Hydrologic Unit 03010104, on Hyco River near McGehees Mill.
Drainage area.--196 mi$^2$.
Remarks.--Lake is used as a cooling-water reservoir for Carolina Power and Light Co. plant. Total capacity is approximately 522,720,000 ft$^3$ with a surface area of about 650 acres at a normal elevation of 385 ft, above National Geodetic Vertical Datum of 1929. Dam completed May 30, 1974, and filling began Apr. 26, 1974. Water in reservoir first reached normal water-level elevation, 385 ft, on Aug. 22, 1974.

**02077665 MAYO STEAM-ELECTRIC GENERATING PLANT LAKE.**--Lat 36°32'15", long 78°52'30", Person County, Hydrologic Unit 03010104, on Mayo Creek near Bethel Hill.
Drainage area.-- 52.2 mi$^2$.
Remarks.--Lake is used as cooling-water reservoir for Carolina Power and Light Co. plant. Total capacity is 3,831,000,000 ft$^3$ with a surface area of 2,800 acres at a normal elevation of 434 ft above National Geodetic Vertical Datum of 1929. Dam was completed and filling began Aug. 1, 1980. Water in reservoir first reached normal water-level elevation of 434 ft on Apr. 16, 1983. (See station 02077660.)

**02086490 LAKE MICHIE.**--Lat 36°09'02", long 79°49'49", Durham County, Hydrologic Unit 03020201, at Durham municipal dam on Flat River, 3 mi southeast of Bahama, and 5 mi upstream from confluence with Eno River.
Drainage area.--170 mi$^2$, approximately.
Period of record.--October 1962 to April 1975.
Remarks.--Lake, used for municipal water supply, began filling in May 1926 and reached spillway elevation Dec. 26, 1926. Total capacity, 618,000,000 ft$^3$, is between 300.0 and 341.0 ft gage datum (crest of spillway). (See station 02087000.)

**02087339 LAKE JOHNSON.**--Lat 35°45'44", long 78°42'17", Wake County, Hydrologic Unit 03020201, on Walnut Creek near Raleigh.
Drainage area.--7.05 mi$^2$.
Remarks.--Lake is part of Raleigh's municipal water supply. Total capacity is 98,900,000 ft$^3$. Dam was completed in 1923 and spillway raised to its present elevation in 1951. (See station 02087500.)

**02087344 LAKE RALEIGH.**--Lat 35°45'56", long 78°40'38", Wake County, Hydrologic Unit 03020201, on Walnut Creek near Raleigh.
Drainage area.--12.3 mi$^2$.
Remarks.--Lake is part of Raleigh's municipal water supply. Total capacity is 13,400,000 ft$^3$. Dam was completed in 1914 and raised to its present elevation in 1919. (See station 02087500.)

**02087588 LAKE WHEELER.**--Lat 35°41'30", long 78°41'31", Wake County, Hydrologic Unit 03020201, on Swift Creek near Raleigh.
Drainage area.-- 38 mi$^2$, approximately.
Remarks.--Lake is part of Raleigh's municipal water supply. Total capacity is 267,400,000 ft$^3$. Dam was completed and filling began in 1956. (See station 02087500.)

**02087701 LAKE BENSON.**--Lat 35°39'44", long 78°36'42", Wake County, Hydrologic Unit 03020201, on Swift Creek near Garner.
Drainage area.--67 mi$^2$, approximately.
Remarks.--Lake is part of Raleigh's municipal water supply. Total capacity is 133,700,000 ft$^3$. Lake, formerly known as Rand's Mill, acquired by city of Raleigh in 1927 and spillway raised to its present elevation in 1954. (See station 02087500.)

**02090370 BUCKHORN RESERVOIR.**--Lat 35°41'22", long 78°07'33", Wilson County, Hydrologic Unit 03020203, on Contentnea Creek near Lucama.
Drainage area.--155 mi$^2$.
Remarks.--Lake is part of Wilson's municipal water supply. Total capacity is 133,680,000 ft$^3$. Dam was completed Nov. 12, 1976, and reservoir filled Dec. 1, 1976. (See station 02090380.)

**02093981 LAKE HIGGINS.**--Lat 36°10'11", long 79°52'49", Guilford County, Hydrologic Unit 03030002, on Brush Creek near Greensboro.
Drainage area.--12 mi$^2$, approximately.
Remarks.--Lake is part of Greensboro's municipal water supply. Total capacity is 107,000,000 ft$^3$. Reservoir was first filled Mar. 1, 1957. (See station 02094500.)

**02094117 LAKE BRANDT.**--Lat 36°10'20", long 79°50'20", Guilford County, Hydrologic Unit 03030002, on Reedy Fork and Horsepen Creek near Greensboro.
Drainage area.--70.0 mi$^2$, approximately.
Remarks.--Total capacity is 294,000,000 ft$^3$. Dam was completed February 1923 and raised to present level 1959-60. Reservoir first filled to present level on Oct. 8, 1960. Lake is part of Greensboro's municipal water supply. (See station 02094500.)

Lakes and Reservoirs in South Atlantic Slope basin--continued

**02094305 LAKE TOWNSEND.**--Lat 36°11'25", long 79°43'57", Guilford County, Hydrologic Unit 03030002, on Reedy Fork near Greensboro.
Drainage area.--105 $mi^2$.
Remarks.--Lake is part of Greensboro's municipal water supply. Total capacity is 869,000,000 $ft^3$. Dam was completed Oct. 18, 1968, and reservoir was first filled on Aug. 17, 1969. (See station 02094500.)

**02096003 LAKE BURLINGTON.**--Lat 36°10'25", long 79°24'53", Alamance County, Hydrologic Unit 03030002, on Stony Creek near Burlington.
Drainage area.--44 $mi^2$, approximately.
Remarks.--Lake is part of Burlington's municipal water supply. Prior to October 1971 published as "Stony Creek Reservoir." Total capacity is 427,800,000 $ft^3$. Dam completed August 1960 and reservoir first filled Jan. 28, 1961. (See station 02096500.)

**02096432 STONY CREEK RESERVOIR.**--Lat 36°07'37", long 79°24'20", Alamance County, Hydrologic Unit 03030002, on Stony Creek near Burlington.
Drainage area.--95.0 $mi^2$, approximately.
Remarks.--Lake is part of Burlington's water supply. Prior to October 1971 published as "Lake Burlington." Total capacity is 64,900,000 $ft^3$. Dam completed and reservoir filled in 1928. (See station 02096500.)

**02098495 OAK HOLLOW RESERVOIR.**--Lat 36°00'42", long 79°59'11", Guilford County, Hydrologic Unit 03030003, on West Fork Deep River and 1.8 mi southwest of Deep River.
Drainage area.--32 $mi^2$, appproximately.
Remarks.--Lake is part of High Point's municipal water supply. Total capacity is 468,000,000 $ft^3$. Dead storage (nonwithdrawal) is minor. Total surface area, about 725 acres. Dam completed and filling began in May 1970. Reservoir first filled Dec. 24, 1970. (See station 02099500.)

**02099096 HIGH POINT MUNICIPAL LAKE.**--Lat 35°59'43", long 79°56'42", Guilford County, Hydrologic Unit 03030003, on Deep River near High Point, High Point's municipal water supply.
Drainage area.--61.4 $mi^2$.
Remarks.--Total capacity is 220,588,000 $ft^3$. Dam completed in 1926 and reservoir first filled in 1927. (See station 02099500)

**02102178 BUCKHORN RESERVOIR.**--Lat 35°31'35", long 78°59'22", Chatham County, Hydrologic Unit 03030004, on Cape Fear River near Corinth.
Drainage area.--3,200 $mi^2$, approximately.
Remarks.-- Usable capacity is 69,700,000 $ft^3$. Completed and filled in 1908. Hydroelectric power operation stopped Dec. 31, 1962.

**02102190 SHEARON HARRIS MAIN RESERVOIR.**--Lat 35°34'00", long 78°57'55", Chatham County, Hydrologic Unit 03030004, on Buckhorn Creek near Corinth.
Drainage area.--71 $mi^2$.
Remarks.--Lake is a cooling-water reservoir for Carolina Power and Light Co. plant. Total capacity is 3,136,320,000 $ft^3$ with a surface area of 4,150 acres at a normal elevation of 220 ft above National Geodetic Vertical Datum of 1929. Dam was completed Dec. 23, 1981, and filling began Dec. 1, 1980. (See station 02102192.)

**02121461 LEXINGTON-THOMASVILLE RESERVOIR.**--Lat 35°51'54", long 80°11'41", Davidson County, Hydrologic Unit 03050103, on Abbotts Creek near Lexington.
Drainage area.--70.3 $mi^2$.
Remarks.--Total capacity is 284,100,000 $ft^3$ of which 281,400,000 $ft^3$ is usable. Dam completed Aug. 8, 1957, and reservoir first filled Nov. 23, 1957. Lexington and Thomasville's municipal water supply.

**02184122 LAKE TOXAWAY.**--Lat 35°07'27", long 82°55'56", Transylvania County, Hydrologic Unit 03060101, on Toxaway River at town of Lake Toxaway.
Drainage area.--7.79 $mi^2$.
Remarks.--A recreation lake. Total surface area is about 640 acres. Lake reached spillway elevation September 1961.

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| Date | Elevation (feet) | Combined contents (million cubic feet) | Change in contents (million cubic feet) | Gage Height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Elevation (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) |
|---|---|---|---|---|---|---|---|---|---|
| | 02067800 & 02067820 Talbott & Townes Reservoirs | | | 02077280 Hyco Lake | | | 02079964 Lake Gaston | | |
| Sept. 30 | | 267 | - | 9.36 | 3,189 | - | 199.21 | 18,914 | - |
| Oct. 31 | | 243 | -24 | 9.31 | 3,181 | -8 | 199.56 | 19,219 | +305 |
| Nov. 30 | | 236 | -7 | 9.22 | 3,166 | -15 | 199.45 | 19,122 | -97 |
| Dec. 31 | | 259 | +23 | 9.92 | 3,280 | +114 | 199.42 | 19,096 | -26 |
| CAL YR 1991 | | - | -63 | | - | -142 | | - | +130 |
| Jan. 31 | | 331 | +72 | 10.54 | 3,376 | +96 | 199.68 | 19,324 | +228 |
| Feb. 29 | | 344 | +13 | 10.73 | 3,406 | +30 | 199.63 | 19,280 | -44 |
| Mar. 31 | | 341 | -3 | 10.58 | 3,383 | -23 | 199.68 | 19,324 | +44 |
| Apr. 30 | | 369 | +28 | 10.55 | 3,378 | -05 | 199.55 | 19,210 | -114 |
| May 31 | | 342 | -27 | 10.56 | 3,380 | +02 | 199.82 | 19,445 | +235 |
| June 30 | | 355 | +13 | 10.39 | 3,354 | -26 | 199.62 | 19,271 | -174 |
| July 31 | | 336 | -19 | 10.18 | 3,321 | -33 | 199.61 | 19,263 | -8 |
| Aug. 31 | | 339 | +3 | 10.38 | 3,352 | +31 | 199.35 | 19,036 | -227 |
| Sept. 30 | | 317 | -22 | 10.07 | 3,304 | -48 | 199.28 | 18,975 | -61 |
| WTR YR 1992 | | - | +50 | | - | +115 | | - | +61 |

| Date | Elevation (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Elevation (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Elevation (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) |
|---|---|---|---|---|---|---|---|---|---|
| | 02080100 Roanoke Rapids Lake | | | 02087182 Falls Lake | | | 02098197 B. Everett Jordan Lake | | |
| Sept. 30 | 131.0 | 3,162 | - | 247.59 | 3,666 | - | 215.2 | 8,899 | - |
| Oct. 31 | 130.0 | 2,972 | -190 | 246.18 | 3,154 | -512 | 214.5 | 8,498 | -401 |
| Nov. 30 | 129.2 | 2,826 | -146 | 245.45 | 2,915 | -239 | 213.2 | 7,780 | -718 |
| Dec. 31 | 130.0 | 2,972 | +146 | 245.56 | 2,950 | +35 | 213.7 | 8,052 | +272 |
| CAL YR 1991 | | - | 0 | | - | -1,932 | | - | -1,696 |
| Jan. 31 | 129.6 | 2,898 | -74 | 250.08 | 4,750 | +1,800 | 216.1 | 9,434 | +1,382 |
| Feb. 29 | 129.4 | 2,861 | -37 | 251.06 | 5,248 | +498 | 218.4 | 10,913 | +1,479 |
| Mar. 31 | 131.5 | 3,252 | +391 | 250.43 | 4,927 | -321 | 216.2 | 9,497 | -1,416 |
| Apr. 30 | 130.0 | 2,972 | -280 | 250.98 | 5,206 | +279 | 216.1 | 9,434 | -63 |
| May 31 | 129.6 | 2,898 | -74 | 250.72 | 5,074 | -132 | 216.1 | 9,434 | 0 |
| June 30 | 129.6 | 2,898 | 0 | 251.25 | 5,351 | +277 | 216.3 | 9,559 | +125 |
| July 31 | 129.4 | 2,861 | -37 | 250.29 | 4,857 | -494 | 216.1 | 9,434 | -125 |
| Aug. 31 | 129.9 | 2,953 | +92 | 249.72 | 4,578 | -279 | 215.8 | 9,253 | -181 |
| Sept. 30 | 128.2 | 2,663 | -290 | 248.78 | 4,147 | -431 | 214.1 | 8,272 | -981 |
| WTR YR 1992 | | - | -499 | | - | +481 | | - | -627 |

SOUTH ATLANTIC SLOPE BASIN

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| Date | Elevation (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) |
|---|---|---|---|---|---|---|---|---|---|
| | 02111391 W. Kerr Scott Reservoir | | | 02122400 High Rock Lake | | | 02122699 Tuckertown Reservoir | | |
| Sept. 30 | 1,029.38 | 1,764.20 | - | 651.5 | 8,925 | - | 594.49 | 1,699 | - |
| Oct. 31 | 1,028.16 | 1,700.53 | -64 | 649.0 | 7,565 | -1,360 | 595.30 | 1,780 | +81 |
| Nov. 30 | 1,028.82 | 1,735.27 | +35 | 646.3 | 6,250 | -1,315 | 594.77 | 1,725 | -55 |
| Dec. 31 | 1,030.12 | 1,798.70 | +63 | 645.8 | 6,022 | -228 | 595.17 | 1,766 | +41 |
| CAL YR 1991 | | - | +8 | | - | -3,133 | | - | +16 |
| Jan. 31 | 1,030.00 | 1,790.23 | -8 | 644.4 | 5,418 | -604 | 595.36 | 1,786 | +20 |
| Feb. 29 | 1,030.12 | 1,798.70 | +8 | 650.2 | 8,201 | +2,783 | 595.34 | 1,784 | -2 |
| Mar. 31 | 1,030.07 | 1,798.70 | 0 | 649.6 | 7,880 | -321 | 595.14 | 1,763 | -21 |
| Apr. 30 | 1,030.13 | 1,798.70 | 0 | 653.4 | 10,061 | +2,181 | 594.92 | 1,740 | -23 |
| May 31 | 1,030.28 | 1,815.64 | +17 | 652.5 | 9,517 | -544 | 595.45 | 1,795 | +55 |
| June 30 | 1,030.08 | 1,798.70 | -17 | 652.7 | 9,638 | +121 | 595.32 | 1,782 | -13 |
| July 31 | 1,030.38 | 1,824.11 | +25 | 652.2 | 9,336 | -302 | 595.13 | 1,762 | -20 |
| Aug. 31 | 1,030.12 | 1,798.70 | -25 | 652.5 | 9,517 | +181 | 595.12 | 1,761 | -1 |
| Sept. 30 | 1,029.99 | 1,790.23 | -8 | 652.0 | 9,215 | -302 | 594.56 | 1,705 | -56 |
| WTR YR 1992 | | - | +26 | | - | +29 | | - | +6 |

| 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 | 539.3 | 10,077 | - | 238.0 | 5,600 | - | 137.3 | 1,672 | - |
| Oct. 31 | 540.1 | 10,264 | +187 | 233.6 | 4,690 | -910 | 137.1 | 1,650 | -22 |
| Nov. 30 | 538.8 | 9,961 | -303 | 239.0 | 5,815 | +1,125 | 136.5 | 1,590 | -60 |
| Dec. 31 | 539.4 | 10,101 | +140 | 239.1 | 5,837 | +22 | 137.9 | 1,734 | +144 |
| CAL YR 1991 | | - | -116 | | - | +194 | | - | -186 |
| Jan. 31 | 539.1 | 10,031 | -70 | 239.4 | 5,903 | +66 | 136.2 | 1,560 | -174 |
| Feb. 29 | 539.8 | 10,194 | +163 | 238.5 | 5,708 | -195 | 139.0 | 1,850 | +290 |
| Mar. 31 | 540.1 | 10,264 | +70 | 238.8 | 5,772 | +64 | 138.6 | 1,808 | -42 |
| Apr. 30 | 540.2 | 10,287 | +23 | 239.1 | 5,837 | +65 | 136.2 | 1,560 | -248 |
| May 31 | 540.0 | 10,241 | -46 | 238.2 | 5,643 | -194 | 134.5 | 1,390 | -170 |
| June 30 | 539.5 | 10,124 | -117 | 238.3 | 5,664 | +21 | 136.3 | 1,570 | +180 |
| July 31 | 539.8 | 10,194 | +70 | 239.2 | 5,859 | +195 | 138.1 | 1,756 | +186 |
| Aug. 31 | 539.4 | 10,077 | -117 | 239.2 | 5,859 | 0 | 136.0 | 1,540 | -216 |
| Sept. 30 | 539.7 | 10,171 | +94 | 239.1 | 5,837 | -22 | 135.9 | 1,530 | -10 |
| WTR YR 1992 | | - | +94 | | - | +237 | | - | -142 |

Lakes and Reservoirs in South Atlantic Slope basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| Date | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) |
|---|---|---|---|---|---|---|---|---|---|
| | 02138519 Lake James | | | 02141490 Rhodhiss Lake | | | 02141961 Lake Hickory | | |
| Sept. 30 | 96.2 | 11,540 | - | 96.2 | 1,176 | - | 96.9 | 1,741 | - |
| Oct. 31 | 96.0 | 11,487 | -53 | 96.7 | 1,243 | +67 | 97.3 | 1,803 | +67 |
| Nov. 30 | 95.6 | 11,386 | -101 | 97.2 | 1,311 | +68 | 97.1 | 1,775 | -34 |
| Dec. 31 | 96.0 | 11,487 | +101 | 97.1 | 1,298 | -13 | 97.1 | 1,775 | 0 |
| CAL YR 1991 | | - | -566 | | - | -83 | | - | -67 |
| Jan. 31 | 93.5 | 10,840 | -647 | 97.0 | 1,284 | -14 | 96.7 | 1,708 | -67 |
| Feb. 29 | 94.1 | 10,992 | +152 | 96.7 | 1,243 | -41 | 97.0 | 1,758 | +50 |
| Mar. 31 | 93.4 | 10,814 | -178 | 97.2 | 1,311 | +68 | 96.9 | 1,741 | -17 |
| Apr. 30 | 99.5 | 12,441 | +1,627 | 97.8 | 1,395 | +84 | 97.7 | 1,876 | +135 |
| May 31 | 98.5 | 12,163 | -278 | 98.2 | 1,451 | +56 | 98.2 | 1,962 | +86 |
| June 30 | 99.1 | 12,329 | +166 | 97.4 | 1,339 | -112 | 98.2 | 1,962 | 0 |
| July 31 | 97.9 | 11,998 | -331 | 97.1 | 1,298 | -41 | 97.1 | 1,775 | -187 |
| Aug. 31 | 97.9 | 11,998 | 0 | 96.8 | 1,257 | -41 | 97.1 | 1,775 | 0 |
| Sept. 30 | 96.0 | 11,487 | -511 | 96.7 | 1,243 | -14 | 97.0 | 1,758 | -17 |
| WTR YR 1992 | | - | -53 | | - | +67 | | - | +17 |

| Date | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) | Gage height (feet) | Contents (million cubic feet) | Change in contents (million cubic feet) |
|---|---|---|---|---|---|---|---|---|---|
| | 02142441] Lookout Shoals Lake | | | 02142647 Lake Norman | | | 02142676 Mountain Island Lake | | |
| Sept. 30 | 97.8 | 113 | - | 97.7 | 44,420 | - | 96.0 | 330 | - |
| Oct. 31 | 98.0 | 121 | +8 | 97.2 | 43,740 | -680 | 96.3 | 366 | +36 |
| Nov. 30 | 97.6 | 105 | -17 | 96.8 | 43,210 | -530 | 96.1 | 342 | -24 |
| Dec. 31 | 97.0 | 80 | -25 | 96.6 | 42,950 | -260 | 96.2 | 354 | +12 |
| CAL YR 1991 | | - | +8 | | - | -1,600 | | - | -12 |
| Jan. 31 | 97.5 | 100 | +21 | 93.9 | 39,510 | -3,440 | 96.4 | 378 | +24 |
| Feb. 29 | 96.8 | 72 | -29 | 94.4 | 40,130 | +620 | 97.5 | 512 | +134 |
| Mar. 31 | 97.1 | 84 | +12 | 95.1 | 41,010 | +880 | 96.2 | 354 | -158 |
| Apr. 30 | 97.4 | 94 | +10 | 98.4 | 45,370 | +4,360 | 96.8 | 426 | +72 |
| May 31 | 97.6 | 105 | +11 | 98.9 | 46,050 | +680 | 96.4 | 378 | -48 |
| June 30 | 98.8 | 156 | +51 | 98.4 | 45,370 | -680 | 96.2 | 354 | -24 |
| July 31 | 97.4 | 94 | -62 | 97.6 | 44,280 | -1,090 | 95.9 | 318 | -36 |
| Aug. 31 | 97.5 | 100 | +7 | 97.6 | 44,280 | 0 | 96.7 | 414 | +96 |
| Sept. 30 | 97.9 | 117 | +17 | 97.7 | 44,420 | +140 | 96.4 | 378 | -36 |
| WTR YR 1992 | | - | +4 | | - | 0 | | - | +48 |

OHIO RIVER BASIN

KANAWHA RIVER BASIN

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC

LOCATION.--Lat 36°23'35", long 81°24'26", Ashe County, Hydrologic Unit 05050001, on right bank 600 ft upstream from bridge on State Highways 16 and 88, 0.2 mi downstream of Bear Creek, and 4 mi southeast of Jefferson.

DRAINAGE AREA.--205 mi².

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1925-26(M), 1928-30(M), 1931-32, 1933-35(M), 1941-42(m), 1944(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1934, nonrecording gage on bridge 400 ft downstream at same datum. Oct. 14, 1934, to Mar. 25, 1935, nonrecording gage at present site and datum. U.S. Army Corps of Engineers has satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location. Maximum discharge: 52,800 ft³/s, from rating curve extended above 5,100 ft³/s on basis of slope-area measurement of peak flow. Minimum discharge result of freezeup. Minimum discharge for current water year result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 15, 1916, reached a stage of 18.0 ft, from floodmarks witnessed by local resident; discharge, 35,200 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 194 | 165 | 307 | 277 | 297 | 480 | 357 | 492 | 657 | 499 | 292 | 341 |
| 2 | 192 | 167 | 537 | 265 | e296 | 412 | 337 | 461 | 578 | 509 | 276 | 318 |
| 3 | 194 | 164 | 831 | 550 | e288 | 381 | 327 | 447 | 534 | 476 | 274 | 339 |
| 4 | 190 | 162 | 1140 | 1800 | 274 | 362 | 330 | 428 | 1880 | 492 | 265 | 331 |
| 5 | 190 | 159 | 604 | 1000 | 273 | 345 | 361 | 431 | 3590 | 434 | 257 | 302 |
| 6 | 216 | 159 | 465 | 669 | 268 | 473 | 361 | 464 | 1520 | 454 | 259 | 339 |
| 7 | 220 | 161 | 398 | 538 | 263 | 1120 | 344 | 514 | 1040 | 473 | 272 | 366 |
| 8 | 191 | 165 | 357 | 464 | e264 | 734 | 337 | 953 | 1370 | 424 | 281 | 329 |
| 9 | 189 | 169 | 335 | 424 | e264 | 589 | 321 | 1090 | 1490 | 397 | 277 | 297 |
| 10 | 188 | 320 | 340 | 398 | e260 | 558 | 310 | 771 | 1680 | 378 | 263 | 303 |
| 11 | 187 | 450 | 325 | 363 | e260 | 685 | 308 | 640 | 1630 | 366 | 256 | 535 |
| 12 | 184 | 256 | 291 | 340 | 245 | 567 | 323 | 577 | 1400 | 355 | 393 | 449 |
| 13 | 180 | 210 | 277 | 335 | 246 | 506 | 302 | 567 | 1110 | 344 | 446 | 348 |
| 14 | 179 | 193 | 274 | 388 | 254 | 467 | 290 | 594 | 1010 | 336 | 566 | 318 |
| 15 | 183 | 186 | e272 | 408 | 299 | 442 | 287 | 657 | 1300 | 572 | 380 | 300 |
| 16 | 193 | 181 | e268 | e354 | 431 | 416 | 288 | 619 | 1230 | 428 | 349 | 284 |
| 17 | 193 | 179 | e268 | e337 | 337 | 398 | 397 | 556 | 960 | 368 | 404 | 272 |
| 18 | 183 | 176 | e264 | e320 | 316 | 390 | 455 | 519 | 889 | 392 | 383 | 262 |
| 19 | 179 | 180 | e264 | e304 | 315 | 414 | 373 | 499 | 807 | 379 | 313 | 256 |
| 20 | 176 | 187 | e260 | e288 | 291 | 409 | 1430 | 575 | 731 | 333 | 289 | 253 |
| 21 | 174 | 198 | e260 | e276 | 274 | 370 | 5010 | 549 | 681 | 318 | 274 | 256 |
| 22 | 175 | 637 | e257 | e260 | 267 | 356 | 2510 | 486 | 645 | 310 | 275 | 263 |
| 23 | 175 | 980 | e245 | e394 | 274 | 384 | 1280 | 455 | 602 | 374 | 276 | 282 |
| 24 | 182 | 432 | 249 | 692 | 353 | 382 | 948 | 438 | 579 | 421 | 269 | 270 |
| 25 | 184 | 320 | 264 | e460 | 367 | 353 | 800 | 431 | 556 | 660 | 258 | 244 |
| 26 | 178 | 276 | 228 | e399 | 756 | 433 | 690 | 429 | 541 | 389 | 263 | 240 |
| 27 | 173 | 251 | 220 | e363 | 808 | 476 | 623 | 419 | 549 | 341 | 449 | 257 |
| 28 | 171 | 238 | 256 | 341 | 556 | 403 | 582 | 410 | 508 | 321 | 705 | 308 |
| 29 | 170 | 229 | 464 | 328 | 507 | 369 | 548 | 634 | 489 | 310 | 920 | 500 |
| 30 | 166 | 222 | 381 | 315 | --- | 357 | 512 | 1170 | 536 | 294 | 479 | 339 |
| 31 | 165 | --- | 307 | 307 | --- | 360 | --- | 839 | --- | 305 | 385 | --- |
| TOTAL | 5714 | 7772 | 11208 | 13957 | 9903 | 14391 | 21341 | 18114 | 31092 | 12452 | 11048 | 9501 |
| MEAN | 184 | 259 | 362 | 450 | 341 | 464 | 711 | 584 | 1036 | 402 | 356 | 317 |
| MAX | 220 | 980 | 1140 | 1800 | 808 | 1120 | 5010 | 1170 | 3590 | 660 | 920 | 535 |
| MIN | 165 | 159 | 220 | 260 | 245 | 345 | 287 | 410 | 489 | 294 | 256 | 240 |
| CFSM | .90 | 1.26 | 1.76 | 2.20 | 1.67 | 2.26 | 3.47 | 2.85 | 5.06 | 1.96 | 1.74 | 1.54 |
| IN. | 1.04 | 1.41 | 2.03 | 2.53 | 1.80 | 2.61 | 3.87 | 3.29 | 5.64 | 2.26 | 2.00 | 1.72 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 375 | 404 | 408 | 461 | 519 | 590 | 565 | 465 | 396 | 341 | 356 | 336 |
| MAX | 901 | 1889 | 797 | 966 | 973 | 1316 | 1350 | 1052 | 1036 | 904 | 2613 | 1212 |
| (WY) | 1991 | 1978 | 1958 | 1946 | 1983 | 1979 | 1983 | 1973 | 1992 | 1941 | 1940 | 1979 |
| MIN | 117 | 124 | 146 | 140 | 197 | 308 | 275 | 220 | 163 | 111 | 93.7 | 99.5 |
| (WY) | 1955 | 1932 | 1934 | 1940 | 1934 | 1925 | 1925 | 1941 | 1956 | 1930 | 1925 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1925 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 166584 | | 166493 | | | |
| ANNUAL MEAN | 456 | | 455 | | 434 | |
| HIGHEST ANNUAL MEAN | | | | | 669 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 247 | 1956 |
| HIGHEST DAILY MEAN | 2230 | Mar 30 | 5010 | Apr 21 | 27700 | Aug 14 1940 |
| LOWEST DAILY MEAN | 159 | Nov 5 | 159 | Nov 5 | 65 | Sep 9 1925 |
| ANNUAL SEVEN-DAY MINIMUM | 162 | Nov 1 | 162 | Nov 1 | 72 | Aug 21 1925 |
| INSTANTANEOUS PEAK FLOW | | | 5530 | Apr 21 | 52800* | Aug 14 1940 |
| INSTANTANEOUS PEAK STAGE | | | 7.42 | Apr 21 | 22.50 | Aug 14 1940 |
| INSTANTANEOUS LOW FLOW | | | 135* | Dec 19 | 52* | Dec 24 1943 |
| ANNUAL RUNOFF (CFSM) | 2.23 | | 2.22 | | 2.12 | |
| ANNUAL RUNOFF (INCHES) | 30.23 | | 30.21 | | 28.77 | |
| 10 PERCENT EXCEEDS | 756 | | 741 | | 715 | |
| 50 PERCENT EXCEEDS | 413 | | 346 | | 351 | |
| 90 PERCENT EXCEEDS | 190 | | 190 | | 174 | |

* See REMARKS.

TENNESSEE RIVER BASIN

03439000 FRENCH BROAD RIVER AT ROSMAN, NC

LOCATION.--Lat 35°08'32", long 82°49'28", Transylvania County, Hydrologic Unit 06010105, on left bank 50 ft upstream from bridge on U.S. Highway 178 at Rosman, 1.0 mi upstream from East Fork, and at mile 216.4.

DRAINAGE AREA.--67.9 $mi^2$.

PERIOD OF RECORD.--May 1907 to June 1909, October 1935 to current year. Monthly discharge only for some periods published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1908(M). WSP 1910: 1936(M), 1938(M), 1939-40, 1942-43.

GAGE.--Water-stage recorder. Datum of gage is 2,173.83 ft above National Geodetic Vertical Datum of 1929. Prior to June 30, 1909, nonrecording gage at site 500 ft downstream at different datum. Jan. 1, 1936, to July 6, 1937, nonrecording gage at present site and datum. National Weather Service has landline telemetry (rainfall and gage-height) at station.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge result of freezeup. Minimum daily discharge occurred several days in September and October, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 13.9 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 168 | 119 | 823 | 192 | 187 | 308 | 239 | 251 | 214 | 230 | 105 | 230 |
| 2 | 167 | 124 | 935 | 189 | 181 | 287 | 233 | 241 | 202 | 207 | 101 | 210 |
| 3 | 166 | 112 | 1050 | 380 | 177 | 270 | 228 | 233 | 251 | 194 | 98 | 246 |
| 4 | 161 | 110 | 672 | 296 | 173 | 255 | 223 | 223 | 1150 | 183 | 98 | 219 |
| 5 | 167 | 109 | 474 | 256 | 170 | 256 | 216 | 219 | 588 | 175 | 95 | 307 |
| 6 | 164 | 109 | 396 | 233 | 165 | 889 | 211 | 238 | 405 | 179 | 99 | 442 |
| 7 | 151 | 107 | 347 | 218 | 162 | 628 | 212 | 328 | 336 | 175 | 103 | 292 |
| 8 | 149 | 107 | 313 | 207 | 157 | 464 | 207 | 560 | 337 | 162 | 142 | 301 |
| 9 | 148 | 105 | 293 | 203 | 152 | 398 | 199 | 418 | 510 | 154 | 103 | 267 |
| 10 | 146 | 114 | 283 | 193 | 150 | 487 | 194 | 363 | 517 | 150 | 95 | 233 |
| 11 | 144 | 108 | 259 | 185 | 151 | 471 | 259 | 328 | 470 | 147 | 105 | 300 |
| 12 | 140 | 105 | 243 | 180 | 149 | 401 | 344 | 298 | 444 | 143 | 148 | 230 |
| 13 | 138 | 102 | 237 | 205 | 149 | 367 | 244 | 286 | 447 | 139 | 200 | 208 |
| 14 | 133 | 102 | 243 | 295 | 148 | 343 | 225 | 270 | 473 | 136 | 144 | 193 |
| 15 | 141 | 100 | 221 | 217 | 267 | 323 | 217 | 252 | 496 | 138 | 112 | 179 |
| 16 | 137 | 100 | 214 | 198 | 207 | 306 | 211 | 239 | 463 | 138 | 118 | 167 |
| 17 | 132 | 98 | 208 | 190 | 186 | 303 | 202 | 230 | 415 | 133 | 220 | 160 |
| 18 | 130 | 98 | 201 | 185 | 210 | 295 | 196 | 228 | 377 | 133 | 140 | 159 |
| 19 | 128 | 123 | 195 | 179 | 197 | 410 | 203 | 309 | 346 | 128 | 113 | 164 |
| 20 | 126 | 116 | 189 | 173 | 180 | 357 | 503 | 286 | 312 | 125 | 149 | 160 |
| 21 | 123 | 398 | 189 | 170 | 172 | 324 | 1210 | 245 | 290 | 140 | 227 | 157 |
| 22 | 123 | 1400 | 186 | 166 | 166 | 311 | 622 | 227 | 273 | 148 | 792 | 175 |
| 23 | 122 | 424 | 189 | 512 | 333 | 317 | 455 | 215 | 261 | 153 | 837 | 168 |
| 24 | 131 | 282 | 186 | 327 | 276 | 290 | 388 | 207 | 248 | 168 | 501 | 148 |
| 25 | 123 | 230 | 174 | 269 | 815 | 290 | 352 | 202 | 235 | 137 | 307 | 140 |
| 26 | 120 | 202 | 171 | 245 | 948 | 307 | 320 | 200 | 248 | 130 | 237 | 135 |
| 27 | 117 | 185 | 168 | 229 | 520 | 282 | 303 | 192 | 233 | 120 | 235 | 172 |
| 28 | 115 | 174 | 279 | 223 | 403 | 267 | 287 | 188 | 216 | 115 | 1250 | 171 |
| 29 | 113 | 166 | 276 | 211 | 347 | 259 | 272 | 282 | 209 | 110 | 496 | 178 |
| 30 | 112 | 206 | 221 | 203 | --- | 257 | 261 | 305 | 203 | 107 | 336 | 144 |
| 31 | 111 | --- | 201 | 195 | --- | 250 | --- | 237 | --- | 105 | 269 | --- |
| TOTAL | 4246 | 5835 | 10036 | 7124 | 7498 | 10972 | 9236 | 8300 | 11169 | 4602 | 7975 | 6255 |
| MEAN | 137 | 194 | 324 | 230 | 259 | 354 | 308 | 268 | 372 | 148 | 257 | 208 |
| MAX | 168 | 1400 | 1050 | 512 | 948 | 889 | 1210 | 560 | 1150 | 230 | 1250 | 442 |
| MIN | 111 | 98 | 168 | 166 | 148 | 250 | 194 | 188 | 202 | 105 | 95 | 135 |
| CFSM | 2.02 | 2.86 | 4.77 | 3.38 | 3.81 | 5.21 | 4.53 | 3.94 | 5.48 | 2.19 | 3.79 | 3.07 |
| IN. | 2.33 | 3.20 | 5.50 | 3.90 | 4.11 | 6.01 | 5.06 | 4.55 | 6.12 | 2.52 | 4.37 | 3.43 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 176 | 198 | 246 | 273 | 316 | 334 | 326 | 268 | 224 | 180 | 187 | 166 |
| MAX | 734 | 578 | 482 | 672 | 648 | 787 | 582 | 551 | 882 | 624 | 475 | 447 |
| (WY) | 1965 | 1980 | 1984 | 1937 | 1939 | 1979 | 1983 | 1909 | 1909 | 1989 | 1940 | 1950 |
| MIN | 42.2 | 56.7 | 72.6 | 72.0 | 130 | 135 | 108 | 114 | 79.8 | 75.8 | 65.3 | 43.6 |
| (WY) | 1955 | 1955 | 1940 | 1981 | 1963 | 1988 | 1986 | 1941 | 1988 | 1986 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1908 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 107733 | | 93248 | | | |
| ANNUAL MEAN | 295 | | 255 | | 239 | |
| HIGHEST ANNUAL MEAN | | | | | 370 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 136 | 1981 |
| HIGHEST DAILY MEAN | 2050 | Mar 29 | 1400 | Nov 22 | 5630 | Oct 4 1964 |
| LOWEST DAILY MEAN | 98 | Nov 17 | 95 | Aug 5 | 37* | Sep 25 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 101 | Nov 12 | 100 | Aug 1 | 38 | Sep 23 1954 |
| INSTANTANEOUS PEAK FLOW | | | 4220 | Nov 22 | 13500 | Oct 4 1964 |
| INSTANTANEOUS PEAK STAGE | | | 8.85 | Nov 22 | 14.95 | Oct 4 1964 |
| INSTANTANEOUS LOW FLOW | | | 89 | Aug 11 | 23* | Jan 3 1940 |
| ANNUAL RUNOFF (CFSM) | 4.35 | | 3.75 | | 3.52 | |
| ANNUAL RUNOFF (INCHES) | 59.02 | | 51.09 | | 47.77 | |
| 10 PERCENT EXCEEDS | 442 | | 429 | | 417 | |
| 50 PERCENT EXCEEDS | 255 | | 207 | | 193 | |
| 90 PERCENT EXCEEDS | 135 | | 116 | | 89 | |

* See REMARKS.

TENNESSEE RIVER BASIN

## 03440000 CATHEYS CREEK NEAR BREVARD, NC

LOCATION.--Lat 35°12'40", long 82°47'00", Transylvania County, Hydrologic Unit 06010105, on right bank 1,200 ft downstream of Kuykendall Creek, 1.0 mi upstream from U.S. Highway 64, 2.1 mi upstream from mouth, and 3.2 mi southwest of Brevard.

DRAINAGE AREA.--11.7 $mi^2$.

PERIOD OF RECORD.--October 1944 to September 1955, November 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,230 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 2, 1946, at site 0.9 mi downstream at different datum. October 2, 1946, to Jan. 9, 1947, at site 0.8 mi downstream of present gage at different datum. Jan. 10, 1947, to Oct. 3, 1951, at present site at different datum. Oct. 3, 1951, to Sept. 30, 1955, at site 40 ft downstream at different datum.

REMARKS.--Records good except those above 600 $ft^3/s$, which are fair. Maximum discharge: 1,920 $ft^3/s$, from rating curve extended above 600 $ft^3/s$ by logarithmic plotting. City of Brevard diverted about 1.6 $ft^3/s$ from Catheys Creek for municipal water supply.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 29 | 21 | 139 | 27 | 23 | 41 | 34 | 34 | 33 | 38 | 19 | 30 |
| 2 | 28 | 20 | 136 | 27 | 23 | 39 | 33 | 32 | 31 | 35 | 18 | 29 |
| 3 | 28 | 19 | 165 | 45 | 22 | 38 | 33 | 32 | 35 | 34 | 17 | 37 |
| 4 | 27 | 19 | 101 | 34 | 23 | 36 | 32 | 30 | 155 | 32 | 20 | 37 |
| 5 | 28 | 18 | 67 | 31 | 22 | 38 | 31 | 30 | 75 | 31 | 18 | 43 |
| 6 | 27 | 18 | 55 | 29 | 21 | 124 | 31 | 35 | 54 | 33 | 18 | 46 |
| 7 | 26 | 18 | 48 | 28 | 22 | 84 | 31 | 53 | 46 | 31 | 19 | 46 |
| 8 | 26 | 18 | 44 | 27 | 21 | 61 | 30 | 91 | 45 | 29 | 43 | 45 |
| 9 | 25 | 18 | 42 | 27 | 21 | 52 | 29 | 63 | 71 | 28 | 23 | 38 |
| 10 | 25 | 20 | 39 | 26 | 20 | 75 | 29 | 50 | 90 | 27 | 19 | 37 |
| 11 | 25 | 18 | 37 | 25 | 21 | 76 | 41 | 44 | 92 | 26 | 18 | 37 |
| 12 | 24 | 17 | 35 | 25 | 20 | 61 | 53 | 42 | 81 | 26 | 18 | 33 |
| 13 | 24 | 17 | 34 | 29 | 21 | 55 | 36 | 40 | 73 | 25 | 30 | 30 |
| 14 | 23 | 17 | 35 | 37 | 21 | 50 | 33 | 38 | 92 | 24 | 22 | 28 |
| 15 | 25 | 16 | 32 | 29 | 31 | 47 | 33 | 36 | 89 | 25 | 21 | 27 |
| 16 | 23 | 17 | 31 | 27 | 25 | 44 | 31 | 34 | 74 | 25 | 21 | 26 |
| 17 | 23 | 17 | 31 | 27 | 24 | 43 | 31 | 33 | 68 | 24 | 29 | 25 |
| 18 | 22 | 16 | 30 | 26 | 26 | 44 | 30 | 34 | 62 | 23 | 21 | 25 |
| 19 | 22 | 20 | 29 | 25 | 24 | 53 | 32 | 44 | 57 | 22 | 19 | 25 |
| 20 | 22 | 19 | 28 | 25 | 23 | 48 | 53 | 41 | 53 | 22 | 26 | 24 |
| 21 | 21 | 52 | 29 | 25 | 22 | 45 | 116 | 36 | 49 | 33 | 27 | 24 |
| 22 | 21 | 135 | 28 | 24 | 23 | 43 | 69 | 33 | 46 | 27 | 109 | 25 |
| 23 | 21 | 44 | 28 | 66 | 40 | 42 | 52 | 32 | 44 | 26 | 85 | 23 |
| 24 | 21 | 32 | 27 | 36 | 32 | 40 | 47 | 30 | 42 | 27 | 56 | 22 |
| 25 | 21 | 27 | 26 | 30 | 106 | 40 | 43 | 30 | 40 | 23 | 39 | 21 |
| 26 | 21 | 25 | 25 | 29 | 123 | 42 | 40 | 29 | 42 | 22 | 32 | 21 |
| 27 | 21 | 24 | 25 | 27 | 66 | 38 | 38 | 29 | 39 | 21 | 34 | 26 |
| 28 | 20 | 23 | 38 | 26 | 52 | 37 | 37 | 29 | 38 | 20 | 108 | 24 |
| 29 | 20 | 22 | 34 | 25 | 45 | 36 | 35 | 46 | 37 | 20 | 51 | 22 |
| 30 | 19 | 29 | 29 | 25 | --- | 36 | 34 | 46 | 36 | 19 | 40 | 20 |
| 31 | 19 | --- | 28 | 24 | --- | 35 | --- | 36 | --- | 19 | 34 | --- |
| TOTAL | 727 | 776 | 1475 | 913 | 963 | 1543 | 1197 | 1212 | 1789 | 817 | 1054 | 896 |
| MEAN | 23.5 | 25.9 | 47.6 | 29.5 | 33.2 | 49.8 | 39.9 | 39.1 | 59.6 | 26.4 | 34.0 | 29.9 |
| MAX | 29 | 135 | 165 | 66 | 123 | 124 | 116 | 91 | 155 | 38 | 109 | 46 |
| MIN | 19 | 16 | 25 | 24 | 20 | 35 | 29 | 29 | 31 | 19 | 17 | 20 |
| CFSM | 2.00 | 2.21 | 4.07 | 2.52 | 2.84 | 4.25 | 3.41 | 3.34 | 5.10 | 2.25 | 2.91 | 2.55 |
| IN. | 2.31 | 2.47 | 4.69 | 2.90 | 3.06 | 4.91 | 3.81 | 3.85 | 5.69 | 2.60 | 3.35 | 2.85 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 22.8 | 29.8 | 35.5 | 40.4 | 44.6 | 54.0 | 48.9 | 39.6 | 34.0 | 31.4 | 28.0 | 26.5 |
| MAX | 52.3 | 77.9 | 63.2 | 81.4 | 84.9 | 110 | 69.3 | 57.3 | 78.2 | 94.9 | 63.3 | 67.8 |
| (WY) | 1990 | 1949 | 1949 | 1946 | 1990 | 1952 | 1991 | 1949 | 1989 | 1949 | 1949 | 1950 |
| MIN | 7.30 | 8.69 | 14.5 | 14.5 | 24.7 | 20.7 | 27.2 | 17.2 | 11.6 | 10.9 | 9.64 | 8.21 |
| (WY) | 1955 | 1955 | 1989 | 1955 | 1989 | 1988 | 1988 | 1988 | 1988 | 1988 | 1988 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1945 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 15878 | | 13362 | | | |
| ANNUAL MEAN | 43.5 | | 36.5 | | 36.2 | |
| HIGHEST ANNUAL MEAN | | | | | 59.7 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 18.3 | 1988 |
| HIGHEST DAILY MEAN | 444 | Mar 29 | 165 | Dec 3 | 467 | Nov 26 1986 |
| LOWEST DAILY MEAN | 16 | Nov 15 | 16 | Nov 15 | 6.6 | Sep 28 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 17 | Nov 12 | 17 | Nov 12 | 6.6 | Oct 20 1954 |
| INSTANTANEOUS PEAK FLOW | | | 372 | Nov 22 | 1920* | Mar 29 1991 |
| INSTANTANEOUS PEAK STAGE | | | 3.52 | Nov 22 | 5.32 | Mar 29 1991 |
| INSTANTANEOUS LOW FLOW | | | 13 | Nov 18 | 3.6 | Sep 28 1988 |
| ANNUAL RUNOFF (CFSM) | 3.72 | | 3.12 | | 3.09 | |
| ANNUAL RUNOFF (INCHES) | 50.48 | | 42.48 | | 42.02 | |
| 10 PERCENT EXCEEDS | 65 | | 56 | | 62 | |
| 50 PERCENT EXCEEDS | 37 | | 30 | | 30 | |
| 90 PERCENT EXCEEDS | 21 | | 20 | | 13 | |

* See REMARKS.

## 03443000 FRENCH BROAD RIVER AT BLANTYRE, NC

LOCATION.--Lat 35°17'56", long 82°37'26", Transylvania County, Hydrologic Unit 06010105, on left bank 40 ft upstream from bridge on Secondary Road 1503, 700 ft east of railroad at Blantyre, 3.5 mi downstream of Little River, and at mile 183.7.

DRAINAGE AREA.--296 $mi^2$.

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 923: 1921-23, 1929, 1933, 1935-36(M), 1938, 1940.

GAGE.--Water-stage recorder. Datum of gage is 2,060.32 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to July 5, 1930, nonrecording gage at same site and datum. National Weather Service has landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good except those above 2,600 $ft^3/s$, which are fair. Considerable diurnal fluctuation at low flow caused by powerplant about 8 mi upstream from station. Maximum gage height: 25.50 ft, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1791, 27.1 ft, July 16, 1916, from floodmarks (from studies by Tennessee Valley Authority).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 623 | 423 | 1880 | 717 | 719 | 1240 | 894 | 806 | 974 | 901 | 493 | 1100 |
| 2 | 605 | 509 | 3140 | 711 | 687 | 1120 | 872 | 767 | 902 | 942 | 466 | 1010 |
| 3 | 655 | 483 | 3180 | 1180 | 692 | 1050 | 852 | 765 | 886 | 891 | 453 | 1390 |
| 4 | 753 | 471 | 3490 | 1250 | 692 | 991 | 840 | 816 | 2730 | 852 | 440 | 1260 |
| 5 | 680 | 455 | 2260 | 988 | 691 | 946 | 827 | 812 | 3760 | 804 | 469 | 1340 |
| 6 | 692 | 436 | 1560 | 895 | 644 | 2200 | 807 | 851 | 2230 | 763 | 475 | 2160 |
| 7 | 638 | 436 | 1370 | 840 | 643 | 3420 | 807 | 1170 | 1510 | 770 | 513 | 1480 |
| 8 | 599 | 433 | 1220 | 804 | 635 | 2120 | 788 | 2640 | 1350 | 702 | 611 | 1360 |
| 9 | 589 | 429 | 1040 | 768 | 603 | 1600 | 747 | 2150 | 1660 | 684 | 581 | 1210 |
| 10 | 616 | 468 | 988 | 732 | 579 | 1640 | 718 | 1520 | 2200 | 703 | 504 | 1070 |
| 11 | 562 | 479 | 846 | 744 | 562 | 1880 | 729 | 1310 | 2790 | 676 | 488 | 1420 |
| 12 | 553 | 444 | 810 | 686 | 604 | 1550 | 1360 | 1170 | 2300 | 646 | 535 | 1110 |
| 13 | 562 | 437 | 799 | 677 | 607 | 1380 | 1050 | 1110 | 2060 | 628 | 690 | 984 |
| 14 | 587 | 444 | 770 | 1020 | 601 | 1260 | 900 | 1130 | 2170 | 601 | 880 | 917 |
| 15 | 578 | 438 | 752 | 897 | 701 | 1180 | 857 | 1010 | 2210 | 554 | 658 | 867 |
| 16 | 560 | 432 | 766 | 805 | 916 | 1110 | 847 | 967 | 2100 | 595 | 804 | 825 |
| 17 | 534 | 430 | 798 | 747 | 743 | 1070 | 812 | 920 | 1860 | 688 | 775 | 786 |
| 18 | 521 | 435 | 743 | 699 | 777 | 1040 | 842 | 886 | 1690 | 685 | 771 | 763 |
| 19 | 515 | 518 | 709 | 680 | 788 | 1460 | 851 | 1000 | 1530 | 662 | 647 | 780 |
| 20 | 513 | 521 | 692 | 692 | 745 | 1370 | 1100 | 1310 | 1390 | 642 | 579 | 819 |
| 21 | 509 | 690 | 689 | 717 | 713 | 1280 | 3130 | 1030 | 1280 | 693 | 1010 | 755 |
| 22 | 502 | 2740 | 690 | 669 | 645 | 1160 | 3400 | 925 | 1200 | 684 | 1560 | 685 |
| 23 | 484 | 2630 | 706 | 1620 | 862 | 1170 | 1920 | 878 | 1140 | 651 | 3280 | 816 |
| 24 | 485 | 1270 | 725 | 1710 | 1270 | 1080 | 1510 | 847 | 1090 | 724 | 2940 | 738 |
| 25 | 496 | 914 | 673 | 1130 | 1790 | 1030 | 1360 | 824 | 1050 | 738 | 1580 | 728 |
| 26 | 498 | 800 | 645 | 981 | 4170 | 1140 | 1250 | 790 | 1010 | 695 | 1130 | 654 |
| 27 | 494 | 716 | 639 | 903 | 3820 | 1070 | 1180 | 811 | 1030 | 642 | 969 | 796 |
| 28 | 488 | 674 | 739 | 874 | 1920 | 989 | 1120 | 782 | 947 | 575 | 2890 | 992 |
| 29 | 481 | 643 | 1100 | 837 | 1440 | 951 | 1050 | 980 | 922 | 547 | 3370 | 1080 |
| 30 | 477 | 673 | 872 | 809 | --- | 932 | 915 | 1470 | 906 | 522 | 1780 | 857 |
| 31 | 442 | --- | 777 | 785 | --- | 928 | --- | 1160 | --- | 493 | 1270 | --- |
| TOTAL | 17291 | 20871 | 36068 | 27567 | 30259 | 41357 | 34335 | 33607 | 48877 | 21353 | 33611 | 30752 |
| MEAN | 558 | 696 | 1163 | 889 | 1043 | 1334 | 1144 | 1084 | 1629 | 689 | 1084 | 1025 |
| MAX | 753 | 2740 | 3490 | 1710 | 4170 | 3420 | 3400 | 2640 | 3760 | 942 | 3370 | 2160 |
| MIN | 442 | 423 | 639 | 669 | 562 | 928 | 718 | 765 | 886 | 493 | 440 | 654 |
| CFSM | 1.88 | 2.35 | 3.93 | 3.00 | 3.53 | 4.51 | 3.87 | 3.66 | 5.50 | 2.33 | 3.66 | 3.46 |
| IN. | 2.17 | 2.62 | 4.53 | 3.46 | 3.80 | 5.20 | 4.32 | 4.22 | 6.14 | 2.68 | 4.22 | 3.86 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 761 | 827 | 1029 | 1174 | 1259 | 1382 | 1307 | 1082 | 883 | 739 | 773 | 699 |
| MAX | 3504 | 2486 | 2142 | 2783 | 2582 | 3169 | 2509 | 2339 | 1872 | 2214 | 2259 | 1828 |
| (WY) | 1965 | 1980 | 1962 | 1937 | 1990 | 1979 | 1936 | 1973 | 1989 | 1949 | 1928 | 1979 |
| MIN | 157 | 235 | 301 | 260 | 561 | 550 | 473 | 434 | 278 | 290 | 191 | 169 |
| (WY) | 1955 | 1955 | 1956 | 1956 | 1941 | 1988 | 1986 | 1988 | 1988 | 1925 | 1925 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1921 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 404404 | | 375948 | | | |
| ANNUAL MEAN | 1108 | | 1027 | | 992 | |
| HIGHEST ANNUAL MEAN | | | | | 1564 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 534 | 1988 |
| HIGHEST DAILY MEAN | 6770 | Mar 30 | 4170 | Feb 26 | 22700 | Oct 5 1964 |
| LOWEST DAILY MEAN | 423 | Nov 1 | 423 | Nov 1 | 123 | Oct 10 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 437 | Nov 12 | 437 | Nov 12 | 133 | Oct 8 1954 |
| INSTANTANEOUS PEAK FLOW | | | 4360 | Feb 26 | 30000 | Oct 5 1964 |
| INSTANTANEOUS PEAK STAGE | | | 16.41 | Feb 26 | 25.50* | Oct 5 1964 |
| INSTANTANEOUS LOW FLOW | | | 399 | Aug 4 | 119 | Oct 1 1954 |
| ANNUAL RUNOFF (CFSM) | 3.74 | | 3.47 | | 3.35 | |
| ANNUAL RUNOFF (INCHES) | 50.82 | | 47.25 | | 45.52 | |
| 10 PERCENT EXCEEDS | 1700 | | 1780 | | 1710 | |
| 50 PERCENT EXCEEDS | 954 | | 816 | | 806 | |
| 90 PERCENT EXCEEDS | 535 | | 507 | | 362 | |

* See REMARKS.

TENNESSEE RIVER BASIN

## 03446000 MILLS RIVER NEAR MILLS RIVER, NC

LOCATION.--Lat 35°23'55", long 82°35'42", Henderson County, Hydrologic Unit 06010105, on right bank 1.5 mi downstream of confluence of North and South Forks, 1.8 mi northwest of Mills River, 4.2 mi northwest of Horseshoe, and at at mile 4.6.

DRAINAGE AREA.--66.7 $mi^2$.

PERIOD OF RECORD.--September 1924 to September 1926, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1935, 1937, 1939. WSP 1003: 1938, 1940-42. WSP 1143: 1940(P). WSP 1276: 1926.

GAGE.--Water-stage recorder. Datum of gage is 2,088.47 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to Oct. 1, 1926, nonrecording gage at site 500 ft upstream at 2,091.44 ft.

REMARKS.--No estimated daily discharges. Records good. City of Hendersonville diverted about 7.8 $ft^3/s$ from North Fork and Bradley Creek for municipal water supply. Maximum discharge: 13,400 $ft^3/s$, from rating curve extended above 6,200 $ft^3/s$ on basis of slope-area measurement of peak flow. Minimum discharge result of freezeup. Minimum discharge for current water year also occurred November 18 and 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 114 | 84 | 443 | 120 | 125 | 216 | 157 | 151 | 208 | 202 | 94 | 192 |
| 2 | 113 | 92 | 504 | 119 | 122 | 199 | 153 | 146 | 194 | 200 | 90 | 183 |
| 3 | 117 | 84 | 552 | 231 | 119 | 187 | 150 | 141 | 198 | 189 | 91 | 174 |
| 4 | 111 | 82 | 461 | 202 | 117 | 177 | 147 | 136 | 595 | 179 | 99 | 160 |
| 5 | 108 | 81 | 315 | 176 | 115 | 173 | 144 | 135 | 485 | 169 | 89 | 176 |
| 6 | 107 | 81 | 259 | 160 | 112 | 504 | 140 | 163 | 344 | 167 | 93 | 376 |
| 7 | 103 | 80 | 223 | 149 | 110 | 509 | 140 | 274 | 288 | 159 | 98 | 229 |
| 8 | 103 | 80 | 199 | 141 | 107 | 354 | 138 | 604 | 300 | 154 | 160 | 231 |
| 9 | 103 | 80 | 187 | 136 | 103 | 298 | 135 | 438 | 392 | 147 | 106 | 184 |
| 10 | 101 | 95 | 180 | 130 | 102 | 337 | 132 | 353 | 601 | 143 | 92 | 223 |
| 11 | 101 | 89 | 163 | 124 | 101 | 337 | 144 | 318 | 760 | 142 | 100 | 345 |
| 12 | 99 | 81 | 156 | 121 | 100 | 290 | 141 | 273 | 597 | 142 | 108 | 230 |
| 13 | 99 | 79 | 151 | 125 | 100 | 264 | 134 | 274 | 533 | 133 | 185 | 201 |
| 14 | 96 | 78 | 151 | 179 | 100 | 245 | 130 | 252 | 513 | 129 | 154 | 182 |
| 15 | 101 | 77 | 139 | 141 | 146 | 230 | 135 | 240 | 509 | 128 | 114 | 168 |
| 16 | 106 | 76 | 134 | 129 | 136 | 215 | 153 | 245 | 458 | 125 | 126 | 156 |
| 17 | 97 | 75 | 131 | 134 | 120 | 206 | 132 | 215 | 410 | 122 | 200 | 148 |
| 18 | 95 | 75 | 128 | 126 | 135 | 201 | 128 | 205 | 373 | 120 | 155 | 141 |
| 19 | 95 | 84 | 122 | 119 | 124 | 239 | 127 | 271 | 340 | 118 | 120 | 160 |
| 20 | 93 | 87 | 121 | 116 | 116 | 229 | 199 | 261 | 309 | 114 | 119 | 171 |
| 21 | 93 | 200 | 122 | 115 | 112 | 208 | 476 | 231 | 287 | 122 | 159 | 147 |
| 22 | 91 | 845 | 119 | 113 | 109 | 201 | 338 | 210 | 268 | 114 | 354 | 143 |
| 23 | 90 | 328 | 120 | 266 | 189 | 200 | 253 | 195 | 255 | 125 | 535 | 140 |
| 24 | 90 | 204 | 122 | 207 | 192 | 185 | 219 | 189 | 242 | 195 | 410 | 138 |
| 25 | 89 | 161 | 113 | 173 | 384 | 184 | 204 | 181 | 230 | 128 | 263 | 133 |
| 26 | 89 | 140 | 110 | 161 | 665 | 199 | 186 | 176 | 235 | 113 | 212 | 131 |
| 27 | 87 | 127 | 109 | 151 | 384 | 183 | 176 | 171 | 228 | 112 | 199 | 151 |
| 28 | 87 | 120 | 144 | 147 | 290 | 174 | 168 | 169 | 210 | 111 | 534 | 172 |
| 29 | 85 | 114 | 170 | 140 | 246 | 169 | 162 | 242 | 203 | 99 | 356 | 169 |
| 30 | 84 | 125 | 134 | 135 | --- | 167 | 157 | 294 | 205 | 98 | 260 | 139 |
| 31 | 83 | --- | 125 | 131 | --- | 163 | --- | 235 | --- | 96 | 217 | --- |
| TOTAL | 3030 | 4004 | 6107 | 4617 | 4881 | 7443 | 5198 | 7388 | 10770 | 4295 | 5892 | 5493 |
| MEAN | 97.7 | 133 | 197 | 149 | 168 | 240 | 173 | 238 | 359 | 139 | 190 | 183 |
| MAX | 117 | 845 | 552 | 266 | 665 | 509 | 476 | 604 | 760 | 202 | 535 | 376 |
| MIN | 83 | 75 | 109 | 113 | 100 | 163 | 127 | 135 | 194 | 96 | 89 | 131 |
| CFSM | 1.47 | 2.00 | 2.95 | 2.23 | 2.52 | 3.60 | 2.60 | 3.57 | 5.38 | 2.08 | 2.85 | 2.75 |
| IN. | 1.69 | 2.23 | 3.41 | 2.57 | 2.72 | 4.15 | 2.90 | 4.12 | 6.01 | 2.40 | 3.29 | 3.06 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 124 | 141 | 163 | 193 | 217 | 242 | 236 | 191 | 153 | 122 | 129 | 115 |
| MAX | 465 | 510 | 338 | 534 | 448 | 520 | 468 | 412 | 359 | 356 | 506 | 354 |
| (WY) | 1965 | 1980 | 1962 | 1937 | 1939 | 1979 | 1957 | 1973 | 1992 | 1989 | 1940 | 1979 |
| MIN | 24.8 | 35.2 | 40.7 | 43.5 | 88.9 | 87.5 | 79.7 | 76.2 | 41.7 | 38.6 | 25.4 | 22.8 |
| (WY) | 1955 | 1955 | 1940 | 1956 | 1941 | 1988 | 1986 | 1988 | 1988 | 1988 | 1925 | 1925 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1925 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 75532 | | 69118 | | | |
| ANNUAL MEAN | 207 | | 189 | | 169 | |
| HIGHEST ANNUAL MEAN | | | | | 272 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 86.8 | 1988 |
| HIGHEST DAILY MEAN | 1190 | Mar 29 | 845 | Nov 22 | 4470 | Aug 13 1940 |
| LOWEST DAILY MEAN | 75 | Nov 17 | 75 | Nov 17 | 18 | Sep 30 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 77 | Nov 12 | 77 | Nov 12 | 19 | Sep 24 1954 |
| INSTANTANEOUS PEAK FLOW | | | 1450 | Nov 22 | 13400* | Aug 30 1940 |
| INSTANTANEOUS PEAK STAGE | | | 4.56 | Nov 22 | 13.62 | Aug 30 1940 |
| INSTANTANEOUS LOW FLOW | | | 75* | Nov 17 | 16* | Dec 24 1943 |
| ANNUAL RUNOFF (CFSM) | 3.10 | | 2.83 | | 2.53 | |
| ANNUAL RUNOFF (INCHES) | 42.13 | | 38.55 | | 34.37 | |
| 10 PERCENT EXCEEDS | 321 | | 339 | | 298 | |
| 50 PERCENT EXCEEDS | 180 | | 151 | | 135 | |
| 90 PERCENT EXCEEDS | 98 | | 94 | | 56 | |

* See REMARKS.

## 0344894205 NORTH FORK SWANNANOA RIVER NEAR WALKERTOWN, NC

LOCATION.--Lat 35°41'07", long 82°19'58", Buncombe County, Hydrologic Unit 06010105, on left bank 400 ft downstream of Sugar Springs Cove, 0.6 mi upstream from Burnette Reservoir, and 2.3 mi north of Walkertown.

DRAINAGE AREA.--14.5 $mi^2$.

PERIOD OF RECORD.--February 1989 to current year.

REVISED RECORDS.--WDR NC-91-1: 1989(M).

GAGE.--Water-stage recorder. Elevation of gage is 2,650 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those above 700 $ft^3/s$, and for estimated daily discharges, which are fair. Maximum discharge: 3,370 $ft^3/s$, from rating curve extended above 700 $ft^3/s$ by logarithmic plotting. Minimum discharge also occurred Oct. 4. Minimum discharge for current water year also occurred several days in November.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.2 | 5.7 | 66 | 32 | 28 | 54 | 56 | 43 | 37 | e23 | 8.3 | 34 |
| 2 | 6.8 | 6.2 | 225 | 30 | 27 | 48 | 50 | 41 | 35 | e22 | 7.6 | 31 |
| 3 | 6.8 | 5.6 | 300 | 167 | 26 | 44 | 46 | 39 | 34 | e21 | 7.1 | 28 |
| 4 | 6.7 | 5.6 | 186 | 172 | 25 | 41 | 44 | 36 | 182 | e19 | 6.6 | 25 |
| 5 | 6.1 | 5.2 | 81 | 102 | 24 | 38 | 40 | 34 | 105 | e15 | 6.4 | 25 |
| 6 | 6.2 | 5.2 | 56 | 76 | 23 | 218 | 38 | 36 | 72 | e16 | 6.9 | 32 |
| 7 | 6.0 | 5.2 | 45 | 62 | 22 | 138 | 37 | 87 | 58 | 15 | 7.6 | 27 |
| 8 | 6.0 | 5.2 | 38 | 53 | 21 | 90 | 35 | 291 | 51 | 14 | 14 | 23 |
| 9 | 6.0 | 5.3 | 47 | 48 | 20 | 74 | 35 | 170 | 86 | 13 | 9.4 | 21 |
| 10 | 6.0 | 9.0 | 68 | 43 | 19 | 104 | 34 | 174 | 174 | 12 | 7.7 | 21 |
| 11 | 5.9 | 8.7 | 47 | 38 | 19 | 101 | 34 | 133 | 215 | 11 | 7.4 | 22 |
| 12 | 5.6 | 6.3 | 40 | 36 | 19 | 81 | 33 | 105 | 155 | 11 | 8.5 | 18 |
| 13 | 5.6 | 5.6 | 36 | 35 | 20 | 69 | 31 | 103 | 111 | 10 | 34 | 17 |
| 14 | 5.6 | 5.5 | 42 | 54 | 20 | 61 | 29 | 92 | 101 | 14 | 26 | 16 |
| 15 | 6.9 | 5.2 | 36 | 39 | 58 | 55 | 29 | 85 | 94 | 14 | 16 | 15 |
| 16 | 6.8 | 5.2 | 32 | 35 | 50 | 49 | 29 | 76 | 83 | 11 | 14 | 14 |
| 17 | 6.0 | 5.2 | 30 | 33 | 39 | 47 | 27 | 67 | 76 | 10 | 62 | 13 |
| 18 | 5.6 | 5.2 | 27 | 31 | 39 | 46 | 26 | 61 | 66 | 9.8 | 36 | 12 |
| 19 | 5.6 | 7.7 | 25 | 29 | 40 | 61 | 27 | 66 | 58 | 9.2 | 24 | 12 |
| 20 | 5.8 | 11 | 23 | 27 | 36 | 66 | 261 | 75 | 50 | 8.6 | 19 | 12 |
| 21 | 6.0 | 20 | 23 | 26 | 33 | 56 | 462 | 62 | 44 | 8.6 | 18 | 11 |
| 22 | 6.0 | 279 | 22 | 26 | 31 | 55 | 189 | 55 | 39 | 25 | 30 | 11 |
| 23 | 6.0 | 75 | 24 | 50 | 38 | 64 | 117 | 50 | 36 | 21 | 40 | 11 |
| 24 | 6.0 | 38 | 27 | 43 | 42 | 55 | 92 | 45 | e33 | 12 | 32 | 11 |
| 25 | 6.0 | 28 | 24 | 37 | 116 | 53 | 78 | 42 | e32 | 10 | 26 | 10 |
| 26 | 6.0 | 22 | 22 | 36 | 179 | 59 | 67 | 40 | e36 | 9.5 | 28 | 9.5 |
| 27 | 6.0 | 19 | 21 | 34 | 93 | 64 | 60 | 37 | e34 | 11 | 32 | 14 |
| 28 | 6.0 | 17 | 38 | 33 | 72 | 58 | 54 | 36 | e29 | 11 | 359 | 14 |
| 29 | 6.0 | 16 | 57 | 32 | 64 | 56 | 50 | 41 | e27 | 8.8 | 101 | 18 |
| 30 | 5.6 | 15 | 40 | 31 | --- | 55 | 47 | 45 | e24 | 8.0 | 59 | 12 |
| 31 | 5.6 | --- | 35 | 30 | --- | 63 | --- | 40 | --- | 8.4 | 42 | --- |
| TOTAL | 188.4 | 652.8 | 1783 | 1520 | 1243 | 2123 | 2157 | 2307 | 2177 | 411.9 | 1095.5 | 539.5 |
| MEAN | 6.08 | 21.8 | 57.5 | 49.0 | 42.9 | 68.5 | 71.9 | 74.4 | 72.6 | 13.3 | 35.3 | 18.0 |
| MAX | 7.2 | 279 | 300 | 172 | 179 | 218 | 462 | 291 | 215 | 25 | 359 | 34 |
| MIN | 5.6 | 5.2 | 21 | 26 | 19 | 38 | 26 | 34 | 24 | 8.0 | 6.4 | 9.5 |
| CFSM | .42 | 1.50 | 3.97 | 3.38 | 2.96 | 4.73 | 4.96 | 5.14 | 5.01 | .92 | 2.44 | 1.24 |
| IN. | .48 | 1.68 | 4.58 | 3.90 | 3.19 | 5.45 | 5.54 | 5.92 | 5.59 | 1.06 | 2.81 | 1.39 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 43.5 | 32.4 | 52.0 | 54.9 | 65.3 | 83.8 | 55.4 | 61.4 | 47.0 | 25.3 | 22.6 | 27.9 |
| MAX | 69.8 | 49.7 | 57.5 | 66.2 | 120 | 102 | 71.9 | 74.4 | 72.6 | 43.0 | 35.3 | 64.3 |
| (WY) | 1991 | 1990 | 1992 | 1990 | 1990 | 1990 | 1992 | 1992 | 1992 | 1989 | 1992 | 1989 |
| MIN | 6.08 | 21.8 | 42.1 | 49.0 | 36.6 | 68.5 | 35.2 | 36.2 | 23.0 | 13.3 | 12.8 | 11.8 |
| (WY) | 1992 | 1992 | 1990 | 1992 | 1989 | 1992 | 1990 | 1991 | 1990 | 1992 | 1989 | 1990 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1989 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 14438.0 | | 16198.1 | | | |
| ANNUAL MEAN | 39.6 | | 44.3 | | 47.0 | |
| HIGHEST ANNUAL MEAN | | | | | 51.4 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 44.3 | 1992 |
| HIGHEST DAILY MEAN | 496 | Mar 29 | 462 | Apr 21 | 788 | Sep 22 1989 |
| LOWEST DAILY MEAN | 5.2 | Nov 5 | 5.2 | Nov 5 | 4.8 | Oct 3 1990 |
| ANNUAL SEVEN-DAY MINIMUM | 5.3 | Nov 3 | 5.3 | Nov 3 | 5.3 | Sep 27 1990 |
| INSTANTANEOUS PEAK FLOW | | | 1130 | Aug 28 | 3370* | Sep 22 1989 |
| INSTANTANEOUS PEAK STAGE | | | 5.81 | Aug 28 | 7.57 | Sep 22 1989 |
| INSTANTANEOUS LOW FLOW | | | 5.2* | Nov 4 | 4.5* | Oct 3 1990 |
| ANNUAL RUNOFF (CFSM) | 2.73 | | 3.05 | | 3.24 | |
| ANNUAL RUNOFF (INCHES) | 37.07 | | 41.59 | | 44.03 | |
| 10 PERCENT EXCEEDS | 71 | | 91 | | 92 | |
| 50 PERCENT EXCEEDS | 31 | | 32 | | 34 | |
| 90 PERCENT EXCEEDS | 6.0 | | 6.0 | | 9.4 | |

* See REMARKS.

TENNESSEE RIVER BASIN

## 03450000 BEETREE CREEK NEAR SWANNANOA, NC

LOCATION.--Lat 35°39'11", long 82°24'20", Buncombe County, Hydrologic Unit 06010105, on left bank 0.5 mi downstream of Wolfe Branch, 0.8 mi upstream from Beetree Reservoir dam, 3.8 mi north of Swannanoa, and 4.8 mi above mouth.

DRAINAGE AREA.--5.46 mi².

PERIOD OF RECORD.--February 1926 to September 1975, October 1979 to September 1981, October 1985 to September 1986, and May 1987 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 893: 1928, 1936-37 (M). WSP 953: 1929 (M). WSP 1276: 1932.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 2,728.39 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge: 1,370 ft³/s, from rating curve extended above 240 ft³/s on basis of computation of peak flow over weir. Minimum discharge occurred several days in September and October 1954. Minimum discharge for current water year also occurred several days in November.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | 1.4 | 17 | 10 | 8.7 | 15 | 16 | 14 | 8.4 | 6.4 | 1.7 | 8.9 |
| 2 | 1.9 | 1.4 | 41 | 9.7 | 8.2 | 12 | 15 | 13 | 7.7 | 6.3 | 1.6 | 8.2 |
| 3 | 1.9 | 1.4 | 75 | 20 | 7.9 | 11 | 14 | 12 | 7.6 | 5.8 | 1.6 | 6.8 |
| 4 | 1.8 | 1.4 | 42 | 25 | 7.9 | 11 | 13 | 11 | 23 | 5.4 | 1.5 | 5.7 |
| 5 | 1.7 | 1.4 | 27 | 21 | 7.5 | 9.8 | 13 | 11 | 21 | 4.9 | 1.5 | 4.9 |
| 6 | 1.6 | 1.4 | 21 | 17 | 7.2 | 36 | 12 | 12 | 17 | 5.0 | 1.8 | 5.3 |
| 7 | 1.5 | 1.4 | 18 | 15 | 6.9 | 37 | 11 | 21 | 14 | 4.6 | 2.0 | 4.9 |
| 8 | 1.6 | 1.4 | 15 | 14 | 6.3 | 28 | 11 | 65 | 13 | 4.1 | 3.3 | 4.2 |
| 9 | 1.6 | 1.4 | 16 | 13 | 5.9 | 24 | 10 | 51 | 18 | 3.8 | 2.5 | 3.6 |
| 10 | 1.5 | 1.8 | 19 | 12 | 5.9 | 29 | 9.7 | 40 | 28 | 3.7 | 2.0 | 3.9 |
| 11 | 1.5 | 1.7 | 16 | 11 | 5.9 | 30 | 10 | 32 | 41 | 3.5 | 3.2 | 4.0 |
| 12 | 1.5 | 1.5 | 15 | 10 | 5.8 | 27 | 10 | 27 | 32 | 3.3 | 3.4 | 3.2 |
| 13 | 1.5 | 1.5 | 13 | 9.9 | 5.8 | 24 | 9.6 | 25 | 26 | 3.1 | 6.9 | 3.1 |
| 14 | 1.5 | 1.4 | 13 | 11 | 5.9 | 21 | 9.3 | 23 | 24 | 2.9 | 4.2 | 3.0 |
| 15 | 1.7 | 1.4 | 12 | 9.5 | 9.8 | 19 | 8.9 | 21 | 22 | 3.8 | 2.7 | 2.8 |
| 16 | 1.7 | 1.4 | 11 | 8.9 | 9.1 | 17 | 9.0 | 20 | 20 | 3.5 | 2.6 | 2.6 |
| 17 | 1.6 | 1.4 | 10 | 8.2 | 8.1 | 16 | 8.5 | 18 | 18 | 3.0 | 4.1 | 2.5 |
| 18 | 1.5 | 1.4 | 9.4 | 7.6 | 8.2 | 15 | 8.1 | 16 | 16 | 2.8 | 3.0 | 2.4 |
| 19 | 1.5 | 1.8 | 8.7 | 7.3 | 8.2 | 19 | 7.9 | 17 | 15 | 2.7 | 2.4 | 2.4 |
| 20 | 1.5 | 1.7 | 8.3 | 7.0 | 8.0 | 20 | 24 | 18 | 13 | 2.4 | 2.2 | 2.4 |
| 21 | 1.5 | 11 | 8.2 | 6.8 | 7.7 | 19 | 89 | 16 | 11 | 2.4 | 2.8 | 2.4 |
| 22 | 1.5 | 45 | 8.0 | 6.8 | 7.5 | 19 | 51 | 14 | 11 | 2.3 | 4.8 | 2.4 |
| 23 | 1.5 | 20 | 8.2 | 16 | 9.2 | 22 | 35 | 13 | 9.7 | 2.5 | 4.9 | 2.6 |
| 24 | 1.5 | 14 | 8.6 | 14 | 9.5 | 19 | 29 | 12 | 8.9 | 2.4 | 3.6 | 2.4 |
| 25 | 1.5 | 10 | 7.9 | 12 | 16 | 19 | 25 | 11 | 8.8 | 2.2 | 3.0 | 2.2 |
| 26 | 1.5 | 8.6 | 7.4 | 12 | 34 | 20 | 23 | 11 | 8.1 | 2.3 | 13 | 2.0 |
| 27 | 1.5 | 7.3 | 7.0 | 11 | 26 | 21 | 20 | 9.6 | 8.3 | 2.6 | 15 | 3.0 |
| 28 | 1.5 | 6.5 | 9.5 | 10 | 20 | 19 | 18 | 9.2 | 7.3 | 2.7 | 56 | 4.3 |
| 29 | 1.5 | 5.8 | 12 | 10 | 17 | 18 | 17 | 11 | 6.8 | 2.0 | 25 | 3.4 |
| 30 | 1.5 | 5.4 | 11 | 9.8 | --- | 17 | 15 | 9.8 | 6.5 | 1.8 | 16 | 2.4 |
| 31 | 1.5 | --- | 11 | 9.3 | --- | 17 | --- | 9.0 | --- | 1.8 | 11 | --- |
| TOTAL | 49.0 | 163.2 | 506.2 | 364.8 | 294.1 | 630.8 | 552.0 | 592.6 | 471.1 | 106.0 | 209.3 | 111.9 |
| MEAN | 1.58 | 5.44 | 16.3 | 11.8 | 10.1 | 20.3 | 18.4 | 19.1 | 15.7 | 3.42 | 6.75 | 3.73 |
| MAX | 1.9 | 45 | 75 | 25 | 34 | 37 | 89 | 65 | 41 | 6.4 | 56 | 8.9 |
| MIN | 1.5 | 1.4 | 7.0 | 6.8 | 5.8 | 9.8 | 7.9 | 9.0 | 6.5 | 1.8 | 1.5 | 2.0 |
| CFSM | .29 | 1.00 | 2.99 | 2.16 | 1.86 | 3.73 | 3.37 | 3.50 | 2.88 | .63 | 1.24 | .68 |
| IN. | .33 | 1.11 | 3.45 | 2.49 | 2.00 | 4.30 | 3.76 | 4.04 | 3.21 | .72 | 1.43 | .76 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 6.36 | 8.37 | 10.5 | 12.9 | 15.4 | 18.9 | 16.7 | 12.0 | 8.49 | 6.29 | 6.53 | 5.14 |
| MAX | 33.8 | 45.3 | 25.4 | 38.5 | 43.0 | 43.1 | 34.1 | 28.5 | 27.0 | 37.9 | 61.8 | 21.2 |
| (WY) | 1930 | 1980 | 1933 | 1937 | 1990 | 1975 | 1936 | 1973 | 1949 | 1949 | 1940 | 1928 |
| MIN | .65 | 1.23 | 1.58 | 1.99 | 4.46 | 5.25 | 5.21 | 4.68 | 1.82 | 1.34 | 1.15 | .51 |
| (WY) | 1955 | 1955 | 1940 | 1940 | 1941 | 1988 | 1986 | 1948 | 1988 | 1930 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1926 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 3959.3 | | 4051.0 | | | |
| ANNUAL MEAN | 10.8 | | 11.1 | | 10.6 | |
| HIGHEST ANNUAL MEAN | | | | | 17.8 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 6.18 | 1981 |
| HIGHEST DAILY MEAN | 135 | Mar 29 | 89 | Apr 21 | 528 | Aug 13 1940 |
| LOWEST DAILY MEAN | 1.4 | Nov 1 | 1.4 | Nov 1 | .30 | Sep 30 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 1.4 | Nov 1 | 1.4 | Nov 1 | .40 | Sep 24 1954 |
| INSTANTANEOUS PEAK FLOW | | | 177 | Dec 3 | 1370* | Aug 13 1940 |
| INSTANTANEOUS PEAK STAGE | | | 3.81 | Dec 3 | 6.20 | Aug 13 1940 |
| INSTANTANEOUS LOW FLOW | | | 1.4* | Nov 1 | .30* | Sep 29 1954 |
| ANNUAL RUNOFF (CFSM) | 1.99 | | 2.03 | | 1.95 | |
| ANNUAL RUNOFF (INCHES) | 26.98 | | 27.60 | | 26.48 | |
| 10 PERCENT EXCEEDS | 21 | | 23 | | 21 | |
| 50 PERCENT EXCEEDS | 8.4 | | 8.5 | | 7.3 | |
| 90 PERCENT EXCEEDS | 1.6 | | 1.5 | | 1.7 | |

* See REMARKS.

## 03451000 SWANNANOA RIVER AT BILTMORE, NC

LOCATION.--Lat 35°34'06", long 82°32'42", Buncombe County, Hydrologic Unit 06010105, on left bank at Biltmore, 100 ft downstream of Biltmore Avenue Bridge, 200 ft upstream from Southern Railway bridge, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--130 $mi^2$.

PERIOD OF RECORD.--October 1920 to September 1926, May 1934 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1921(M), 1923(M), 1925(M). WSP 823: Drainage area. WSP 1306: 1921(M), 1924(M), 1926(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,976.58 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Dec. 1, 1920, to Sept. 30, 1926, nonrecording gage at site 100 ft upstream at same datum. National Weather Service has landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation from 1925-50 (reservoir silted) by Lake Craig 3.6 mi upstream from station. City of Asheville diverted an average of 32.5 $ft^3/s$ from Burnett Lake (station 03448959) on North Fork Swannanoa River 20 mi upstream from station and Bee Tree Lake on Bee Tree Creek (station 03450000) 13 mi upstream from station for water supply. An average of 40.2 $ft^3/s$ was discharged downstream of station into the French Broad River as treated sewage effluent. Textile mills, the town of Black Mountain, and recreational camps diverted about 8 $ft^3/s$ upstream from station, of which about half was discharged into the French Broad River downstream of station. Complete record of diversions and return water not available. Maximum discharge: 18,400 $ft^3/s$, from rating curve extended above 9,100 $ft^3/s$ on basis of computation of peak flow over dam 3.6 mi upstream from station. Minimum discharge occurred several days in October 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed: 26 ft; discharge: 40,000 $ft^3/s$ in April 1791, from studies by Tennessee Valley Authority. Flood of July 1916 reached a stage of 20.7 ft; discharge, 23,000 $ft^3/s$, from flood profile by Tennessee Valley Authority. Flood of Aug. 16, 1928, reached a stage of 18.74 ft, from floodmarks; discharge, 17,800 $ft^3/s$. High stages are subject to backwater from French Broad River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 49 | 53 | 158 | 89 | 83 | 173 | 151 | 152 | 126 | 95 | 41 | 99 |
| 2 | 47 | 55 | 210 | 84 | 77 | 149 | 140 | 139 | 118 | 92 | 37 | 90 |
| 3 | 49 | 50 | 431 | 258 | 75 | 133 | 128 | 128 | 114 | 85 | 37 | 76 |
| 4 | 50 | 50 | 219 | 381 | 71 | 119 | 122 | 118 | 435 | 80 | 41 | 69 |
| 5 | 48 | 50 | 128 | 309 | 69 | 109 | 117 | 110 | 427 | 74 | 35 | 65 |
| 6 | 47 | 51 | 102 | 235 | 66 | 422 | 109 | 146 | 276 | 77 | 46 | 91 |
| 7 | 45 | 52 | 89 | 185 | 63 | 539 | 104 | 449 | 215 | 69 | 49 | 173 |
| 8 | 46 | 56 | 87 | 153 | 62 | 366 | 101 | 1740 | 188 | 65 | 94 | 188 |
| 9 | 46 | 54 | 98 | 138 | 58 | 277 | 94 | 1010 | 383 | 60 | 70 | 70 |
| 10 | 47 | 67 | 129 | 124 | 57 | 336 | 89 | 656 | 324 | 57 | 54 | 61 |
| 11 | 46 | 63 | 117 | 112 | 57 | 375 | 129 | 514 | 506 | 56 | 60 | 86 |
| 12 | 45 | 52 | 106 | 104 | 57 | 296 | 149 | 405 | 490 | 54 | 60 | 62 |
| 13 | 44 | 50 | 97 | 106 | 57 | 252 | 104 | 352 | 394 | 52 | 181 | 57 |
| 14 | 44 | 51 | 102 | 134 | 59 | 217 | 92 | 339 | 362 | 50 | 108 | 54 |
| 15 | 48 | 51 | 92 | 117 | 69 | 193 | 97 | 289 | 389 | 64 | 74 | 49 |
| 16 | 52 | 50 | 86 | 95 | 80 | 168 | 114 | 268 | 308 | 69 | 68 | 47 |
| 17 | 47 | 50 | 77 | 86 | 83 | 152 | 97 | 239 | 266 | 54 | 141 | 45 |
| 18 | 45 | 50 | 73 | 81 | 85 | 142 | 95 | 215 | 240 | 53 | 101 | 44 |
| 19 | 50 | 52 | 66 | 77 | 84 | 192 | 90 | 213 | 215 | 50 | 68 | 66 |
| 20 | 51 | 55 | 62 | 74 | 80 | 198 | 347 | 231 | 187 | 48 | 60 | 51 |
| 21 | 48 | 150 | 61 | 77 | 74 | 176 | 1620 | 202 | 167 | 45 | 60 | 48 |
| 22 | 49 | 334 | 61 | 69 | 72 | 172 | 970 | 180 | 150 | 119 | 123 | 50 |
| 23 | 48 | 100 | 65 | 261 | 95 | 201 | 544 | 161 | 135 | 61 | 117 | 73 |
| 24 | 52 | 67 | 73 | 168 | 96 | 172 | 390 | 153 | 124 | 65 | 77 | 52 |
| 25 | 51 | 57 | 67 | 131 | 258 | 163 | 311 | 150 | 118 | 53 | 64 | 46 |
| 26 | 50 | 52 | 64 | 119 | 498 | 198 | 259 | 149 | 159 | 49 | 74 | 45 |
| 27 | 50 | 51 | 63 | 110 | 369 | 188 | 228 | 133 | 128 | 49 | 111 | 74 |
| 28 | 56 | 49 | 85 | 104 | 262 | 173 | 203 | 125 | 105 | 45 | 298 | 82 |
| 29 | 47 | 48 | 121 | 97 | 215 | 164 | 179 | 149 | 99 | 42 | 233 | 82 |
| 30 | 48 | 48 | 107 | 90 | --- | 163 | 161 | 148 | 97 | 39 | 176 | 56 |
| 31 | 51 | --- | 95 | 86 | --- | 160 | --- | 136 | --- | 42 | 128 | --- |
| TOTAL | 1496 | 2018 | 3391 | 4254 | 3331 | 6738 | 7334 | 9399 | 7245 | 1913 | 2886 | 2151 |
| MEAN | 48.3 | 67.3 | 109 | 137 | 115 | 217 | 244 | 303 | 241 | 61.7 | 93.1 | 71.7 |
| MAX | 56 | 334 | 431 | 381 | 498 | 539 | 1620 | 1740 | 506 | 119 | 298 | 188 |
| MIN | 44 | 48 | 61 | 69 | 57 | 109 | 89 | 110 | 97 | 39 | 35 | 44 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 98.7 | 119 | 141 | 185 | 225 | 275 | 249 | 190 | 137 | 103 | 100 | 88.4 |
| MAX | 569 | 604 | 385 | 581 | 598 | 740 | 560 | 480 | 387 | 503 | 828 | 421 |
| (WY) | 1965 | 1980 | 1962 | 1937 | 1990 | 1975 | 1936 | 1973 | 1949 | 1949 | 1940 | 1979 |
| MIN | 13.7 | 27.0 | 35.3 | 32.3 | 65.7 | 45.7 | 55.6 | 45.5 | 17.7 | 18.2 | 18.8 | 13.8 |
| (WY) | 1955 | 1982 | 1989 | 1956 | 1988 | 1988 | 1986 | 1988 | 1988 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1921 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 56215 | | 52156 | | | |
| ANNUAL MEAN | 154 | | 143 | | 159 | |
| HIGHEST ANNUAL MEAN | | | | | 277 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 55.9 | 1988 |
| HIGHEST DAILY MEAN | 2390 | Mar 29 | 1740 | May 8 | 7560 | Aug 13 1940 |
| LOWEST DAILY MEAN | 44 | Oct 13 | 35 | Aug 5 | 1.2 | Oct 14 1941 |
| ANNUAL SEVEN-DAY MINIMUM | 45 | Oct 8 | 39 | Jul 30 | 7.3 | Sep 13 1953 |
| INSTANTANEOUS PEAK FLOW | | | 2060 | Apr 21 | 18400* | Aug 13 1940 |
| INSTANTANEOUS PEAK STAGE | | | 5.96 | Apr 21 | 19.00 | Aug 13 1940 |
| INSTANTANEOUS LOW FLOW | | | 33 | Aug 6 | 1.1* | Oct 9 1941 |
| 10 PERCENT EXCEEDS | 286 | | 297 | | 308 | |
| 50 PERCENT EXCEEDS | 103 | | 92 | | 106 | |
| 90 PERCENT EXCEEDS | 51 | | 48 | | 38 | |

* See REMARKS.

TENNESSEE RIVER BASIN

## 03451500 FRENCH BROAD RIVER AT ASHEVILLE, NC

LOCATION.--Lat 35°36'33", long 82°34'43", Buncombe County, Hydrologic Unit 06010105, on right bank 27 ft upstream from Pearson Bridge (Secondary Road 1348) at Asheville, 1.4 mi downstream of bridge on U.S. Highways 19 and 23, 3.2 mi downstream of Swannanoa River, and at mile 145.8.

DRAINAGE AREA.--945 $mi^2$.

PERIOD OF RECORD.--October 1895 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1306: 1895-1909, 1901(M), 1914-15(M), 1917(M), 1920-22(M), 1927(M).

GAGE.--Water-stage recorder. Datum of gage is 1,950.28 ft above National Geodetic Vertical Datum of 1929. Sept. 17, 1895, to Dec. 31, 1901, nonrecording gage at present site at different datum. Mar. 19, 1903, to July 15, 1916, and Jan. 1, 1917, to Sept. 30, 1922, nonrecording gage at Smith Bridge 1.5 mi upstream at datum 1961.80 ft. Oct. 1, 1922, to Aug. 9, 1930, nonrecording gage at present site and datum. National Weather Service has landline telemetry (gage-height) and Tennessee Valley Authority has landline telemetry (rainfall and gage-height) at station.

REMARKS.--No estimated daily discharges. Records good. Many small diversions from tributaries upstream from station for water supply. Diversions by city of Asheville and others from upstream tributaries in the Swannanoa River basin (station 03451000) totaled about 33.5 $ft^3/s$, of which 32.5 $ft^3/s$ was discharged 4 mi downstream from station as treated effluent. Slight diurnal fluctuation and occasional slight regulation at low flow caused by powerplant 46 mi upstream and small reservoirs upstream from station. Maximum discharge: 110,000 $ft^3/s$, from floodmarks and from rating curve extended above 43,000 $ft^3/s$. Minimum discharge occurred several days in August and September 1925. Minimum discharge for current water year also occurred November 18 and 19.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791, that of July 16, 1916, and flood of June 17, 1876, reached a stage of 18 ft, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1190 | 921 | 2990 | 1610 | 1640 | 2960 | 2260 | 2240 | 2100 | 2070 | 1070 | 2250 |
| 2 | 1170 | 935 | 5420 | 1530 | 1540 | 2710 | 2190 | 2090 | 1950 | 2080 | 1030 | 2060 |
| 3 | 1200 | 976 | 5740 | 2360 | 1510 | 2540 | 2120 | 2010 | 1930 | 2130 | 991 | 2330 |
| 4 | 1250 | 945 | 5480 | 3230 | 1520 | 2410 | 2090 | 2000 | 4100 | 1950 | 1070 | 3120 |
| 5 | 1280 | 934 | 4600 | 2560 | 1500 | 2310 | 2060 | 1990 | 6040 | 1840 | 1020 | 2370 |
| 6 | 1210 | 918 | 3210 | 2190 | 1480 | 3610 | 2010 | 2140 | 5310 | 1780 | 1060 | 3170 |
| 7 | 1180 | 911 | 2620 | 1990 | 1400 | 6000 | 1990 | 3210 | 3720 | 1730 | 1150 | 3000 |
| 8 | 1130 | 911 | 2370 | 1850 | 1410 | 5200 | 2000 | 9630 | 3100 | 1660 | 1380 | 2870 |
| 9 | 1110 | 899 | 2190 | 1780 | 1350 | 3790 | 1950 | 8400 | 4010 | 1560 | 1430 | 2330 |
| 10 | 1110 | 969 | 2090 | 1690 | 1330 | 3580 | 1890 | 5250 | 5610 | 1520 | 1180 | 2120 |
| 11 | 1120 | 1060 | 1910 | 1640 | 1300 | 4140 | 1970 | 3660 | 7140 | 1510 | 1230 | 2740 |
| 12 | 1070 | 973 | 1760 | 1590 | 1310 | 3620 | 2340 | 3080 | 6020 | 1460 | 1200 | 2380 |
| 13 | 1040 | 932 | 1720 | 1540 | 1330 | 3220 | 2590 | 2840 | 5080 | 1400 | 1670 | 2060 |
| 14 | 1070 | 921 | 1690 | 1890 | 1360 | 2980 | 2160 | 3000 | 4840 | 1370 | 2280 | 1910 |
| 15 | 1100 | 916 | 1630 | 2040 | 1400 | 2830 | 2070 | 2570 | 5270 | 1340 | 1690 | 1790 |
| 16 | 1120 | 900 | 1550 | 1740 | 1790 | 2680 | 2130 | 2400 | 4750 | 1300 | 2210 | 1700 |
| 17 | 1070 | 900 | 1580 | 1610 | 1670 | 2580 | 2020 | 2210 | 4290 | 1320 | 2920 | 1620 |
| 18 | 1020 | 896 | 1570 | 1580 | 1660 | 2490 | 1960 | 2080 | 3880 | 1370 | 1990 | 1580 |
| 19 | 1010 | 928 | 1480 | 1500 | 1680 | 2820 | 2010 | 2430 | 3500 | 1350 | 1620 | 1660 |
| 20 | 1000 | 1050 | 1430 | 1460 | 1610 | 3180 | 2530 | 2960 | 3190 | 1290 | 1470 | 1790 |
| 21 | 998 | 1400 | 1440 | 1500 | 1530 | 2930 | 7770 | 2480 | 2950 | 1310 | 1590 | 1630 |
| 22 | 995 | 4130 | 1440 | 1490 | 1480 | 2740 | 7630 | 2130 | 2750 | 1450 | 2310 | 1570 |
| 23 | 982 | 4190 | 1450 | 2770 | 1640 | 2750 | 5790 | 1960 | 2600 | 1400 | 4600 | 1640 |
| 24 | 984 | 3000 | 1520 | 3830 | 2510 | 2650 | 3780 | 1880 | 2480 | 1570 | 4860 | 1630 |
| 25 | 987 | 1970 | 1450 | 2630 | 3090 | 2490 | 3250 | 1840 | 2400 | 1680 | 3760 | 1530 |
| 26 | 982 | 1670 | 1360 | 2200 | 7160 | 2670 | 2970 | 1820 | 2440 | 1400 | 2480 | 1480 |
| 27 | 977 | 1520 | 1340 | 2010 | 6530 | 2640 | 2800 | 1750 | 2440 | 1350 | 2410 | 1630 |
| 28 | 1010 | 1430 | 1440 | 1910 | 5500 | 2470 | 2670 | 1730 | 2260 | 1250 | 3800 | 2080 |
| 29 | 959 | 1370 | 2180 | 1840 | 3550 | 2370 | 2540 | 1900 | 2140 | 1160 | 4870 | 2770 |
| 30 | 945 | 1340 | 1990 | 1760 | --- | 2330 | 2380 | 2530 | 2100 | 1110 | 4160 | 2060 |
| 31 | 945 | --- | 1710 | 1710 | --- | 2320 | --- | 2520 | --- | 1090 | 2700 | --- |
| TOTAL | 33214 | 40815 | 70350 | 61030 | 62780 | 94010 | 83920 | 88730 | 110390 | 46800 | 67201 | 62870 |
| MEAN | 1071 | 1360 | 2269 | 1969 | 2165 | 3033 | 2797 | 2862 | 3680 | 1510 | 2168 | 2096 |
| MAX | 1280 | 4190 | 5740 | 3830 | 7160 | 6000 | 7770 | 9630 | 7140 | 2130 | 4870 | 3170 |
| MIN | 945 | 896 | 1340 | 1460 | 1300 | 2310 | 1890 | 1730 | 1930 | 1090 | 991 | 1480 |
| CFSM | 1.13 | 1.44 | 2.40 | 2.08 | 2.29 | 3.21 | 2.96 | 3.03 | 3.89 | 1.60 | 2.29 | 2.22 |
| IN. | 1.31 | 1.61 | 2.77 | 2.40 | 2.47 | 3.70 | 3.30 | 3.49 | 4.35 | 1.84 | 2.65 | 2.47 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1583 | 1600 | 2101 | 2361 | 2633 | 2987 | 2746 | 2203 | 1892 | 1726 | 1693 | 1478 |
| MAX | 7025 | 5121 | 5700 | 6068 | 5673 | 7928 | 5705 | 4961 | 5774 | 11500 | 8362 | 4967 |
| (WY) | 1965 | 1980 | 1915 | 1937 | 1990 | 1899 | 1899 | 1973 | 1909 | 1916 | 1901 | 1906 |
| MIN | 353 | 507 | 636 | 548 | 1083 | 1037 | 973 | 859 | 547 | 559 | 328 | 346 |
| (WY) | 1955 | 1932 | 1956 | 1956 | 1931 | 1988 | 1986 | 1988 | 1988 | 1986 | 1925 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1896 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 857679 | | 822110 | | | |
| ANNUAL MEAN | 2350 | | 2246 | | 2081 | |
| HIGHEST ANNUAL MEAN | | | | | 3671 | 1901 |
| LOWEST ANNUAL MEAN | | | | | 1004 | 1988 |
| HIGHEST DAILY MEAN | 14000 | Mar 30 | 9630 | May 8 | 66000 | Jul 16 1916 |
| LOWEST DAILY MEAN | 896 | Nov 18 | 896 | Nov 18 | 239 | Sep 21 1925 |
| ANNUAL SEVEN-DAY MINIMUM | 913 | Nov 13 | 913 | Nov 13 | 258 | Aug 24 1925 |
| INSTANTANEOUS PEAK FLOW | | | 11000 | May 8 | 110000* | Jul 16 1916 |
| INSTANTANEOUS PEAK STAGE | | | 6.39 | May 8 | 23.10* | Jul 16 1916 |
| INSTANTANEOUS LOW FLOW | | | 887* | Nov 9 | 239* | Aug 28 1925 |
| ANNUAL RUNOFF (CFSM) | 2.49 | | 2.38 | | 2.20 | |
| ANNUAL RUNOFF (INCHES) | 33.76 | | 32.36 | | 29.92 | |
| 10 PERCENT EXCEEDS | 3590 | | 3810 | | 3620 | |
| 50 PERCENT EXCEEDS | 2110 | | 1910 | | 1620 | |
| 90 PERCENT EXCEEDS | 1070 | | 1050 | | 781 | |

* See REMARKS.

TENNESSEE RIVER BASIN

03453500 FRENCH BROAD RIVER AT MARSHALL, NC
(National stream-quality accounting network station)

LOCATION.--Lat 35°47'10", long 82°39'39", Madison County, Hydrologic Unit 06010105, on right bank 0.7 mi upstream from Hayes Creek, 1.0 mi downstream of Ivy River, 1.5 mi southeast of Marshall, and at mile 126.7.

DRAINAGE AREA.--1,332 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to current year.

REVISED RECORDS.--WSP 1436: 1954(M).

GAGE.--Water-stage recorder. Datum of gage is 1,646.79 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). National Weather Service has landline telemetry at station.

REMARKS.--No estimated daily discharges. Record good. Small diversions from tributaries for water supply. Slight diurnal fluctuation and occasional slight regulation at low flow caused by small reservoirs upstream from station. Prior to July 1963, some regulation by Weaver plant of Carolina Power and Light Company 15 mi upstream, after November 1986 the same powerplant was operated by the Metropolitan Sewage Treatment Plant. Minimum discharge also occurred Sept. 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791: 22.0 ft, July 16, 1916; discharge: 115,000 ft³/s. Flood of Aug. 30, 1940, reached a stage of 16.6 ft; discharge, 70,000 ft³/s, from highwater marks, flood profiles, and studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1330 | 990 | 2280 | 1800 | 1820 | 3270 | 2360 | 2220 | 2640 | 2140 | 1150 | 2500 |
| 2 | 1300 | 994 | 6770 | 1690 | 1700 | 2870 | 2250 | 2050 | 2310 | 2150 | 1100 | 2260 |
| 3 | 1270 | 1030 | 7490 | 2490 | 1650 | 2620 | 2150 | 1950 | 2160 | 2220 | 1060 | 2230 |
| 4 | 1330 | 1010 | 6910 | 4440 | 1650 | 2450 | 2090 | 1890 | 3950 | 2040 | 1090 | 3500 |
| 5 | 1390 | 1000 | 5510 | 3410 | 1630 | 2300 | 2050 | 1900 | 6960 | 1900 | 1080 | 2590 |
| 6 | 1330 | 987 | 3990 | 2770 | 1610 | 3290 | 1980 | 2010 | 5990 | 1930 | 1160 | 3190 |
| 7 | 1290 | 977 | 3040 | 2400 | 1520 | 6760 | 1950 | 3060 | 4490 | 1770 | 1230 | 3440 |
| 8 | 1230 | 988 | 2680 | 2190 | 1510 | 5970 | 1960 | 11500 | 3330 | 1730 | 1360 | 3120 |
| 9 | 1200 | 971 | 2490 | 2070 | 1460 | 4380 | 1900 | 10400 | 3910 | 1610 | 1640 | 2540 |
| 10 | 1190 | 1020 | 2630 | 1970 | 1420 | 4160 | 1840 | 7070 | 6370 | 1550 | 1340 | 2290 |
| 11 | 1230 | 1160 | 2300 | 1860 | 1400 | 5150 | 1920 | 5000 | 8530 | 1520 | 1230 | 2730 |
| 12 | 1170 | 1080 | 2050 | 1790 | 1380 | 4420 | 2270 | 4080 | 7300 | 1500 | 1380 | 2620 |
| 13 | 1130 | 1010 | 1970 | 1720 | 1430 | 3750 | 2630 | 3670 | 6020 | 1460 | 1680 | 2190 |
| 14 | 1130 | 993 | 1990 | 1970 | 1460 | 3320 | 2130 | 3900 | 5470 | 1420 | 2640 | 2000 |
| 15 | 1190 | 995 | 1880 | 2290 | 1490 | 3060 | 2000 | 3340 | 5750 | 1460 | 1950 | 1870 |
| 16 | 1220 | 978 | 1760 | 1930 | 1880 | 2810 | 2200 | 3320 | 5580 | 1380 | 2330 | 1770 |
| 17 | 1170 | 967 | 1760 | 1760 | 1860 | 2660 | 1990 | 2880 | 4980 | 1350 | 5700 | 1680 |
| 18 | 1120 | 965 | 1740 | 1760 | 1780 | 2550 | 1900 | 2660 | 4450 | 1450 | 2640 | 1630 |
| 19 | 1090 | 968 | 1640 | 1640 | 1820 | 2870 | 1870 | 3000 | 3890 | 1430 | 1920 | 1640 |
| 20 | 1090 | 1090 | 1580 | 1570 | 1750 | 3570 | 2300 | 4630 | 3460 | 1370 | 1600 | 2000 |
| 21 | 1080 | 1470 | 1560 | 1610 | 1650 | 3190 | 8210 | 3580 | 3160 | 1380 | 1760 | 1730 |
| 22 | 1080 | 5170 | 1560 | 1620 | 1590 | 2940 | 8710 | 2910 | 2900 | 1510 | 2450 | 1640 |
| 23 | 1070 | 5150 | 1580 | 2760 | 1690 | 3070 | 6910 | 2580 | 2710 | 1550 | 5050 | 1820 |
| 24 | 1060 | 3730 | 1710 | 4750 | 2700 | 2890 | 4510 | 2390 | 2560 | 1620 | 5650 | 1740 |
| 25 | 1060 | 2280 | 1600 | 3260 | 3350 | 2660 | 3650 | 2320 | 2460 | 1830 | 4580 | 1570 |
| 26 | 1060 | 1810 | 1490 | 2580 | 8850 | 2900 | 3200 | 2270 | 2460 | 1540 | 2930 | 1530 |
| 27 | 1070 | 1630 | 1450 | 2310 | 7780 | 2970 | 2940 | 2170 | 2700 | 1450 | 2830 | 1570 |
| 28 | 1090 | 1500 | 1560 | 2170 | 6560 | 2710 | 2760 | 2110 | 2340 | 1400 | 4150 | 2140 |
| 29 | 1040 | 1440 | 2270 | 2070 | 4350 | 2540 | 2600 | 2220 | 2170 | 1260 | 5730 | 2830 |
| 30 | 1000 | 1400 | 2360 | 1970 | --- | 2470 | 2430 | 2710 | 2170 | 1190 | 5010 | 2270 |
| 31 | 1010 | --- | 1970 | 1910 | --- | 2460 | --- | 3110 | --- | 1180 | 3190 | --- |
| TOTAL | 36020 | 45753 | 81570 | 70530 | 70740 | 103030 | 87660 | 108900 | 123170 | 49290 | 78610 | 66630 |
| MEAN | 1162 | 1525 | 2631 | 2275 | 2439 | 3324 | 2922 | 3513 | 4106 | 1590 | 2536 | 2221 |
| MAX | 1390 | 5170 | 7490 | 4750 | 8850 | 6760 | 8710 | 11500 | 8530 | 2220 | 5730 | 3500 |
| MIN | 1000 | 965 | 1450 | 1570 | 1380 | 2300 | 1840 | 1890 | 2160 | 1180 | 1060 | 1530 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1770 | 1995 | 2440 | 2761 | 3272 | 3699 | 3388 | 2708 | 2206 | 1790 | 1754 | 1559 |
| MAX | 8172 | 5640 | 5465 | 5710 | 6978 | 7170 | 6149 | 5478 | 4191 | 5071 | 4867 | 3857 |
| (WY) | 1965 | 1980 | 1962 | 1946 | 1990 | 1975 | 1983 | 1973 | 1989 | 1949 | 1961 | 1950 |
| MIN | 450 | 651 | 778 | 715 | 1571 | 1235 | 1191 | 1066 | 700 | 708 | 635 | 383 |
| (WY) | 1955 | 1955 | 1956 | 1956 | 1988 | 1988 | 1986 | 1988 | 1988 | 1986 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1943 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 987503 | | 921903 | | | |
| ANNUAL MEAN | 2705 | | 2519 | | 2441 | |
| HIGHEST ANNUAL MEAN | | | | | 3573 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 1229 | 1988 |
| HIGHEST DAILY MEAN | 17100 | Mar 30 | 11500 | May 8 | 30800 | Oct 5 1964 |
| LOWEST DAILY MEAN | 965 | Nov 18 | 965 | Nov 18 | 292 | Sep 27 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 982 | Nov 13 | 982 | Nov 13 | 313 | Sep 24 1954 |
| INSTANTANEOUS PEAK FLOW | | | 14200 | May 8 | 54000 | Nov 6 1977 |
| INSTANTANEOUS PEAK STAGE | | | 6.27 | May 8 | 13.64 | Nov 6 1977 |
| INSTANTANEOUS LOW FLOW | | | 780 | Oct 22 | 193* | Sep 13 1954 |
| ANNUAL RUNOFF (CFSM) | 2.03 | | 1.89 | | 1.83 | |
| ANNUAL RUNOFF (INCHES) | 27.58 | | 25.75 | | 24.90 | |
| 10 PERCENT EXCEEDS | 4360 | | 4590 | | 4310 | |
| 50 PERCENT EXCEEDS | 2380 | | 2000 | | 1960 | |
| 90 PERCENT EXCEEDS | 1170 | | 1110 | | 911 | |

* See REMARKS.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-67, 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1967, August 1973 to September 1978, March 1979 to September 1984.
WATER TEMPERATURES: October 1957 to September 1967, August 1973 to September 1978, March 1979 to September 1984.

INSTRUMENTATION.--Water-quality monitor from October 1980 through September 1984.

REMARKS.--Station operated as part of NASQAN network from March 1979 to present. Daily records of specific conductance for water years 1958-64 are available in files of district office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 265 microsiemens, Oct. 18, 1981; minimum daily, 33 microsiemens, May 31, 1976.
WATER TEMPERATURE: Maximum, 32.5°C, July 5, 1982, July 26, 1984; minimum daily, 0.0°C, on several days during the winter months of most years.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 02... | 1400 | 7330 | 68 | 6.6 | 14.5 | 100 | 715 | 10.8 | 113 | 26000 | 44000 | 4.2 |
| MAR | | | | | | | | | | | | |
| 23... | 1340 | 3080 | 61 | 7.3 | 7.0 | 8.2 | 735 | 11.2 | 96 | K850 | K1800 | 3.7 |
| JUN | | | | | | | | | | | | |
| 16... | 1100 | 5720 | 50 | 6.4 | 17.0 | 26 | 720 | 9.0 | 99 | K120 | 960 | 3.5 |
| AUG | | | | | | | | | | | | |
| 17... | 1315 | 11400 | 64 | 6.1 | 19.5 | 430 | 722 | 8.4 | 97 | 20000 | 66000 | 3.5 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 02... | 1.4 | 3.9 | 29 | 0.4 | 3.3 | 17 | 14 | 5.9 | 4.7 | 0.20 | 8.0 | 64 |
| MAR | | | | | | | | | | | | |
| 23... | 1.2 | 5.2 | 42 | 0.6 | 1.1 | 22 | 18 | 3.9 | 4.3 | <0.10 | 9.7 | 40 |
| JUN | | | | | | | | | | | | |
| 16... | 1.1 | 3.5 | 34 | 0.4 | 1.3 | 15 | 12 | 4.1 | 4.1 | <0.10 | 8.8 | 38 |
| AUG | | | | | | | | | | | | |
| 17... | 1.3 | 2.5 | 23 | 0.3 | 3.4 | 22 | 18 | 6.4 | 1.5 | <0.10 | 6.5 | 44 |

| DATE | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 02... | 44 | 0.710 | 0.760 | 0.030 | 0.020 | 0.740 | 0.780 | 0.090 | 0.080 | 0.12 | 0.10 | 1.6 |
| MAR | | | | | | | | | | | | |
| 23... | 43 | 0.470 | 0.490 | 0.020 | 0.010 | 0.490 | 0.500 | 0.140 | 0.140 | 0.18 | 0.18 | 0.26 |
| JUN | | | | | | | | | | | | |
| 16... | 37 | 0.540 | 0.550 | 0.020 | 0.010 | 0.560 | 0.560 | 0.090 | 0.090 | 0.12 | 0.12 | 0.51 |
| AUG | | | | | | | | | | | | |
| 17... | 41 | 0.980 | 0.980 | 0.020 | 0.020 | 1.00 | 1.00 | 0.170 | 0.180 | 0.22 | 0.23 | 2.9 |

| DATE | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS NO3) | PHOS-PHORUS TOTAL (MG/L AS P) | 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) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) | BARIUM, DIS-SOLVED (UG/L AS BA) | COBALT, DIS-SOLVED (UG/L AS CO) | IRON, DIS-SOLVED (UG/L AS FE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | | |
| 02... | 1.7 | 2.4 | 11 | 0.590 | 0.070 | 0.080 | 0.050 | 0.15 | 230 | 20 | <3 | 260 |
| MAR | | | | | | | | | | | | |
| 23... | 0.40 | 0.89 | 3.9 | 0.090 | 0.040 | 0.050 | 0.030 | 0.09 | 60 | 13 | <3 | 130 |
| JUN | | | | | | | | | | | | |
| 16... | 0.60 | 1.2 | 5.1 | 0.130 | <0.010 | 0.070 | 0.040 | 0.12 | 80 | 13 | <3 | 160 |
| AUG | | | | | | | | | | | | |
| 17... | 3.1 | 4.1 | 18 | 1.10 | 0.060 | 0.030 | 0.050 | 0.15 | 190 | 26 | <3 | 350 |

| DATE | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | SELE-NIUM, DIS-SOLVED (UG/L AS SE) | SILVER, DIS-SOLVED (UG/L AS AG) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | SEDI-MENT, SUS-PENDED (MG/L) | SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 02... | <4 | 7 | <10 | <1 | <1 | <1.0 | 27 | <6 | 354 | 7010 | 62 |
| MAR | | | | | | | | | | | |
| 23... | <4 | 8 | <10 | <1 | <1 | <1.0 | 24 | <6 | 20 | 166 | 69 |
| JUN | | | | | | | | | | | |
| 16... | <4 | 5 | <10 | <1 | <1 | <1.0 | 20 | <6 | 118 | 1820 | 60 |
| AUG | | | | | | | | | | | |
| 17... | <4 | 48 | <10 | 2 | <1 | <1.0 | 26 | <6 | 1910 | 58700 | 79 |

TENNESSEE RIVER BASIN

## 03455500 WEST FORK PIGEON RIVER ABOVE LAKE LOGAN NEAR HAZELWOOD, NC

LOCATION.--Lat 35°23'46", long 82°56'17", Haywood County, Hydrologic Unit 06010106, on right bank at upstream side of bridge on Secondary Road 1216, 600 ft upstream from Big Creek, 1.1 mi upstream from Lake Logan, 6.7 mi southeast of Hazelwood, and at mile 9.3.

DRAINAGE AREA.--27.6 mi².

PERIOD OF RECORD.--February 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,976.00 ft above National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark). Landline telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum gage height: 9.50 ft, from floodmarks. Minimum discharge also occurred Sept. 30, 1954. Minimum discharge for current water year also occurred August 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 39 | 30 | 164 | 77 | 61 | 114 | 93 | 84 | 82 | 87 | 34 | 92 |
| 2 | 38 | 34 | 249 | 77 | 60 | 105 | 86 | 80 | 77 | 74 | 30 | 87 |
| 3 | 37 | 28 | 687 | 242 | 58 | 98 | 82 | 76 | 103 | 66 | 28 | 79 |
| 4 | 36 | 27 | 226 | 192 | 56 | 92 | 80 | 71 | 770 | 61 | 28 | 72 |
| 5 | 36 | 27 | 162 | 147 | 54 | 90 | 76 | 72 | 197 | 58 | 30 | 193 |
| 6 | 34 | 27 | 136 | 119 | 51 | 364 | 74 | 76 | 144 | 60 | 33 | 150 |
| 7 | 32 | 27 | 119 | 105 | 54 | 166 | 75 | 91 | 125 | 57 | 32 | 89 |
| 8 | 31 | 27 | 107 | 97 | 53 | 123 | 72 | 111 | 153 | 52 | 30 | 79 |
| 9 | 31 | 27 | 130 | 95 | 56 | 110 | 68 | 115 | 290 | 48 | 27 | 70 |
| 10 | 30 | 30 | 133 | 88 | 50 | 184 | 66 | 285 | 217 | 47 | 26 | 71 |
| 11 | 30 | 28 | 103 | 80 | 50 | 137 | 121 | 314 | 249 | 45 | 27 | 89 |
| 12 | 30 | 28 | 94 | 79 | 48 | 116 | 138 | 273 | 258 | 43 | 32 | 64 |
| 13 | 29 | 29 | 91 | 89 | 52 | 108 | 80 | 204 | 263 | 42 | 70 | 59 |
| 14 | 29 | 30 | 118 | 126 | 52 | 101 | 74 | 166 | 285 | 47 | 42 | 56 |
| 15 | 40 | 30 | 89 | 82 | 169 | 95 | 80 | 142 | 332 | 55 | 31 | 53 |
| 16 | 33 | 27 | 81 | 73 | 92 | 88 | 81 | 129 | 237 | 42 | 34 | 50 |
| 17 | 30 | 27 | 78 | e71 | 78 | 86 | 70 | 115 | 194 | 40 | 150 | 48 |
| 18 | 29 | 26 | 74 | 71 | 103 | 104 | 66 | 113 | 170 | 41 | 48 | 47 |
| 19 | 29 | 41 | e67 | 63 | 97 | 234 | 72 | 207 | 152 | 38 | 34 | 50 |
| 20 | 28 | 50 | 67 | e61 | 77 | 162 | 383 | 170 | 134 | 36 | 44 | 50 |
| 21 | 28 | 527 | 69 | 182 | 70 | 128 | 662 | 129 | 122 | 36 | 61 | 52 |
| 22 | 29 | 993 | 68 | 119 | 66 | 131 | 209 | 114 | 112 | 39 | 416 | 49 |
| 23 | 28 | 156 | 91 | 89 | 162 | 148 | 153 | 105 | 104 | 40 | 321 | 49 |
| 24 | 37 | 105 | 83 | 83 | 108 | 117 | 133 | 100 | 97 | 64 | 138 | 46 |
| 25 | 31 | 84 | 68 | e80 | 345 | 116 | 124 | 95 | 91 | 40 | 85 | 42 |
| 26 | 30 | 74 | 65 | 78 | 407 | 128 | 112 | 90 | 86 | 38 | 113 | 40 |
| 27 | 29 | 68 | 66 | 76 | 184 | 115 | 105 | 86 | 82 | 37 | 201 | 76 |
| 28 | 29 | 63 | 165 | 73 | 147 | 103 | 102 | 83 | 78 | 36 | 1090 | 60 |
| 29 | 29 | 61 | 120 | 69 | 133 | 99 | 95 | 130 | 74 | 32 | 198 | 81 |
| 30 | 28 | 71 | 90 | 64 | --- | 105 | 90 | 126 | 71 | 31 | 134 | 50 |
| 31 | 28 | --- | 82 | 61 | --- | 103 | --- | 90 | --- | 35 | 107 | --- |
| TOTAL | 977 | 2802 | 3942 | 3008 | 2993 | 3970 | 3722 | 4042 | 5349 | 1467 | 3674 | 2093 |
| MEAN | 31.5 | 93.4 | 127 | 97.0 | 103 | 128 | 124 | 130 | 178 | 47.3 | 119 | 69.8 |
| MAX | 40 | 993 | 687 | 242 | 407 | 364 | 662 | 314 | 770 | 87 | 1090 | 193 |
| MIN | 28 | 26 | 65 | 61 | 48 | 86 | 66 | 71 | 71 | 31 | 26 | 40 |
| CFSM | 1.14 | 3.38 | 4.61 | 3.52 | 3.74 | 4.64 | 4.50 | 4.72 | 6.46 | 1.71 | 4.29 | 2.53 |
| IN. | 1.32 | 3.78 | 5.31 | 4.05 | 4.03 | 5.35 | 5.02 | 5.45 | 7.21 | 1.98 | 4.95 | 2.82 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 72.9 | 87.8 | 112 | 118 | 153 | 162 | 145 | 113 | 85.6 | 61.4 | 56.9 | 57.7 |
| MAX | 229 | 301 | 234 | 207 | 355 | 312 | 291 | 289 | 213 | 207 | 165 | 260 |
| (WY) | 1965 | 1980 | 1962 | 1974 | 1966 | 1975 | 1983 | 1976 | 1967 | 1967 | 1967 | 1979 |
| MIN | 13.5 | 26.8 | 29.7 | 34.0 | 68.7 | 53.8 | 47.8 | 51.6 | 30.8 | 25.3 | 20.9 | 13.0 |
| (WY) | 1955 | 1979 | 1966 | 1981 | 1968 | 1988 | 1986 | 1988 | 1988 | 1986 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1954 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 43345 | | 38039 | | | |
| ANNUAL MEAN | 119 | | 104 | | 102 | |
| HIGHEST ANNUAL MEAN | | | | | 143 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 59.6 | 1986 |
| HIGHEST DAILY MEAN | 1200 | Mar 29 | 1090 | Aug 28 | 4500 | Feb 13 1966 |
| LOWEST DAILY MEAN | 26 | Nov 18 | 26 | Nov 18 | 10 | Sep 28 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 27 | Nov 3 | 27 | Nov 3 | 11 | Sep 24 1954 |
| INSTANTANEOUS PEAK FLOW | | | 4080 | Nov 22 | 9740 | Feb 13 1966 |
| INSTANTANEOUS PEAK STAGE | | | 6.45 | Nov 22 | 9.50* | Feb 13 1966 |
| INSTANTANEOUS LOW FLOW | | | 24* | Aug 11 | 9.4* | Sep 29 1954 |
| ANNUAL RUNOFF (CFSM) | 4.30 | | 3.77 | | 3.71 | |
| ANNUAL RUNOFF (INCHES) | 58.42 | | 51.27 | | 50.41 | |
| 10 PERCENT EXCEEDS | 195 | | 186 | | 186 | |
| 50 PERCENT EXCEEDS | 97 | | 78 | | 71 | |
| 90 PERCENT EXCEEDS | 31 | | 30 | | 27 | |

* See REMARKS.

TENNESSEE RIVER BASIN

## 0345577330 WEST FORK PIGEON RIVER NEAR RETREAT, NC

LOCATION.--Lat 35°25'36", long 82°55'12", Haywood County, Hydrologic Unit 06010106, on right bank at upstream side of bridge on State Highway 215, and 1.6 mi southwest of Retreat.

DRAINAGE AREA.--33.5 mi².

PERIOD OF RECORD.--March 1988 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Elevation of gage is 2,839 ft above National Geodetic Vertical Datum, from topographic map. Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Considerable regulation, at times, caused by Lake Logan (station 03455773). Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 41 | 28 | 127 | 84 | 77 | 130 | 102 | 99 | 96 | 96 | 42 | 103 |
| 2 | 41 | 29 | 331 | 83 | 73 | 119 | 96 | 93 | 91 | 90 | 35 | 100 |
| 3 | 41 | 28 | 718 | 257 | 73 | 109 | 88 | 87 | 107 | 79 | 34 | 90 |
| 4 | 41 | 26 | 277 | 215 | 72 | 99 | 85 | 82 | 809 | 73 | 33 | 81 |
| 5 | 38 | 29 | 189 | 170 | 70 | 95 | 81 | 83 | 240 | 69 | 34 | 164 |
| 6 | 41 | 37 | 156 | 137 | 68 | 371 | 79 | 87 | 175 | 70 | 36 | 211 |
| 7 | 38 | 44 | 137 | 129 | 65 | 182 | 82 | 112 | 151 | 68 | 38 | 100 |
| 8 | 39 | 44 | 122 | 123 | 60 | 131 | 80 | 142 | 175 | 62 | 34 | 93 |
| 9 | 37 | 45 | 146 | 116 | 54 | 116 | 76 | 135 | 328 | 58 | 32 | 84 |
| 10 | 37 | 45 | 179 | 109 | 58 | 202 | 73 | 313 | 264 | 54 | 31 | 75 |
| 11 | 37 | 44 | 129 | 99 | 53 | 149 | 121 | 366 | 302 | 52 | 29 | 108 |
| 12 | 33 | 41 | 121 | 96 | 51 | 126 | 171 | 322 | 314 | 50 | 33 | 75 |
| 13 | 35 | 38 | 112 | 107 | 52 | 116 | 91 | 246 | 314 | 48 | 74 | 69 |
| 14 | 35 | 42 | 140 | 157 | 55 | 109 | 84 | 204 | 324 | 48 | 57 | 67 |
| 15 | 42 | 47 | 109 | 97 | 180 | 102 | 85 | 173 | 383 | 65 | 40 | 62 |
| 16 | 41 | 45 | 94 | 78 | 106 | 95 | 93 | 156 | 286 | 49 | 37 | 58 |
| 17 | 34 | 45 | 90 | 87 | 83 | 94 | 77 | 137 | 232 | 46 | 158 | 55 |
| 18 | 34 | 53 | 79 | 79 | 111 | 108 | 74 | 139 | 204 | 48 | 61 | 55 |
| 19 | 36 | 76 | 71 | 75 | 106 | 259 | 74 | 223 | 184 | 42 | 42 | 56 |
| 20 | 36 | 78 | 73 | 72 | 84 | 190 | 391 | 212 | 162 | 41 | 45 | 60 |
| 21 | 34 | 287 | 75 | 70 | 78 | 143 | 717 | 154 | 146 | 42 | 71 | 58 |
| 22 | 30 | 1220 | 76 | 73 | 75 | 141 | 252 | 135 | 133 | 44 | 377 | 60 |
| 23 | 32 | 199 | 96 | 242 | 175 | 167 | 180 | 123 | 125 | 44 | 368 | 59 |
| 24 | 37 | 127 | 96 | 134 | 125 | 128 | 155 | 116 | 116 | 77 | 161 | 53 |
| 25 | 39 | 100 | 75 | 107 | 344 | 131 | 144 | 111 | 107 | 46 | 100 | 50 |
| 26 | 36 | 87 | 70 | 102 | 467 | 150 | 129 | 105 | 100 | 46 | 111 | 47 |
| 27 | 33 | 81 | 72 | 96 | 220 | 138 | 122 | 101 | 100 | 40 | 190 | 83 |
| 28 | 34 | 75 | 160 | 93 | 170 | 122 | 118 | 96 | 91 | 42 | 1260 | 68 |
| 29 | 35 | 72 | 142 | 91 | 152 | 113 | 110 | 143 | 88 | 36 | 230 | 96 |
| 30 | 34 | 79 | 98 | 89 | --- | 117 | 106 | 146 | 84 | 35 | 147 | 59 |
| 31 | 28 | --- | 89 | 84 | --- | 118 | --- | 106 | --- | 36 | 119 | --- |
| TOTAL | 1129 | 3191 | 4449 | 3551 | 3357 | 4370 | 4136 | 4747 | 6231 | 1696 | 4059 | 2399 |
| MEAN | 36.4 | 106 | 144 | 115 | 116 | 141 | 138 | 153 | 208 | 54.7 | 131 | 80.0 |
| MAX | 42 | 1220 | 718 | 257 | 467 | 371 | 717 | 366 | 809 | 96 | 1260 | 211 |
| MIN | 28 | 26 | 70 | 70 | 51 | 94 | 73 | 82 | 84 | 35 | 29 | 47 |
| † | 0 | +0.2 | 0 | 0 | +0.1 | 0 | 0 | 0 | 0 | -0.1 | +0.1 | -0.1 |
| MEAN‡ | 36.4 | 106 | 144 | 115 | 116 | 141 | 138 | 153 | 208 | 54.6 | 131 | 79.9 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 90.2 | 89.3 | 125 | 142 | 195 | 193 | 152 | 146 | 126 | 89.1 | 81.6 | 71.7 |
| MAX | 161 | 115 | 174 | 184 | 360 | 309 | 226 | 193 | 210 | 209 | 131 | 136 |
| (WY) | 1990 | 1990 | 1991 | 1990 | 1990 | 1990 | 1991 | 1990 | 1989 | 1989 | 1992 | 1989 |
| MIN | 36.4 | 62.7 | 52.1 | 115 | 116 | 62.6 | 123 | 62.9 | 40.0 | 32.3 | 35.9 | 30.6 |
| (WY) | 1992 | 1991 | 1989 | 1992 | 1992 | 1988 | 1988 | 1988 | 1988 | 1988 | 1988 | 1988 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1988 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 49038 | | 43315 | | | |
| ANNUAL MEAN | 134 | | 118 | | 135 | |
| HIGHEST ANNUAL MEAN | | | | | 148 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 118 | 1992 |
| HIGHEST DAILY MEAN | 1350 | Mar 29 | 1260 | Aug 28 | 1760 | Feb 16 1990 |
| LOWEST DAILY MEAN | 26 | Nov 4 | 26 | Nov 4 | 22 | Sep 14 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 29 | Oct 30 | 29 | Oct 30 | 25 | Sep 11 1988 |
| INSTANTANEOUS PEAK FLOW | | | 4370 | Nov 22 | 5960 | Feb 16 1990 |
| INSTANTANEOUS PEAK STAGE | | | 6.08 | Nov 22 | 6.73 | Feb 16 1990 |
| INSTANTANEOUS LOW FLOW | | | 20 | Oct 31 | 20 | Oct 31 1991 |
| 10 PERCENT EXCEEDS | 215 | | 213 | | 233 | |
| 50 PERCENT EXCEEDS | 109 | | 89 | | 90 | |
| 90 PERCENT EXCEEDS | 41 | | 37 | | 36 | |

† Change in contents, equivalent in cubic feet per second, in Lake Logan.
‡ Adjusted for change in lake contents.

## 03456100 WEST FORK PIGEON RIVER AT BETHEL, NC

LOCATION.--Lat 35°27'48", long 82°54'00", Haywood County, Hydrologic Unit 06010106, on left bank 20 ft downstream of bridge on Secondary Road 1112, 0.6 mi southwest of Bethel, 1.6 mi upstream from confluence with East Fork Pigeon River, and 5.6 mi downstream of Lake Logan.

DRAINAGE AREA.--58.4 mi².

PERIOD OF RECORD.--January 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,667.78 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Landline telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation, at times, caused by Lake Logan (station 03455773). Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 60 | 50 | 146 | 120 | 110 | 202 | 154 | 142 | 144 | 139 | 64 | 145 |
| 2 | 60 | 53 | 354 | 119 | 106 | 183 | 146 | 135 | 146 | 133 | 55 | 136 |
| 3 | 60 | 49 | 790 | 325 | 105 | 169 | 139 | 129 | 133 | 120 | 51 | 124 |
| 4 | 59 | 45 | 371 | 289 | 102 | 159 | 135 | 122 | 882 | 110 | 51 | 113 |
| 5 | 57 | 45 | 256 | 239 | 100 | 151 | 129 | 123 | 341 | 105 | 54 | 142 |
| 6 | 59 | 48 | 212 | 197 | 97 | 423 | 126 | 134 | 249 | 107 | 59 | 269 |
| 7 | 55 | 54 | 184 | 174 | 95 | 262 | 126 | 176 | 214 | 102 | 60 | 130 |
| 8 | 56 | 54 | 165 | 159 | 90 | 194 | 123 | 266 | 229 | 95 | 54 | 118 |
| 9 | 55 | 54 | 174 | 154 | 84 | 176 | 117 | 260 | 375 | 89 | 51 | 106 |
| 10 | 55 | 57 | 210 | 144 | 87 | 296 | 114 | 437 | 365 | 85 | 48 | 99 |
| 11 | 54 | 55 | 158 | 132 | 87 | 241 | 161 | 504 | 448 | 82 | 48 | 126 |
| 12 | 52 | 53 | 146 | 129 | 87 | 207 | 203 | 442 | 483 | 80 | 62 | 97 |
| 13 | 51 | 48 | 137 | 134 | 87 | 191 | 129 | 353 | 461 | 76 | 108 | 90 |
| 14 | 53 | 51 | 165 | 187 | 90 | 177 | 120 | 294 | 428 | 75 | 86 | 86 |
| 15 | 62 | 58 | 136 | 131 | 218 | 166 | 118 | 256 | 494 | 93 | 58 | 82 |
| 16 | 61 | 53 | 123 | 112 | 152 | 154 | 133 | 230 | 420 | 77 | 59 | 78 |
| 17 | 53 | 52 | 121 | 118 | 122 | 151 | 114 | 206 | 345 | 72 | 200 | 74 |
| 18 | 51 | 58 | 114 | 113 | 153 | 167 | 110 | 204 | 301 | 75 | 95 | 74 |
| 19 | 50 | 85 | 105 | 107 | 145 | 338 | 107 | 273 | 270 | 70 | 65 | 76 |
| 20 | 50 | 83 | 106 | 104 | 122 | 278 | 387 | 288 | 240 | 66 | 65 | 82 |
| 21 | 51 | 268 | 106 | 103 | 114 | 223 | 774 | 219 | 218 | 65 | 111 | 76 |
| 22 | 50 | 1340 | 105 | 102 | 109 | 217 | 323 | 195 | 200 | 68 | 445 | 78 |
| 23 | 52 | 258 | 127 | 296 | 216 | 246 | 242 | 183 | 187 | 72 | 439 | 80 |
| 24 | 55 | 165 | 134 | 187 | 176 | 201 | 211 | 172 | 174 | 113 | 244 | 74 |
| 25 | 56 | 131 | 107 | 151 | 385 | 196 | 197 | 165 | 161 | 72 | 147 | 68 |
| 26 | 52 | 114 | 102 | 143 | 615 | 213 | 181 | 158 | 153 | 74 | 143 | 65 |
| 27 | 49 | 106 | 102 | 136 | 340 | 196 | 172 | 151 | 152 | 65 | 185 | 99 |
| 28 | 50 | 99 | 192 | 134 | 266 | 176 | 167 | 146 | 140 | 66 | 1250 | 88 |
| 29 | 48 | 95 | 196 | 129 | 232 | 168 | 157 | 192 | 134 | 59 | 311 | 122 |
| 30 | 47 | 100 | 139 | 124 | --- | 170 | 150 | 202 | 127 | 56 | 211 | 80 |
| 31 | 46 | --- | 127 | 118 | --- | 169 | --- | 156 | --- | 57 | 169 | --- |
| TOTAL | 1669 | 3781 | 5610 | 4810 | 4692 | 6460 | 5465 | 6913 | 8614 | 2618 | 5048 | 3077 |
| MEAN | 53.8 | 126 | 181 | 155 | 162 | 208 | 182 | 223 | 287 | 84.5 | 163 | 103 |
| MAX | 62 | 1340 | 790 | 325 | 615 | 423 | 774 | 504 | 882 | 139 | 1250 | 269 |
| MIN | 46 | 45 | 102 | 102 | 84 | 151 | 107 | 122 | 127 | 56 | 48 | 65 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 80.1 | 118 | 177 | 157 | 245 | 246 | 216 | 180 | 122 | 93.0 | 84.4 | 70.2 |
| MAX | 242 | 203 | 334 | 266 | 511 | 443 | 481 | 368 | 287 | 281 | 173 | 207 |
| (WY) | 1990 | 1986 | 1984 | 1990 | 1990 | 1990 | 1983 | 1984 | 1992 | 1989 | 1991 | 1989 |
| MIN | 36.7 | 43.0 | 83.5 | 53.5 | 102 | 83.6 | 83.5 | 81.7 | 53.0 | 49.5 | 30.8 | 33.1 |
| (WY) | 1982 | 1982 | 1989 | 1981 | 1986 | 1988 | 1986 | 1986 | 1988 | 1988 | 1986 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1981 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 66569 | | 58757 | | | |
| ANNUAL MEAN | 182 | | 161 | | 152 | |
| HIGHEST ANNUAL MEAN | | | | | 207 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 87.5 | 1988 |
| HIGHEST DAILY MEAN | 1790 | Mar 29 | 1340 | Nov 22 | 3810 | Feb 2 1983 |
| LOWEST DAILY MEAN | 45 | Nov 4 | 45 | Nov 4 | 9.2 | Sep 2 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 48 | Oct 30 | 48 | Oct 30 | 16 | Sep 2 1986 |
| INSTANTANEOUS PEAK FLOW | | | 4580 | Nov 22 | 9300 | Feb 2 1983 |
| INSTANTANEOUS PEAK STAGE | | | 7.29 | Nov 22 | 10.96 | Feb 2 1983 |
| INSTANTANEOUS LOW FLOW | | | 42 | Oct 31 | 4.2 | Sep 5 1986 |
| 10 PERCENT EXCEEDS | 306 | | 290 | | 290 | |
| 50 PERCENT EXCEEDS | 148 | | 127 | | 104 | |
| 90 PERCENT EXCEEDS | 56 | | 54 | | 47 | |

TENNESSEE RIVER BASIN

03456500 EAST FORK PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°27'42", long 82°52'13", Haywood County, Hydrologic Unit 06010106, on right bank 800 ft upstream from bridge on U.S. Highway 276, 0.3 mi downstream of Dix Creek, 1.6 mi upstream from confluence with West Fork Pigeon River, and 5.2 mi southwest of Canton.

DRAINAGE AREA.--51.5 $mi^2$.

PERIOD OF RECORD.--March 1954 to current year.

REVISED RECORDS.--WDR NC-73-1: 1966(M), 1972(M).

GAGE.--Water-stage recorder. Datum of gage is 2,674.34 ft above National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark). Landline telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Maximum discharge, 12,000 $ft^3/s$, from rating curve extended above 5,470 $ft^3/s$, on basis of contracted-opening measurement of peak flow. Minimum discharge also occurred Dec. 11, 1981, both a result of freezeup.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 65 | 50 | 137 | 108 | 107 | 183 | 121 | 129 | 170 | 125 | 50 | 176 |
| 2 | 65 | 55 | 201 | 107 | 103 | 166 | 116 | 123 | 159 | 119 | 48 | 155 |
| 3 | 65 | 50 | 415 | 256 | 101 | 153 | 112 | 118 | 166 | 112 | 46 | 140 |
| 4 | 63 | 48 | 279 | 228 | 99 | 143 | 111 | 111 | 1110 | 105 | 45 | 128 |
| 5 | 63 | 48 | 215 | 201 | 96 | 139 | 107 | 110 | 580 | 100 | 46 | 223 |
| 6 | 62 | 48 | 188 | 174 | 93 | 442 | 105 | 123 | 383 | 99 | 51 | 322 |
| 7 | 60 | 48 | 168 | 142 | 92 | 335 | 103 | 166 | 299 | 93 | 52 | 179 |
| 8 | 60 | 47 | 153 | 146 | 89 | 249 | 101 | 333 | 264 | 88 | 50 | 157 |
| 9 | 59 | 47 | 149 | 140 | 85 | 218 | 97 | 303 | 325 | 83 | 46 | 140 |
| 10 | 58 | 54 | 154 | 132 | 85 | 286 | 94 | 457 | 417 | 81 | 43 | 149 |
| 11 | 58 | 52 | 134 | 124 | 86 | 250 | 119 | 535 | 554 | 77 | 51 | 183 |
| 12 | 57 | 49 | 127 | 120 | 84 | 222 | 111 | 425 | 518 | 75 | 61 | 143 |
| 13 | 56 | 49 | 122 | 119 | 84 | 202 | 98 | 347 | 546 | 71 | 100 | 130 |
| 14 | 55 | 48 | 127 | 151 | 83 | 186 | 94 | 289 | 509 | 70 | 75 | 120 |
| 15 | 60 | 49 | 115 | 119 | 127 | 173 | 95 | 256 | 520 | 75 | 54 | 111 |
| 16 | 59 | 46 | 109 | 109 | 109 | 160 | 109 | 228 | 428 | 68 | 54 | 104 |
| 17 | 56 | 45 | 107 | e108 | 98 | 152 | 94 | 211 | 367 | 65 | 196 | 97 |
| 18 | 55 | 45 | 103 | 107 | 121 | 151 | 91 | 199 | 316 | 66 | 100 | 94 |
| 19 | 53 | 51 | 98 | 102 | 109 | 217 | 93 | 233 | 275 | 63 | 69 | 101 |
| 20 | 53 | 58 | 96 | 100 | 101 | 194 | 255 | 238 | 243 | 61 | 111 | 105 |
| 21 | 53 | 278 | 97 | 98 | 98 | 170 | 592 | 200 | 218 | 59 | 175 | 96 |
| 22 | 53 | 1160 | 95 | 97 | 95 | 165 | 320 | 184 | 199 | 62 | 597 | 93 |
| 23 | 53 | 296 | 100 | 226 | 185 | 170 | 241 | 172 | 184 | 64 | 596 | 94 |
| 24 | 54 | 195 | 103 | 170 | 158 | 154 | 209 | 163 | 170 | 92 | 360 | 91 |
| 25 | 54 | 157 | 92 | 145 | 354 | 151 | 190 | 157 | 158 | 63 | 227 | 83 |
| 26 | 53 | 136 | 89 | 137 | 533 | 158 | 171 | 151 | 149 | 59 | 181 | 79 |
| 27 | 52 | 123 | 89 | 130 | 315 | 149 | 160 | 144 | 146 | 56 | 175 | 94 |
| 28 | 52 | 114 | 139 | 126 | 245 | 138 | 151 | 140 | 135 | 55 | 915 | 94 |
| 29 | 51 | 107 | 151 | 121 | 210 | 134 | 142 | 217 | 129 | 52 | 389 | 120 |
| 30 | 49 | 110 | 119 | 116 | --- | 130 | 136 | 240 | 123 | 51 | 268 | 92 |
| 31 | 50 | --- | 112 | 112 | --- | 126 | --- | 186 | --- | 49 | 211 | --- |
| TOTAL | 1756 | 3663 | 4383 | 4271 | 4145 | 5866 | 4538 | 6888 | 9760 | 2358 | 5442 | 3893 |
| MEAN | 56.6 | 122 | 141 | 138 | 143 | 189 | 151 | 222 | 325 | 76.1 | 176 | 130 |
| MAX | 65 | 1160 | 415 | 256 | 533 | 442 | 592 | 535 | 1110 | 125 | 915 | 322 |
| MIN | 49 | 45 | 89 | 97 | 83 | 126 | 91 | 110 | 123 | 49 | 43 | 79 |
| CFSM | 1.10 | 2.37 | 2.75 | 2.68 | 2.78 | 3.67 | 2.94 | 4.31 | 6.32 | 1.48 | 3.41 | 2.52 |
| IN. | 1.27 | 2.65 | 3.17 | 3.09 | 2.99 | 4.24 | 3.28 | 4.98 | 7.05 | 1.70 | 3.93 | 2.81 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 108 | 129 | 148 | 152 | 201 | 231 | 213 | 163 | 122 | 76.3 | 75.4 | 83.0 |
| MAX | 363 | 484 | 337 | 282 | 411 | 541 | 480 | 453 | 339 | 268 | 184 | 436 |
| (WY) | 1965 | 1980 | 1962 | 1978 | 1966 | 1979 | 1957 | 1976 | 1967 | 1989 | 1991 | 1979 |
| MIN | 17.1 | 27.9 | 42.4 | 33.8 | 71.9 | 60.9 | 63.2 | 59.8 | 35.7 | 25.3 | 26.5 | 16.0 |
| (WY) | 1955 | 1955 | 1956 | 1956 | 1986 | 1988 | 1986 | 1986 | 1988 | 1954 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1954 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 60354 | | 56963 | | | |
| ANNUAL MEAN | 165 | | 156 | | 142 | |
| HIGHEST ANNUAL MEAN | | | | | 204 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 71.9 | 1988 |
| HIGHEST DAILY MEAN | 1230 | Mar 29 | 1160 | Nov 22 | 4390 | Feb 13 1966 |
| LOWEST DAILY MEAN | 45 | Nov 17 | 43 | Aug 10 | 14 | Sep 16 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 47 | Nov 12 | 47 | Nov 12 | 14 | Sep 24 1954 |
| INSTANTANEOUS PEAK FLOW | | | 3940 | Nov 22 | 12000* | May 28 1973 |
| INSTANTANEOUS PEAK STAGE | | | 6.35 | Nov 22 | 11.19 | May 28 1973 |
| INSTANTANEOUS LOW FLOW | | | 40 | Aug 10 | 12* | Jan 9 1956 |
| ANNUAL RUNOFF (CFSM) | 3.21 | | 3.02 | | 2.76 | |
| ANNUAL RUNOFF (INCHES) | 43.60 | | 41.15 | | 37.53 | |
| 10 PERCENT EXCEEDS | 271 | | 291 | | 263 | |
| 50 PERCENT EXCEEDS | 142 | | 119 | | 101 | |
| 90 PERCENT EXCEEDS | 57 | | 53 | | 36 | |

* See REMARKS.

## 03456991 PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°31'19", long 82°50'53", Haywood County, Hydrologic Unit 06010106, on right bank 600 ft upstream from State Highway 215 bridge, 1.3 miles upstream from U.S. Highways 19 and 23 at Canton, and at mile 64.9.

DRAINAGE AREA.--130 $mi^2$.

PERIOD OF RECORD.--May 1907 to June 1909, October 1928 to current year. Monthly discharge only for some periods published in WSP 1306. Published as Pigeon River at Canton, NC (03457000) May 1907 to June 1909, October 1928 to September 1983.

REVISED RECORDS.--WSP 823: Drainage area. WSP 853: 1929-37(M). WSP 1306: 1903(M). WDR NC-91-1: 1984-89(M).

GAGE.--Water-stage recorder. Datum of gage is 2,581.66 ft above National Geodetic Vertical Datum of 1929 (Tennessee Valley Authority bench mark). Prior to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum. Dec. 6, 1928, to Jan. 3, 1929, nonrecording gage at site 0.8 mi downstream at different datum. Prior to Oct. 1, 1983, water-stage recorder at site 0.8 mile downstream at different datum. Landline telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation and considerable regulation at low flow caused by Lake Logan (station 03455773) on West Fork Pigeon River 11.2 mi upstream. Maximum discharge before regulation: 21,500 $ft^3/s$, Aug. 16, 1928; gage height: 16.40 ft. Maximum discharge since regulation: 31,600 $ft^3/s$; gage height: 20.75, at former site from floodmarks in gage well. Minimum discharge before regulation: 39 $ft^3/s$, Sept. 3, 1930. Minimum discharge since regulation: 15 $ft^3/s$, at former site, result of freezeup. Minimum discharge for current water year also occurred Nov. 6 and Aug. 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about 1810 is believed to have been approximately equal to that of Aug. 30, 1940, and flood of June 15, 1876, reached a stage of 18.3 ft; discharge, 25,700 $ft^3/s$, at former site, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 139 | 90 | 291 | e220 | 225 | 435 | 306 | 302 | 342 | 313 | 113 | 375 |
| 2 | 137 | 98 | 603 | e210 | 214 | 391 | 290 | 286 | 329 | 300 | 102 | 333 |
| 3 | 138 | 91 | 1270 | e600 | 211 | 357 | 279 | 272 | 323 | 271 | 96 | 303 |
| 4 | 133 | 86 | 737 | e520 | 205 | 333 | 273 | 257 | 2230 | 244 | 96 | 275 |
| 5 | 128 | 84 | 531 | e430 | 201 | 311 | 262 | 255 | 990 | 235 | 99 | 279 |
| 6 | 127 | 86 | 449 | e360 | 193 | 851 | 254 | 286 | 741 | 240 | 108 | 725 |
| 7 | 120 | 92 | 391 | e300 | 188 | 682 | 252 | 421 | 617 | 234 | 114 | 357 |
| 8 | 118 | 93 | 348 | 330 | 179 | 508 | 248 | 876 | 595 | 209 | 106 | 322 |
| 9 | 117 | 93 | e300 | 310 | 166 | 447 | 238 | 723 | 829 | 195 | 95 | 284 |
| 10 | 117 | 101 | e350 | 292 | 172 | 644 | 235 | 966 | 935 | 191 | 89 | 262 |
| 11 | 115 | 99 | e300 | 268 | 171 | 570 | 322 | 1130 | 1180 | 176 | 93 | 370 |
| 12 | 112 | 94 | e280 | 259 | 169 | 489 | 370 | 966 | 1130 | 177 | 143 | 281 |
| 13 | 109 | 88 | e240 | 260 | 168 | 449 | 266 | 810 | 1120 | 164 | 230 | 261 |
| 14 | 109 | 89 | e290 | 361 | 174 | 413 | 250 | 687 | 1070 | 155 | 133 | 244 |
| 15 | 118 | 98 | e250 | 262 | 331 | 383 | 248 | 600 | 1130 | 183 | 105 | 231 |
| 16 | 123 | 91 | e230 | e239 | 292 | 351 | 289 | 542 | 971 | 157 | 107 | 214 |
| 17 | 108 | 90 | e220 | e217 | 223 | 337 | 244 | 487 | 847 | 147 | 391 | 205 |
| 18 | 105 | 90 | e215 | e212 | 280 | 342 | 237 | 461 | 753 | 152 | 243 | 197 |
| 19 | 104 | 119 | e210 | e208 | 265 | 606 | 232 | 562 | 672 | 141 | 135 | 209 |
| 20 | 103 | 126 | e200 | 205 | 232 | 552 | 650 | 625 | 592 | 133 | 123 | 227 |
| 21 | 103 | 435 | e210 | 205 | 216 | 451 | 1460 | 481 | 537 | 130 | 334 | 204 |
| 22 | 101 | 2790 | e190 | 201 | 207 | 432 | 748 | 438 | 490 | 136 | 1020 | 210 |
| 23 | 100 | 658 | e220 | 539 | 399 | 479 | 562 | 401 | 455 | 145 | 1230 | 215 |
| 24 | 102 | 415 | e240 | 409 | 379 | 405 | 492 | 379 | 417 | 226 | 853 | 201 |
| 25 | 104 | 312 | e200 | 314 | 698 | 392 | 452 | 361 | 385 | 142 | 439 | 180 |
| 26 | 99 | 267 | e190 | 295 | 1280 | 425 | 402 | 341 | 372 | 138 | 313 | 171 |
| 27 | 95 | 244 | e180 | 279 | 740 | 398 | 381 | 322 | 360 | 125 | 393 | 212 |
| 28 | 95 | 226 | e320 | 272 | 584 | 354 | 363 | 315 | 327 | 124 | 2120 | 212 |
| 29 | 93 | 212 | e350 | 261 | 504 | 340 | 337 | 456 | 319 | 112 | 845 | 280 |
| 30 | 90 | 214 | e270 | 251 | --- | 338 | 322 | 508 | 304 | 107 | 567 | 207 |
| 31 | 89 | --- | e210 | 239 | --- | 333 | --- | 380 | --- | 108 | 450 | --- |
| TOTAL | 3451 | 7671 | 10285 | 9328 | 9266 | 13798 | 11264 | 15896 | 21362 | 5510 | 11285 | 8046 |
| MEAN | 111 | 256 | 332 | 301 | 320 | 445 | 375 | 513 | 712 | 178 | 364 | 268 |
| MAX | 139 | 2790 | 1270 | 600 | 1280 | 851 | 1460 | 1130 | 2230 | 313 | 2120 | 725 |
| MIN | 89 | 84 | 180 | 201 | 166 | 311 | 232 | 255 | 304 | 107 | 89 | 171 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 220 | 260 | 325 | 406 | 472 | 529 | 470 | 340 | 267 | 197 | 201 | 193 |
| MAX | 787 | 964 | 872 | 1017 | 1150 | 1058 | 1005 | 981 | 781 | 583 | 1476 | 818 |
| (WY) | 1965 | 1980 | 1933 | 1937 | 1939 | 1975 | 1983 | 1976 | 1967 | 1989 | 1940 | 1979 |
| MIN | 48.2 | 59.2 | 64.5 | 85.3 | 150 | 155 | 167 | 132 | 96.5 | 91.0 | 65.9 | 50.2 |
| (WY) | 1955 | 1955 | 1940 | 1956 | 1941 | 1988 | 1986 | 1941 | 1941 | 1954 | 1954 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1932 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 141064 | | 127162 | | | |
| ANNUAL MEAN | 386 | | 347 | | 323 | |
| HIGHEST ANNUAL MEAN | | | | | 503 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 170 | 1988 |
| HIGHEST DAILY MEAN | 3550 | Mar 29 | 2790 | Nov 22 | 12800 | Aug 13 1940 |
| LOWEST DAILY MEAN | 84 | Nov 5 | 84 | Nov 5 | 27 | Sep 7 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 89 | Oct 31 | 89 | Oct 31 | 43 | Oct 22 1954 |
| INSTANTANEOUS PEAK FLOW | | | 8570 | Nov 22 | 31600* | Aug 30 1940 |
| INSTANTANEOUS PEAK STAGE | | | 8.79 | Nov 22 | 20.75* | Aug 30 1940 |
| INSTANTANEOUS LOW FLOW | | | 83* | Nov 5 | 15* | Jan 8 1956 |
| 10 PERCENT EXCEEDS | 633 | | 675 | | 606 | |
| 50 PERCENT EXCEEDS | 341 | | 266 | | 231 | |
| 90 PERCENT EXCEEDS | 114 | | 104 | | 88 | |

* Regulated period only (1932-1992). See REMARKS.

TENNESSEE RIVER BASIN

03459500 PIGEON RIVER NEAR HEPCO, NC

LOCATION.--Lat 35°38'05", long 82°59'21", Haywood County, Hydrologic Unit 06010106, on left bank 95 ft east of Interstate Highway 40, 0.8 mi downstream of Jonathan Creek, 2.0 mi south of Hepco, 2.4 mi upstream from Fines Creek, and at mile 45.1.

DRAINAGE AREA.--350 mi$^2$.

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

REVISED RECORDS.--WSP 823: Drainage area. WSP 893: 1928-31, 1932(M), 1933-36, 1937-39(M).

GAGE.--Water-stage recorder. Datum of gage is 2,335.95 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Tennessee Valley Authority has satellite telemetry at upper gage. Landline telemetry at lower gage.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation by Lake Junaluska (station 03458319) on Richland Creek and Lake Logan (station 03455773) on West Fork Pigeon River for periods at low flow, combined capacity of reservoirs, about 2,000 ft$^3$/s-day. Several measurements of water temperature were made during the year. Maximum discharge: 32,700 ft$^3$/s, from floodmark in gage house and rating curve extended above 12,000 ft$^3$/s on basis of slope-area measurements at gage heights 14.94 and 15.82 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 1876 and February 1902 reached a stage of about 18 ft, from flood profiles by Tennessee Valley Authority; discharge, about 42,000 ft$^3$/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 346 | 247 | 649 | 537 | 512 | 933 | 714 | 563 | 629 | 614 | 295 | 692 |
| 2 | 314 | 254 | 1670 | 525 | 473 | 836 | 678 | 524 | 626 | 615 | 260 | 631 |
| 3 | 302 | 253 | 2690 | 1020 | 478 | 790 | 645 | 525 | 605 | 573 | 279 | 604 |
| 4 | 307 | 244 | 1880 | 1040 | 483 | 737 | 621 | 499 | 2770 | 541 | 269 | 583 |
| 5 | 308 | 238 | 1200 | 918 | 471 | 696 | 588 | 487 | 1890 | 511 | 258 | 595 |
| 6 | 300 | 234 | 954 | 804 | 460 | 1190 | 596 | 532 | 1210 | 507 | 327 | 988 |
| 7 | 291 | 245 | 828 | 933 | 435 | 1250 | 590 | 931 | 988 | 450 | 323 | 691 |
| 8 | 287 | 250 | 722 | 673 | 399 | 909 | 574 | 2620 | 877 | 428 | 296 | 739 |
| 9 | 285 | 250 | 778 | 552 | 389 | 816 | 531 | 1810 | 1230 | 426 | 280 | 618 |
| 10 | 281 | 243 | 940 | 577 | 414 | 1390 | 638 | 1640 | 1500 | 419 | 270 | 585 |
| 11 | 280 | 272 | 735 | 534 | 422 | 1320 | 876 | 1970 | 2060 | 428 | 260 | 614 |
| 12 | 281 | 260 | 675 | 518 | 409 | 1050 | 1090 | 1690 | 2030 | 378 | 273 | 540 |
| 13 | 268 | 251 | 630 | 535 | 424 | 943 | 894 | 1500 | 1730 | 342 | 455 | 505 |
| 14 | 266 | 245 | 683 | 677 | 440 | 866 | 723 | 1320 | 1600 | 360 | 492 | 444 |
| 15 | 287 | 247 | 637 | 556 | 605 | 812 | 574 | 1270 | 1750 | 395 | 518 | 446 |
| 16 | 300 | 249 | 571 | 515 | 730 | 754 | 610 | 1090 | 1610 | 399 | 383 | 442 |
| 17 | 276 | 244 | 550 | 493 | 546 | 724 | 555 | 951 | 1310 | 354 | 543 | 425 |
| 18 | 267 | 240 | 525 | 498 | 566 | 736 | 514 | 916 | 1160 | 363 | 550 | 420 |
| 19 | 265 | 254 | 497 | 466 | 582 | 1210 | 496 | 1040 | 1040 | 343 | 370 | 478 |
| 20 | 263 | 272 | 487 | 444 | 532 | 1230 | 715 | 1260 | 931 | 343 | 334 | 508 |
| 21 | 262 | 761 | 487 | 456 | 494 | 969 | 1950 | 968 | 858 | 340 | 532 | 435 |
| 22 | 261 | 4320 | 488 | 463 | 476 | 922 | 1170 | 857 | 803 | 364 | 1050 | 436 |
| 23 | 260 | 1410 | 544 | 1060 | 682 | 1040 | 871 | 792 | 758 | 403 | 1720 | 422 |
| 24 | 259 | 831 | 644 | 933 | 861 | 887 | 776 | 758 | 713 | 530 | 1250 | 444 |
| 25 | 263 | 637 | 525 | 699 | 1350 | 861 | 723 | 733 | 681 | 417 | 740 | 396 |
| 26 | 256 | 547 | 492 | 651 | 3040 | 956 | 708 | 699 | 670 | 370 | 848 | 362 |
| 27 | 256 | 494 | 478 | 612 | 1740 | 893 | 720 | 668 | 663 | 358 | 881 | 409 |
| 28 | 254 | 454 | 561 | 595 | 1290 | 808 | 700 | 639 | 615 | 317 | 2830 | 457 |
| 29 | 251 | 435 | 817 | 577 | 1100 | 772 | 658 | 723 | 686 | 287 | 1370 | 513 |
| 30 | 245 | 424 | 619 | 557 | --- | 759 | 604 | 894 | 639 | 320 | 916 | 440 |
| 31 | 245 | --- | 566 | 539 | --- | 764 | --- | 716 | --- | 293 | 770 | --- |
| TOTAL | 8586 | 15305 | 24522 | 19957 | 20803 | 28823 | 22102 | 31585 | 34632 | 12788 | 19942 | 15862 |
| MEAN | 277 | 510 | 791 | 644 | 717 | 930 | 737 | 1019 | 1154 | 413 | 643 | 529 |
| MAX | 346 | 4320 | 2690 | 1060 | 3040 | 1390 | 1950 | 2620 | 2770 | 615 | 2830 | 988 |
| MIN | 245 | 234 | 478 | 444 | 389 | 696 | 496 | 487 | 605 | 287 | 258 | 362 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 409 | 492 | 672 | 855 | 1015 | 1142 | 986 | 729 | 543 | 429 | 428 | 383 |
| MAX | 1353 | 1627 | 2125 | 2275 | 2227 | 2455 | 2009 | 1630 | 1502 | 1141 | 2246 | 1214 |
| (WY) | 1965 | 1980 | 1933 | 1937 | 1990 | 1929 | 1936 | 1984 | 1967 | 1989 | 1940 | 1928 |
| MIN | 122 | 133 | 193 | 194 | 319 | 346 | 359 | 283 | 200 | 183 | 163 | 129 |
| (WY) | 1955 | 1954 | 1940 | 1940 | 1941 | 1988 | 1986 | 1941 | 1988 | 1986 | 1953 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1927 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 294533 | | 254907 | | | |
| ANNUAL MEAN | 807 | | 696 | | 672 | |
| HIGHEST ANNUAL MEAN | | | | | 943 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 341 | 1988 |
| HIGHEST DAILY MEAN | 6390 | Mar 29 | 4320 | Nov 22 | 17100 | Aug 13 1940 |
| LOWEST DAILY MEAN | 234 | Nov 6 | 234 | Nov 6 | 95 | Sep 30 1941 |
| ANNUAL SEVEN-DAY MINIMUM | 243 | Nov 4 | 243 | Nov 4 | 109 | Oct 12 1941 |
| INSTANTANEOUS PEAK FLOW | | | 8690 | Nov 22 | 32700* | Aug 30 1940 |
| INSTANTANEOUS PEAK STAGE | | | 8.37 | Nov 22 | 15.82 | Aug 30 1940 |
| INSTANTANEOUS LOW FLOW | | | 204 | Nov 6 | 81 | Sep 30 1941 |
| ANNUAL RUNOFF (CFSM) | 2.31 | | 1.99 | | 1.92 | |
| ANNUAL RUNOFF (INCHES) | 31.30 | | 27.09 | | 26.09 | |
| 10 PERCENT EXCEEDS | 1390 | | 1240 | | 1240 | |
| 50 PERCENT EXCEEDS | 668 | | 573 | | 504 | |
| 90 PERCENT EXCEEDS | 274 | | 268 | | 208 | |

* See REMARKS.

## 03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC
(Hydrologic bench-mark station)

LOCATION.--Lat 35°40'02", long 83°04'22", Haywood County, Hydrologic Unit 06010106, in Great Smoky Mountains National Park, on left bank 20 ft downstream of bridge on State Highway 284, 500 ft upstream from Little Cataloochee Creek, 2 mi north of Cataloochee, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--49.2 $mi^2$.

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to September 1952, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,456.88 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge also occurred Jan. 2, 1940, and Dec. 17, 24, 1943, result of freezeup. Minimum discharge for current water year also occurred Nov. 18, 19, 20, and 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 57 | 42 | 160 | 92 | 88 | 176 | 143 | 83 | 102 | 107 | 44 | 94 |
| 2 | 57 | 42 | 517 | 91 | 84 | 156 | 136 | 80 | 98 | 95 | 41 | 85 |
| 3 | 56 | 40 | 672 | 127 | 82 | 142 | 130 | 79 | 96 | 89 | 41 | 82 |
| 4 | 55 | 39 | 446 | 136 | 80 | 131 | 126 | 75 | 143 | 82 | 41 | 82 |
| 5 | 54 | 39 | 270 | 132 | 78 | 122 | 118 | 76 | 115 | 77 | 40 | 129 |
| 6 | 55 | 39 | 202 | 124 | 76 | 154 | 113 | 81 | 104 | 80 | 64 | 142 |
| 7 | 52 | 39 | 166 | 116 | 74 | 136 | 110 | 116 | 98 | 75 | 47 | 110 |
| 8 | 52 | 40 | 144 | 110 | 71 | 122 | 106 | 272 | 98 | 68 | 43 | 107 |
| 9 | 51 | 39 | 170 | 106 | 71 | 117 | 101 | 230 | 122 | 65 | 55 | 152 |
| 10 | 50 | 42 | 174 | 101 | 72 | 194 | 100 | 235 | 113 | 62 | 44 | 190 |
| 11 | 50 | 41 | 147 | 95 | 68 | 188 | 115 | 255 | 126 | 61 | 41 | 159 |
| 12 | 48 | 40 | 138 | 93 | 66 | 171 | 105 | 220 | 129 | 59 | 60 | 122 |
| 13 | 47 | 40 | 131 | 93 | 72 | 158 | 101 | 220 | 116 | 57 | 93 | 105 |
| 14 | 47 | 40 | 149 | 102 | 74 | 146 | 94 | 223 | 137 | 56 | 68 | 94 |
| 15 | 54 | 40 | 126 | 88 | 150 | 135 | 94 | 265 | 146 | 59 | 352 | 85 |
| 16 | 50 | 38 | 118 | 85 | 113 | 125 | 93 | 256 | 137 | 57 | 122 | 78 |
| 17 | 47 | 37 | 114 | e83 | 102 | 120 | 88 | 200 | 129 | 56 | 107 | 73 |
| 18 | 46 | 37 | 109 | e81 | 97 | 146 | 85 | 180 | 123 | 61 | 86 | 70 |
| 19 | 46 | 38 | 101 | 76 | 98 | 225 | 84 | 251 | 117 | 53 | 75 | 84 |
| 20 | 45 | 37 | 98 | e74 | 90 | 236 | 97 | 271 | 108 | 51 | 69 | 76 |
| 21 | 45 | 144 | 98 | 75 | 87 | 207 | 132 | 211 | 101 | 49 | 70 | 66 |
| 22 | 45 | 443 | 94 | 74 | 84 | 205 | 107 | 182 | 95 | 50 | 105 | 63 |
| 23 | 44 | 150 | 121 | 180 | 109 | 204 | 99 | 163 | 90 | 62 | 107 | 68 |
| 24 | 43 | 105 | 118 | 142 | 120 | 179 | 97 | 159 | 85 | 67 | 99 | 63 |
| 25 | 43 | 87 | 101 | 122 | 256 | 178 | 102 | 146 | 82 | 52 | 88 | 59 |
| 26 | 43 | 77 | 97 | 115 | 618 | 182 | 94 | 134 | 89 | 49 | 93 | 57 |
| 27 | 43 | 73 | 95 | 108 | 379 | 174 | 91 | 125 | 89 | 49 | 109 | 63 |
| 28 | 43 | 68 | 109 | 104 | 261 | 160 | 94 | 120 | 76 | 48 | 216 | 85 |
| 29 | 42 | 65 | 105 | 100 | 213 | 153 | 88 | 120 | 111 | 44 | 160 | 79 |
| 30 | 41 | 63 | 97 | 96 | --- | 153 | 86 | 119 | 108 | 44 | 126 | 64 |
| 31 | 41 | --- | 95 | 93 | --- | 159 | --- | 107 | --- | 43 | 107 | --- |
| TOTAL | 1492 | 2064 | 5282 | 3214 | 3833 | 5054 | 3129 | 5254 | 3283 | 1927 | 2813 | 2786 |
| MEAN | 48.1 | 68.8 | 170 | 104 | 132 | 163 | 104 | 169 | 109 | 62.2 | 90.7 | 92.9 |
| MAX | 57 | 443 | 672 | 180 | 618 | 236 | 143 | 272 | 146 | 107 | 352 | 190 |
| MIN | 41 | 37 | 94 | 74 | 66 | 117 | 84 | 75 | 76 | 43 | 40 | 57 |
| CFSM | .98 | 1.40 | 3.46 | 2.11 | 2.69 | 3.31 | 2.12 | 3.44 | 2.22 | 1.26 | 1.84 | 1.89 |
| IN. | 1.13 | 1.56 | 3.99 | 2.43 | 2.90 | 3.82 | 2.37 | 3.97 | 2.48 | 1.46 | 2.13 | 2.11 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 52.9 | 69.8 | 111 | 163 | 176 | 202 | 153 | 110 | 83.2 | 72.7 | 71.3 | 53.8 |
| MAX | 146 | 159 | 302 | 392 | 394 | 496 | 305 | 283 | 252 | 182 | 223 | 123 |
| (WY) | 1990 | 1980 | 1973 | 1937 | 1990 | 1963 | 1936 | 1984 | 1967 | 1949 | 1940 | 1989 |
| MIN | 22.3 | 22.3 | 26.0 | 35.5 | 49.5 | 63.2 | 58.8 | 46.2 | 34.7 | 29.6 | 26.9 | 24.9 |
| (WY) | 1940 | 1940 | 1940 | 1940 | 1941 | 1988 | 1986 | 1986 | 1986 | 1986 | 1987 | 1941 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1934 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 51687 | | 40131 | | | |
| ANNUAL MEAN | 142 | | 110 | | 110 | |
| HIGHEST ANNUAL MEAN | | | | | 158 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 51.5 | 1986 |
| HIGHEST DAILY MEAN | 1280 | Mar 29 | 672 | Dec 3 | 2690 | Mar 16 1973 |
| LOWEST DAILY MEAN | 37 | Nov 17 | 37 | Nov 17 | 12 | Jan 2 1940 |
| ANNUAL SEVEN-DAY MINIMUM | 38 | Nov 14 | 38 | Nov 14 | 19 | Dec 31 1939 |
| INSTANTANEOUS PEAK FLOW | | | 1080 | Dec 3 | 5080 | Mar 6 1963 |
| INSTANTANEOUS PEAK STAGE | | | 4.68 | Dec 3 | 8.08 | Mar 6 1963 |
| INSTANTANEOUS LOW FLOW | | | 37* | Nov 17 | 9.4* | Jan 2 1940 |
| ANNUAL RUNOFF (CFSM) | 2.88 | | 2.23 | | 2.23 | |
| ANNUAL RUNOFF (INCHES) | 39.08 | | 30.34 | | 30.31 | |
| 10 PERCENT EXCEEDS | 222 | | 181 | | 202 | |
| 50 PERCENT EXCEEDS | 114 | | 95 | | 80 | |
| 90 PERCENT EXCEEDS | 47 | | 44 | | 34 | |

* See REMARKS.

TENNESSEE RIVER BASIN

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to September 1986.
WATER TEMPERATURE: October 1962 to September 1986.

INSTRUMENTATION.--Temperature recorder from October 1962 to September 1986. Water-quality monitor from May 1974 to September 1986.

REMARKS.--Station operated as part of the Hydrologic Benchmark network from October 1962 to present. Miscellaneous chemical data published for 1945 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 43 microsiemens, June 13, 1974; minimum, 7 microsiemens, Feb. 28, 1983.
WATER TEMPERATURE: Maximum, 23.5°C, Aug. 5, 1977; minimum, 0.0°C, on several days during winter months of most years.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | TUR-BID-ITY (NTU) | BARO-METRIC PRES-SURE (MM OF HG) | OXYGEN, DIS-SOLVED (MG/L) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 02... | 1050 | 626 | 16 | 6.3 | 10.5 | 2.5 | 695 | 9.8 | 96 | 22 | 54 |
| MAR | | | | | | | | | | | |
| 23... | 1030 | 197 | 14 | 6.1 | 4.5 | 0.50 | 692 | 11.9 | 101 | K2 | K3 |
| JUN | | | | | | | | | | | |
| 15... | 1315 | 134 | 15 | 6.3 | 13.5 | 0.80 | 697 | 9.7 | 102 | K11 | 58 |
| AUG | | | | | | | | | | | |
| 17... | 0930 | 115 | 16 | 6.1 | 15.0 | 2.5 | 699 | 8.9 | 96 | >60 | >100 |

| DATE | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | SODIUM PERCENT | SODIUM AD-SORP-TION RATIO | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFATE DIS-SOLVED (MG/L AS SO4) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) | FLUO-RIDE, DIS-SOLVED (MG/L AS F) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 02... | 1.1 | 0.39 | 0.80 | 24 | 0.2 | 0.80 | 3 | 2 | 2.1 | 0.80 | 0.20 |
| MAR | | | | | | | | | | | |
| 23... | 0.93 | 0.29 | 1.0 | 34 | 0.2 | 0.50 | 5 | 4 | 1.3 | 1.2 | <0.10 |
| JUN | | | | | | | | | | | |
| 15... | 1.1 | 0.32 | 1.0 | 31 | 0.2 | 0.60 | 6 | 5 | 1.3 | 1.5 | <0.10 |
| AUG | | | | | | | | | | | |
| 17... | 1.2 | 0.35 | 1.1 | 32 | 0.2 | 0.50 | 7 | 6 | 1.5 | 0.60 | <0.10 |

| 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) | NITRO-GEN, NITRATE TOTAL (MG/L AS N) | NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NITRITE TOTAL (MG/L AS N) | NITRO-GEN, NITRITE DIS-SOLVED (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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 02... | 4.9 | 18 | 14 | 0.350 | -- | 0.010 | <0.010 | 0.360 | 0.350 | 0.020 | 0.020 |
| MAR | | | | | | | | | | | |
| 23... | 6.6 | 18 | 15 | -- | -- | <0.010 | <0.010 | 0.200 | 0.180 | 0.020 | 0.020 |
| JUN | | | | | | | | | | | |
| 15... | 7.5 | 16 | 17 | -- | -- | <0.010 | <0.010 | 0.180 | 0.190 | 0.020 | 0.020 |
| AUG | | | | | | | | | | | |
| 17... | 7.1 | 13 | 17 | -- | 0.220 | <0.010 | 0.010 | 0.210 | 0.230 | 0.010 | 0.020 |

| DATE | NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) | NITRO-GEN, ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS N) | NITRO-GEN, TOTAL (MG/L AS NO3) | PHOS-PHORUS TOTAL (MG/L AS P) | PHOS-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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC | | | | | | | | | | | |
| 02... | 0.03 | 0.03 | 0.28 | 0.30 | 0.66 | 2.9 | 0.040 | 0.020 | 0.020 | <0.010 | -- |
| MAR | | | | | | | | | | | |
| 23... | 0.03 | 0.03 | -- | <0.20 | -- | -- | 0.010 | <0.010 | 0.010 | <0.010 | -- |
| JUN | | | | | | | | | | | |
| 15... | 0.03 | 0.03 | -- | <0.20 | -- | -- | <0.010 | <0.010 | 0.010 | 0.010 | 0.03 |
| AUG | | | | | | | | | | | |
| 17... | 0.01 | 0.03 | -- | <0.20 | -- | -- | 0.020 | 0.020 | 0.020 | 0.020 | 0.06 |

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | ALUMINUM, DISSOLVED (UG/L AS AL) | BARIUM, DISSOLVED (UG/L AS BA) | COBALT, DISSOLVED (UG/L AS CO) | IRON, DISSOLVED (UG/L AS FE) | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE, DISSOLVED (UG/L AS MN) | MOLYBDENUM, DISSOLVED (UG/L AS MO) | NICKEL, DISSOLVED (UG/L AS NI) | SELENIUM, DISSOLVED (UG/L AS SE) | SILVER, DISSOLVED (UG/L AS AG) | STRONTIUM, DISSOLVED (UG/L AS SR) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC 02... | 50 | 11 | <3 | 21 | <4 | 2 | <10 | <1 | <1 | <1.0 | 9 |
| MAR 23... | 10 | 6 | <3 | 11 | <4 | <1 | <10 | <1 | <1 | <1.0 | 8 |
| JUN 15... | <10 | 8 | <3 | 11 | <4 | 1 | <10 | <1 | <1 | <1.0 | 9 |
| AUG 17... | 40 | 9 | <3 | 19 | <4 | 1 | <10 | <1 | <1 | <1.0 | 10 |

| DATE | VANADIUM, DISSOLVED (UG/L AS V) | GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) | GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) | GROSS BETA, DISSOLVED (PCI/L AS CS-137) | GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) | GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) | GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) | RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) | URANIUM NATURAL DISSOLVED (UG/L AS U) | ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) | ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC 02... | <6 | <0.6 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.03 | <0.01 | -- | -- |
| MAR 23... | <6 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUN 15... | <6 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG 17... | <6 | <0.6 | <0.6 | 0.8 | <0.6 | 0.7 | <0.6 | 0.04 | <0.01 | <0.6 | <0.6 |

| DATE | ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) | ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) | BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L | BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) | URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) | RA-226 2 SIGMA WATER, DISS, (PCI/L) | ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) | BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) | SEDIMENT, SUSPENDED (MG/L) | SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC 02... | 0.19 | 0.03 | 0.46 | 0.50 | <1.0 | 0.010 | 0.62 | 0.57 | 12 | 20 | 47 |
| MAR 23... | -- | -- | -- | -- | -- | -- | -- | -- | 1 | 0.53 | 57 |
| JUN 15... | -- | -- | -- | -- | -- | -- | -- | -- | 4 | 1.4 | 32 |
| AUG 17... | 0.29 | 0.18 | 0.45 | 0.56 | <1.0 | 0.010 | 0.26 | 0.49 | 3 | 0.93 | 70 |

TENNESSEE RIVER BASIN

## 03463300 SOUTH TOE RIVER NEAR CELO, NC

LOCATION.--Lat 35°49'53", long 82°11'04", Yancey County, Hydrologic Unit 06010108, on right bank on Secondary Road 1168, 800 ft upstream from bridge on Secondary Road 1167, 0.3 mi downstream of Whiteoak Creek, 1.9 mi southeast of Celo, and at mile 20.1.

DRAINAGE AREA.--43.3 $mi^2$.

PERIOD OF RECORD.--July 1957 to current year.

REVISED RECORDS.--WSP 1910: 1958-59. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,658 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge: 32,900 $ft^3/s$, from rating curve extended above 4,500 $ft^3/s$ on basis of slope-area measurement of peak flow; gage height: 17.41 ft, from outside floodmarks. Minimum discharge for current water year also occurred Nov. 15, 16, 17, 18, and 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 51 | 34 | 180 | 82 | 79 | 157 | 115 | 146 | 238 | 133 | 49 | 130 |
| 2 | 49 | 36 | 366 | 80 | 76 | 140 | 105 | 136 | 210 | 133 | 45 | 122 |
| 3 | 49 | 35 | 644 | 761 | 73 | 127 | 98 | 128 | 197 | 123 | 44 | 111 |
| 4 | 47 | 33 | 256 | 510 | 70 | 118 | 96 | 117 | 1740 | 114 | 42 | 97 |
| 5 | 46 | 32 | 162 | 274 | 69 | 111 | 92 | 113 | 771 | 107 | 41 | 93 |
| 6 | 48 | 33 | 133 | 211 | 66 | 632 | 89 | 135 | 489 | 108 | 42 | 180 |
| 7 | 45 | 33 | 114 | 175 | 64 | 445 | 88 | 317 | 392 | 99 | 50 | 129 |
| 8 | 44 | 33 | 96 | 153 | 61 | 280 | 86 | 1070 | 343 | 92 | 67 | 121 |
| 9 | 44 | 33 | e90 | 141 | 59 | 226 | 85 | 534 | 487 | 86 | 52 | 101 |
| 10 | 43 | 54 | e105 | 124 | 57 | 302 | 86 | 542 | 726 | 82 | 43 | 96 |
| 11 | 43 | 48 | e95 | 113 | 57 | 276 | 86 | 461 | 728 | 78 | 42 | 114 |
| 12 | 41 | 37 | e90 | 107 | 57 | 216 | 84 | 398 | 609 | 76 | 45 | 87 |
| 13 | 40 | 35 | 95 | 105 | 61 | 190 | 78 | 472 | 525 | 71 | 129 | 81 |
| 14 | 40 | 33 | 105 | 159 | 67 | 168 | 75 | 385 | 517 | 73 | 97 | 76 |
| 15 | 44 | 33 | 89 | 112 | 161 | 155 | 77 | 436 | 558 | 86 | 70 | 71 |
| 16 | 45 | 32 | 79 | 105 | 126 | 138 | 81 | 357 | 444 | 70 | 71 | 67 |
| 17 | 41 | 32 | 77 | e100 | 95 | 132 | 74 | 293 | 444 | 67 | 396 | 63 |
| 18 | 40 | 32 | 72 | 90 | 104 | 133 | 71 | 265 | 377 | 65 | 152 | 60 |
| 19 | 38 | 37 | 72 | 85 | 100 | 169 | 78 | 461 | 329 | 62 | 91 | 59 |
| 20 | 38 | 40 | 76 | 88 | 88 | 171 | 1100 | 628 | 286 | 59 | 82 | 59 |
| 21 | 38 | 96 | 67 | 80 | 81 | 137 | 1860 | 387 | 264 | 58 | 133 | 58 |
| 22 | 38 | 714 | 66 | 78 | 77 | 132 | 603 | 315 | 235 | 67 | 224 | 56 |
| 23 | 38 | 140 | 79 | 193 | 148 | 143 | 394 | 269 | 215 | 91 | 229 | 59 |
| 24 | 39 | 88 | 77 | 142 | 139 | 122 | 312 | 243 | 195 | 66 | 155 | 67 |
| 25 | 38 | 66 | 65 | 110 | 398 | 120 | 263 | 219 | 181 | 60 | 116 | 57 |
| 26 | 38 | 59 | 62 | 104 | 525 | 147 | 228 | 202 | 170 | 56 | 138 | 54 |
| 27 | 37 | 53 | 61 | 98 | 272 | 146 | 203 | 187 | 161 | 55 | 130 | 67 |
| 28 | 36 | 49 | 172 | 95 | 206 | 127 | 185 | 182 | 150 | 58 | 1080 | 119 |
| 29 | 36 | 45 | 140 | 89 | 193 | 120 | 170 | 386 | 143 | 50 | 324 | 128 |
| 30 | 35 | 45 | 99 | 85 | --- | 120 | 158 | 438 | 139 | 48 | 206 | 73 |
| 31 | 35 | --- | 88 | 82 | --- | 127 | --- | 284 | --- | 49 | 158 | --- |
| TOTAL | 1284 | 2070 | 3972 | 4731 | 3629 | 5727 | 7120 | 10506 | 12263 | 2442 | 4543 | 2655 |
| MEAN | 41.4 | 69.0 | 128 | 153 | 125 | 185 | 237 | 339 | 409 | 78.8 | 147 | 88.5 |
| MAX | 51 | 714 | 644 | 761 | 525 | 632 | 1860 | 1070 | 1740 | 133 | 1080 | 180 |
| MIN | 35 | 32 | 61 | 78 | 57 | 111 | 71 | 113 | 139 | 48 | 41 | 54 |
| CFSM | .96 | 1.59 | 2.96 | 3.52 | 2.89 | 4.27 | 5.48 | 7.83 | 9.44 | 1.82 | 3.38 | 2.04 |
| IN. | 1.10 | 1.78 | 3.41 | 4.06 | 3.12 | 4.92 | 6.12 | 9.03 | 10.54 | 2.10 | 3.90 | 2.28 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 128 | 153 | 141 | 150 | 178 | 228 | 192 | 164 | 131 | 85.0 | 89.8 | 112 |
| MAX | 326 | 714 | 277 | 268 | 360 | 596 | 361 | 373 | 415 | 199 | 199 | 517 |
| (WY) | 1971 | 1978 | 1984 | 1979 | 1966 | 1979 | 1983 | 1976 | 1972 | 1967 | 1990 | 1979 |
| MIN | 19.7 | 25.9 | 41.5 | 62.2 | 76.6 | 69.1 | 59.7 | 53.1 | 34.8 | 23.3 | 28.5 | 21.3 |
| (WY) | 1964 | 1982 | 1966 | 1966 | 1963 | 1988 | 1986 | 1986 | 1988 | 1986 | 1987 | 1958 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1957 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 51851 | | 60942 | | | |
| ANNUAL MEAN | 142 | | 167 | | 146 | |
| HIGHEST ANNUAL MEAN | | | | | 227 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 79.4 | 1988 |
| HIGHEST DAILY MEAN | 1190 | Mar 29 | 1860 | Apr 21 | 9960 | Nov 6 1977 |
| LOWEST DAILY MEAN | 32 | Nov 5 | 32 | Nov 5 | 12 | Jul 21 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 33 | Nov 3 | 33 | Nov 3 | 15 | Jul 16 1986 |
| INSTANTANEOUS PEAK FLOW | | | 4390 | Jun 4 | 32900* | Nov 6 1977 |
| INSTANTANEOUS PEAK STAGE | | | 5.47 | Jun 4 | 17.41* | Nov 6 1977 |
| INSTANTANEOUS LOW FLOW | | | 32* | Nov 5 | 11 | Jul 22 1986 |
| ANNUAL RUNOFF (CFSM) | 3.28 | | 3.85 | | 3.37 | |
| ANNUAL RUNOFF (INCHES) | 44.55 | | 52.36 | | 45.76 | |
| 10 PERCENT EXCEEDS | 243 | | 393 | | 261 | |
| 50 PERCENT EXCEEDS | 115 | | 97 | | 101 | |
| 90 PERCENT EXCEEDS | 42 | | 41 | | 39 | |

* See REMARKS.

## 03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC

LOCATION.--Lat 36°14'18", long 81°49'22", Watauga County, Hydrologic Unit 06010103, on right bank 250 ft upstream from bridge on Secondary Road 1121, 300 ft downstream of Cove Creek, 2.3 mi southwest of Sugar Grove, and at mile 64.4.

DRAINAGE AREA.--92.1 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1306.

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

GAGE.--Water-stage recorder. Datum of gage is 2,607.84 ft above National Geodetic Vertical Datum of 1929. Tennessee Valley Authority has satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation at low flow caused by small mills above station. Maximum discharge: 50,800 ft³/s, from profile based on floodmarks, from rating curve extended above 4,900 ft³/s on basis of slope-area measurement of peak flow. Minimum discharge: 6.5 ft³/s, result of freezeup. Minimum daily discharge also occurred Sept. 30, 1954. Minimum discharge for current water year also occurred October 31, November 1, 2, 4, 5, 6 and 7.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 22.1 ft, from floodmarks on barn 0.25 mi upstream from station, as witnessed by local resident; discharge, 28,000 ft³/s, from rating curve extended above 4,900 ft³/s, on basis of slope-area measurement at gage height 29.6 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34 | 28 | 107 | 104 | 98 | 218 | 152 | 172 | 266 | 120 | 75 | 130 |
| 2 | 33 | 29 | 240 | 99 | 91 | 189 | 145 | 157 | 221 | 120 | 68 | 117 |
| 3 | 33 | 29 | 689 | 549 | 89 | 169 | 136 | 149 | 193 | 118 | 66 | 109 |
| 4 | 33 | 29 | 485 | 1110 | 88 | 154 | 145 | 137 | 2980 | 105 | 63 | 99 |
| 5 | 38 | 28 | 265 | 549 | 87 | 140 | 156 | 143 | 2590 | 96 | 62 | 118 |
| 6 | 49 | 28 | 197 | 353 | 83 | 415 | 146 | 140 | 878 | 115 | 62 | 207 |
| 7 | 36 | 29 | 160 | 264 | 81 | 536 | 143 | 200 | 644 | 116 | 64 | 126 |
| 8 | 33 | 30 | 138 | 209 | 79 | 324 | 138 | 535 | 1160 | 94 | 63 | 117 |
| 9 | 33 | 30 | 129 | 181 | e78 | 257 | 130 | 512 | 942 | 86 | 62 | 99 |
| 10 | 33 | 113 | 150 | 159 | e76 | 277 | 128 | 370 | 1100 | 83 | 58 | 187 |
| 11 | 33 | 66 | 126 | 138 | 73 | 292 | 131 | 295 | 1000 | 79 | 192 | 496 |
| 12 | 31 | 46 | 115 | 126 | 73 | 248 | 123 | 250 | 708 | 77 | 199 | 195 |
| 13 | 31 | 40 | 108 | 122 | 75 | 223 | 115 | 241 | 524 | 73 | 286 | 141 |
| 14 | 31 | 37 | 112 | 149 | 76 | 193 | 108 | 216 | 484 | 113 | 231 | 123 |
| 15 | 32 | 35 | 98 | 122 | 141 | 177 | 105 | 279 | 528 | 109 | 131 | 110 |
| 16 | 35 | 34 | e94 | e115 | 149 | e157 | 104 | 309 | 443 | 88 | 108 | 97 |
| 17 | 33 | 34 | e90 | e111 | 108 | 149 | 103 | 237 | 374 | 82 | 141 | 89 |
| 18 | 32 | 33 | e88 | e107 | 113 | 146 | 113 | 202 | 322 | 96 | 110 | 84 |
| 19 | 31 | 36 | e86 | e98 | 106 | 173 | 104 | 194 | 285 | 79 | 93 | 82 |
| 20 | 31 | 35 | e84 | e94 | 98 | 157 | 2400 | 224 | 253 | 72 | 83 | 80 |
| 21 | 31 | 79 | e83 | e86 | 92 | 140 | 3760 | 186 | 227 | 70 | 79 | 78 |
| 22 | 31 | 1260 | 81 | 84 | 89 | 147 | 1240 | 166 | 196 | 77 | 79 | 76 |
| 23 | 30 | 354 | 85 | 227 | 103 | 186 | 691 | 154 | 178 | 84 | 77 | 84 |
| 24 | 31 | 183 | 113 | 237 | 143 | 161 | 470 | 146 | 167 | 342 | 72 | 76 |
| 25 | 32 | 134 | 90 | e162 | 168 | 152 | 368 | 143 | 156 | 183 | 68 | 70 |
| 26 | 31 | 112 | 85 | 148 | 594 | 215 | 302 | 136 | 148 | 116 | 149 | 69 |
| 27 | 31 | 95 | 82 | 133 | 443 | 192 | 259 | 128 | 146 | 96 | 161 | 80 |
| 28 | 30 | 86 | 95 | 125 | 302 | 171 | 231 | 144 | 128 | 97 | 866 | 176 |
| 29 | 29 | 77 | 155 | 117 | 283 | 160 | 201 | 387 | 122 | 81 | 387 | 195 |
| 30 | 28 | 73 | 127 | 112 | --- | 155 | 185 | 567 | 118 | 75 | 198 | 106 |
| 31 | 28 | --- | 113 | 108 | --- | 171 | --- | 346 | --- | 90 | 147 | --- |
| TOTAL | 1007 | 3222 | 4670 | 6298 | 4079 | 6444 | 12532 | 7465 | 17481 | 3232 | 4500 | 3816 |
| MEAN | 32.5 | 107 | 151 | 203 | 141 | 208 | 418 | 241 | 583 | 104 | 145 | 127 |
| MAX | 49 | 1260 | 689 | 1110 | 594 | 536 | 3760 | 567 | 2980 | 342 | 866 | 496 |
| MIN | 28 | 28 | 81 | 84 | 73 | 140 | 103 | 128 | 118 | 70 | 58 | 69 |
| CFSM | .35 | 1.17 | 1.64 | 2.21 | 1.53 | 2.26 | 4.54 | 2.61 | 6.33 | 1.13 | 1.58 | 1.38 |
| IN. | .41 | 1.30 | 1.89 | 2.54 | 1.65 | 2.60 | 5.06 | 3.02 | 7.06 | 1.31 | 1.82 | 1.54 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 113 | 151 | 177 | 195 | 265 | 304 | 261 | 184 | 147 | 112 | 117 | 116 |
| MAX | 380 | 662 | 434 | 429 | 599 | 858 | 689 | 411 | 583 | 461 | 1169 | 691 |
| (WY) | 1965 | 1978 | 1951 | 1946 | 1966 | 1979 | 1987 | 1973 | 1992 | 1989 | 1940 | 1979 |
| MIN | 19.2 | 34.6 | 45.6 | 55.5 | 67.5 | 77.0 | 82.1 | 67.5 | 41.4 | 35.0 | 25.6 | 18.1 |
| (WY) | 1955 | 1982 | 1964 | 1956 | 1941 | 1988 | 1986 | 1941 | 1988 | 1944 | 1956 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1940 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 63829 | | 74746 | | | |
| ANNUAL MEAN | 175 | | 204 | | 176 | |
| HIGHEST ANNUAL MEAN | | | | | 297 | 1979 |
| LOWEST ANNUAL MEAN | | | | | 84.7 | 1988 |
| HIGHEST DAILY MEAN | 2380 | Mar 29 | 3760 | Apr 21 | 15900 | Aug 13 1940 |
| LOWEST DAILY MEAN | 28 | Oct 30 | 28 | Oct 30 | 13* | Sep 19 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 28 | Oct 30 | 28 | Oct 30 | 15 | Sep 13 1954 |
| INSTANTANEOUS PEAK FLOW | | | 8330 | Jun 4 | 50800* | Aug 13 1940 |
| INSTANTANEOUS PEAK STAGE | | | 12.28 | Jun 4 | 29.60 | Aug 13 1940 |
| INSTANTANEOUS LOW FLOW | | | 27* | Oct 30 | 6.5* | Jan 1 1954 |
| ANNUAL RUNOFF (CFSM) | 1.90 | | 2.22 | | 1.91 | |
| ANNUAL RUNOFF (INCHES) | 25.78 | | 30.19 | | 25.97 | |
| 10 PERCENT EXCEEDS | 324 | | 371 | | 326 | |
| 50 PERCENT EXCEEDS | 115 | | 119 | | 116 | |
| 90 PERCENT EXCEEDS | 34 | | 34 | | 40 | |

* See REMARKS.

TENNESSEE RIVER BASIN

## 03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC

LOCATION.--Lat 35°08'59", long 83°22'47", Macon County, Hydrologic Unit 06010202, on left bank 600 ft upstream from Owenby Branch, 0.5 mi upstream from Cartoogechaye Creek, 2 mi north of Prentiss, and at mile 119.5.

DRAINAGE AREA.--140 mi².

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 1236: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 2,008.39 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Since Oct. 1, 1954, auxiliary water-stage recorder 0.5 mi downstream of base gage at same datum.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1898 reached a stage of about 15 ft, from profiles by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 185 | 147 | 422 | 284 | 284 | 518 | 435 | 326 | 262 | 412 | 215 | 425 |
| 2 | 184 | 175 | 874 | 275 | 275 | 473 | 422 | 321 | 254 | 410 | 199 | 381 |
| 3 | 185 | 151 | 1160 | 735 | 271 | 441 | 410 | 312 | 312 | 435 | 193 | 362 |
| 4 | 180 | 145 | 943 | 553 | 268 | 421 | 400 | 300 | 1230 | 375 | 190 | 366 |
| 5 | 181 | 142 | 593 | 425 | 263 | 400 | 385 | 295 | 925 | 337 | 195 | 742 |
| 6 | 185 | 142 | 476 | 375 | 258 | 737 | 376 | 298 | 594 | 333 | 204 | 1650 |
| 7 | 171 | 142 | 411 | 341 | 251 | 734 | 376 | 337 | 507 | 318 | 209 | 798 |
| 8 | 170 | 142 | 368 | 320 | 247 | 594 | 372 | 611 | 472 | 303 | 198 | 621 |
| 9 | 170 | 142 | 347 | 310 | 242 | 531 | 361 | 547 | 742 | 290 | 193 | 554 |
| 10 | 170 | 147 | 365 | 300 | 239 | 679 | 352 | 433 | 929 | 280 | 187 | 482 |
| 11 | 168 | 145 | 320 | 285 | 238 | 699 | 392 | 382 | 715 | 273 | 181 | 441 |
| 12 | 164 | 139 | 302 | 276 | 237 | 590 | 405 | 358 | 934 | 266 | 184 | 407 |
| 13 | 159 | 138 | 292 | 283 | 238 | 547 | 364 | 361 | 719 | 256 | 262 | 381 |
| 14 | 156 | 137 | 319 | 433 | 240 | 504 | 347 | 397 | 876 | 254 | 279 | 362 |
| 15 | 165 | 137 | 298 | 339 | 517 | 469 | 354 | 345 | 850 | 268 | 239 | 343 |
| 16 | 172 | 137 | 278 | 306 | 522 | 438 | 367 | 327 | 703 | 268 | 211 | 329 |
| 17 | 159 | 136 | 268 | 291 | 385 | 420 | 342 | 315 | 618 | 252 | 292 | 315 |
| 18 | 157 | 135 | 261 | 285 | 390 | 435 | 332 | 307 | 585 | 255 | 297 | 308 |
| 19 | 155 | 153 | 249 | 274 | 386 | 957 | 322 | 320 | 545 | 248 | 230 | 337 |
| 20 | 154 | 153 | 244 | 264 | 352 | 691 | 380 | 349 | 503 | 242 | 208 | 341 |
| 21 | 153 | 342 | 244 | 260 | 327 | 597 | 666 | 311 | 468 | 257 | 310 | 319 |
| 22 | 153 | 1390 | 243 | 255 | 312 | 562 | 587 | 293 | 440 | 299 | 725 | 341 |
| 23 | 153 | 574 | 250 | 621 | 536 | 634 | 477 | 282 | 424 | 340 | 832 | 374 |
| 24 | 152 | 354 | 273 | 533 | 563 | 558 | 431 | 275 | 408 | 310 | 678 | 318 |
| 25 | 153 | 285 | 245 | 410 | 763 | 527 | 424 | 271 | 391 | 260 | 437 | 299 |
| 26 | 151 | 252 | 237 | 367 | 1430 | 588 | 384 | 267 | 379 | 254 | 355 | 288 |
| 27 | 149 | 236 | 234 | 340 | 869 | 524 | 370 | 261 | 375 | 245 | 407 | 298 |
| 28 | 147 | 222 | 359 | 333 | 665 | 491 | 358 | 255 | 356 | 237 | 1880 | 320 |
| 29 | 145 | 211 | 455 | 317 | 585 | 468 | 344 | 274 | 346 | 221 | 1250 | 381 |
| 30 | 144 | 220 | 333 | 305 | --- | 463 | 338 | 333 | 337 | 214 | 642 | 312 |
| 31 | 144 | --- | 301 | 296 | --- | 466 | --- | 289 | --- | 212 | 506 | --- |
| TOTAL | 5034 | 6971 | 11964 | 10991 | 12153 | 17156 | 11873 | 10352 | 17199 | 8924 | 12388 | 13195 |
| MEAN | 162 | 232 | 386 | 355 | 419 | 553 | 396 | 334 | 573 | 288 | 400 | 440 |
| MAX | 185 | 1390 | 1160 | 735 | 1430 | 957 | 666 | 611 | 1230 | 435 | 1880 | 1650 |
| MIN | 144 | 135 | 234 | 255 | 237 | 400 | 322 | 255 | 254 | 212 | 181 | 288 |
| CFSM | 1.16 | 1.66 | 2.76 | 2.53 | 2.99 | 3.95 | 2.83 | 2.39 | 4.09 | 2.06 | 2.85 | 3.14 |
| IN. | 1.34 | 1.85 | 3.18 | 2.92 | 3.23 | 4.56 | 3.15 | 2.75 | 4.57 | 2.37 | 3.29 | 3.51 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 244 | 293 | 394 | 478 | 563 | 604 | 564 | 435 | 345 | 262 | 242 | 225 |
| MAX | 1078 | 815 | 841 | 1008 | 1252 | 1199 | 1014 | 999 | 694 | 772 | 695 | 671 |
| (WY) | 1965 | 1980 | 1962 | 1946 | 1990 | 1952 | 1964 | 1976 | 1949 | 1989 | 1974 | 1950 |
| MIN | 70.5 | 101 | 154 | 120 | 222 | 244 | 172 | 157 | 110 | 94.8 | 78.3 | 80.2 |
| (WY) | 1955 | 1955 | 1981 | 1981 | 1986 | 1988 | 1986 | 1986 | 1988 | 1986 | 1986 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1944 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 153449 | | 138200 | | | |
| ANNUAL MEAN | 420 | | 378 | | 387 | |
| HIGHEST ANNUAL MEAN | | | | | 588 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 173 | 1986 |
| HIGHEST DAILY MEAN | 2460 | Mar 30 | 1880 | Aug 28 | 7280 | Oct 5 1964 |
| LOWEST DAILY MEAN | 135 | Nov 18 | 135 | Nov 18 | 56 | Oct 7 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 137 | Nov 12 | 137 | Nov 12 | 62 | Oct 2 1986 |
| INSTANTANEOUS PEAK FLOW | | | 2170 | Aug 28 | 12200 | Oct 4 1964 |
| INSTANTANEOUS PEAK STAGE | | | 5.74 | Aug 28 | 17.30 | Oct 4 1964 |
| INSTANTANEOUS LOW FLOW | | | 133 | Nov 18 | 55 | Oct 7 1986 |
| ANNUAL RUNOFF (CFSM) | 3.00 | | 2.70 | | 2.76 | |
| ANNUAL RUNOFF (INCHES) | 40.77 | | 36.72 | | 37.56 | |
| 10 PERCENT EXCEEDS | 702 | | 625 | | 696 | |
| 50 PERCENT EXCEEDS | 368 | | 321 | | 306 | |
| 90 PERCENT EXCEEDS | 162 | | 162 | | 131 | |

## 03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC

LOCATION.--Lat 35°09'31", long 83°23'40", Macon County, Hydrologic Unit 06010202, on downstream side of center pier of bridge on Secondary Road 1152, 0.1 mi downstream of unnamed creek, 1.8 mi south of Franklin, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--57.1 $mi^2$.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1944, 1947, 1953-55, 1960. June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,017.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge also occurred Oct. 8, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1949 reached a stage of 15.6 ft, from studies by Tennessee Valley Authority; discharge, about 7,000 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 67 | 58 | 136 | 132 | 117 | 182 | 177 | 132 | 101 | 116 | 61 | 115 |
| 2 | 65 | 61 | 338 | 126 | 113 | 168 | 168 | 127 | 99 | 108 | 59 | 104 |
| 3 | 66 | 54 | 502 | 349 | 111 | 157 | 162 | 123 | 136 | 112 | 57 | 100 |
| 4 | 64 | 52 | 338 | 252 | 108 | 149 | 157 | 118 | 357 | 103 | 56 | 109 |
| 5 | 63 | 52 | 220 | 202 | 106 | 145 | 151 | 117 | 236 | 94 | 55 | 174 |
| 6 | 62 | 52 | 176 | 177 | 104 | 211 | 147 | 121 | 171 | 93 | 68 | 178 |
| 7 | 61 | 52 | 151 | 158 | 103 | 189 | 148 | 143 | 147 | 88 | 66 | 132 |
| 8 | 61 | 51 | 136 | 147 | 99 | 167 | 142 | 261 | 138 | 84 | 61 | 117 |
| 9 | 61 | 51 | 149 | 142 | 97 | 156 | 138 | 226 | 166 | 80 | 58 | 107 |
| 10 | 60 | 54 | 170 | 134 | 96 | 297 | 134 | 181 | 166 | 79 | 55 | 100 |
| 11 | 59 | 52 | 139 | 127 | 96 | 258 | 161 | 159 | 217 | 77 | 53 | 101 |
| 12 | 59 | 51 | 130 | 123 | 95 | 217 | 160 | 146 | 243 | 75 | 70 | 93 |
| 13 | 58 | 51 | 124 | 128 | 100 | 194 | 141 | 148 | 222 | 73 | 100 | 89 |
| 14 | 58 | 50 | 144 | 153 | 100 | 177 | 135 | 140 | 267 | 72 | 78 | 84 |
| 15 | 71 | 49 | 125 | 129 | 260 | 166 | 141 | 136 | 305 | 75 | 97 | 82 |
| 16 | 62 | 49 | 118 | 120 | 203 | 157 | 178 | 139 | 275 | 78 | 76 | 80 |
| 17 | 59 | 49 | 114 | 117 | 167 | 151 | 149 | 126 | 260 | 73 | 128 | 78 |
| 18 | 58 | 48 | 110 | 114 | 155 | 177 | 143 | 124 | 207 | 75 | 83 | 83 |
| 19 | 57 | 53 | 105 | 111 | 152 | 401 | 139 | 144 | 183 | 71 | 68 | 96 |
| 20 | 57 | 52 | 103 | 107 | 137 | 317 | 164 | 174 | 161 | 67 | 66 | 99 |
| 21 | 57 | 264 | 103 | 105 | 129 | 252 | 301 | 147 | 146 | 71 | 80 | 94 |
| 22 | 58 | 623 | 101 | 104 | 124 | 233 | 264 | 131 | 137 | 95 | 326 | 91 |
| 23 | 57 | 221 | 136 | 296 | 209 | 275 | 210 | 122 | 130 | 87 | 268 | 88 |
| 24 | 57 | 143 | 131 | 231 | 193 | 228 | 185 | 116 | 123 | 88 | 214 | 80 |
| 25 | 57 | 116 | 114 | 179 | 334 | 218 | 195 | 114 | 117 | 74 | 134 | 78 |
| 26 | 57 | 102 | 108 | 158 | 468 | 248 | 166 | 111 | 116 | 76 | 106 | 75 |
| 27 | 57 | 94 | 105 | 145 | 314 | 218 | 158 | 107 | 112 | 71 | 122 | 84 |
| 28 | 56 | 89 | 191 | 142 | 244 | 202 | 150 | 104 | 106 | 67 | 541 | 115 |
| 29 | 54 | 85 | 202 | 134 | 207 | 191 | 145 | 120 | 105 | 62 | 226 | 133 |
| 30 | 53 | 87 | 164 | 127 | --- | 197 | 139 | 130 | 101 | 61 | 155 | 95 |
| 31 | 53 | --- | 143 | 123 | --- | 193 | --- | 109 | --- | 64 | 129 | --- |
| TOTAL | 1844 | 2865 | 5026 | 4792 | 4741 | 6491 | 4948 | 4296 | 5250 | 2509 | 3716 | 3054 |
| MEAN | 59.5 | 95.5 | 162 | 155 | 163 | 209 | 165 | 139 | 175 | 80.9 | 120 | 102 |
| MAX | 71 | 623 | 502 | 349 | 468 | 401 | 301 | 261 | 357 | 116 | 541 | 178 |
| MIN | 53 | 48 | 101 | 104 | 95 | 145 | 134 | 104 | 99 | 61 | 53 | 75 |
| CFSM | 1.04 | 1.67 | 2.84 | 2.71 | 2.86 | 3.67 | 2.89 | 2.43 | 3.06 | 1.42 | 2.10 | 1.78 |
| IN. | 1.20 | 1.87 | 3.27 | 3.12 | 3.09 | 4.23 | 3.22 | 2.80 | 3.42 | 1.63 | 2.42 | 1.99 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 83.5 | 105 | 151 | 187 | 219 | 241 | 202 | 159 | 121 | 89.4 | 84.0 | 74.0 |
| MAX | 295 | 241 | 317 | 336 | 460 | 440 | 375 | 339 | 259 | 195 | 167 | 161 |
| (WY) | 1965 | 1980 | 1962 | 1974 | 1990 | 1980 | 1964 | 1976 | 1989 | 1989 | 1967 | 1989 |
| MIN | 33.9 | 41.5 | 52.2 | 55.2 | 102 | 84.7 | 72.9 | 61.2 | 42.3 | 33.1 | 33.1 | 34.7 |
| (WY) | 1979 | 1979 | 1966 | 1981 | 1986 | 1988 | 1986 | 1986 | 1988 | 1986 | 1986 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1961 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 58067 | | 49532 | | | |
| ANNUAL MEAN | 159 | | 135 | | 142 | |
| HIGHEST ANNUAL MEAN | | | | | 204 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 69.9 | 1986 |
| HIGHEST DAILY MEAN | 906 | Mar 29 | 623 | Nov 22 | 2710 | Oct 4 1964 |
| LOWEST DAILY MEAN | 48 | Nov 18 | 48 | Nov 18 | 18 | Oct 7 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 50 | Nov 12 | 50 | Nov 12 | 22 | Oct 2 1986 |
| INSTANTANEOUS PEAK FLOW | | | 1050 | Nov 22 | 4720 | Oct 4 1964 |
| INSTANTANEOUS PEAK STAGE | | | 6.23 | Nov 22 | 12.96 | Oct 4 1964 |
| INSTANTANEOUS LOW FLOW | | | 45 | Nov 18 | 16* | Oct 7 1986 |
| ANNUAL RUNOFF (CFSM) | 2.79 | | 2.37 | | 2.49 | |
| ANNUAL RUNOFF (INCHES) | 37.83 | | 32.27 | | 33.89 | |
| 10 PERCENT EXCEEDS | 257 | | 227 | | 257 | |
| 50 PERCENT EXCEEDS | 136 | | 120 | | 107 | |
| 90 PERCENT EXCEEDS | 59 | | 58 | | 50 | |

* See REMARKS.

## 03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC

LOCATION.--Lat 35°20'11", long 83°31'37", Swain County, Hydrologic Unit 06010202, on left bank on Secondary Road 1113, 0.8 mi downstream of DeHart Creek, 0.8 mi north of Needmore, 2.4 mi downstream of Brush Creek, 6.3 mi downstream of Tellico Creek, and at mile 92.9.

DRAINAGE AREA.--436 $mi^2$.

PERIOD OF RECORD.--October 1943 to December 1981, October 1983 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,761.19 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Tennessee Valley Authority has satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Considerable diurnal fluctuation caused by Porters Bend powerplant at Lake Emory, 20 mi upstream. Several measurements of water temperatures were made during the year. Minimum discharge also occurred Nov. 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of October 1898 and Aug. 30, 1940, reached stages of about 13 and 11.5 ft, respectively, from flood profiles by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 508 | 420 | 917 | 845 | 798 | 1400 | 1160 | 863 | 709 | 815 | 471 | 992 |
| 2 | 501 | 452 | 2700 | 805 | 770 | 1260 | 1100 | 828 | 679 | 964 | 437 | 888 |
| 3 | 502 | 442 | 3350 | 2060 | 747 | 1180 | 1050 | 809 | 706 | 880 | 414 | 857 |
| 4 | 496 | 408 | 3310 | 1990 | 739 | 1110 | 1030 | 771 | 2750 | 823 | 368 | 841 |
| 5 | 484 | 413 | 1840 | 1380 | 734 | 1050 | 987 | 760 | 2960 | 730 | 409 | 1500 |
| 6 | 496 | 406 | 1400 | 1150 | 715 | 1760 | 951 | 765 | 1570 | 711 | 422 | 3190 |
| 7 | 473 | 412 | 1190 | 1040 | 702 | 2040 | 950 | 872 | 1240 | 675 | 506 | 1790 |
| 8 | 463 | 409 | 1050 | 937 | 648 | 1520 | 928 | 1750 | 1150 | 641 | 440 | 1390 |
| 9 | 462 | 407 | 1010 | 913 | 499 | 1330 | 902 | 1710 | 1340 | 624 | 431 | 1140 |
| 10 | 459 | 415 | 1140 | 872 | 738 | 1820 | 882 | 1270 | 2370 | 587 | 416 | 991 |
| 11 | 458 | 424 | 985 | 820 | 665 | 2070 | 1020 | 1100 | 1680 | 571 | 398 | 1020 |
| 12 | 455 | 406 | 909 | 790 | 638 | 1620 | 1240 | 994 | 2200 | 559 | 410 | 882 |
| 13 | 443 | 399 | 858 | 790 | 625 | 1450 | 997 | 984 | 1760 | 563 | 607 | 823 |
| 14 | 439 | 396 | 877 | 1040 | 637 | 1320 | 924 | 1060 | 2070 | 518 | 733 | 780 |
| 15 | 456 | 397 | 874 | 967 | 1160 | 1230 | 909 | 1020 | 2170 | 584 | 626 | 746 |
| 16 | 480 | 382 | 793 | 838 | 1570 | 1160 | 997 | 965 | 1830 | 584 | 583 | 709 |
| 17 | 449 | 394 | 757 | 783 | 1070 | 1100 | 895 | 890 | 1650 | 551 | 674 | 686 |
| 18 | 432 | 408 | 741 | 780 | 998 | 1090 | 880 | 853 | 1430 | 553 | 622 | 687 |
| 19 | 432 | 410 | 708 | 752 | 1010 | 2370 | 835 | 958 | 1310 | 530 | 511 | 736 |
| 20 | 435 | 446 | 685 | 724 | 905 | 1970 | 959 | 1100 | 1170 | 505 | 460 | 772 |
| 21 | 430 | 806 | 679 | 715 | 767 | 1620 | 1890 | 966 | 1080 | 506 | 822 | 707 |
| 22 | 435 | 4500 | 681 | 684 | 831 | 1480 | 1830 | 862 | 1000 | 651 | 1650 | 734 |
| 23 | 440 | 2230 | 724 | 1600 | 1170 | 1780 | 1350 | 810 | 951 | 645 | 2490 | 803 |
| 24 | 432 | 1120 | 837 | 1810 | 1920 | 1530 | 1190 | 780 | 906 | 711 | 2070 | 704 |
| 25 | 430 | 859 | 731 | 1210 | 1540 | 1400 | 1170 | 753 | 870 | 610 | 1120 | 642 |
| 26 | 425 | 746 | 690 | 1080 | 4590 | 1620 | 1030 | 734 | 869 | 560 | 850 | 618 |
| 27 | 420 | 682 | 673 | 986 | 2770 | 1440 | 994 | 709 | 835 | 588 | 800 | 646 |
| 28 | 420 | 640 | 889 | 952 | 1980 | 1320 | 958 | 695 | 777 | 521 | 4690 | 711 |
| 29 | 416 | 612 | 1500 | 905 | 1630 | 1240 | 911 | 750 | 772 | 474 | 3420 | 922 |
| 30 | 402 | 604 | 1060 | 874 | --- | 1240 | 890 | 924 | 754 | 460 | 1590 | 719 |
| 31 | 408 | --- | 911 | 834 | --- | 1270 | --- | 787 | --- | 484 | 1190 | --- |
| TOTAL | 13981 | 21045 | 35469 | 31926 | 33566 | 45790 | 31809 | 29092 | 41558 | 19178 | 30630 | 28626 |
| MEAN | 451 | 701 | 1144 | 1030 | 1157 | 1477 | 1060 | 938 | 1385 | 619 | 988 | 954 |
| MAX | 508 | 4500 | 3350 | 2060 | 4590 | 2370 | 1890 | 1750 | 2960 | 964 | 4690 | 3190 |
| MIN | 402 | 382 | 673 | 684 | 499 | 1050 | 835 | 695 | 679 | 460 | 368 | 618 |
| CFSM | 1.03 | 1.61 | 2.62 | 2.36 | 2.65 | 3.39 | 2.43 | 2.15 | 3.18 | 1.42 | 2.27 | 2.19 |
| IN. | 1.19 | 1.80 | 3.03 | 2.72 | 2.86 | 3.91 | 2.71 | 2.48 | 3.55 | 1.64 | 2.61 | 2.44 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 640 | 784 | 1047 | 1329 | 1576 | 1728 | 1544 | 1193 | 933 | 711 | 649 | 589 |
| MAX | 2557 | 2169 | 2231 | 2570 | 3718 | 3372 | 2746 | 2573 | 2061 | 2136 | 1670 | 1605 |
| (WY) | 1965 | 1980 | 1962 | 1946 | 1990 | 1990 | 1964 | 1976 | 1949 | 1989 | 1967 | 1950 |
| MIN | 192 | 282 | 368 | 349 | 660 | 596 | 553 | 489 | 351 | 238 | 213 | 208 |
| (WY) | 1955 | 1955 | 1966 | 1981 | 1986 | 1988 | 1986 | 1986 | 1988 | 1986 | 1986 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1944 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 438516 | | 362670 | | | |
| ANNUAL MEAN | 1201 | | 991 | | 1061 | |
| HIGHEST ANNUAL MEAN | | | | | 1565 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 495 | 1986 |
| HIGHEST DAILY MEAN | 8310 | Mar 30 | 4690 | Aug 28 | 17200 | Oct 5 1964 |
| LOWEST DAILY MEAN | 382 | Nov 16 | 368 | Aug 4 | 71 | Nov 7 1954 |
| ANNUAL SEVEN-DAY MINIMUM | 397 | Nov 12 | 397 | Nov 12 | 142 | Oct 2 1986 |
| INSTANTANEOUS PEAK FLOW | | | 6920 | Aug 28 | 22100 | Oct 5 1964 |
| INSTANTANEOUS PEAK STAGE | | | 6.53 | Aug 28 | 12.87 | Oct 5 1964 |
| INSTANTANEOUS LOW FLOW | | | 230 | Aug 4 | 52* | Nov 7 1954 |
| ANNUAL RUNOFF (CFSM) | 2.76 | | 2.27 | | 2.43 | |
| ANNUAL RUNOFF (INCHES) | 37.41 | | 30.94 | | 33.08 | |
| 10 PERCENT EXCEEDS | 2010 | | 1750 | | 1910 | |
| 50 PERCENT EXCEEDS | 1020 | | 835 | | 814 | |
| 90 PERCENT EXCEEDS | 451 | | 434 | | 366 | |

* See REMARKS.

TENNESSEE RIVER BASIN

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 Forest Service Road 437 in Nantahala National Forest, 300 ft upstream from Roaring Fork, 0.2 mi downstream of Buck Creek, 4 mi northwest of town of Rainbow Springs, and at mile 34.3.

DRAINAGE AREA.--51.9 $mi^2$.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 973: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 3,072.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional slight diurnal fluctuation at low flow caused by small ponds on tributaries upstream from station. Maximum discharge, 6,300 $ft^3/s$, from rating curve extended above 3,000 $ft^3/s$ on basis of slope-area measurement of peak flow. Minimum discharge occurred several days in October 1987. Minimum discharge for current water year also occurred Nov. 16, 17, and 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 84 | 70 | 251 | 201 | 175 | 271 | 270 | 189 | 134 | 182 | 84 | 189 |
| 2 | 82 | 72 | 464 | 196 | 169 | 254 | 254 | 183 | 129 | 176 | 75 | 170 |
| 3 | 81 | 60 | 901 | 460 | 165 | 239 | 243 | 177 | 193 | 171 | 71 | 159 |
| 4 | 79 | 57 | 544 | 321 | 161 | 227 | 232 | 171 | 496 | 144 | 71 | 183 |
| 5 | 80 | 57 | 380 | 283 | 158 | 222 | 221 | 168 | 314 | 134 | 73 | 305 |
| 6 | 78 | 57 | 310 | 261 | 153 | 364 | 213 | 173 | 250 | 133 | 104 | 384 |
| 7 | 75 | 56 | 271 | 241 | 150 | 304 | 215 | 206 | 224 | 124 | 85 | 249 |
| 8 | 75 | 55 | 245 | 226 | 145 | 265 | 203 | 351 | 219 | 119 | 76 | 224 |
| 9 | 74 | 55 | 311 | 227 | 140 | 250 | 194 | 263 | 302 | 113 | 71 | 201 |
| 10 | 74 | 59 | 307 | 210 | 138 | 405 | 188 | 228 | 265 | 111 | 69 | 186 |
| 11 | 73 | 56 | 255 | 201 | 137 | 331 | 232 | 212 | 277 | 108 | 67 | 183 |
| 12 | 71 | 54 | 234 | 196 | 134 | 300 | 219 | 200 | 275 | 105 | 68 | 162 |
| 13 | 69 | 53 | 221 | 221 | 147 | 280 | 193 | 205 | 281 | 102 | 139 | 153 |
| 14 | 68 | 52 | 307 | 253 | 143 | 263 | 185 | 191 | 288 | 102 | 94 | 144 |
| 15 | 89 | 52 | 242 | 206 | 441 | 250 | 220 | 183 | 287 | 112 | 178 | 139 |
| 16 | 74 | 52 | 224 | 196 | 267 | 234 | 220 | 174 | 288 | 111 | 96 | 131 |
| 17 | 69 | 51 | 212 | e191 | 227 | 226 | 193 | 167 | 255 | 107 | 113 | 126 |
| 18 | 68 | 51 | 202 | 183 | 216 | 322 | 186 | 170 | 237 | 104 | 103 | 130 |
| 19 | 67 | 61 | 192 | 176 | 221 | 588 | 184 | 230 | 224 | 96 | 82 | 136 |
| 20 | 67 | 62 | 184 | 170 | 199 | 405 | 273 | 217 | 209 | 92 | 78 | 121 |
| 21 | 65 | 470 | 184 | 167 | 191 | 345 | 514 | 189 | 199 | 88 | 84 | 131 |
| 22 | 65 | 866 | 178 | 163 | 183 | 393 | 357 | 174 | 189 | 95 | 347 | 141 |
| 23 | 65 | 290 | 248 | 367 | 269 | 498 | 298 | 165 | 181 | 116 | 264 | 128 |
| 24 | 63 | 195 | 218 | 276 | 225 | 383 | 274 | 158 | 173 | 108 | 215 | 114 |
| 25 | 63 | 159 | 196 | 230 | 402 | 364 | 262 | 154 | 166 | 92 | 161 | 108 |
| 26 | 62 | 139 | 187 | 215 | 543 | 382 | 237 | 150 | 161 | 93 | 136 | 105 |
| 27 | 61 | 127 | 180 | 204 | 393 | 331 | 225 | 144 | 156 | 87 | 161 | 123 |
| 28 | 60 | 119 | 285 | 204 | 333 | 306 | 215 | 141 | 149 | 83 | 967 | 174 |
| 29 | 60 | 113 | 252 | 196 | 298 | 289 | 204 | 162 | 145 | 80 | 386 | 168 |
| 30 | 58 | 119 | 224 | 189 | --- | 307 | 197 | 166 | 146 | 77 | 271 | 125 |
| 31 | 58 | --- | 209 | 183 | --- | 295 | --- | 141 | --- | 92 | 220 | --- |
| TOTAL | 2177 | 3739 | 8618 | 7013 | 6523 | 9893 | 7121 | 5802 | 6812 | 3457 | 5009 | 4992 |
| MEAN | 70.2 | 125 | 278 | 226 | 225 | 319 | 237 | 187 | 227 | 112 | 162 | 166 |
| MAX | 89 | 866 | 901 | 460 | 543 | 588 | 514 | 351 | 496 | 182 | 967 | 384 |
| MIN | 58 | 51 | 178 | 163 | 134 | 222 | 184 | 141 | 129 | 77 | 67 | 105 |
| CFSM | 1.35 | 2.40 | 5.36 | 4.36 | 4.33 | 6.15 | 4.57 | 3.61 | 4.38 | 2.15 | 3.11 | 3.21 |
| IN. | 1.56 | 2.68 | 6.18 | 5.03 | 4.68 | 7.09 | 5.10 | 4.16 | 4.88 | 2.48 | 3.59 | 3.58 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 114 | 150 | 224 | 277 | 324 | 321 | 279 | 217 | 170 | 140 | 122 | 108 |
| MAX | 415 | 376 | 453 | 568 | 657 | 572 | 493 | 491 | 485 | 335 | 270 | 374 |
| (WY) | 1965 | 1978 | 1983 | 1974 | 1957 | 1979 | 1979 | 1976 | 1989 | 1989 | 1969 | 1950 |
| MIN | 42.2 | 56.6 | 77.2 | 84.4 | 115 | 138 | 118 | 96.8 | 67.1 | 59.0 | 49.5 | 41.8 |
| (WY) | 1955 | 1955 | 1959 | 1981 | 1941 | 1988 | 1986 | 1986 | 1986 | 1986 | 1986 | 1986 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1941 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 78883 | | 71156 | | | |
| ANNUAL MEAN | 216 | | 194 | | 203 | |
| HIGHEST ANNUAL MEAN | | | | | 280 | 1949 |
| LOWEST ANNUAL MEAN | | | | | 109 | 1986 |
| HIGHEST DAILY MEAN | 970 | Mar 29 | 967 | Aug 28 | 3060 | Jun 16 1949 |
| LOWEST DAILY MEAN | 51 | Nov 17 | 51 | Nov 17 | 30 | Oct 6 1986 |
| ANNUAL SEVEN-DAY MINIMUM | 52 | Nov 12 | 52 | Nov 12 | 31 | Oct 2 1986 |
| INSTANTANEOUS PEAK FLOW | | | 2040 | Aug 28 | 6300* | Jun 16 1949 |
| INSTANTANEOUS PEAK STAGE | | | 4.71 | Aug 28 | 9.70 | Jun 16 1949 |
| INSTANTANEOUS LOW FLOW | | | 51* | Nov 15 | 30* | Oct 4 1987 |
| ANNUAL RUNOFF (CFSM) | 4.16 | | 3.75 | | 3.92 | |
| ANNUAL RUNOFF (INCHES) | 56.54 | | 51.00 | | 53.20 | |
| 10 PERCENT EXCEEDS | 358 | | 312 | | 370 | |
| 50 PERCENT EXCEEDS | 200 | | 183 | | 161 | |
| 90 PERCENT EXCEEDS | 71 | | 69 | | 69 | |

* See REMARKS.

TENNESSEE RIVER BASIN

## 03512000 OCONALUFTEE RIVER AT BIRDTOWN, NC

LOCATION.--Lat 35°27'41", long 83°21'13", Swain County, Hydrologic Unit 06010203, in Cherokee Indian Reservation on left bank 200 ft upstream from bridge on Secondary Road 1359, 0.5 mi south of Birdtown, 0.6 mi downstream of Adams Creek, 0.6 mi upstream from Goose Creek, 2.2 mi southwest of Cherokee, and at mile 3.1.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--July 1945 to September 1946, July 1948 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,843.30 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, nonrecording gage at same site and datum. Tennessee Valley Authority has satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum gage height, 12.46 ft, from floodmarks. Minimum discharge also occurred Nov. 9, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Nov. 19, 1906, and Mar. 27, 1913, reached stages of 18 and 14.5 ft, respectively, from studies by Tennessee Valley Authority; discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 247 | 168 | 1240 | 456 | 388 | 739 | 683 | 422 | 398 | 537 | 187 | 397 |
| 2 | 241 | 179 | 3110 | 442 | 364 | 654 | 619 | 405 | 382 | 494 | 176 | 350 |
| 3 | 239 | 159 | 3230 | 668 | 352 | 597 | 573 | 386 | 379 | 460 | 168 | 355 |
| 4 | 223 | 154 | 1830 | 844 | 346 | 554 | 545 | 368 | 794 | 391 | 172 | 355 |
| 5 | 224 | 149 | 1080 | 793 | 344 | 517 | 506 | 361 | 725 | 330 | 168 | 403 |
| 6 | 217 | 151 | 810 | 647 | 331 | 738 | 478 | 355 | 580 | 347 | 214 | 450 |
| 7 | 200 | 151 | 662 | 568 | 322 | 789 | 472 | 425 | 512 | 309 | 208 | 361 |
| 8 | 200 | 157 | 578 | 520 | 310 | 619 | 458 | 738 | 482 | 312 | 178 | 418 |
| 9 | 199 | 158 | 687 | 496 | 291 | 560 | 448 | 610 | 693 | 281 | 199 | 332 |
| 10 | 198 | 164 | 981 | 470 | 298 | 984 | 439 | 629 | 714 | 260 | 195 | 1030 |
| 11 | 197 | 157 | 665 | 438 | 292 | 1040 | 529 | 704 | 659 | 251 | 174 | 1170 |
| 12 | 191 | 147 | 584 | 420 | 289 | 795 | 483 | 642 | 726 | 232 | 285 | 456 |
| 13 | 186 | 143 | 540 | 441 | 310 | 709 | 459 | 595 | 640 | 202 | 301 | 381 |
| 14 | 185 | 142 | 707 | 532 | 346 | 640 | 420 | 632 | 698 | 212 | 342 | 349 |
| 15 | 209 | 140 | 580 | 441 | 932 | 587 | 423 | 601 | 734 | 212 | 1360 | 320 |
| 16 | 205 | 140 | 525 | 396 | 705 | 540 | 406 | 587 | 654 | 217 | 571 | 305 |
| 17 | 187 | 138 | 494 | 420 | 544 | 513 | 386 | 510 | 600 | 220 | 429 | 288 |
| 18 | 179 | 139 | 463 | 389 | 507 | 583 | 377 | 493 | 550 | 261 | 358 | 293 |
| 19 | 175 | 145 | 425 | 368 | 574 | 1150 | 358 | 559 | 522 | 215 | 307 | 307 |
| 20 | 175 | 151 | 405 | 357 | 492 | 1180 | 380 | 589 | 486 | 203 | 274 | 343 |
| 21 | 173 | 1050 | 403 | 355 | 456 | 842 | 764 | 557 | 447 | 198 | 287 | 285 |
| 22 | 173 | 3140 | 394 | 349 | 431 | 816 | 627 | 501 | 434 | 197 | 446 | 279 |
| 23 | 171 | 917 | 579 | 942 | 537 | 913 | 499 | 462 | 406 | 270 | 511 | 306 |
| 24 | 170 | 539 | 664 | 774 | 650 | 761 | 465 | 446 | 388 | 416 | 497 | 274 |
| 25 | 169 | 416 | 503 | 618 | 1320 | 733 | 468 | 463 | 366 | 251 | 398 | 257 |
| 26 | 167 | 351 | 460 | 593 | 2790 | 781 | 438 | 414 | 399 | 217 | 348 | 243 |
| 27 | 166 | 314 | 437 | 509 | 1490 | 737 | 422 | 406 | 485 | 214 | 510 | 279 |
| 28 | 165 | 286 | 543 | 480 | 1060 | 658 | 416 | 400 | 388 | 212 | 1710 | 313 |
| 29 | 164 | 269 | 614 | 452 | 884 | 624 | 408 | 432 | 375 | 195 | 868 | 330 |
| 30 | 159 | 255 | 522 | 432 | --- | 657 | 416 | 508 | 433 | 188 | 592 | 271 |
| 31 | 158 | --- | 482 | 414 | --- | 831 | --- | 436 | --- | 190 | 453 | --- |
| TOTAL | 5912 | 10569 | 25197 | 16024 | 17955 | 22841 | 14365 | 15636 | 16049 | 8494 | 12886 | 11500 |
| MEAN | 191 | 352 | 813 | 517 | 619 | 737 | 479 | 504 | 535 | 274 | 416 | 383 |
| MAX | 247 | 3140 | 3230 | 942 | 2790 | 1180 | 764 | 738 | 794 | 537 | 1710 | 1170 |
| MIN | 158 | 138 | 394 | 349 | 289 | 513 | 358 | 355 | 366 | 188 | 168 | 243 |
| CFSM | 1.04 | 1.91 | 4.42 | 2.81 | 3.36 | 4.00 | 2.60 | 2.74 | 2.91 | 1.49 | 2.26 | 2.08 |
| IN. | 1.20 | 2.14 | 5.09 | 3.24 | 3.63 | 4.62 | 2.90 | 3.16 | 3.24 | 1.72 | 2.61 | 2.32 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 263 | 374 | 575 | 697 | 805 | 874 | 713 | 532 | 414 | 380 | 328 | 256 |
| MAX | 645 | 777 | 1266 | 1428 | 1700 | 1714 | 1265 | 1202 | 1136 | 938 | 694 | 584 |
| (WY) | 1990 | 1958 | 1962 | 1974 | 1990 | 1963 | 1964 | 1984 | 1989 | 1989 | 1971 | 1989 |
| MIN | 94.5 | 125 | 162 | 170 | 392 | 330 | 277 | 239 | 175 | 169 | 161 | 121 |
| (WY) | 1955 | 1988 | 1966 | 1981 | 1978 | 1988 | 1986 | 1986 | 1988 | 1952 | 1987 | 1954 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1945 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 214829 | | 177428 | | | |
| ANNUAL MEAN | 589 | | 485 | | 516 | |
| HIGHEST ANNUAL MEAN | | | | | 704 | 1989 |
| LOWEST ANNUAL MEAN | | | | | 274 | 1986 |
| HIGHEST DAILY MEAN | 4010 | Feb 20 | 3230 | Dec 3 | 8470 | Mar 12 1963 |
| LOWEST DAILY MEAN | 138 | Nov 17 | 138 | Nov 17 | 80 | Nov 8 1987 |
| ANNUAL SEVEN-DAY MINIMUM | 141 | Nov 13 | 141 | Nov 13 | 82 | Oct 16 1954 |
| INSTANTANEOUS PEAK FLOW | | | 10700 | Sep 10 | 15900 | Dec 30 1969 |
| INSTANTANEOUS PEAK STAGE | | | 9.44 | Sep 10 | 12.46* | Dec 30 1969 |
| INSTANTANEOUS LOW FLOW | | | 132 | Nov 19 | 79* | Nov 8 1987 |
| ANNUAL RUNOFF (CFSM) | 3.20 | | 2.63 | | 2.80 | |
| ANNUAL RUNOFF (INCHES) | 43.43 | | 35.87 | | 38.10 | |
| 10 PERCENT EXCEEDS | 982 | | 776 | | 937 | |
| 50 PERCENT EXCEEDS | 483 | | 421 | | 386 | |
| 90 PERCENT EXCEEDS | 187 | | 176 | | 167 | |

* See REMARKS.

## 03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC

LOCATION.--Lat 35°25'40", long 83°26'51", Swain County, Hydrologic Unit 06010203, on left bank 400 ft downstream of bridge on Secondary Road 1364, Everett Street, in Bryson City, 0.6 mi downstream of Deep Creek, and at mile 12.6.

DRAINAGE AREA.--655 $mi^2$.

PERIOD OF RECORD.--October 1897 to December 1981, October 1983 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 523: 1916, 1918-20. WSP 823: Drainage area. WSP 1306: 1898-1913. WSP 1336: 1907, 1915(M), 1916-20, 1921-29(M), 1933-34(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,714.54 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Nov. 7, 1897, to Feb. 2, 1914, and May 18, 1920, to June 27, 1927, nonrecording gage at bridge 400 ft upstream at datum of 1716.54 ft. Feb. 3, 1914, to May 17, 1920, water-stage recorder at site 200 ft upstream at datum of 1716.54 ft. June 28, 1927, to Sept. 30, 1960, water-stage recorder at present site at datum of 1716.54 ft. Tennessee Valley Authority has landline telemetry (rainfall and gage-height) at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation caused by powerplants upstream from station. Flow regulated by Thorpe Reservoir, Cedar Cliff Lake, Bear Creek Lake, Tennessee Creek project lakes (stations 03507111, 03507131), and two small reservoirs with a combined capacity of 250 $ft^3/s$-day. Maximum discharge: 61,600 $ft^3/s$, from rating curve extended above 28,000 $ft^3/s$ on basis of slope-area measurement of peak flow. Minimum discharge: 27 $ft^3/s$, Sept. 10, 1925, and minimum daily discharge: 31 $ft^3/s$, Sept. 9, 10, 1925, caused by filling reservoir on Oconaluftee River; minimum daily discharge during normal regulation: 186 $ft^3/s$, Oct. 13, 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1840, Mar. 6, 1867, and June 1876 reached stages of 22, 19, and 19 ft, respectively, present site and datum, from studies by Tennessee Valley Authority; discharge not determined. The flood in May 1840 exceeded all other observed floods at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 966 | 741 | 2530 | 1330 | 1140 | 2410 | 1960 | 1160 | 971 | 1270 | 1270 | 1810 |
| 2 | 853 | 727 | 6480 | 1220 | 1240 | 2260 | 1690 | 1140 | 1300 | 1360 | 1060 | 1720 |
| 3 | 852 | 483 | 7190 | 2670 | 1080 | 2070 | 1660 | 1230 | 1040 | 1580 | 1030 | 1340 |
| 4 | 833 | 490 | 4870 | 2660 | 1340 | 2040 | 1500 | 1040 | 2470 | 1430 | 1110 | 1290 |
| 5 | 768 | 761 | 3330 | 2210 | 1300 | 1690 | 1410 | 1520 | 2370 | 1080 | 1130 | 1410 |
| 6 | 592 | 782 | 2540 | 2170 | 1350 | 2460 | 1580 | 1480 | 1960 | 919 | 1190 | 1940 |
| 7 | 695 | 693 | 2340 | 1810 | 1070 | 2350 | 1370 | 1490 | 1710 | 1100 | 886 | 1680 |
| 8 | 805 | 662 | 1840 | 1550 | 895 | 1910 | 1340 | 2440 | 1300 | 987 | 688 | 1720 |
| 9 | 777 | 672 | 2180 | 1550 | 816 | 1790 | 1340 | 2290 | 2290 | 898 | 592 | 1260 |
| 10 | 768 | 502 | 2580 | 1310 | 957 | 2640 | 1220 | 2120 | 2540 | 1000 | 582 | 1610 |
| 11 | 758 | 534 | 1780 | 1420 | 1120 | 2800 | 1650 | 2200 | 2500 | 1030 | 868 | 2500 |
| 12 | 728 | 711 | 1730 | 1070 | 1020 | 2310 | 1660 | 1600 | 2780 | 907 | 903 | 1250 |
| 13 | 520 | 709 | 1640 | 1530 | 1060 | 2050 | 1580 | 1500 | 2270 | e794 | 997 | 997 |
| 14 | 529 | 701 | 1850 | 1510 | 1150 | 1990 | 1420 | 1500 | 2380 | e807 | 1130 | 891 |
| 15 | 732 | 719 | 1800 | 1240 | 2020 | 1860 | 1270 | 1540 | 2420 | e836 | 2390 | 1170 |
| 16 | 764 | 650 | 1670 | 1240 | 1840 | 1890 | 1210 | 1540 | 2230 | e868 | 1140 | 1390 |
| 17 | 715 | 454 | 1450 | 1260 | 1640 | 1690 | 1190 | 1250 | 1710 | e818 | 960 | 1340 |
| 18 | 687 | 448 | 1390 | 1070 | 1880 | 1610 | 1150 | 1460 | 1880 | 1030 | 1070 | 1340 |
| 19 | 694 | 767 | 1700 | 942 | 1850 | 2740 | 1050 | 1850 | 1870 | 1010 | 878 | 1330 |
| 20 | 517 | 672 | 1790 | 921 | 1430 | 2930 | 1150 | 2190 | 1670 | 657 | 820 | 1290 |
| 21 | 517 | 2280 | 1770 | 1140 | 1340 | 2520 | 2540 | 1620 | 1360 | 792 | 1080 | 1340 |
| 22 | 660 | 6810 | 1450 | 1100 | 1260 | 2430 | 2410 | 1490 | 1490 | 771 | 1850 | 1030 |
| 23 | 668 | 2900 | 1580 | 2340 | 1680 | 2760 | 1990 | 1440 | 1340 | 961 | 2270 | 1020 |
| 24 | 665 | 2080 | 1980 | 2670 | 2100 | 2210 | 1550 | 1280 | 1070 | 1340 | 2120 | 822 |
| 25 | 663 | 1820 | 1580 | 1990 | 3140 | 2180 | 1840 | 1320 | 1320 | 912 | 1800 | 704 |
| 26 | 661 | 1690 | 1500 | 1870 | 6800 | 2720 | 1740 | 1260 | 1250 | 663 | 1520 | 715 |
| 27 | 493 | 1590 | 1190 | 1810 | 4330 | 2530 | 1410 | 1250 | 1340 | 657 | 1750 | 745 |
| 28 | 488 | 1310 | 1640 | 1450 | 3220 | 2360 | 1490 | 1160 | 1130 | 881 | 4270 | 1300 |
| 29 | 639 | 1470 | 2090 | 1450 | 2690 | 2330 | 1440 | 1200 | 1100 | 916 | 2850 | 1220 |
| 30 | 673 | 1140 | 1700 | 1300 | --- | 2410 | 1410 | 1470 | 1180 | 869 | 2260 | 855 |
| 31 | 716 | --- | 1410 | 1430 | --- | 2620 | --- | 1350 | --- | 1190 | 2020 | --- |
| TOTAL | 21396 | 35968 | 70570 | 49233 | 52758 | 70560 | 46220 | 47380 | 52241 | 30333 | 44484 | 39029 |
| MEAN | 690 | 1199 | 2276 | 1588 | 1819 | 2276 | 1541 | 1528 | 1741 | 978 | 1435 | 1301 |
| MAX | 966 | 6810 | 7190 | 2670 | 6800 | 2930 | 2540 | 2440 | 2780 | 1580 | 4270 | 2500 |
| MIN | 488 | 448 | 1190 | 921 | 816 | 1610 | 1050 | 1040 | 971 | 657 | 582 | 704 |

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 922 | 1047 | 1573 | 1988 | 2281 | 2566 | 2211 | 1736 | 1393 | 1244 | 1160 | 952 |
| MAX | 3654 | 2899 | 3704 | 4819 | 5847 | 6504 | 4843 | 3744 | 3199 | 3378 | 4251 | 3589 |
| (WY) | 1899 | 1907 | 1933 | 1937 | 1899 | 1899 | 1920 | 1984 | 1909 | 1916 | 1901 | 1898 |
| MIN | 347 | 378 | 457 | 599 | 736 | 926 | 841 | 602 | 531 | 503 | 220 | 195 |
| (WY) | 1932 | 1932 | 1940 | 1940 | 1941 | 1988 | 1986 | 1941 | 1941 | 1925 | 1925 | 1925 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1898 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 677222 | | 560172 | | | |
| ANNUAL MEAN | 1855 | | 1531 | | 1587 | |
| HIGHEST ANNUAL MEAN | | | | | 2576 | 1899 |
| LOWEST ANNUAL MEAN | | | | | 879 | 1986 |
| HIGHEST DAILY MEAN | 9000 | Feb 20 | 7190 | Dec 3 | 28000 | Mar 4 1917 |
| LOWEST DAILY MEAN | 448 | Nov 18 | 448 | Nov 18 | 31* | Sep 9 1925 |
| ANNUAL SEVEN-DAY MINIMUM | 611 | Oct 23 | 611 | Oct 23 | 97 | Sep 4 1925 |
| INSTANTANEOUS PEAK FLOW | | | 11700 | Nov 22 | 61600* | Aug 30 1940 |
| INSTANTANEOUS PEAK STAGE | | | 7.77 | Nov 22 | 15.96 | Aug 30 1940 |
| INSTANTANEOUS LOW FLOW | | | 435 | Nov 18 | 27* | Sep 10 1925 |
| 10 PERCENT EXCEEDS | 2930 | | 2430 | | 2800 | |
| 50 PERCENT EXCEEDS | 1640 | | 1340 | | 1250 | |
| 90 PERCENT EXCEEDS | 730 | | 707 | | 604 | |

* See REMARKS.

TENNESSEE RIVER BASIN

03548500 HIWASSEE RIVER ABOVE MURPHY, NC

LOCATION.--Lat 35°04'49", long 84°00'10", Cherokee County, Hydrologic Unit 06020002, on right bank on U.S. Highway 64, 600 ft upstream from Will Scott Creek, 2.0 mi southeast of Murphy, and at mile 99.1.

DRAINAGE AREA.--406 mi$^2$.

PERIOD OF RECORD.--June 1896 to August 1897 (gage heights only), October 1897 to current year. Published as "at Murphy" 1897-1940. Records published for both sites August 1939 to April 1940. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORD.--WSP 583: 1899(M). WSP 973: Drainage area. WSP 1003: 1943. WSP 1306: 1901-2, 1904-17, 1919(M), 1922(M), 1924-26(M). WSP 1706: 1899, 1907.

GAGE.--Water-stage recorder. Datum of gage is 1,538.23 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to Jan. 30, 1921, nonrecording gage at bridge 2.8 mi downstream at 1,507.83 ft. Jan. 30, 1921, to Nov. 8, 1926, nonrecording gage 2.8 mi downstream at 1,509.83 ft. Nov. 9, 1926, to Apr. 30, 1940, water-stage recorder 2.8 mi downstream at 1,510.03 ft.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation since 1924 caused by Mission powerplant at Andrews Dam 7 mi upstream, normal regulated storage, about 75 ft$^3$/s-day. Flow regulated since 1942 by Chatuge Lake (station 03546500) 22 mi upstream. Maximum discharge before regulation: 23,100 ft$^3$/s, Mar. 19, 1899, from rating curve extended above 5,000 ft$^3$/s; gage height: 18.4 ft, from graph based on gage readings, site and datum then in use. Minimum daily discharge before regulation: 10 ft$^3$/s, Dec. 3, 1924, result of freezeup and filling of Lake Andrews. Minimum discharge for current year also occurred July 21.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed is that of Mar. 19, 1899.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1060 | 824 | 535 | 1630 | 510 | 1000 | 852 | 1090 | 398 | 279 | 1130 | 656 |
| 2 | 880 | 425 | 1790 | 1580 | 518 | 877 | 816 | 912 | 531 | 541 | 1040 | 730 |
| 3 | 1020 | 635 | 3160 | 2430 | 873 | 825 | 763 | 498 | 599 | 554 | 735 | 746 |
| 4 | 895 | 698 | 1870 | 2110 | 1030 | 762 | 730 | 649 | 1010 | 394 | 690 | 902 |
| 5 | 833 | 873 | 1120 | 1900 | 1010 | 638 | 694 | 520 | 754 | 304 | 686 | 1890 |
| 6 | 715 | 781 | 972 | 1950 | 939 | 864 | 660 | 741 | 694 | 311 | 718 | 1650 |
| 7 | 861 | 793 | 1180 | 1960 | 938 | 856 | 663 | 692 | 564 | 276 | 761 | 1320 |
| 8 | 942 | 867 | 686 | 1820 | 690 | 777 | 639 | 787 | 1160 | 251 | 853 | 887 |
| 9 | 869 | 1060 | 694 | 1860 | 444 | 746 | 617 | 724 | 1580 | 232 | 1020 | 814 |
| 10 | 992 | 782 | 1180 | 1820 | 656 | 1220 | 558 | 560 | 1600 | 229 | 736 | 767 |
| 11 | 903 | 896 | 982 | 916 | 782 | 1880 | 617 | 617 | 1570 | 218 | 729 | 772 |
| 12 | 697 | 833 | 1320 | 556 | 780 | 1590 | 799 | 579 | 1970 | 207 | 697 | 1200 |
| 13 | 546 | 974 | 1080 | 722 | 970 | 1550 | 796 | 605 | 1930 | 192 | 763 | 1090 |
| 14 | 817 | 887 | 1250 | 1060 | 894 | 1360 | 641 | 600 | 1190 | 194 | 794 | 768 |
| 15 | 726 | 899 | 1330 | 1140 | 1470 | 1080 | 552 | 465 | 1280 | 239 | 1220 | 722 |
| 16 | 663 | 742 | 1520 | 1070 | 1250 | 1330 | 871 | 521 | 1410 | 232 | 1190 | 699 |
| 17 | 638 | 292 | 1650 | 1000 | 909 | 1190 | 680 | 509 | 1340 | 207 | 796 | 679 |
| 18 | 585 | 842 | 1500 | 881 | 800 | 1170 | 595 | 631 | 1450 | 205 | 721 | 698 |
| 19 | 574 | 838 | 1590 | 608 | 657 | 2350 | 651 | 1000 | 1500 | 192 | 710 | 1140 |
| 20 | 603 | 916 | 1520 | 728 | 792 | 1980 | 655 | 759 | 815 | 179 | 708 | 1020 |
| 21 | 349 | 1350 | 1420 | 825 | 645 | 1770 | 868 | 587 | 447 | 171 | 712 | 732 |
| 22 | 631 | 2670 | 1580 | 620 | 593 | 1540 | 906 | 477 | 422 | 198 | 1340 | 739 |
| 23 | 634 | 1490 | 1650 | 1150 | 694 | 2260 | 649 | 658 | 422 | 215 | 1250 | 781 |
| 24 | 624 | 1280 | 1770 | 1390 | 815 | 1560 | 739 | 832 | 484 | 281 | 803 | 708 |
| 25 | 676 | 1130 | 1670 | 881 | 1480 | 1090 | 752 | 805 | 963 | 210 | 749 | 660 |
| 26 | 604 | 1040 | 1620 | 733 | 2650 | 1190 | 652 | 1020 | 1310 | 190 | 712 | 1070 |
| 27 | 494 | 1100 | 1590 | 660 | 1760 | 1030 | 647 | 757 | 771 | 188 | 717 | 1100 |
| 28 | 663 | 814 | 1460 | 575 | 1320 | 926 | 819 | 567 | 376 | 704 | 1510 | 687 |
| 29 | 849 | 481 | 1160 | 657 | 1040 | 792 | 1200 | 457 | 367 | 669 | 1550 | 739 |
| 30 | 669 | 369 | 1510 | 576 | --- | 875 | 1150 | 397 | 240 | 675 | 1270 | 677 |
| 31 | 626 | --- | 1770 | 548 | --- | 1080 | --- | 372 | --- | 1140 | 847 | --- |
| TOTAL | 22638 | 27581 | 44129 | 36356 | 27909 | 38158 | 22231 | 20388 | 29147 | 10077 | 28157 | 27043 |
| MEAN | 730 | 919 | 1424 | 1173 | 962 | 1231 | 741 | 658 | 972 | 325 | 908 | 901 |
| MAX | 1060 | 2670 | 3160 | 2430 | 2650 | 2350 | 1200 | 1090 | 1970 | 1140 | 1550 | 1890 |
| MIN | 349 | 292 | 535 | 548 | 444 | 638 | 552 | 372 | 240 | 171 | 686 | 656 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 480 | 535 | 912 | 1084 | 1208 | 1089 | 1040 | 945 | 910 | 897 | 865 | 714 |
| MAX | 1530 | 1654 | 2268 | 2462 | 3076 | 2784 | 2155 | 2033 | 1852 | 1517 | 1530 | 1628 |
| (WY) | 1990 | 1990 | 1968 | 1974 | 1990 | 1990 | 1953 | 1953 | 1989 | 1989 | 1967 | 1943 |
| MIN | 98.8 | 106 | 214 | 223 | 408 | 373 | 219 | 212 | 237 | 228 | 120 | 141 |
| (WY) | 1953 | 1954 | 1948 | 1948 | 1954 | 1988 | 1986 | 1988 | 1953 | 1953 | 1953 | 1953 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1942 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 395031 | | 333814 | | | |
| ANNUAL MEAN | 1082 | | 912 | | 889 | |
| HIGHEST ANNUAL MEAN | | | | | 1414 | 1990 |
| LOWEST ANNUAL MEAN | | | | | 397 | 1988 |
| HIGHEST DAILY MEAN | 4250 | Feb 20 | 3160 | Dec 3 | 11600 | Feb 16 1990 |
| LOWEST DAILY MEAN | 292 | Nov 17 | 171 | Jul 21 | 62 | Oct 19 1952 |
| ANNUAL SEVEN-DAY MINIMUM | 462 | Jun 6 | 195 | Jul 17 | 80 | Oct 18 1952 |
| INSTANTANEOUS PEAK FLOW | | | 5250 | Dec 3 | 18600 | May 28 1973 |
| INSTANTANEOUS PEAK STAGE | | | 7.32 | Dec 3 | 13.88 | May 28 1973 |
| INSTANTANEOUS LOW FLOW | | | 163* | Oct 27 | NOT DETERMINED | |
| 10 PERCENT EXCEEDS | 1640 | | 1580 | | 1600 | |
| 50 PERCENT EXCEEDS | 992 | | 793 | | 790 | |
| 90 PERCENT EXCEEDS | 569 | | 424 | | 208 | |

* Regulated period only (1942-1992). See REMARKS.

## 03550000 VALLEY RIVER AT TOMOTLA, NC

LOCATION.--Lat 35°08'20", long 83°58'50", Cherokee County, Hydrologic Unit 06020002, on right bank at site of former bridge on Secondary Road 1373 at Tomotla, 600 ft upstream from bridge on U.S. Highways 19 and 74, 0.2 mi upstream from Roger Creek, 4.7 mi northeast of Murphy, and at mile 6.6.

DRAINAGE AREA.--104 $mi^2$.

PERIOD OF RECORD.--June 1904 to December 1909, January 1914 to April 1917, October 1918 to current year.

REVISED RECORDS.--WSP 503: 1905-9, 1915-17. WSP 823: Drainage area. WSP 1306: 1917(M), 1920(M), 1922(M), 1925(M), 1930(M), 1933(M). WSP 1626: 1907(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,556.46 ft above National Geodetic Vertical Datum of 1929 (levels by Tennessee Valley Authority). Prior to May 11, 1934, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Record good. Maximum discharge: 18,000 $ft^3/s$, from flood profile by Tennessee Valley Authority, from rating curve extended above 5,800 $ft^3/s$ on basis of slope-conveyance study. Minimum discharge occurred several days in August and September 1925. Minimum discharge for current water year also occurred November 18, 19, and 20.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1898 reached a stage of 21.2 ft, from floodmark by Tennessee Valley Authority; discharge, about 20,000 $ft^3/s$.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 106 | 85 | 220 | 352 | 250 | 433 | 414 | 249 | 140 | 142 | 106 | 142 |
| 2 | 104 | 89 | 815 | 326 | 237 | 393 | 388 | 237 | 135 | 195 | 93 | 126 |
| 3 | 102 | 77 | 1550 | 837 | 230 | 363 | 366 | 227 | 150 | 219 | 87 | 120 |
| 4 | 99 | 75 | 883 | 656 | 223 | 342 | 349 | 215 | 293 | 172 | 84 | 133 |
| 5 | 96 | 74 | 497 | 511 | 216 | 321 | 329 | 212 | 267 | 136 | 84 | 233 |
| 6 | 92 | 74 | 385 | 435 | 208 | 382 | 312 | 205 | 205 | 153 | 92 | 330 |
| 7 | 89 | 74 | 326 | 387 | 201 | 361 | 313 | 224 | 176 | 132 | 95 | 217 |
| 8 | 89 | 78 | 283 | 352 | 193 | 332 | 297 | 318 | 176 | 117 | 86 | 178 |
| 9 | 88 | 76 | 459 | 337 | 184 | 311 | 281 | 310 | 207 | 108 | 86 | 152 |
| 10 | 88 | 76 | 623 | 312 | 180 | 592 | 269 | 264 | 209 | 103 | 84 | 146 |
| 11 | 87 | 74 | 449 | 287 | 176 | 510 | 346 | 240 | 200 | 99 | 81 | 152 |
| 12 | 86 | 72 | 381 | 273 | 174 | 432 | 353 | 225 | 223 | 95 | 76 | 130 |
| 13 | 83 | 72 | 341 | 297 | 186 | 390 | 311 | 221 | 219 | 91 | 112 | 120 |
| 14 | 83 | 71 | 440 | 301 | 192 | 360 | 292 | 209 | 220 | 95 | 102 | 112 |
| 15 | 96 | 70 | 381 | 270 | 700 | 337 | 313 | 199 | 208 | 148 | 280 | 106 |
| 16 | 91 | 71 | 342 | 251 | 545 | 314 | 319 | 187 | 189 | 119 | 143 | 99 |
| 17 | 85 | 71 | 311 | 239 | 409 | 297 | 293 | 178 | 171 | 119 | 126 | 95 |
| 18 | 84 | 70 | 283 | 232 | 377 | 347 | 278 | 172 | 163 | 137 | 111 | 120 |
| 19 | 82 | 70 | 257 | 223 | 380 | 677 | 267 | 202 | 175 | 108 | 99 | 132 |
| 20 | 81 | 73 | 240 | 214 | 341 | 603 | 275 | 247 | 148 | 97 | 92 | 134 |
| 21 | 81 | 363 | 239 | 209 | 314 | 492 | 412 | 201 | 138 | 91 | 92 | 113 |
| 22 | 81 | 1160 | 231 | 205 | 293 | 520 | 402 | 184 | 130 | 179 | 160 | 121 |
| 23 | 79 | 447 | 421 | 676 | 362 | 773 | 352 | 171 | 125 | 126 | 151 | 138 |
| 24 | 79 | 285 | 436 | 559 | 380 | 593 | 334 | 163 | 121 | 283 | 124 | 182 |
| 25 | 77 | 217 | 362 | 429 | 891 | 527 | 387 | 161 | 116 | 159 | 110 | 133 |
| 26 | 77 | 182 | 323 | 375 | 1690 | 563 | 327 | 153 | 117 | 135 | 109 | 120 |
| 27 | 77 | 162 | 295 | 338 | 941 | 491 | 308 | 148 | 117 | 130 | 185 | 134 |
| 28 | 78 | 148 | 498 | 320 | 637 | 440 | 296 | 146 | 107 | 122 | 554 | 130 |
| 29 | 75 | 140 | 553 | 296 | 509 | 409 | 274 | 159 | 105 | 105 | 329 | 125 |
| 30 | 74 | 135 | 450 | 279 | --- | 457 | 262 | 171 | 102 | 100 | 217 | 109 |
| 31 | 74 | --- | 391 | 265 | --- | 456 | --- | 148 | --- | 108 | 168 | --- |
| TOTAL | 2663 | 4731 | 13665 | 11043 | 11619 | 13818 | 9719 | 6346 | 5052 | 4123 | 4318 | 4282 |
| MEAN | 85.9 | 158 | 441 | 356 | 401 | 446 | 324 | 205 | 168 | 133 | 139 | 143 |
| MAX | 106 | 1160 | 1550 | 837 | 1690 | 773 | 414 | 318 | 293 | 283 | 554 | 330 |
| MIN | 74 | 70 | 220 | 205 | 174 | 297 | 262 | 146 | 102 | 91 | 76 | 95 |
| CFSM | .83 | 1.52 | 4.24 | 3.43 | 3.85 | 4.29 | 3.12 | 1.97 | 1.62 | 1.28 | 1.34 | 1.37 |
| IN. | .95 | 1.69 | 4.89 | 3.95 | 4.16 | 4.94 | 3.48 | 2.27 | 1.81 | 1.47 | 1.54 | 1.53 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 97.8 | 154 | 290 | 394 | 456 | 457 | 366 | 260 | 186 | 169 | 137 | 102 |
| MAX | 442 | 685 | 1045 | 936 | 1022 | 1379 | 835 | 755 | 607 | 443 | 563 | 434 |
| (WY) | 1907 | 1930 | 1933 | 1974 | 1957 | 1917 | 1936 | 1929 | 1989 | 1949 | 1920 | 1928 |
| MIN | 25.2 | 38.6 | 57.4 | 69.9 | 92.7 | 155 | 135 | 88.9 | 44.8 | 42.4 | 24.6 | 21.3 |
| (WY) | 1955 | 1934 | 1934 | 1981 | 1941 | 1988 | 1986 | 1941 | 1988 | 1988 | 1925 | 1925 |

| SUMMARY STATISTICS | FOR 1991 CALENDAR YEAR | | FOR 1992 WATER YEAR | | WATER YEARS 1904 - 1992 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 110241 | | 91379 | | | |
| ANNUAL MEAN | 302 | | 250 | | 255 | |
| HIGHEST ANNUAL MEAN | | | | | 379 | 1922 |
| LOWEST ANNUAL MEAN | | | | | 111 | 1988 |
| HIGHEST DAILY MEAN | 2300 | Feb 20 | 1690 | Feb 26 | 7780 | Nov 19 1906 |
| LOWEST DAILY MEAN | 70 | Nov 15 | 70 | Nov 15 | 12 | Aug 27 1925 |
| ANNUAL SEVEN-DAY MINIMUM | 71 | Nov 13 | 71 | Nov 13 | 13 | Aug 24 1925 |
| INSTANTANEOUS PEAK FLOW | | | 2370 | Dec 3 | 18000* | Nov 19 1906 |
| INSTANTANEOUS PEAK STAGE | | | 8.17 | Dec 3 | 20.50 | Nov 19 1906 |
| INSTANTANEOUS LOW FLOW | | | 69* | Nov 17 | 12* | Aug 27 1925 |
| ANNUAL RUNOFF (CFSM) | 2.90 | | 2.40 | | 2.45 | |
| ANNUAL RUNOFF (INCHES) | 39.43 | | 32.69 | | 33.28 | |
| 10 PERCENT EXCEEDS | 518 | | 449 | | 500 | |
| 50 PERCENT EXCEEDS | 240 | | 201 | | 175 | |
| 90 PERCENT EXCEEDS | 86 | | 84 | | 59 | |

* See REMARKS.

**03460242 WATERVILLE LAKE.**--Lat 35°41'41", long 83°03'02", Haywood County, Hydrologic Unit 06010206, at Waterville Dam on Pigeon River, 0.1 mi downstream of Cataloochee Creek, 5.5 mi southeast of Mount Sterling, and at river mile 38.0.
DRAINAGE AREA.--455 mi².
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.
REMARKS.--Reservoir is formed by a single-arch, variable-radius, concrete dam with 14 taintor gates 10 ft high by 24 ft wide. Dam was completed in 1929 and filling began October 1929; water in reservoir first reached minimum pool elevation November 1929. Total capacity is 12,800 ft³/s-day at 2,258.6 ft (top of gate), of which 10,400 ft³/s-day is controlled storage above 2,175 ft, normal minimum pool elevation. Reservoir is used for power. Prior to Jan. 1, 1971, records furnished by Carolina Power and Light Co. New capacity table was put into use Jan. 1, 1971.
COOPERATION.--Gage-height record furnished by Carolina Power and Light Co.; water-level storage records furnished by Tennessee Valley Authority.
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 12,800 ft³/s-day, several days each year; elevation, 2,258.6 ft. Minimum content observed: 1,030 ft³/s-day, Sept. 16, 1980; elevation, 2,141.5 ft.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 12,800 ft³/s-day, Nov. 22, Dec. 3-4; elevation, 2,258.60 ft. Minimum content observed: 9,900 ft³/s-day, Feb. 17; elevation, 2,239.90 ft.

**03504500 NANTAHALA LAKE.**--Lat 35°11'56", long 83°39'17", Macon County, Hydrologic Unit 06010202, at Nantahala Dam on Nantahala River, 5.5 mi upstream from Whiteoak Creek, 4.2 mi southeast of Topton, and at river mile 22.8.
DRAINAGE AREA.--91.0 mi².
PERIOD OF RECORD.--January 1942 to current year. Prior to October 1944 monthend content only, published in WSP 1306.
GAGE.--Water-stage recorder. Datum of gage is 122.16 ft National Geodetic Vertical Datum of 1929 (levels by Aluminum Co. of America); gage readings have been adjusted to elevations NGVD. Prior to June 3, 1942, nonrecording gage at same site and datum.
REMARKS.--Reservoir is formed by rockfill dam with side-channel, gate-controlled spillway supplemented by fuse-plug dam. Dam completed and filling began Jan. 30, 1942; water in reservoir first reached minimum pool elevation Feb. 16, 1942. Total capacity (based on 1969 resurvey) is 69,200 ft³/s-day at 2,890.0 ft (top of gates), of which 63,500 ft³/s-day is controlled storage above 2,758.84 ft, normal minimum pool elevations. Reservoir is used for flood control and power. New capacity table put into use Jan. 1, 1971.
COOPERATION.--Gage-height record furnished by Nantahala Power and Light Co.; water level storage records furnished by Tennessee Valley Authority.
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 70,400 ft³/s-day, Apr. 12, 1957; elevation, 2,890.55 ft. Minimum content observed (after first filling): 6,700 ft³/s-day, Jan. 28, 1955; elevation, 2,760.11 ft.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 68,700 ft³/s-day, July 6; elevation, 2,889.35 ft. Minimum content observed: 37,500 ft³/s-day, Nov. 10; elevation, 2,843.39 ft.

**03507500 THORPE RESERVOIR.**--Lat 35°11'46", long 83°09'09", Jackson County, Hydrologic Unit 06010203, at Thorpe Dam on West Fork Tuckasegee River, 2.3 mi northwest of Glenville, 3.0 mi upstream from Shoal Creek, and at river mile 9.7.
DRAINAGE AREA.--36.7 mi².
PERIOD OF RECORD.--February 1941 to current year. Prior to October 1944 monthend content only, published in WSP 1306. Prior to October 1948, published as Glenville Reservoir.
GAGE.--Water-stage recorder. Datum of gage is 391.75 ft above National Geodetic Vertical Datum of 1929 (levels by Aluminum Co. of America); gage readings have been adjusted to elevations NGVD. Prior to Apr. 9, 1941, nonrecording gage at same site and datum.
REMARKS.--Reservoir is formed by earth and rock dam and six 40 ft fuse-plug dams with side-channel spillway equipped with two taintor gates 12 ft high by 25 ft wide. Dam completed and storage began Feb. 12, 1941. Water in reservoir first reached minimum pool elevation Mar. 15, 1941. Total capacity (based on 1969 resurvey) is 35,500 ft³/s-day, at 3,100.0 ft (top of gate), of which 33,700 ft³/s-day is controlled storage above 3,023.25 ft, normal minimum pool elevation. Reservoir is used for flood control and power. New capacity table put into use Jan. 1, 1971.
COOPERATION.--Gage-height record furnished by Nantahala Power and Light Co.; water-level storage records furnished by Tennessee Valley Authority.
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 35,700 ft³/s-day, Mar. 13, 1950; maximum elevation, 3,100.07 ft, May 4, 1990.
Minimum content observed (after first filling): 2,200 ft³/s-day, Feb. 5, 1955, Jan. 13, 1956; minimum elevation, 3,025.10 ft, Feb. 5, 1955.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 31,900 ft³/s-day, Aug. 28; elevation, 3,094.88 ft. Minimum content observed: 19,200 ft³/s-day, Jan. 6; elevation, 3,074.59 ft.

**03514500 FONTANA LAKE.**--Lat 35°27'07", long 83°48'18", Graham County, Hydrologic Unit 06010202, at Fontana Dam on Little Tennessee River, 5.7 mi upstream from Twenty Mile Creek, 9.0 mi north of Robbinsville, 9.6 mi upstream from Cheoah Dam, and at river mile 61.0.
DRAINAGE AREA.--1,571 mi².
PERIOD OF RECORD.--October 1944 to current year. Prior to November 1944, monthend content only, published in WSP 1306.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
REMARKS.--Reservoir is formed by gravity, nonoverflow-type concrete dam. Spillway is equipped with four radial gates 35 ft high by 35 ft wide. Filling 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) is 727,500 ft³/s-day, at 1,710.0 ft (top of gate) of which 476,900 ft³/s-day is controlled storage above 1,580.0 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.
COOPERATION.--Records furnished by Tennessee Valley Authority.
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 728,600 ft³/s-day, May 28, 1973; elevation, 1,710.20 ft. Minimum content observed (after first filling): 78,300 ft³/s-day, Jan. 29, 1955; elevation, 1,472.0 ft.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 700,400 ft³/s-day, June 17; elevation, 1,704.90 ft. Minimum content observed: 410,700 ft³/s-day, Jan. 22; elevation, 1,637.01 ft.

**03516500 SANTEETLAH LAKE.**--Lat 35°22'38", long 83°52'33", Graham County, Hydrologic Unit 06010204, at Santeetlah Dam on Cheoah River, 1.0 mi downstream of Santeetlah Creek, 5.5 mi northwest of Robbinsville, and at river mile 9.3.
DRAINAGE AREA.--176 mi².
PERIOD OF RECORD.--December 1927 to current year. Prior to October 1946 monthend content only, published in WSP 1306.
GAGE.--Water-stage recorder. Datum of gage is 122.92 above ft National Geodetic Vertical Datum of 1929 (levels by Aluminum Co. of America); gage readings have been adjusted to elevations NGVD. Prior to February 1937, nonrecording gage at same site and datum.
REMARKS.--Reservoir is formed by concrete gravity and arch dam with concrete spillway controlled by six taintor gates 12 ft high by 25 ft wide. Dam completed and filling began Dec. 7, 1927. Water in reservoir first reached minimum pool elevation December 1927. Total capacity (new capacity table put into use Jan. 1, 1971), at elevation 1,817.0 ft; top of gate is 78,800 ft³/s-day, of which 66,600 ft³/s-day is controlled storage above 1,740.08 ft, normal minimum pool elevation. Reservoir is used for power.
COOPERATION.--Gage-height record furnished by Aluminum Co. of America; water-level storage records furnished by Tennessee Valley Authority.
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 81,100 ft³/s-day, Sept. 3, 1928; elevation, 1,817.90 ft. Minimum content observed (after first filling): 13,100 ft³/s-day, Feb. 6, 1940; elevation, 1,741.39 ft.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 77,200 ft³/s-day, Nov. 8; elevation, 1,815.85 ft. Minimum content observed: 58,100 ft³/s-day, Feb. 21; elevation, 1,801.04 ft.

**03546500 CHATUGE LAKE.**--Lat 35°01'01", long 83°47'28", Clay County, Hydrologic Unit 06020002, at Chatuge Dam on Hiwassee River, 2.0 mi upstream from Hyatt Mill Creek, 2.4 mi southeast of Hayesville, 2.5 mi downstream of Georgia-North Carolina State line, and at river mile 121.0.
DRAINAGE AREA.--189 $mi^2$.
PERIOD OF RECORD.--February 1942 to current year.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 4, 1942, nonrecording gage at same site and datum.
REMARKS.--Reservoir is formed by a rolled, earthfill dam with side-channel spillway equipped with flashboards. Dam completed and filling began Feb. 12, 1942; water in reservoir first reached minimum pool elevation Feb. 26, 1942. Total capacity (based on 1965 resurvey) is 121,200 $ft^3$/s-day, at 1,928.0 ft (top of flashboard), of which 61,700 $ft^3$/s-day is controlled storage above 1,905.0 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.
COOPERATION--Records furnished by Tennessee Valley Authority. (See station 03548500.)
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 124,200 $ft^3$/s-day, Apr. 20, 1943; elevation, 1,927.80 ft. Minimum content observed (after first filling): 9,400 $ft^3$/s-day, Sept. 5, 1947 and Jan. 27, 1956; elevation, 1,860.11 ft, Sept. 5, 1947.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 115,200 $ft^3$/s-day, July 27; elevation, 1,926.28 ft. Minimum content observed: 75,900 $ft^3$/s-day, Jan. 21; elevation, 1,912.64 ft.

**03554500 HIWASSEE LAKE.**--Lat 35°09'01", long 84°10'40", Cherokee County, Hydrologic Unit 06020002, at Hiwassee Dam on Hiwassee River, 0.3 mi northwest of village of Hiwassee Dam, 3.9 mi upstream from Shoal Creek, and at river mile 75.8.
DRAINAGE AREA.--968 $mi^2$.
PERIOD OF RECORD.--September 1939 to current year.
GAGE.--Water-stage recorder. Datum of gage is 0.63 ft below National Geodetic Vertical Datum of 1929.
REMARKS--Reservoir is formed by gravity overflow concrete dam with seven taintor gates 23 ft high by 32 ft wide. Slight filling began Apr. 13, 1939, during construction; systematic filling 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) is 218,800 $ft^3$/s-day at 1,526.5 ft (top of gate), of which 154,300 $ft^3$/s-day is controlled storage above 1,450.0 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.
COOPERATION.--Records furnished by Tennessee Valley Authority.
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 223,400 $ft^3$/s-day, May 28, 1973; elevation, 1,528.02 ft. Minimum content observed (after first filling): 35,800 $ft^3$/s-day, Jan. 28, 1948;, elevation, 1,413.41 ft.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 207,400 $ft^3$/s-day, July 4; elevation, 1,522.98 ft. Minimum content observed: 84,500 $ft^3$/s-day, Jan. 31; elevation, 1,466.43 ft.

**03555500 APPALACHIA LAKE.**--Lat 35°10'04", long 84°17'49", Cherokee County, Hydrologic Unit 06020002, at Appalachia Dam on Hiwassee River, 0.1 mi upstream from North Carolina-Tennessee State line, 1.5 mi northeast of Farner, Tenn., 9.8 mi downstream of Hiwassee Dam, and at river mile 66.0.
DRAINAGE AREA.--1,018 $mi^2$.
PERIOD OF RECORD.--February 1943 to current year.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.
REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with 10 radial gates. Dam completed and filling began Feb. 14, 1943; water in reservoir first reached minimum pool elevation Feb. 21, 1943. Total capacity (based on 1965 resurvey) is 29,100 $ft^3$/s-day at 1,280.00 ft (top of gate), of which 4,400 $ft^3$/s-day is controlled storage above 1,272.00 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.
COOPERATION.--Records furnished by Tennessee Valley Authority.
EXTREMES FOR PERIOD OF RECORD.--Maximum content observed: 30,300 $ft^3$/s-day, June 13, 1952; elevation, 1,281.40 ft. Minimum content observed (after first filling): 15,300 $ft^3$/s-day, Apr. 25, 1971; elevation, 1,251.00 ft.
EXTREMES FOR CURRENT YEAR.--Maximum content observed: 28,900 $ft^3$/s-day, Dec. 16; elevation, 1,279.53 ft. Minimum content observed: 17,000 $ft^3$/s-day, April 15; elevation, 1,255.21 ft.

**OTHER RESERVOIRS** The following smaller reservoirs in the Tennessee River basin are described below. Records of content are not published herein.

**03447832 LAKE JULIAN.**--Lat 35°28'37", long 82°32'51", Buncombe County, Hydrologic Unit 06010105, on Powells Creek near Skyland.
DRAINAGE AREA.--4.78 $mi^2$.
PERIOD OF RECORD.--Prior to November 1967 published as Asheville Steam-Electric Generating Plant Lake.
REMARKS.--Total capacity is 4,540 $ft^3$/s-day, of which 2,120 $ft^3$/s-day is controlled storage. Filling began Mar. 27, 1963, and lake reached spillway elevation, 2,160 ft, June 3, 1963. Most of initial storage and occasional, supplemental storage provided by pumped diversion from French Broad River. Lake is a cooling-water reservoir for Carolina Power and Light Co. plant.

**03448959 BURNETT LAKE.**--Lat 35°39'44", long 82°20'43", Buncombe County, Hydrologic Unit 06010105, on North Fork Swannanoa River near Black Mountain.
DRAINAGE AREA.--21.9 $mi^2$.
REMARKS.--Total capacity at crest of spillway is 11,600 $ft^3$/s-day, of which 8,900 $ft^3$/s-day is controlled storage. Filling began Jan. 28, 1954. Lake is part of Asheville's municipal water supply. (See station 03451000.)

**03450134 BEETREE RESERVOIR.**--Lat 35°38'27", long 82°24'04", Buncombe County, Hydrologic Unit 06010105, on Beetree Creek near Swannanoa.
DRAINAGE AREA.-7.62 $mi^2$.
REMARKS.--Total capacity is 844 $ft^3$/s-day, of which 823 $ft^3$/s-day is controlled storage. Dam completed December 1926, and filling began Jan. 11, 1927; water in reservoir first reached maximum pool elevation Mar. 8, 1927. Lake is part of Asheville's municipal water supply. (See station 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 river mile 7.0.
DRAINAGE AREA.--33.3 $mi^2$.
REMARKS.--Total capacity is 1,040 $ft^3$/s-day (top of flashboards), all of which is usable. Filling began November 1931. (See station 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 river mile 2.4.
DRAINAGE AREA.--63.6 $mi^2$.
REMARKS.--Total surface area is about 195 acres. The lake reached spillway elevation in the spring of 1913.

Lakes and Reservoirs in the Ohio River basin--Continued

**03500466 SEQUOYAH LAKE.**--Lat 35°04'02", long 83°13'31", Macon County, Hydrologic Unit 06010202, on Cullasaja River near Highlands, and at river mile 18.4.
DRAINAGE AREA.--14.4 $mi^2$.
REMARKS.--Total capacity is 233 $ft^3/s$-day (at crest of spillway), of which approximately 116 $ft^3/s$-day is usable. Filling 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.**--Lat 35°12'48", long 83°00'08, Jackson County, Hydrologic Unit 06010203, on Tuckasegee River near Tuckasegee.
DRAINAGE AREA.--24.9 $mi^2$.
REMARKS.--Total capacity of East Fork Lake is 671 $ft^3/s$-day, of which 625 $ft^3/s$-day is controlled storage. Filling began Apr. 18, 1955.
**WOLF CREEK DAM.**--Lat 35°13'18", long 83°00'00", on Wolf Creek near Tuckasegee.
DRAINAGE AREA.--15.2 $mi^2$.
REMARKS.--Total capacity of Wolf Creek Lake is 5,070 $ft^3/s$-day, of which 3,850 $ft^3/s$-day is controlled storage. Filling 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 $mi^2$.
REMARKS.--Total capacity is 17,500 $ft^3/s$-day, of which 2,290 $ft^3/s$-day is controlled storage. Filling 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 river mile 51.9.
DRAINAGE AREA.--80.3 $mi^2$.
REMARKS.--Total capacity is 3,200 $ft^3/s$-day, of which 350 $ft^3/s$-day is controlled storage. Filling 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 river mile 51.4.
DRAINAGE AREA.--1,608 $mi^2$.
REMARKS.--Total capacity is 17,700 $ft^3/s$-day, of which 920 $ft^3/s$-day is controlled storage. Filling began Dec. 8, 1918.

Lakes and Reservoirs in Ohio River basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| 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 | | | 03524500 Fontana Lake | | |
| Sept. 30 | 2,252.20 | 11,810 | - | 2,860.02 | 47,800 | - | 3,088.20 | 27,300 | - | 1,677.61 | 569,200 | - |
| Oct. 31 | 2,248.50 | 11,220 | -590 | 2,846.73 | 39,500 | -8,300 | 3,082.84 | 23,900 | -3,400 | 1,666.70 | 522,700 | -46,500 |
| Nov. 30 | 2,253.60 | 12,030 | +810 | 2,853.42 | 43,600 | +4,100 | 3,079.80 | 22,100 | -1,800 | 1,651.90 | 464,200 | -58,500 |
| Dec. 31 | 2,248.10 | 11,160 | -870 | 2,862.15 | 49,100 | +5,500 | 3,074.97 | 19,400 | -2,700 | 1,647.04 | 446,100 | -18,100 |
| CAL YR 1991 | | - | -80 | | - | -400 | | - | -4,900 | | - | +113,500 |
| Jan. 31 | 2,245.10 | 10,690 | -470 | 2,860.45 | 48,000 | -1,100 | 3,075.05 | 19,500 | +100 | 1,639.58 | 419,500 | -26,600 |
| Feb. 29 | 2,253.30 | 11,980 | +1,290 | 2,870.49 | 54,700 | +6,700 | 3,075.70 | 19,800 | +300 | 1,648.46 | 451,400 | +31,900 |
| Mar. 31 | 2,253.00 | 11,940 | -40 | 2,877.13 | 59,400 | +4,700 | 3,078.00 | 21,100 | +1,300 | 1,659.45 | 493,400 | +42,000 |
| Apr. 30 | 2,249.10 | 11,320 | -620 | 2,884.38 | 64,800 | +5,400 | 3,081.25 | 23,000 | +1,900 | 1,675.67 | 560,700 | +67,300 |
| May 31 | 2,250.60 | 11,550 | +230 | 2,887.28 | 67,000 | +2,200 | 3,086.72 | 26,400 | +3,400 | 1,694.23 | 646,300 | +85,600 |
| June 30 | 2,251.50 | 11,700 | +150 | 2,888.90 | 68,300 | +1,300 | 3,093.58 | 31,000 | +4,600 | 1,703.93 | 695,300 | +49,000 |
| July 31 | 2,254.20 | 12,130 | +430 | 2,882.94 | 63,700 | -4,600 | 3,092.54 | 30,300 | -700 | 1,696.33 | 656,600 | -38,700 |
| Aug. 31 | 2,244.10 | 10,540 | -1,590 | 2,877.58 | 59,700 | -4,000 | 3,094.45 | 31,600 | +1,300 | 1,694.43 | 647,200 | -9,400 |
| Sept. 30 | 2,248.60 | 11,240 | +700 | 2,863.84 | 50,200 | -9,500 | 3,093.95 | 31,200 | -400 | 1,688.87 | 620,500 | -26,700 |
| WTR YR 1992 | | - | -570 | | - | +2,400 | | - | +3,900 | | - | +51,300 |

| Date | Gage height (feet) | Contents (cfs-days) | Change in contents (cfs-days) | Elevation (feet) | Contents (cfs-days) | Change in Contents (cfs-days) | Elevation (feet) | Contents (cfs-days) | Change in Contents (cfs-days) | Elevation (feet) | Contents (cfs-days) | Change in Contents (cfs-days) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 03516500 Santeetlah Lake | | | 03546500 Chatuge Lake | | | 03554500 Hiwassee Lake | | | 03555500 Appalachia Lake | | |
| Sept. 30 | 1,812.30 | 72,200 | - | 1,922.54 | 103,000 | - | 1,511.92 | 175,800 | - | 1,277.40 | 27,700 | - |
| Oct. 31 | 1,815.28 | 76,400 | +4,200 | 1,918.93 | 92,300 | -10,700 | 1,497.43 | 140,300 | -35,500 | 1,276.85 | 27,400 | -300 |
| Nov. 30 | 1,807.70 | 66,200 | -10,200 | 1,916.09 | 84,500 | -7,800 | 1,484.39 | 114,100 | -26,200 | 1,277.42 | 27,700 | +300 |
| Dec. 31 | 1,811.20 | 70,800 | +4,600 | 1,914.64 | 80,800 | -3,700 | 1,477.38 | 101,800 | -12,300 | 1,278.12 | 28,100 | +400 |
| CAL YR 1991 | | - | +4,700 | | - | -1,600 | | - | -10,700 | | - | +2,500 |
| Jan. 31 | 1,805.90 | 63,900 | -6,900 | 1,914.12 | 79,500 | -1,300 | 1,466.55 | 84,700 | -17,100 | 1,278.16 | 28,100 | 0 |
| Feb. 29 | 1,805.64 | 63,600 | -300 | 1,916.71 | 86,200 | +6,700 | 1,486.90 | 118,600 | +33,900 | 1,276.91 | 27,400 | -700 |
| Mar. 31 | 1,807.53 | 66,000 | +2,400 | 1,919.97 | 95,200 | +9,000 | 1,493.52 | 131,700 | +13,100 | 1,271.75 | 24,600 | -2,800 |
| Apr. 30 | 1,810.09 | 69,300 | +3,300 | 1,923.24 | 105,200 | +10,000 | 1,510.78 | 172,900 | +41,200 | 1,274.41 | 26,100 | +1,500 |
| May 31 | 1,811.92 | 71,700 | +2,400 | 1,924.39 | 108,900 | +3,700 | 1,520.84 | 200,700 | +27,800 | 1,277.20 | 27,600 | +1,500 |
| June 30 | 1,813.80 | 74,300 | +2,600 | 1,924.27 | 108,500 | -400 | 1,521.98 | 204,200 | +3,500 | 1,276.84 | 27,400 | -200 |
| July 31 | 1,811.79 | 71,600 | -2,700 | 1,925.80 | 113,600 | +5,100 | 1,517.22 | 190,100 | -14,100 | 1,277.31 | 27,600 | +200 |
| Aug. 31 | 1,811.89 | 71,700 | +100 | 1,924.38 | 108,800 | -4,800 | 1,513.96 | 181,200 | -8,900 | 1,277.00 | 27,500 | -100 |
| Sept. 30 | 1,808.50 | 67,200 | -4,500 | 1,923.05 | 104,600 | -4,200 | 1,504.29 | 156,500 | -24,700 | 1,277.60 | 27,800 | +300 |
| WTR YR 1992 | | - | -5,000 | | - | +1,600 | | - | -19,300 | | - | +100 |

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to these events. These measurements and others collected for special reasons are called measurements at miscellaneous sites.

Records collected at peak-stage, partial-record stations are presented in the following table. Discharge measurements made at low-flow, partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

### Peak discharge stations

The following table contains annual maximum discharges for peak discharge stations. A peak discharge 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 peak discharge stations during water year 1992

| Station No. | Station name | Location | Drainage area ($mi^2$) | Period of Record | Annual Maximum Date | Annual Maximum Gage height (feet) | Annual Maximum Discharge ($ft^3/s$) |
|---|---|---|---|---|---|---|---|
| 02086500 | Flat River at dam near Bahama | Lat 36°08'55", long 78°49'43", Durham County, Hydrologic Unit 03020201, on right bank 900 ft downstream of Durham municipal dam, 3 mi southeast of Bahama, and 5 mi upstream from confluence with Eno River. | 168 | 1927-59†, 1961-66,†, 1982-90† | 1-4-92 | 13.93 | 8400 |

†Operated as a continuous-record gaging station.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

These measurements and others collected for special reasons are called measurements at miscellaneous sites. Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

### MEASUREMENTS AT MISCELLANEOUS SITES

| Stream | Tributary to | Location | Drainage area ($mi^2$) | Measured previously (water years) | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1992, IN ATLANTIC SLOPE BASINS | | | | | | |
| ROANOKE RIVER BASIN | | | | | | |
| 02070500 Mayo River | Dan River | Lat 36°32'05", long 79°59'30", Rockingham County, Hydrologic Unit 03010103, at bridge on Secondary Road 1358, 0.5 mi downstream of confluence of North and South Mayo Rivers, 0.8 mi downstream of Virginia-North Carolina State line, and 4 mi west of Price. | 261 | 1929-71†, 1981, 1985-91 | 8-10-92 | 195 |
| 02077348 Marlowe Creek | Dan River | Lat 36°29'03", long 78°58'47", Person County, Hydrologic Unit 03010104, at bridge on Secondary Road 1322, downstream of Fishing Branch, and 1.2 mi west of Woodsdale. | 17.8 | 1970, 1974, 1976, 1978, 1980-91 | 10- 1-91<br>1- 8-92<br>6- 3-92 | 5.23<br>20.0<br>9.68 |
| 02079101 Grassy Creek | Roanoke River | Lat 36°29'22", long 78°37'08", Granville County, Hydrologic Unit 03010102, at bridge on Secondary Road 1436, 0.7 mi downstream of Little Grassy Creek, and 2.8 mi east-northeast of Cornwall. | 61.2 | 1981-91 | 12-31-91<br>9-22-92 | 18.7<br>8.8 |
| 02079264 Nutbush Creek | Roanoke River | Lat 36°22'10", long 78°24'31", Vance County, Hydrologic Unit 03010102, at bridge on Secondary Road 1317, 0.1 mi upstream from Buggs Island Reservoir, and 3 mi north of Henderson. | 6.0 | 1970, 1974, 1976, 1978-91 | 12-31-91<br>3-25-92<br>9-22-92 | 6.05<br>10.7<br>3.51 |
| 02079717 Smith Creek | Roanoke River | Lat 36°32'27", long 78°11'43", Warren County, Hydrologic Unit 03010106, at bridge on U.S. Highway 1, 0.3 mi downstream of Blue Mud Creek, and 2.1 mi west of Paschall. | 52.9 | 1954, 1961-63, 1966, 1976, 1979-91 | 9-22-92 | 15.9 |
| NEUSE RIVER BASIN | | | | | | |
| 0208732544 Pigeon House Creek | Crabtree Creek | Lat 35°47'37", long 78°38'35", Wake County, Hydrologic Unit 03020201, at Dortch Street, and 1.2 mi north of Raleigh. | .59 | 1984-91 | 11-20-91<br>9-23-92 | .60<br>.12 |
| 0208758450 Dutchman's Branch | Neuse River | Lat 35°41'28", long 78°43'30", Wake County, Hydrologic Unit 03020201, 0.2 mi upstream from mouth, and 2.2 mi northwest of McCullers Crossroads. | 5.23 | 1987-91 | 12-19-91 | .27 |
| 0208772185 Swift Creek | Neuse River | Lat 35°37'46", long 78°32'57", Johnston County, Hydrologic Unit 03020201, at State Highway 42, and 1.4 mi northeast of Drug Store. | 86.6 | 1984-91 | 5-21-92<br>9-28-92 | 12.6<br>8.44 |

? Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1992

| Stream | Tributary to | Location | Drainage area ($mi^2$) | Measured previously (water years) | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | CAPE FEAR RIVER BASIN | | | | |
| 02093250 Haw River | Cape Fear River | Lat 36°12'47", long 79°57'24", Guilford County, Hydrologic Unit 03030002, on Secondary Road 2109, 0.2 mi downstream of Rocky Branch, and 3.3 mi northeast of Oak Ridge. | 14.1 | 1971, 1973, 1984, 1986-91 | 4-20-92 | 6.22 |
| 02095091 South Buffalo Creek | Buffalo Creek | Lat 36°06'45", long 79°40'19", Guilford County, Hydrologic Unit 03030002, at bridge on Secondary Road 2821, 0.8 mi northwest of McLeansville, and 1.4 mi upstream from mouth. | 43.5 | 1969-70, 1973, 1976-81, 1983-89, 1991 | 12- 4-91<br>4-20-92 | 62.6<br>20.6 |
| 02095681 Reedy Fork | Haw River | Lat 36°10'23", long 79°30'38", Alamance County, Hydrologic Unit 03030002, at bridge on State Highway 87 at Ossipee, and 0.5 mi upstream from mouth. | 256 | 1969-70, 1973, 1976-91 | 4-20-92 | 120 |
| 02097360 Bolin Creek | Little Creek | Lat 35°55'40", long 79°02'08", Orange County, Hydrologic Unit 03030002, at bridge on U.S. Highway 15A, 1.0 mi upstream from Booker Creek, and 1.5 mi northeast of Chapel Hill. | 10.7 | 1954, 1960, 1962, 1964, 1965-68, 1974-76, 1978, 1980-91 | 9-22-92 | .27 |
| 02097521 Morgan Creek | New Hope River | Lat 35°51'48", long 79°00'35", Chatham County, Hydrologic Unit 03030002, at bridge on Secondary Road 1726, 2 mi upstream from Cub Creek, and 4 mi north of Farrington. | 45.6 | 1970, 1973, 1976, 1978, 1980-91 | 3-25-92<br>9-23-92 | 60.0<br>11.9 |
| 02099484 Richland Creek | Deep River | Lat 35°56'26", long 79°54'08", Guilford County, Hydrologic Unit 03030003, at bridge on Secondary Road 1147, 0.2 mi upstream from mouth, and 4 mi southwest of Groomtown. | 16.2 | 1971, 1973-76, 1978-91 | 5- 4-92<br>8- 7-92 | 20.5<br>22.2 |
| 02101001 Bear Creek | Deep River | Lat 35°26'26", long 79°35'20", Moore County, Hydrologic Unit 03030003, at bridge on State Highway 705, 0.5 mi north of Robbins, and 1 mi downstream of Cabin Creek. | 139 | 1973-74, 1985-91 | 11- 8-91<br>1- 8-92<br>3- 4-92<br>7- 9-92<br>9 -3-92 | 9.74<br>49.4<br>62.2<br>13.6<br>4.25 |
| 02102634 Upper Little River | Cape Fear River | Lat 35°19'33", long 78°43'26", Harnett County, Hydrologic Unit 03030004, at bridge on Secondary Road 2021, 1.5 mi upstream from mouth, and 2.8 mi west of Erwin. | 217 | 1968, 1974-76, 1979, 1985-91 | 12-19-91<br>6-22-92 | 45.9<br>686 |
| 02103000 Little River | Cape Fear River | Lat 35°11'38", long 78°59'14", Cumberland County, Hydrologic Unit 03030004, at bridge on State Highway 87 at Manchester, and 0.3 mi upstream from Tank Creek. | 347 | 1939-50†, 1978, 1980-91 | 12-18-91<br>6-19-92 | 126<br>1,070 |
| 02104279 Rockfish Creek | Cape Fear River | Lat 34°58'10", long 79°06'40", Hoke County, Hydrologic Unit 03030004, at bridge on Secondary Road 1432, 0.2 mi downstream of Puppy Creek, and 1.2 mi northeast of Arabia. | 150a | 1973-74, 1978, 1980-91 | 12-30-91<br>6-19-92<br>9-29-92 | 241<br>240<br>92.7 |
| 02104380 Beaver Creek | Little Rockfish Creek | Lat 35°00'09", long 78°58'45", Cumberland County, Hydrologic Unit 03030004, at bridge on Secondary Road 1141 at Cumberland, and 1 mi upstream from mouth. | 32.6 | 1961-65, 1968, 1973-75, 1979-91 | 12-19-91<br>6-19-92<br>9-30-92 | 15.6<br>57.2<br>13.0 |

† Operated as a continuous-record gaging station.
a Approximately

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1992

| Stream | Tributary to | Location | Drainage area ($mi^2$) | Measured previously (water years) | Measurements Date | Measurements Discharge ($ft^3/s$) |
|---|---|---|---|---|---|---|
| | | CAPE FEAR RIVER BASIN (Continued) | | | | |
| 02104500 Rockfish Creek | Cape Fear River | Lat 34°57'57", long 78°55'00", Cumberland County, Hydrologic Unit 03030004, at bridge on U.S. Highway 301, 0.1 mi downstream of Little Rockfish Creek, and 1.7 mi east of Hope Mills. | 292 | 1974-76, 1979-91 | 6-22-92<br>9-30-92 | 198<br>111 |
| 02105520 Harrisons Creek | Cape Fear River | Lat 34°43'55", long 78°42'59", Bladen County, Hydrologic Unit 03030005, at bridge on Secondary Road 1320, 1.2 mi upstream from mouth, and 1.2 mi south of White Oak. | 50.1 | 1985-91 | 12-30-91<br>6-22-92<br>9-29-92 | 53.0<br>9.04<br>10.7 |
| 0210563128 Turnbull Creek | Cape Fear River | Lat 34°33'49", long 78°33'26", Bladen County, Hydrologic Unit 03030005, at bridge on State Highway 41, 3.0 mi upstream from mouth, and 3.0 mi northeast of Elizabethtown. | 81.4 | 1985-91 | 12-30-91<br>6-22-92<br>9-29-92 | 92.0<br>20.2<br>18.9 |
| 02108500 Rockfish Creek | Northeast Cape Fear River | Lat 34°44'32", long 78°02'22", Duplin County, Hydrologic Unit 03030007, on right bank at downstream side of bridge on State Highway 41, 1.5 mi upstream from Doctors Creek, and 2.5 mi west of Wallace. | 69.3 | 1955-80†, 1981-91 | 3-19-92 | 25.0 |
| | | PEE DEE RIVER BASIN | | | | |
| 0212147355 Rich Fork Creek | Abbotts Creek | Lat 35°55'36", long 80°07'31", Davidson County, Hydrologic Unit 03040103, at bridge on Secondary Road 1800, 1.4 mi downstream of High Point sewage disposal plant, and 3.9 mi northwest of Thomasville. | 26.6 | 1970-75, 1981-84, 1986-90 | 8- 7-92 | 7.69 |
| 02123500 Uwharrie River | Pee Dee River | Lat 35°25'47", long 80°01'05", Montgomery County, Hydrologic Unit 03040103, at State Highway 109, 1 mi upstream from McLeans Creek, and 3 mi south of Eldorado. | 342 | 1938-71†, 1981-91 | 11- 8-91<br>3- 4-92<br>7- 9-92<br>9- 3-92 | 35.2<br>179<br>74.5<br>16.0 |
| 0212388100 Rocky River | Pee Dee River | Lat 35°28'29", long 80°46'48", Mecklenburg County, Hydrologic Unit 03040105, at bridge on Secondary Road 1608, 1.3 mi upstream from West Branch, and 4.2 mi southeast of Davidson. | 13.4 | 1970-91 | 11-15-91<br>12-31-91<br>1-30-92<br>4-20-92<br>7-23-92<br>9-17-92 | 9.41<br>8.98<br>14.9<br>10.2<br>9.65<br>9.25 |
| 02124374 Irish Buffalo Creek | Rocky River | Lat 35°20'50", long 80°32'52", Cabarrus County, Hydrologic Unit 03040105, at bridge on Secondary Road 1132, 1 mi south of Faggarts Crossroads, and 1 mi upstream from mouth. | 45.4 | 1974-84, 1986-91 | 1-28-92<br>4- 6-92<br>7-15-92<br>9- 9-92 | 21.1<br>16.0<br>9.04<br>11.1 |
| 02124401 Rocky River | Pee Dee River | Lat 35°19'26", long 80°30'59", Cabarrus County, Hydrologic Unit 03040105, at bridge on U.S. Highway 601, 1 mi upstream from Hamby Branch, and 3 mi southeast of Faggarts Crossroads. | 393 | 1970-71, 1973-91 | 3-25-92<br>7-15-92<br>9- 9-92 | 333<br>80.2<br>89.4 |
| 02124596 Dutch Buffalo Creek | Rocky River | Lat 35°18'51", long 80°27'52", Cabarrus County, Hydrologic Unit 03040105, at bridge on State Highway 200, and 0.2 mi west of Georgeville. | 98.2 | 1986-91 | 3-25-92<br>4- 6-92<br>5-14-92<br>7-15-92<br>9- 9-92 | 81.4<br>37.6<br>38.3<br>4.87<br>3.08 |
| 02125126 Long Creek | Rocky River | Lat 35°13'05", long 80°15'28", Stanly County, Hydrologic Unit 03040105, at bridge on Secondary Road 1917, 1 mi upstream from mouth, and 4 mi east of Oakboro. | 198 | 1970-71, 1973-91 | 1-28-92<br>5-14-92<br>9- 9-92 | 121<br>88.9<br>23.0 |
| 02125482 Richardson Creek | Rocky River | Lat 35°04'16", long 80°24'25", Union County, Hydrologic Unit 03040105, at bridge on Secondary Road 1649, 1.2 mi downstream of Watson Creek, and 1.5 mi northwest of Fairfield. | 153 | 1961-62, 1981-84, 1986-91 | 1-28-92<br>4-16-92<br>7-15-92<br>9- 9-92 | 42.3<br>21.5<br>7.34<br>11.6 |

† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1992

| Stream | Tributary to | Location | Drainage area ($mi^2$) | Measured previously (water years) | Measurements Date | Measurements Discharge ($ft^3/s$) |
|---|---|---|---|---|---|---|
| | | PEE DEE RIVER BASIN (Continued) | | | | |
| 02127318 Brown Creek | Pee Dee River | Lat 35°04'04", long 80°05'54", Anson County, Hydrologic Unit 03040104, at bridge on U.S. Highway 52, 0.9 mi downstream of Goulds Fork, and 4 mi north of Pinkston. | 153 | 1985-91 | 11- 5-91<br>2-28-92<br>7-13-92<br>9-23-92 | 0.04<br>762<br>1.08<br>.14 |
| 02129341 Hitchcock Creek | Pee Dee River | Lat 34°55'05", long 79°47'50", Richmond County, Hydrologic Unit 03040201, downstream of dam at Cordova, and 1.2 mi upstream from mouth. | 134 | 1970-71, 1974, 1979-84, 1986-91 | 2-28-92<br>7-13-92<br>9-23-92 | 199<br>29.2<br>19.6 |
| 02129527 Jones Creek | Pee Dee River | Lat 34°54'15", long 79°55'51", Anson County, Hydrologic Unit 03040201, at bridge on State Highway 145, 2.9 mi downstream of Hale Creek, and 3.1 mi southwest of Pee Dee. | 92.8 | 1985-91 | 11- 5-91<br>2-28-92<br>7-13-92<br>9-23-92 | 13.9<br>129<br>16.1<br>12.4 |
| 0212955844 Marks Creek | Pee Dee River | Lat 34°51'45", long 79°43'09", Richmond County, Hydrologic Unit 03040201, at bridge on Secondary Road 1812, 1.3 mi downstream of City Lake spillway, and 2.4 mi southwest of Hamlet. | 12.9 | 1970-71, 1979-84, 1986-91 | 2-28-92<br>7-13-92 | 14.4<br>5.80 |
| 02132269 Leith Creek | Little Pee Dee River | Lat 34°44'37", long 79°25'13", Scotland County, Hydrologic Unit 03040204 at bridge on Secondary Road 1609, 4 mi west of Maxton, and 5.4 mi upstream from mouth. | 21.8 | 1973-75, 1979-91 | 11- 7-91<br>3- 3-92<br>7- 8-92 | 2.95<br>12.2<br>1.71 |
| | | SANTEE RIVER BASIN | | | | |
| 02137500 Catawba River | Santee River | Lat 35°38'13", long 82°08'38", McDowell County, Hydrologic Unit 03050101, at bridge on SR 1240, 0.9 mi downstream of Curtis Creek, and 2.2 mi east of Old Fort. | 54.3 | | 3- 3-92<br>3-26-92<br>4- 1-92<br>7-27-92<br>9-18-92 | 104<br>129<br>95.8<br>76.5<br>72.2 |
| 02140304 Wilson Creek | Johns River | Lat 36°05'49", long 81°48'28", Avery County, Hydrologic Unit 03050101, at bridge on U.S. Highway 221, 0.8 mi upstream from Linn Core Branch, and 2.7 mi northwest of Gragg. | .72 | 1964, 1969-70, 1978-81, 1983-91 | 6-11-92<br>8- 4-92 b<br>8- 4-92 c<br>9-24-92 | 21.0<br>.27<br>.22<br>.76 |
| 02141245 Lower Creek | Catawba River | Lat 35°49'31", long 81°38'10", Burke County, Hydrologic Unit 03050102, at bridge on Secondary Road 1501, 0.8 mi downstream of Husband Creek, and 7 mi northeast of Morganton. | 89.5 | 1949-50,[2] 1964-69,[2] 1972-73, 1975-84, 1986-91 | 3- 3-92<br>4- 1-92<br>7-27-92<br>7-28-92 | 93.4<br>76.1<br>75.6<br>70.5 |
| 0214272204 Dutchman's Creek | Catawba River | Lat 35°20'10", long 81°00'50", Gaston County, Hydrologic Unit 03050102, at bridge on Secondary Road 1918, and 0.7 mi west of Mountain Island. | 116 | 1986-91 | 11-13-91<br>1-10-92<br>3- 4-92<br>7- 3-92<br>9-10-92 | 45.0<br>70.9<br>97.0<br>60.5<br>51.8 |
| 02143069 South Fork Catawba River | Catawba River | Lat 35°37'58", long 81°18'20", Catawba County, Hydrologic Unit 03050102, at bridge on State Highway 10, 1 mi downstream of Henry Fork, and 2.2 mi west of Startown. | 210 | 1974-77, 1979-88, 1991 | 8-20-92 | 188 |

[2] Baseflow.
† Operated as a continuous-record gaging station.
b 1135 Time of measurement
c 1230 Time of measurement

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

### DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1992

| Stream | Tributary to | Location | Drainage area ($mi^2$) | Measured previously (water years) | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | **SANTEE RIVER BASIN (Continued)** | | | | |
| 02143260 Clark Creek | South Fork Catawba River | Lat 35°28'30", long 81°16'00", Lincoln County, Hydrologic Unit 03050102, at bridge on Secondary Road 1008 at Lincolnton, and 0.2 mi upstream from mouth. | 91.2 | 1947, 1949-57, 1962-64, 1970-72, 1975, 1978-91 | 12- 9-91<br>3- 4-92<br>6- 2-92<br>7-28-92 | 59.2<br>86.6<br>79.8<br>55.8 |
| 02146381 Sugar Creek | Catawba River | Lat 35°05'20", long 80°54'00", Mecklenburg County, Hydrologic Unit 03050103, at bridge on U.S. Highway 51, 0.5 mi upstream from McCullough Branch, and 0.8 mi west of Pineville. | 65.3 | 1969-74, 1979-91 | 4- 6-92<br>6- 2-92<br>7-29-92 | 45.9<br>38.6<br>25.6 |
| 02146530 Little Sugar Creek | Catawba River | Lat 35°05'06", long 80°52'58", Mecklenburg County, Hydrologic Unit 03050103, at bridge on State Highway 51, 0.5 mi east of intersection of State Highway 51 and U.S. Highway 521 at Pineville. | 49.2 | 1966-69, 1989-91 | 4- 6-92<br>6- 2-92<br>9-23-92 | 40.5<br>41.1<br>36.9 |
| 0214669845 McMullen Creek tributary | McMullen Creek | Lat 35°33'19", long 82°47'59" Mecklenburg County, Hydrologic Unit 03050103, 0.2 mi east of Providence Rd at Charlotte, and 0.5 mi upstream from mouth. | .22 | | 6-15-92 | 490[3] |
| 02146800 Sugar Creek | Catawba River | Lat 35°00'21", long 80°54'09", York County, Hydrologic Unit 03050103, at bridge on State Highway 160, 0.7 mi downstream from Clems Branch, and 2.6 mi east of Fort Mill, S.C. | 262 | 1969, 1974-78†, 1982-91 | 4- 6-92<br>6- 2-92<br>7-16-92<br>9-10-92 | 198<br>162<br>111<br>158 |
| 02152596 First Broad River | Broad River | Lat 35°13'03", long 81°36'28", Cleveland County, Hydrologic Unit 03050105, at bridge on Secondary Road 1140, 3 mi upstream from mouth, and 4.8 mi northwest of Earl. | 296 | 1968-77, 1980-91 | 3- 4-92<br>7-13-92 | 313<br>183 |
| 02153456 Buffalo Creek | Broad River | Lat 35°10'20", long 81°31'02", Cleveland County, Hydrologic Unit 03050105, at bridge on State Highway 198, 0.1 mi upstream from North Carolina-South Carolina State line, and 4 mi west of Grover. | 161 | 1968-77, 1979-91 | 3- 4-92<br>7-13-92 | 136<br>72.5 |
| | | **SAVANNAH RIVER BASIN** | | | | |
| 02184242 Horsepasture River | Toxaway River | Lat 35°05'33", long 82°58'04", Transylvania County, Hydrologic Unit 03060101, at bridge on State Highway 281, and 4 mi southwest of Lake Toxaway. | 24.1 | 1985-91 | 3- 4-92<br>8- 3-92<br>9-21-92 | 98.6<br>24.4<br>85.0 |
| | | **KANAWA RIVER BASIN** | | | | |
| 03160271 South Fork New River | New River | Lat 36°13'14", long 81°38'25", Watauga County, Hydrologic Unit 05050001, at bridge on U.S. Highway 421, and 2 mi east of Boone. | 34.8 | 1925, 1955-56, 1960, 1962, 1974-91 | 4-14-92<br>8- 6-92<br>9-23-92 | 62.8<br>35.2<br>59.6 |
| 03161361 South Fork New River | New River | Lat 36°28'26", long 81°20'13", Ashe County, Hydrologic Unit 05050001, downstream of Cranberry Creek, 1.2 mi downstream from Nathans Creek, and 2 mi southwest of Scottville. | 300 | 1974-75, 1977, 1981-83, 1986-91 | 4-14-92<br>9-23-92 | 404<br>365 |
| 03162500 North Fork New River | New River | Lat 36°30'14", long 81°23'25", Ashe County, Hydrologic Unit 05050001, 0.2 mi downstream of bridge on State Highway 16 at Crumpler, and 6 mi upstream from South Fork. | 277 | 1930-58†, 1977, 1981-91 | 4-14-92<br>9-23-92 | 418<br>147 |
| 03162850 New River | Kanawha River | Lat 36°33'08", long 81°11'00", Alleghany County, Hydrologic Unit 05050001, at bridge on Secondary Road 1345, 0.8 mi downstream of Rock Creek, and 1.3 mi north-northeast of Amelia. | 823 | 1968-69, 1971-75, 1979-84, 1985, 1987-91 | 9-17-92 | 698 |

† Operated as a continuous-record gaging station.
[3] Instantaneous peak flow.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1992

| Stream | Tributary to | Location | Drainage area ($mi^2$) | Measured previously (water years) | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | **TENNESSEE RIVER BASIN** | | | | |
| 0344495065 Bradley Creek | French Broad River | Lat 35°23'00", long 82°41'05", Henderson County, Hydrologic Unit 06010105, 0.2 mi upstream from Yellow Gap Creek, and 1 mi south of Yellow Gap. | 6.50 | | 3- 4-92<br>8- 3-92<br>9-18-92 | 20.3<br>7.53<br>16.4 |
| 03446569 Mud Creek | French Broad River | Lat 35°21'10", long 82°27'51", Henderson County, Hydrologic Unit 06010105, at bridge on Secondary Road 1508, 0.2 mi downstream of Clear Creek, and 0.6 mi northeast of Balfour. | 97.4 | 1968-74, 1977 | 4-13-92<br>8- 3-92<br>9-18-92 | 121<br>76.8<br>104 |
| 03457124 Pigeon River | French Broad River | Lat 35°32'05", long 82°54'41", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1818 at Clyde, and 0.2 mi downstream of Chambers Branch. | 162 | 1969-78, 1980-91 | 4-13-92<br>6-23-92<br>9-28-92 | 264<br>472<br>236 |
| 03457138 Pigeon River | French Broad River | Lat 35°32'56", long 82°56'23", Haywood County, Hydrologic Unit 06010106, at bridge on road connecting Secondary Roads 1513 and 1519, 0.5 mi upstream from Richlands Creek, 2 mi east of dam, and at mile 55.5. | 169 | 1964-65, 1968-84, 1986-91 | 4-13-92<br>6-23-92<br>9-28-92 | 292<br>458<br>213 |
| 03458121 Richland Creek | Pigeon River | Lat 35°30'30", long 82°58'19", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1184, 0.8 mi upstream from Raccoon Creek, and 1.5 mi northeast of Waynesville. | 48.0 | 1981-91 | 4-16-92<br>7-13-92<br>9-25-92 | 93.2<br>46.9<br>38.3 |
| 03458421 Richland Creek | Pigeon River | Lat 35°32'51", long 82°56'44", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1519, 0.2 mi upstream from mouth, and 2.2 mi northwest of Clyde. | 68.4 | 1964-65, 1968-73, 1975-76, 1979-83, 1986-91 | 4-14-92<br>7-13-92<br>7-15-92 | 112<br>17.9<br>66.7 |
| 03458441 Pigeon River | French Broad River | Lat 35°33'41", long 82°57'14", Haywood County, Hydrologic Unit 06010106, at bridge on State Highway 209, 0.5 mi downstream of Yates Cover, and 3 mi northwest of Clyde. | 238 | 1968-84, 1986-91 | 4-14-92<br>6-23-92<br>9-28-92 | 400<br>612<br>306 |
| 03458620 Crabtree Creek | Pigeon River | Lat 35°36'00", long 82°56'56", Haywood County, Hydrologic Unit 06010106, 0.2 mi upstream from mouth, and 0.6 mi west of Crabtree. | 25.8 | 1944,[2] 1953-54,[2] 1962-66,[2] 1968-69,[2] 1976, 1978, 1981-84, 1986-91 | 3- 4-92<br>7-13-92<br>7-15-92 | 23.6<br>14.3<br>14.0 |
| 03458638 Pigeon River | French Broad River | Lat 35°36'52", long 82°58'01", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1363, and 0.1 mi downstream of Dotson Branch, 1.8 mi northwest of Crabtree. | 278 | 1964-65, 1968-78, 1980-84, 1986-91 | 3-14-92<br>6-24-92<br>9-28-92 | 606<br>563<br>344 |
| 03460766 Pigeon River | French Broad River | Lat 35°46'32", long 83°06'01", Haywood County, Hydrologic Unit 06010106, at Carolina Power and Light power plant, downstream of Big Creek, and at Waterville. | 536 | 1968-71, 1973-78, 1980-91 | 4-14-92<br>6-24-92<br>9-29-92 | 1,240<br>1,550<br>1,660 |
| 03461976 North Toe River | Nolichucky River | Lat 35°58'51", long 82°00'59", Avery County, Hydrologic Unit 06010108, at bridge on U.S. Highway 19E, 0.1 mi downstream of Jones Creek, 0.7 mi north of Ingalls, and at mile 50.9. | 74.1 | 1969-71, 1973-74, 1976-91 | 4-15-92<br>7-24-92<br>9-22-92 | 137<br>96.2<br>68.8 |

[2] Baseflow.
† Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1992

| Stream | Tributary to | Location | Drainage area ($mi^2$) | Measured previously (water years) | Measurements | |
|---|---|---|---|---|---|---|
| | | | | | Date | Discharge ($ft^3/s$) |
| | | TENNESSEE RIVER BASIN (Continued) | | | | |
| 03463021 North Toe River | Nolichucky River | Lat 35°55'46", long 82°06'57", Mitchell County, Hydrologic Unit 06010108, at bridge on Secondary Road 1162 at Penland, 0.4 mi downstream of Bear Creek, and at mile 27.6 | 145 | 1969-70, 1972-75, 1978, 1982-91 | 4-15-92<br>7-24-92<br>9-22-92 | 214<br>187<br>124 |
| 03463162 South Toe River | Cane River | Lat 35°43'08", long 82°14'55", Yancey County, Hydrologic Unit 06010108, 3 mi southeast of Mt. Mitchell, and 4.7 mi southwest of Busick. | 1.8 | 1985-91 | 6-11-92<br>8- 4-92<br>9-22-92 | 27.7<br>2.85<br>3.63 |
| 03464000 Cane River | Nolichucky River | Lat 36°00'52", long 82°19'40", Yancey County, Hydrologic Unit 06010108, 1.3 mi upstream from North Toe River, and 1.5 mi east of Sioux. | 157 | 1933-71†, 1974-78, 1980-91 | 11-15-91<br>3-30-92<br>7-17-92 | 77.5<br>336<br>130 |
| 03464500 Nolichucky River | French Broad River | Lat 36°04'28", long 82°20'42", Mitchell County, Hydrologic Unit 06010108, at Poplar, and 0.7 mi upstream from Hollow Poplar Creek. | 608 | 1922-45†, 1962-63, 1968-72, 1974-78, 1980-91 | 11-15-91<br>7-28-92 | 306<br>595 |
| 03478819 Watauga River | South Fork Holston River | Lat 36°11'39", long 81°44'45", Watauga County, Hydrologic Unit 06010103, at bridge on State Highway 105, 300 ft upstream from Laurel Fork, and 1.4 mi north of Shulls Mills. | 26.6 | 1971-73, 1975, 1986-91 | 4-14-92<br>8- 6-92<br>9-24-92 | 42.3<br>20.8<br>40.6 |
| 03502000 Little Tennessee River | Tennessee River | Lat 35°14'01", long 83°23'35", Macon County, Hydrologic Unit 06010202, 0.2 mi upstream from State Highway 28 at Iotla, and 0.2 mi upstream from Iotla Creek. | 323 | 1929-45†, 1972-79, 1982-91 | 4-15-92<br>7-16-92<br>9-30-92 | 773<br>507<br>559 |
| 0351092910 Raven Fork | Oconaluftee River | Lat 35°33'19", long 83°15'25" Swain County, Hydrologic Unit 06010203, 0.15 mi upstream from Galdmore Branch, and 2.9 mi east of Smokemont. | 64.9 | | 9-10-92 | 16,200[3] |
| 03515633 Cheoah River | Little Tennessee River | Lat 35°20'04", long 83°48'21", Graham County, Hydrologic Unit 06010204, 0.1 mi upstream from Long Creek, and 0.9 mi north of Robbinsville. | 55.3 | 1968-71, 1973-91 | 4-10-92<br>7-16-92<br>9-30-92 | 91.7<br>31.2<br>38.2 |

† Operated as a continuous-record gaging station.
[3] Instantaneous peak flow.

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Water-quality partial-record stations are particular sites where chemical-quality, biological and (or) sediment data are collected systematically over a period of years for use in hydrologic analyses. These data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

For the period October 1988 through June 1989, the inorganic chemical data and trace-metal data were analyzed by the city of Durham's Brown Water Treatment laboratory.

### MISCELLANEOUS STATION ANALYSES

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE WATER (DEG C) (00010) | COLOR (PLAT-INUM-COBALT UNITS) (00080) | BARO-METRIC PRES-SURE (MM OF HG) (00025) | OXYGEN, DIS-SOLVED (MG/L) (00300) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0208524170 | LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W) | | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 1315 | 0.14 | 6 | 6.9 | 11.5 | 55 | 745 | 10.4 | 98 | 3.5 | 1.5 | 5.1 |
| MAR | | | | | | | | | | | | |
| 23... | 1400 | 0.29 | 6 | 6.8 | 12.0 | 70 | 758 | 11.6 | 108 | 3.6 | 1.6 | 5.8 |
| 26... | 1230 | 16 | 7 | 6.7 | 12.0 | 100 | 755 | 10.4 | 97 | 3.9 | 1.7 | 6.2 |
| APR | | | | | | | | | | | | |
| 22... | 1415 | 3.0 | 5 | 6.6 | 21.5 | 140 | 761 | 8.3 | 94 | 3.7 | 1.6 | 4.4 |
| MAY | | | | | | | | | | | | |
| 21... | 1100 | 0.0 | 8 | 7.0 | 15.0 | 110 | -- | -- | -- | 5.7 | 2.4 | 5.9 |
| JUN | | | | | | | | | | | | |
| 22... | 1230 | 0.0 | 9 | 7.1 | 17.5 | 5 | 778 | 8.4 | 86 | 7.1 | 3.2 | 7.6 |
| AUG | | | | | | | | | | | | |
| 19... | 1030 | 0.02 | 7 | 7.1 | 21.0 | 32 | 755 | 7.2 | 82 | 5.2 | 2.3 | 5.4 |
| | | 0208524950 | LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W) | | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 1145 | 0.07 | 15 | 6.9 | 12.0 | 20 | 746 | 9.4 | 89 | 14 | 3.8 | 7.0 |
| MAR | | | | | | | | | | | | |
| 23... | 1600 | 0.21 | 10 | 7.1 | 12.0 | 30 | 760 | 11.1 | 103 | 9.3 | 2.8 | 5.3 |
| 26... | 1445 | 2.6 | 7 | 6.8 | 13.0 | 120 | 756 | 10.2 | 98 | 6.2 | 2.0 | 3.8 |
| APR | | | | | | | | | | | | |
| 22... | 1215 | 1.5 | 9 | 6.8 | 18.5 | 80 | 764 | 8.8 | 94 | 7.8 | 2.5 | 5.1 |
| MAY | | | | | | | | | | | | |
| 21... | 1215 | 0.0 | 17 | 7.4 | 19.0 | 25 | -- | -- | -- | 18 | 4.8 | 8.5 |
| JUN | | | | | | | | | | | | |
| 22... | 1430 | 0.0 | 16 | 7.1 | 22.0 | 45 | 780 | 8.3 | 93 | 17 | 4.7 | 8.3 |
| AUG | | | | | | | | | | | | |
| 19... | 1215 | 0.02 | 19 | 6.8 | 23.5 | 35 | 755 | 6.7 | 80 | 20 | 5.4 | 8.8 |
| | | 0208527100 | ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W) | | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 1020 | 0.14 | 7 | 6.3 | 11.0 | 50 | 747 | 9.0 | 83 | 4.2 | 1.4 | 3.8 |
| MAR | | | | | | | | | | | | |
| 23... | 1130 | 0.51 | 4 | 6.3 | 9.5 | 55 | 760 | 10.2 | 89 | 2.7 | 1.1 | 2.7 |
| 26... | 0945 | 3.5 | 4 | 6.2 | 10.0 | 80 | 761 | 9.7 | 86 | 2.5 | 1.0 | 2.2 |
| APR | | | | | | | | | | | | |
| 22... | 0945 | 2.3 | 3 | 6.2 | 17.0 | 110 | 764 | 7.6 | 78 | 2.5 | 0.91 | 2.3 |
| MAY | | | | | | | | | | | | |
| 21... | 0845 | 0.0 | 8 | 6.5 | 13.5 | 150 | -- | -- | -- | 7.4 | 2.4 | 4.1 |
| JUN | | | | | | | | | | | | |
| 22... | 1030 | 0.04 | 9 | 6.7 | 16.0 | 40 | 782 | 8.2 | 81 | 8.7 | 2.9 | 4.9 |
| AUG | | | | | | | | | | | | |
| 19... | 1400 | 0.02 | 9 | 6.6 | 22.0 | 120 | 754 | 6.4 | 74 | 8.6 | 2.7 | 4.1 |

MISCELLANEOUS STATION ANALYSES

| DATE | SODIUM PERCENT (00932) | SODIUM ADSORPTION RATIO (00931) | POTASSIUM, DISSOLVED (MG/L AS K) (00935) | SULFATE DISSOLVED (MG/L AS SO4) (00945) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | FLUORIDE, DISSOLVED (MG/L AS F) (00950) | SILICA, DISSOLVED (MG/L AS SIO2) (00955) | RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300) | SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301) | SOLIDS, NITROGEN, NITRATE TOTAL (MG/L AS N) (00620) | NITROGEN, NITRITE TOTAL (MG/L AS N) (00615) | NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0208524170 | LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W) | | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 39 | 0.6 | 1.9 | 9.3 | 6.6 | <0.10 | 7.3 | 55 | 42 | 0.075 | 0.010 | 0.085 |
| MAR | | | | | | | | | | | | |
| 23... | 43 | 0.6 | 0.9 | 7.2 | 6.6 | <0.10 | 6.2 | 48 | 38 | -- | <0.010 | <0.050 |
| 26... | 42 | 0.7 | 1.4 | 6.7 | 8.8 | 0.20 | 5.2 | 55 | 42 | -- | 0.010 | <0.050 |
| APR | | | | | | | | | | | | |
| 22... | 35 | 0.5 | 1.8 | 7.0 | 4.4 | 0.20 | 7.0 | 74 | 36 | 0.090 | 0.010 | 0.100 |
| MAY | | | | | | | | | | | | |
| 21... | 33 | 0.5 | 1.7 | 3.3 | 7.9 | 0.10 | 4.1 | 52 | 47 | -- | <0.010 | 0.150 |
| JUN | | | | | | | | | | | | |
| 22... | 33 | 0.6 | 1.7 | 2.6 | 8.1 | <0.10 | 5.8 | 60 | 55 | -- | <0.010 | 0.190 |
| AUG | | | | | | | | | | | | |
| 19... | 33 | 0.5 | 1.4 | 2.6 | 3.8 | <0.10 | 5.5 | 46 | 42 | -- | <0.010 | 0.130 |
| | | 0208524950 | LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W) | | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 22 | 0.4 | 3.0 | 17 | 15 | 0.20 | 15 | 101 | 100 | 0.066 | 0.010 | 0.076 |
| MAR | | | | | | | | | | | | |
| 23... | 24 | 0.4 | 1.5 | 9.7 | 7.5 | <0.10 | 11 | 68 | 63 | -- | <0.010 | <0.050 |
| 26... | 23 | 0.3 | 2.9 | 9.2 | 4.9 | 0.20 | 9.2 | 72 | 49 | 0.056 | 0.040 | 0.096 |
| APR | | | | | | | | | | | | |
| 22... | 25 | 0.4 | 2.2 | 9.7 | 5.8 | 0.10 | 13 | 62 | 61 | 0.072 | 0.020 | 0.092 |
| MAY | | | | | | | | | | | | |
| 21... | 21 | 0.5 | 3.1 | 7.3 | 13 | 0.10 | 13 | 98 | 106 | -- | <0.010 | <0.050 |
| JUN | | | | | | | | | | | | |
| 22... | 21 | 0.5 | 3.9 | 6.1 | 12 | <0.10 | 12 | 122 | 99 | 0.069 | 0.010 | 0.079 |
| AUG | | | | | | | | | | | | |
| 19... | 20 | 0.5 | 4.2 | 9.2 | 14 | 0.10 | 15 | 120 | 119 | -- | <0.010 | 0.082 |
| | | 0208527100 | ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W) | | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 31 | 0.4 | 2.0 | 14 | 6.9 | 0.20 | 12 | 50 | 49 | 0.130 | 0.010 | 0.140 |
| MAR | | | | | | | | | | | | |
| 23... | 32 | 0.3 | 0.9 | 6.7 | 3.7 | <0.10 | 8.8 | 31 | 30 | -- | <0.010 | <0.050 |
| 26... | 29 | 0.3 | 1.2 | 6.5 | 3.3 | 0.10 | 7.4 | 45 | 27 | 0.063 | 0.020 | 0.083 |
| APR | | | | | | | | | | | | |
| 22... | 31 | 0.3 | 0.8 | 4.6 | 2.1 | <0.10 | 7.8 | 68 | 24 | -- | <0.010 | <0.050 |
| MAY | | | | | | | | | | | | |
| 21... | 23 | 0.3 | 1.6 | 2.8 | 6.0 | <0.10 | 9.8 | 52 | 50 | 0.090 | 0.010 | 0.100 |
| JUN | | | | | | | | | | | | |
| 22... | 23 | 0.4 | 1.6 | 1.4 | 6.2 | <0.10 | 10 | 76 | 54 | 0.140 | 0.020 | 0.160 |
| AUG | | | | | | | | | | | | |
| 19... | 20 | 0.3 | 2.4 | 2.4 | 6.6 | <0.10 | 10 | 63 | 55 | 0.190 | 0.020 | 0.210 |

MISCELLANEOUS STATION ANALYSES

| DATE | NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITROGEN, AMMONIA TOTAL (MG/L AS NH4) (71845) | NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625) | NITROGEN, TOTAL (MG/L AS N) (00600) | NITROGEN, TOTAL (MG/L AS NO3) (71887) | PHOSPHORUS TOTAL (MG/L AS P) (00665) | PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105) | ARSENIC TOTAL (UG/L AS AS) (01002) | CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027) | CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0208524170 | | LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W) | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | <0.010 | -- | -- | 0.40 | 0.48 | 2.1 | 0.030 | 0.020 | 370 | <1 | <1 | <1 |
| MAR | | | | | | | | | | | | |
| 23... | 0.020 | 0.03 | 0.2 | 0.30 | -- | -- | 0.050 | 0.020 | 510 | <1 | <1 | <1 |
| 26... | 0.020 | 0.03 | 0.4 | 0.50 | -- | -- | 0.040 | 0.030 | 790 | <1 | <1 | 1 |
| APR | | | | | | | | | | | | |
| 22... | 0.080 | 0.10 | 1.0 | 1.1 | 1.2 | 5.3 | 0.100 | 0.050 | 690 | <1 | <1 | <1 |
| MAY | | | | | | | | | | | | |
| 21... | 0.030 | 0.04 | 0.5 | 0.60 | 0.75 | 3.3 | 0.070 | 0.030 | 90 | <1 | <1 | <1 |
| JUN | | | | | | | | | | | | |
| 22... | 0.040 | 0.05 | 0.4 | 0.50 | 0.69 | 3.1 | 0.060 | 0.020 | 100 | <1 | <1 | 1 |
| AUG | | | | | | | | | | | | |
| 19... | 0.030 | 0.04 | 0.5 | 0.60 | 0.73 | 3.2 | 0.080 | 0.020 | -- | -- | -- | -- |
| | | 0208524950 | | LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W) | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 0.010 | 0.01 | -- | <0.20 | -- | -- | 0.020 | 0.010 | 90 | <1 | <1 | <1 |
| MAR | | | | | | | | | | | | |
| 23... | 0.020 | 0.03 | 0.1 | 0.20 | -- | -- | 0.040 | 0.020 | 230 | <1 | <1 | 1 |
| 26... | 0.040 | 0.05 | 0.3 | 0.40 | 0.50 | 2.2 | 0.130 | 0.140 | 1400 | <1 | <1 | 1 |
| APR | | | | | | | | | | | | |
| 22... | 0.030 | 0.04 | 0.2 | 0.30 | 0.39 | 1.7 | 0.050 | 0.040 | 390 | <1 | <1 | <1 |
| MAY | | | | | | | | | | | | |
| 21... | 0.040 | 0.05 | 0.7 | 0.80 | -- | -- | 0.050 | 0.020 | 140 | <1 | <1 | 2 |
| JUN | | | | | | | | | | | | |
| 22... | 0.070 | 0.09 | 0.6 | 0.70 | 0.78 | 3.4 | 0.120 | 0.060 | 300 | <1 | <1 | <1 |
| AUG | | | | | | | | | | | | |
| 19... | 0.050 | 0.06 | 0.3 | 0.40 | 0.48 | 2.1 | 0.040 | 0.020 | -- | -- | -- | -- |
| | | 0208527100 | | ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W) | | | | | | | | |
| JAN 1992 | | | | | | | | | | | | |
| 14... | 0.010 | 0.01 | 0.2 | 0.30 | 0.44 | 1.9 | 0.200 | <0.010 | 390 | <1 | <1 | 2 |
| MAR | | | | | | | | | | | | |
| 23... | 0.020 | 0.03 | -- | <0.20 | -- | -- | 0.020 | <0.010 | 560 | <1 | <1 | <1 |
| 26... | 0.030 | 0.04 | 0.3 | 0.40 | 0.48 | 2.1 | 0.070 | 0.050 | 1000 | <1 | <1 | 3 |
| APR | | | | | | | | | | | | |
| 22... | 0.040 | 0.05 | 0.5 | 0.60 | -- | -- | 0.030 | 0.020 | 500 | <1 | <1 | <1 |
| MAY | | | | | | | | | | | | |
| 21... | 0.140 | 0.18 | 0.4 | 0.60 | 0.70 | 3.1 | 0.060 | 0.020 | 180 | 1 | <1 | 2 |
| JUN | | | | | | | | | | | | |
| 22... | 0.15? | 0.19 | 0.6 | 0.80 | 0.96 | 4.2 | 0.070 | 0.010 | 230 | 2 | <1 | 1 |
| AUG | | | | | | | | | | | | |
| 19... | 0.10( | 0.13 | 0.5 | 0.60 | 0.81 | 3.6 | 0.050 | 0.020 | -- | -- | -- | -- |

MISCELLANEOUS STATION ANALYSES

| DATE | COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037) | COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042) | IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045) | LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051) | MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055) | MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900) | NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067) | SELE-NIUM, TOTAL (UG/L AS SE) (01147) | SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077) | ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092) | CARBON, ORGANIC TOTAL (MG/L AS C) (00680) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0208524170 | | LITTLE RIVER TRIB NR DURHAM, NC (LAT 36 06 45N LONG 078 53 00W) | | | | | | | |
| JAN 1992 | | | | | | | | | | | |
| 14... | <1 | 3 | 910 | 2 | 30 | <0.10 | <1 | <1 | <1 | 20 | 8.8 |
| MAR | | | | | | | | | | | |
| 23... | <1 | <1 | 1600 | <1 | 20 | <0.10 | <1 | <1 | <1 | <10 | 9.5 |
| 26... | 2 | -- | 2300 | 5 | 210 | <0.10 | 1 | <1 | <1 | <10 | 12 |
| APR | | | | | | | | | | | |
| 22... | <1 | 3 | 1100 | <1 | 160 | 0.40 | <1 | <1 | <1 | 30 | 24 |
| MAY | | | | | | | | | | | |
| 21... | <1 | 1 | 2600 | 1 | 70 | 0.20 | <1 | <1 | <1 | <10 | 12 |
| JUN | | | | | | | | | | | |
| 22... | <1 | <1 | 1200 | <1 | 180 | <0.10 | <1 | <1 | <1 | <10 | 8.5 |
| AUG | | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.0 |
| | | 0208524950 | | LITTLE RIVER TRIB AT FAIRNTOSH, NC (LAT 36 06 56N LONG 078 51 30W) | | | | | | | |
| JAN 1992 | | | | | | | | | | | |
| 14... | <1 | <1 | 450 | 2 | 210 | <0.10 | <1 | <1 | <1 | 30 | 4.4 |
| MAR | | | | | | | | | | | |
| 23... | <1 | <1 | 400 | <1 | 30 | <0.10 | 2 | <1 | <1 | <10 | 5.2 |
| 26... | 1 | -- | 1900 | 3 | 90 | <0.10 | 2 | <1 | <1 | <10 | 9.2 |
| APR | | | | | | | | | | | |
| 22... | <1 | 2 | 600 | <1 | 100 | <0.10 | <1 | <1 | <1 | 10 | 8.2 |
| MAY | | | | | | | | | | | |
| 21... | <1 | 2 | 830 | <1 | 210 | <0.10 | <1 | <1 | <1 | 10 | 4.4 |
| JUN | | | | | | | | | | | |
| 22... | <1 | 1 | 1500 | <1 | 290 | <0.10 | <1 | <1 | <1 | <10 | 6.8 |
| AUG | | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.8 |
| | | 0208527100 | | ENO RIVER TRIB AT SR 1004 NR FAIRNTOSH, NC (LAT 36 05 17N LONG 078 50 42W) | | | | | | | |
| JAN 1992 | | | | | | | | | | | |
| 14... | <1 | 6 | 620 | 3 | 100 | <0.10 | <1 | <1 | <1 | 20 | 6.3 |
| MAR | | | | | | | | | | | |
| 23... | <1 | <1 | 660 | <1 | 40 | <0.10 | <1 | <1 | <1 | <10 | 6.7 |
| 26... | 1 | -- | 1800 | 7 | 170 | <0.10 | 2 | <1 | <1 | 20 | 10 |
| APR | | | | | | | | | | | |
| 22... | 1 | 2 | 790 | 2 | 200 | <0.10 | 2 | <1 | <1 | 10 | 14 |
| MAY | | | | | | | | | | | |
| 21... | 2 | <1 | 5000 | 1 | 1100 | <0.10 | 3 | <1 | <1 | <10 | 12 |
| JUN | | | | | | | | | | | |
| 22... | 2 | <1 | 5800 | 1 | 1700 | <0.10 | 2 | <1 | <1 | <10 | 14 |
| AUG | | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12 |

**BEAUFORT COUNTY**

**351932076480001.** Local number, NC-13.
LOCATION.--Lat 35°19'32", long 76°48'00", Hydrologic Unit 03020104, 1.5 mi north of Aurora, east of intersection of State Highway 306 and Secondary Road 1942. Owner: Texasgulf Chemicals Company.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 168 ft, diameter 4 in, cased to 156 ft, open hole to 168 ft; measured depth 165.5 ft, September 1981.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of casing, 0.36 ft below land-surface datum (since February 16, 1984).
REMARKS.--Since 1965 water levels affected by nearby pumping associated with mining operations. Well is part of local-effects network.
PERIOD OF RECORD.--June 1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.38 ft below land-surface datum, Apr. 9, 1965; lowest water level recorded, 107.25 ft below land-surface datum, July 11, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 102.61 | 102.28 | --- | --- | 96.52 | 91.68 | --- | 84.38 | 90.39 | 78.24 | --- | 71.83 |
| 10 | 101.67 | 96.67 | --- | --- | 95.21 | 91.46 | --- | 88.08 | 82.73 | 79.81 | --- | 71.48 |
| 15 | 100.76 | 101.77 | --- | --- | 94.76 | 91.07 | --- | 87.90 | 81.95 | 80.43 | --- | 71.13 |
| 20 | 99.75 | 103.10 | --- | 97.94 | 94.68 | 90.66 | --- | 87.42 | 79.11 | --- | --- | --- |
| 25 | 101.43 | 101.26 | --- | 97.71 | 91.98 | --- | 90.38 | 90.14 | 77.29 | --- | --- | --- |
| EOM | 102.17 | --- | --- | 97.28 | 91.14 | --- | 89.79 | 87.50 | 78.03 | --- | 72.40 | --- |

WTR YR 1992 MEAN 90.09 HIGH 70.87 SEP 18 LOW 103.49 OCT 4

**352615077083401.** Local number, NC-137; DEHNR Creeping Swamp Research Station well O21q1.
LOCATION.--Lat 35°26'15", long 77°08'38", Hydrologic Unit 03020202, 1 mi west of U.S. Highway 17 on State Highway 102, and 3 mi north of Wilmar. Owner: DEHNR (North Carolina Department of Enviroment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 143 ft, diameter 4 in., cased to 72 ft, open hole to 143 ft; measured depth 141.6 ft, September 1981.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 56.84 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of collar on casing, 0.8 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.90 ft below land-surface datum, Feb. 3, 1972; lowest water level recorded, 26.34 ft below land-surface datum, Dec. 5, 6, 7, 13, and 14, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 23.58 | 23.88 | 23.88 | 23.39 | 22.13 | 21.97 | 21.97 | 22.11 | 22.72 | 22.37 | 22.77 | 21.93 |
| 10 | 23.73 | 23.71 | 23.82 | 23.19 | 22.15 | 21.88 | 22.01 | 22.18 | 22.69 | 22.37 | 22.78 | 21.88 |
| 15 | 23.76 | 23.85 | 23.90 | 23.00 | 21.94 | 21.96 | 22.06 | 22.30 | 22.79 | 22.44 | 22.63 | 21.98 |
| 20 | 23.77 | 23.85 | 24.00 | 22.78 | 21.95 | 21.95 | 22.11 | 22.42 | 22.73 | 22.49 | 22.47 | 22.03 |
| 25 | 23.79 | 23.82 | 23.89 | 22.58 | 21.89 | 22.10 | 22.03 | 22.55 | 22.65 | 22.60 | 22.24 | 22.18 |
| EOM | 23.76 | 23.83 | 23.82 | 22.21 | 21.89 | 21.95 | 22.10 | 22.64 | 22.53 | 22.69 | 22.00 | 22.36 |

WTR YR 1992 MEAN 22.71 HIGH 21.81 FEB 26 LOW 24.02 DEC 19

**352037076514101.** Local Number, NC-145; DEHNR Bonnerton Research Station well P18v5.
LOCATION.--Lat 35°20'37", long 76°51'41", Hydrologic Unit 03020104, 1 mi south of Bonnerton on Secondary Road 1936. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 280 ft, diameter 4 in., cased to 169 ft, open hole to 280 ft; measured depth 278 ft, September 1981.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 36.41 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR) - revised from 36.64 ft above NGVD, October 1987. Measuring point: Top of instrument shelf, 2.70 ft above land-surface datum - revised from 2.47 ft above land-surface datum, October 1987.
REMARKS.--Water level is affected by nearby pumping associated with mining operations. Well is part of local-effects network.
PERIOD OF RECORD.--June 1980 to current year. Continuous record began July 1984. Records from June 1980 to June 1984 are unpublished and available in the files of the Groundwater section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 68.18 ft below land-surface datum, Oct. 26, 1982; lowest water level recorded, 100.32 ft below land-surface datum, Oct. 9 and 10, 1989.
REVISIONS.--Water-level mean values and extremes for period of record published in U.S.G.S. annual reports, Water Resources Data-North Carolina NC-85-1, NC-86-1, and NC-87-1, should be adjusted by -0.23 ft.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 81.02 | 79.97 | 81.54 | 83.21 | 80.15 | 80.14 | --- | 82.13 | 81.74 | 88.33 | --- | 86.52 |
| 10 | 80.45 | 78.37 | 82.91 | 81.86 | 80.72 | 79.85 | 79.03 | 82.48 | 83.86 | 86.63 | --- | 85.96 |
| 15 | 80.27 | 79.89 | 82.83 | 80.77 | 80.38 | 79.74 | 78.89 | 81.66 | 84.95 | 88.32 | --- | 85.88 |
| 20 | 79.97 | 81.09 | 83.19 | 81.15 | 80.50 | 78.57 | 78.84 | 81.32 | 85.34 | --- | --- | 85.54 |
| 25 | 80.38 | 81.36 | 82.93 | 81.09 | 81.28 | --- | 78.62 | 81.67 | 86.73 | --- | --- | 85.20 |
| EOM | 79.38 | 81.79 | 82.59 | 80.62 | 80.44 | --- | 80.27 | 81.73 | 87.96 | --- | 86.40 | 85.28 |

WTR YR 1992 MEAN 82.08 HIGH 78.37 NOV 10 LOW 88.33 JUL 5

**BEAUFORT COUNTY**--Continued

**352037076514106.** Local number, NC-162; DEHNR Bonnerton Research Station well P18v6.
LOCATION.--Lat 35°20'37", long 76°51'41", Hydrologic Unit 03020104, 1 mi south of Bonnerton on Secondary Road 1936. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 86 ft, diameter 2.5 in., cased to 76 ft, screened interval from 76 to 86 ft; measured depth 83.4 ft, October 1986.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 37.09 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 3.07 ft above land-surface datum - revised from 2.72 ft above land-surface datum, October 1987.
REMARKS.--Water level is affected by nearby pumping associated with mining operations. Well is part of local-effects network.
PERIOD OF RECORD.--June 1980 to current year. Continuous record December 1986 to November 1990. Records from June 1980 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 36.68 ft below land-surface datum, Mar. 8, 1983; lowest water level recorded, 40.58 ft below land-surface datum, July 21, 1990.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by -0.35 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 3 | 38.23 | JAN 15 | 38.42 | APR 23 | 38.22 | JUN 2 | 38.37 | JUL 16 | 39.95 | AUG 25 | 38.43 |
| DEC 2 | 38.86 | MAR 4 | 38.33 | | | | | | | | |

**352224076570403.** Local number, NC-163; DEHNR Coxs Crossroads Research Station well P19m3.
LOCATION.--Lat 35°22'24", long 76°57'04", Hydrologic Unit 03020104, at North Carolina Department of Transportation Maintenance Yard near Coxs Crossroads, and 0.25 mi north of State Highway 32 on Secondary Road 1100. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 250 ft, diameter 4 in, cased to 81 ft, open hole to 250 ft, measured depth 236.5 ft, September 1981.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 25.38 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of plastic sleeve on instrument shelf, 2.07 ft above land-surface datum (since July 1990).
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--June 1967 to current year. Continuous record began November 1986. Records from June 1967 to November 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.14 ft below land-surface datum, Feb. 23, 1972; lowest water level recorded, 31.36 ft below land-surface datum, Feb. 4 and 5, 1989.
REVISIONS.--Water-level mean values and extremes for period of record published in U.S.G.S. annual report, Water Resources Data-North Carolina NC-87-1, should be adjusted by -0.1 ft.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 26.66 | 26.35 | 26.74 | 26.11 | 25.39 | 25.16 | 24.77 | 25.19 | 25.90 | 26.42 | 27.33 | 26.13 |
| 10 | 26.56 | 25.97 | 26.52 | 26.11 | 25.57 | 24.93 | 24.89 | 25.42 | 25.90 | 26.55 | 27.40 | 26.01 |
| 15 | 26.44 | 26.01 | 26.83 | 25.99 | 25.26 | 25.05 | 25.05 | 25.59 | 25.90 | 26.75 | 27.20 | 26.07 |
| 20 | 26.41 | 26.05 | 27.26 | 26.05 | 25.17 | 24.94 | 25.08 | 25.72 | 25.90 | 27.03 | 26.56 | 25.99 |
| 25 | 26.38 | 26.19 | 26.97 | 25.85 | 25.10 | 25.06 | 24.88 | 25.79 | 26.00 | 27.14 | 26.34 | 26.01 |
| EOM | 26.25 | 26.50 | 26.81 | 25.39 | 25.10 | 24.69 | 25.07 | 25.90 | 26.21 | 27.16 | 26.11 | 26.04 |

WTR YR 1992 MEAN 26.00 HIGH 24.69 MAR 31 LOW 27.52 AUG 9

**352252077050707.** Local number, NC-164; DEHNR Wilmar Research Station well P21k7.
LOCATION.--Lat 35°22'53", long 77°05'17", Hydrologic Unit 03020202, 0.5 mi east of intersection of Secondary Roads 1129 and 1130 on logging road, and 3.5 mi southeast of Wilmar. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 320 ft, diameter 6 in., cased to 290 ft, screened interval from 290 to 310 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 40.56 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.94 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--March 1969 to current year. Continuous record December 1986 to November 1990. Records from March 1969 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.03 ft below land-surface datum, Apr. 27, 1973; lowest water level recorded, 19.40 ft below land-surface datum, Jan. 11 and 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 3 | 16.05 | JAN 2 | 16.44 | MAR 2 | 14.71 | APR 9 | 14.71 | JUL 16 | 15.32 | AUG 24 | 15.53 |
| NOV 25 | 16.35 | | | | | | | | | | |

**BEAUFORT COUNTY**--Continued

**352252077050709.** Local number, NC-165; DEHNR Wilmar Research Station well P21k9.
LOCATION.--Lat 35°22'53", long 77°05'17", Hydrologic Unit 03020202, 0.5 mi east of intersection of Secondary Roads 1129 and 1130 on logging road, and 3.5 mi southeast of Wilmar. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Black Creek aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 712 ft, diameter 4 in., cased to 695 ft, screened interval from 695 to 705 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 41.63 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.74 ft above land-surface datum - revised from 2.91 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--March 1969 to current year. Continuous record December 1986 to November 1990. Records from March 1969 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.94 ft below land-surface datum, Mar. 11, 1969; lowest water level recorded, 61.79 ft below land-surface datum, July 16, 1992.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.17 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 3 | 59.51 | JAN 2 | 59.69 | APR 9 | 59.76 | MAY 29 | 61.74 | JUL 16 | 61.79 | AUG 24 | 61.70 |
| NOV 25 | 59.64 | MAR 2 | 59.76 | | | | | | | | |

**BERTIE COUNTY**

**361002076562106.** Local number, NC-153; DEHNR Cremo Research Station well G19b6.
LOCATION.--Lat 36°10'02", long 76°56'21", Hydrologic Unit 03010203, 0.75 mi south of Cremo, south of Secondary Road 1313 on logging road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 431 ft, diameter 6 in., cased to 400 ft, screened interval from 400 to 410 ft; measured depth 412 ft, October 1986.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 64.49 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 3.01 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--August 1974 to current year. Continuous record November 1986 to November 1990. Records from August 1974 to August 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 31.51 ft below land-surface datum, July 30, 1975; lowest water level recorded, 39.97 ft below land-surface datum, Nov. 18, 1991 and June 17, 1992 .

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

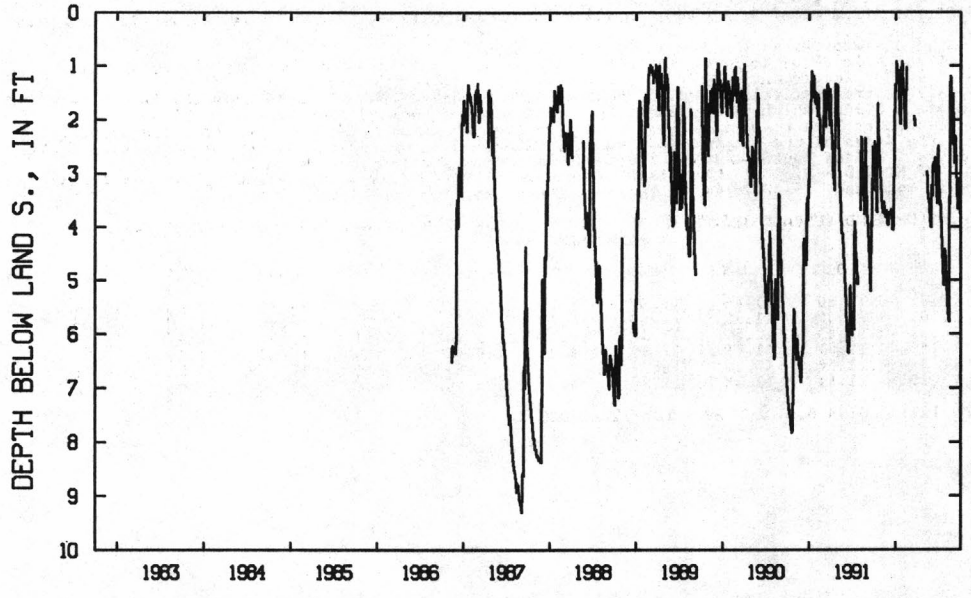
| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 8 | 39.92 | FEB 6 | 39.73 | MAR 18 | 39.82 | MAY 11 | 39.79 | JUN 17 | 39.97 | JUL 29 | 38.96 |
| NOV 18 | 39.97 | | | | | | | | | | |

361420077111407. Local number, NC-154; DEHNR Roxobel Research Station well F22b7.
LOCATION.--Lat 36°14'20", long 77°11'14", Hydrologic Unit 03010203, 3.8 mi northeast of Roxobel on Secondary Road 1249. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 12 ft, diameter 4 in., cased to 7 ft, screened interval from 7 to 12 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 74 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 3.05 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--November 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.80 ft below land-surface datum, Oct. 20, 1989; lowest water level recorded, 9.31 ft below land-surface datum, Sept. 5, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.22 | 3.21 | 3.96 | 1.46 | 1.18 | --- | --- | --- | 3.21 | 2.96 | 4.76 | 2.11 |
| 2 | 3.32 | 3.28 | 3.95 | 1.49 | 1.36 | --- | --- | --- | 3.21 | 3.11 | 4.92 | 2.33 |
| 3 | 3.05 | 3.40 | 3.90 | 1.31 | 1.47 | --- | --- | --- | 3.33 | 3.29 | 5.05 | 2.51 |
| 4 | 2.40 | 3.47 | 3.78 | .92 | 1.55 | --- | --- | --- | 3.42 | 3.42 | 5.14 | 2.67 |
| 5 | 2.45 | 3.54 | 3.75 | .93 | 1.64 | --- | --- | --- | 3.36 | 3.54 | 5.27 | 2.81 |
| 6 | 2.57 | 3.58 | 3.72 | 1.01 | 1.76 | --- | --- | --- | 2.85 | 3.60 | 5.41 | 2.58 |
| 7 | 2.75 | 3.62 | 3.71 | 1.11 | 1.81 | --- | --- | --- | 2.81 | 3.51 | 5.50 | 2.30 |
| 8 | 2.95 | 3.68 | 3.74 | 1.25 | 1.92 | --- | --- | --- | 2.81 | 3.54 | 5.57 | 2.30 |
| 9 | 3.11 | 3.75 | 3.75 | 1.26 | 2.08 | --- | --- | --- | 2.80 | 3.61 | 5.63 | 2.42 |
| 10 | 3.20 | 3.65 | 3.76 | 1.08 | 2.17 | --- | --- | --- | 2.79 | 3.73 | 5.65 | 2.56 |
| 11 | 3.25 | 3.53 | 3.78 | 1.12 | 2.15 | --- | --- | --- | 2.78 | 3.84 | 5.66 | 2.70 |
| 12 | 3.36 | 3.53 | 3.75 | 1.27 | 2.16 | --- | --- | 2.96 | 2.78 | 3.96 | 5.74 | 2.87 |
| 13 | 3.53 | 3.53 | 3.71 | 1.23 | 2.11 | --- | --- | 3.01 | 2.78 | 4.09 | 5.78 | 3.02 |
| 14 | 3.68 | 3.56 | 3.66 | 1.08 | 1.60 | --- | --- | 3.12 | 2.72 | 4.23 | 5.02 | 3.15 |
| 15 | 3.73 | 3.60 | 3.72 | 1.42 | 1.40 | --- | --- | 3.26 | 2.70 | 4.37 | 3.49 | 3.29 |
| 16 | 3.71 | 3.61 | 3.79 | 1.60 | 1.02 | --- | --- | 3.39 | 2.77 | 4.51 | 2.25 | 3.41 |
| 17 | 2.55 | 3.70 | 3.83 | 1.74 | --- | --- | --- | 3.43 | 2.97 | 4.65 | 1.54 | 3.51 |
| 18 | 1.70 | 3.76 | 3.86 | 1.82 | --- | --- | --- | 3.45 | 3.13 | 4.78 | 1.22 | 3.61 |
| 19 | 1.72 | 3.79 | 3.99 | 1.92 | --- | 2.01 | --- | 3.50 | 3.21 | 4.88 | 1.19 | 3.67 |
| 20 | 1.97 | 3.80 | 4.06 | 1.95 | --- | 1.93 | --- | 3.52 | 3.24 | 4.94 | 1.25 | 3.30 |
| 21 | 2.16 | 3.82 | 4.03 | 2.03 | --- | 2.02 | --- | 3.53 | 3.34 | 5.02 | 1.21 | 3.13 |
| 22 | 2.28 | 3.81 | 4.02 | 2.09 | --- | 2.11 | --- | 3.59 | 3.41 | 5.10 | 1.39 | 3.09 |
| 23 | 2.41 | 3.76 | 4.00 | 1.83 | --- | 1.99 | --- | 3.70 | 3.48 | 4.73 | 1.63 | 3.11 |
| 24 | 2.55 | 3.69 | 3.77 | 1.02 | --- | --- | --- | 3.75 | 3.56 | 4.50 | 1.86 | 3.25 |
| 25 | 2.65 | 3.73 | 3.15 | 1.17 | --- | --- | --- | 3.84 | 3.40 | 4.43 | 2.10 | 3.34 |
| 26 | 2.75 | 3.82 | 3.03 | 1.27 | --- | --- | --- | 3.90 | 3.17 | 4.42 | 2.29 | 3.43 |
| 27 | 2.83 | 3.89 | 2.76 | 1.40 | --- | --- | --- | 3.90 | 2.66 | 4.43 | 2.45 | 3.50 |
| 28 | 2.89 | 3.92 | 2.07 | 1.07 | --- | --- | --- | 3.92 | 2.48 | 4.47 | 1.87 | 3.59 |
| 29 | 3.02 | 3.94 | 1.56 | .92 | --- | --- | --- | 3.99 | 2.63 | 4.48 | 1.51 | 3.68 |
| 30 | 3.07 | 3.96 | 1.35 | .99 | --- | --- | --- | 4.01 | 2.80 | 4.55 | 1.64 | 3.81 |
| 31 | 3.10 | --- | 1.39 | 1.05 | --- | --- | --- | 3.53 | --- | 4.65 | 1.86 | --- |

WTR YR 1992 MEAN 3.05 HIGH .92 LOW 5.78




361420077111407 BE-080 (NC-154) ROXOBL 7
MEAN DAILY DEPTH BELOW LAND S. (FT)

**BLADEN COUNTY**

**343027078451903.** Local number, NC-178; DEHNR Bladenboro Research Station well Z41u3.
LOCATION.--Lat 34°30'27", long 78°45'19", Hydrologic Unit 03040206, 3 mi southeast of Bladenboro, south of N.C. Highway 211 on Secondary Road 1172. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 110 ft, diameter 6 in., cased to 100 ft, screened interval from 100 to 110 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 116.45 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.78 ft above land-surface datum - revised from 2.89 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network. Records prior to January 1987 are from Bladenboro Research Station well Z41u4 which was adjacent to and of similar construction to well Z41u3.
PERIOD OF RECORD.--March 1976 to current year. Continuous record began January 1987. Records for well Z42u4 from March 1976 to December 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.73 ft below land-surface datum, Apr. 19, 1978; lowest water level recorded, 7.84 ft below land-surface datum, Oct. 10, 1990.
REVISIONS.--Water-level mean values and extremes for period of record published in U.S.G.S. annual report, Water Resources Data-North Carolina NC-87-1, should be adjusted by +0.11 ft.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 5.19 | 5.41 | 5.74 | 5.63 | 4.55 | 4.31 | 4.33 | 4.70 | 5.03 | 5.23 | 6.78 | 4.87 |
| 10 | 5.15 | 5.44 | 5.69 | 5.43 | 4.49 | 4.21 | 4.44 | 4.78 | 5.07 | 5.56 | 6.57 | 4.56 |
| 15 | 5.21 | 5.53 | 6.28 | 5.49 | 4.45 | 4.27 | 4.52 | 4.94 | 4.92 | 5.88 | 6.16 | 4.55 |
| 20 | 5.20 | 5.58 | 6.03 | 5.07 | 4.48 | 4.35 | 4.64 | 5.06 | 4.94 | 6.11 | 5.26 | 4.59 |
| 25 | 5.21 | 5.80 | 5.99 | 4.99 | 4.40 | 4.38 | 4.55 | 5.18 | 4.92 | 6.29 | 4.87 | 4.52 |
| EOM | 5.27 | 5.80 | 5.91 | 4.60 | 4.31 | 4.28 | 4.60 | 5.14 | 5.11 | 6.59 | 4.77 | 4.52 |

WTR YR 1992 MEAN 5.13 HIGH 4.21 MAR 10 LOW 6.78 AUG 5

**BRUNSWICK COUNTY**

**340416078084202.** Local number, NC-180; DEHNR Bolivia Research Station well FF33d2.
LOCATION.--Lat 34°04'16", long 78°08'42", Hydrologic Unit 03040207, in Bolivia at Town Hall on U.S. Highway 17. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 140 ft, diameter 4 in., cased to 92 ft, open hole to 140 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 40.97 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.70 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--April 1971 to current year. Continuous record began May 1987. Records from April 1971 to March 1987 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.52 ft below land-surface datum, Aug. 14, 1973; lowest water level recorded, 14.54 ft below land-surface datum, Oct. 22, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 10.70 | 11.19 | 11.42 | 10.87 | 10.27 | 9.96 | 9.48 | 10.31 | 10.32 | 10.03 | 11.78 | 9.97 |
| 10 | 10.63 | 10.66 | 11.26 | 10.81 | 10.16 | 9.60 | 9.78 | 10.12 | 10.21 | 10.61 | 11.44 | 9.77 |
| 15 | 10.54 | 11.06 | 11.25 | 10.90 | 9.95 | 9.39 | 9.70 | 10.79 | 9.82 | 10.85 | 12.58 | 9.42 |
| 20 | 10.61 | 11.22 | 11.54 | 10.15 | 10.53 | 9.53 | 9.50 | 10.81 | 9.78 | 11.11 | 12.26 | 9.08 |
| 25 | 10.95 | 10.99 | 11.12 | 10.35 | 9.94 | 9.68 | 9.44 | 10.51 | 9.79 | 11.56 | 13.16 | 9.22 |
| EOM | 11.06 | 10.97 | 11.24 | 10.01 | 9.86 | 9.24 | 10.00 | 10.71 | 10.07 | 11.68 | 10.54 | 9.23 |

WTR YR 1992 MEAN 10.51 HIGH 9.00 SEP 29 LOW 13.51 AUG 27

**335629078115406.** Local number, NC-181; DEHNR Sunset Harbor Research Station well GG34s6.
LOCATION.--Lat 33°56'29", long 78°11'54", Hydrologic Unit 03040207, 1 mi north of Sunset Harbor, and 4.3 mi south of N.C. Highway 211 on Secondary Road 1112. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 102 ft, diameter 6 in., cased to 84 ft, open hole to 102 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 28.06 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.02 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network. Records from December 1978 to March 1986 are from Sunset Harbor Research Station well GG34s5 which was adjacent to and of similar construction to well GG34s6.
PERIOD OF RECORD.--September 1974 to current year. Records from September 1974 to March 1986 are unpublished and available in the files of the Groundwater Section, DEHNR. U.S. Geological Survey periodic water-level measurements for well GG34s6 began December 1986 and continuous record began March 1987.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.37 ft below land-surface datum, Mar.13, 1987; lowest water level recorded, 13.53 ft below land-surface datum, Aug. 1, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 10.21 | 10.88 | 11.30 | 11.46 | 11.39 | 11.24 | 9.73 | 10.30 | 10.35 | 10.88 | 11.43 | 9.18 |
| 10 | 10.25 | 10.81 | 11.30 | 11.41 | 11.47 | 9.68 | 9.76 | 10.23 | 10.44 | 11.10 | 11.25 | 9.19 |
| 15 | 10.49 | 10.91 | 11.40 | 11.50 | 11.38 | 9.53 | 9.80 | 10.36 | 10.41 | 11.27 | 11.01 | 9.34 |
| 20 | 10.54 | 10.89 | 11.51 | 11.49 | 11.39 | 9.49 | 9.93 | 10.41 | 10.47 | 11.18 | 9.51 | 9.39 |
| 25 | 10.65 | 11.11 | 11.56 | 11.55 | 11.22 | 9.63 | 9.95 | 10.59 | 10.60 | 11.24 | 8.99 | 9.51 |
| EOM | 10.72 | 11.15 | 11.64 | 11.33 | 11.35 | 9.49 | 10.08 | 10.40 | 10.67 | 11.53 | 9.02 | 9.50 |

WTR YR 1992 MEAN 10.59 HIGH 8.91 AUG 28 LOW 11.64 DEC 31

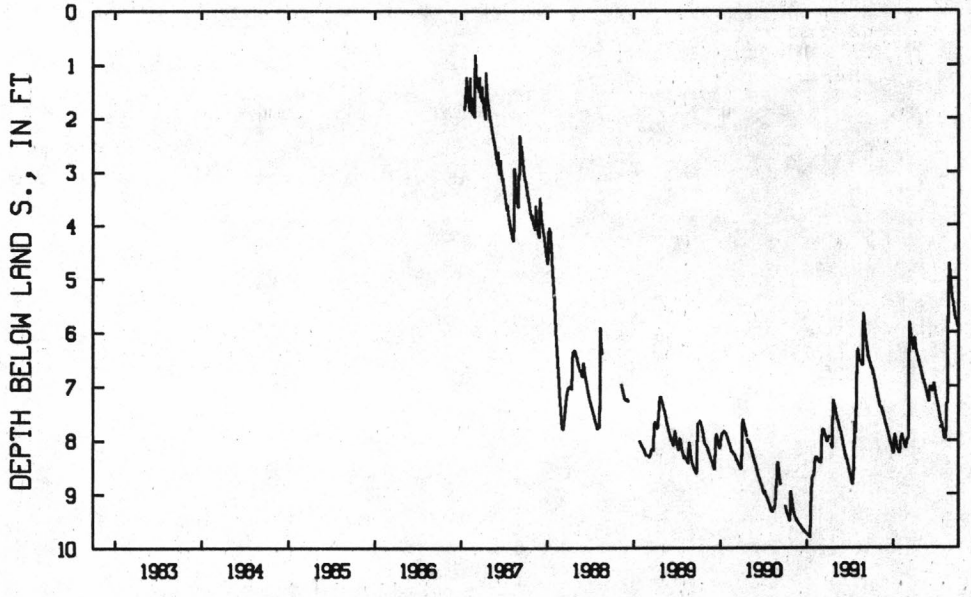
**BRUNSWICK COUNTY**--Continued

335629078115406. Local number, NC-182; DEHNR Sunset Harbor Research Station well GG34s7.
LOCATION.--Lat 33°56'29", long 78°11'54", Hydrologic Unit 03040207, 1 mi north of Sunset Harbor, and 4.3 mi south of State Highway 211 on Secondary Road 1112. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 15 ft, diameter 4 in., cased to 10 ft, screened interval from 10 to 15 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 28.06 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of collar on casing, 2.65 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--January 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.65 ft below land-surface datum, Apr. 15, 1987; lowest water level recorded, 9.80 ft below land-surface datum, Jan. 15 and 16, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | 7.27 | 7.70 | 8.23 | 8.02 | 7.97 | 6.13 | 6.80 | 7.07 | 7.24 | 7.91 | 5.20 |
| 2 | 6.65 | 7.28 | 7.72 | 8.24 | 7.98 | 7.97 | 6.17 | 6.81 | 7.04 | 7.26 | 7.94 | 5.25 |
| 3 | 6.66 | 7.30 | 7.73 | 8.21 | 7.96 | 7.96 | 6.22 | 6.83 | 7.03 | 7.28 | 7.95 | 5.30 |
| 4 | 6.69 | 7.32 | 7.75 | 8.09 | 7.93 | 7.96 | 6.24 | 6.85 | 7.01 | 7.29 | 7.96 | 5.33 |
| 5 | 6.70 | 7.35 | 7.77 | 7.99 | 7.91 | 7.97 | 6.30 | 6.88 | 7.01 | 7.31 | 7.98 | 5.37 |
| 6 | 6.70 | 7.36 | 7.78 | 7.93 | 7.90 | 7.97 | 6.34 | 6.89 | 7.04 | 7.33 | 7.97 | 5.39 |
| 7 | 6.73 | 7.37 | 7.80 | 7.90 | 7.89 | 6.45 | 6.35 | 6.89 | 7.05 | 7.36 | 7.95 | 5.40 |
| 8 | 6.75 | 7.39 | 7.82 | 7.90 | 7.90 | 5.81 | 6.37 | 6.89 | 7.05 | 7.39 | 7.95 | 5.42 |
| 9 | 6.78 | 7.40 | 7.83 | 7.90 | 7.94 | 5.83 | 6.40 | 6.92 | 7.05 | 7.41 | 7.96 | 5.46 |
| 10 | 6.79 | 7.38 | 7.85 | 7.91 | 7.96 | 5.84 | 6.43 | 6.94 | 7.04 | 7.44 | 7.75 | 5.50 |
| 11 | 6.80 | 7.38 | 7.87 | 7.95 | 7.96 | 5.87 | 6.44 | 6.96 | 7.07 | 7.46 | 7.39 | 5.53 |
| 12 | 6.82 | 7.40 | 7.89 | 7.99 | 7.98 | 5.91 | 6.44 | 6.97 | 7.09 | 7.49 | 7.31 | 5.57 |
| 13 | 6.85 | 7.41 | 7.91 | 8.00 | 8.00 | 5.95 | 6.45 | 6.98 | 7.08 | 7.51 | 7.31 | 5.61 |
| 14 | 6.87 | 7.43 | 7.92 | 8.01 | 8.01 | 5.99 | 6.47 | 6.99 | 7.08 | 7.53 | 7.32 | 5.64 |
| 15 | 6.88 | 7.44 | 7.94 | 8.06 | 8.02 | 6.02 | 6.49 | 7.02 | 7.04 | 7.56 | 7.31 | 5.68 |
| 16 | 6.89 | 7.45 | 7.96 | 8.09 | 8.04 | 6.07 | 6.51 | 7.04 | 7.01 | 7.58 | 7.07 | 5.70 |
| 17 | 6.92 | 7.47 | 7.98 | 8.11 | 8.07 | 6.10 | 6.53 | 7.06 | 6.99 | 7.61 | 6.51 | 5.73 |
| 18 | 6.95 | 7.48 | 7.99 | 8.13 | 8.08 | 6.12 | 6.55 | 7.08 | 6.97 | 7.63 | 5.43 | 5.75 |
| 19 | 6.97 | 7.50 | 8.02 | 8.16 | 8.08 | 6.13 | 6.57 | 7.09 | 6.95 | 7.65 | 5.15 | 5.76 |
| 20 | 7.00 | 7.52 | 8.03 | 8.16 | 8.10 | 6.16 | 6.60 | 7.10 | 6.95 | 7.65 | 5.09 | 5.77 |
| 21 | 7.02 | 7.53 | 8.04 | 8.17 | 8.12 | 6.20 | 6.61 | 7.12 | 6.99 | 7.65 | 4.77 | 5.77 |
| 22 | 7.04 | 7.53 | 8.05 | 8.18 | 8.13 | 6.22 | 6.63 | 7.15 | 7.00 | 7.68 | 4.71 | 5.77 |
| 23 | 7.07 | 7.55 | 8.07 | 8.18 | 8.13 | 6.24 | 6.65 | 7.17 | 7.03 | 7.69 | 4.73 | 5.79 |
| 24 | 7.09 | 7.57 | 8.08 | 8.19 | 8.11 | 6.29 | 6.66 | 7.19 | 7.05 | 7.71 | 4.75 | 5.82 |
| 25 | 7.11 | 7.60 | 8.11 | 8.22 | 8.09 | 6.32 | 6.67 | 7.21 | 7.09 | 7.73 | 4.80 | 5.84 |
| 26 | 7.13 | 7.61 | 8.13 | 8.22 | 8.05 | 6.28 | 6.70 | 7.22 | 7.12 | 7.75 | 4.87 | 5.86 |
| 27 | 7.16 | 7.63 | 8.15 | 8.23 | 8.03 | 6.16 | 6.72 | 7.24 | 7.15 | 7.77 | 4.95 | 5.88 |
| 28 | 7.18 | 7.65 | 8.16 | 8.21 | 8.00 | 6.12 | 6.73 | 7.26 | 7.18 | 7.80 | 4.98 | 5.90 |
| 29 | 7.21 | 7.67 | 8.17 | 8.19 | 7.97 | 6.10 | 6.75 | 7.28 | 7.19 | 7.83 | 5.04 | 5.87 |
| 30 | 7.22 | 7.69 | 8.19 | 8.15 | --- | 6.10 | 6.78 | 7.26 | 7.22 | 7.85 | 5.10 | 5.82 |
| 31 | 7.24 | --- | 8.21 | 8.07 | --- | 6.10 | --- | 7.15 | --- | 7.88 | 5.15 | --- |

WTR YR 1992 MEAN 7.09 HIGH 4.71 LOW 8.24




335629078115407 BR-080 (NC-182) SUNST HR
MEAN DAILY DEPTH BELOW LAND S. (FT)

**CARTERET COUNTY**

**344230076451301.** Local number, NC-139; DEHNR Camp Glenn Research Station well X17j5.
LOCATION.--Lat 34°43'23", long 76°45'13", Hydrologic Unit 03020106, on west edge of Morehead City, and south of U.S. Highway 70 at DEHNR Marine Fisheries Facility on north shore of Bogue Sound. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 238 ft, diameter 4 in., cased to 180 ft, open hole to 191 ft, hole collapsed from 191 to 238 ft.
INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.
DATUM.--Land-surface datum is 8.72 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of collar on casing, 1.73 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.23 ft below land-surface datum, Dec. 7, 1976; lowest water level recorded, 13.20 ft below land-surface datum, Aug. 21, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 9.74 | 8.92 | 8.90 | 7.87 | 8.79 | --- | --- | 8.63 | 8.72 | 11.45 | 12.33 | 11.55 |
| 10 | 9.62 | 8.25 | 8.72 | 8.12 | 9.21 | --- | --- | 8.64 | 9.31 | 11.92 | 12.13 | 11.44 |
| 15 | 9.38 | 8.90 | 8.70 | 8.32 | 9.17 | --- | --- | 8.82 | 9.05 | 12.36 | 11.93 | 10.94 |
| 20 | 9.32 | 8.94 | 9.10 | 8.79 | 9.19 | --- | --- | 9.10 | 9.36 | 12.46 | 11.23 | 10.88 |
| 25 | 9.21 | 8.70 | 8.63 | 9.11 | 7.99 | --- | 8.65 | 9.32 | 9.77 | 12.02 | 11.29 | 10.13 |
| EOM | 8.61 | 8.85 | 8.59 | 8.70 | 8.15 | --- | 8.33 | 8.99 | 10.81 | 12.27 | 11.21 | 10.14 |

WTR YR 1992 MEAN 9.68 HIGH 7.73 FEB 26 LOW 12.68 JUL 18

**CATAWBA COUNTY**

**353413081280201.** Local number, Cw-327.
LOCATION.--Lat 35°34'13", long 81°28'02", Hydrologic Unit 03050102, 170 ft west of Secondary Road 2047, and 0.2 mi southeast of intersection of State Highway 10 and Secondary Road 2047. Owner: Arnold Cook.
AQUIFER.--Unconfined saprolite derived from mafic gneiss rock.
WELL CHARACTERISTICS.--Dug residential well, diameter 3 ft, depth 57.8 ft, cased above land surface.
INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.
DATUM.--Elevation of land-surface datum is 1322 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter, 3.50 ft above land-surface datum.
REMARKS.--Well is part of the Appalachian-Piedmont Regional Aquifer Study.
PERIOD OF RECORD.--June 1991 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 39.46 ft below land-surface datum, July 12, 13, and 14, 1991; lowest water level recorded, 49.94 ft below land-surface datum, Apr. 20 and 21, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 39.55 | 40.01 | 41.35 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 39.48 | 40.19 | 41.60 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 39.49 | 40.41 | 41.80 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 39.57 | 40.61 | 42.02 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 39.65 | 40.89 | 42.22 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 39.73 | 39.84 | 41.13 | 42.52 |

WTR YR 1991 MEAN 40.59 HIGH 39.46 JUL 13 LOW 42.52 SEP 30

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 42.72 | 44.26 | 45.71 | 47.07 | 48.27 | 49.25 | 49.84 | 49.89 | 49.34 | 48.27 | 46.74 | 46.04 |
| 10 | 42.98 | 44.48 | 45.95 | 47.27 | 48.46 | 49.39 | 49.89 | 49.84 | 49.19 | 48.02 | 46.54 | 46.02 |
| 15 | 43.18 | 44.75 | 46.19 | 47.47 | 48.65 | 49.50 | 49.92 | 49.78 | 49.07 | 47.77 | 46.35 | 46.05 |
| 20 | 43.44 | 45.00 | 46.45 | 47.67 | 48.82 | 49.62 | 49.94 | 49.72 | 48.92 | 47.49 | 46.21 | 46.07 |
| 25 | 43.74 | 45.22 | 46.65 | 47.85 | 48.98 | 49.72 | 49.92 | 49.63 | 48.74 | 47.25 | 46.13 | 46.14 |
| EOM | 44.02 | 45.49 | 46.90 | 48.10 | 49.10 | 49.79 | 49.92 | 49.49 | 48.52 | 46.95 | 46.06 | 46.22 |

WTR YR 1992 MEAN 47.39 HIGH 42.56 OCT 1 LOW 49.94 APR 20

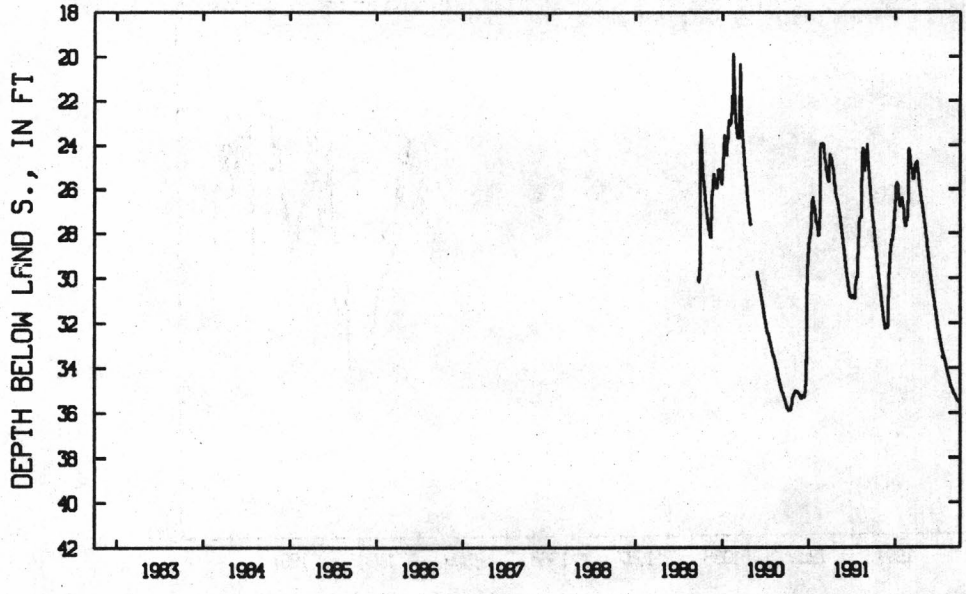
**CHEROKEE COUNTY**

351117083545001. Local number, NC-191.
LOCATION.--Lat 35°11'17", long 83°54'50", Hydrologic Unit 06020002, 100 ft west of Secondary Road 1377, and 0.6 mi north of Marble. Owner: Coats American Company.
AQUIFER.--Saprolite derived from schist of Precambrian age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 108.5 ft, diameter 4 in., cased to 53 ft, screened interval from 53 to 83 ft, sand filter pack from 40 to 83 ft, backfilled with saprolite from 83 to 108.5 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 1,720 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.15 ft above land-surface datum.
REMARKS.--Well is part of terrane-effects network. Water-level measured by personnel of N.C. Department of Environment, Health, and Natural Resources September 1985 to September 1989.
PERIOD OF RECORD.--October 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.78 ft below land-surface datum, Feb. 17, 1990; lowest water level recorded, 35.89 ft below land-surface datum, Oct. 17, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27.48 | 30.64 | 32.22 | 26.88 | 26.51 | 24.23 | 24.76 | 27.19 | 30.10 | 32.29 | 33.79 | 35.02 |
| 2 | 27.54 | 30.77 | 32.10 | 26.72 | 26.63 | 24.25 | 24.76 | 27.28 | 30.19 | 32.34 | 33.85 | 35.07 |
| 3 | 27.65 | 30.89 | 31.70 | 26.46 | 26.68 | 24.31 | 24.77 | 27.33 | 30.27 | 32.38 | 33.90 | 35.10 |
| 4 | 27.79 | 30.96 | 31.00 | 26.14 | 26.71 | 24.42 | 24.78 | 27.41 | 30.28 | 32.43 | 33.96 | 35.14 |
| 5 | 27.88 | 31.05 | 30.47 | 25.92 | 26.75 | 24.58 | 24.99 | 27.51 | 30.37 | 32.48 | 34.01 | 35.16 |
| 6 | 28.02 | 31.13 | 30.07 | 25.76 | 26.82 | 24.67 | 25.10 | 27.65 | 30.50 | 32.54 | 34.06 | 35.16 |
| 7 | 28.15 | 31.22 | 29.82 | 25.75 | 26.92 | 24.78 | 25.12 | 27.76 | 30.60 | 32.61 | 34.09 | 35.16 |
| 8 | 28.25 | 31.31 | 29.68 | 25.75 | 27.11 | 24.95 | 25.23 | 27.76 | 30.67 | 32.67 | 34.14 | 35.17 |
| 9 | 28.37 | 31.40 | 29.49 | 25.70 | 27.32 | 25.09 | 25.35 | 27.89 | 30.70 | 32.73 | 34.18 | 35.18 |
| 10 | 28.41 | 31.44 | 29.31 | 25.70 | 27.44 | 25.05 | 25.48 | 28.02 | 30.75 | 32.79 | 34.22 | 35.20 |
| 11 | 28.46 | 31.56 | 29.11 | 25.79 | 27.49 | 25.08 | 25.58 | 28.11 | 30.83 | 32.85 | 34.26 | 35.24 |
| 12 | 28.59 | 31.67 | 28.91 | 25.83 | 27.56 | 25.07 | 25.69 | 28.16 | 30.90 | 32.92 | 34.33 | 35.27 |
| 13 | 28.77 | 31.74 | 28.71 | 25.79 | 27.60 | 25.10 | 25.82 | 28.21 | 30.95 | 32.97 | 34.36 | 35.30 |
| 14 | 28.87 | 31.82 | 28.57 | 25.83 | 27.68 | 25.17 | 25.92 | 28.36 | 31.00 | 33.02 | 34.41 | 35.32 |
| 15 | 28.92 | 31.90 | 28.53 | 26.06 | 27.66 | 25.27 | 25.99 | 28.49 | 31.10 | 33.05 | 34.43 | 35.35 |
| 16 | 29.07 | 31.96 | 28.43 | 26.19 | 27.56 | 25.44 | 26.07 | 28.62 | 31.19 | 33.11 | 34.48 | 35.37 |
| 17 | 29.21 | 32.03 | 28.33 | 26.27 | 27.47 | 25.51 | 26.15 | 28.72 | 31.27 | 33.17 | 34.52 | 35.40 |
| 18 | 29.35 | 32.10 | 28.28 | 26.38 | 27.36 | 25.56 | 26.23 | 28.79 | 31.34 | 33.21 | 34.57 | 35.40 |
| 19 | 29.42 | 32.18 | 28.35 | 26.52 | 27.33 | 25.51 | 26.33 | 28.89 | 31.37 | 33.26 | 34.61 | 35.42 |
| 20 | 29.52 | 32.24 | 28.33 | 26.61 | 27.40 | 25.54 | 26.41 | 28.99 | 31.45 | 33.33 | 34.65 | 35.45 |
| 21 | 29.64 | 32.24 | 28.25 | 26.71 | 27.41 | 25.52 | 26.46 | 29.09 | 31.55 | 33.37 | 34.71 | 35.47 |
| 22 | 29.75 | 32.13 | 28.17 | 26.78 | 27.37 | 25.38 | 26.56 | 29.17 | 31.64 | 33.42 | 34.74 | 35.48 |
| 23 | 29.84 | 32.05 | 28.05 | 26.69 | 27.26 | 25.26 | 26.63 | 29.25 | 31.70 | 33.47 | 34.77 | 35.50 |
| 24 | 29.93 | 32.03 | 27.96 | 26.68 | 27.23 | 25.20 | 26.62 | 29.32 | 31.76 | 33.47 | 34.81 | 35.51 |
| 25 | 30.03 | 32.07 | 27.90 | 26.60 | 27.10 | 25.04 | 26.63 | 29.42 | 31.85 | 33.49 | 34.84 | 35.52 |
| 26 | 30.11 | 32.11 | 27.79 | 26.51 | 25.90 | 24.88 | 26.74 | 29.56 | 31.93 | 33.52 | 34.88 | 35.52 |
| 27 | 30.21 | 32.15 | 27.68 | 26.49 | 24.61 | 24.86 | 26.85 | 29.66 | 32.00 | 33.56 | 34.89 | 35.53 |
| 28 | 30.31 | 32.17 | 27.52 | 26.42 | 24.23 | 24.89 | 26.92 | 29.76 | 32.08 | 33.61 | 34.89 | 35.54 |
| 29 | 30.45 | 32.19 | 27.27 | 26.41 | 24.16 | 24.88 | 27.01 | 29.83 | 32.16 | 33.67 | 34.93 | 35.54 |
| 30 | 30.53 | 32.21 | 27.10 | 26.39 | --- | 24.83 | 27.07 | 29.91 | 32.23 | 33.71 | 34.96 | 35.54 |
| 31 | 30.56 | --- | 27.00 | 26.39 | --- | 24.79 | --- | 30.02 | --- | 33.75 | 34.99 | --- |

WTR YR 1992 MEAN 29.70 HIGH 24.16 LOW 35.54




351117083545001 CE-028 (NC-191) AM THRD
MEAN DAILY DEPTH BELOW LAND S. (FT)

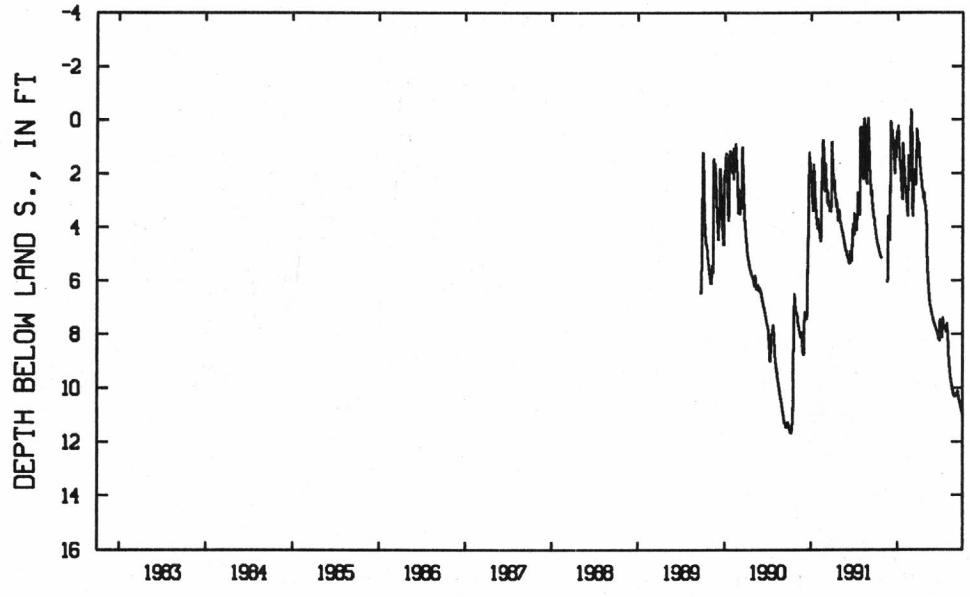
**CHEROKEE COUNTY**--Continued

351121083545002. Local number, NC-192.
LOCATION.--Lat 35°11'21", long 83°54'50", Hydrologic Unit 06020002, 75 ft west of Secondary Road 1277, and 0.7 mi north of Marble. Owner: Coats American Company.
AQUIFER.--Saprolite derived from schist of Precambrian age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 24 ft, diameter 4 in., cased to 14 ft, screened interval from 14 to 24 ft, sand filter pack from 6 to 24 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 1,710 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Three saw cuts in top of pvc casing, 3.35 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--October 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.41 ft above land-surface datum, Feb. 26, 1992; lowest water level recorded, 11.69 ft below land-surface datum, Oct. 8, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.09 | --- | 4.33 | .95 | 2.11 | .17 | 1.07 | 3.50 | 7.49 | 8.03 | 8.15 | 10.23 |
| 2 | 4.15 | --- | 1.64 | 1.07 | 2.26 | .59 | 1.24 | 3.69 | 7.53 | 7.90 | 8.35 | 10.23 |
| 3 | 4.23 | --- | .41 | .30 | 2.40 | 1.91 | 1.41 | 4.12 | 7.57 | 7.90 | 8.59 | 10.24 |
| 4 | 4.29 | --- | .06 | .23 | 2.50 | 3.04 | 1.49 | 4.67 | 7.58 | 7.95 | 8.80 | 10.28 |
| 5 | 4.34 | --- | .19 | .35 | 2.58 | 3.58 | 1.68 | 5.09 | 7.60 | 8.04 | 8.99 | 10.31 |
| 6 | 4.42 | --- | .47 | .51 | 2.67 | 3.24 | 1.82 | 5.30 | 7.64 | 8.13 | 9.13 | 10.30 |
| 7 | 4.49 | --- | .79 | .75 | 2.78 | 2.92 | 1.90 | 5.50 | 7.68 | 7.98 | 9.24 | 10.24 |
| 8 | 4.55 | --- | 1.10 | 1.00 | 2.90 | 3.01 | 2.00 | 5.75 | 7.72 | 7.84 | 9.34 | 10.18 |
| 9 | 4.59 | --- | .87 | 1.15 | 3.04 | 3.07 | 2.12 | 5.82 | 7.74 | 7.47 | 9.44 | 10.14 |
| 10 | 4.60 | --- | .38 | 1.37 | 3.16 | 2.23 | 2.23 | 6.02 | 7.76 | 7.38 | 9.51 | 10.10 |
| 11 | 4.63 | --- | .57 | 1.58 | 3.27 | 1.85 | 2.26 | 6.18 | 7.79 | 7.44 | 9.57 | 10.13 |
| 12 | 4.68 | --- | .74 | 1.75 | 3.38 | 1.96 | 2.33 | 6.32 | 7.82 | 7.53 | 9.64 | 10.20 |
| 13 | 4.73 | --- | .91 | 1.76 | 3.54 | 2.08 | 2.45 | 6.46 | 7.85 | 7.66 | 9.71 | 10.27 |
| 14 | 4.76 | --- | .69 | 1.89 | 3.59 | 2.17 | 2.56 | 6.57 | 7.86 | 7.72 | 9.76 | 10.32 |
| 15 | 4.79 | --- | .92 | 2.08 | 2.13 | 2.29 | 2.60 | 6.67 | 7.88 | 7.74 | 9.81 | 10.38 |
| 16 | 4.84 | --- | 1.13 | 2.27 | 1.32 | 2.37 | 2.60 | 6.76 | 7.91 | 7.79 | 9.85 | 10.43 |
| 17 | 4.89 | --- | 1.34 | 2.41 | 1.55 | 2.44 | 2.74 | 6.83 | 7.95 | 7.84 | 9.90 | 10.49 |
| 18 | 4.92 | --- | 1.53 | 2.53 | 1.69 | 2.38 | 2.80 | 6.90 | 7.98 | 7.75 | 9.96 | 10.52 |
| 19 | 4.93 | --- | 1.73 | 2.65 | 1.76 | 1.19 | 2.89 | 6.94 | 8.01 | 7.71 | 10.00 | 10.55 |
| 20 | 4.98 | 6.05 | 1.89 | 2.76 | 1.96 | 1.16 | 2.95 | 6.99 | 8.04 | 7.70 | 10.05 | 10.59 |
| 21 | 5.02 | 5.97 | 1.95 | 2.87 | 2.28 | 1.44 | 2.84 | 7.04 | 8.09 | 7.70 | 10.10 | 10.63 |
| 22 | 5.06 | 3.95 | 2.02 | 2.97 | 2.29 | 1.16 | 2.71 | 7.09 | 8.14 | 7.72 | 10.15 | 10.67 |
| 23 | 5.10 | 3.57 | 1.31 | 1.49 | 2.07 | .33 | 2.88 | 7.14 | 8.19 | 7.86 | 10.18 | 10.71 |
| 24 | 5.12 | 3.74 | .80 | .86 | 1.76 | .78 | 3.03 | 7.18 | 8.22 | 7.92 | 10.22 | 10.76 |
| 25 | 5.13 | 3.91 | 1.03 | 1.03 | .80 | 1.04 | 3.04 | 7.22 | 8.22 | 7.86 | 10.25 | 10.80 |
| 26 | 5.14 | 4.09 | 1.25 | 1.21 | -.37 | .72 | 3.08 | 7.26 | 8.25 | 7.77 | 10.29 | 10.84 |
| 27 | 5.15 | 4.19 | 1.41 | 1.37 | -.33 | .94 | 3.15 | 7.31 | 7.82 | 7.65 | 10.32 | 10.87 |
| 28 | --- | 4.31 | .85 | 1.50 | -.29 | 1.15 | 3.22 | 7.35 | 7.45 | 7.60 | 10.32 | 10.90 |
| 29 | --- | 4.40 | .45 | 1.68 | -.14 | 1.26 | 3.30 | 7.38 | 7.50 | 7.72 | 10.34 | 10.94 |
| 30 | --- | 4.50 | .58 | 1.79 | --- | 1.05 | 3.40 | 7.41 | 7.89 | 7.87 | 10.30 | 10.98 |
| 31 | --- | --- | .77 | 1.94 | --- | .84 | --- | 7.45 | --- | 8.01 | 10.25 | --- |

WTR YR 1992 MEAN 5.05 HIGH -.37 LOW 10.98




351121083545002 CE-029 (NC-192) AMR THRD
MEAN DAILY DEPTH BELOW LAND S. (FT)

**COLUMBUS COUNTY**

**342508078360802.** Local number, NC-179; DEHNR Carver Moore Research Station well AA39v2.
LOCATION.--Lat 34°25'08", long 78°36'08", Hydrologic Unit 03040206, 6.7 mi north of Hallsboro, east of Secondary Road 1001 at abandoned school on Secondary Road 1724. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Lower Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 506 ft, diameter 4 in., cased to 496 ft, screened interval from 496 to 506 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 105.53 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.10 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--September 1975 to current year. Continuous record January 1987 to November 1990. Records from September 1975 to April 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 39.11 ft below land-surface datum, July 20, 1976; lowest water level recorded, 44.62 ft below land-surface datum, July 28, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19 | 44.37 | MAR 18 | 44.25 | MAY 5 | 44.24 | JUN 16 | 44.27 | JUL 28 | 44.62 | SEP 5 | 44.32 |
| JAN 8 | 44.30 | | | | | | | | | | |

**CRAVEN COUNTY**

**351049077175501.** Local number, NC-44.
LOCATION.--Lat 35°10'49", long 77°17'55", Hydrologic Unit 03020202, 1.4 mi southeast of Cove City on Secondary Road 1005. Owner: City of New Bern.
AQUIFER.--Black Creek and upper Cape Fear aquifers of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 854 ft, diameter 2 in., cased to 705 ft and from 715 to 781 ft and 786 to 828 ft, screened intervals from 705 to 715 ft, 781 to 786 ft, and 828 to 833 ft.
INSTRUMENTATION.--Beginning July 1988, measured every 8 weeks with chalked tape by USGS personnel.
DATUM.--Land-surface datum is 36.73 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 2.06 ft above land-surface datum.
REMARKS.--Water levels affected by pumping at nearby City of New Bern well field. Well is part of local-effects network.
PERIOD OF RECORD.--March 1965 to current year. Continous record from March 1965 to June 1988.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.01 ft below land-surface datum, Aug. 25 and 26, 1965; lowest water level recorded, 134.71 ft below land-surface datum, Aug. 4, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2 | 124.14 | JAN 21 | 129.44 | MAR 17 | 127.08 | MAY 7 | 131.75 | JUN 15 | 128.78 | AUG 4 | 134.71 |
| NOV 12 | 123.34 | | | | | | | | | | |

**351019077184103.** Local number, NC-167; DEHNR Cove City Research Station well R23x3.
LOCATION.--Lat 35°10'19", long 77°18'41", Hydrologic Unit 03020202, 0.6 mi east of Secondary Road 1001 on Secondary Road 1232, and 1 mi southeast of Cove City. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Lower Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 1,000 ft, diameter 4 in., cased to 990 ft, screened interval from 990 to 1,000 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 46 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 2.24 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--July 1985 to current year. Continuous record July 1985 to November 1990.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 50.29 ft below land-surface datum, Sept. 27, 1985; lowest water level recorded, 68.97 ft below land-surface datum, Aug. 4, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2 | 66.64 | JAN 21 | 67.35 | MAR 17 | 67.79 | MAY 7 | 68.11 | JUN 15 | 68.36 | AUG 4 | 68.97 |
| NOV 12 | 66.91 | | | | | | | | | | |

**350816077101810.** Local number, NC-170; DEHNR Clarks Research Station well S22j10.
LOCATION.--Lat 35°08'16", long 77°10'18", Hydrologic Unit 03020202, 0.8 mi southwest of Clarks, south of U.S. Highway 70 on Secondary Road 1225 at North Carolina Department of Transportation Rest Area. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Black Creek aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 730 ft, diameter 4 in., cased to 716 ft, screened interval from 716 to 726 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 28.64 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 1.70 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--July 1979 to current year. Continuous record April 1984 to November 1990. Records July 1979 to November 1983 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 25.14 ft below land-surface datum, July 18, 1979; lowest water level recorded, 56.18 ft below land-surface datum, June 15, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2 | 54.13 | NOV 12 | 54.42 | JAN 21 | 54.90 | MAR 17 | 55.39 | MAY 7 | 55.86 | JUN 15 | 56.18 |

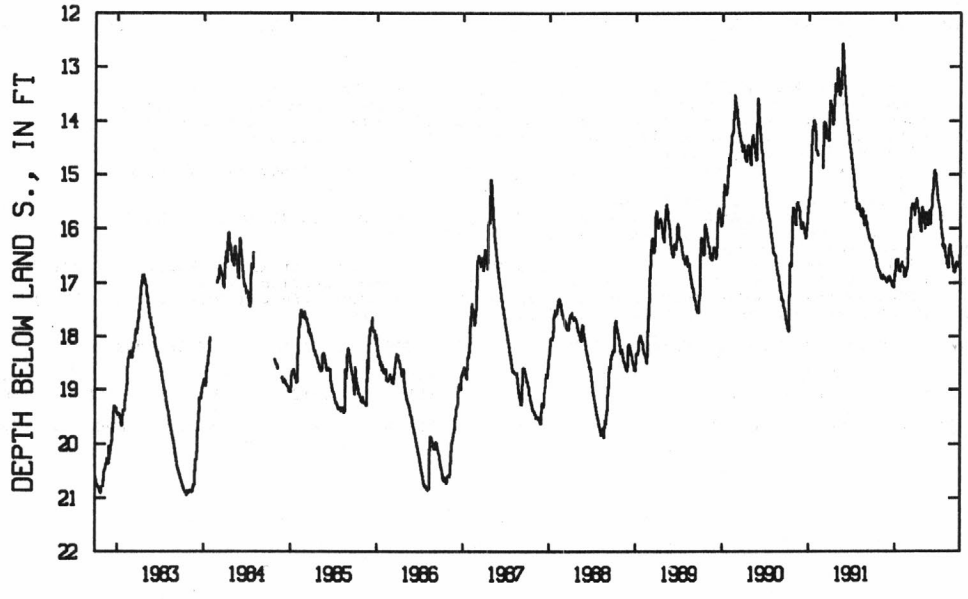
**DAVIE COUNTY**

355359080331701. Local number, NC-142.
LOCATION.--Lat 35°53'59", long 80°33'17", Hydrologic Unit 03040102, 0.5 mi northeast of Mocksville on U.S. Highway 158 at B. C. Brocks Community Center. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 30.8 ft, diameter 6 in., cased to 30.8 ft, open end, backfilled with gravel from 20 to 30.8 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 835 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of casing, 1.0 ft above land-surface datum.
REMARKS.--In October 1982, well replaced nearby NC-110. Well is part of terrane-effects network.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.56 ft below land-surface datum, May 22 and 23, 1991; lowest water level recorded, 20.98 ft below land-surface datum, Oct. 24, 25, and 26, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16.36 | 16.83 | 16.97 | 16.88 | 16.67 | 16.06 | 15.45 | 15.75 | 15.64 | 15.49 | 16.49 | 16.68 |
| 2 | 16.37 | 16.85 | 16.95 | 16.84 | 16.71 | 16.02 | 15.48 | 15.76 | 15.64 | 15.53 | 16.51 | 16.71 |
| 3 | 16.38 | 16.90 | 16.88 | 16.76 | 16.71 | 16.00 | 15.49 | 15.78 | 15.64 | 15.54 | 16.51 | 16.73 |
| 4 | 16.42 | 16.91 | 16.89 | 16.67 | 16.70 | 16.04 | 15.49 | 15.83 | 15.59 | 15.57 | 16.53 | 16.76 |
| 5 | 16.42 | 16.91 | 16.93 | 16.60 | 16.71 | 16.06 | 15.60 | 15.90 | 15.42 | 15.60 | 16.59 | 16.79 |
| 6 | 16.43 | 16.91 | 16.90 | 16.57 | 16.72 | 16.03 | 15.63 | 15.97 | 15.38 | 15.62 | 16.63 | 16.77 |
| 7 | 16.46 | 16.90 | 16.88 | 16.58 | 16.71 | 15.82 | 15.62 | 16.00 | 15.35 | 15.66 | 16.65 | 16.77 |
| 8 | 16.50 | 16.92 | 16.88 | 16.60 | 16.77 | 15.73 | 15.63 | 15.91 | 15.33 | 15.69 | 16.66 | 16.77 |
| 9 | 16.50 | 16.92 | 16.87 | 16.57 | 16.85 | 15.70 | 15.65 | 15.84 | 15.29 | 15.71 | 16.66 | 16.79 |
| 10 | 16.47 | 16.87 | 16.91 | 16.56 | 16.89 | 15.61 | 15.69 | 15.81 | 15.20 | 15.75 | 16.67 | 16.80 |
| 11 | 16.44 | 16.85 | 16.93 | 16.60 | 16.86 | 15.59 | 15.71 | 15.78 | 15.13 | 15.84 | 16.69 | 16.71 |
| 12 | 16.50 | 16.87 | 16.93 | 16.62 | 16.88 | 15.57 | 15.75 | 15.74 | 15.04 | 15.91 | 16.72 | 16.67 |
| 13 | 16.57 | 16.87 | 16.93 | 16.59 | 16.87 | 15.56 | 15.91 | 15.70 | 14.97 | 15.95 | 16.68 | 16.64 |
| 14 | 16.58 | 16.88 | 16.91 | 16.56 | 16.88 | 15.56 | 15.92 | 15.74 | 14.94 | 16.01 | 16.44 | 16.62 |
| 15 | 16.56 | 16.89 | 16.97 | 16.68 | 16.86 | 15.55 | 15.92 | 15.83 | 14.92 | 16.05 | 16.35 | 16.62 |
| 16 | 16.60 | 16.88 | 16.97 | 16.71 | 16.81 | 15.61 | 15.96 | 15.90 | 14.95 | 16.09 | 16.33 | 16.62 |
| 17 | 16.63 | 16.91 | 16.96 | 16.71 | 16.81 | 15.58 | 15.98 | 15.94 | 14.99 | 16.13 | 16.32 | 16.62 |
| 18 | 16.67 | 16.92 | 16.97 | 16.73 | 16.78 | 15.58 | 16.02 | 15.92 | 14.99 | 16.15 | 16.31 | 16.64 |
| 19 | 16.68 | 16.93 | 17.04 | 16.77 | 16.73 | 15.54 | 16.04 | 15.83 | 14.97 | 16.16 | 16.30 | 16.65 |
| 20 | 16.71 | 16.92 | 17.04 | 16.75 | 16.74 | 15.62 | 16.05 | 15.75 | 15.01 | 16.21 | 16.29 | 16.67 |
| 21 | 16.72 | 16.91 | 16.99 | 16.77 | 16.75 | 15.66 | 16.01 | 15.72 | 15.08 | 16.27 | 16.35 | 16.69 |
| 22 | 16.73 | 16.90 | 16.98 | 16.79 | 16.73 | 15.64 | 15.82 | 15.70 | 15.15 | 16.32 | 16.38 | 16.69 |
| 23 | 16.74 | 16.92 | 16.95 | 16.70 | 16.69 | 15.66 | 15.71 | 15.67 | 15.16 | 16.36 | 16.42 | 16.69 |
| 24 | 16.76 | 16.92 | 16.99 | 16.67 | 16.59 | 15.74 | 15.63 | 15.67 | 15.17 | 16.36 | 16.46 | 16.70 |
| 25 | 16.77 | 16.94 | 17.05 | 16.68 | 16.49 | 15.75 | 15.61 | 15.73 | 15.23 | 16.33 | 16.48 | 16.70 |
| 26 | 16.77 | 16.96 | 17.07 | 16.69 | 16.22 | 15.63 | 15.63 | 15.76 | 15.27 | 16.30 | 16.50 | 16.69 |
| 27 | 16.78 | 16.98 | 17.08 | 16.70 | 16.14 | 15.55 | 15.65 | 15.82 | 15.31 | 16.29 | 16.51 | 16.67 |
| 28 | 16.79 | 16.98 | 17.05 | 16.67 | 16.05 | 15.54 | 15.65 | 15.88 | 15.41 | 16.35 | 16.51 | 16.58 |
| 29 | 16.83 | 16.97 | 16.86 | 16.66 | 16.04 | 15.52 | 15.69 | 15.92 | 15.46 | 16.40 | 16.58 | 16.50 |
| 30 | 16.82 | 16.97 | 16.83 | 16.63 | --- | 15.50 | 15.69 | 15.80 | 15.49 | 16.42 | 16.63 | 16.47 |
| 31 | 16.81 | --- | 16.88 | 16.60 | --- | 15.48 | --- | 15.66 | --- | 16.46 | 16.66 | --- |

WTR YR 1992 MEAN 16.29 HIGH 14.92 LOW 17.08




355359080331701 DV-025 (NC-142) MOCKSVLL
MEAN DAILY DEPTH BELOW LAND S. (FT)

**DUPLIN COUNTY**

**345051078012101.** Local number, NC-174; DEHNR Rose Hill Research Station well V32v1.
LOCATION.--Lat 34°50'51", long 78°01'21", Hydrologic Unit 03030007, 1.5 mi north of Rose Hill at Rose Hill-Magnolia Elementary School, east of U.S. Highway 117 on Secondary Road 1911. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 98 ft, diameter 4 in, cased to 83 ft, screened interval from 83 to 98 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 85.89 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 1.75 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--March 1982 to current year. Continuous record began January 1987. Records from March 1982 to December 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.30 ft below land-surface datum, Mar. 31, 1987; lowest water level recorded, 19.93 ft below land-surface datum, Aug. 4 and 5, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 15.90 | 17.02 | 16.65 | 15.47 | 15.66 | --- | --- | --- | 16.79 | 17.37 | 18.52 | 16.46 |
| 10 | 15.94 | 16.85 | 16.65 | 15.64 | 15.85 | --- | --- | --- | 16.63 | 17.81 | 17.45 | 15.96 |
| 15 | 16.01 | 16.68 | 16.81 | 15.67 | 15.88 | --- | --- | 15.91 | 16.17 | 18.33 | 16.27 | 16.16 |
| 20 | 16.19 | 16.64 | 17.16 | 15.79 | --- | --- | --- | 16.10 | 16.52 | 18.53 | 15.69 | 16.45 |
| 25 | 16.56 | 16.48 | 16.83 | 15.80 | --- | --- | --- | 16.41 | 16.65 | 18.36 | 15.78 | 16.53 |
| EOM | 16.78 | 16.51 | 16.39 | 15.47 | --- | --- | --- | 16.61 | 16.90 | 18.73 | 15.99 | 16.65 |

WTR YR 1992 MEAN 16.57 HIGH 15.47 JAN 5 LOW 18.93 AUG 2

**344922077484706.** Local number, NC-176; DEHNR Chinquapin Research Station well W29d6.
LOCATION.--Lat 34°49'22", long 77°48'47", Hydrologic Unit 03030007, 0.3 mi south of Chinquapin on State Highway 50 at Chinquapin Elementary School. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Black Creek aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 822 ft, diameter 2.5 in., cased to 460 ft, screened interval from 460 to 470 ft, cemented from 486 to 822 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 42.60 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 5.30 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--July 1980 to current year. Continuous record July 1986 to November 1990. Records from July 1980 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.76 ft above land-surface datum, July 17, 1980; lowest water level recorded, 25.71 ft below land-surface datum, Nov. 20, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|
| NOV 20 | 25.71 | JAN 10 | 23.00 | MAY 04 | 23.81 | JUN 17 | 24.05 | AUG 6 | 24.54 |

**GASTON COUNTY**

**352501081251601.** Local number, Gs-244.
LOCATION.--Lat 35°25'01", long 81°25'16", Hydrologic Unit 03050102, 175 ft east of Secondary Road 1647, 0.7 mi southeast of intersection of Sedcondary Road 1167 and Secondary Road 1157. Owner: Floyd Dellinger.
AQUIFER.--Unconfined saprolite derived from mafic gneiss rock.
WELL CHARACTERISTICS.--Dug residential well, diameter 3.5 ft, depth 39.1 ft, cased above land surface, rock-lined below land-surface datum.
INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.
DATUM.--Elevation of land-surface datum is 1,012 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instument shelter, 1.67 ft above land-surface datum.
REMARKS.--Well is part of the Appalachian-Piedmont Regional Aquifer Study.
PERIOD OF RECORD.--June 1991 to October 1992.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 24.20 ft below land-surface datum, Aug. 14, 1991; lowest water level recorded, 32.07 ft below land-surface datum, Mar. 24, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 26.38 | 26.35 | 26.31 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 26.32 | 26.32 | 26.37 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 26.39 | 26.32 | 26.41 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 26.34 | 26.32 | 26.50 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 26.29 | 26.41 | 26.37 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 26.42 | 26.32 | 26.29 | 26.71 |

WTR YR 1991 MEAN 26.38 HIGH 26.06 AUG 14 LOW 26.74 SEP 29

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 26.71 | 27.86 | 29.08 | 30.12 | 31.10 | 31.85 | 31.97 | 31.52 | 30.97 | 30.31 | 29.79 | 30.02 |
| 10 | 26.84 | 27.89 | 29.20 | 30.28 | 31.38 | 31.74 | 31.88 | 31.49 | 30.90 | 30.19 | 29.73 | 30.03 |
| 15 | 26.96 | 28.22 | 29.41 | 30.53 | 31.36 | 31.92 | 31.82 | 31.40 | 30.81 | 30.05 | 29.76 | 30.17 |
| 20 | 27.26 | 28.40 | 29.66 | 30.65 | 31.60 | 31.94 | 31.73 | 31.34 | 30.67 | 29.98 | 29.78 | 30.20 |
| 25 | 27.43 | 28.64 | 29.82 | 30.86 | 31.48 | 32.00 | 31.61 | 31.17 | 30.55 | 29.88 | 29.87 | 30.34 |
| EOM | 27.54 | 28.78 | 30.07 | 30.91 | 31.72 | 31.86 | 31.59 | 31.10 | 30.44 | 29.79 | 29.92 | 30.42 |

WTR YR 1992 MEAN 30.20 HIGH 26.63 OCT 2 LOW 32.04 MAR 24

**GATES COUNTY**

**362646076361405.** Local number, NC-149; DEHNR Sunbury Research Station well C15s5.
LOCATION.--Lat 36°26'46", long 76°36'14", Hydrologic Unit 03010203, in northeast section of Sunbury, east of State Highway 32 on Secondary Road 1338. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 570 ft, diameter 4 in., cased to 555 ft, screened interval from 555 to 565 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 37.44 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 3.58 ft above land-surface datum - revised from 3.04 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--October 1967 to current year. Continuous record November 1986 to November 1990. Records from October 1967 to September 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.37 ft below land-surface datum, Dec. 30, 1968; lowest water level recorded, 28.32 ft below land-surface datum, July 15, 1992.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by -0.54 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC 4 | 27.82 | MAR 3 | 27.93 | APR 27 | 27.97 | JUN 8 | 28.11 | JUL 15 | 28.32 | AUG 25 | 28.24 |
| JAN 23 | 27.79 | | | | | | | | | | |

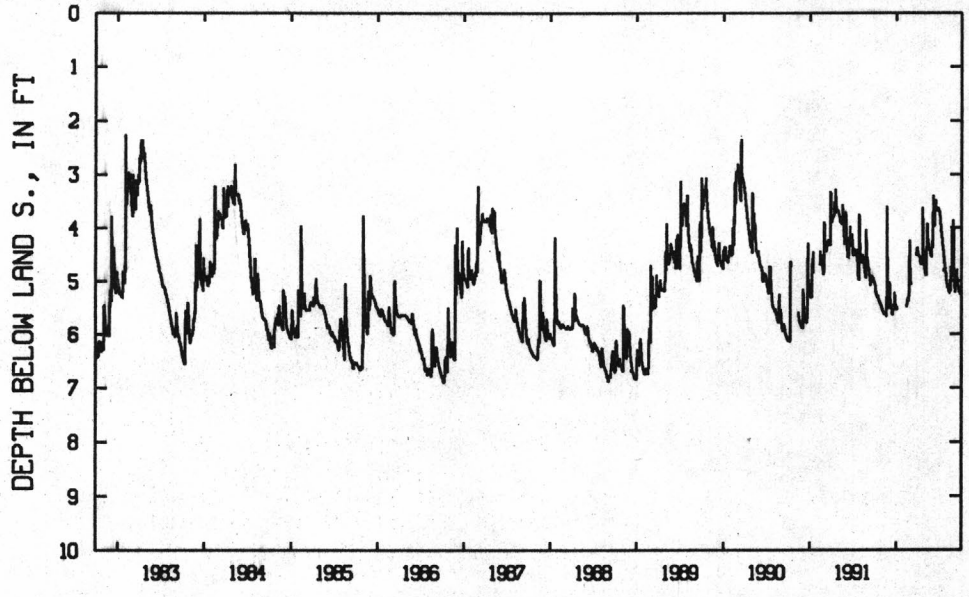
**HAYWOOD COUNTY**

352315082484401. Local number, NC-40.
LOCATION.--Lat 35°23'15", long 82°48'44", Hydrologic Unit 06010106, 2 mi south of Cruso on U.S. Highway 276 at Camp Hope. Owner: Champion International Corporation.
AQUIFER.--Unconfined saprolite derived from muscovite-biotite gneiss of Precambrian age.
WELL CHARACTERISTICS.--Dug observation well, depth 18.5 ft, diameter 12 in., cased to 18.5 ft, open end, backfilled with gravel from 4 to 18.5 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 3,148.26 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--December 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.24 ft below land-surface datum, Mar. 12, 1977; lowest water level recorded, 6.90 ft below land-surface datum, Oct. 7, 8, and 9, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.04 | 5.51 | 5.52 | 5.53 | --- | 4.99 | 4.47 | 4.83 | 4.31 | 3.71 | 5.05 | 4.95 |
| 2 | 5.04 | 5.53 | 5.43 | 5.55 | --- | 5.04 | 4.49 | 4.84 | 4.36 | 3.74 | 5.06 | 5.08 |
| 3 | 5.05 | 5.54 | 5.08 | 5.53 | --- | 5.07 | 4.50 | 4.86 | 4.34 | 3.77 | 5.09 | 5.16 |
| 4 | 5.10 | 5.56 | 5.02 | 5.49 | --- | --- | 4.50 | 4.87 | 3.40 | 3.82 | 5.13 | 5.21 |
| 5 | 5.15 | 5.57 | 5.17 | --- | --- | --- | 4.52 | 4.88 | 3.49 | 3.89 | 5.13 | 5.19 |
| 6 | 5.19 | 5.58 | 5.28 | --- | --- | --- | 4.53 | 4.89 | 3.74 | 3.95 | 5.10 | 4.91 |
| 7 | 5.23 | 5.59 | 5.36 | --- | --- | --- | 4.54 | 4.79 | 3.86 | 4.00 | 5.07 | 4.97 |
| 8 | 5.25 | 5.60 | 5.41 | --- | --- | --- | 4.54 | 4.29 | 3.96 | 4.05 | 5.11 | 4.99 |
| 9 | 5.26 | 5.61 | 5.45 | --- | --- | --- | 4.56 | 4.06 | 3.96 | 4.10 | 5.17 | 5.04 |
| 10 | 5.28 | 5.62 | 5.47 | --- | 5.48 | --- | 4.61 | 3.92 | 3.79 | 4.14 | 5.22 | 5.03 |
| 11 | 5.29 | 5.63 | 5.49 | --- | 5.48 | --- | 4.64 | 3.92 | 3.63 | 4.17 | 5.22 | 4.79 |
| 12 | 5.28 | 5.63 | 5.51 | --- | 5.48 | --- | 4.66 | 4.11 | 3.65 | 4.23 | 5.19 | 4.85 |
| 13 | 5.27 | 5.62 | 5.53 | --- | 5.48 | --- | 4.68 | 4.21 | 3.59 | 4.29 | 5.03 | 4.93 |
| 14 | 5.27 | 5.61 | 5.56 | --- | 5.47 | --- | 4.68 | 4.26 | 3.59 | 4.32 | 4.99 | 4.98 |
| 15 | 5.28 | 5.62 | 5.63 | --- | 5.43 | --- | 4.64 | 4.27 | 3.48 | 4.35 | 5.10 | 5.04 |
| 16 | 5.30 | 5.64 | 5.63 | --- | 5.36 | --- | 4.58 | 4.30 | 3.58 | 4.40 | 5.19 | 5.08 |
| 17 | 5.33 | 5.65 | 5.64 | --- | 5.38 | --- | 4.55 | 4.37 | 3.62 | 4.45 | 4.73 | 5.12 |
| 18 | 5.36 | 5.65 | 5.49 | --- | 5.34 | --- | 4.55 | 4.41 | 3.65 | 4.49 | 4.75 | 5.15 |
| 19 | 5.37 | 5.66 | 5.44 | --- | 5.32 | --- | 4.56 | 4.44 | 3.66 | 4.54 | 4.94 | 5.17 |
| 20 | 5.38 | 5.66 | 5.49 | --- | 5.35 | --- | 4.30 | 4.39 | 3.66 | 4.57 | 4.99 | 5.20 |
| 21 | 5.38 | 5.30 | 5.51 | --- | 5.37 | --- | 3.62 | 4.41 | 3.67 | 4.61 | 4.72 | 5.21 |
| 22 | 5.40 | 3.60 | 5.55 | --- | 5.38 | --- | 3.93 | 4.45 | 3.68 | 4.67 | 4.39 | 5.20 |
| 23 | 5.40 | 4.30 | 5.53 | --- | 5.26 | --- | 4.18 | 4.48 | 3.65 | 4.73 | 3.98 | 5.20 |
| 24 | 5.42 | 4.76 | 5.22 | --- | 5.13 | 4.51 | 4.39 | 4.50 | 3.64 | 4.75 | 4.25 | 5.21 |
| 25 | 5.43 | 5.03 | 5.22 | --- | 4.82 | 4.50 | 4.54 | 4.51 | 3.64 | 4.77 | 4.59 | 5.24 |
| 26 | 5.44 | 5.20 | 5.30 | --- | 4.23 | 4.46 | 4.63 | 4.52 | 3.63 | 4.80 | 4.80 | 5.25 |
| 27 | 5.45 | 5.31 | 5.37 | --- | 4.56 | 4.43 | 4.70 | 4.53 | 3.64 | 4.83 | 4.91 | 5.23 |
| 28 | 5.46 | 5.40 | 5.42 | --- | 4.75 | 4.40 | 4.74 | 4.54 | 3.67 | 4.92 | 3.85 | 5.22 |
| 29 | 5.48 | 5.46 | 5.46 | --- | 4.91 | 4.37 | 4.78 | 4.41 | 3.68 | 4.98 | 4.24 | 5.13 |
| 30 | 5.49 | 5.50 | 5.49 | --- | --- | 4.38 | 4.80 | 4.25 | 3.70 | 5.00 | 4.55 | 5.17 |
| 31 | 5.50 | --- | 5.51 | --- | --- | 4.42 | --- | 4.27 | --- | 5.03 | 4.77 | --- |

WTR YR 1992 MEAN 4.82 HIGH 3.40 LOW 5.66




352315082484401 HW-047 (NC-40) CHAMPION
MEAN DAILY DEPTH BELOW LAND S. (FT)

**HERTFORD COUNTY**

**363026077001906.** Local number, NC-155; DEHNR Como Research Station well B20u6.
LOCATION.--Lat 36°30'26", long 77°00'19", Hydrologic Unit 03010203, 0.5 mi northeast of Como, and northwest of U.S. Highway 258 on Secondary Road 1316. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Lower Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 818 ft, diameter 4 in., cased to 560 ft, screened interval from 560 to 570 ft, cemented from 575 to 818 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 68.83 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR).
Measuring point: Top of instrument shelf, 3.00 ft above land-surface datum.
REMARKS.--Areal-effects well.
PERIOD OF RECORD.--September 1981 to current year. Records from September 1981 to October 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 143.04 ft below land-surface datum, Feb. 9, 1983; lowest water level recorded, 159.76 ft below land-surface datum, July 28, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 8 | 157.92 | DEC 26 | 157.93 | FEB 5 | 158.22 | MAY 11 | 159.19 | JUN 16 | 159.56 | JUL 28 | 159.76 |
| NOV 18 | 158.10 | | | | | | | | | | |

**HYDE COUNTY**

**352527076123103.** Local number, NC-159; DEHNR Hydeland Research Station well O10w3.
LOCATION.--Lat 35°25'27", long 76°12'31", Hydrologic Unit 03020105, 0.7 mi east of Secondary Road 1121 on Secondary Road 1122. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 700 ft, diameter 6 in., cased to 640 ft, open hole to 700 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 3.17 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR).
Measuring point: Top of instrument shelf, 1.58 ft above land-surface datum - revised from 1.83 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--April 1975 to current year. Continuous record November 1986 to November 1990. Records from April 1975 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.79 ft above land-surface datum, July 17, 1975; lowest water level recorded, 1.14 ft below land-surface datum, Sept. 14, 1982.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.25 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 4 | .33 | JAN 17 | .11 | APR 27 | .16 | JUN 4 | -.07 | JUL 15 | .01 | AUG 26 | -.18 |
| DEC 3 | .18 | MAR 3 | .30 | | | | | | | | |

**JONES COUNTY**

**345809077301404.** Local number, NC-172; DEHNR Comfort Research Station well U26j4.
LOCATION.--Lat 34°58'09", long 77°30'14", Hydrologic Unit 03020204, 2.5 mi south of Comfort at North Carolina Division of Forest Resources Fire Tower on Secondary Road 1003. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Black Creek aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 545 ft, diameter 6 in., cased to 506 ft and from 516 to 535 ft, screened intervals from 506 to 516 ft and 535 to 545 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 68 ft above National Geodetic Vertical Datum of 1929 (from topographic map).
Measuring point: Top of instrument shelf, 1.40 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--March 1980 to current year. Continuous record October 1983 to December 1987. Records from March 1980 to September 1983 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 67.56 ft below land-surface datum, Mar. 18, 1980; lowest water level recorded, 161.43 ft below land-surface datum, Aug. 5, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2 | 155.79 | JAN 21 | 157.87 | MAR 17 | 158.69 | MAY 7 | 159.28 | JUN 16 | 159.86 | AUG 5 | 161.43 |
| NOV 12 | 156.91 | | | | | | | | | | |

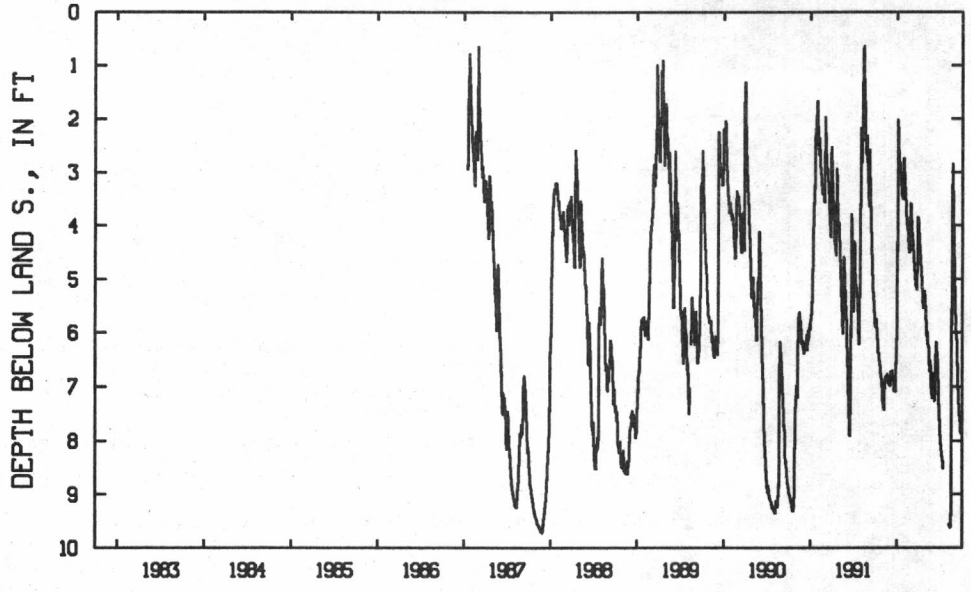
**JONES COUNTY**--Continued

345809077301408. Local number, NC-173; DEHNR Comfort Research Station well U26j8.
LOCATION.--Lat 34°58'09", long 77°30'14", Hydrologic Unit 03020204, 2.5 mi south of Comfort at North Carolina Division of Forest Resources Fire Tower on Secondary Road 1003. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 15 ft, diameter 4 in., cased to 5 ft, screened interval from 5 to 15 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 68 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of collar on casing, 2.35 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--January 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.34 ft below land-surface datum, Aug. 14, 1991; lowest water level recorded, 9.72 ft below land-surface datum, Nov. 27 and 28, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.85 | 7.18 | 6.96 | 5.96 | 2.97 | 3.83 | 3.94 | 5.64 | 6.86 | 7.92 | --- | 5.38 |
| 2 | 5.86 | 7.25 | 6.94 | 5.79 | 3.12 | 3.92 | 4.06 | 5.73 | 6.98 | 8.00 | --- | 5.57 |
| 3 | 5.85 | 7.33 | 6.88 | 4.09 | 3.21 | 4.03 | 4.16 | 5.84 | 7.04 | 8.06 | --- | 5.71 |
| 4 | 5.90 | 7.25 | 6.99 | 2.01 | 3.29 | 4.12 | 4.20 | 5.98 | 6.86 | 8.10 | --- | 5.88 |
| 5 | 5.84 | 7.29 | 6.98 | 2.11 | 3.42 | 4.16 | 4.33 | 6.06 | 6.82 | 8.15 | --- | 6.03 |
| 6 | 5.74 | 7.27 | 6.77 | 2.25 | 3.46 | 4.22 | 4.40 | 6.08 | 7.05 | 8.19 | 9.57 | 6.03 |
| 7 | 5.79 | 7.32 | 6.73 | 2.45 | 3.56 | 4.25 | 4.43 | 6.03 | 7.20 | 8.25 | 9.56 | 6.02 |
| 8 | 5.86 | 7.43 | 6.75 | 2.59 | 3.68 | 4.37 | 4.52 | 5.99 | 7.27 | 8.29 | 9.57 | 6.12 |
| 9 | 5.92 | 7.36 | 6.72 | 2.64 | 3.81 | 4.47 | 4.63 | 6.09 | 7.13 | 8.30 | 9.58 | 6.28 |
| 10 | 5.94 | 7.05 | 6.81 | 2.72 | 3.86 | 4.47 | 4.70 | 6.19 | 6.69 | 8.34 | 9.59 | 6.46 |
| 11 | 6.01 | 6.96 | 6.82 | 2.84 | 3.89 | 4.58 | 4.75 | 6.27 | 6.55 | 8.38 | 9.61 | 6.65 |
| 12 | 6.17 | 6.93 | 6.80 | 2.94 | 3.99 | 4.66 | 4.80 | 6.28 | 6.34 | 8.40 | 9.61 | 6.88 |
| 13 | 6.32 | 6.85 | 6.75 | 2.95 | 4.00 | 4.72 | 4.92 | 6.26 | 6.18 | 8.52 | 9.62 | 6.99 |
| 14 | 6.38 | 6.83 | 6.71 | 2.82 | 4.08 | 4.78 | 4.97 | 6.39 | 6.18 | --- | 9.54 | 7.10 |
| 15 | 6.37 | 6.83 | 6.90 | 2.89 | 4.11 | 4.83 | 5.05 | 6.52 | 6.21 | --- | 9.38 | 7.22 |
| 16 | 6.39 | 6.80 | 6.89 | 3.00 | 4.22 | 4.94 | 5.13 | 6.62 | 6.29 | --- | 8.96 | 7.30 |
| 17 | 6.38 | 6.88 | 6.84 | 3.05 | 4.30 | 4.95 | 5.23 | 6.65 | 6.36 | --- | 7.55 | 7.39 |
| 18 | 6.45 | 6.82 | 6.91 | 3.16 | 4.30 | 5.03 | 5.34 | 6.73 | 6.50 | --- | 4.84 | 7.49 |
| 19 | 6.47 | 6.82 | 7.09 | 3.26 | 4.33 | 5.01 | 5.44 | 6.66 | 6.46 | --- | 3.96 | 7.54 |
| 20 | 6.55 | 6.84 | 6.98 | 3.28 | 4.43 | 5.11 | 5.51 | 6.53 | 6.55 | --- | 3.51 | 7.63 |
| 21 | 6.54 | 6.82 | 6.81 | 3.38 | 4.48 | 5.13 | 5.54 | 6.58 | 6.69 | --- | 2.84 | 7.62 |
| 22 | 6.58 | 6.76 | 6.84 | 3.47 | 4.51 | 5.11 | 5.52 | 6.78 | 6.81 | --- | 3.09 | 7.60 |
| 23 | 6.66 | 6.79 | 6.85 | 3.39 | 4.47 | 5.14 | 5.36 | 6.90 | 7.01 | --- | 3.37 | 7.72 |
| 24 | 6.72 | 6.79 | 6.97 | 3.30 | 4.21 | 5.20 | 5.25 | 7.05 | 7.13 | --- | 3.63 | 7.84 |
| 25 | 6.76 | 6.91 | 7.09 | 3.35 | 3.94 | 5.16 | 5.21 | 7.14 | 7.32 | --- | 3.86 | 7.82 |
| 26 | 6.80 | 6.94 | 7.09 | 3.45 | 3.73 | 4.85 | 5.25 | 7.02 | 7.45 | --- | 4.09 | 7.87 |
| 27 | 6.80 | 6.89 | 7.00 | 3.51 | 3.61 | 4.04 | 5.28 | 6.96 | 7.49 | --- | 4.30 | 7.82 |
| 28 | 6.86 | 6.87 | 6.72 | 3.21 | 3.58 | 3.84 | 5.30 | 7.16 | 7.65 | --- | 4.48 | 7.81 |
| 29 | 7.00 | 6.93 | 6.41 | 2.78 | 3.69 | 3.85 | 5.43 | 7.22 | 7.78 | --- | 4.74 | 7.56 |
| 30 | 6.95 | 6.98 | 6.30 | 2.73 | --- | 3.86 | 5.55 | 7.02 | 7.87 | --- | 4.95 | 7.58 |
| 31 | 7.05 | --- | 6.16 | 2.79 | --- | 3.88 | --- | 6.75 | --- | --- | 5.14 | --- |

WTR YR 1992 MEAN 5.86 HIGH 2.01 LOW 9.62




345809077301408 JO-035 (NC-173)COMFORT 8
MEAN DAILY DEPTH BELOW LAND S. (FT)

**JONES COUNTY**--Continued

**345809077301405.** Local number, NC-187; DEHNR Comfort Research Station well U26j5.
LOCATION.--Lat 34°58'09", long 77°30'14", Hydrologic Unit 03020204, 2.5 mi south of Comfort at North Carolina Division of Forest Resources Fire Tower on Secondary Road 1003. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 284 ft, diameter 4 in., cased to 274 ft, screened interval from 274 to 284 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 68 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.3 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--July 1980 to current year. Continuous record July 1986 to November 1990. Records from July 1980 to June 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.53 ft below land-surface datum, Oct. 29, 1980; lowest water level recorded, 40.43 ft below land-surface datum, Aug. 5, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2 | 38.33 | JAN 21 | 38.73 | MAR 17 | 39.18 | MAY 7 | 39.51 | JUN 16 | 39.72 | AUG 5 | 40.43 |
| NOV 12 | 38.54 | | | | | | | | | | |

**LENOIR COUNTY**

**351600077381001.** Local number, NC-128.
LOCATION.--Lat 35°15'59", long 77°37'52", Hydrologic Unit 03020202, on west edge of Kinston at intersection of U.S. Highways 70 and 258 Bypass and U.S. Highways 70 and 258 Business. Owner: City of Kinston.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 10 in., cased to 160 ft, screened intervals unknown.
INSTRUMENTATION.--Digitial recorder with a 30-minute punch interval.
DATUM.--Land-surface datum is 33.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 2.10 ft above land-surface datum.
REMARKS.--Well is part of local-effects network.
PERIOD OF RECORD.--September 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 34.83 ft below land-surface datum, Dec. 30, 1968; lowest water level recorded, 100.18 ft below land-surface datum, Sept. 18 and 19, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 96.29 | 96.43 | 94.94 | 93.30 | 94.24 | 92.38 | 94.62 | 94.36 | 96.35 | 95.65 | 98.35 | 99.39 |
| 10 | 97.33 | 94.86 | 94.98 | 93.72 | 93.51 | 91.68 | 94.97 | 94.71 | 95.91 | 96.77 | 97.62 | 98.71 |
| 15 | 97.14 | 94.75 | 94.99 | 93.89 | 93.78 | 91.25 | 93.41 | 95.58 | 95.02 | 97.55 | 98.58 | 99.17 |
| 20 | 96.84 | 94.38 | 94.47 | 93.77 | 93.63 | 92.71 | 93.28 | 95.66 | 96.92 | 97.22 | 97.71 | 99.69 |
| 25 | 96.35 | 95.24 | 94.01 | 94.02 | 92.88 | 92.24 | 94.29 | 95.25 | 96.78 | 98.19 | 98.42 | 99.88 |
| EOM | 96.30 | 94.82 | 93.61 | 94.18 | 92.74 | 93.13 | 94.55 | 96.00 | 96.92 | 98.70 | 98.43 | 99.64 |

WTR YR 1992 MEAN 95.52 HIGH 91.03 MAR 16 LOW 100.00 SEP 19

**351937077284201.** Local number, NC-185; DEHNR Graingers Research Station well Q25d12.
LOCATION.--Lat 35°19'37", long 77°28'42", Hydrologic Unit 03020202, 1.6 mi northeast of Graingers on N.C. Highway 11 at E. I. du Pont de Nemours and Company's Kinston Plant. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 134 ft, diameter 4 in., cased to 124 ft, screened interval from 124 to 134 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 66 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 3.1 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--December 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.93 ft below land-surface datum, Aug. 25 and 26, 1992; lowest water level recorded, 60.61 ft below land-surface datum, July 31, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 57.64 | 57.89 | 57.70 | 55.54 | 55.31 | 55.47 | 55.85 | 56.26 | 57.56 | 49.36 | 50.49 | 43.60 |
| 10 | 57.61 | 57.72 | 57.51 | 55.09 | 55.54 | 55.46 | 56.17 | 56.55 | 57.39 | 49.56 | 50.45 | 43.51 |
| 15 | 57.63 | 57.86 | 57.40 | 54.81 | 55.55 | 55.47 | 56.37 | 56.78 | 56.52 | 49.89 | 49.55 | 43.63 |
| 20 | 57.67 | 58.17 | 57.35 | 55.35 | 55.58 | 55.36 | 56.53 | 57.18 | 52.59 | 50.19 | 44.07 | 43.73 |
| 25 | 57.78 | 57.90 | 56.87 | 55.57 | 55.62 | 55.81 | 56.00 | 57.38 | 50.22 | 50.25 | 42.96 | 43.89 |
| EOM | 57.80 | 57.73 | 56.45 | 55.32 | 55.58 | 55.76 | 55.98 | 57.35 | 49.74 | 50.29 | 43.51 | 43.97 |

WTR YR 1992 MEAN 53.96 HIGH 42.96 AUG 25 LOW 58.17 NOV 20

**351609077370605.** Local number, NC-186; DEHNR Kinston Yard Research Station well Q27r5.
LOCATION.--Lat 35°16'09", long 77°37'06", Hydrologic Unit 03020202, on west edge of Kinston on U.S. Highways 70 and 258 Business at DEHNR Supply Yard. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 520 ft, diameter 6 in., cased to 480 ft, screened interval from 480 to 490 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 44.03 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 1.85 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--August 1974 to current year. Continuous record August 1983 to November 1990. Records from August 1974 to July 1983 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 68.78 ft below land-surface datum, Aug. 12, 1974; lowest water level recorded, 109.25 ft below land-surface datum, Aug. 4, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 3 | 105.92 | JAN 22 | 105.70 | MAR 18 | 104.62 | MAY 5 | 106.45 | JUN 15 | 106.32 | AUG 4 | 109.25 |
| NOV 13 | 107.85 | | | | | | | | | | |

**LINCOLN COUNTY**

**353217081265801.** Local number, Li-130.
LOCATION.--Lat 35°32'17", long 81°26'58", Hydrologic Unit 03050102, 100 ft west of Secondary Road 1111, 350 ft south of intersection of Secondary Road 1111 and Secondary Road 1113. Owner: Sanford A. Yates.
AQUIFER.--Unconfined saprolite derived from mafic gneiss rock.
WELL CHARACTERISTICS.--Dug residential well, diameter 4 ft, depth 34.5 ft, cased above land surface and from 20 to 34.5 ft below land-surface datum.
INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.
DATUM.--Elevation of land-surface datum is 1,060 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Floor of instrument shelter, 2.70 ft above land-surface datum.
REMARKS.--Well is part of the Appalachian-Piedmont Regional Aquifer Study.
PERIOD OF RECORD.--June 1991 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.02 ft below land-surface datum, June 27, 1991; lowest water level recorded, 26.24 ft below land-surface datum, Feb. 10, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.24 | 22.24 | 22.92 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.39 | 22.39 | 23.03 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.59 | 22.56 | 23.13 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.75 | 22.67 | 23.23 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 21.88 | 22.81 | 23.27 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 21.06 | 22.09 | 22.84 | 23.51 |

WTR YR 1991 MEAN 22.38 HIGH 21.04 JUN 28 LOW 23.51 SEP 30

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 23.60 | 24.54 | 25.33 | 25.89 | 26.17 | 26.03 | 24.94 | 24.17 | 23.65 | 22.84 | 22.82 | 23.65 |
| 10 | 23.75 | 24.65 | 25.42 | 25.97 | 26.23 | 25.75 | 24.78 | 24.10 | 23.61 | 22.73 | 22.91 | 23.75 |
| 15 | 23.89 | 24.82 | 25.54 | 26.04 | 26.19 | 25.69 | 24.64 | 24.00 | 23.43 | 22.63 | 23.07 | 23.91 |
| 20 | 24.06 | 24.95 | 25.67 | 26.10 | 26.22 | 25.50 | 24.52 | 23.92 | 23.35 | 22.62 | 23.20 | 24.01 |
| 25 | 24.21 | 25.07 | 25.74 | 26.14 | 26.15 | 25.32 | 24.24 | 23.80 | 23.19 | 22.63 | 23.35 | 24.17 |
| EOM | 24.36 | 25.18 | 25.87 | 26.14 | 25.95 | 25.07 | 24.25 | 23.73 | 23.01 | 22.70 | 23.51 | 24.29 |

WTR YR 1992 MEAN 24.47 HIGH 22.61 JUL 26 LOW 26.23 FEB 10

**352859081243101.** Local number, Li-164.
LOCATION.--Lat 35°28'59", long 81°24'31", Hydrologic Unit 03050102, 250 ft east of Secondary Road 1150, and 1,000 ft southeast of intersection of Secondary Road 1147 and Secondary Road 1150. Owner: Harvey Heavner.
AQUIFER.--Unconfined saprolite derived from mafic metaigneous rock.
WELL CHARACTERISTICS.--Dug residential well, diameter 6 ft, depth 48.0 ft.
INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.
DATUM.--Elevation of land-surface datum is 1,022 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Floor of instrument shelter, 0.75 ft above land-surface datum.
REMARKS.--Well is part of the Appalachian-Piedmont Regional Aquifer Study.
PERIOD OF RECORD.--August 1991 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 33.42 ft below land-surface datum, Aug. 14, 1991; lowest water level recorded, 39.00 ft below land-surface datum, Apr. 13-18, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 33.89 | 34.57 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 34.02 | 34.72 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 34.81 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 34.92 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 35.00 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 34.41 | 35.10 |

WTR YR 1991 MEAN 34.40 HIGH 33.45 AUG 15 LOW 35.10 SEP 30

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 35.18 | 35.86 | 36.56 | 37.22 | 38.21 | 38.31 | 38.90 | 38.42 | 37.36 | 36.25 | 35.53 | 35.53 |
| 10 | 35.29 | 35.96 | 36.72 | 37.44 | 38.38 | 37.58 | 38.96 | 38.17 | 37.24 | 36.15 | 35.48 | 35.61 |
| 15 | 35.36 | 36.09 | 36.88 | 37.63 | 38.48 | 38.09 | 39.00 | 38.12 | 35.89 | 36.02 | 35.32 | 35.73 |
| 20 | 35.48 | 36.23 | 37.04 | 37.82 | 38.59 | 38.38 | 38.96 | 38.03 | 36.22 | 35.88 | 35.37 | 35.82 |
| 25 | 35.61 | 36.35 | 37.16 | 37.82 | 38.45 | 38.64 | 38.40 | 37.91 | 36.32 | 35.75 | 35.43 | 35.94 |
| EOM | 35.74 | 36.50 | 37.22 | 38.05 | 37.92 | 38.78 | 38.45 | 37.56 | 36.33 | 35.61 | 35.44 | 36.05 |

WTR YR 1992 MEAN 36.92 HIGH 35.12 OCT 1 LOW 39.00 APR 13

**LINCOLN COUNTY**--Continued

**352540081205401.** Local number, Li-203.
LOCATION.--Lat 35°25'40", long 81°20'54", Hydrologic Unit 03050102, 100 ft south of Secondary Road 1169, and 0.2 mi southeast of intersection of Secondary Road 1002 and Secondary Road 1169, Owner: Jerry Reynolds.
AQUIFER.--Unconfined saprolite derived from mafic geiss rock.
WELL CHARACTERISTICS.--Bored residential well, diameter 24 in., depth 41.4 ft, cased from 0.5 ft above land surface to 41.4 ft below land surface.
INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.
DATUM.--Elevation of land-surface datum is 910 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Floor of instrument shelter, 0.95 ft above land-surface datum.
REMARKS.--Well is part of the Appalachian-Piedmont Regional Aquifer Study.
PERIOD OF RECORD.--June 1991 to October 1992.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 27.00 ft below land-surface datum, June 28, 1991; lowest water level recorded, 37.00 ft below land-surface datum, Feb. 21, 22, 23, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 27.34 | 29.26 | 30.65 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 27.61 | 29.53 | 30.92 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 27.97 | 29.78 | 31.18 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 28.27 | 29.92 | 31.45 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 28.54 | 30.21 | 31.62 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 27.05 | 28.93 | 30.41 | 31.98 |

WTR YR 1991 MEAN 29.59 HIGH 27.03 JUN 29 LOW 31.98 SEP 30

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 32.18 | 33.72 | 35.00 | 36.00 | 36.63 | 36.28 | 34.86 | 34.06 | 33.17 | 31.45 | 32.08 | 33.12 |
| 10 | 32.44 | 33.90 | 35.16 | 36.09 | 36.80 | 35.71 | 34.76 | 33.89 | 33.02 | 31.41 | 32.27 | 33.22 |
| 15 | 32.67 | 34.14 | 35.35 | 36.22 | 36.87 | 35.45 | 34.70 | 33.68 | 32.23 | 31.40 | 32.50 | 33.40 |
| 20 | 32.96 | 34.36 | 35.58 | 36.36 | 36.97 | 35.31 | 34.65 | 33.58 | 31.84 | 31.52 | 32.67 | 33.51 |
| 25 | 33.19 | 34.58 | 35.73 | 36.47 | 36.89 | 35.27 | 34.28 | 33.41 | 31.66 | 31.63 | 32.86 | 33.71 |
| EOM | 33.44 | 34.76 | 35.93 | 36.53 | 36.38 | 34.94 | 34.17 | 33.34 | 31.55 | 31.82 | 32.98 | 33.84 |

WTR YR 1992 MEAN 34.08 HIGH 31.40 JUL 11 LOW 37.00 FEB 22

**352516081183301.** Local number, Li-211.
LOCATION.--Lat 35°25'16", long 81°18'33", Hydrologic Unit 03050102, 95 ft south of Secondary Road 1171, and 0.25 mi west of intersection of Secondary Road 1177 and Secondary Road 1171 at Crouse. Owner: Geraldine Dellinger.
AQUIFER.--Cherryville Granite.
WELL CHARACTERISTICS.--Drilled residential well, diameter 6 in., depth 92.5 ft, casing and screen depth unknown.
INSTRUMENTATION.--Digital recorder with a 30-minute punch interval.
DATUM.--Elevation of land-surface datum is 865 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Floor of instrument shelter, 1.10 ft above land-surface datum.
REMARKS.--Well is part of the Appalachian-Piedmont Regional Aquifer Study.
PERIOD OF RECORD.--June 1991 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 16.65 ft below land-surface datum, June 27, 1991; lowest water level recorded, 22.90 ft below land-surface datum, Feb. 10, 14, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.94 | 18.24 | 19.05 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.09 | 18.37 | 19.21 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.35 | 18.32 | 19.44 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.55 | 18.46 | 19.66 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17.75 | 18.72 | 19.77 |
| EOM | --- | --- | --- | --- | --- | --- | --- | --- | 16.73 | 18.02 | 18.87 | 20.04 |

WTR YR 1991 MEAN 18.36 HIGH 16.69 JUN 28 LOW 20.04 SEP 30

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 20.18 | 21.38 | 22.24 | 22.57 | 22.70 | 21.79 | 20.68 | 20.17 | 19.57 | 18.88 | 19.71 | 20.13 |
| 10 | 20.36 | 21.48 | 22.35 | 22.54 | 22.88 | 21.31 | 20.62 | 19.89 | 19.46 | 18.96 | 19.87 | 20.20 |
| 15 | 20.56 | 21.69 | 22.47 | 22.70 | 22.85 | 21.17 | 20.61 | 19.79 | 18.92 | 19.04 | 19.82 | 20.34 |
| 20 | 20.80 | 21.84 | 22.62 | 22.81 | 22.71 | 21.09 | 20.59 | 19.85 | 18.78 | 19.18 | 19.91 | 20.42 |
| 25 | 20.96 | 22.00 | 22.72 | 22.71 | 22.35 | 20.99 | 20.16 | 19.87 | 18.83 | 19.27 | 20.10 | 20.55 |
| EOM | 21.17 | 22.12 | 22.74 | 22.59 | 21.97 | 20.64 | 20.14 | 19.71 | 18.85 | 19.46 | 19.99 | 20.37 |

WTR YR 1992 MEAN 20.84 HIGH 18.75 JUN 19 LOW 22.88 FEB 10

**350126080503903.** Local number, Me-250.
LOCATION.--Lat 35°01'26", long 80°50'39", Hydrologic Unit 03050103, near Pineville. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from felsic metavolcanic rock.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 26.0 ft, cased 21.0 ft, screened 21.0 to 26.0 ft below land-surface datum. Sand filter packed from 21.0 to 26.0 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Elevation of land-surface datum is 688.6 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.20 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, U.S. Hwy 521 well B1-A.
PERIOD OF RECORD.--December 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 10.89 ft below land-surface datum, May 14, 1991, lowest water level recorded, 24.38 ft below land-surface datum, Nov. 19, 20, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 17.73 | 19.30 | 20.55 | --- | 20.29 | 18.81 | 16.63 | 16.17 | 17.14 | 16.40 | 19.07 | 21.11 |
| 10 | 17.97 | 19.50 | 20.69 | --- | 20.41 | 17.72 | 16.54 | 16.17 | 17.28 | 16.81 | 19.46 | 21.33 |
| 15 | 18.21 | 19.75 | 20.85 | --- | 20.41 | 17.63 | 16.67 | 16.11 | 16.52 | 17.22 | 19.85 | 21.54 |
| 20 | 18.52 | 19.95 | 21.01 | --- | 20.38 | 17.34 | 16.86 | 16.27 | 16.04 | 17.70 | 20.19 | 21.70 |
| 25 | 18.76 | 20.16 | 21.14 | 20.56 | 20.01 | 17.10 | 16.27 | 16.48 | 15.92 | 18.12 | 20.50 | 21.90 |
| EOM | 19.03 | 20.34 | --- | 20.34 | 19.04 | 16.69 | 16.13 | 16.90 | 16.08 | 18.63 | 20.84 | 22.06 |

WTR YR 1992 MEAN 18.65 HIGH 15.90 JUN 24 LOW 22.06 SEP 30

**351023080542703.** Local number, Me-251.
LOCATION.--Lat 35°10'23", long 80°54'27", Hydrologic Unit 03050103, at York Road landfill at Charlotte. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 25.0 ft, cased to 20.0 ft, screened from 20.0 to 25.0 ft. Sand filter packed from 20.0 to 25.0 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Elevation of land-surface datum is 612.42 ft (revised) above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte). Measuring point: Top of casing, 0.50 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, York Road landfill well YRW-B.
PERIOD OF RECORD.--October 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.40 ft below land-surface datum, Feb. 19, 1990; lowest water level recorded, 16.49 ft below land-surface datum, Oct. 7, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 15.37 | 15.64 | 15.48 | 14.79 | 15.12 | 14.63 | 14.37 | 14.46 | 14.23 | 14.46 | 15.16 | 15.24 |
| 10 | 15.46 | 15.43 | 15.48 | 15.13 | 15.27 | 14.28 | 14.37 | 14.15 | 14.33 | 14.61 | 15.16 | 15.03 |
| 15 | 15.49 | 15.49 | 15.59 | 15.25 | 15.12 | 14.47 | 14.42 | 14.32 | 13.89 | 14.72 | 14.98 | 15.23 |
| 20 | 15.56 | 15.49 | 15.64 | 15.35 | 14.90 | 14.20 | 14.48 | 14.28 | 14.04 | 14.84 | 14.97 | 15.25 |
| 25 | 15.51 | 15.58 | 15.51 | 15.07 | 14.59 | 14.32 | 14.16 | 14.46 | 14.19 | 14.82 | 15.14 | 15.34 |
| EOM | 15.55 | 15.51 | 15.18 | 15.09 | 14.44 | 14.20 | 14.33 | 14.40 | 14.33 | 15.00 | 15.12 | 15.17 |

WTR YR 1992 MEAN 14.90 HIGH 13.82 JUN 16 LOW 15.64 NOV 5

**351331080411603.** Local number, Me-252.
LOCATION.--Lat 35°13'31", long 80°41'16", Hydrologic Unit 03050103, at Harrisburg Road landfill near Mint Hill. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 32.2 ft, cased to 27.2 ft, screened from 27.2 to 32.2 ft. Sand filter packed from 27.2 to 32.2 ft. Land surface and, thus, well depth was changed in 1990. See datum corrections and remarks below.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval through July 9, and Dec. 11, 1990, to present. Periodic measurements with chalked tape were made during interruption of continuous record.
DATUM.--Land-surface datum is 758.25 ft above National Geodetic Vertical Datum of 1929 through July 9,1990, 773.6 ft from Dec. 11, 1990, to present. Measuring point: Top of casing, 1.50 ft above land-surface datum through July 9, 1990, 1.40 ft from Dec. 11, 1990, to present.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, Harrisburg Road landfill well HBW 2101-A. Continuous record was interrupted July 9, 1990, when recorder was removed for landfill operations. Continuous record resumed Dec. 11, 1990. The land-surface datum has been changed as the landfill has been filled. Use extremes for period of record with care, noting datum changes as described above.
PERIOD OF RECORD.--November 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 16.80 ft below land-surface datum, May 10, 1990; lowest water level recorded, 46.16 ft below land-surface datum, Mar. 1, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 43.59 | 44.38 | 45.08 | 45.46 | 45.81 | 46.09 | 45.85 | 45.29 | 44.73 | 44.51 | 44.47 | 44.72 |
| 10 | 43.68 | 44.31 | 45.05 | 45.49 | 46.03 | 45.95 | 45.73 | 45.27 | 44.73 | 44.49 | 44.45 | 44.75 |
| 15 | 43.77 | 44.58 | 45.21 | 45.69 | 45.88 | 46.01 | 45.71 | 45.18 | 44.70 | 44.43 | 44.53 | 44.91 |
| 20 | 44.00 | 44.66 | 45.36 | 45.68 | 46.04 | 45.96 | 45.65 | 45.11 | 44.57 | 44.44 | 44.54 | 44.94 |
| 25 | 44.11 | 44.81 | 45.39 | 45.84 | 45.96 | 46.03 | 45.55 | 44.93 | 44.54 | 44.43 | 44.62 | 45.13 |
| EOM | 44.10 | 44.86 | 45.55 | 45.71 | 46.01 | 45.77 | 45.40 | 44.90 | 44.55 | 44.42 | 44.64 | 45.23 |

WTR YR 1992 MEAN 45.04 HIGH 43.50 OCT 2 LOW 46.15 MAR 1

**351333080405501.** Local number, Me-253.
LOCATION.--Lat 35°13'33", long 80°40'55", Hydrologic Unit 03050103, at Harrisburg Road landfill near Mint Hill. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 32 ft, cased to 22 ft, screened from 22 to 32 ft; Dec. 18, 1985. Sand filter packed from 22 to 32 ft. Land surface and, thus, well depth has changed several times since 1985. See datum corrections and remarks below.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Elevation of land-surface datum is 740 ft above National Geodetic Vertical Datum of 1929, Dec. 18, 1985, to Sept. 29, 1986; 745 ft, Sept. 30, 1986, to Dec. 19, 1986; 755 ft, from Dec. 20, 1986, to Apr. 21, 1988; 760 ft, from Apr. 22, 1988, to present. Land-surface elevation determined by levels Mar. 20, 1990, by Mecklenburg County. Measuring point to land-surface datum was -4.4 ft from Dec. 18, 1985, to Sept. 28, 1986; -3.2 ft from Sept. 29, 1986, to Dec. 19, 1986; 0.0 ft from Dec. 20, 1986, to Apr. 21, 1988; -3.4 ft from Apr. 22, 1988, to Dec. 10, 1990; -2.2 ft from Dec. 11, 1990, to current water year. Finished grade completed about Sept. 30, 1988.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, Harrisburg Road landfill well HBW 2201. The land-surface datum has changed as the landfill has been filled. Use extremes for period of record with care, noting datum changes as described above.
PERIOD OF RECORD.--December 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.28 ft below land-surface datum, Mar. 21 1986; lowest water level recorded, 32.96 ft below land-surface datum Feb. 16, 17, 1989.
REVISIONS.--The elevation of land-surface datum published in the Water Resources Data for North Carolina, WDR NC-87-1 has been revised to 745 ft above National Geodetic Vertical Datum of 1929.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 30.44 | 31.07 | 31.59 | 31.94 | 32.21 | --- | --- | 31.17 | 30.71 | 30.55 | 30.67 | 31.13 |
| 10 | 30.54 | 31.07 | 31.62 | 32.02 | 32.32 | --- | --- | 31.12 | 30.72 | 30.55 | 30.72 | 31.19 |
| 15 | 30.61 | 31.22 | 31.72 | 32.10 | 32.25 | --- | --- | 31.04 | 30.68 | 30.52 | 30.80 | 31.33 |
| 20 | 30.77 | 31.31 | 31.81 | 32.12 | 32.35 | --- | 31.46 | --- | 30.59 | 30.56 | 30.84 | 31.37 |
| 25 | 30.87 | 31.40 | 31.86 | 32.18 | --- | --- | 31.30 | --- | 30.57 | 30.57 | 30.96 | 31.50 |
| EOM | 30.92 | 31.47 | 31.95 | 32.15 | --- | --- | 31.24 | --- | 30.57 | 30.61 | 31.02 | 31.60 |

WTR YR 1992 MEAN 31.24 HIGH 30.38 OCT 2 LOW 32.36 FEB 21

**351327080404401.** Local number, Me-254.
LOCATION.--Lat 35°13'27", long 80°40'44", Hydrologic Unit 03050103, at Harrisburg Road landfill near Mint Hill. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 56 ft, cased 35.0 ft, screened from 35.0 to 55.0 ft. Sand filter packed from 35 to 55 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Elevation of land-surface datum is 768.0 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.20 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, Harrisburg Road landfill well HBW 2301.
PERIOD OF RECORD.--January 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.99 ft below land-surface datum, Apr. 5, 1990; lowest water level recorded, 24.37 ft below land-surface datum, Nov. 10-12, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 20.04 | 21.17 | 21.77 | 20.94 | 20.00 | 18.36 | 17.07 | 16.74 | 17.12 | 17.01 | 19.74 | 20.96 |
| 10 | 20.22 | 21.18 | 21.81 | 20.55 | 20.18 | 17.75 | 17.20 | 16.28 | 17.23 | 17.35 | 20.13 | 21.11 |
| 15 | 20.40 | 21.36 | 21.93 | 20.51 | 20.14 | 17.75 | 17.34 | 16.35 | 16.64 | 17.75 | 20.36 | 21.34 |
| 20 | 20.61 | 21.50 | 22.05 | 20.55 | 19.84 | 17.61 | 17.47 | 16.63 | 16.20 | 18.22 | 20.35 | 21.53 |
| 25 | 20.78 | 21.62 | 22.10 | 20.28 | 19.42 | 17.38 | 16.30 | 16.77 | 16.43 | 18.69 | 20.52 | 21.76 |
| EOM | 20.97 | 21.72 | 21.69 | 19.99 | 18.39 | 16.91 | 16.48 | 17.07 | 16.74 | 19.24 | 20.74 | 21.95 |

WTR YR 1992 MEAN 19.31 HIGH 16.19 MAY 13 LOW 22.13 DEC 27

**350639080405401.** Local Number, Me-255
LOCATION.--Lat 35°06'39", long 80°40'54", Hydrologic Unit 35050103, near Matthews. Owner: U.S. Geological Survey.
ACQUIFER.--Unconfined saprolite derived from metavolcanic rock.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., construction depth 33.8 ft, depth measured in 1988, 33.18 ft. Cased to 28.8 ft, screened from 28.8 to 33.8 ft. Sand filter packed from 28.8 to 33.8 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Elevation of land-surface datum is 730 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing 3.2 ft above land-surface datum.
REMARKS.--Well is part of Charlotte-Mecklenburg Urban Hydrology study, Ridge Road landfill well number 1. Due to increase of mud in well bottom, dry depth since August 1988 is 33.18 ft below land surface datum.
PERIOD OF RECORD.--September 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recored, 19.09 ft below land-surface datum, Mar. 29, 1991; lowest water level recored, 33.53 ft below land-surface datum, Nov. 3-14, 1986. Well was dry (water level below 33.18 ft), from Aug. 27, 1988, to Jan. 19, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 28.02 | 29.45 | 30.43 | 30.41 | 29.25 | 27.57 | 25.29 | 23.82 | 24.37 | --- | 26.42 | 29.02 |
| 10 | 28.10 | 29.60 | 30.54 | 30.23 | 29.20 | 26.82 | 25.02 | 23.77 | 24.69 | --- | 26.94 | 29.33 |
| 15 | 28.52 | 29.81 | 30.66 | 30.00 | 29.06 | 26.49 | 24.88 | 23.76 | 23.54 | 23.82 | 27.42 | 29.67 |
| 20 | 28.68 | 29.96 | 30.78 | 29.77 | 28.99 | 26.15 | 24.81 | 23.79 | --- | 24.44 | 27.83 | 29.99 |
| 25 | 28.83 | 30.14 | 30.88 | 29.61 | 28.61 | 25.90 | 23.95 | 23.87 | --- | 25.04 | 28.21 | 30.26 |
| EOM | 29.22 | 30.27 | 30.95 | 29.39 | 27.91 | 25.49 | 23.88 | 24.15 | --- | 25.81 | 28.65 | 30.55 |

WTR YR 1992 MEAN 27.59 HIGH 22.51 JUN 16 LOW 30.95 DEC 31

**MECKLENBURG COUNTY**--Continued

**351003080544201.** Local Number Me-256.
LOCATION.--Lat 35°10'03", long 80°54'42", Hydrologic Unit 03050103, near Charlotte. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from intrusive granite.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in., depth 24.5 ft, cased to 19.5 ft, screened from 19.5 to 24.5 ft. Sand filter packed from 19.5 to 24.5 ft.
INSTRUMENTATION.--Digital recorderwith a 60-minute punch interval.
DATUM.--Elevation of land-surface datum is 586.30 ft (revised) above National Geodetic Vertical Datum of 1929 (levels by city of Charlotte). Measuring point: Top of casing, 1.70 ft above land-surface datum.
REMARKS.--Well is part of the Charlotte-Mecklenburg urban hydrology study, York Road landfill well YRW-6.
PERIOD OF RECORD.--June 27, 1986, to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.93 ft below land-surface datum, Aug. 14 and 15, 1991; lowest water level recorded, 8.49 ft below land-surface datum, Sept. 4, 5, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 7.19 | --- | 6.14 | 4.33 | 6.57 | 6.21 | 6.22 | 6.55 | 3.39 | 6.80 | 7.44 | 6.61 |
| 10 | 7.25 | 5.00 | 7.08 | 6.00 | 6.95 | 4.78 | 6.37 | 5.08 | 4.28 | 6.96 | 7.39 | 6.22 |
| 15 | 7.28 | 7.22 | 7.29 | 6.43 | 3.98 | 6.07 | 6.51 | 6.30 | 4.17 | 7.06 | 7.15 | 7.03 |
| 20 | --- | 7.32 | 7.40 | 6.89 | 5.09 | 3.34 | 6.27 | 6.17 | 6.02 | 7.16 | 6.70 | 7.10 |
| 25 | --- | 7.34 | 6.37 | 5.57 | 2.68 | 5.30 | 5.86 | 6.55 | 6.27 | 7.15 | 7.19 | 7.21 |
| EOM | --- | 7.38 | 5.73 | 5.87 | 5.42 | 5.78 | 6.31 | 6.07 | 6.59 | 7.33 | 7.11 | 5.86 |

WTR YR 1992 MEAN 6.19 HIGH 1.56 FEB 26 LOW 7.48 AUG 12

**352422080560303.** Local Number Me-257.
LOCATION.--Lat 35°24'22", long 80°56'03", Hydrologic Unit 03050101, near Huntersville. Owner: U.S. Geological Survey.
AQUIFER.--Weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in., depth 23.0 ft below land-surface datum, PVC casing to 20.5 ft with slotted well screen from 10.5 to 20.5 ft below land-surface datum. Sand filled around well screen, with clay above.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Elevation of land-surface datum is 734 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.40 ft above land-surface datum.
REMARKS.--Well constructed to determine ground-water level at proposed Stephens Road landfill site, SRW-N15A.
PERIOD OF RECORD.--February 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.10 ft below land-surface datum, Feb. 23, 1990; lowest water level recorded, 14.70 ft below land-surface datum, Oct. 10, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 13.09 | 14.01 | 14.36 | 12.73 | 12.54 | 10.99 | 9.80 | 9.80 | 8.99 | 8.88 | 11.47 | 12.61 |
| 10 | 13.23 | 14.09 | 14.41 | 12.76 | 12.75 | 10.03 | 9.93 | 8.94 | 9.04 | 9.33 | 11.80 | 12.68 |
| 15 | 13.39 | 14.15 | 14.46 | 12.91 | 12.79 | 10.15 | 10.10 | 9.29 | 7.49 | 9.91 | 12.04 | 12.77 |
| 20 | 13.55 | 14.22 | 14.52 | 13.06 | 12.15 | 10.02 | 10.26 | 9.62 | 7.96 | 10.38 | 12.16 | 12.90 |
| 25 | 13.70 | 14.27 | 14.57 | 12.40 | 11.07 | 10.00 | 9.15 | 9.96 | 8.54 | 10.60 | 12.26 | 13.01 |
| EOM | 13.88 | 14.34 | 13.95 | 12.38 | 10.70 | 9.50 | 9.50 | 10.16 | 8.72 | 11.02 | 12.45 | 12.42 |

WTR YR 1992 MEAN 11.62 HIGH 6.58 JUN 16 LOW 14.59 DEC 27

**MECKLENBURG COUNTY**--Continued

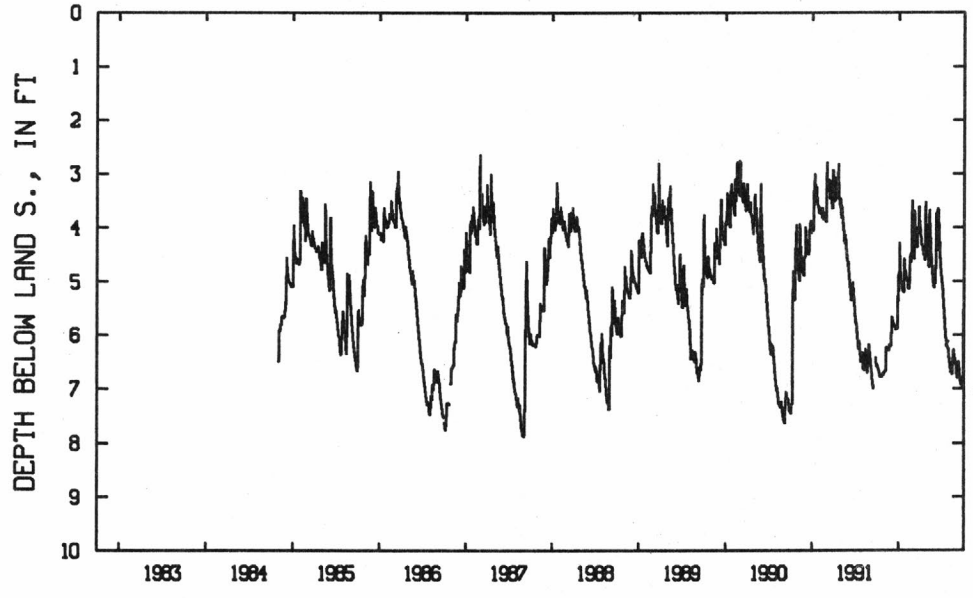
351730080524203. Local number, NC-146.
LOCATION.--Lat 35°19'16", long 80°52'39", Hydrologic Unit 03050101, 6 mi south of Huntersville in Hornets Nest Park. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, depth 17.1 ft, diameter 4 in., cased to 12.1 ft, screened interval from 12.1 to 17.1 ft, sand filter pack from 12.1 to 17.1 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 730 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.90 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--November 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.40 ft below land-surface datum, Feb. 16, 1990; lowest water level recorded, 7.91 ft below land-surface datum, Sept. 2 and 3, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.60 | 6.71 | 5.98 | 5.15 | 4.90 | 4.28 | 4.06 | 4.46 | 4.91 | 5.02 | 6.51 | 6.74 |
| 2 | 6.60 | 6.70 | 5.95 | 5.18 | 4.94 | e4.37 | 4.13 | 4.51 | 4.97 | 5.08 | 6.53 | 6.77 |
| 3 | 6.55 | 6.70 | 5.83 | 4.77 | 4.95 | e4.46 | 4.17 | 4.57 | 5.03 | 5.14 | 6.54 | 6.81 |
| 4 | 6.59 | 6.69 | 5.65 | 4.27 | 4.96 | 4.54 | 4.18 | 4.65 | 4.54 | 5.20 | 6.61 | 6.78 |
| 5 | 6.60 | 6.69 | 5.70 | 4.46 | 4.98 | 4.58 | 4.30 | 4.71 | 3.73 | 5.27 | 6.68 | 6.74 |
| 6 | 6.61 | 6.67 | 5.71 | 4.59 | 4.99 | 4.38 | 4.32 | 4.73 | 4.05 | 5.32 | 6.70 | 6.52 |
| 7 | 6.65 | 6.65 | 5.73 | 4.74 | 5.00 | 3.69 | 4.30 | 4.33 | 4.25 | 5.41 | 6.66 | 6.50 |
| 8 | 6.66 | 6.66 | 5.76 | 4.83 | 5.06 | 3.91 | 4.33 | 3.67 | 4.40 | 5.47 | 6.60 | 6.51 |
| 9 | 6.66 | 6.64 | 5.76 | 4.87 | 5.12 | 4.05 | 4.37 | 3.69 | 4.42 | 5.54 | 6.53 | 6.57 |
| 10 | 6.66 | 6.25 | 5.79 | 4.93 | 5.14 | 4.04 | 4.40 | 3.85 | 4.29 | 5.61 | 6.60 | 6.61 |
| 11 | 6.67 | 6.23 | 5.81 | 5.01 | 5.11 | 3.98 | 4.42 | 4.00 | 3.77 | 5.68 | 6.68 | 6.62 |
| 12 | 6.72 | 6.26 | 5.82 | 5.05 | 5.13 | 4.06 | 4.45 | 4.11 | 3.64 | 5.76 | 6.74 | 6.68 |
| 13 | 6.77 | 6.27 | 5.81 | 5.04 | 5.12 | 4.15 | 4.49 | 4.18 | 3.76 | 5.84 | 6.69 | 6.75 |
| 14 | 6.77 | 6.27 | 5.81 | 5.03 | 5.12 | 4.21 | 4.48 | 4.28 | 3.67 | 5.91 | 6.47 | 6.78 |
| 15 | 6.76 | 6.28 | 5.84 | 5.12 | 4.98 | 4.26 | 4.49 | 4.41 | 3.68 | 5.97 | 6.44 | 6.82 |
| 16 | 6.78 | 6.28 | 5.85 | 5.13 | 4.53 | 4.35 | 4.51 | 4.52 | 3.81 | 6.03 | 6.42 | 6.85 |
| 17 | 6.75 | 6.29 | 5.84 | 5.12 | 4.58 | 4.35 | 4.53 | 4.61 | 3.92 | 6.08 | 6.39 | 6.88 |
| 18 | 6.75 | 6.29 | 5.85 | 5.15 | 4.54 | 4.37 | 4.56 | 4.67 | 4.05 | 6.12 | 6.27 | 6.90 |
| 19 | 6.76 | 6.29 | 5.90 | 5.18 | 4.50 | 4.01 | 4.59 | 4.72 | 4.15 | 6.11 | 6.32 | 6.93 |
| 20 | 6.78 | 6.29 | 5.89 | 5.16 | 4.57 | 4.02 | 4.59 | 4.77 | 4.31 | 6.18 | 6.36 | 6.91 |
| 21 | 6.77 | 6.28 | 5.85 | 5.19 | 4.61 | 4.10 | 3.93 | 4.85 | 4.44 | 6.23 | 6.39 | 6.86 |
| 22 | 6.75 | 6.23 | 5.85 | 5.20 | 4.64 | 4.10 | 3.52 | 4.91 | 4.54 | 6.13 | 6.43 | 6.86 |
| 23 | 6.75 | 6.19 | 5.83 | 4.85 | 4.44 | 4.00 | 3.78 | 4.96 | 4.61 | 6.12 | 6.45 | 6.90 |
| 24 | 6.75 | 6.19 | 5.84 | 4.57 | 3.99 | 4.07 | 3.89 | 5.03 | 4.68 | 6.11 | 6.44 | 6.94 |
| 25 | 6.74 | 6.21 | 5.88 | 4.65 | 3.85 | 4.09 | 4.02 | 5.09 | 4.77 | 6.13 | 6.48 | 6.98 |
| 26 | 6.73 | 6.21 | 5.88 | 4.73 | 3.50 | 3.60 | 4.16 | 5.08 | 4.76 | 6.20 | 6.53 | 6.95 |
| 27 | 6.72 | 6.22 | 5.87 | 4.79 | 3.86 | 3.69 | 4.24 | 5.07 | 4.84 | 6.25 | 6.56 | 6.87 |
| 28 | 6.72 | 6.21 | 5.69 | 4.78 | 4.01 | 3.83 | 4.28 | 5.12 | 4.92 | 6.33 | 6.49 | 6.01 |
| 29 | 6.75 | 6.20 | 4.88 | 4.81 | 4.15 | 3.91 | 4.33 | 5.06 | 4.99 | 6.38 | 6.58 | 5.53 |
| 30 | 6.72 | 6.20 | 4.98 | 4.81 | --- | 3.94 | 4.36 | 4.87 | 5.01 | 6.43 | 6.70 | 5.66 |
| 31 | 6.71 | --- | 5.10 | 4.83 | --- | 4.00 | --- | 4.84 | --- | 6.45 | 6.74 | --- |

WTR YR 1992 MEAN 5.40 HIGH 3.50 LOW 6.98

e Estimated




351730080524203 ME-257 (NC-146) H NST PK
MEAN DAILY DEPTH BELOW LAND S. (FT)

**NEW HANOVER COUNTY**

**341000077524201.** Local number, NC-20.
LOCATION.--Lat 34°09'53", long 77°52'48", Hydrologic Unit 03030001, southeast of Wilmington, 1 mi west of Secondary Road 1492 on Secondary Road 1516. Owner: Walter J. Hodder.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 173 ft, diameter 3 in., cased and screened intervals unknown; measured depth 169 ft, September 1973.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 21 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.85 ft above land-surface datum (since March 11, 1976).
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--November 1963 to current year. USGS continuous record from December 1964 to November 1980.
EXTREMES FOR PERIOD OF RECORD.--Highest recorded water level, 9.42 ft below land-surface datum, June 10, 1966; lowest water level recored, 23.89 ft below land-surface datum, July 10, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 1 | 19.10 | JAN 7 | 19.21 | MAR 19 | 18.63 | MAY 5 | 20.16 | JUN 17 | 19.92 | JUL 29 | 21.21 |
| NOV 20 | 19.09 | | | | | | | | | | |

**ONSLOW COUNTY**

**344425077272501.** Local number, NC-52.
LOCATION.--Lat 34°44'18", long 77°27'29", Hydrologic Unit 03030001, southwest of Jacksonville, 0.25 mi east of U.S. Highway 17 at U.S. Marine Corps Camp Geiger, and 2 mi south of U.S. Highway 258. Owner: U.S. Marine Corps.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled abandoned supply well, drilled to 70 ft, diameter 18 in., cased to 23 ft, open hole to 70 ft; measured depth 68 ft, January 1974.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 17.0 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.90 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.67 ft below land-surface datum, Sept. 14, 1984; lowest water level recorded, 10.44 ft below land-surface datum, Jan. 3, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 4.44 | 6.06 | 6.86 | 4.55 | 4.38 | 5.06 | 4.97 | 6.24 | 6.52 | 6.05 | 6.20 | 5.14 |
| 10 | 4.38 | 6.08 | 6.98 | 4.69 | 4.89 | 4.82 | 5.17 | 6.40 | 5.44 | 6.34 | 5.93 | 5.33 |
| 15 | 4.93 | 6.20 | 7.13 | 4.30 | 5.01 | 5.15 | 5.48 | 6.63 | 5.10 | 6.60 | 3.83 | 5.76 |
| 20 | 4.96 | 6.39 | 7.20 | 4.67 | 4.98 | 5.38 | 5.81 | 6.80 | 5.47 | 6.86 | 2.90 | 5.94 |
| 25 | 5.37 | 6.54 | 7.33 | 4.39 | 4.56 | 5.43 | 5.58 | 6.95 | 5.57 | 6.89 | 3.83 | 6.17 |
| EOM | 5.70 | 6.65 | 6.34 | 3.73 | 4.52 | 4.64 | 5.96 | 6.68 | 5.85 | 7.21 | 4.60 | 6.16 |

WTR YR 1992 MEAN 5.61 HIGH 2.48 AUG 18 LOW 7.33 DEC 25

**344525077254501.** Local number, NC-85
LOCATION.--Lat 34°45'25", long 77°25'45", Hydrologic Unit 03030001, in Jacksonville at electrical transformer substation, 0.15 mi north of U.S. Highway 17, and 0.4 mi east of New River. Owner: Carolina Power and Light Company.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 240 ft (reported), diameter 8 in., cased and screened intervals unknown; measured depth 103 ft, January 1974.
DATUM.--Land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 3.20 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.86 ft below land-surface datum, June 10, 1964; lowest water level recorded, 24.19 ft below land-surface datum, July 3, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 17.99 | 16.86 | 17.21 | 17.83 | 19.80 | 17.15 | 17.73 | 15.08 | 14.86 | 18.96 | 23.03 | 22.25 |
| 10 | 17.40 | 17.34 | 17.17 | 18.05 | 20.60 | 16.15 | 16.71 | 15.05 | 16.28 | 20.79 | 22.92 | 21.85 |
| 15 | 16.78 | 17.82 | 17.00 | 18.28 | 19.84 | 17.30 | 16.51 | 15.13 | 15.79 | 22.89 | 22.66 | 21.27 |
| 20 | 16.63 | 17.16 | 19.71 | 19.87 | 18.65 | 17.20 | 15.92 | 15.49 | 16.15 | 22.75 | 21.70 | 21.46 |
| 25 | 16.53 | 16.55 | 19.09 | 19.72 | 17.68 | 17.91 | 15.69 | 15.25 | 16.51 | 22.91 | 21.92 | 20.72 |
| EOM | 16.32 | 17.12 | 18.69 | 19.67 | 17.46 | 17.02 | 15.44 | 14.64 | 17.95 | 23.44 | 21.86 | 20.16 |

WTR YR 1992 MEAN 18.41 HIGH 14.57 MAY 30 LOW 23.62 AUG 1

**ONSLOW COUNTY**--Continued

**343641077290104.** Local number, NC-188; DEHNR Dixon Tower Research Station well Y25q4.
LOCATION.--Lat 34°36'41", long 77°29'01", Hydrologic Unit 03030001, 1.5 mi north of Dixon at North Carolina Division of Forest Resources Fire Tower on U.S. Highway 17. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 550 ft, diameter 4 in., cased to 524 ft, screened interval from 524 to 534 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 67.44 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.53 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--April 1982 to current year. Continuous record August 1986 to November 1990. Records from May 1983 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 38.86 ft below land-surface datum, May 12, 1983; lowest water level recorded, 40.55 ft below land-surface datum, Oct. 20 and 21, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 1 | 40.25 | JAN 6 | 40.01 | MAR 17 | 40.13 | MAY 6 | 39.99 | JUN 17 | 40.08 | JUL 21 | 40.23 |
| NOV 18 | 40.29 | | | | | | | | | | |

**344837077291607.** Local number, NC-189; DEHNR Jacksonville 258 Well Field Research Station well W25f7.
LOCATION.--Lat 34°48'37", long 77°29'16", Hydrologic Unit 03030001, 1.4 mi northeast of U.S. Highway 258 and State Highway 24 on Wells Road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Black Creek aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 834 ft, diameter 4 in., cased to 824 ft, screened interval from 824 to 834 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 26.62 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 3.78 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 96.64 ft below land-surface datum, Oct. 15, 1986; lowest water level recorded, 144.92 ft below land-surface datum, July 21, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 1 | 140.68 | JAN 6 | 142.39 | MAR 17 | 143.52 | MAY 6 | 143.83 | JUN 16 | 144.04 | JUL 21 | 144.92 |
| NOV 18 | 142.00 | | | | | | | | | | |

**ORANGE COUNTY**

**355522079043001.** Local number, NC-126.
LOCATION.--Lat 35°55'22", long 79°04'30", Hydrologic Unit 03030002, in Chapel Hill, west of University of North Carolina campus, southeast of intersection of Cameron Avenue and Ransom Street. Owner: Chi Psi Fraternity.
AQUIFER.--Unconfined saprolite derived from granite of Paleozoic age.
WELL CHARACTERISTICS.--Dug observation well, depth 48 ft, diameter 36 in., lined with rock; measured depth 46.2 ft, August 1986.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 511.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf, 3.27 ft above land-surface datum (since July 21, 1981).
REMARKS.-- Well is part of terrane-effects network.
PERIOD OF RECORD.--August 1938 to current year. USGS continous record March 1965 to September 1988.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.22 ft below land-surface datum, May 14, 1984; lowest water level recorded, dry, Oct. 11 to Dec. 31, 1940, and Oct. 13 to Jan. 24, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 8 | 43.20 | NOV 25 | 43.21 | JUN 19 | 43.55 | JUL 20 | 43.26 | | | | |

**PAMLICO COUNTY**

**350523076392206.** Local number, NC-169; DEHNR Whortonsville Research Station well S15y6.
LOCATION.--Lat 35°05'23", long 76°39'22", Hydrologic Unit 03020204, 0.5 mi northeast of intersection of Secondary Roads 1321 and 1322, and 3.4 mi east of Merritt on Secondary Road 1321. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 290 ft, diameter 4 in., cased to 223 ft and from 228 to 270 ft, screened intervals from 223 to 228 ft and 270 to 275 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 7.54 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.53 ft above land-surface datum - revised from 2.64 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--February 1978 to current year. Continuous record December 1986 to November 1990. Records from February 1978 to November 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.00 ft below land-surface datum, May 10, 1978; lowest water level recorded, 7.69 ft below land-surface datum, Oct. 20, 21, 22, and 23, 1990.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.11 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 2 | 5.84 | JAN 15 | 5.23 | APR 23 | 4.97 | JUN 6 | 5.53 | JUL 16 | 6.30 | AUG 25 | 6.11 |
| NOV 26 | 5.65 | MAR 4 | 5.33 | | | | | | | | |

**PASQUOTANK COUNTY**

**362050076163705.** Local number, NC-150; DEHNR Elizabeth City Forest Service Research Station well D11v5.
LOCATION.--Lat 36°20'50", long 76°16'37", Hydrologic Unit 03010205, 4 mi northwest of Elizabeth City at North Carolina Division of Forest Resources Maintenance Yard, west of U.S. Highways 17 and 158 on Secondary Road 1338. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 500 ft, diameter 4 in., cased to 120 ft, screened interval from 120 to 130 ft, cemented from 130 to 500 ft.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Land-surface datum is 7.14 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 3.48 ft above land-surface datum - revised from 3.13 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--July 1975 to current year. Records from July 1975 to November 1986 are unpublished and available in the files of the Groundwater Section, DEHNR. U.S. Geological Survey continuous record began November 1986.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.22 ft below land-surface datum, June 26, 1979; lowest water level recorded, 8.32 ft below land-surface datum, Aug. 15, 1986.
REVISIONS.--Water-level mean values and extremes for period of record published in U.S.G.S. annual report, Water Resources Data-North Carolina NC-87-1, should be adjusted by -0.35 ft.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 5.89 | 5.41 | 5.78 | 6.08 | 6.16 | 6.05 | 6.13 | 6.55 | 6.07 | 6.20 | 6.81 | 6.40 |
| 10 | 5.73 | 5.37 | 5.91 | 6.05 | 6.30 | 5.88 | 6.13 | 6.67 | 5.98 | 6.32 | 6.70 | 6.34 |
| 15 | 5.66 | 5.51 | 6.04 | 6.02 | 6.24 | 5.95 | 6.10 | 6.62 | 5.98 | 6.58 | 6.51 | 6.40 |
| 20 | 5.57 | 5.56 | 6.30 | 6.12 | 6.22 | 5.97 | 6.26 | 6.56 | 5.91 | 6.82 | 6.43 | 6.36 |
| 25 | 5.47 | 5.53 | 6.35 | 6.19 | 6.11 | 6.09 | 6.34 | 6.47 | 5.95 | 6.99 | 6.37 | 6.39 |
| EOM | 5.33 | 5.68 | 6.37 | 6.07 | 6.04 | 6.02 | 6.46 | 6.29 | 6.11 | 6.96 | 6.35 | 6.40 |

WTR YR 1992 MEAN 6.16 HIGH 5.33 OCT 31 LOW 7.04 JUL 24

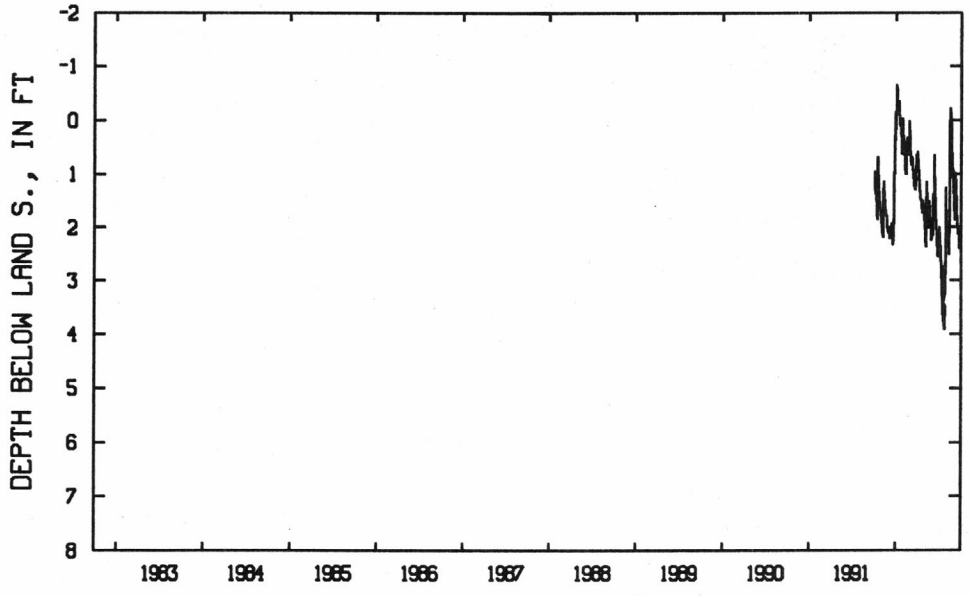
**PASQUOTANK COUNTY**--Continued

361829076163201. Local number, NC-195.
LOCATION.--Lat 36°18'29", long 76°16'32", Hydrologic Unit 03010205, northwest of Elizabeth City, 1.2 mi west of Secondary Road 1307 on Secondary Road 1309. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 13.0 ft, diameter 4 in., cased to 2.4 ft, screened interval from 2.4 to 12.4 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of casing, 2.65 ft above land-surface datum.
REMARKS.--In October 1991, well replaced nearby NC-143. Well is part of climatic-effects network.
PERIOD OF RECORD.--October 1991 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.70 ft above land-surface datum, Jan. 4, 1992; lowest water level recorded, 3.95 ft below land-surface datum, July 24, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | 1.86 | 2.09 | .16 | .25 | .52 | .96 | 1.97 | 1.88 | 2.37 | 1.97 | 1.49 |
| 2 | --- | 1.90 | 2.08 | .15 | .41 | .61 | .59 | 2.03 | 2.01 | 2.00 | 2.16 | 1.62 |
| 3 | --- | 2.01 | 1.99 | -.21 | .50 | .69 | .74 | 2.06 | 2.13 | 2.10 | 2.23 | 1.72 |
| 4 | 1.31 | 2.04 | 2.05 | -.65 | .53 | .75 | .76 | 2.18 | 2.15 | 2.21 | 2.28 | 1.83 |
| 5 | 1.08 | 2.11 | 2.21 | -.62 | .62 | .80 | .83 | 2.27 | 1.50 | 2.31 | 1.97 | 1.86 |
| 6 | .95 | 2.11 | 2.12 | -.55 | .66 | .83 | .98 | 2.36 | 1.38 | 2.36 | 2.09 | 1.33 |
| 7 | 1.13 | 2.11 | 2.11 | -.44 | .65 | .76 | 1.03 | 2.34 | 1.57 | 2.49 | 2.19 | .98 |
| 8 | 1.29 | 2.18 | 2.15 | -.31 | .74 | .68 | 1.09 | 1.29 | 1.70 | 2.63 | 2.29 | 1.09 |
| 9 | 1.39 | 2.16 | 2.08 | -.30 | .90 | .84 | 1.18 | 1.15 | 1.50 | 2.66 | 2.36 | 1.19 |
| 10 | 1.40 | 1.31 | 2.07 | -.31 | .99 | .83 | 1.25 | 1.29 | .65 | 2.79 | 2.41 | 1.31 |
| 11 | 1.40 | 1.14 | 2.08 | -.24 | .96 | .71 | 1.32 | 1.43 | .94 | 2.93 | 2.51 | 1.44 |
| 12 | 1.52 | 1.26 | 2.05 | -.16 | 1.01 | .90 | 1.37 | 1.49 | 1.15 | 3.08 | 2.26 | 1.61 |
| 13 | 1.69 | 1.32 | 2.00 | -.28 | .72 | .95 | 1.45 | 1.52 | 1.29 | 3.18 | 1.72 | 1.73 |
| 14 | 1.79 | 1.41 | 1.92 | -.36 | .42 | 1.02 | 1.47 | 1.64 | 1.40 | 3.31 | .98 | 1.84 |
| 15 | 1.79 | 1.46 | 2.07 | -.15 | .39 | 1.07 | 1.51 | 1.80 | 1.54 | 2.73 | .02 | 1.94 |
| 16 | 1.85 | 1.50 | 2.11 | -.09 | .34 | 1.16 | 1.51 | 1.93 | 1.72 | 3.57 | -.22 | 2.01 |
| 17 | .68 | 1.63 | 2.08 | -.05 | .52 | 1.19 | 1.48 | 2.02 | 1.87 | 3.69 | -.19 | 2.07 |
| 18 | .76 | 1.67 | 2.11 | .02 | .44 | 1.23 | 1.58 | 1.93 | 1.97 | 3.76 | -.13 | 2.12 |
| 19 | .90 | 1.72 | 2.32 | .09 | .31 | 1.12 | 1.65 | 1.52 | 1.99 | 3.69 | -.04 | 2.13 |
| 20 | 1.09 | 1.75 | 2.32 | .06 | .41 | 1.22 | 1.69 | 1.51 | 2.08 | 3.69 | .00 | 2.08 |
| 21 | 1.19 | 1.76 | 2.11 | .09 | .56 | 1.29 | 1.73 | 1.57 | 2.21 | 3.77 | .12 | 2.11 |
| 22 | 1.28 | 1.75 | 2.08 | .14 | .65 | 1.30 | 1.50 | 1.67 | 2.32 | 3.87 | .37 | 2.13 |
| 23 | 1.39 | 1.79 | 1.96 | .27 | .64 | 1.07 | 1.50 | 1.76 | 2.40 | 3.91 | .62 | 2.25 |
| 24 | 1.47 | 1.78 | 1.24 | .24 | .64 | 1.15 | 1.57 | 1.85 | 2.44 | 3.85 | .81 | 2.40 |
| 25 | 1.52 | 1.90 | .97 | .44 | .63 | 1.23 | 1.56 | 2.00 | 2.54 | 3.48 | .96 | 2.30 |
| 26 | 1.57 | 2.00 | 1.00 | .55 | .04 | .84 | 1.63 | 2.02 | 2.55 | 3.42 | 1.09 | 2.32 |
| 27 | 1.60 | 2.06 | .89 | .64 | .02 | .63 | 1.68 | 2.00 | 2.07 | 3.23 | 1.09 | 2.33 |
| 28 | 1.65 | 2.06 | .72 | .08 | .18 | .79 | 1.73 | 2.14 | 2.19 | 1.26 | .90 | 2.36 |
| 29 | 1.78 | 2.08 | -.15 | -.03 | .34 | .92 | 1.83 | 2.25 | 2.33 | 1.47 | 1.02 | 2.26 |
| 30 | 1.76 | 2.11 | -.12 | .02 | --- | .96 | 1.89 | 2.12 | 2.46 | 1.70 | 1.22 | 2.36 |
| 31 | 1.78 | --- | .09 | .10 | --- | .90 | --- | 1.88 | --- | 1.88 | 1.34 | --- |

WTR YR 1992 MEAN 1.45 HIGH -.65 LOW 3.91




——— 361829076163201 PK-141(NC-195) ELIZ CITY
MEAN DAILY DEPTH BELOW LAND S. (FT)

**PERQUIMANS COUNTY**

**361744076274402.** Local number, NC-151; DEHNR Parkville Research Station well E13m2.
LOCATION.--Lat 36°17'44", long 76°27'44", Hydrologic Unit 03010205, 3.5 mi west of Parkville, and west of Secondary Road 1223 on logging road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Lower Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 1,019 ft, diameter 4 in., cased to 1,009 ft, screened interval from 1,009 to 1,019 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 16.82 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 3.02 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--December 1977 to current year. Continuous record November 1986 to September 1990. Records from December 1977 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 40.17 ft below land-surface datum, Dec. 7, 1977; lowest water level recorded, 61.44 ft below land-surface datum, July 15, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC 4 | 60.36 | MAR 3 | 60.77 | APR 27 | 61.07 | JUN 8 | 61.31 | JUL 15 | 61.44 | AUG 26 | 61.01 |
| JAN 22 | 60.66 | | | | | | | | | | |

**361744076274403.** Local number, NC-152; DEHNR Parkville Research Station well E13m3.
LOCATION.--Lat 36°17'44", long 76°27'44", Hydrologic Unit 03010205, 3.5 mi west of Parkville, west of Secondary Road 1223 on logging road. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 351 ft, diameter 4 in., cased to 336 ft, open hole to 351 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 16.73 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 3.00 ft above land-surface datum - revised from 3.49 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--December 1977 to current year. Continuous record November 1986 to November 1990. Records from December 1977 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.46 ft below land-surface datum, Dec. 20, 1978; lowest water level recorded, 10.68 ft below land-surface datum, July 15, 1992.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.49 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC 4 | 10.22 | MAR 3 | 10.30 | APR 27 | 10.57 | JUN 8 | 10.65 | JUL 15 | 10.68 | AUG 26 | 10.46 |
| JAN 22 | 10.26 | | | | | | | | | | |

GROUND-WATER LEVELS

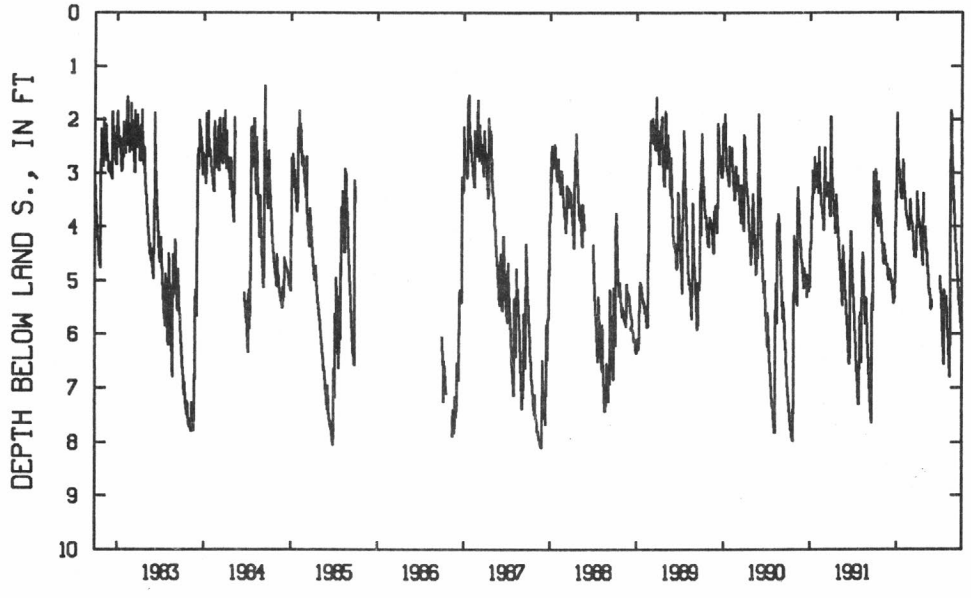
**PITT COUNTY**

353219077153801. Local number, NC-160; USGS well PI-532.
LOCATION.--Lat 35°32'19", long 77°15'38", Hydrologic Unit 03020103, 2.7 mi southwest of Simpson in southeast corner of intersection of Secondary Roads 1755 and 1769. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 12 ft, diameter 6 in., cased to 5.9 ft, screened interval from 5.9 ft to 10.9 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 56.27 ft above National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service). Measuring point: File cut on top of casing, 1.04 ft above land-surface datum.
REMARKS.--From December 1976 to April 1987, well was part of a study of the effects of channelization on hydrology of Chicod Creek watershed. It has been incorporated into the climatic-effects network.
PERIOD OF RECORD.--December 1976 to current year. Prior to October 1986, published as Local number, PI-532.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.05 ft below land-surface datum, Sept. 14, 1984; lowest water level recorded, 8.84 ft below land-surface datum, Nov. 6, 7, and 8, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.79 | 4.21 | 4.97 | 3.45 | 3.15 | 3.74 | 3.67 | 4.07 | --- | 4.91 | 5.84 | 3.86 |
| 2 | 3.81 | 4.28 | 4.94 | 3.47 | 3.26 | 3.79 | 3.77 | 4.16 | --- | 5.03 | 5.97 | 3.98 |
| 3 | 3.19 | 4.39 | 4.89 | 2.63 | 3.31 | 3.85 | 3.87 | 4.26 | --- | 5.17 | 5.96 | 4.09 |
| 4 | 3.03 | 4.42 | 4.77 | 1.87 | 3.35 | 3.88 | 3.89 | 4.39 | --- | 5.07 | 6.00 | 4.20 |
| 5 | 2.94 | 4.50 | 4.87 | 2.29 | 3.42 | 3.91 | 3.86 | 4.42 | --- | 5.13 | 6.21 | 4.30 |
| 6 | 2.92 | 4.56 | 4.85 | 2.46 | 3.45 | 3.94 | 3.92 | 4.48 | --- | 5.25 | 6.31 | 4.32 |
| 7 | 3.14 | 4.61 | 4.88 | 2.63 | 3.50 | 3.93 | 3.93 | 4.50 | --- | 5.35 | 6.39 | 4.35 |
| 8 | 3.30 | 4.69 | 4.93 | 2.76 | 3.58 | 4.00 | 3.99 | 4.47 | --- | 5.47 | 6.48 | 4.44 |
| 9 | 3.40 | 4.63 | 4.92 | 2.81 | 3.68 | 4.09 | 4.05 | 4.59 | --- | 5.60 | 6.58 | 4.53 |
| 10 | 3.46 | 4.32 | 4.97 | 2.86 | 3.72 | 4.08 | 4.11 | 4.68 | --- | 5.78 | 6.67 | 4.62 |
| 11 | 3.55 | 4.32 | 5.02 | 2.98 | 3.73 | 4.15 | 4.16 | 4.78 | --- | 5.93 | 6.80 | 4.71 |
| 12 | 3.68 | 4.36 | 5.04 | 3.07 | 3.79 | 4.26 | 4.21 | 4.81 | --- | 6.03 | 6.63 | 4.81 |
| 13 | 3.81 | 4.42 | 5.04 | 3.03 | 3.79 | 4.31 | 4.31 | 4.86 | --- | 6.14 | 5.05 | 4.88 |
| 14 | 3.91 | 4.49 | 5.01 | 2.93 | 3.85 | 4.37 | 4.36 | 4.96 | --- | 6.25 | 4.10 | 4.95 |
| 15 | 3.96 | 4.51 | 5.17 | 3.07 | 3.84 | 4.41 | 4.42 | 5.05 | --- | 6.38 | 2.80 | 5.04 |
| 16 | 4.00 | 4.54 | 5.23 | 3.18 | 3.88 | 4.50 | 4.41 | 5.16 | --- | 6.48 | 2.02 | 5.12 |
| 17 | 3.16 | 4.63 | 5.25 | 3.25 | 3.93 | 4.53 | 4.47 | 5.18 | --- | 6.57 | 1.82 | 5.21 |
| 18 | 3.15 | 4.66 | 5.31 | 3.32 | 3.92 | 4.56 | 4.56 | 5.24 | --- | 6.50 | 1.95 | 5.29 |
| 19 | 3.25 | 4.69 | 5.43 | 3.38 | 3.92 | 4.46 | 4.62 | 5.16 | --- | 5.17 | 2.41 | 5.37 |
| 20 | 3.36 | 4.71 | 5.41 | 3.39 | 4.00 | 4.46 | 4.68 | 5.15 | --- | 5.33 | 2.47 | 5.38 |
| 21 | 3.43 | 4.70 | 5.35 | 3.45 | 4.05 | 4.54 | 4.71 | 5.24 | --- | --- | 2.50 | 5.42 |
| 22 | 3.52 | 4.68 | 5.36 | 3.48 | 4.07 | 4.57 | 3.54 | 5.38 | --- | --- | 2.72 | 5.49 |
| 23 | 3.59 | 4.70 | 5.34 | 3.33 | 4.04 | 4.44 | 3.37 | 5.45 | --- | --- | 2.89 | 5.57 |
| 24 | 3.66 | 4.69 | 5.03 | 3.13 | 4.05 | 4.42 | --- | 5.53 | --- | 5.60 | 3.04 | 5.63 |
| 25 | 3.72 | 4.80 | 4.98 | 3.22 | 4.03 | 4.44 | --- | 5.54 | --- | 5.29 | 3.16 | 5.65 |
| 26 | 3.78 | 4.91 | 5.05 | 3.32 | 3.65 | 3.97 | --- | 5.39 | --- | 5.43 | 3.28 | 5.71 |
| 27 | 3.83 | 4.87 | 4.78 | 3.36 | 3.49 | 3.35 | --- | 5.36 | --- | 5.52 | 3.40 | 5.80 |
| 28 | 3.90 | 4.90 | 4.32 | 2.88 | 3.53 | 3.46 | --- | 5.50 | --- | 5.29 | 3.48 | 5.77 |
| 29 | 4.03 | 4.97 | 3.52 | 2.74 | 3.65 | 3.55 | --- | --- | --- | 5.34 | 3.57 | 5.80 |
| 30 | 4.07 | 4.99 | 3.33 | 2.87 | --- | 3.60 | 4.00 | --- | --- | 5.52 | 3.66 | 5.96 |
| 31 | 4.15 | --- | 3.40 | 2.99 | --- | 3.62 | --- | --- | --- | 5.68 | 3.76 | --- |

WTR YR 1992 MEAN 4.34 HIGH 1.82 LOW 6.80




353219077153801 PI-532 (NC-160) GALLOWAY
MEAN DAILY DEPTH BELOW LAND S. (FT)

**PITT COUNTY**--Continued

**354457077215504.** Local number, NC-183; DEHNR Bethel Research Station well L24b4.
LOCATION.--Lat 35°44'57", long 77°21'55", Hydrologic Unit 03020103, 4.2 mi south of Bethel on U.S. Highway 13 and State Highway 11 at North Pitt High School. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 370 ft, diameter 4 in., cased to 360 ft, screened interval from 360 to 370 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 55.31 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 1.87 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--April 1980 to current year. Continuous record October 1983 to November 1990. Records from April 1980 to September 1983 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 56.33 ft below land-surface datum, Apr. 17, 1980; lowest water level recorded, 72.52 ft below land-surface datum, Nov. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 22 | 72.52 | JAN 21 | 72.43 | MAR 20 | 72.35 | MAY 14 | 72.33 | JUN 22 | 72.32 | JUL 15 | 72.45 |

**353146077193403.** Local number, NC-184; DEHNR Conley Research Station well N23p3.
LOCATION.--Lat 35°14'46", long 77°19'34", Hydrologic Unit 03020203, 0.2 mi west of State Highway 43 on Secondary Road 1711 at Conley High School, and 6 mi southeast of Greenville. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Peedee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 132 ft, diameter 4 in., cased to 122 ft, screened interval from 122 to 132 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 69 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 3.63 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--June 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 17.84 ft below land-surface datum, May 24, 1989; lowest water level recorded, 22.39 ft below land-surface datum, Dec. 18 and 19, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 20.31 | 19.71 | 19.86 | 19.62 | 18.89 | 18.92 | 19.05 | 19.15 | 19.59 | 19.66 | 20.48 | 19.63 |
| 10 | 20.19 | 19.55 | 19.81 | 19.44 | 19.04 | 18.88 | 19.09 | 19.23 | 19.56 | 19.74 | 20.57 | 19.61 |
| 15 | 20.00 | 19.66 | 19.97 | 19.29 | 18.78 | 18.99 | 19.14 | 19.34 | 19.57 | 19.96 | 20.40 | 19.67 |
| 20 | 19.86 | 19.69 | 20.14 | 19.21 | 18.85 | 19.03 | 19.22 | 19.50 | 19.56 | 20.11 | 20.16 | 19.72 |
| 25 | 19.76 | 19.70 | 20.00 | 19.11 | 18.83 | 19.19 | 19.07 | 19.57 | 19.53 | 20.24 | 19.90 | 19.80 |
| EOM | 19.66 | 19.76 | 19.99 | 18.86 | 18.86 | 19.00 | 19.16 | 19.55 | 19.60 | 20.33 | 19.65 | 19.87 |

WTR YR 1992 MEAN 19.57 HIGH 18.74 FEB 26 LOW 20.60 AUG 9

**ROBESON COUNTY**

**343840078550009.** Local number, NC-177; DEHNR Littlefield School Research Station well Y42f9.
LOCATION.--Lat 34°38'40", long 78°55'00", Hydrologic Unit 03040203, 6 mi east of Lumberton on State Highway 41 at Littlefield School. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 468 ft, diameter 6 in., cased to 390 ft and from 395 to 429 ft and 434 to 444 ft, screened intervals from 390 to 395 ft, 429 to 434 ft, and 444 to 449 ft; measured depth 462 ft, December 1987.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 142 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.4 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network. Records prior to July 1985 are from Littlefield School Research Station well Y42f3 which was adjacent to and of similar construction to well Y42f9. Well Y42f3 was destroyed in September 1987.
PERIOD OF RECORD.--October 1970 to current year. Records for well Y42f3 from October 1970 to June 1985 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 76.40 ft below land-surface datum, Jan. 5, 1971; lowest water level recorded, 109.40 ft below land-surface datum, Sept. 30, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 1 | 107.99 | JAN 6 | 108.32 | MAY 7 | 108.75 | JUN 16 | 108.87 | JUL 28 | 109.24 | SEP 30 | 109.40 |
| NOV 18 | 108.27 | MAR 24 | 108.60 | | | | | | | | |

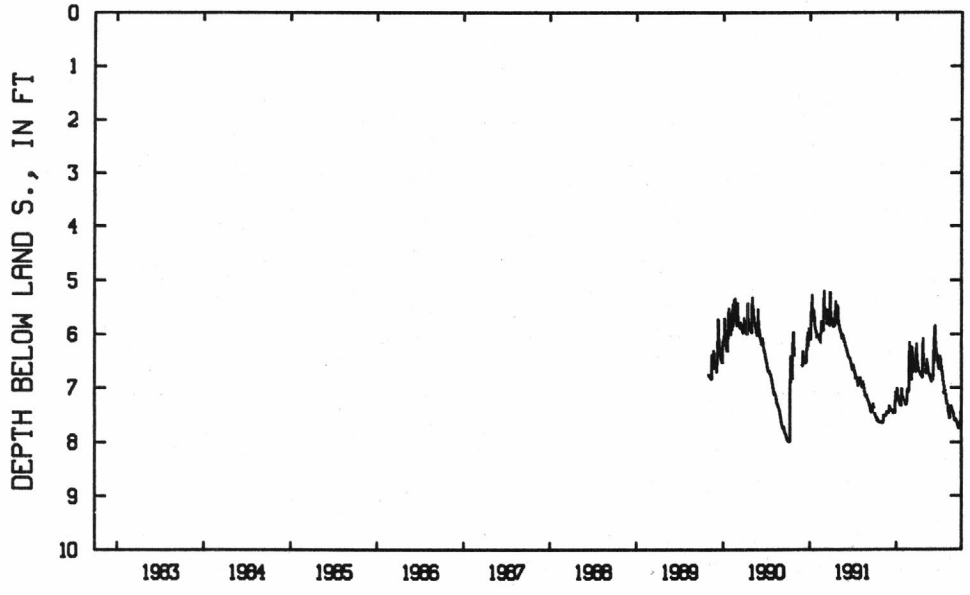
**ROWAN COUNTY**

354057080362601. Local number, NC-193; DEHNR well L63t1.
LOCATION.--Lat 35°40'57", long 80°36'26 ", Hydrologic Unit 03040102, 0.75 mi south of Secondary Road 1526 on Piedmont Research Station road and 30 ft east of road, and 2.75 mi south of Barber. Owner: NCDA (North Carolina Department of Agriculture), Piedmont Research Station.
AQUIFER.--Unconfined alluvial silt.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 24 ft, diameter 4 in., cased to 9 ft, screened interval from 9 to 19 ft, sand filter pack from 7.2 to 24 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 678 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Two saw cuts in top of PVC casing, 3.30 ft above land-surface datum.
REMARKS.--U.S. Geological Survey continuous record began Nov. 11, 1989. Well is part of climatic-effects network.
PERIOD OF RECORD.-- November 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.06 ft below land-surface datum, Mar. 3, 1991; lowest water level recorded, 8.01 ft below land-surface datum, Oct. 9 and 10, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.48 | 7.64 | 7.44 | 7.24 | 7.21 | 6.69 | 6.55 | 6.65 | 6.79 | 6.41 | 7.29 | 7.56 |
| 2 | 7.48 | 7.64 | 7.42 | 7.24 | 7.23 | 6.75 | 6.59 | 6.66 | 6.83 | 6.45 | 7.30 | 7.58 |
| 3 | 7.47 | 7.65 | 7.38 | 7.19 | 7.23 | 6.79 | 6.62 | 6.67 | 6.86 | 6.50 | 7.30 | 7.60 |
| 4 | 7.49 | 7.64 | 7.32 | 7.05 | 7.23 | 6.83 | 6.62 | 6.69 | 6.74 | 6.42 | 7.30 | 7.61 |
| 5 | 7.50 | 7.64 | 7.36 | 7.00 | 7.24 | 6.86 | 6.69 | 6.72 | 6.30 | 6.44 | 7.30 | 7.61 |
| 6 | 7.51 | 7.61 | 7.37 | 7.04 | 7.25 | 6.76 | 6.70 | 6.74 | 6.40 | 6.48 | 7.36 | 7.57 |
| 7 | 7.53 | 7.61 | 7.38 | 7.11 | 7.24 | 6.23 | 6.69 | 6.72 | 6.52 | 6.55 | 7.43 | 7.57 |
| 8 | 7.55 | 7.61 | 7.40 | 7.15 | 7.27 | 6.31 | 6.70 | 6.55 | 6.55 | 6.59 | 7.44 | 7.57 |
| 9 | 7.55 | 7.60 | 7.39 | 7.16 | 7.30 | 6.45 | 6.72 | 6.47 | 6.07 | 6.61 | 7.47 | 7.59 |
| 10 | 7.54 | 7.51 | 7.41 | 7.18 | 7.31 | 6.45 | 6.73 | 6.50 | 5.94 | 6.65 | 7.50 | 7.60 |
| 11 | 7.54 | 7.50 | 7.42 | 7.22 | 7.30 | 6.34 | 6.73 | 6.56 | 5.94 | 6.68 | 7.53 | 7.62 |
| 12 | 7.56 | 7.52 | 7.42 | 7.24 | 7.30 | 6.42 | 6.75 | 6.59 | 5.83 | 6.72 | 7.56 | 7.64 |
| 13 | 7.59 | 7.52 | 7.41 | 7.23 | 7.29 | 6.53 | 6.77 | 6.60 | 5.99 | 6.75 | 7.52 | 7.65 |
| 14 | 7.60 | 7.52 | 7.41 | 7.22 | 7.28 | 6.60 | 6.76 | 6.65 | 6.11 | 6.78 | 7.35 | 7.67 |
| 15 | 7.58 | 7.52 | 7.43 | 7.27 | 7.24 | 6.65 | 6.77 | 6.69 | 6.17 | 6.82 | 7.34 | 7.69 |
| 16 | 7.58 | 7.51 | 7.44 | 7.29 | 7.04 | 6.71 | 6.79 | 6.72 | 6.26 | 6.87 | 7.34 | 7.70 |
| 17 | 7.60 | 7.52 | 7.43 | 7.29 | 7.03 | --- | 6.79 | 6.73 | 6.28 | 6.90 | 7.35 | 7.72 |
| 18 | 7.61 | 7.52 | 7.44 | 7.30 | 7.04 | --- | 6.81 | 6.73 | 6.31 | 6.93 | 7.33 | 7.73 |
| 19 | 7.62 | 7.51 | 7.47 | 7.32 | 7.02 | --- | 6.81 | 6.76 | 6.33 | 6.95 | 7.34 | 7.74 |
| 20 | 7.63 | 7.50 | 7.47 | 7.31 | 7.04 | 6.66 | 6.81 | 6.77 | 6.39 | 6.99 | 7.35 | 7.75 |
| 21 | 7.63 | 7.48 | 7.43 | 7.32 | 7.06 | 6.67 | 6.53 | 6.79 | 6.44 | 7.02 | 7.37 | 7.74 |
| 22 | 7.63 | 7.45 | 7.43 | 7.32 | 7.08 | 6.68 | 6.07 | 6.81 | 6.49 | 7.04 | 7.38 | 7.74 |
| 23 | 7.63 | 7.44 | 7.41 | 7.16 | 7.03 | 6.68 | 6.22 | 6.81 | 6.50 | 7.05 | 7.40 | 7.68 |
| 24 | 7.64 | 7.44 | 7.42 | 7.01 | 6.67 | 6.70 | 6.34 | 6.83 | 6.52 | 7.05 | 7.41 | 7.65 |
| 25 | 7.63 | 7.46 | 7.46 | 7.06 | 6.49 | 6.70 | 6.42 | 6.86 | 6.55 | 7.06 | 7.42 | 7.66 |
| 26 | 7.64 | 7.47 | 7.46 | 7.11 | 6.14 | 6.25 | 6.50 | 6.85 | 6.57 | 7.09 | 7.44 | 7.66 |
| 27 | 7.63 | 7.46 | 7.46 | 7.15 | 6.25 | 6.17 | 6.55 | 6.86 | 6.60 | 7.11 | 7.45 | 7.62 |
| 28 | 7.63 | 7.46 | 7.40 | 7.15 | 6.40 | 6.32 | 6.57 | 6.89 | 6.63 | 7.16 | 7.46 | 7.44 |
| 29 | 7.65 | 7.46 | 7.08 | 7.17 | 6.57 | 6.42 | 6.59 | 6.88 | 6.65 | 7.20 | 7.50 | --- |
| 30 | 7.64 | 7.45 | 7.10 | 7.17 | --- | 6.46 | --- | 6.77 | 6.53 | 7.23 | 7.52 | 7.46 |
| 31 | 7.63 | --- | 7.19 | 7.17 | --- | 6.51 | --- | 6.75 | --- | 7.26 | 7.54 | --- |

WTR YR 1992 MEAN 7.08 HIGH 5.83 LOW 7.75




——— 354057080362601 RO-149 (NC-193) PDMNT AG
MEAN DAILY DEPTH BELOW LAND S. (FT)

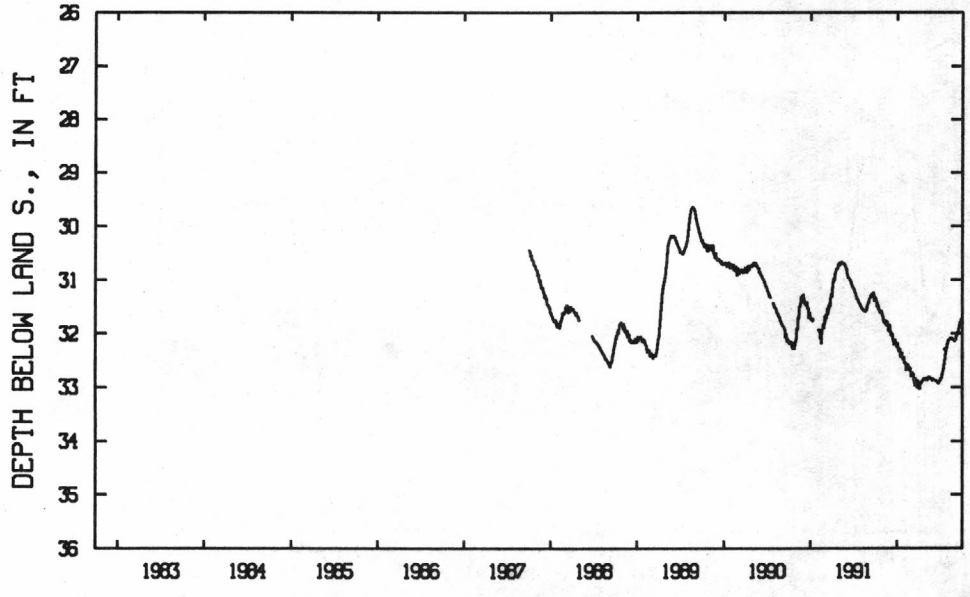
**SCOTLAND COUNTY**

345812079313401. Local number, NC-194.
LOCATION.--Lat 34°58'17", long 79°31'41", Hydrologic Unit 03040204, in Sandhills Game Management Area, 0.15 mi west of Secondary Road 1328, 3.4 mi east of Marston, 4.8 mi south of Hoffman, and 6.1 mi southwest of Silver Hill. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sand of post miocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 35.6 ft, diameter 4 in., cased to 30.5 ft, screened interval from 30.6 to 35.6 ft. Annular space filled with native clayey sand from 0 to 30 ft below land surface.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 433 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.93 ft above land-surface datum.
REMARKS.--Well is part of Jordan Creek Acid Precipitation Study site, and serves as a terrain-effects well.
PERIOD OF RECORD.--September 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 29.63 ft below land-surface datum, Aug. 23, 1989; lowest water level recorded, 33.08 ft below land-surface datum, Mar. 24, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31.36 | 31.69 | 31.87 | 32.25 | 32.56 | 32.81 | 32.91 | 32.86 | 32.87 | 32.87 | 32.18 | 32.12 |
| 2 | 31.32 | 31.67 | 31.86 | 32.22 | 32.57 | 32.78 | 32.98 | 32.85 | 32.87 | 32.86 | 32.16 | 32.11 |
| 3 | 31.32 | 31.72 | 31.84 | 32.18 | 32.56 | 32.77 | 32.99 | 32.83 | 32.88 | 32.84 | 32.13 | 32.10 |
| 4 | 31.36 | 31.73 | 31.95 | 32.23 | 32.54 | 32.78 | 32.97 | 32.85 | 32.86 | 32.84 | 32.13 | 32.09 |
| 5 | 31.35 | 31.77 | 31.99 | 32.24 | 32.56 | 32.75 | 33.04 | 32.87 | 32.86 | 32.84 | 32.12 | 32.06 |
| 6 | 31.36 | 31.78 | 32.00 | 32.27 | 32.56 | 32.73 | 33.01 | 32.88 | 32.87 | 32.83 | 32.11 | 32.05 |
| 7 | 31.48 | 31.78 | 32.03 | 32.31 | 32.59 | 32.74 | 32.93 | 32.83 | 32.88 | 32.80 | 32.11 | 32.05 |
| 8 | 31.50 | 31.81 | 32.04 | 32.32 | 32.65 | 32.76 | 32.91 | 32.83 | 32.88 | 32.78 | 32.10 | 32.04 |
| 9 | 31.49 | 31.77 | 31.98 | 32.28 | 32.69 | 32.79 | 32.94 | 32.84 | 32.88 | 32.76 | 32.10 | 32.02 |
| 10 | 31.44 | 31.74 | 32.02 | 32.29 | 32.66 | 32.77 | 32.94 | 32.85 | 32.88 | 32.75 | 32.10 | 32.00 |
| 11 | 31.42 | 31.80 | 32.05 | 32.35 | 32.61 | 32.83 | 32.92 | 32.85 | 32.88 | 32.72 | 32.10 | 31.97 |
| 12 | 31.47 | 31.81 | 32.06 | 32.34 | 32.62 | 32.87 | 32.90 | 32.83 | 32.88 | 32.70 | 32.09 | 31.99 |
| 13 | 31.54 | 31.82 | 32.03 | 32.29 | 32.60 | 32.89 | 32.92 | 32.81 | 32.89 | 32.68 | 32.08 | 31.98 |
| 14 | 31.54 | 31.84 | 32.01 | 32.30 | 32.61 | 32.90 | 32.92 | 32.82 | 32.89 | 32.66 | 32.08 | 31.96 |
| 15 | 31.49 | 31.83 | 32.10 | 32.39 | 32.58 | 32.91 | 32.92 | 32.83 | 32.90 | 32.64 | 32.08 | 31.94 |
| 16 | 31.49 | 31.81 | 32.15 | 32.44 | 32.61 | 32.98 | 32.90 | 32.83 | 32.89 | 32.60 | 32.08 | 31.91 |
| 17 | 31.55 | 31.82 | 32.13 | 32.41 | 32.62 | 32.90 | 32.89 | 32.83 | 32.90 | 32.57 | 32.09 | 31.88 |
| 18 | 31.59 | 31.85 | 32.16 | 32.43 | 32.60 | 32.88 | 32.88 | 32.83 | 32.91 | 32.55 | 32.10 | 31.86 |
| 19 | 31.57 | 31.84 | 32.21 | 32.45 | 32.60 | 32.84 | 32.88 | 32.82 | 32.91 | 32.51 | 32.11 | 31.84 |
| 20 | 31.59 | 31.81 | 32.19 | 32.44 | 32.67 | 32.91 | 32.87 | 32.83 | 32.91 | 32.48 | 32.09 | 31.81 |
| 21 | 31.60 | 31.78 | 32.14 | 32.45 | 32.69 | 32.94 | 32.85 | 32.84 | 32.91 | 32.45 | 32.10 | 31.79 |
| 22 | 31.61 | 31.77 | 32.15 | 32.44 | 32.69 | 32.89 | 32.85 | 32.85 | 32.93 | 32.40 | 32.11 | 31.80 |
| 23 | 31.60 | 31.82 | 32.11 | 32.36 | 32.63 | 32.92 | 32.87 | 32.86 | 32.93 | 32.36 | 32.12 | 31.78 |
| 24 | 31.59 | 31.85 | 32.15 | 32.45 | 32.66 | 33.02 | 32.86 | 32.86 | 32.92 | 32.33 | 32.11 | 31.82 |
| 25 | 31.58 | 31.92 | 32.20 | 32.46 | 32.66 | 32.94 | 32.85 | 32.85 | 32.91 | 32.31 | 32.12 | 31.79 |
| 26 | 31.57 | 31.95 | 32.21 | 32.50 | 32.65 | 32.87 | 32.88 | 32.85 | 32.90 | 32.30 | 32.12 | 31.77 |
| 27 | 31.57 | 31.95 | 32.20 | 32.48 | 32.68 | 32.93 | 32.87 | 32.86 | 32.89 | 32.27 | 32.12 | 31.74 |
| 28 | 31.59 | 31.96 | 32.17 | 32.44 | 32.71 | 32.99 | 32.86 | 32.88 | 32.89 | 32.24 | 32.11 | 31.72 |
| 29 | 31.63 | 31.94 | 32.17 | 32.46 | 32.77 | 32.97 | 32.87 | 32.88 | 32.89 | 32.22 | 32.13 | 31.74 |
| 30 | 31.64 | 31.90 | 32.23 | 32.45 | --- | 32.90 | 32.85 | 32.85 | 32.88 | 32.20 | 32.15 | 31.79 |
| 31 | 31.66 | --- | 32.25 | 32.47 | --- | 32.89 | --- | 32.85 | --- | 32.18 | 32.13 | --- |

WTR YR 1992 MEAN 32.37 HIGH 31.32 LOW 33.04




345812079313401 SC-080 (NC-194) JRDN CRK
MEAN DAILY DEPTH BELOW LAND S. (FT)

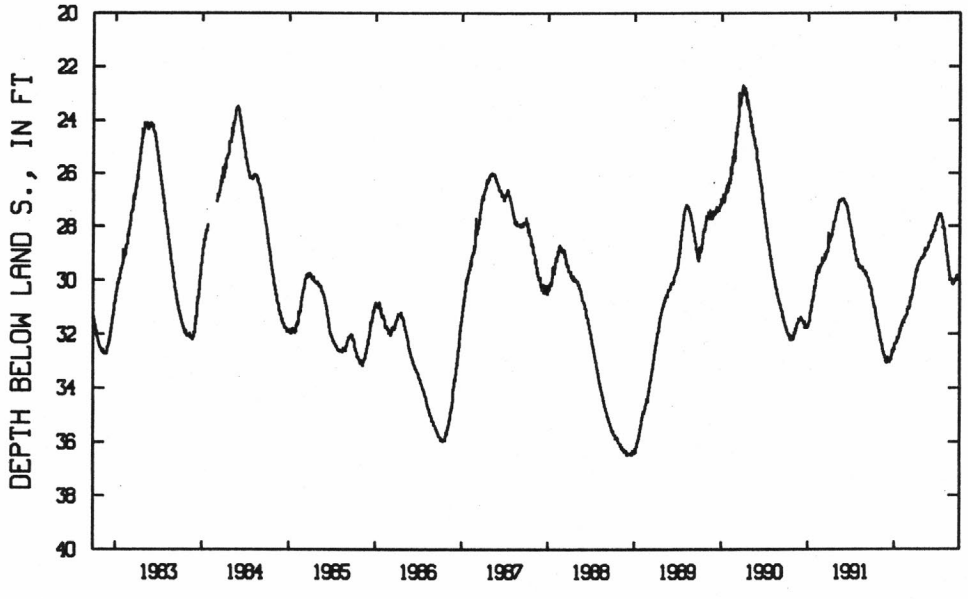
**TRANSYLVANIA COUNTY**

351808082374302. Local number, NC-144.
LOCATION.--Lat 35°18'08", long 82°37'43", Hydrologic Unit 06010105, at Blantyre, 0.25 mi northwest of U.S. Highway 64 on King Road (Secondary Road 1502). Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from gneiss of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 70 ft, diameter 4 in., cased to 58 ft, casing perforated from 15 to 58 ft, gravel filter pack from 5 to 58 ft, backfilled with gravel and saprolite from 58 to 70 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 2,147.11 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.30 ft above land-surface datum.
REMARKS.--In September 1984, well replaced nearby NC-127. Well is part of terrane-effects network.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 22.66 ft below land-surface datum, Apr. 10, 1990; lowest water level recorded, 37.95 ft below land-surface datum, Dec. 23 and 24, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.59 | 31.99 | 33.04 | 32.53 | 31.71 | 31.09 | 29.67 | 29.14 | 28.51 | 27.65 | 28.49 | 30.16 |
| 2 | 30.68 | 32.09 | 32.89 | 32.45 | 31.70 | 31.05 | 29.66 | 29.09 | 28.51 | 27.64 | 28.54 | 30.15 |
| 3 | 30.72 | 32.15 | 32.84 | 32.33 | 31.64 | 31.02 | 29.59 | 29.05 | 28.48 | 27.63 | 28.58 | 30.12 |
| 4 | 30.78 | 32.19 | 33.00 | 32.38 | 31.58 | 31.01 | 29.54 | 29.04 | 28.29 | 27.62 | 28.65 | 30.13 |
| 5 | 30.78 | 32.23 | 33.02 | 32.38 | 31.56 | 31.00 | 29.68 | 29.07 | 28.30 | 27.56 | 28.80 | 30.13 |
| 6 | 30.87 | 32.26 | 32.99 | 32.35 | 31.52 | 30.88 | 29.59 | 29.11 | 28.39 | 27.53 | 28.90 | 30.11 |
| 7 | 30.94 | 32.30 | 33.00 | 32.38 | 31.49 | 30.79 | 29.48 | 29.06 | 28.41 | 27.59 | 28.96 | 30.10 |
| 8 | 30.99 | 32.37 | 33.02 | 32.35 | 31.56 | 30.82 | 29.48 | 28.81 | 28.39 | 27.58 | 29.01 | 30.06 |
| 9 | 31.01 | 32.39 | 32.97 | 32.27 | 31.60 | 30.77 | 29.48 | 28.89 | 28.30 | 27.54 | 29.06 | 30.04 |
| 10 | 30.97 | 32.36 | 33.06 | 32.27 | 31.56 | 30.63 | 29.44 | 28.94 | 28.24 | 27.55 | 29.11 | 30.01 |
| 11 | 30.96 | 32.50 | 33.05 | 32.30 | 31.48 | 30.72 | 29.40 | 28.92 | 28.20 | 27.52 | 29.19 | 30.02 |
| 12 | 31.07 | 32.53 | 33.02 | 32.25 | 31.47 | 30.66 | 29.40 | 28.85 | 28.21 | 27.54 | 29.30 | 30.05 |
| 13 | 31.19 | 32.56 | 32.97 | 32.13 | 31.41 | 30.64 | 29.42 | 28.80 | 28.17 | 27.55 | 29.35 | 30.02 |
| 14 | 31.21 | 32.61 | 32.95 | 32.14 | 31.41 | 30.59 | 29.34 | 28.86 | 28.15 | 27.56 | 29.43 | 29.99 |
| 15 | 31.18 | 32.64 | 32.98 | 32.21 | 31.35 | 30.56 | 29.32 | 28.88 | 28.17 | 27.55 | 29.49 | 29.98 |
| 16 | 31.30 | 32.67 | 32.95 | 32.19 | 31.41 | 30.57 | 29.30 | 28.90 | 28.19 | 27.62 | 29.57 | 29.94 |
| 17 | 31.37 | 32.73 | 32.87 | 32.13 | 31.40 | 30.45 | 29.28 | 28.87 | 28.17 | 27.67 | 29.63 | 29.89 |
| 18 | 31.43 | 32.75 | 32.89 | 32.13 | 31.34 | 30.38 | 29.28 | 28.81 | 28.07 | 27.70 | 29.68 | 29.84 |
| 19 | 31.42 | 32.79 | 32.95 | 32.11 | 31.32 | 30.28 | 29.26 | 28.81 | 27.98 | 27.74 | 29.73 | 29.82 |
| 20 | 31.50 | 32.80 | 32.86 | 32.05 | --- | 30.33 | 29.23 | 28.79 | 27.98 | 27.78 | 29.80 | 29.85 |
| 21 | 31.55 | 32.80 | 32.74 | 32.05 | --- | 30.28 | --- | 28.78 | 27.99 | 27.82 | 29.92 | 29.85 |
| 22 | 31.59 | 32.82 | 32.68 | 32.00 | 31.34 | 30.14 | --- | 28.72 | 28.00 | 27.87 | 29.95 | 29.81 |
| 23 | 31.64 | 32.87 | 32.60 | 31.81 | 31.26 | 30.17 | --- | 28.65 | 27.91 | 27.93 | 29.93 | 29.88 |
| 24 | 31.68 | 32.91 | 32.67 | 31.92 | 31.28 | 30.19 | 29.20 | 28.61 | 27.84 | 27.99 | 29.95 | 29.95 |
| 25 | 31.72 | 32.98 | 32.70 | 31.87 | 31.17 | 30.07 | 29.14 | 28.61 | 27.84 | 28.03 | 29.96 | 29.91 |
| 26 | 31.75 | 33.02 | 32.67 | 31.89 | 30.98 | 29.94 | 29.20 | 28.60 | 27.82 | 28.03 | 29.98 | 29.91 |
| 27 | 31.78 | 33.04 | 32.64 | 31.84 | 31.05 | 29.95 | 29.19 | --- | 27.79 | 28.07 | 29.97 | 29.91 |
| 28 | 31.85 | 33.05 | 32.56 | 31.78 | 30.99 | 29.94 | 29.18 | --- | 27.78 | 28.19 | 29.94 | 29.91 |
| 29 | 31.95 | 33.07 | 32.50 | 31.77 | 31.07 | 29.86 | 29.15 | 28.60 | 27.74 | 28.26 | 30.10 | 29.96 |
| 30 | 31.92 | 33.09 | 32.58 | 31.69 | --- | 29.74 | 29.10 | 28.55 | 27.69 | 28.33 | 30.12 | 29.99 |
| 31 | 31.94 | --- | 32.59 | 31.66 | --- | 29.74 | --- | 28.54 | --- | 28.39 | 30.13 | --- |

WTR YR 1992 MEAN 30.37 HIGH 27.52 LOW 33.09




351808082374302 TR-065 (NC-144) BLANTYRE
MEAN DAILY DEPTH BELOW LAND S. (FT)

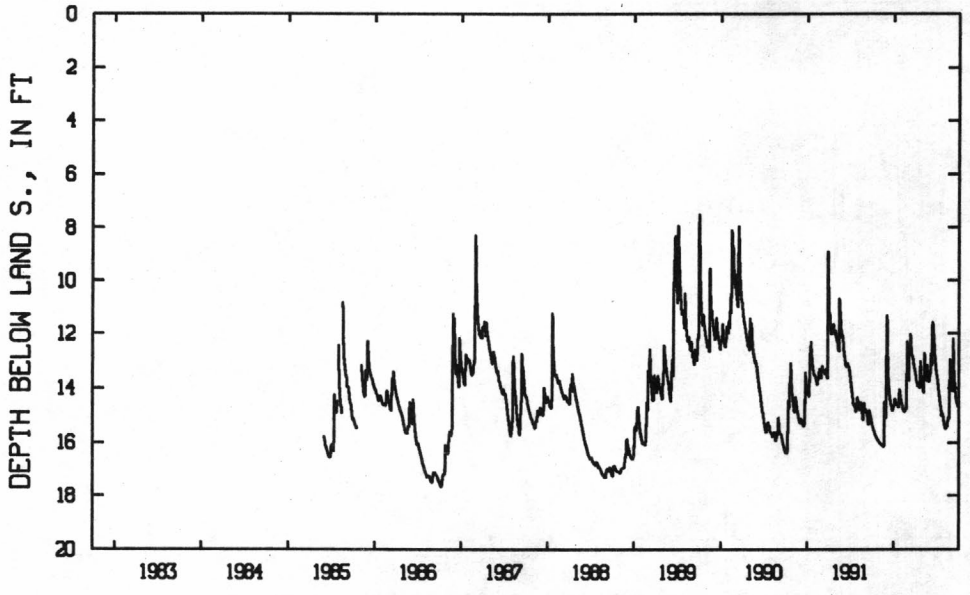
**TRANSYLVANIA COUNTY**--Continued

351709082434101. Local number, NC-147
LOCATION.--Lat 35°17'09", long 82°43'41", Hydrologic Unit 06010105, 700 ft northwest of U.S. Forest Service Ranger Station in Pisgah National Forest, and 3.5 mi north of Brevard on U.S. Highway 276. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined alluvial sand.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 25 ft, diameter 4 in., cased to 11.6 ft, screened interval from 11.6 to 21.6 ft; measured depth 22.9 ft, June 1985.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 2,176.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.24 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--June 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.43 ft below land-surface datum, Oct. 2, 1989; lowest water level recorded, 17.66 ft below land-surface datum, Oct. 8 and 9, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.26 | 15.98 | 14.14 | 14.68 | 14.39 | 13.16 | 13.43 | 13.88 | 13.47 | 13.56 | 15.32 | 13.90 |
| 2 | 15.30 | 15.99 | 12.30 | 14.66 | 14.46 | 13.36 | 13.48 | 13.95 | 13.52 | 13.61 | 15.37 | 14.05 |
| 3 | 15.33 | 15.99 | 11.70 | 14.61 | 14.51 | 13.51 | 13.53 | 14.01 | 13.58 | 13.66 | 15.41 | 14.13 |
| 4 | 15.38 | 16.01 | 11.33 | 14.50 | 14.54 | 13.63 | 13.57 | 14.07 | 13.39 | 13.73 | 15.45 | 14.02 |
| 5 | 15.41 | 16.02 | 11.91 | 14.43 | 14.57 | 13.73 | 13.67 | 14.12 | 12.78 | 13.82 | 15.48 | 13.75 |
| 6 | 15.44 | 16.03 | 12.48 | 14.39 | 14.60 | 13.52 | 13.74 | 14.17 | 12.76 | 13.88 | 15.51 | 12.23 |
| 7 | 15.48 | 16.04 | 12.90 | 14.39 | 14.64 | 12.54 | 13.75 | 14.14 | 12.94 | 13.96 | 15.48 | 12.19 |
| 8 | 15.52 | 16.05 | 13.23 | 14.42 | 14.68 | 12.36 | 13.79 | 13.50 | 13.11 | 14.04 | 15.41 | 12.59 |
| 9 | 15.54 | 16.06 | 13.49 | 14.45 | 14.74 | 12.50 | 13.83 | 12.74 | 13.16 | 14.13 | 15.33 | 12.91 |
| 10 | 15.56 | 16.07 | 13.69 | 14.49 | 14.78 | 12.59 | 13.87 | 12.72 | 12.80 | 14.21 | 15.34 | 13.19 |
| 11 | 15.58 | 16.07 | 13.85 | 14.55 | 14.79 | 12.19 | 13.92 | 12.90 | 11.91 | 14.29 | 15.39 | 13.42 |
| 12 | 15.60 | 16.08 | 13.98 | 14.60 | 14.81 | 12.03 | 13.91 | 13.07 | 11.60 | 14.36 | 15.42 | 13.60 |
| 13 | 15.65 | 16.09 | 14.08 | 14.63 | 14.83 | 12.16 | 13.89 | 13.20 | 11.59 | 14.45 | 15.39 | 13.74 |
| 14 | 15.68 | 16.11 | 14.17 | 14.63 | 14.84 | 12.33 | 13.86 | 13.32 | 11.64 | 14.52 | 15.27 | 13.87 |
| 15 | 15.70 | 16.12 | 14.26 | 14.62 | 14.86 | 12.48 | 13.85 | 13.45 | 11.73 | 14.57 | 15.21 | 14.00 |
| 16 | 15.71 | 16.13 | 14.33 | 14.59 | 14.85 | 12.63 | 13.86 | 13.57 | 11.90 | 14.63 | 15.15 | 14.12 |
| 17 | 15.74 | 16.14 | 14.40 | 14.58 | 14.85 | 12.73 | 13.89 | 13.66 | 12.06 | 14.70 | 15.11 | 14.23 |
| 18 | 15.76 | 16.14 | 14.46 | 14.58 | 14.82 | 12.81 | 13.93 | 13.72 | 12.18 | 14.76 | 15.07 | 14.32 |
| 19 | 15.78 | 16.15 | 14.53 | 14.62 | 14.79 | 12.83 | 13.98 | 13.73 | 12.31 | 14.82 | 15.09 | 14.40 |
| 20 | 15.80 | 16.15 | 14.58 | 14.65 | 14.78 | 12.85 | 13.99 | 13.40 | 12.46 | 14.87 | 15.12 | 14.45 |
| 21 | 15.83 | 16.11 | 14.60 | 14.69 | 14.78 | 12.89 | 13.62 | 13.18 | 12.63 | 14.92 | 15.12 | 14.48 |
| 22 | 15.84 | 15.34 | 14.63 | 14.72 | 14.77 | 12.90 | 13.10 | 13.18 | 12.78 | 14.94 | 14.89 | 14.50 |
| 23 | 15.85 | 14.58 | 14.66 | 14.60 | 14.75 | 12.94 | 13.04 | 13.28 | 12.88 | 14.93 | 13.77 | 14.54 |
| 24 | 15.87 | 14.48 | 14.70 | 14.24 | 14.65 | 13.05 | 13.15 | 13.40 | 12.98 | 14.94 | 12.96 | 14.56 |
| 25 | 15.88 | 14.57 | 14.75 | 14.07 | 14.36 | 13.10 | 13.29 | 13.50 | 13.09 | 14.96 | 13.13 | 14.60 |
| 26 | 15.90 | 14.70 | 14.79 | 14.03 | 12.55 | 13.14 | 13.44 | 13.59 | 13.19 | 14.99 | 13.50 | 14.65 |
| 27 | 15.91 | 14.83 | 14.81 | 14.08 | 12.28 | 13.19 | 13.56 | 13.67 | 13.27 | 15.03 | 13.78 | 14.68 |
| 28 | 15.92 | 14.94 | 14.83 | 14.14 | 12.60 | 13.26 | 13.65 | 13.74 | 13.37 | 15.09 | 13.63 | 14.65 |
| 29 | 15.94 | 15.03 | 14.76 | 14.21 | 12.90 | 13.30 | 13.73 | 13.77 | 13.46 | 15.16 | 13.26 | 14.60 |
| 30 | 15.95 | 15.11 | 14.71 | 14.27 | --- | 13.33 | 13.80 | 13.63 | 13.51 | 15.22 | 13.43 | 14.59 |
| 31 | 15.97 | --- | 14.70 | 14.32 | --- | 13.37 | --- | 13.49 | --- | 15.27 | 13.69 | --- |

WTR YR 1992 MEAN 14.19 HIGH 11.33 LOW 16.15




351709082434101 TR-066 (NC-147) PISGAH F
MEAN DAILY DEPTH BELOW LAND S. (FT)

**WASHINGTON COUNTY**

**354351076260501.** Local number, NC-156; DEHNR Lake Phelps Research Station well L1311.
LOCATION.--Lat 35°43'51", long 76°26'05", Hydrologic Unit 03010205, on south shore of Lake Phelps, south of Secondary Road 1126 on Secondary Road 1183. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 510 ft, diameter 6 in., cased to 390 ft, open hole to 510 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 16.15 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.47 ft above land-surface datum - revised from 2.60 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--August 1977 to current year. Continuous record November 1986 to November 1990. Records from August 1977 to September 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.14 ft below land-surface datum, May 16, 1978; lowest water level recorded, 16.29 ft below land-surface datum, Oct. 14, 1988.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.13 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT 4 | 15.72 | JAN 17 | 14.96 | APR 27 | 14.63 | JUN 4 | 14.80 | JUL 15 | 14.82 | AUG 26 | 14.53 |
| DEC 3 | 15.17 | MAR 3 | 14.81 | | | | | | | | |

**354351076260502.** Local number, NC-157; DEHNR Lake Phelps Research Station well L1312.
LOCATION.--Lat 35°43'51", long 76°26'05", Hydrologic Unit 03010205, on south shore of Lake Phelps, south of Secondary Road 1126 on Secondary Road 1183. Owner: DEHNR (North Carolina Department of Environment, Health, and Natural Resources).
AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 130 ft, diameter 4 in., cased to 110 ft, screened interval from 110 to 120 ft; measured depth 120.2 ft, October 1986.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 16.35 ft above National Geodetic Vertical Datum of 1929 (levels by DEHNR). Measuring point: Top of instrument shelf, 2.84 ft above land-surface datum - revised from 3.20 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--October 1977 to current year. Continuous record November 1986 to November 1990. Records from October 1977 to July 1986 are unpublished and available in the files of the Groundwater Section, DEHNR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.36 ft below land-surface datum, Feb. 20, 1984; lowest water level recorded, 9.35 ft below land-surface datum, Feb. 24, 1981.
REVISIONS.--Water-level mean values and extremes for period of record published in Water Resources Data, North Carolina, NC-87-1, should be adjusted by +0.36 ft.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

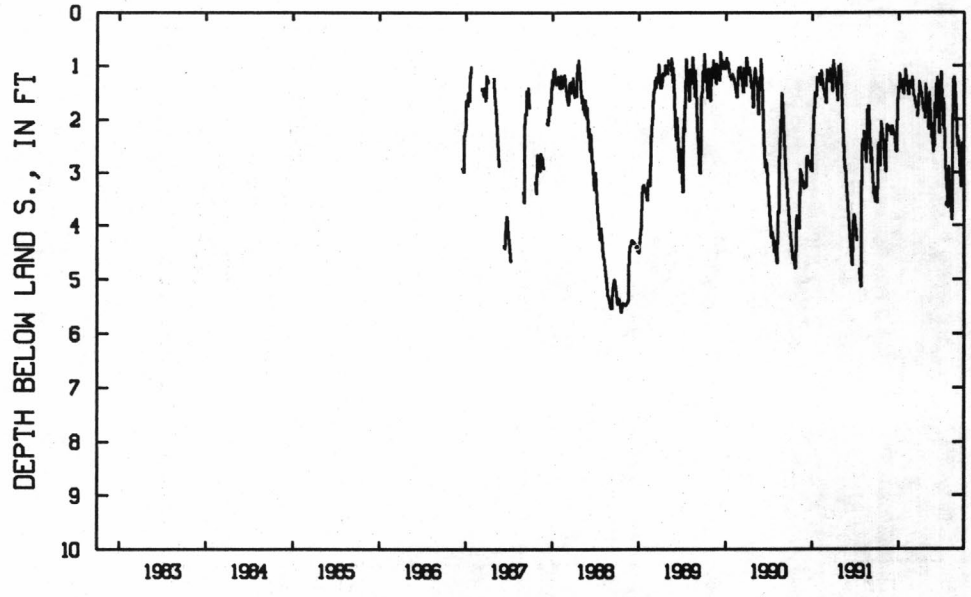
| DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL | DATE | WATER LEVEL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV 4 | 6.71 | JAN 17 | 6.09 | APR 27 | 6.09 | JUN 4 | 6.09 | JUL 15 | 6.15 | AUG 26 | 5.66 |
| DEC 3 | 6.71 | MAR 3 | 6.09 | | | | | | | | |

354418076463601. Local number, NC-158.
LOCATION.--Lat 35°44'18", long 76°46'36", Hydrologic Unit 03020104, 2.4 mi west of State Highway 32 on Secondary Road 1101. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 15 ft, diameter 4 in., cased to 10 ft, screened interval from 10 to 15 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: Top of instrument shelf, 2.49 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--December 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.72 ft below land-surface datum, Dec. 9 and 10, 1989; lowest water level recorded, 5.60 ft below land-surface datum, Oct. 18 and 19, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.52 | 2.68 | 2.28 | 1.48 | 1.17 | 1.41 | 1.39 | 1.78 | 1.70 | 1.53 | 3.10 | 2.16 |
| 2 | 3.58 | 2.73 | 2.28 | 1.49 | 1.22 | 1.45 | 1.42 | 1.85 | 1.81 | 1.65 | 3.20 | 2.28 |
| 3 | 3.47 | 2.80 | 2.27 | 1.41 | 1.25 | 1.49 | 1.47 | 1.94 | 1.93 | 1.80 | 3.27 | 2.38 |
| 4 | 3.22 | 2.84 | 2.12 | 1.14 | 1.29 | 1.54 | 1.50 | 2.05 | 1.98 | 1.95 | 3.33 | 2.47 |
| 5 | 2.98 | 2.89 | 2.14 | 1.14 | 1.31 | 1.56 | 1.47 | 2.16 | 1.82 | 2.06 | 3.41 | 2.52 |
| 6 | 2.50 | 2.92 | 2.16 | 1.19 | 1.35 | 1.57 | 1.50 | 2.17 | 1.33 | 2.14 | 3.49 | 2.37 |
| 7 | 2.44 | 2.95 | 2.18 | 1.24 | 1.37 | 1.57 | 1.54 | 2.19 | 1.34 | 1.62 | 3.56 | 2.31 |
| 8 | 2.46 | 2.98 | 2.20 | 1.28 | 1.41 | 1.57 | 1.58 | 1.76 | 1.44 | 1.61 | 3.63 | 2.39 |
| 9 | 2.49 | 2.98 | 2.22 | 1.30 | 1.47 | 1.63 | 1.63 | 1.49 | 1.50 | 1.77 | 3.70 | 2.52 |
| 10 | 2.54 | 2.46 | 2.22 | 1.31 | 1.50 | 1.67 | 1.68 | 1.57 | 1.21 | 1.96 | 3.78 | 2.60 |
| 11 | 2.60 | 2.14 | 2.22 | 1.34 | 1.51 | 1.65 | 1.73 | 1.67 | 1.27 | 2.16 | 3.85 | 2.68 |
| 12 | 2.68 | 2.12 | 2.25 | 1.39 | 1.53 | 1.70 | 1.77 | 1.76 | 1.38 | 2.33 | 3.90 | 2.76 |
| 13 | 2.79 | 2.10 | 2.26 | 1.37 | 1.50 | 1.73 | 1.78 | 1.82 | 1.45 | 2.47 | 3.41 | 2.85 |
| 14 | 2.88 | 2.10 | 2.26 | 1.26 | 1.29 | 1.77 | 1.82 | 1.92 | 1.56 | 2.60 | 2.92 | 2.93 |
| 15 | 2.82 | 2.12 | 2.30 | 1.27 | 1.29 | 1.79 | 1.86 | 2.04 | 1.66 | 2.74 | 1.93 | 3.01 |
| 16 | 2.73 | 2.12 | 2.36 | 1.32 | 1.30 | --- | 1.82 | 2.16 | 1.81 | 2.88 | 1.41 | 3.08 |
| 17 | 2.27 | 2.15 | 2.42 | 1.38 | 1.37 | --- | 1.69 | 2.27 | 1.95 | 3.00 | 1.30 | 3.14 |
| 18 | 2.04 | 2.18 | 2.47 | 1.41 | 1.39 | --- | 1.75 | 2.35 | 2.10 | 3.12 | 1.22 | 3.21 |
| 19 | 2.05 | 2.19 | 2.54 | 1.45 | 1.32 | 1.94 | 1.85 | 2.31 | 2.21 | 3.15 | 1.25 | 3.28 |
| 20 | 2.10 | 2.21 | 2.59 | 1.47 | 1.28 | 1.86 | 1.92 | 2.17 | 2.27 | 3.19 | 1.26 | 3.26 |
| 21 | 2.13 | 2.22 | 2.59 | 1.49 | 1.35 | 1.88 | 1.98 | 2.07 | 1.47 | 3.27 | 1.20 | 2.60 |
| 22 | 2.15 | 2.22 | 2.60 | 1.52 | 1.40 | 1.91 | 1.64 | 2.20 | 1.27 | 3.35 | 1.25 | 2.44 |
| 23 | 2.20 | 2.22 | 2.61 | 1.47 | 1.42 | 1.79 | 1.34 | 2.36 | 1.34 | 3.43 | 1.31 | 2.44 |
| 24 | 2.24 | 2.15 | 2.32 | 1.24 | 1.36 | 1.59 | 1.38 | 2.49 | 1.44 | 3.50 | 1.38 | 2.51 |
| 25 | 2.27 | 2.14 | 2.02 | 1.28 | 1.37 | 1.62 | 1.44 | 2.60 | 1.47 | 3.54 | 1.44 | 2.56 |
| 26 | 2.31 | 2.18 | 2.02 | 1.33 | 1.24 | 1.52 | 1.47 | 2.61 | 1.42 | 3.60 | 1.52 | 2.61 |
| 27 | 2.35 | 2.22 | 1.92 | 1.38 | 1.21 | 1.29 | 1.52 | 2.38 | 1.11 | 3.66 | 1.60 | 2.65 |
| 28 | 2.41 | 2.23 | 1.72 | 1.20 | 1.26 | 1.29 | 1.58 | 2.41 | 1.13 | 3.23 | 1.70 | 2.68 |
| 29 | 2.49 | 2.25 | 1.47 | 1.06 | 1.32 | 1.33 | 1.65 | 2.53 | 1.26 | 2.89 | 1.76 | 2.45 |
| 30 | 2.56 | 2.27 | 1.40 | 1.10 | --- | 1.38 | 1.71 | 2.32 | 1.39 | 2.93 | 1.91 | 2.46 |
| 31 | 2.61 | --- | 1.45 | 1.13 | --- | 1.37 | --- | 1.71 | --- | 3.01 | 2.03 | --- |

WTR YR 1992 MEAN 2.04 HIGH 1.06 LOW 3.90




354418076463601 WS-100 (NC-158) VN SWMP1
MEAN DAILY DEPTH BELOW LAND S. (FT), ADR

**WAYNE COUNTY**

351849078163901. Local number, NC-148.
LOCATION.--Lat 35°18'49", long 78°16'39", Hydrologic Unit 03020201, 0.5 mi south of Johnston County line on Secondary Road 1009, and 6 mi west of Grantham. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 10.4 ft, diameter 3 in., cased to 5.4 ft, screened interval from 5.4 to 10.4 ft.
INSTRUMENTATION.--Digital recorder with a 60-minute punch interval.
DATUM.--Land-surface datum is 190 ft above National Geodetic Vertical Datum of 1929 (from topographic map). Measuring point: File cut on top of casing, 1.80 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--February 1980 to current year. Records for June 17 to Sept. 30, 1987, published in U.S.G.S. annual report, Water Resources Data-North Carolina NC-87-1, are unreliable and should not be used.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.04 ft above land-surface datum, May 2, 1989; lowest water level recorded, 8.40 ft below land-surface datum, Sept. 19 and 20, 1983.
REVISED RECORD.--See PERIOD OF RECORD.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.46 | 3.67 | 3.75 | 2.91 | 1.56 | 2.16 | 1.87 | 2.83 | 4.55 | --- | --- | --- |
| 2 | 2.54 | 3.73 | 3.76 | 2.87 | 1.68 | 2.25 | 1.97 | 2.92 | 4.55 | --- | --- | --- |
| 3 | 2.52 | 3.79 | 3.77 | 2.68 | 1.76 | 2.33 | 2.04 | 3.02 | 4.63 | --- | --- | --- |
| 4 | 2.48 | 3.81 | 3.80 | 1.62 | 1.83 | 2.37 | 2.08 | 3.13 | 4.68 | --- | --- | --- |
| 5 | 2.53 | 3.84 | 3.76 | 1.24 | 1.90 | 2.39 | 2.12 | 3.21 | 4.70 | --- | 6.36 | --- |
| 6 | 2.55 | 3.86 | 3.68 | 1.27 | 1.95 | 2.32 | 2.19 | 3.26 | 4.75 | --- | 6.38 | --- |
| 7 | 2.64 | 3.87 | 3.65 | 1.37 | 1.99 | 1.02 | 2.24 | 3.30 | 4.84 | --- | 6.36 | --- |
| 8 | 2.71 | 3.91 | 3.66 | 1.48 | 2.05 | .93 | 2.29 | 3.30 | 4.91 | --- | 6.34 | --- |
| 9 | 2.79 | 3.93 | 3.68 | 1.53 | 2.13 | 1.10 | 2.36 | 3.26 | 4.97 | --- | 6.38 | --- |
| 10 | 2.85 | 3.88 | 3.69 | 1.55 | 2.19 | 1.23 | 2.44 | 3.34 | 4.82 | --- | 6.44 | --- |
| 11 | 2.91 | 3.70 | 3.73 | 1.62 | 2.21 | 1.29 | 2.49 | 3.43 | 4.45 | --- | 6.48 | --- |
| 12 | 3.00 | 3.62 | 3.74 | 1.71 | 2.25 | 1.41 | 2.52 | 3.52 | 4.28 | --- | 6.53 | --- |
| 13 | 3.09 | 3.59 | 3.75 | 1.75 | 2.28 | 1.51 | 2.58 | 3.56 | 4.21 | --- | 6.52 | --- |
| 14 | 3.16 | 3.59 | 3.76 | 1.76 | 2.29 | 1.58 | 2.64 | 3.59 | 4.20 | --- | 5.33 | --- |
| 15 | 3.22 | 3.61 | 3.82 | 1.85 | 2.31 | 1.64 | 2.68 | 3.67 | 4.27 | --- | --- | --- |
| 16 | 3.13 | 3.66 | 3.86 | 1.89 | 2.33 | 1.72 | 2.74 | 3.75 | --- | --- | --- | --- |
| 17 | 2.98 | 3.72 | 3.87 | 1.92 | 2.39 | 1.78 | 2.79 | 3.83 | --- | --- | --- | --- |
| 18 | 2.98 | 3.76 | 3.91 | 1.97 | 2.41 | 1.84 | 2.87 | 3.90 | --- | --- | --- | --- |
| 19 | 3.04 | 3.79 | 3.95 | 2.03 | 2.42 | 1.80 | 2.93 | 3.97 | --- | --- | --- | --- |
| 20 | 3.13 | 3.84 | 3.95 | 2.04 | 2.46 | 1.77 | 2.99 | 4.02 | --- | --- | --- | --- |
| 21 | 3.18 | 3.87 | 3.94 | 2.08 | 2.50 | 1.83 | 3.03 | 4.06 | --- | --- | --- | --- |
| 22 | 3.22 | 3.87 | 3.93 | 2.13 | 2.54 | 1.90 | 2.47 | 4.15 | --- | --- | --- | --- |
| 23 | 3.27 | 3.82 | 3.93 | 2.08 | 2.56 | 1.79 | 2.11 | 4.25 | --- | --- | --- | --- |
| 24 | 3.33 | 3.76 | 3.93 | 1.89 | 2.53 | 1.71 | 2.21 | 4.36 | --- | --- | --- | --- |
| 25 | 3.38 | 3.75 | 3.94 | 1.96 | 2.50 | 1.81 | 2.31 | 4.44 | --- | --- | --- | --- |
| 26 | 3.42 | 3.73 | 3.94 | 2.03 | 2.13 | 1.58 | 2.40 | 4.48 | --- | --- | --- | --- |
| 27 | 3.46 | 3.72 | 3.87 | 2.09 | 1.91 | 1.33 | 2.48 | 4.51 | --- | --- | --- | --- |
| 28 | 3.49 | 3.70 | 3.59 | 1.58 | 1.94 | 1.52 | 2.56 | 4.58 | --- | --- | --- | --- |
| 29 | 3.55 | 3.71 | 3.30 | 1.25 | 2.03 | 1.66 | 2.66 | 4.65 | --- | --- | --- | --- |
| 30 | 3.58 | 3.73 | 3.01 | 1.33 | --- | 1.75 | 2.75 | 4.67 | --- | --- | --- | --- |
| 31 | 3.62 | --- | 2.94 | 1.42 | --- | 1.80 | --- | 4.62 | --- | --- | --- | --- |

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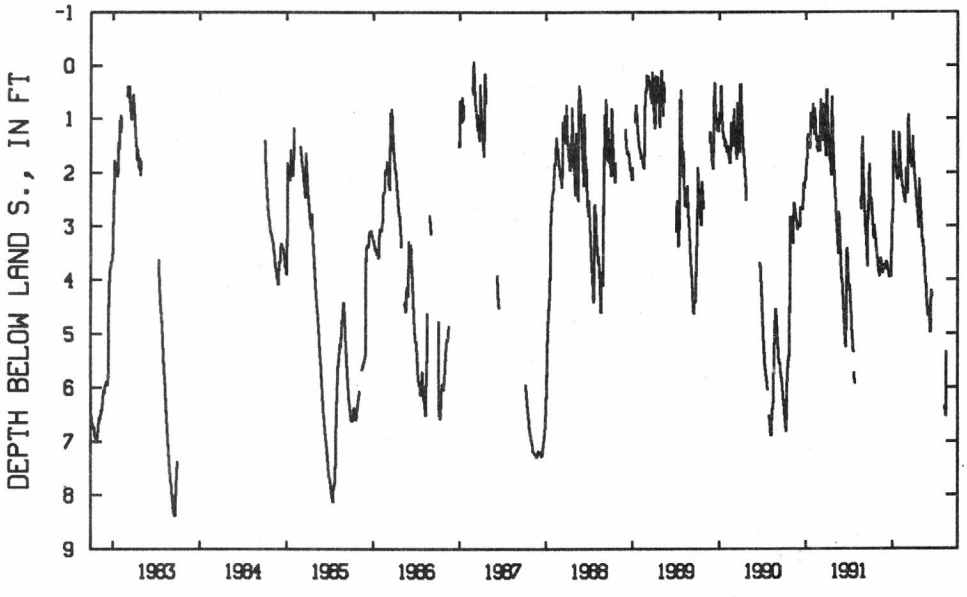


351849078163901 WA-154 (NC-148) GRANTHAM
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October 1, 1978

# FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

| Multiply inch-pound units | By | To obtain SI units |
|---|---|---|
| | *Length* | |
| inches (in) | $2.54 \times 10^{1}$ | millimeters (mm) |
| | $2.54 \times 10^{-2}$ | meters (m) |
| feet (ft) | $3.048 \times 10^{-1}$ | meters (m) |
| miles (mi) | $1.609 \times 10^{0}$ | kilometers (km) |
| | *Area* | |
| acres | $4.047 \times 10^{3}$ | square meters ($m^2$) |
| | $4.047 \times 10^{-1}$ | square hectometers ($hm^2$) |
| | $4.047 \times 10^{-3}$ | square kilometers ($km^2$) |
| square miles ($mi^2$) | $2.590 \times 10^{0}$ | square kilometers ($km^2$) |
| | *Volume* | |
| gallons (gal) | $3.785 \times 10^{0}$ | liters (L) |
| | $3.785 \times 10^{0}$ | cubic decimeters ($dm^3$) |
| | $3.785 \times 10^{-3}$ | cubic meters ($m^3$) |
| million gallons | $3.785 \times 10^{3}$ | cubic meters ($m^3$) |
| | $3.785 \times 10^{-3}$ | cubic hectometers ($hm^3$) |
| cubic feet ($ft^3$) | $2.832 \times 10^{1}$ | cubic decimeters ($dm^3$) |
| | $2.832 \times 10^{-2}$ | cubic meters ($m^3$) |
| cfs-days | $2.447 \times 10^{3}$ | cubic meters ($m^3$) |
| | $2.447 \times 10^{-3}$ | cubic hectometers ($hm^3$) |
| acre-feet (acre-ft) | $1.233 \times 10^{3}$ | cubic meters ($m^3$) |
| | $1.233 \times 10^{-3}$ | cubic hectometers ($hm^3$) |
| | $1.233 \times 10^{-6}$ | cubic kilometers ($km^3$) |
| | *Flow* | |
| cubic feet per second ($ft^3/s$) | $2.832 \times 10^{1}$ | liters per second (L/s) |
| | $2.832 \times 10^{1}$ | cubic decimeters per second ($dm^3/s$) |
| | $2.832 \times 10^{-2}$ | cubic meters per second ($m^3/s$) |
| gallons per minute (gal/min) | $6.309 \times 10^{-2}$ | liters per second (L/s) |
| | $6.309 \times 10^{-2}$ | cubic decimeters per second ($dm^3/s$) |
| | $6.309 \times 10^{-5}$ | cubic meters per second ($m^3/s$) |
| million gallons per day | $4.381 \times 10^{1}$ | cubic decimeters per second ($dm^3/s$) |
| | $4.381 \times 10^{-2}$ | cubic meters per second ($m^3/s$) |
| | *Mass* | |
| tons (short) | $9.072 \times 10^{-1}$ | megagrams (Mg) or metric tons |

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