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Water Resources Data North Carolina Water Year 1996

Volume 1. Surface-Water Records

U.S. GEOLOGICAL SURVEY
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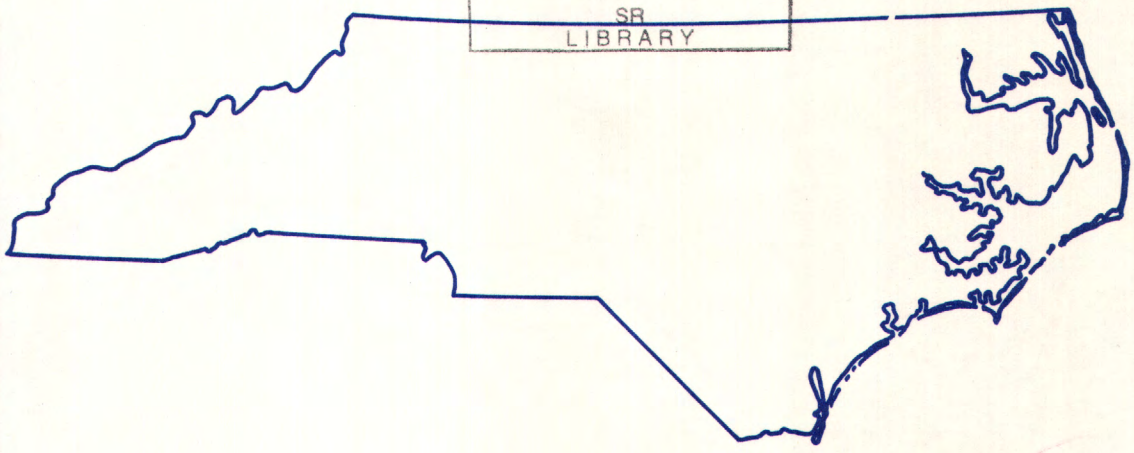

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-96-1
Prepared in cooperation with the North Carolina Department of Environment, Health, and Natural Resources, and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1996

1995

OCTOBER

S	M	T	W	T	F	S
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1996

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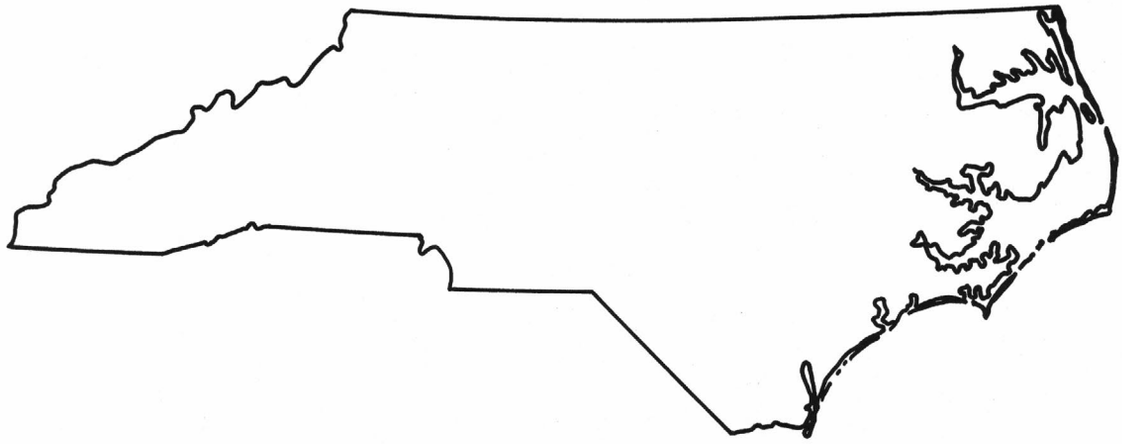
Volume 1. Surface-Water Records

by B.C. Ragland, D.G. Smith, R.G. Barker,
J.F. Rinehardt and J.B. Robinson



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NC-96-1
Prepared in cooperation with the North Carolina Department of Environment, Health, and Natural Resources, and with other State, municipal, and Federal agencies

U. S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

GEOLOGICAL SURVEY

GORDON P. EATON, Director

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District Chief
U.S. Geological Survey
3916 Sunset Ridge Road
Raleigh, NC 27607

1997

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 water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow and quality of water provide hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for North Carolina are contained in this volume.

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

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Pamilee L. Breton edited much of the text, tables and graphs of this report. Pamilee L. Breton, Bobby C. Ragland, assembled the report.

This report was prepared in cooperation with the State of North Carolina, other agencies, and under the general supervision of Gerald L. Ryan, District Chief; and Wanda C. Meeks, Regional Hydrologist, Southeastern Region.

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Water-resources data for the 1996 water year for North Carolina consist of records of stage, discharge, and water quality of streams; and stage and contents of lakes and reservoirs. This report contains discharge records for 163 gaging stations; stage and contents for 56 lakes and reservoirs; water quality for 37 gaging stations and 7 miscellaneous sites; and continuous daily tide stage at 1 site. Additional water data were collected at 64 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.

14. SUBJECT TERMS
North Carolina, Hydrologic data, Surface water, Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analysis, Sediments, Water temperature, Sampling, Water level, Water analysis, Elevation

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Watauga River near Sugar Grove (d) 03479000 472-473
Tennessee River:
Little Tennessee River near Prentiss (d) 03500000 474-475
Cartoogechaye Creek near Franklin (d) 03500240 476-477
Little Tennessee River at Needmore (d) 03503000 478-479
Nantahala River near Rainbow Springs (d) 03504000 480-481
Tuckasegee River:
Oconaluftee River at Birdtown (d) 03512000 482-483
Tuckasegee River at Bryson City (d) 03513000 484-485
Hiwassee River above Murphy (d) 03548500 486-487
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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

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

Station number	Station name	Drainage area (mi^2)	Period of record
	Chowan River Basin		
02053400	Ahoskie Creek near Rich Square, NC	3.70	1964-73
02053450	Ahoskie Creek at Mintons Store, NC	24.0	1964-73
02053510	Ahoskie Creek tributary at Poortown, NC	2.60	1963-73
	Roanoke River Basin		
02068000	Dan River near Asbury, NC	71.4	1924-26
02069000	Dan River at Pine Hall, NC	501	1924-26
			1986-90
02070500	Mayo River near Price, NC	260	1929-71
02071500	Dan River at Leaksville, NC	1,150	1929-49
02074218	Dan River near Mayfield, NC	1,778	1976-84
02075160	Moon Creek near Yanceyville, NC	32.8	1961-74
			1988-89
02077230	South Hyco Creek near Hesters Store, NC	29.9	1964-67
02077240	Double Creek near Roseville, NC	7.47	1964-75
			1977-82
02077250	South Hyco Creek near Roseville, NC	56.5	1966-78
02077300	Hyco River at McGhees Mill, NC	191	1964-73
02077660	Mayo Creek near Woodsdale, NC	52.7	1975-77
	Pamlico River Basin		
02081800	Cedar Creek near Louisburg, NC	47.8	1956-75
02082000	Tar River near Nashville, NC	701	1928-71
02082500	Sapony Creek near Nashville, NC	64.8	1950-70
0208273070	Devils Cradle Creek at NC 39 near Kearney, NC	2.9	1984-85
02084070	Green Mill Run at Arlington Boulevard at Greenville, NC	9.10	1980-85
02084164	Juniper Branch near Simpson, NC	7.5	1975-86
0208423100	Flat Swamp at SR 1157 near Robersonville, NC	21.3	1986-88
02084317	Black Swamp near Batts Crossroads, NC	1.02	1982
02084500	Herring Run near Washington, NC	9.59	1950-80
02084556	North Lake Canal above Pungo Lake near Wenona, NC	29	1976-80
02084558	Albemarle Canal near Swindell, NC	68.0	1977-81
0208463120	Outflow Ditch from Jennett Sedge at Buxton, NC	Indeterminate	1994-95
	Neuse River Basin		
02084903	Sevenmile Creek tributary at SR 1120 near Buckhorn, NC	1.34	1981-82
02084904	Sevenmile Creek tributary at I-85 near Miles, NC	.004	1981-82
02084905	Sevenmile Creek tributary at SR 1144 near Miles, NC	1.57	1981-82
02084908	Sevenmile Creek tributary at I-85 near Efland, NC	.29	1981-82
02085220	Little River near Orange Factory, NC	80.4	1962-87
02086000	Dial Creek near Bahama, NC	4.71	1925-71
			1989-91
0208650112	Flat River tributary near Willardsville, NC	1.14	1988-90
0208664	Knap of Reeds Creek near Butner, NC	43.0	1982-95
02086849	Ellerbee Creek nr Gorman, NC	21.9	1982-89
			1991-95
02087000	Neuse River near Northside, NC	535	1927-80
0208700780	Little Lick Creek above Secondary Road 1814 near Oak Grove, NC	10.1	1982-95
0208705200	Smith Creek at Grissom, NC	6.2	1984-85
0208721055	Perry Creek at SR 2012 near Millbrook, NC	2.43	1986-89
0208726005	Crabtree Creek at SR1649 near Raleigh, NC	76.0	1988-92

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Neuse River Basin--Continued		
0208732810	Marsh Creek at SR 2030 at Millbrook, NC	1.44	1986-89
02087570	Neuse River at Smithfield, NC	1,206	1959-80
02088315	Beaverdam Creek near Grantham, NC	5.01	1978-82
02088470	Little River near Kenly, NC	191	1964-89
02088682	Big Ditch at Retha Street at Goldsboro, NC	2.17	1980-84
02089216	Daileys Creek near Liddell, NC	3.80	1978-81
02089222	Bear Creek near Parkstown, NC	4.27	1978-82
02090500	Contentnea Creek near Wilson, NC	236	1930-54
02090512	Hominy Swamp at Phillips Street at Wilson, NC	7.90	1978-85
02090625	Turner Swamp near Eureka, NC	2.1	1968-87
02091700	Little Contentnea Creek near Farmville, NC	93.3	1956-87
02091960	Creeping Swamp near Calico, NC	9.80	1971-77
02091970	Creeping Swamp near Vanceboro, NC	27.0	1971-85
02092000	Swift Creek near Vanceboro, NC	182	1950-89
02092020	Palmetto Swamp near Vanceboro, NC	24.0	1971-76
0209257120	W. P. Brice Creek below SR 1101 near Riverdale, NC	11.2	1986-91
	Hewletts Creek Basin		
02093229	Hewletts Creek at SR 102 near Wilmington, NC	1.98	1977-90
	Cape Fear River Basin		
0209330990	Brooks Lake tributary near Browns Summit, NC	.06	1985-90
0209331325	Candy Creek at SR 2700 near Monticello, NC	1.10	1985-90
02093500	Haw River near Benaja, NC	168	1928-71
02094000	Horsepen Creek at Battle Ground, NC	15.9	1925-31, 1934-59
02095000	South Buffalo Creek near Greensboro, NC	33.6	1928-58
0209509100	South Buffalo Creek at SR 2821 at McLeansville, NC	43.5	1986-88
02095500	North Buffalo Creek near Greensboro, NC	37.1	1929-90
0209555450	Buffalo Creek at SR 2719 near Osceola, NC	97.4	1986-87
0209560800	Reedy Fork Creek at NC 61 near Osceola, NC	243	1986-88
02096000	Stony Creek near Burlington, NC	44.2	1952-59
02096700	Big Alamance Creek near Elon College, NC	116	1957-80
02096842	Cane Creek 0.1mile above SR 1126 near Buckhorn, NC	.64	1979-81
02096850	Cane Creek near Teer, NC	33.7	1959-73
02097000	Haw River near Pittsboro, NC	1,310	1928-73
02097243	Third Fork Creek at Durham, NC	16.7	1968-73
02097500	Morgan Creek near Chapel Hill, NC	30.1	1923-32
0209782150	New Hope River tributary at SR 1716 near Farrington, NC	2.05	1986-88
02098000	New Hope River near Pittsboro, NC	285	1949-73
02098500	West Fork Deep River near High Point, NC	32.1	1923-26, 1928-58
02100000	Muddy Creek near Archdale, NC	16.7	1934-41
02101000	Bear Creek at Robbins, NC	134	1939-71
0210108450	Suck Creek tributary near Zion Grove, NC	.67	1986-88
02103000	Little River at Manchester, NC	348	1938-50
02103500	Little River at Linden, NC	460	1928-71
02104000	Cape Fear River at Fayetteville, NC	4,395	1889-1903, 1928-40
02104387	Buckhead Creek near Owens, NC	2.62	1976-80
02104500	Rockfish Creek near Hope Mills, NC	284	1929-31, 1939-54
02105524	Ellis Creek tributary at SR 1325 near White Oak, NC	1.81	1979-81
02106000	Little Coharie Creek near Roseboro, NC	92.8	1950-92

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

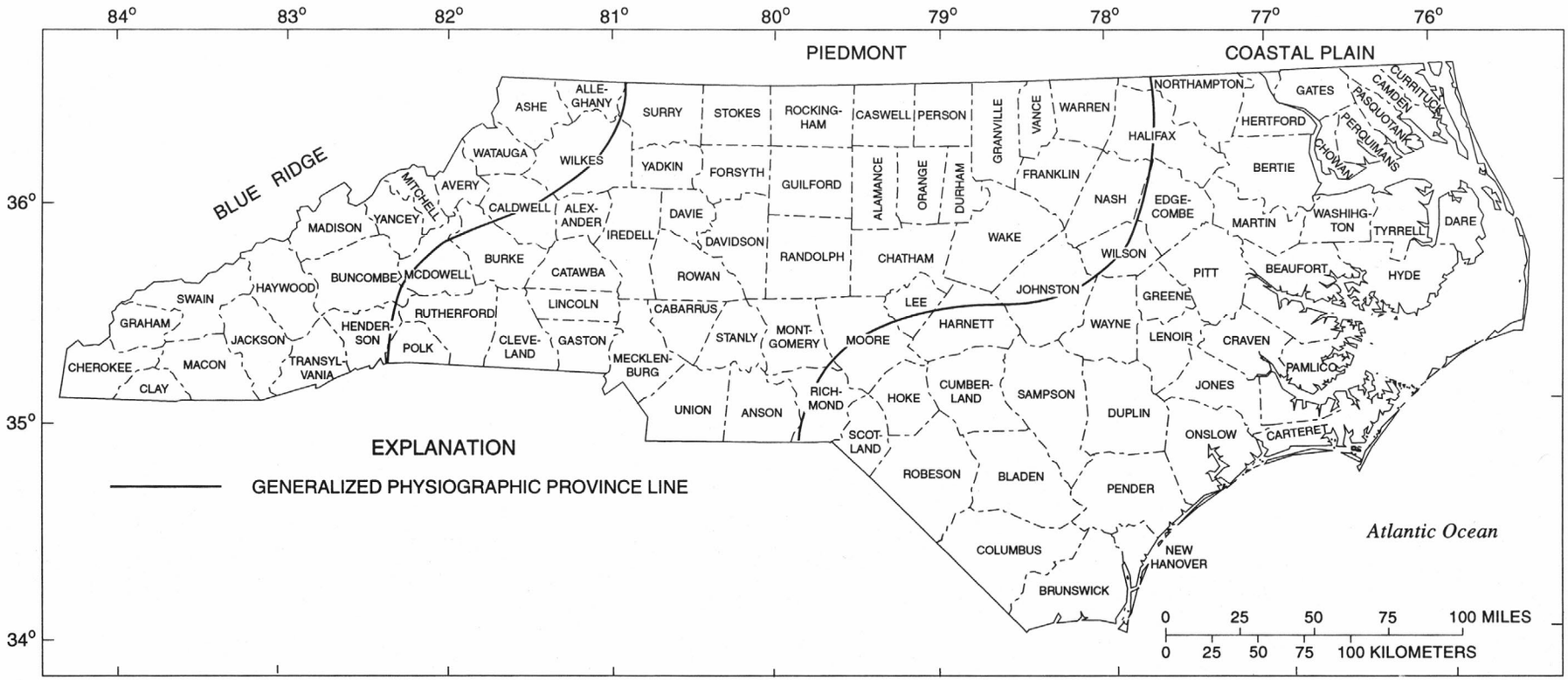
Station number	Station name	Drainage area (mi^2)	Period of record
	Cape Fear River Basin--Continued		
02106681	Black River near Dunn, NC	48.3	1976-77
02107000	South River near Parkersburg, NC	379	1951-86
02107500	Colly Creek near Kelly, NC	103	1950-71
02107600	Northeast Cape Fear River near Seven Springs, NC	47.5	1958-75
0210782005	Nahunga Creek at SR 1301 near Warsaw, NC	8.28	1983-90
0210789100	Grove Creek at Kenansville, NC	22.6	1983-90
0210797940	Limestone Creek at NC 24 near Hadley, NC	1.61	1986-88
02108500	Rockfish Creek near Wallace, NC	69.3	1955-81
02108548	Little Rockfish Creek at Wallace, NC	7.8	1976-92
	Pee Dee River Basin		
02112500	Fisher River near Dobson, NC	109	1920-32
02113500	Yadkin River at Siloam, NC	1,226	1976-87
02115500	Forbush Creek near Yadkinville, NC	21.7	1940-71
02115750	Muddy Creek near Lewisville, NC	82.8	1964-70
02115800	Silas Creek near Clemmons, NC	11.8	1964-70
02115841	Tar Branch tributary at First Street at Winston-Salem, NC	.05	1979-82
02115850	Salem Creek at Winston-Salem, NC	51.3	1964-70
02115854	Salem Creek tributary at Hawthorne Road, Winston-Salem, NC	.50	1979-82
02115856	Salem Creek near Atwood, NC	65.6	1971-82
02115860	Muddy Creek near Muddy Creek, NC	178	1964-79, 1988-91
02115900	South Fork Muddy Creek near Clemmons, NC	42.2	1964-79, 1988-91
02117030	Humpy Creek near Fork, NC	1.05	1968-83
02117500	Rocky Creek at Turnersburg, NC	102	1940-71
02119000	South Yadkin River at Cooleemee, NC	569	1928-65
02119400	Third Creek near Stony Point, NC	4.84	1956-69
02120500	Third Creek at Cleveland, NC	87.4	1940-71
02121000	Yadkin River near Salisbury, NC	3,470	1895-1927
02121180	North Potts Creek at Linwood, NC	9.62	1980-90
02121493	Leonard Creek near Bethesda, NC	5.16	1978-81
02122500	Yadkin River at High Rock, NC	4,000	1919-27
02123000	Uwharrie River near Trinity, NC	11.3	1934-41
02123500	Uwharrie River near Eldorado, NC	347	1938-71
02124471	Dutch Buffalo Creek at NC 49 near Mount Pleasant, NC	45.1	1985-87
02125500	Richardson Creek near Marshville, NC	170	1940-44
02125557	Gourdvine Creek at SR 1715 near Olive Branch, NC	8.75	1978-82
02125696	Lane Creek at SR 2115 near Trinity, NC	3.98	1969-79
02125699	Wicker Branch at SR 1940 near Trinity, NC	5.83	1978-82
02125816	Lane's Creek near Marshville, NC	87.8	1985-87
02126500	Little Brown Creek near Polkton, NC	13.5	1935-41
02127000	Brown Creek near Polkton, NC	110	1937-71
02127500	Pee Dee River near Ansonville, NC	6,330	1938-42
02129500	North Fork Jones Creek near Wadesboro, NC	9.43	1935-41
0213228795	Jordan Creek near Silver Hill, NC	0.36	1983-93
	Santee River Basin		
02137000	Mill Creek at Old Fort, NC	20.7	1960-75
02138000	Catawba River near Marion, NC	172	1941-81
0213875850	High Shoals Creek near Dysartsville, NC	2.38	1986-88
02139200	Bailey Fork near Morganton, NC	7.86	1966-70
02139650	East Prong near Morganton, NC	8.94	1966-74
0214042720	North Harper Creek near Kawana, NC	1.25	1986-88
02141150	Lower Creek at Mulberry Street at Lenoir, NC	31.0	1966-78

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Santee River Basin--Continued		
02141245	Lower Creek at SR1501 near Morganton, NC	89.5	1993-94
0214183365	Upper Little River at SR1740 near Petra Mills, NC	33.9	1993-94
0214192500	Middle Little River at Moretz Dam near Bethlehem, NC	46.1	1993-94
02142500	Catawba River at Catawba, NC	1,535	1896-99
			1935-62
02142600	Mountain Creek near Terrell, NC	42.4	1957-62
0214620760	Irwin Creek at Starita Road at Charlotte, NC	4.40	1989-94
02146211	Irwin Creek at Statesville Avenue at Charlotte, NC	5.97	1982-94
02146450	Briar Creek at Sharon Road, Charlotte, NC	18.5	1962-73
02146470	Little Hope Creek at Seneca Place, Charlotte, NC	2.63	1983-90
02146500	Little Sugar Creek near Charlotte, NC	41.0	1924-78
02146579	Irvin's Creek at Lebanon Road near Mint Hill, NC	5.27	1983-90
0214678230	Walker Branch at SR1123 near Pine Harbor, NC	4.52	1991-94
02148500	Broad River near Chimney Rock, NC	97.0	1927-58
02149702	Green River near Saluda, NC	104	1972-75
02150000	Green River near Mill Spring, NC	174	1940-54
02152000	Sandy Run Creek near Boiling Springs, NC	67.0	1925-28
02152500	First Broad River near Lawndale, NC	200	1940-71
02152610	Sugar Branch near Boiling Springs, NC	1.42	1968-87
	Kanawha River Basin		
03161500	South Fork New River near Crumpler, NC	325	1908-16
03162500	North Fork New River at Crumpler, NC	277	1908-16
			1928-58
	Tennessee River Basin		
03439500	French Broad at Calvert, NC	103	1924-55
03440500	Davidson River near Davidson River, NC	31.0	1904-09
03441440	Little River above High Falls near Cedar Mountain, NC	26.8	1963-90
03441500	Little River near Penrose, NC	41.4	1942-55
03442000	Crab Creek near Penrose, NC	10.9	1942-55
03444000	Boylston Creek near Horseshoe, NC	14.8	1942-55
03444500	South Fork Mills River at the Pink Beds, NC	9.99	1926-49
			1965-73
03445000	South Fork Mills River near Sitton, NC	40.0	1904-09
			1925-26
03445500	North Fork Mills River at Pinkbed, NC	23.1	1904-09
03446500	Clear Creek near Hendersonville, NC	42.2	1945-55
03447000	Mud Creek at Naples, NC	109	1938-55
03447500	Cane Creek at Fletcher, NC	63.1	1942-58
03448000	French Broad River at Bent Creek, NC	676	1933-86
03448500	Hominy Creek at Candler, NC	79.8	1942-77
03448960	North Fork Swannanoa River below Burnett Reservoir near Black Mountain, NC	22.1	1976-77
03449000	North Fork Swannanoa River near Black Mountain, NC	23.8	1926-58
03449500	Swannanoa River at Swannanoa, NC	58.8	1907-09
			1926-31
0345092550	Ross Creek at Beaucatcher Road at Asheville, NC	2.46	1986-89
0345112600	Nasty Branch at Asheville, NC	1.19	1986-89
03451510	Reed Creek above Barnard Avenue at Asheville, NC	2.13	1986-89
03452000	Sandymush Creek near Alexander, NC	79.5	1942-55
03452001	Sandymush Creek 1.1 mile above mouth near Alexander, NC	79.6	1975-77
03454000	Big Laurel Creek near Stackhouse, NC	126	1934-71
03454500	French Broad River at Hot Springs, NC	1,567	1934-49
03456000	West Fork Pigeon River below Lake Logan near Waynesville, NC	55.3	1954-80

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi^2)	Period of record
	Tennessee River Basin--Continued		
03457000	Pigeon River at Canton, NC	133	1907-09
			1928-83
03457500	Allen Creek near Hazelwood, NC	14.4	1949-72
03458500	Pigeon River near Crabtree, NC	243	1920-29
03459000	Jonathan Creek near Cove Creek, NC	65.3	1930-72
03460500	Pigeon River near Mount Sterling, NC	460	1924-30
03462000	North Toe River at Altapass, NC	104	1938-57
03462500	North Toe River above Spruce Pine, NC	111	1934-38
03463500	South Toe River at Newdale, NC	60.8	1934-52
03464000	Cane River near Sioux, NC	157	1934-71
03464500	Nolichucky River at Poplar, NC	608	1925-55
03480500	Elk River near Banner Elk, NC	17.8	1934-40
03481000	Elk River near Elk Park, NC	42.0	1934-55
03500500	Cullasaja River at Highlands, NC	14.9	1931-71
03501000	Cullasaja River at Cullasaja, NC	86.5	1907-09
			1921-71
03501500	Little Tennessee River at Franklin, NC	295	1909-10
			1921-25
03502000	Little Tennessee River at Iotla, NC	323	1929-45
03502500	Little Tennessee River at Etna, NC	374	1926-29
03503500	Little Tennessee River at Almond, NC	451	1912-17
03505500	Nantahala River at Nantahala, NC	144	1942-81
03506500	Nantahala River at Almond, NC	174	1912-17
			1920-43
03507000	Little Tennessee River at Judson, NC	664	1912-44
03508000	Tuckasegee River at Tuckasegee, NC	143	1934-76
03508136	Caney Fork near Cowarts, NC	32.0	1975-76
03508910	Scott Creek at Willets-Ochre Hill, NC	22.4	1993-95
03509000	Scott Creek above Sylva, NC	51.0	1941-75
			1993-95
03509500	Scott Creek at Sylva, NC	55.0	1928-41
03510500	Tuckasegee River at Dillsboro, NC	347	1933-81
03511000	Oconaluftee River at Cherokee, NC	131	1921-49
03513500	Noland Creek near Bryson City, NC	13.8	1935-71
03514000	Hazel Creek at Proctor, NC	44.4	1942-52
03515000	Little Tennessee River at Fontana Dam, NC	1,571	1938-55
03516000	Snowbird Creek near Robbinsville, NC	42.0	1942-52
03517000	Cheoah River at Johnson, NC	177	1912-18
			1920-26
03517500	Cheoah River at Tapoco, NC	215	1924-27
03546000	Shooting Creek near Hayesville, NC	37.6	1922-24
			1942-45
			1946-55
03547000	Hiwassee River below Chatuge Dam near Hayesville, NC	901	1942-74
03548000	Hiwassee River below Hayesville, NC	252	1934-45
03554000	Nottely River near Ranger, NC	272	1901-05
			1914-17
			1919-29
			1932-45
03555000	Hiwassee River at Hiwassee Dam, NC	968	1934-43



COUNTIES AND PHYSIOGRAPHIC PROVINCES OF NORTH CAROLINA

INTRODUCTION

Water-resources data for the 1995 water year for North Carolina consist of records of stage, discharge, and water-quality for streams; stage and contents for lakes and reservoirs; and ground water levels and water-quality of ground-water. This report contains discharge records for 163 gaging stations; stage and contents for 56 lakes and reservoirs; water quality for 37 gaging stations and 7 miscellaneous sites; and continuous daily tide stage at 1 site. Additional water data were collected at 64 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.

Stream-discharge records, and contents and stage for 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 published annually; beginning in 1961, these water-supply papers were published every 5 years through 1970. Records of chemical quality, water temperature, 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." Water-supply papers can be found in the libraries of principal cities and universities throughout the United States or can be purchased from the U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Denver Federal Center, Box 25286, Mail Stop 517, Denver, Colorado 80225.

Streamflow data since the 1961 water year and water-quality data since the 1964 water year have been released by the U.S. Geological Survey in annual reports on a State-by-State basis. These reports provide timely release of water data in each State for each water year. Through 1970 these data also were released in the water-supply paper series mentioned above.

Publication of streamflow and water-quality data, beginning with the 1971 water year, and ground-water data, beginning with the 1975 water year currently is limited to reports on a State-by-State 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-96-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

Additional information for ordering specific reports, can be obtained from the District Chief at the address listed on the back of the title page of this report or by calling (919) 571-4000.

COOPERATION

Cooperative agreements between the U.S. Geological Survey (USGS) and organizations of the State of North Carolina for the systematic collection of water-resources data began in 1895 and continued through 1909. Following 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 USGS are:

North Carolina Cooperative Extension Service
North Carolina Department of Environment, Health, and Natural Resources
North Carolina Department of Transportation, Division of Highways
City of Asheville
City of Brevard
City of Charlotte
City of Danville, Virginia
City of Durham
City of Morganton
City of Greensboro
City of Raleigh
City of Rocky Mount
Town of Bethel
Town of Chapel Hill
Triangle Area Water Supply Monitoring Steering Committee
Mecklenburg County
Orange County

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
Fort Bragg, Camp Lejeune, Department of Defense
Agriculture Research Station, U.S. Department of Agriculture

The following organizations aided in collecting records:

Carolina Power and Light Co.; Champion International Corp.; Duke Power Co.; and Yadkin, Inc.; Weyerhauser Co.

SUMMARY OF WATER-RESOURCES CONDITIONS

Precipitation

During the first half of the 1996 water year, most of North Carolina received more-than- average precipitation. The year began with rainfall from the remnants of Hurricane Opal in early October. More than 3 and 6 inches above-average rainfall fell on the western and eastern halves of the State, respectively, as indicated from data collected at key National Weather Service stations (figs. 1 and 2). Hurricane Opal made landfall in Western Florida on October 4, 1995. On that same day, three major North Carolina cities (Asheville, Charlotte, and Raleigh) received between 3 and 4 inches of rain. The largest totals of rainfall for the month were observed at Raleigh and Wilmington, both were in excess of 9 inches (fig. 2). January rainfall was nearly 4 inches above average in the Blue Ridge Province while near-average precipitation occurred throughout the rest of the State. In contrast, December and February were unusually dry months with precipitation totals averaging between 1 and 2 inches below average across the State. Although total precipitation for March was more than 1 inch below-average in the Blue Ridge Province, the rest of the State received near-average rainfall.

The spring of 1996 brought significantly drier conditions. Precipitation totals for April through June were below average in the western half of North Carolina. Total precipitation in the Blue Ridge Province was nearly 4 inches below average for this period while the eastern half of the State accumulated near-average rainfall. However, during July, the rainfall situation changed again. On July 12, 1996, Hurricane Bertha made landfall along the North Carolina coast. Precipitation totals for July exceeded 13 inches at Elizabeth City and Wilmington (fig. 2). Although the Coastal Plain Province received most of the rain, much of the Piedmont and Blue Ridge Provinces received above-average rainfall as well. August brought above-average precipitation to the western half of the State and the northern Coastal Plain Province.

During the early hours of September 6, 1996, Hurricane Fran made landfall in North Carolina, bringing with it record-breaking accumulations of precipitation. On September 5-6, Raleigh-Durham received an all-time record 24-hour rainfall of 9.44 inches. More heavy rains fell over the State on September 8 after Hurricane Fran had moved through. Then on September 28, up to 8 inches of rain fell on the North Carolina mountains. The index weather stations for Greensboro, Wilmington and Raleigh reported total rainfall accumulations of 10.82, 13.35, and 16.64 inches, respectively, for September.

In summary, the 1996 water year was a wet one for North Carolina due to above-average amounts of precipitation throughout most of the State. Annual precipitation totals ranged from 2.75 inches (southern Piedmont) to more than 22 inches (northeastern Piedmont) above average. Regionally, the north-central portion and the eastern half of the State received the most precipitation.

Surface Water

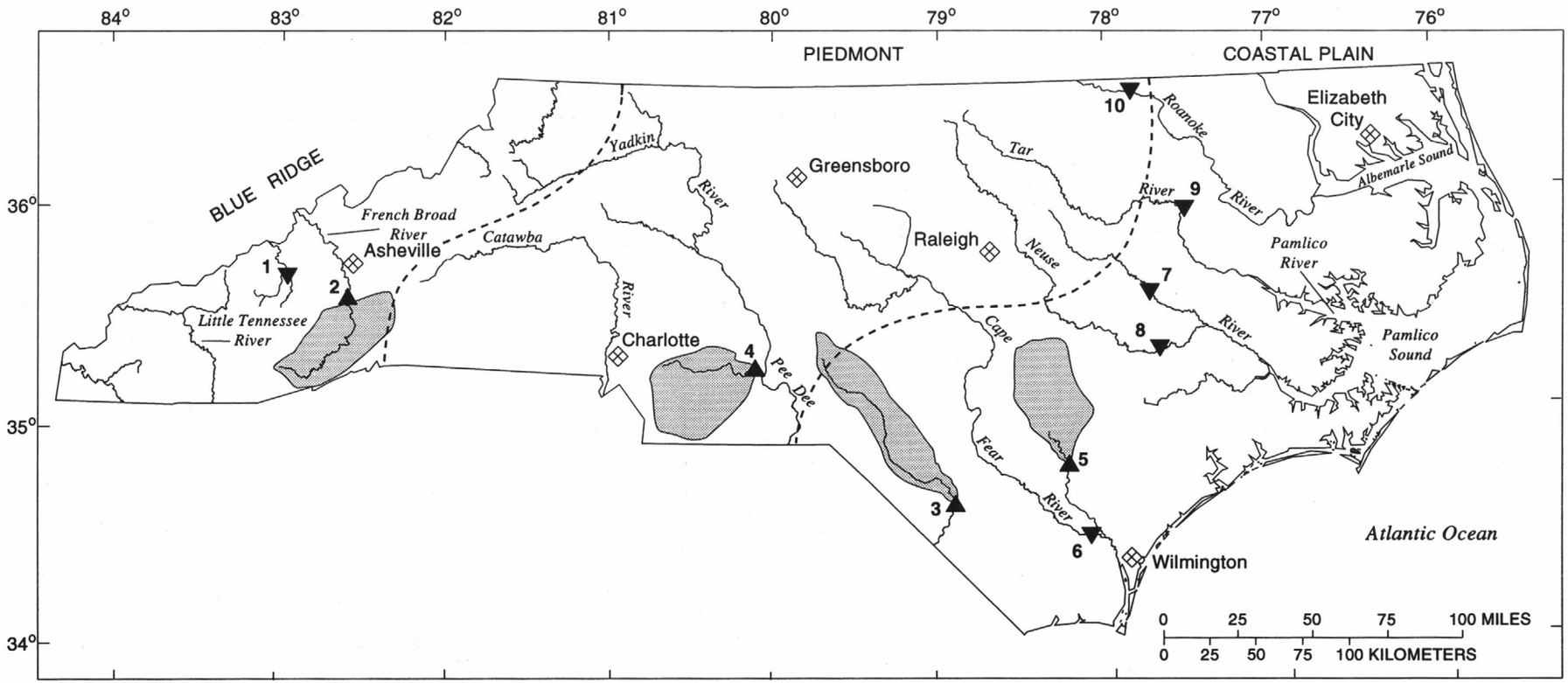
Streamflow conditions in North Carolina are influenced by precipitation. Excesses in rainfall produce a quick response in streamflow activity. The rate and magnitude of streamflow decline following a period of deficient rainfall, but this decline depends on the season (whether evapotranspiration is a factor) and on the amount of ground-water in storage at the onset of the dry period. The effects of changing rainfall patterns on streamflow in North Carolina during the 1996 water year are illustrated in figures 3-8. The monthly conditions are depicted in maps (figs. 3 and 4) that show the regions of above-normal (excessive), normal, and below-normal (deficient) streamflow. Data from the 30-year base period 1961-90 for 34 gaging stations across the State were used as the basis for the monthly-flow statistics. These stations are on streams that are free of significant regulations or diversions. The descriptors "above normal," "normal," and "below normal," refer to flow in the upper quartile, the middle quartiles, and the lower quartile, respectively.

Responses of daily streamflow to basinwide weather patterns throughout the year at four long-term index stations across the State are shown in figures 5-8. These figures show the mean daily discharge hydrograph for the 1996 water year superimposed on the median daily discharge hydrograph for each index station. Median daily discharge was computed also using the 30-year base period. The locations of these four stations are shown in figure 1.

Hurricane Opal brought heavy rains to North Carolina on October 5, 1995. Above-average precipitation increased streamflow across the State (fig. 3A). Excessive flows were reported at more than 90 percent of the index stations. Records were set at Hyco Creek near Leasburg and South Toe River near Celo (north-central Piedmont and central Blue Ridge Provinces, respectively) for the highest October monthly mean streamflow in more than 30 years. A mudslide closed about 20 miles of the Blue Ridge Parkway from milepost 355 to 375, and many rivers and streams exceeded flood stages. The Pigeon River near Canton (southern portion of the Blue Ridge Province) reported a peak flow nearly at the 50-year recurrence interval.

Near-average rainfall in the northern Blue Ridge Province during November allowed streamflow in this area to decline into the normal range (fig. 3B). Near-average rainfall in the northeastern Coastal Plain Province caused some flows to increase; however, monthly-mean flows generally remained in the normal range. Excessive flows remained throughout the central and southern parts of the State in November.

December rainfall was well below average at all index weather stations ranging from nearly 1 inch below average at Elizabeth City



EXPLANATION

GENERALIZED PHYSIOGRAPHIC PROVINCE LINE

SURFACE-WATER INDEX STATION, BASIN AND MAP NUMBER

WATER-QUALITY INDEX STATION AND MAP NUMBER

NATIONAL WEATHER SERVICE STATION

MAP NUMBER	STATION NUMBER	STATION NAME
1	03460000	Cataloochee Creek near Cataloochee
2	03451500	French Broad River at Asheville
3	02134500	Lumber River at Boardman
4	02126000	Rocky River near Norwood
5	02106500	Black River near Tomahawk
6	02105769	Cape Fear River at Lock 1 near Kelly
7	02091500	Contentnea Creek near Hookerton
8	02089500	Neuse River at Kinston
9	02083500	Tar River at Tarboro
10	02080500	Roanoke River at Roanoke Rapids

Figure 1.--Location of index stations.

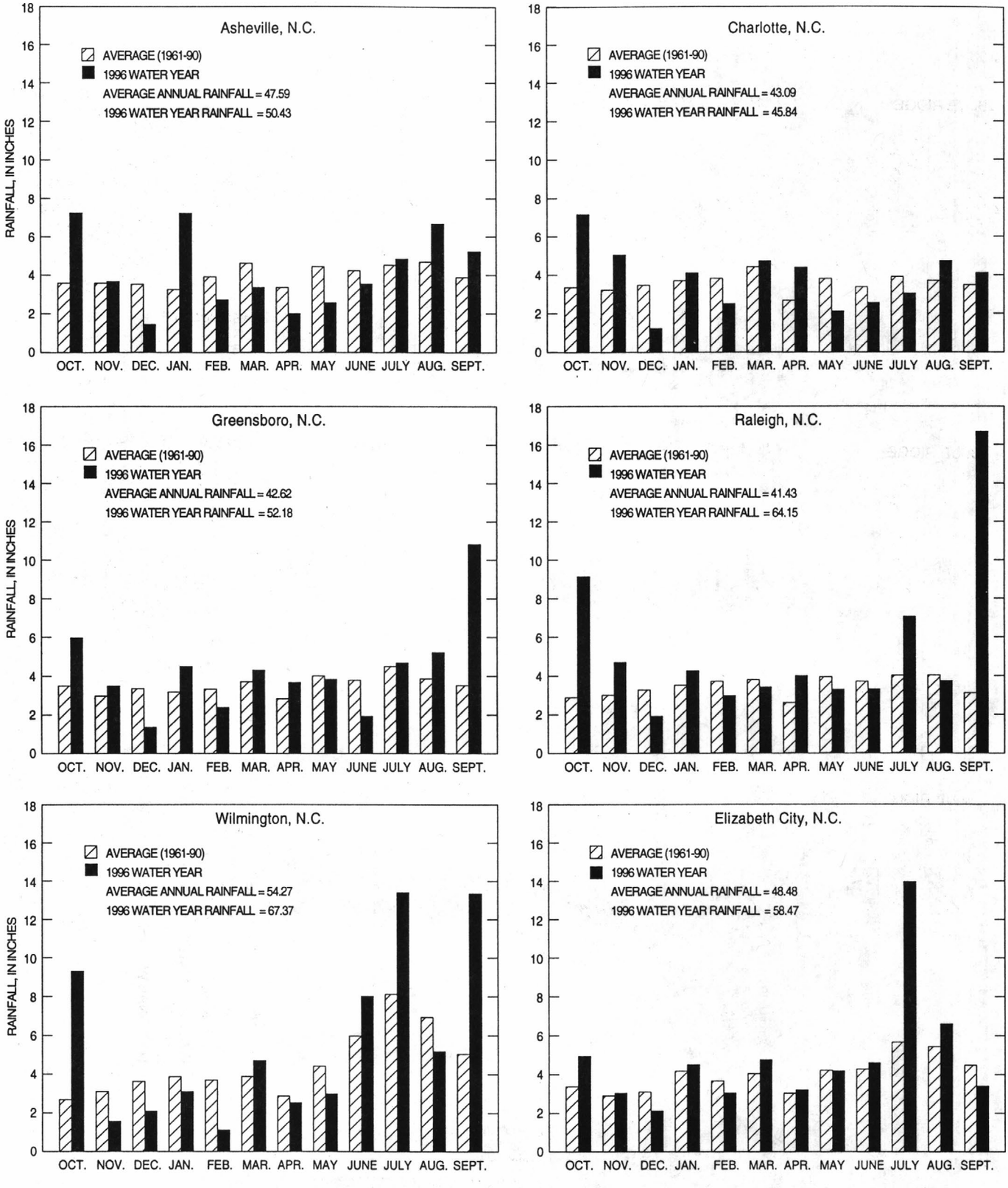


Figure 2.--Monthly rainfall at index stations for 1996 water year and average monthly rainfall for the period 1961-90 (data from National Oceanic and Atmospheric Administration reports).

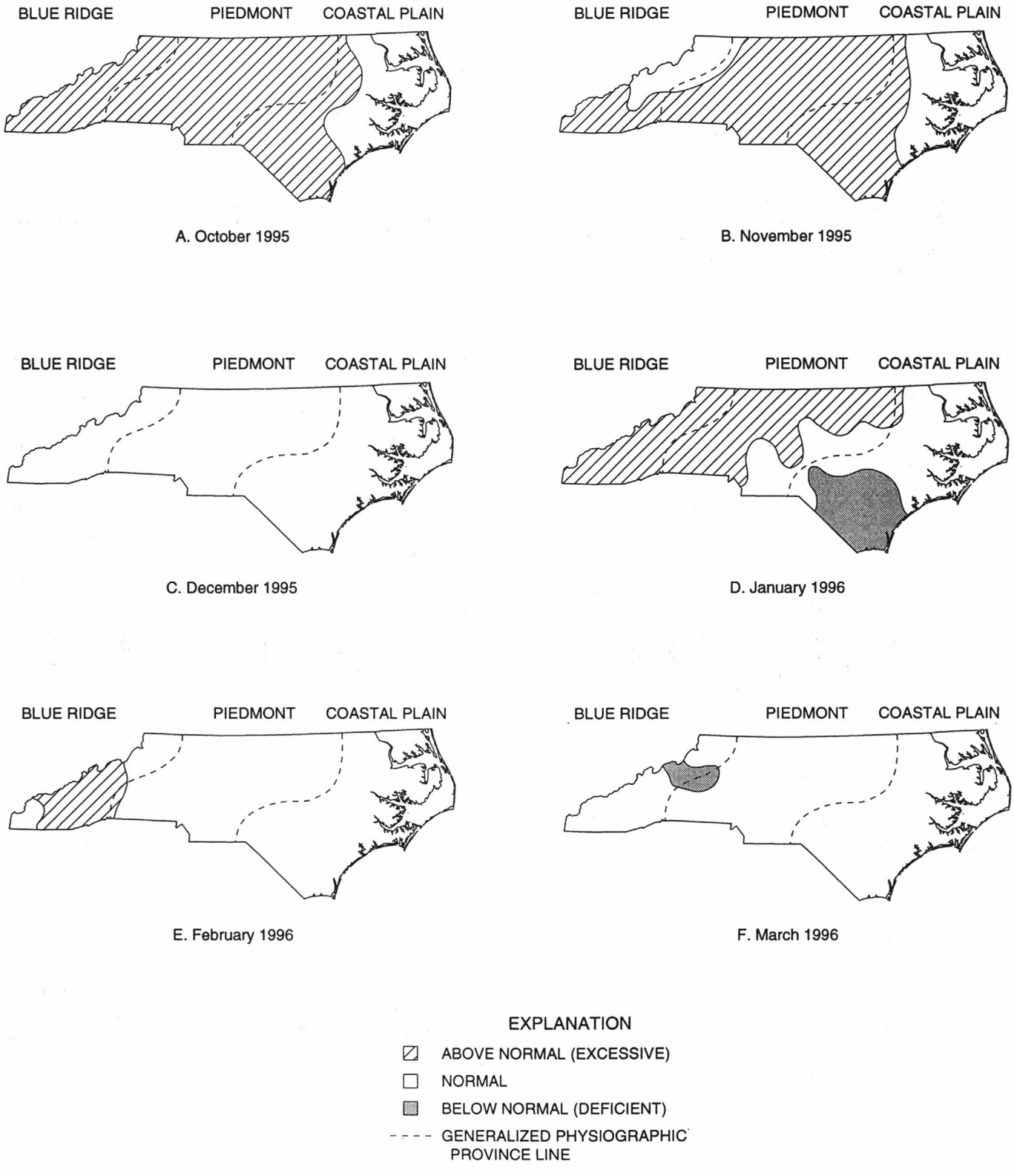


Figure 3.--Monthly streamflow during October - March 1996 water year.

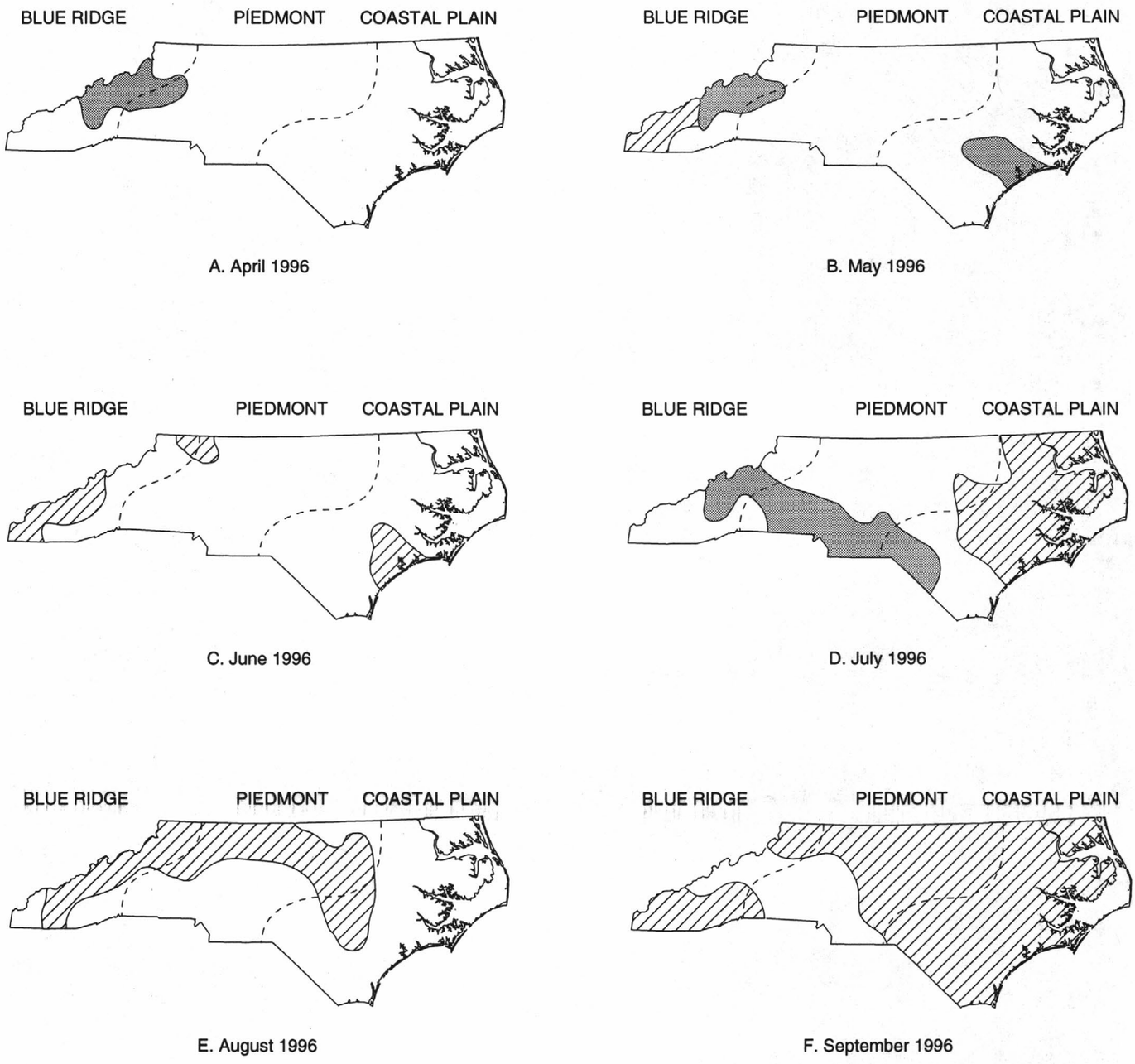


Figure 4.--Monthly streamflow during April - September 1996 water year.

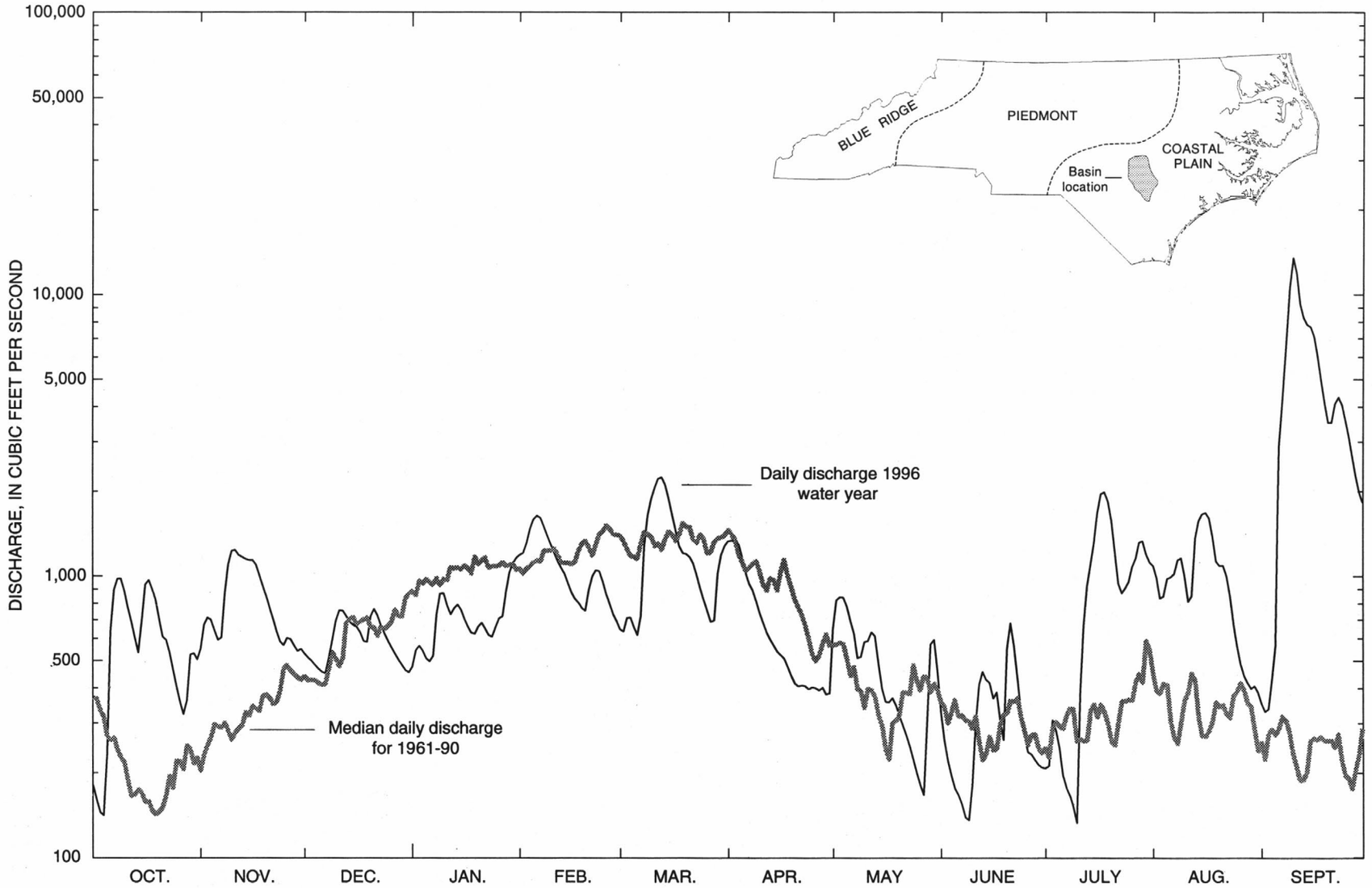


Figure 5.--Daily and median daily discharge for Black River near Tomahawk (02106500) 1996 water year. Located in figure 1.

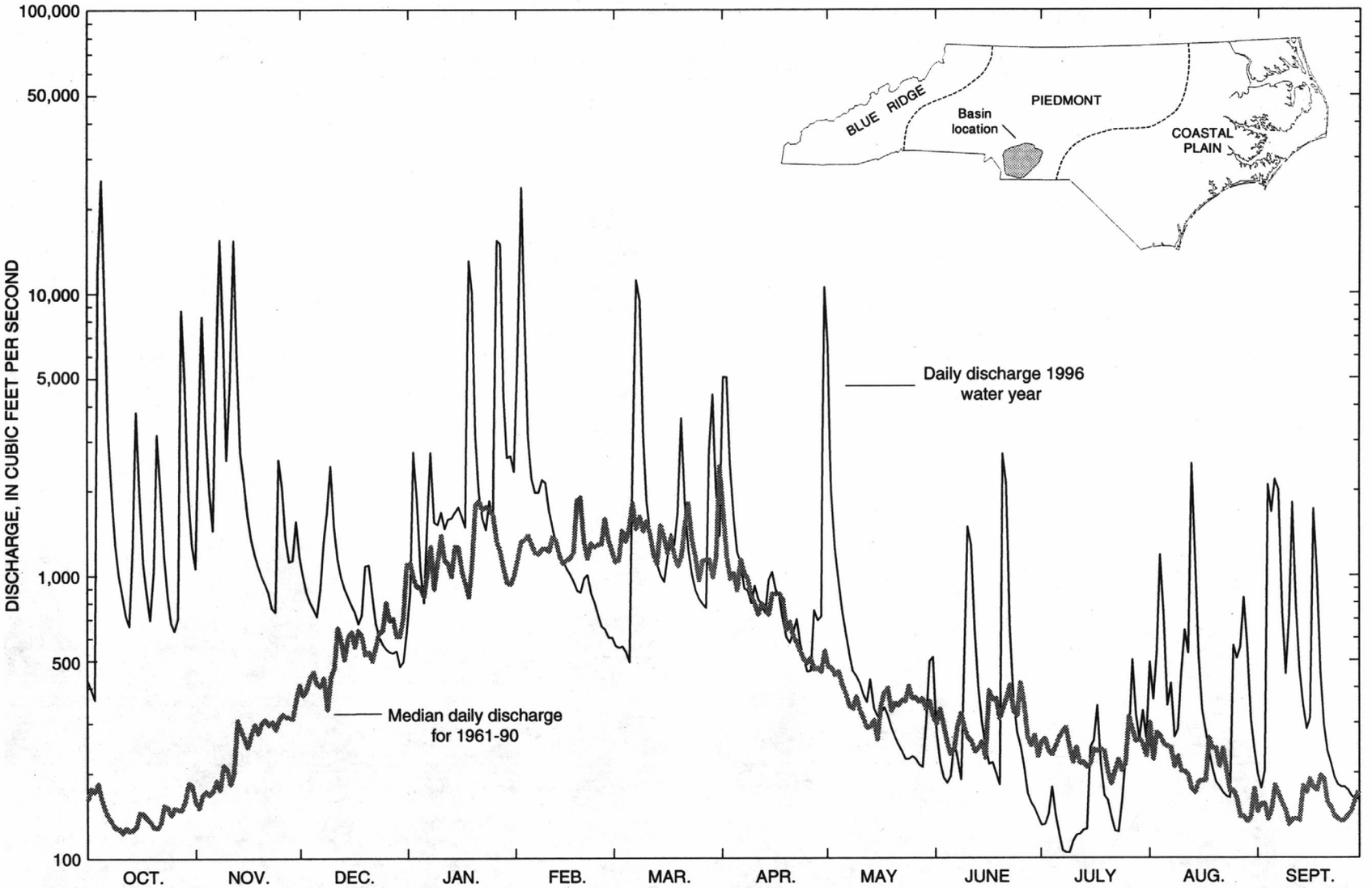


Figure 6.--Daily and median daily discharge for Rocky River near Norwood (02126000) 1996 water year. Located in figure 1.

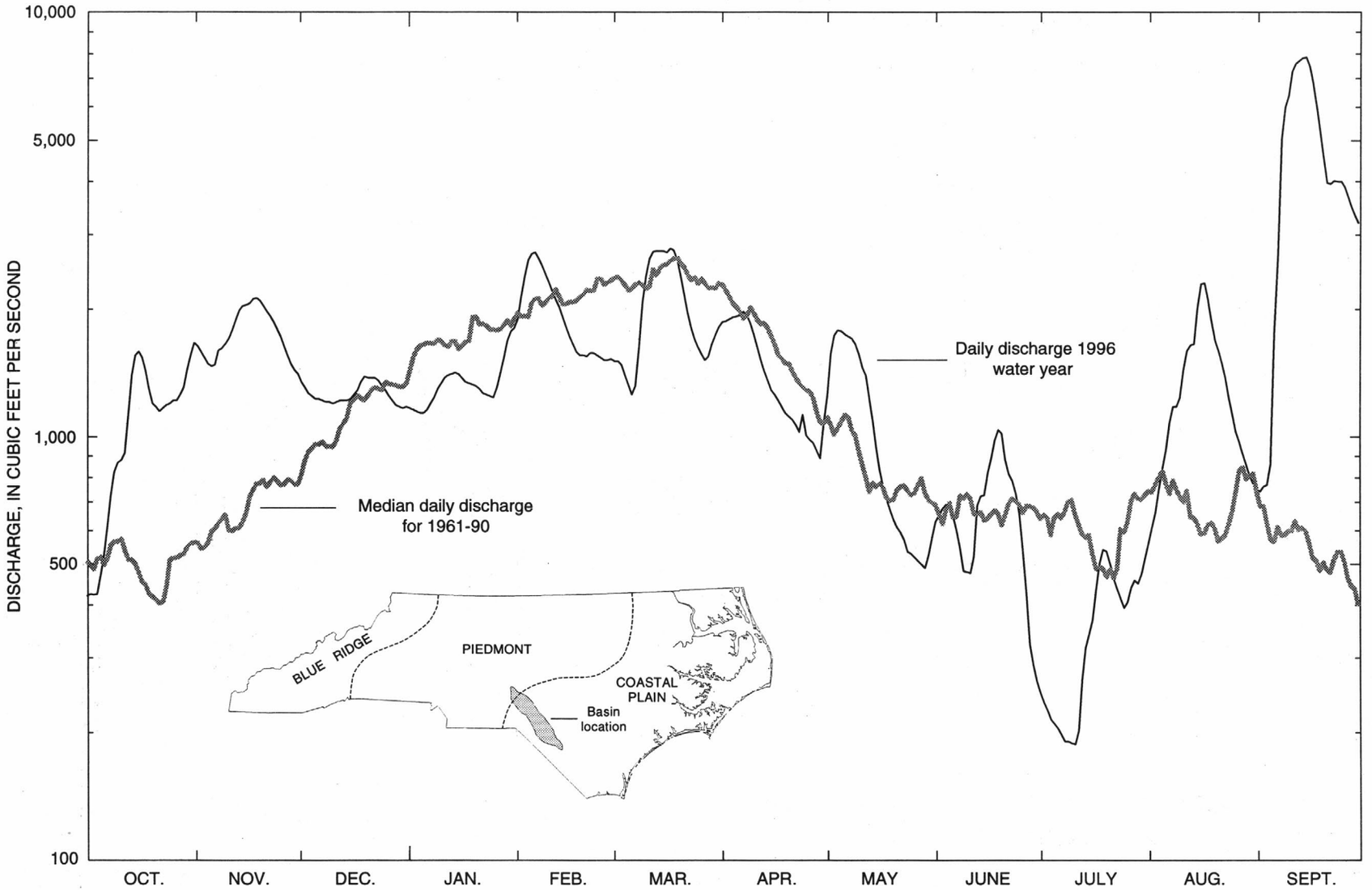


Figure 7.--Daily and median daily discharge for Lumber River at Boardman (02134500) 1996 water year. Located in figure 1.

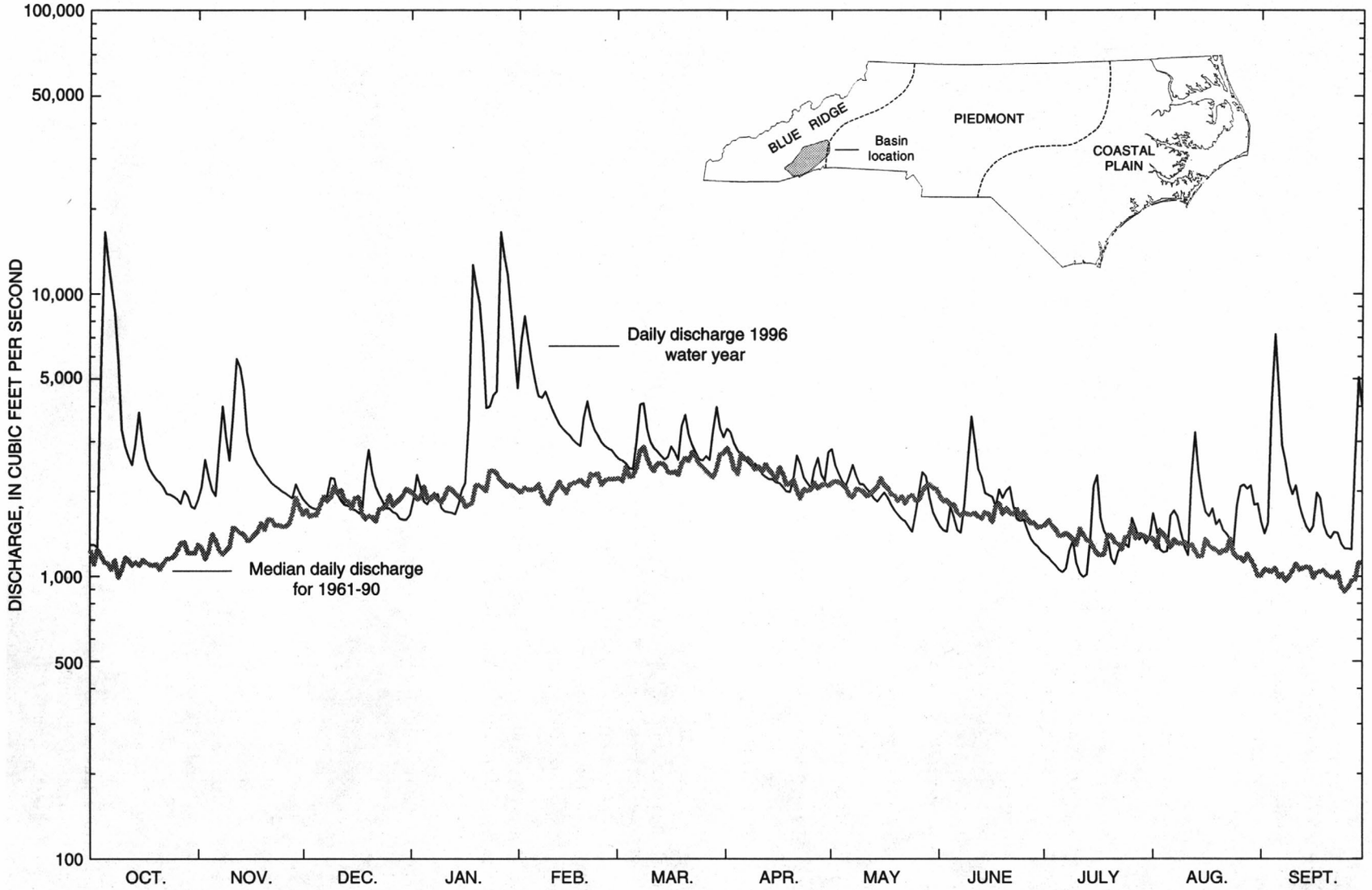


Figure 8.--Daily and median daily discharge for French Broad River at Asheville (03451500) 1996 water year. Located in figure 1.

(northern Coastal Plain Province) to more than 2 inches below average at Asheville (Blue Ridge Province; fig. 2). Streamflow conditions returned to the normal range throughout the State during December (fig. 3C).

Precipitation amounts increased throughout the State during January, except at Wilmington where accumulation was 0.78 inch below average. Significant totals of precipitation were recorded in the Blue Ridge Province (3.97 inches above-average) forcing streams to rise above flood stages. Excessive flows were reported throughout the western half of the State (fig. 3D). A record-high mean streamflow for January was recorded at Henry Fork near Henry River, located in the western Piedmont Province. Streamflow record has been collected at this station for more than 60 years. Four other index stations located in the Blue Ridge Province recorded near-record streamflows, the second highest flows for periods of record ranging from 31 to 62 years. Although flows increased Statewide, deficient flows were recorded in the southeastern Coastal Plain Province for January. Streamflows remained in the normal range for the rest of the State.

In February, precipitation totals again fell below average across the State, causing most flows to decrease into the normal range. Even though flows decreased during February, flows remained in the excessive range in the central Blue Ridge Province (fig. 3E).

Precipitation across the State was uneven and near average during March. The flows that were excessive during the previous month returned to the normal range, while some flows in the Blue Ridge Province decreased into the deficient range for the month (fig. 3F). More than 90 percent of the index stations throughout the State had flows in the normal range.

Streamflow decreased Statewide during April. Much like the previous month, more than 80 percent of all index stations had flows in the normal range (fig. 4A). Flows continued to decrease into the deficient range in the Blue Ridge Province where rainfall accumulation at Asheville was 1.36 inches below average (fig. 2). Excess precipitation fell in the Piedmont Province near Charlotte and Raleigh (1.73 and 1.39 inches above average, respectively) although streamflow was near average in these areas and throughout most of the State.

May precipitation totals were below average at all index weather stations. Isolated rain storms over the southern Blue Ridge Province increased flows into the excessive range while rainfall-deficient areas in the central Blue Ridge and eastern Coastal Plain Provinces experienced flows in the below-average range (fig. 4B). Flows throughout most of the State remained in the normal range.

Precipitation totals from the index weather stations for June showed near average conditions across most of the State except for Greensboro (1.88 inches below average, fig. 2) and Wilmington (2.04 inches above average); however, streamflows in these areas showed no significant change. Locally heavy amounts of rain fell in the mountains, across the central and eastern Piedmont Province, and over much of the Coastal Plain Province. Flows that were in the deficient or normal range during May increased into the normal and excessive range during June (fig. 4C).

While much of the western half of the State was experiencing near-average precipitation totals and decreasing streamflow during July (fig. 4D), the eastern half of the State from Raleigh to Elizabeth City and Wilmington experienced the effects of Hurricane Bertha with rainfall totals of 3.04, 8.32, and 5.29 inches above normal, respectively (fig. 2). Hurricane Bertha made landfall at the North Carolina coast near Topsail Island on the evening of July 12, with maximum sustained winds of 105 miles per hour. The storm traveled rapidly up the coast, and had moved through the State by 3:00 a.m. on July 13. Localized flash flooding caused evacuations, road closures, and property damage. In general, river flooding was minor because rainfall accumulations were lower than anticipated.

In August above-average precipitation totals were recorded at all index weather stations except Raleigh and Wilmington. Significant flash flooding occurred in Caldwell County (centrally located along the Blue Ridge and Piedmont Province boundary) during August 11 and 12 where rainfall totals exceeded 7 inches. Flows in this area that were deficient during July increased into the excessive range. Streamflow increased at nearly 90 percent of the index stations. Excessive flows stretched from the southeastern Coastal Plain Province through the upper Piedmont and most of the Blue Ridge Provinces (fig. 4E). Flows in the southern Piedmont Province that were deficient during July increased into the normal range.

On September 4 and 5, heavy rains fell near Greensboro (2.13 inches above normal) saturating the ground and leaving no storage for the onset of even heavier rains associated with Hurricane Fran. Hurricane Fran passed through the State on September 5-6. Precipitation totals for September at Greensboro, Raleigh, and Wilmington were 7.30, 13.45, and 8.31 inches above average, respectively (fig. 2). On September 5-6, the Raleigh-Durham area received an all-time record, 24-hour rainfall of 9.44 inches. The heaviest rainfall amounts were reported in the Piedmont and Coastal Plain Provinces. Peak flows in the Neuse, Cape Fear, and Tar-Pamlico River basins caused by Hurricane Fran surpassed many of the previous flow records established in this century, having recurrence intervals between 200 and 500 years and exceeding 500 years at some sites. Peak flows between the 200- and 500-year recurrence interval occurred on the Eno River at Hillsborough (in the upper Neuse River Basin) and on the Haw River at Haw River (Cape Fear River Basin). Peak flows exceeding the 500-year recurrence interval occurred on the Tar River near Tar River and at Tarboro (Tar-Pamlico River Basin), and Flat River at Bahama and Middle Creek near Clayton (Neuse River Basin). Record-high mean streamflow was recorded at seven index stations located in the northeastern Piedmont Province and near the central Coastal Plain Province. The period of record for these record-setting sites ranged from 32 to 68 years. The southwestern part of the Piedmont and central Blue Ridge Provinces had streamflows in the normal range (fig. 4F). Information about the effects of Hurricane Fran in North Carolina, are documented in USGS Open-File Report 96-499, "Aftermath of Hurricane Fran in North Carolina--Preliminary data on flooding and water quality," by J.D. Bales and C.J.O. Childress.

Water Quality

Five sites were selected as water-quality index stations--Roanoke River at Roanoke Rapids (8,384 mi^2), Tar River at Tarboro (2,183 mi^2), Neuse River at Kinston (2,692 mi^2), Contentnea Creek near Hookerton (733 mi^2), and Cape Fear River at Lock 1 near Kelly (5,255 mi^2). These stations drain watersheds in the Piedmont and Coastal Plain Provinces of North Carolina. The USGS collected water samples at these sites during the 1996 water year as part of the USGS National Water-Quality Assessment Program (NAWQA) and to monitor conditions after Hurricane Fran in September 1996 (Bales and Childress, 1996). In addition, Cataloochee Creek near Cataloochee (49.2 mi^2), a small pristine stream in the Great Smoky Mountains National Park in the Blue Ridge Province, was sampled two times as part of the USGS Benchmark network.

Values of total dissolved solids, dissolved oxygen, total phosphorus, total nitrogen, suspended-sediment, and instantaneous discharge collected during the 1996 water year are shown with boxplots of data collected during the 1986 through 1995 water years (fig. 9). A box plot consists of an inner box with two vertical lines extending above and below the box. The bottom of the box indicates the 25th percentile (25 percent of data are less than this value); the top of the box indicates the 75th percentile (75 percent of data are less than this value). A horizontal line within each box indicates the median (half of the data exceed this value and half are less). Vertical lines outside of the boxes indicate the extremes; one extends from the top of the box up to the 90th percentile and one from the bottom of the box down to the 10th percentile. Viewed in total, the box plot illustrates the overall distribution of data.

When comparing concentrations sampled in the 1996 water year with the long-term distribution of concentrations in figure 9, streamflow conditions at the time of sample collection must be considered because concentrations of many constituents vary with stream discharge. Suspended sediment-concentrations and the concentration of chemicals adsorbed to sediment generally increase when rainfall runoff causes streamflow to increase. In contrast, chemicals in the dissolved phase generally are diluted under those conditions. For example, the concentration of total phosphorus typically increases with increased rainfall runoff whereas the concentration of total dissolved solids typically decreases. For each index station, 1996 water-year samples were collected under a wide range of discharge conditions. Most samples were collected at discharges that were greater than the long-term median discharge for sample collection. Several samples were collected during flooding from Hurricane Fran when discharge exceeded the long-term 90th-percentile discharge for sample collection.

Total dissolved-solids concentrations were similar for sites in the Piedmont and Coastal Plain Provinces and were greater than concentrations in Cataloochee Creek in the Blue Ridge Province. Differences in concentrations of total dissolved-solids indicate, in part, differences in drainage-basin geology. Streams draining granites of the Blue Ridge Province generally yield smaller total dissolved-solids concentrations compared to streams draining the Piedmont and Coastal Plain that contain more soluble rocks. During the 1996 water year, total dissolved-solids concentrations for the Tar River, Neuse River, and Contentnea Creek were generally less than the long-term median concentration because samples were collected during high flow conditions.

Dissolved-oxygen concentrations measured during the 1996 water year were less than the long-term median concentrations for most samples collected at the Tar River, Neuse River, Contentnea Creek, and Cape Fear River stations. Concentrations less than the long-term 10th-percentile concentration were collected during flooding from Hurricane Fran. The State standard for the protection of aquatic life is 4 mg/L of dissolved oxygen (North Carolina Department of Environment, Health, and Natural Resources, 1996).

Nitrogen and phosphorus are nutrients that typically are associated with excessive algal growth. During the 1996 water year, most total nitrogen and phosphorus concentrations were within the long-term 10th- to 90th-percentile range. Concentrations of phosphorus less than the long-term 10th percentile occurred in samples collected in the Tar River, Neuse River, and Contentnea Creek in November 1995. Concentrations of total phosphorus that exceeded the long-term 75th-percentile concentration occurred in the Neuse River and Contentnea Creek during flooding from Hurricane Fran in September 1996. Concentrations of total nitrogen less than the long-term 10th-percentile concentration occurred in the Neuse River in May and again in September in the Neuse River and Contentnea Creek during the rise of flood waters from Hurricane Fran. Concentrations of nitrogen that exceeded the long-term 75th percentile occurred in Contentnea Creek during the peak of flooding from Hurricane Fran.

Suspended Sediment

All of the suspended-sediment samples collected at these stations during the 1996 water year equalled or exceeded the long-term median suspended-sediment concentrations. This is due, in part, to the higher than usual discharge conditions sampled during the 1996 water year.

References cited

Bales, J.D. and Childress, C.J.O., 1996, Aftermath of Hurricane Fran in North Carolina--Preliminary Data on Flooding and Water Quality: U.S. Geological Survey Open-File Report 96-499, 6 p.

North Carolina Department of Environment, Health, and Natural Resources, 1996, Administrative code section 15A NCAC 2B .0200--Classification and water quality standards applicable to surface waters of North Carolina: Division of Environmental Management, 38 p.

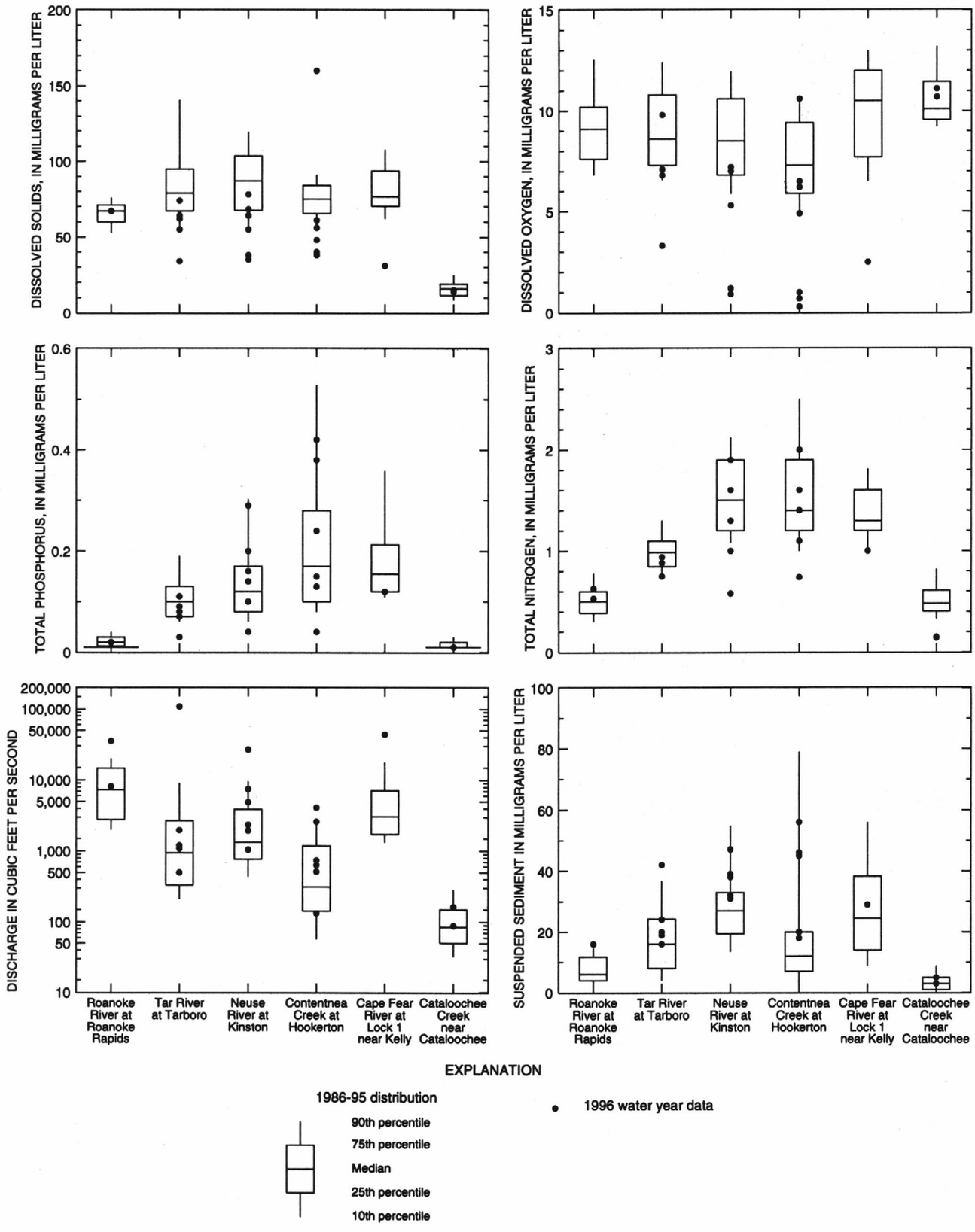


Figure 9.--Distribution of discharge and concentrations of selected constituents during water years 1986 through 1995 and discharge and concentrations for samples collected during the 1996 water year at selected index stations.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 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 human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO2 and NOx scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

http://nadp.nrel.colostate.edu/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, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 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, streambed 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-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

EXPLANATION OF RECORDS

The surface-water records published in this report are for the 1995 water year that began October 1, 1994, and ended September 30, 1995. 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, and water-quality data. Locations of the stations where the data were collected are shown in figures. 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

Downstream Order System

used by the USGS 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 miscellaneous surface-water sites and wells.

Since October 1, 1950, the order of listing hydrologic-station records in USGS reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary 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- or ten-digit number for each station, such as 02053200 (0208700780), which appears just to the left of the station name, includes the two-digit part number "02" plus the six- or eight 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 part 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 (fig.).

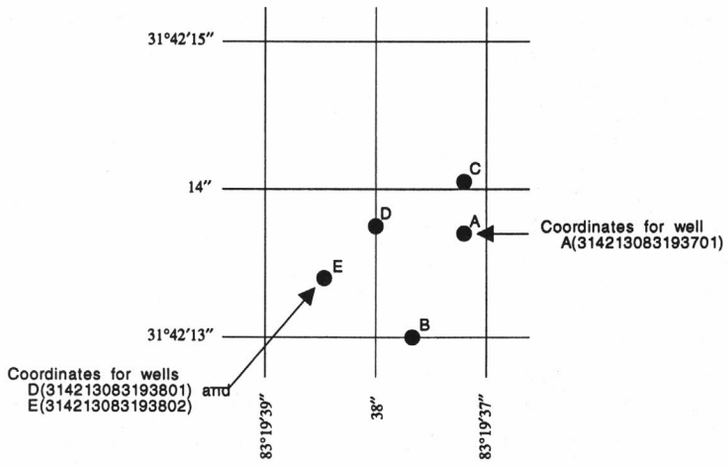


Figure 10.--System for numbering miscellaneous sites and wells.

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 can 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 can 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, and 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 consists of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that can 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 can 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 by analog-digital recorders that punch stage values on paper tapes at selected time intervals, or electronic data loggers that either store data electronically on site or transmit it by satellite or telephone telemetry to a computer at the office. Measurements of discharge are made with current meters using methods adapted by the USGS 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 (TWRI), Book 3, Chapter A6.

In computing streamflow records, results of individual discharge measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables are prepared indicating the approximate discharge for any stage within the range of the measurements. 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 physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on 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 can 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 backwater from reservoirs, tributary streams, or other sources. This necessitates 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 developed from bathymetric surveys. The application of stage to stage-content curves or tables gives the contents from which daily, monthly, or yearly changes are then 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 computed contents may become increasingly in error over time, as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, 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 can 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

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 wateryear. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data

Data Presentation--Continued

table, and less information is provided in the text or station manuscript above the table. These changes were made as a result 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 five parts: (1) the manuscript or station description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) 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; (5) and a hydrograph of discharge.

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 headings of the station description.

LOCATION.-- Information on site locations is obtained from the most accurate maps available. The location of the gage is given with respect to cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name. River miles, given for only a few stations, were either 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 when the present station was not, and in a location such that records from it can reasonably be considered equivalent to 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 of the reports in which revisions have been published for the station and the water years for 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)" means that only the instantaneous minimum was revised; and "(P)" means 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 referenced to sea level (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 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 USGS 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. This information may or may not have been obtained by the USGS.

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 possibly would be no current or, future station manuscript published to document the revision in a "Revised Records" entry, data users 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. If the data were obtained by computer retrieval, however, the data would be current, and any published revision of data is always accompanied by revision of the corresponding data in computer storage. Manuscript information for lake or reservoir

Data Presentation--Continued

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.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR which were included prior to the 1987 water 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 occurrence 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.

Data Presentation--Continued

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 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 can 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.

ANNUAL RUNOFF (AC-FT).--Indicates the depth, in acre-feet, to which the drainage area would be covered if all of 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 has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time 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 table presents annual maximum stage and discharge at crest-stage stations, and the second table presents 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 "e" and noting in a table footnote, "e Estimated," and/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 (ft^3/s) 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 values 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.

Accuracy of the Records--Continued

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 as a result of 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 affected by 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 to 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 unpublished information or on the results of statistical analyses of published records can be obtained from the District office.

Records of Discharge Collected by Agencies Other Than the U.S. Geological Survey

Records of stream stage not published by the USGS were collected in North Carolina during the 1995 water year by the National Weather Service, NOAA, U.S. Department of Commerce, and other Federal agencies. The USGS National Water Data Exchange (NAWDEX), 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 can 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 a stream 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 recorded at short intervals. Some records of water quality, such as temperature and specific conductance, can 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 and 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 is assuring that the data obtained represent the naturally occurring quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must 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 TWRI's Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chaps. A1, A3, and A4. All of these references are listed on pages 32 through 35 of this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS North Carolina District office.

On-Site Measurements and Sample Collection--Continued

It is possible for one sample to adequately define 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 can 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 for use in determining 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 vertical 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) can be obtained from the USGS North Carolina District office at the address given on the back of the title page of this report.

NOTICE: Values of dissolved and total selenium exceeding 5 mg/L in samples collected prior to 1975 are probably incorrect and should only be used with caution. Values of dissolved selenium greater than 1 mg/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 the 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, and samples for biochemical oxygen demand (BOD), and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory 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 USGS laboratories are given in the TWRI's, Book 1, Chap. D2; Book 3, Chap. C2; and Book 5, Chaps. 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.

MBAS determinations made from January 1, 1970 through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biased. These data can be corrected on the basis of the following equation, if concentrations of dissolved nitrate plus nitrate, as nitrogen, and dissolved chloride, determined concurrently with the MBAS data, are applied:

MBASCOR = M - 0.0088N - 0.00019C

where:

MBASCOR = corrected MBAS concentration, in mg/L;
M = reported MBAS concentration, in mg/L;
N = dissolved nitrate plus nitrate, as nitrogenconcentration, in mg/L; and
C = dissolved chloride concentration, in mg/L.

The detection limit of the new method is 0.02 mg/L, whereas the detection limit for the old method was 0.01 mg/L. A detection limit of 0.02 mg/L should be used with corrected MBAS data from January 1, 1970 through August 29, 1993.

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 USGS 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 USGS computer 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 these changes in the State data-report series or elsewhere, potential users of USGS 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.

Remarks Codes

The following remarks 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 (ug/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). Data above the ug/L 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 began using new trace-element protocols at some stations in water year 1994.

Change in National Trends Network Procedures

*NOTE.--Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

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 maintaining of water data collected for USGS programs and activities. 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 USGS at the 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 its territories where the USGS collects or has collected data.
- Daily Values File - Contains over 220 million daily values of streamflow, stage, reservoir content, water temperature, specific conductance, sediment concentration, and sediment discharge.
- 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 surface water.

In 1976, the USGS opened WATSTORE to the public for direct access. A signed Memorandum of Agreement with the USGS 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 can 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. Requests for water data should be directed to the local USGS District office:

District Chief
U.S. Geological Survey
3916 Sunset Ridge Road
Raleigh, NC 27607

If the District office cannot fill a request for data, 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 multicelled 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 (ft^3) for about 326,000 gallons or 1,233 cubic meters (m^3).

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 uniformly 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.

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, such as 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 milliliters (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 also found 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 micro-organisms, 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, and periphyton and benthic organisms in grams per square meter.

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).

DEFINITION OF TERMS--Continued

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 ft^3, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 m^3.

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. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by 1 milligram per liter (mg/L) of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an 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 (gps) or 448.8 gallons per minute (gpm) or 0.02832 cubic meters per second (m^3/s).

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 micron (µm) 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 noncontributing areas, within the area unless otherwise noted.

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

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

Gage height (G.H.) is the water-surface elevation referred to an arbitrarily selected 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.

Gas Chromatography/Flame Ionization Detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

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 ($CaCo_3$).

DEFINITION OF TERMS--Continued

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

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

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as the weight (micrograms) (ug) of solute per unit volume (liter)(L) of water. One thousand micrograms per liter (ug/L) is equivalent to 1 mg/L.

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 milligrams per liter, 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 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. This term is no longer used in this series of reports.

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

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

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

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

Parameter Code is a 5-digit number used in the USGS computer 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 U.S. 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 either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (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.

DEFINITION OF TERMS--Continued

Periphyton is the assemblage of micro-organisms attached to and growing on 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 (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

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

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to 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, phytoplankton have a profound effect upon the quality of 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.

Sea level in this report refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

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

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

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

DEFINITION OF TERMS--Continued

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 µm 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 todetermine 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" has double meaning 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 milligrams per liter 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; 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; 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."

DEFINITION OF TERMS--Continued

Water year in the USGS 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 ending September 30, 1995, is called the "1995 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, Branch of Information Services, Box 25286, Federal Center, 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. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

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

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

2-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. MacCary: 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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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 measurement 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.

3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by the 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,* Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 34 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. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels at streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers,* by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.

3-A21 *Stream-gaging cableways,* by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.

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

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

3-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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 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. 190 pages.

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

3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

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

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L. C. Friedman, editors: 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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.

6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 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. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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.

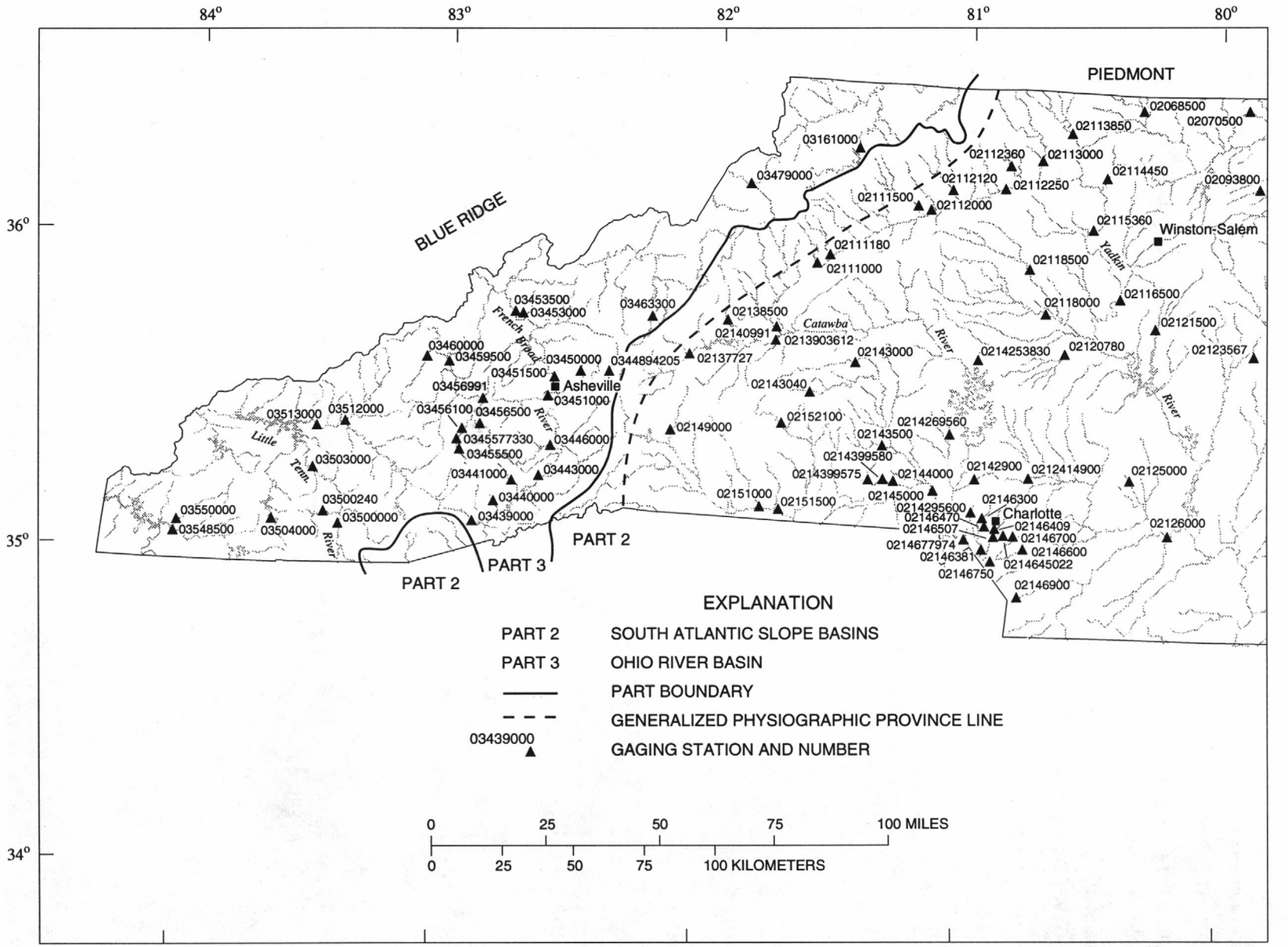


Figure 11.--Locations of gaging stations in western North Carolina.

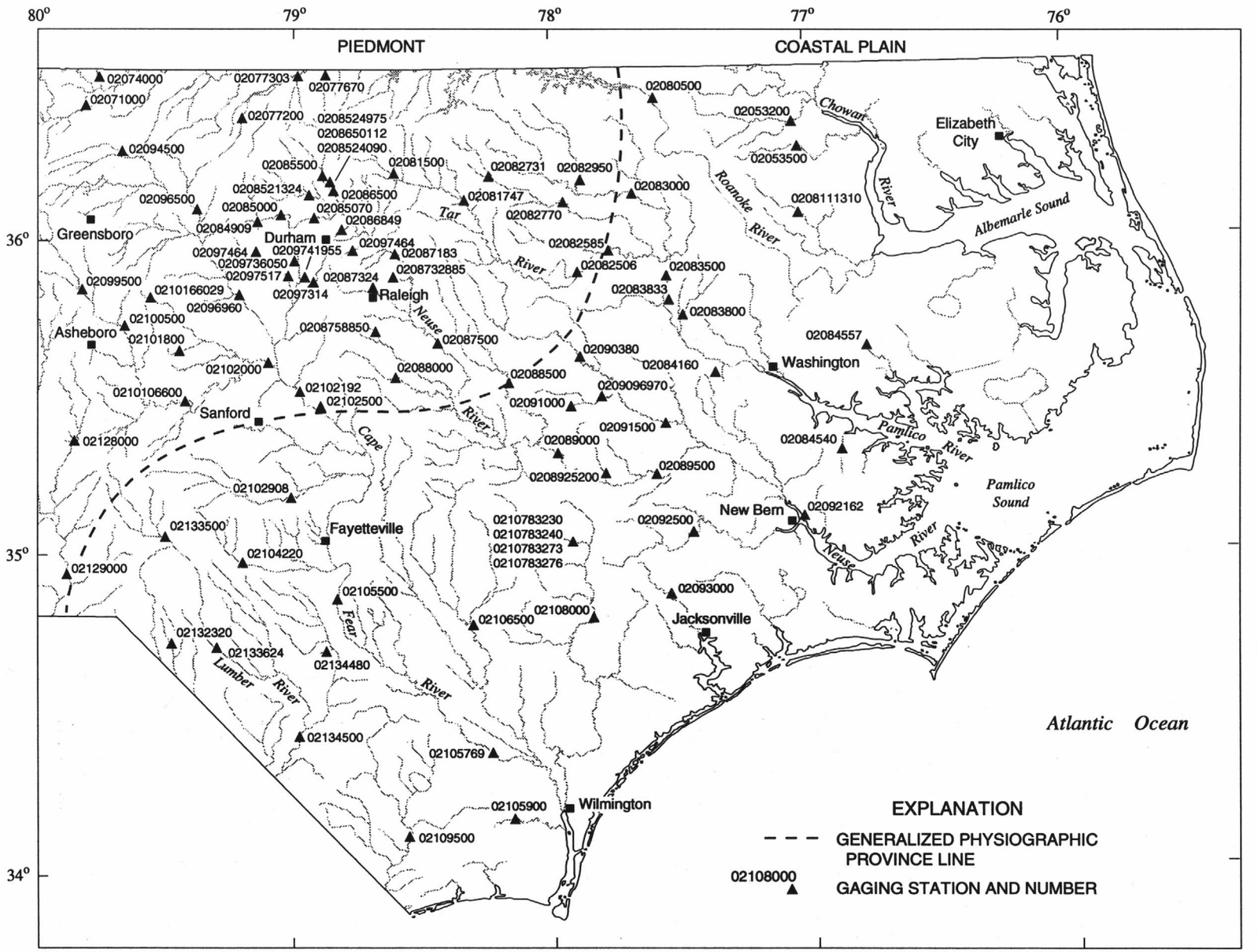


Figure 12.--Locations of gaging stations in eastern North Carolina.

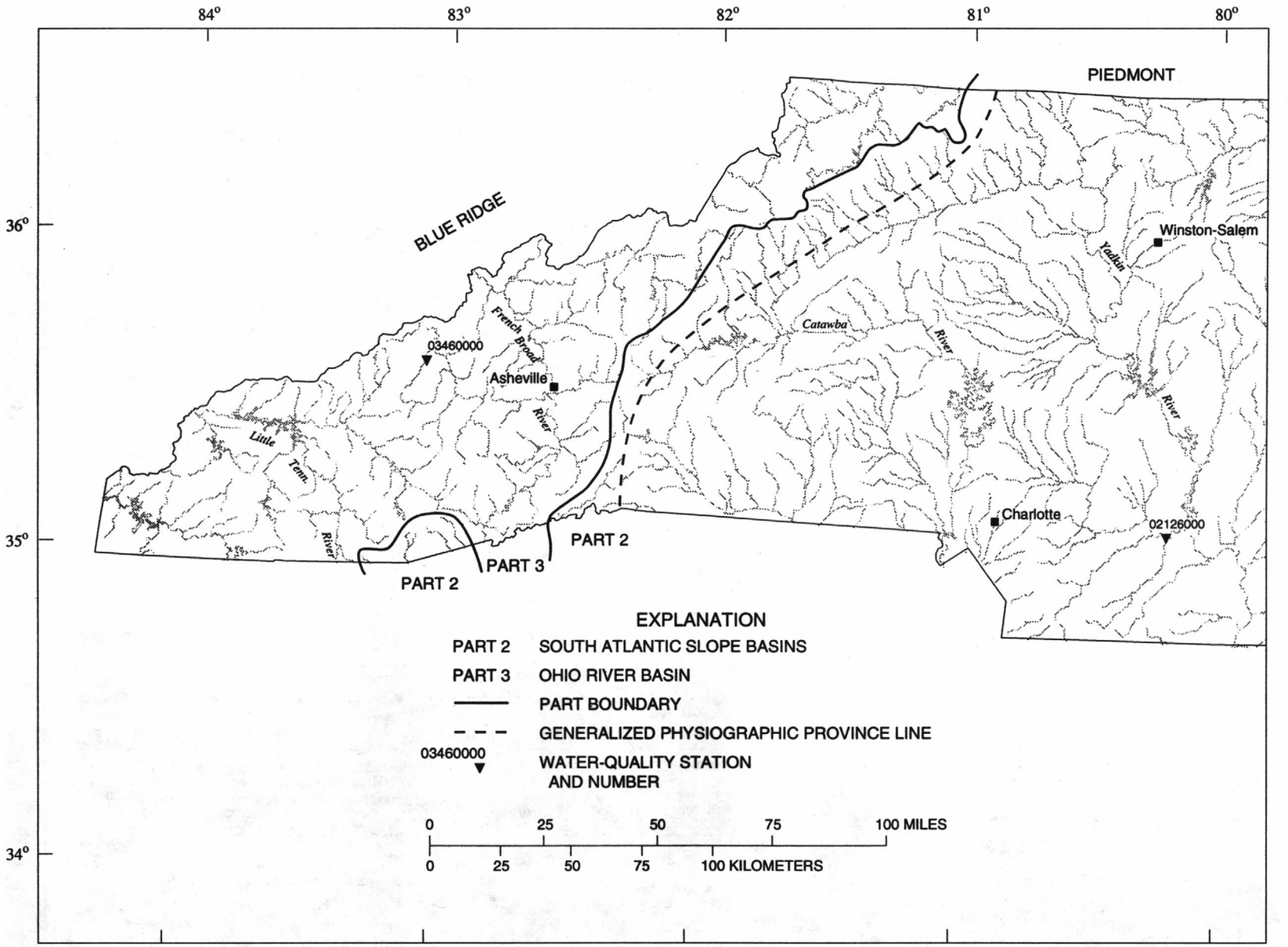


Figure 13.--Locations of water-quality stations in western North Carolina.

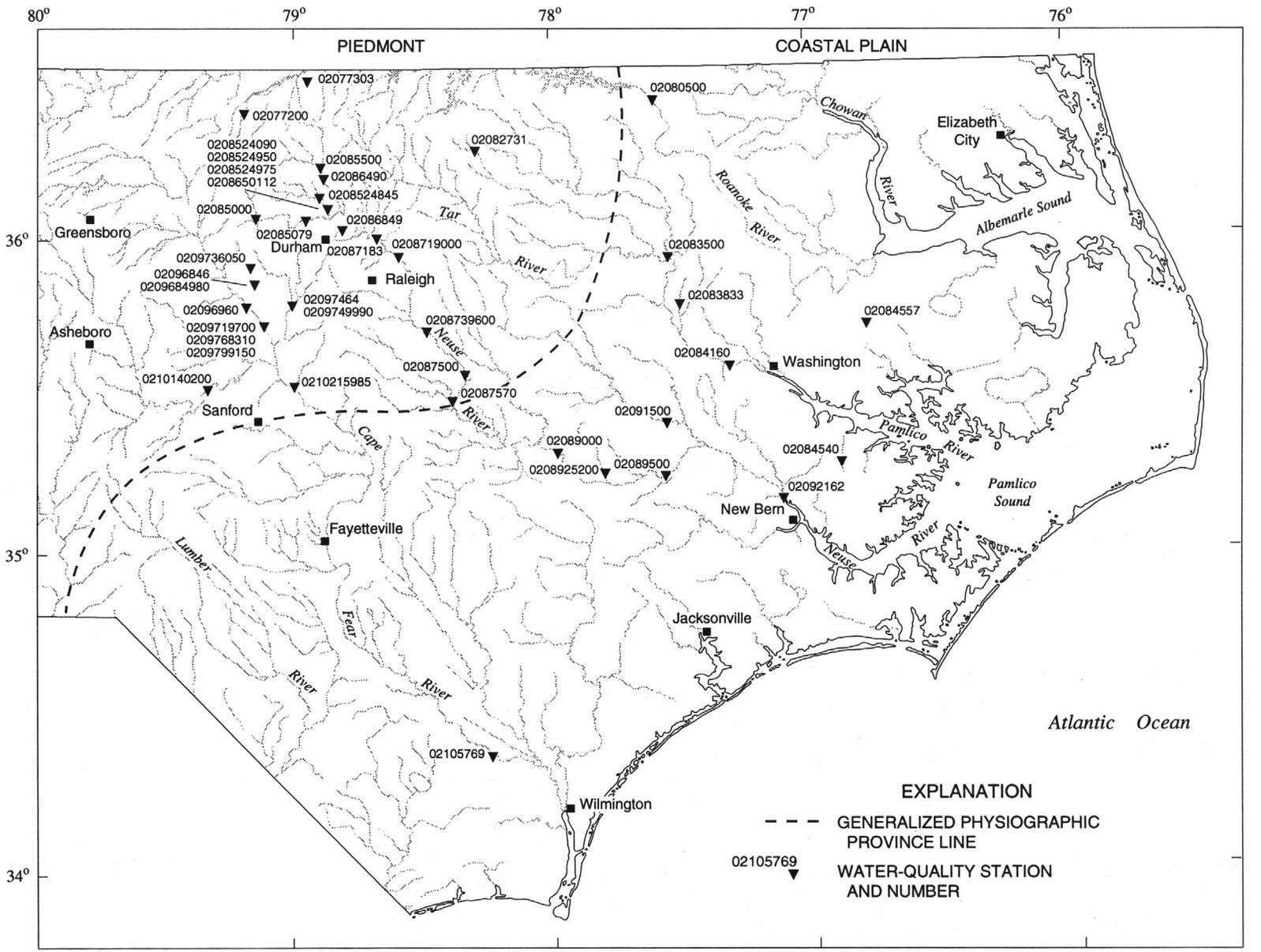


Figure 14.--Locations of water-quality stations in eastern North Carolina.

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 sea level. Prior to Dec. 1, 1958, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges and those below 50 ft^3/s, which are poor. Maximum gage height for period of record 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	28	47	55	810	276	408	91	59	14	290	19
2	1.1	35	45	56	e750	234	423	99	52	14	250	18
3	1.0	43	42	58	e860	224	394	76	46	17	277	17
4	2.7	51	41	60	e800	200	343	65	40	20	229	21
5	14	51	40	63	e700	175	290	60	37	18	171	28
6	40	48	39	60	e600	e160	245	77	33	17	151	128
7	47	52	40	78	e580	e300	266	171	30	17	169	291
8	34	127	41	137	499	480	298	162	27	18	150	198
9	40	146	59	192	572	605	309	198	26	48	101	89
10	58	104	124	179	647	649	462	247	30	41	65	74
11	66	137	120	182	634	652	446	224	38	25	45	e300
12	67	203	111	218	620	591	399	168	59	32	37	e850
13	57	238	138	372	580	494	369	113	72	390	36	1020
14	45	257	145	389	508	391	330	82	63	613	35	989
15	64	306	133	394	428	309	289	65	41	387	33	885
16	56	265	119	496	374	271	249	75	33	374	31	713
17	35	207	103	550	377	281	203	150	31	453	35	540
18	25	179	91	574	375	317	167	237	34	392	44	380
19	20	170	95	683	347	296	138	181	39	288	45	245
20	17	163	139	913	324	305	119	156	35	191	34	159
21	17	147	148	1010	604	315	112	145	35	116	27	111
22	16	126	125	1010	804	329	104	126	29	76	24	83
23	15	105	120	889	712	351	92	98	22	57	21	64
24	13	90	114	729	657	324	99	71	18	51	19	48
25	13	78	101	621	609	268	98	68	24	253	18	41
26	12	70	89	531	560	212	83	81	37	635	18	35
27	12	63	79	492	e500	169	74	77	32	771	21	32
28	19	57	70	772	422	166	66	78	24	660	28	29
29	20	53	64	829	347	387	60	91	17	556	25	34
30	24	50	58	817	---	441	69	85	14	470	21	48
31	27	---	56	823	---	390	---	71	---	381	20	---
TOTAL	878.9	3649	2736	14232	16600	10562	7004	3688	1077	7395	2470	7489
MEAN	28.4	122	88.3	459	572	341	233	119	35.9	239	79.7	250
MAX	67	306	148	1010	860	652	462	247	72	771	290	1020
MIN	1.0	28	39	55	324	160	60	60	14	14	18	17
CFSM	.13	.54	.39	2.04	2.54	1.51	1.04	.53	.16	1.06	.35	1.11
IN.	.15	.60	.45	2.35	2.74	1.75	1.16	.61	.18	1.22	.41	1.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

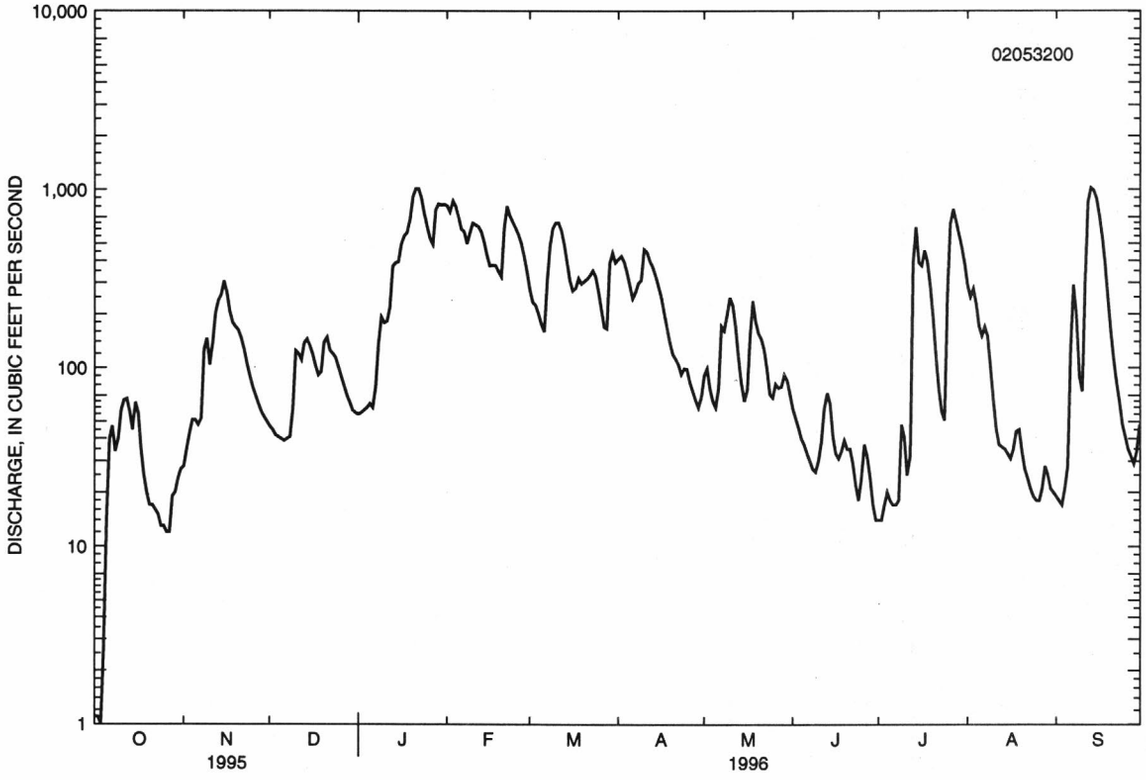
MEAN	111	102	201	410	490	482	313	150	113	107	167	87.4
MAX	1108	619	619	957	1135	1439	994	925	700	531	1131	809
(WY)	1960	1986	1990	1987	1960	1989	1983	1979	1979	1975	1992	1960
MIN	2.12	5.64	12.0	51.3	54.9	46.7	27.7	5.36	4.71	2.32	2.50	1.65
(WY)	1995	1982	1995	1981	1991	1988	1995	1994	1986	1983	1987	1995

CHOWAN RIVER BASIN

02053200 POTECASI CREEK NEAR UNION, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1959 - 1996	
ANNUAL TOTAL	49554.51		77780.9			
ANNUAL MEAN	136		213		227	
HIGHEST ANNUAL MEAN					458	1979
LOWEST ANNUAL MEAN					73.0	1981
HIGHEST DAILY MEAN	1590	Feb 19	1020	Sep 13	5380	Aug 18 1992
LOWEST DAILY MEAN	.91	Aug 26	1.0	Oct 3	.30	Jun 30 1959
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 21	14	Oct 21	.51	Jun 25 1959
INSTANTANEOUS PEAK FLOW			1030	Jan 21	5650	Aug 19 1992
INSTANTANEOUS PEAK STAGE			11.04	Jan 21	21.77*	Aug 19 1992
INSTANTANEOUS LOW FLOW			.94	Oct 4	.20	Jul 1 1959
ANNUAL RUNOFF (CFSM)	.60		.94		1.01	
ANNUAL RUNOFF (INCHES)	8.19		12.86		13.69	
10 PERCENT EXCEEDS	383		601		651	
50 PERCENT EXCEEDS	40		104		75	
90 PERCENT EXCEEDS	2.1		21		5.6	

e Estimated.
* 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 sea level (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.--Records poor. Entire basin above station canalized since July 1964. Excavation began downstream in July 1962 and reached the station in December 1962. Reach 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	5.7	6.6	9.5	125	36	87	27	6.2	4.5	57	2.8
2	2.4	8.6	6.6	9.7	200	43	77	22	5.3	4.8	150	2.6
3	2.3	15	6.5	10	261	46	53	18	4.9	4.8	76	2.3
4	33	12	6.4	9.8	130	38	41	15	4.9	4.1	262	8.1
5	81	8.4	6.1	9.8	87	35	34	13	5.9	3.6	276	43
6	49	6.9	6.3	9.4	70	36	33	29	4.9	3.5	135	273
7	33	21	7.6	24	64	78	71	28	4.4	4.1	60	188
8	22	74	7.4	49	105	179	56	23	4.4	4.5	33	65
9	15	26	46	31	212	111	128	21	7.7	6.5	22	33
10	9.9	16	44	26	143	72	144	18	11	18	16	20
11	7.6	16	23	25	102	57	84	17	23	11	12	e120
12	6.3	43	17	113	80	49	56	15	21	25	9.5	e399
13	5.8	27	14	116	64	43	43	14	15	511	8.8	155
14	5.7	52	12	90	56	38	36	13	10	145	8.5	84
15	67	56	11	109	52	37	32	13	7.3	121	7.1	50
16	40	30	11	129	60	48	29	19	6.1	63	6.1	32
17	19	22	9.6	87	79	49	25	63	5.5	60	6.0	33
18	12	17	8.9	75	73	49	22	28	5.2	39	148	41
19	8.9	14	33	239	59	46	20	16	5.0	24	40	29
20	7.3	12	41	243	74	45	19	10	7.6	18	18	22
21	6.8	11	27	101	614	38	18	7.6	10	13	9.3	16
22	6.3	9.4	21	67	313	33	17	6.0	5.4	11	6.3	13
23	5.9	8.6	17	52	168	30	15	5.0	4.6	11	4.7	11
24	5.8	8.2	15	58	117	27	19	4.7	4.5	47	3.9	9.0
25	5.8	7.7	13	82	81	25	19	4.9	5.5	145	6.7	7.9
26	5.3	7.7	12	55	63	24	17	4.7	5.5	407	6.6	7.3
27	5.4	7.1	12	264	52	23	16	5.2	5.2	93	8.0	6.5
28	9.1	6.9	11	383	46	77	15	31	4.4	41	15	5.7
29	7.7	7.0	11	161	40	191	15	21	4.2	49	7.2	7.2
30	6.7	6.7	11	118	---	94	e14	12	4.1	48	4.9	9.7
31	5.8	---	9.8	144	---	64	---	8.1	---	37	3.5	---
TOTAL	500.2	562.9	483.8	2899.2	3590	1761	1255	532.2	218.7	1977.4	1427.1	1696.1
MEAN	16.1	18.8	15.6	93.5	124	56.8	41.8	17.2	7.29	63.8	46.0	56.5
MAX	81	74	46	383	614	191	144	63	23	511	276	399
MIN	2.3	5.7	6.1	9.4	40	23	14	4.7	4.1	3.5	3.5	2.3
CFSM	.25	.30	.25	1.48	1.96	.90	.66	.27	.12	1.01	.73	.89
IN.	.29	.33	.28	1.70	2.11	1.03	.74	.31	.13	1.16	.84	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996*, BY WATER YEAR (WY)

MEAN	35.9	23.6	47.5	104	124	131	74.7	47.1	32.9	33.5	49.4	22.9
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	3.10	7.66	18.9	17.3	8.73	4.21	5.43	3.55	3.59	3.41
(WY)	1977	1982	1995	1981	1968	1988	1985	1986	1986	1987	1983	1980

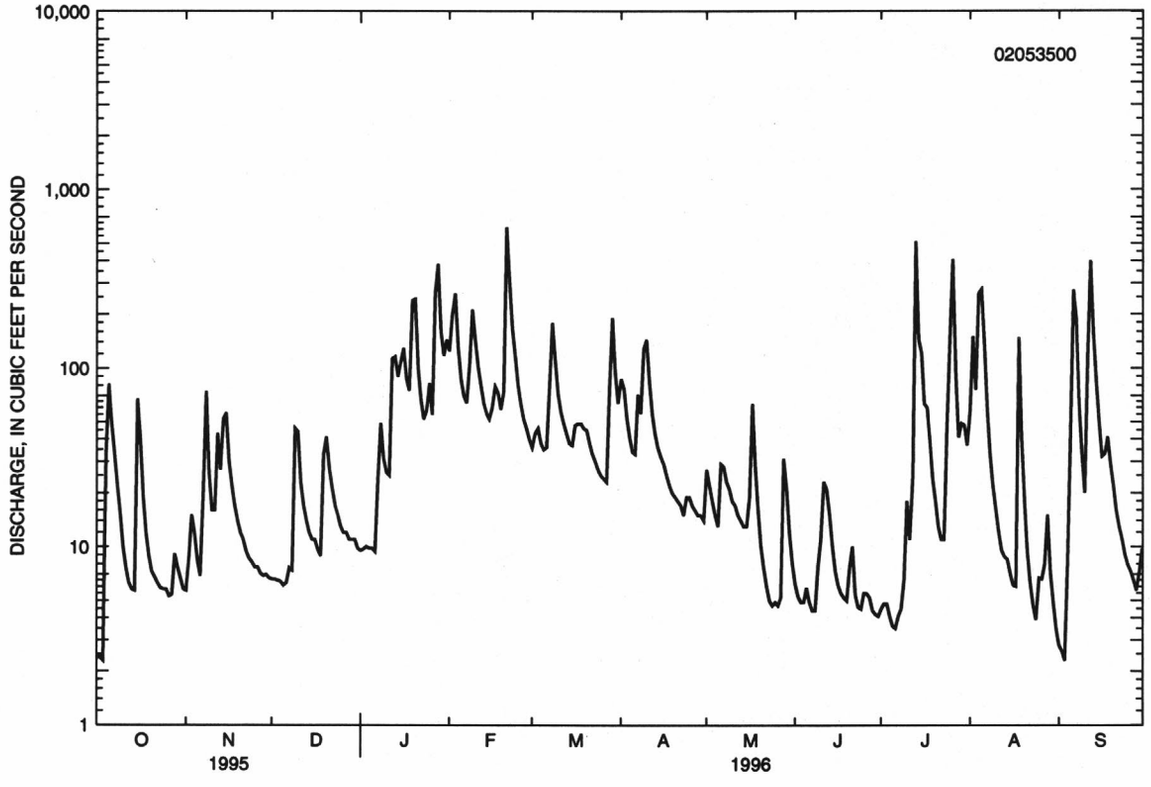
CHOWAN RIVER BASIN

02053500 AHOSKIE CREEK AT AHOSKIE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996*	
ANNUAL TOTAL	10695.0		16903.6			
ANNUAL MEAN	29.3		46.2		60.3	
HIGHEST ANNUAL MEAN					109	1979
LOWEST ANNUAL MEAN					14.7	1981
HIGHEST DAILY MEAN	797	Feb 17	614	Feb 21	2490	Oct 6 1964
LOWEST DAILY MEAN	1.4	Aug 24	2.3	Oct 3	.61	Oct 8 1988
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 19	4.2	Jun 30	.85	Sep 27 1988
INSTANTANEOUS PEAK FLOW			696	Feb 21	2580	Oct 5 1964
INSTANTANEOUS PEAK STAGE			8.23	Feb 21	12.49	Jun 1 1984
INSTANTANEOUS LOW FLOW			2.2	Oct 3	.45*	Oct 8 1988
ANNUAL RUNOFF (CFSM)	.46		.73		.95	
ANNUAL RUNOFF (INCHES)	6.29		9.93		12.94	
10 PERCENT EXCEEDS	49		117		138	
50 PERCENT EXCEEDS	10		19		17	
90 PERCENT EXCEEDS	2.6		5.3		4.4	

e Estimated.

* Canalized period only (1964-1996). See REMARKS.



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 current year. Monthly discharge only for some periods, published in WSP 1303.

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

GAGE.--Water-stage recorder. Datum of gage is 831.99 ft above sea level. Prior to Nov. 15, 1929, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good except those for discharges above 1,000 ft^3/s, which are fair. Since 1938, considerable diurnal fluctuation and regulation by Talbott and Townes Reservoirs (stations 02067800 and 02067820, respectively) and Pinnacles Hydroelectric Plant in Virginia, 28 mi upstream. Minimum discharge for current water year also occurred Oct. 3.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	107	125	104	242	213	284	316	163	120	191	143
2	69	108	104	109	316	154	283	220	119	179	122	154
3	137	107	100	110	254	118	225	209	120	146	107	497
4	195	110	107	120	284	154	174	182	133	104	120	482
5	565	95	110	106	324	112	172	174	163	99	139	429
6	255	100	111	106	214	131	199	214	172	110	113	943
7	173	207	120	157	180	152	203	317	166	129	172	341
8	106	211	175	232	211	201	168	253	227	136	119	228
9	96	191	125	200	413	230	204	216	858	195	136	215
10	92	168	111	139	354	130	239	214	795	135	123	388
11	91	411	198	136	308	148	196	202	603	108	137	470
12	87	483	165	198	285	145	145	213	445	129	1200	440
13	84	306	118	138	243	130	144	175	328	139	1380	394
14	108	255	125	120	258	132	165	151	264	110	492	315
15	121	233	104	127	302	152	172	158	276	135	352	303
16	89	193	100	166	232	159	201	403	316	239	325	318
17	83	137	97	164	237	261	187	316	261	150	307	413
18	81	110	96	199	240	224	162	225	227	160	280	238
19	81	112	132	1160	263	461	147	211	211	140	190	187
20	81	119	147	502	287	403	148	209	221	139	138	175
21	156	100	156	297	258	237	150	201	190	128	142	200
22	101	109	147	255	220	193	143	177	180	103	161	251
23	89	126	116	208	251	176	151	143	177	136	199	209
24	86	93	134	287	236	172	160	120	150	98	345	189
25	88	101	145	313	223	199	153	169	187	119	232	198
26	94	102	120	242	245	194	161	201	171	236	141	208
27	98	101	131	1460	216	156	156	200	125	128	369	211
28	104	110	146	540	157	257	145	398	121	139	300	223
29	87	125	132	414	133	302	146	211	113	121	212	380
30	84	150	129	292	---	225	431	159	119	123	187	249
31	86	---	106	250	---	209	---	140	---	143	184	---
TOTAL	3738	4880	3932	8851	7386	6130	5614	6697	7601	4276	8615	9391
MEAN	121	163	127	286	255	198	187	216	253	138	278	313
MAX	565	483	198	1460	413	461	431	403	858	239	1380	943
MIN	69	93	96	104	133	112	143	120	113	98	107	143
†	+15	+15	-13	+28	-12	+13	+11	+11	+7	-4	-1	+2
‡	136	178	114	314	243	211	198	227	260	134	277	315

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996*@, BY WATER YEAR (WY)

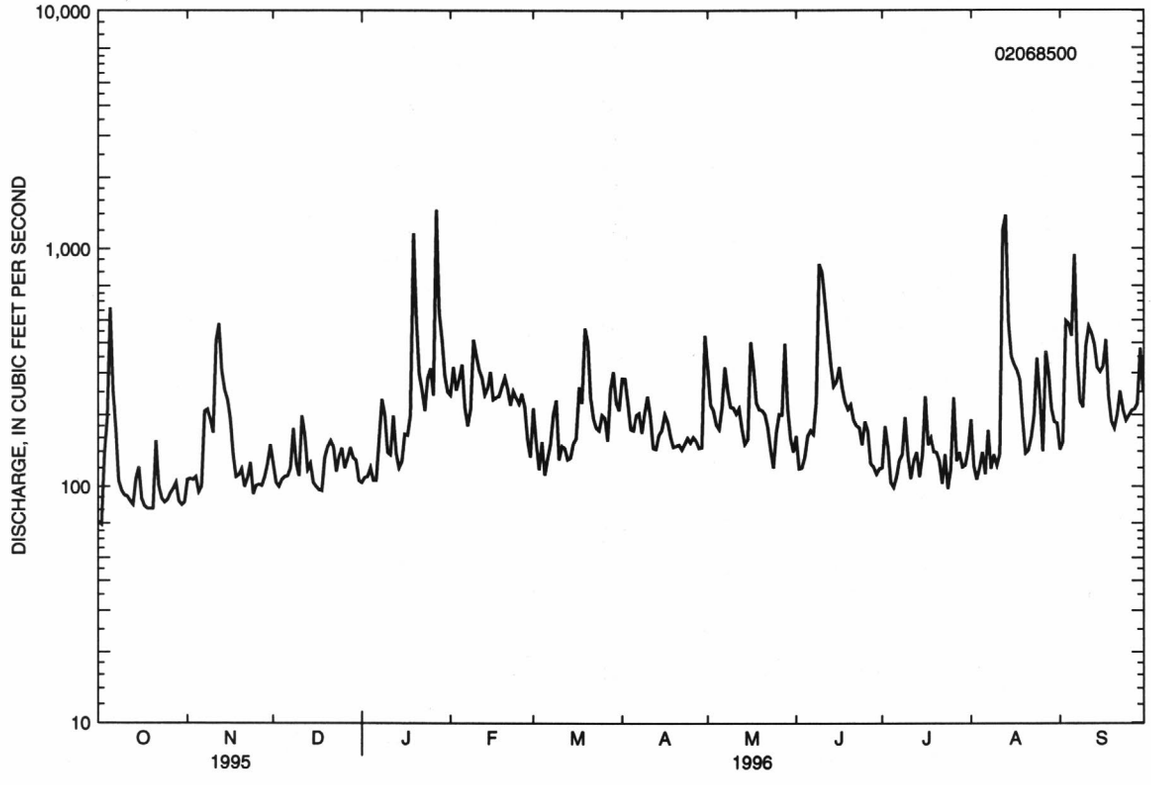
MEAN	153	159	176	200	222	261	270	221	200	170	170	152
MAX	543	327	337	424	463	571	677	405	438	373	514	630
(WY)	1938	1980	1974	1978	1960	1993	1980	1949	1972	1938	1940	1979
MIN	49.7	61.3	85.6	76.2	94.9	94.2	120	109	78.3	54.8	52.5	50.4
(WY)	1964	1954	1961	1956	1956	1981	1967	1986	1967	1986	1981	1968

ROANOKE RIVER BASIN

02068500 DAN RIVER NEAR FRANCISCO, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 1996*@	
ANNUAL TOTAL	61039		77111			
ANNUAL MEAN	167	‡163	211	‡217	197	‡186
HIGHEST ANNUAL MEAN					300	1960
LOWEST ANNUAL MEAN					97.5	1956
HIGHEST DAILY MEAN	1870	Jan 15	1460	Jan 27	6830	Sep 22 1979
LOWEST DAILY MEAN	69	Oct 2	69	Oct 2	27	Aug 24 1981
ANNUAL SEVEN-DAY MINIMUM	73	Sep 26	92	Oct 24	28	Aug 24 1981
INSTANTANEOUS PEAK FLOW			5070	Jan 27	21200	Aug 17 1985
INSTANTANEOUS PEAK STAGE			7.39	Aug 13	19.50	Aug 17 1985
INSTANTANEOUS LOW FLOW			68*	Oct 2	7.1	Sep 8 1932
ANNUAL RUNOFF (CFSM)	1.30		1.63		1.52	
ANNUAL RUNOFF (INCHES)	17.60		22.24		20.72	
10 PERCENT EXCEEDS	283		332		318	
50 PERCENT EXCEEDS	136		170		157	
90 PERCENT EXCEEDS	85		104		86	

† Change in contents, equivalent in cubic feet per second, in Talbott and Townes Reservoirs provided by City of Danville, Virginia.
‡ Adjusted for change in contents.
* Regulated period only (1938-1996). See REMARKS.
@ See PERIOD OF RECORD.



ROANOKE RIVER BASIN

02070500 MAYO RIVER NEAR PRICE, NC

LOCATION.--Lat 36°32'05", long 79°59'30", Rockingham County, Hydrologic Unit 03010103, on right bank 350 ft downstream from Anglins Bridge on Secondary Road 1358, 0.5 mi downstream from confluence of North and South Mayo Rivers, 0.8 mi downstream from Virginia-North Carolina State line, and 4.0 mi west of Price.

DRAINAGE AREA.--242 mi^2, revised.

PERIOD OF RECORD.--July 1929 to September 1971. October 1993 to current year.

REVISED RECORDS.--WSP 2104: Drainage area. WRIR 96-4154: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 689.95 ft above sea level. Prior to Oct. 29, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for current water year, result of freezeup.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	189	194	182	380	271	e390	551	289	237	293	e260
2	110	203	187	192	432	272	e570	373	275	257	264	e230
3	109	207	182	212	437	265	e430	327	268	317	225	e920
4	236	211	181	187	353	254	e400	301	273	240	e210	e4100
5	e1100	193	177	176	303	e250	e390	284	309	224	e200	e1900
6	e860	182	175	180	418	e260	e380	333	262	220	e200	e4200
7	e340	263	182	142	385	e290	e390	732	250	217	e450	1260
8	e240	421	186	277	349	e400	e370	506	360	221	e280	582
9	e190	267	197	321	856	e370	e380	383	4430	272	e250	488
10	e180	229	204	274	937	e330	e360	330	4280	224	e250	410
11	e160	508	174	245	692	e300	e330	304	1020	209	e230	448
12	e155	1380	209	219	558	e290	e320	294	606	219	e680	451
13	e150	452	180	236	440	e280	e310	270	476	229	e2800	397
14	e200	338	178	238	397	e270	e300	266	405	207	576	351
15	e500	287	177	274	371	e250	e320	270	399	227	370	309
16	e270	254	178	392	362	e290	e380	1370	358	226	302	320
17	e160	237	173	389	335	e370	e350	779	348	208	306	468
18	157	226	174	707	322	e460	e320	464	320	195	e315	340
19	153	218	214	4180	311	e850	e290	374	370	190	e310	303
20	167	210	251	1200	359	e1400	e300	331	608	185	e300	286
21	315	205	217	602	437	e560	e320	303	553	174	e270	279
22	246	197	200	454	367	e430	e300	283	334	168	e260	311
23	196	192	191	384	355	e380	e300	267	301	170	e250	276
24	180	191	216	507	335	e340	e360	260	296	177	e240	259
25	171	188	249	572	311	e330	e270	298	295	196	e340	257
26	164	185	240	409	304	e350	e280	299	274	396	e320	258
27	167	184	223	2660	299	e320	297	545	264	225	e290	270
28	256	182	216	1070	293	e600	263	1140	260	325	e290	269
29	206	222	222	619	279	e1100	261	457	247	374	e320	491
30	181	220	234	494	---	e500	477	365	241	308	e290	317
31	175	---	192	433	---	e420	---	316	---	240	e270	---
TOTAL	7804	8441	6173	18427	11977	13052	10408	13375	18971	7277	11951	21010
MEAN	252	281	199	594	413	421	347	431	632	235	386	700
MAX	1100	1380	251	4180	937	1400	570	1370	4430	396	2800	4200
MIN	109	182	173	142	279	250	261	260	241	168	200	230
CFSM	.96	1.08	.76	2.28	1.58	1.61	1.33	1.65	2.42	.90	1.48	2.68
IN.	1.11	1.20	.88	2.63	1.71	1.86	1.48	1.91	2.70	1.04	1.70	2.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1996@, BY WATER YEAR (WY)

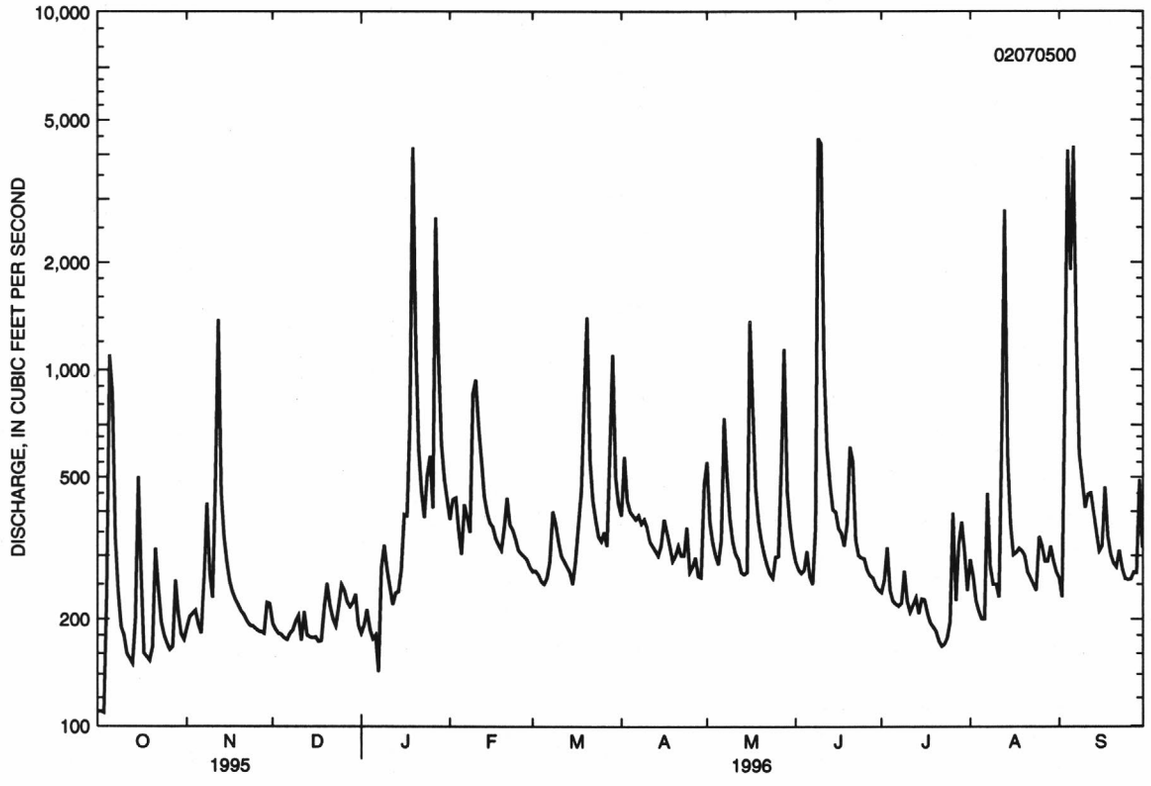
MEAN	280	249	290	362	396	427	394	324	293	260	264	251
MAX	1250	578	558	1022	900	982	694	659	654	609	943	1002
(WY)	1938	1958	1949	1936	1960	1994	1958	1949	1943	1949	1940	1945
MIN	84.5	95.9	118	112	139	221	175	157	123	103	89.9	62.0
(WY)	1932	1932	1956	1956	1931	1940	1967	1956	1956	1966	1930	1954

ROANOKE RIVER BASIN

02070500 MAYO RIVER NEAR PRICE, NC

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1929 - 1996@	
ANNUAL TOTAL	101056		148866			
ANNUAL MEAN	277		407		315	
HIGHEST ANNUAL MEAN					479	1949
LOWEST ANNUAL MEAN					170	1956
HIGHEST DAILY MEAN	2510	Jan 16	4430	Jun 9	11400	Sep 18 1945
LOWEST DAILY MEAN	90	Aug 26	109	Oct 3	35	Oct 8 1954
ANNUAL SEVEN-DAY MINIMUM	103	Sep 10	180	Jul 18	45	Sep 19 1956
INSTANTANEOUS PEAK FLOW			9860	Jun 9	30000	Oct 19 1937
INSTANTANEOUS PEAK STAGE			8.62	Jun 9	14.00	Oct 19 1937
INSTANTANEOUS LOW FLOW			97*	Jan 7	32	Oct 8 1954
ANNUAL RUNOFF (CFSM)	1.06		1.56		1.21	
ANNUAL RUNOFF (INCHES)	14.40		21.22		16.42	
10 PERCENT EXCEEDS	417		571		500	
50 PERCENT EXCEEDS	226		290		236	
90 PERCENT EXCEEDS	130		182		128	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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.--1,035 mi^2, revised

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

REVISED RECORDS.--WDR NC-72-1: 1945(M). WDR NC-81-1: Drainage area. WRIR 96-4154: Drainage area.

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

REMARKS.--Records poor. Slight fluctuation and regulation at low flow caused by Talbott and Townes Reservoirs (stations 02067800 and 02067820). Maximum gage height for period of record, from high water mark in gage well. Minimum discharge for the current water year also occurred Oct. 4.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	435	634	704	649	1290	861	1230	2330	930	635	810	809
2	429	654	667	658	1780	894	1770	1310	843	795	1100	722
3	424	701	633	685	2660	855	1370	1080	752	674	738	3780
4	495	743	610	706	1560	792	1220	977	794	e590	637	14900
5	3010	769	602	692	1200	799	1200	902	784	e570	621	6100
6	2790	740	599	676	1350	820	1150	1240	740	559	616	15000
7	1060	792	605	661	1250	915	1160	2800	1070	558	1400	9330
8	771	2100	624	563	1330	1270	1130	1830	3960	583	831	2150
9	590	1230	663	680	3370	1200	1160	1320	14400	837	761	1470
10	522	1010	701	792	4990	1100	1140	1090	6360	700	786	1240
11	491	1310	662	820	3380	986	1000	1000	2470	588	706	1730
12	473	5240	628	772	2480	960	941	930	1700	559	1200	1580
13	456	2160	672	826	1750	953	903	889	1410	620	9450	1270
14	507	1750	652	854	1460	884	885	843	1140	588	2620	1150
15	1550	1150	635	879	1280	826	906	826	1070	597	1420	1120
16	948	997	631	1410	1240	862	1090	2430	1030	637	1120	1110
17	637	886	616	1600	1150	1190	1070	2730	960	666	1070	2130
18	545	793	603	2340	1090	1260	949	1410	894	578	1070	1320
19	506	744	619	11700	1060	2190	903	1120	1390	563	1060	1120
20	505	709	702	8990	1110	4100	880	967	1520	541	884	1060
21	937	692	762	2470	1490	1830	922	840	1000	516	807	1040
22	1180	666	753	1680	1290	1300	899	763	865	510	769	1040
23	843	639	731	1290	1180	1140	893	707	815	486	759	1060
24	692	651	672	1530	1240	1050	1050	784	799	620	737	999
25	577	639	632	2490	1150	994	839	848	810	707	1110	938
26	542	624	655	1580	1100	1010	826	923	729	1350	964	906
27	539	621	653	7640	1100	966	922	5080	689	871	895	899
28	2460	619	642	6100	1070	1480	850	2370	661	628	882	881
29	1480	635	614	2370	999	3120	804	1380	643	1050	994	1190
30	975	719	603	1790	---	1680	1070	1110	632	764	937	1140
31	681	---	627	1480	---	1300	---	974	---	680	868	---
TOTAL	28050	31617	20172	67373	47399	39587	31132	43803	51860	20620	38622	79184
MEAN	905	1054	651	2173	1634	1277	1038	1413	1729	665	1246	2639
MAX	3010	5240	762	11700	4990	4100	1770	5080	14400	1350	9450	15000
MIN	424	619	599	563	999	792	804	707	632	486	616	722
CFSM	.86	1.00	.62	2.06	1.55	1.21	.99	1.34	1.64	.63	1.18	2.51
IN.	.99	1.12	.71	2.38	1.67	1.40	1.10	1.55	1.83	.73	1.36	2.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	912	927	1141	1411	1629	1898	1691	1313	1108	928	851	874
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

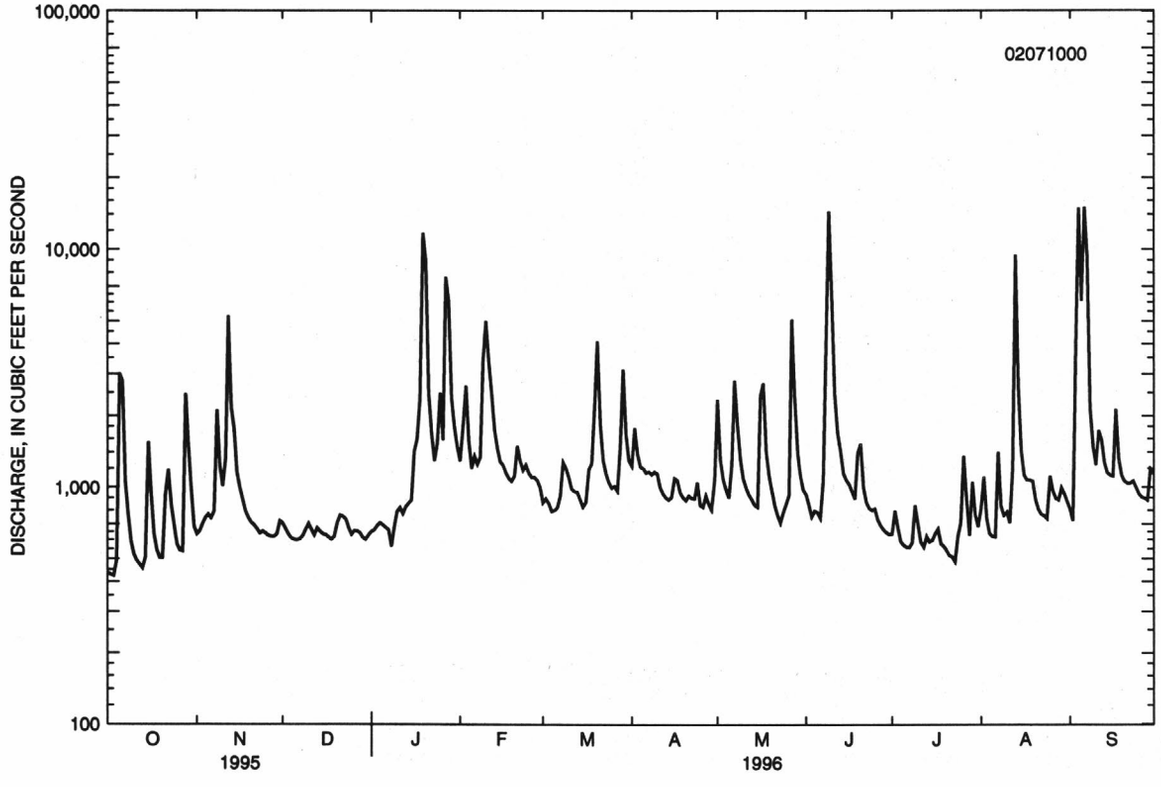
ROANOKE RIVER BASIN

02071000 DAN RIVER NEAR WENTWORTH, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	337347		499419			
ANNUAL MEAN	924		1365		1223	
HIGHEST ANNUAL MEAN					1985	1960
LOWEST ANNUAL MEAN					587	1981
HIGHEST DAILY MEAN	9360	Jan 15	15000	Sep 6	47800	Jun 22 1972
LOWEST DAILY MEAN	297	Aug 26	424	Oct 3	107	Oct 2 1954
ANNUAL SEVEN-DAY MINIMUM	340	Sep 10	544	Oct 8	126	Oct 6 1954
INSTANTANEOUS PEAK FLOW			21400	Sep 6	54200	Jun 22 1972
INSTANTANEOUS PEAK STAGE			21.96	Sep 6	31.60*	Jun 22 1972
INSTANTANEOUS LOW FLOW			420*	Oct 3	65	Oct 8 1954
ANNUAL RUNOFF (CFSM)	.88		1.30		1.16	
ANNUAL RUNOFF (INCHES)	11.92		17.64		15.78	
10 PERCENT EXCEEDS	1510		2230		2060	
50 PERCENT EXCEEDS	702		910		836	
90 PERCENT EXCEEDS	425		604		420	

e Estimated.

* See REMARKS.



ROANOKE RIVER BASIN

02074000 SMITH RIVER AT EDEN, NC

LOCATION.--Lat 36°31'31", long 79°45'57", Rockingham County, Hydrologic Unit 03010103, on right bank at Eden, 0.3 mi downstream 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 "Smith River at Spray".

REVISED RECORDS.--WSP 1433: 1946.

GAGE.--Water-stage recorder. Datum of gage is 539.56 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	385	359	233	1300	765	914	1210	1220	385	741	279
2	252	257	210	315	1310	698	1460	869	288	644	707	267
3	392	499	263	205	1300	242	1180	806	455	798	570	3010
4	723	271	386	170	362	515	1130	557	837	533	534	6440
5	1300	301	330	155	634	535	1090	402	930	594	405	2640
6	1060	410	328	151	1360	562	930	636	414	590	604	14100
7	463	483	326	e150	746	628	351	1180	380	305	649	4650
8	274	760	345	e180	741	676	683	1060	924	305	608	2960
9	365	498	232	e220	1250	440	899	968	2910	602	584	2560
10	410	400	307	e260	1600	334	855	1150	5640	597	600	2290
11	409	600	404	e230	1210	496	844	1010	3990	624	314	2400
12	351	2220	320	e225	989	543	838	287	4500	648	1470	2290
13	324	795	329	e210	848	511	621	419	2270	542	4070	1460
14	657	558	288	e150	732	511	357	714	1970	237	1910	1390
15	810	384	356	e190	693	538	581	632	1560	348	1830	1130
16	394	454	200	e440	967	381	762	850	1130	731	1810	735
17	481	420	258	e1000	805	1590	728	1170	492	622	1810	1480
18	371	239	391	e2100	347	941	817	1180	655	576	547	1210
19	380	300	397	e5100	599	2200	810	385	576	593	374	1170
20	461	422	386	e2000	1080	2130	551	1140	682	612	823	1120
21	878	332	227	e2100	1290	1620	363	1290	654	204	810	990
22	491	325	386	e1950	1400	1380	622	842	656	316	792	409
23	426	231	190	1070	1360	1280	677	768	295	560	837	450
24	281	339	155	1420	1240	714	688	912	427	565	781	865
25	331	296	185	1410	314	628	649	967	934	573	352	402
26	328	260	296	1230	575	872	695	341	766	1150	342	929
27	466	359	185	3980	812	840	510	677	764	645	599	1010
28	712	330	155	1900	807	1380	380	2260	732	500	669	899
29	424	396	143	3280	777	1650	587	986	771	624	612	765
30	447	430	136	2080	---	895	1150	1380	234	724	591	609
31	371	---	213	1900	---	568	---	1230	---	668	533	---
TOTAL	15147	13954	8686	36004	27448	27063	22722	28278	38056	17415	27878	60909
MEAN	489	465	280	1161	946	873	757	912	1269	562	899	2030
MAX	1300	2220	404	5100	1600	2200	1460	2260	5640	1150	4070	14100
MIN	115	231	136	150	314	242	351	287	234	204	314	267
†	+19	+112	+49	+122	-3	+81	-17	-22	+24	-43	-12	-35
‡	508	577	329	1283	943	954	740	890	1293	519	887	1955

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996*, BY WATER YEAR (WY)

MEAN	518	507	586	694	728	910	899	711	650	517	500	537
MAX	1572	1530	1025	1453	1521	2519	3016	1567	2026	1374	1454	2030
(WY)	1990	1986	1973	1979	1960	1993	1987	1978	1972	1989	1985	1996
MIN	201	211	273	291	325	331	294	266	213	214	194	248
(WY)	1952	1982	1981	1989	1968	1967	1967	1964	1964	1981	1953	1951

ROANOKE RIVER BASIN

02074000 SMITH RIVER AT EDEN, NC--Continued

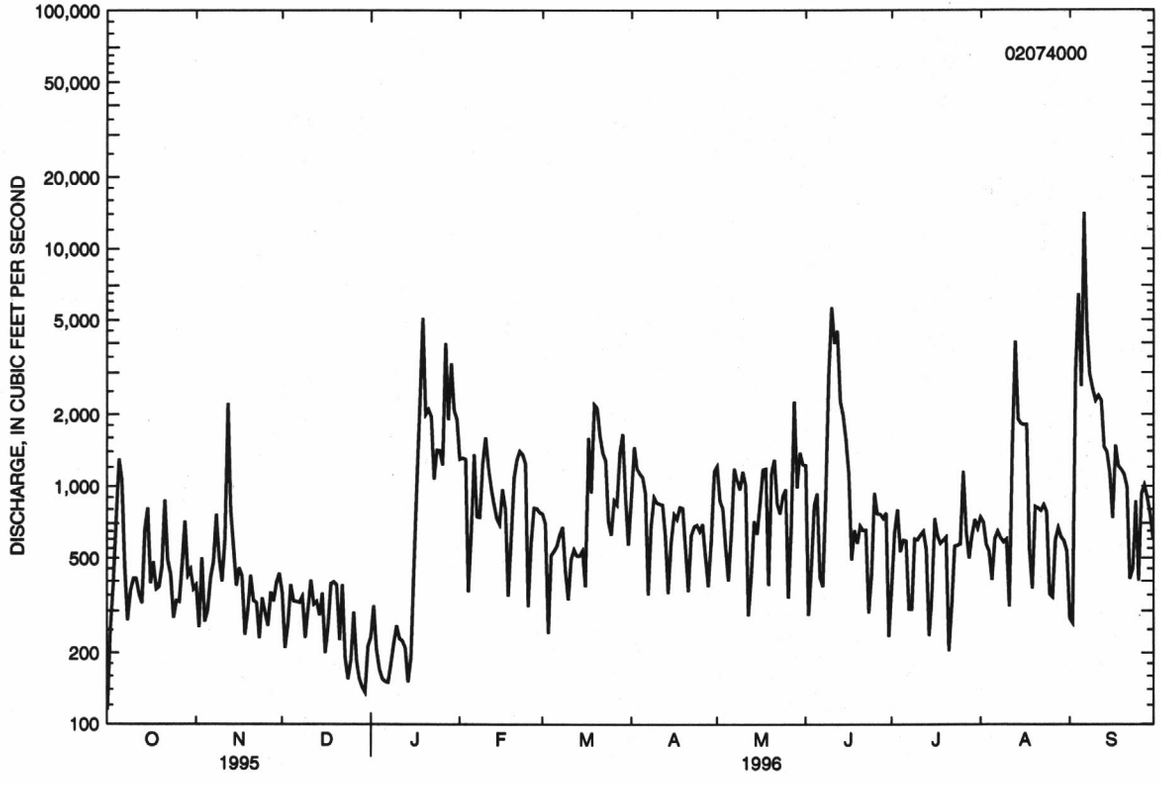
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996*	
ANNUAL TOTAL	216342		323560			
ANNUAL MEAN	593	‡588	884	‡907	646	‡651
HIGHEST ANNUAL MEAN					1010	1987
LOWEST ANNUAL MEAN					309	1981
HIGHEST DAILY MEAN	7620	Jun 29	14100	Sep 6	16700	Jun 21 1972
LOWEST DAILY MEAN	115	Oct 1	115	Oct 1	46	Aug 14 1967
ANNUAL SEVEN-DAY MINIMUM	179	Dec 24	176	Jan 3	130	Aug 21 1964
INSTANTANEOUS PEAK FLOW			23100	Sep 6	24800	Jun 21 1972
INSTANTANEOUS PEAK STAGE			15.61	Sep 6	16.24	Jun 21 1972
INSTANTANEOUS LOW FLOW			105	Oct 1	38	Aug 7 1967
10 PERCENT EXCEEDS	933		1630		1170	
50 PERCENT EXCEEDS	471		622		455	
90 PERCENT EXCEEDS	251		260		226	

e Estimated.

† Change in contents, equivalent in cubic feet per second, in Philpott Lake provided by U.S. Army Corps of Engineers.

‡ Adjusted for change in contents.

* For regulated period (1951-1996) 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 sea level. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges and those below 5 ft^3/s, which are poor. Periods of no flow occur most years. Maximum gage-height and discharge for period of record occurred Aug. 27, 1995; discharge not determined. Maximum discharge for the current water year, from rating curve extended above 3,300 ft^3/s, by logarithmic plotting.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	49	62	25	58	31	95	92	14	1.7	62	1.8
2	2.1	46	46	29	90	31	206	46	12	1.4	50	1.7
3	1.8	47	37	41	148	29	90	34	11	1.6	26	6.0
4	3.9	57	34	31	74	26	66	28	11	1.6	16	23
5	63	45	30	25	61	26	53	24	10	1.3	10	13
6	92	38	28	24	52	32	46	33	9.4	.90	7.7	3800
7	38	122	33	24	48	85	44	140	8.9	.83	16	495
8	24	331	39	41	84	211	39	88	8.6	3.6	18	80
9	18	101	96	36	182	101	74	52	8.6	2.2	9.4	44
10	16	66	97	29	116	68	69	39	12	2.1	8.1	50
11	15	91	56	26	80	55	51	32	9.8	1.4	6.9	616
12	14	295	44	27	61	49	43	32	e7.6	.94	4.9	171
13	13	112	40	26	50	44	39	25	e8.6	1.8	28	76
14	16	79	36	27	47	40	38	23	e7.9	4.0	21	45
15	58	65	33	50	44	38	34	21	e7.0	2.6	11	31
16	32	50	32	122	44	37	43	59	e6.3	2.2	7.9	34
17	21	43	29	128	43	109	38	81	e5.9	1.4	5.5	81
18	18	38	27	230	40	90	32	40	e5.3	1.0	4.3	34
19	16	35	48	933	40	210	30	29	e4.9	.79	3.8	23
20	102	34	67	403	123	314	29	24	e4.0	.69	3.5	19
21	1610	33	48	114	167	101	35	20	e3.7	.52	3.4	16
22	158	29	39	80	86	69	30	16	e3.1	.38	2.8	20
23	72	25	33	66	68	55	27	14	e2.9	.31	2.4	17
24	49	25	30	134	57	47	25	13	e2.8	.24	2.7	12
25	39	32	28	173	48	42	23	13	e2.7	42	5.2	11
26	32	28	27	86	43	39	24	14	e2.6	171	3.5	9.8
27	43	25	25	405	40	34	29	18	e2.5	25	3.0	10
28	1190	24	24	264	37	71	22	39	e2.2	15	3.1	9.5
29	160	99	22	102	34	117	20	24	1.9	8.6	2.6	18
30	76	112	21	78	---	70	71	24	1.7	6.2	2.4	16
31	54	---	23	68	---	55	---	18	---	5.9	2.0	---
TOTAL	4048.8	2176	1234	3847	2065	2326	1465	1155	198.9	309.20	353.1	5783.8
MEAN	131	72.5	39.8	124	71.2	75.0	48.8	37.3	6.63	9.97	11.4	193
MAX	1610	331	97	933	182	314	206	140	14	171	62	3800
MIN	1.8	24	21	24	34	26	20	13	1.7	.24	2.0	1.7
CFSM	2.85	1.58	.87	2.70	1.55	1.63	1.06	.81	.14	.22	.25	4.20
IN.	3.28	1.76	1.00	3.12	1.67	1.89	1.19	.94	.16	.25	.29	4.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	25.6	28.9	47.4	86.3	90.9	92.7	57.7	34.8	26.6	25.6	24.0	23.3
MAX	131	137	144	278	244	266	172	184	233	274	264	193
(WY)	1996	1973	1973	1978	1979	1975	1978	1978	1995	1975	1995	1996
MIN	.000	2.63	4.77	6.15	19.7	23.1	8.63	4.30	1.80	.11	.026	.000
(WY)	1969	1968	1966	1981	1968	1976	1995	1995	1986	1966	1987	1968

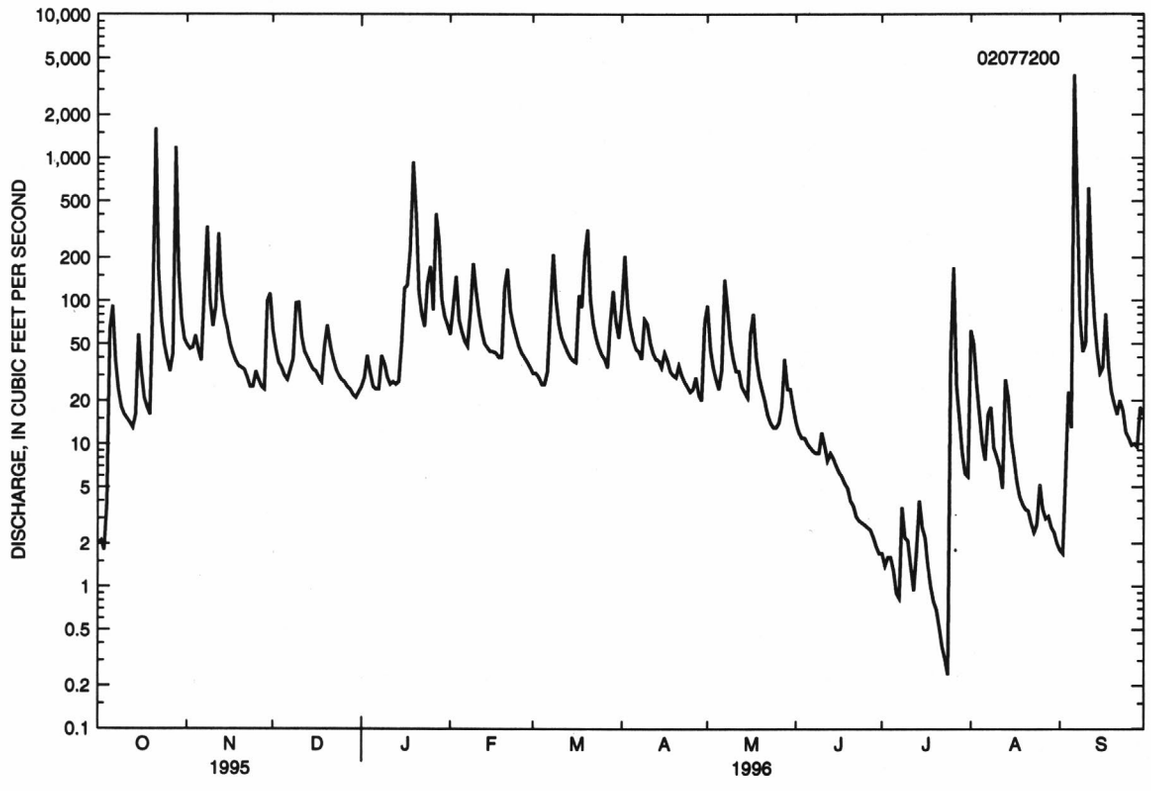
ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996		
ANNUAL TOTAL	31096.26		24961.80				
ANNUAL MEAN	85.2		68.2		46.8		
HIGHEST ANNUAL MEAN					92.3		1975
LOWEST ANNUAL MEAN					15.2		1981
HIGHEST DAILY MEAN	7400	Aug 28	3800	Sep 6	7400	Aug 28	1995
LOWEST DAILY MEAN	.38	Aug 26	.24	Jul 24	0*	Jul 9	1966
ANNUAL SEVEN-DAY MINIMUM	.47	Aug 20	.56	Jul 18	0*	Jul 9	1966
INSTANTANEOUS PEAK FLOW			9140*	Sep 6	NOT DETERMINED*		
INSTANTANEOUS PEAK STAGE			40.47	Sep 6	48.53*	Aug 27	1995
INSTANTANEOUS LOW FLOW			.13	Jul 25	0*	Jul 8	1966
ANNUAL RUNOFF (CFSM)	1.86		1.49		1.02		
ANNUAL RUNOFF (INCHES)	25.20		20.23		13.87		
10 PERCENT EXCEEDS	103		104		90		
50 PERCENT EXCEEDS	19		32		15		
90 PERCENT EXCEEDS	1.8		2.7		1.0		

e Estimated.

* See REMARKS.



ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1964 to current year.

INSTRUMENTATION.--Water-temperature recorder since May 1964.

REMARKS.--Miscellaneous water-quality 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. Interruptions in the record due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 31.3°C, July 17, 1996; minimum recorded, 0.0°C, several days during winter months in most years.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER 1996.--

WATER TEMPERATURE: Maximum recorded, 31.3°C, July 17; minimum, not determined.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

ROANOKE RIVER BASIN

02077200 HYCO CREEK NEAR LEASBURG, NC--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	--	---	---	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.4	15.7	17.3	26.5	23.5	24.9	23.8	21.8	22.6	22.4	19.6	21.1
2	19.6	16.0	17.6	25.9	24.3	25.0	23.5	22.2	22.8	22.2	20.1	21.2
3	19.8	16.0	17.8	25.9	22.9	24.0	24.5	22.8	23.5	21.9	21.0	21.4
4	21.1	17.5	18.8	23.9	20.7	22.2	24.7	22.8	23.7	22.7	21.2	22.0
5	22.2	17.8	19.5	22.3	19.5	21.0	24.8	22.9	23.7	22.3	21.6	22.0
6	21.9	17.9	19.7	24.0	20.4	22.0	25.8	22.7	24.1	22.0	21.4	21.5
7	23.3	18.9	20.6	25.6	21.2	23.1	24.9	23.6	24.1	22.6	20.8	21.5
8	22.8	20.1	21.4	24.5	22.9	23.5	25.2	23.1	24.0	23.2	21.7	22.5
9	22.2	20.6	21.3	25.7	22.7	23.9	24.1	23.0	23.4	23.9	22.6	23.3
10	23.7	20.4	21.7	24.7	22.9	23.7	24.7	22.1	23.1	24.3	22.3	23.3
11	---	---	---	23.2	21.0	22.0	24.2	21.7	22.9	---	---	---
12	24.1	21.1	22.3	21.6	20.9	21.2	22.9	21.8	22.3	---	---	---
13	23.4	20.7	22.0	24.3	20.6	22.2	21.8	20.5	21.0	21.7	20.6	21.2
14	24.8	20.9	22.4	25.4	22.6	23.9	22.2	20.3	21.1	20.6	18.4	19.3
15	25.3	21.4	23.3	24.7	23.6	24.1	23.0	20.1	21.5	19.3	17.3	18.4
16	24.4	22.1	23.3	25.8	22.8	24.2	24.1	20.8	22.3	19.0	17.8	18.3
17	25.8	21.7	23.5	27.3	23.9	25.2	24.0	21.3	22.6	20.6	18.8	19.7
18	26.5	22.7	24.2	26.5	24.0	25.1	24.1	21.4	22.7	20.0	18.3	19.1
19	26.0	23.0	24.3	26.4	24.2	25.2	24.1	21.7	22.9	19.1	16.7	17.9
20	26.6	23.0	24.5	27.2	24.2	25.5	24.2	21.8	23.0	19.0	16.4	17.7
21	26.8	22.8	24.5	25.7	23.1	24.4	24.3	21.3	22.8	18.5	16.8	17.7
22	27.6	22.6	24.6	25.6	22.8	24.1	25.0	22.2	23.7	20.0	18.0	18.8
23	28.9	23.8	25.4	25.6	24.1	24.8	25.2	22.5	24.0	19.4	17.2	18.3
24	29.3	23.5	25.4	25.5	24.0	24.7	25.0	22.8	23.9	18.7	16.7	17.8
25	29.5	23.3	25.3	25.0	21.6	23.5	24.1	22.2	23.2	20.2	17.7	18.7
26	27.7	21.9	24.0	23.2	21.6	22.3	23.1	21.5	22.4	19.2	18.2	18.7
27	26.7	19.5	21.8	23.7	21.7	22.8	24.0	21.9	22.9	20.8	18.0	19.2
28	24.6	18.9	21.7	22.9	21.3	22.0	23.9	22.1	23.0	21.4	19.4	20.3
29	24.8	21.9	23.4	24.0	21.4	22.4	23.5	21.4	22.6	20.6	18.6	19.5
30	---	---	---	24.2	22.2	23.2	23.3	21.4	22.5	18.6	17.3	18.0
31	---	---	---	24.5	23.0	23.7	23.3	21.3	22.2	---	---	---
MONTH---		---	---	27.3	19.5	23.5	25.8	20.1	22.9	---	---	---

ROANOKE RIVER BASIN

02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC

LOCATION.--Lat 36°31'24", long 78°59'48", Person County, Hydrologic Unit 03010104, on left bank 200 ft downstream from Afterbay Reservoir 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.

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 sea level (levels by Carolina Power and Light Company). From August 1964 to September 1973, records published as Hyco River at McGehees Mill, NC at site 2.8 mi upstream, at datum 349.78 ft. Water-temperature recorder operated at site 600 ft downstream on right bank from June 1974 to Sept. 1995.

REMARKS.-- Records good except those for estimated daily discharges, and discharges above 150 ft^3/s, which are poor. Flow regulated by Roxboro Steam-Electric Generating Plant Afterbay Reservoir. Maximum gage height for current water year from floodmark. Minimum discharge for the current water year also occurred several days in July.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e20	e110	85	99	159	204	234	325	94	18	95	17
2	e20	e460	85	99	194	168	242	314	91	18	209	17
3	e20	e400	86	100	364	144	243	307	90	18	451	17
4	e90	277	86	100	351	142	243	298	89	18	674	17
5	e295	91	86	129	341	117	244	260	89	18	490	41
6	e185	91	86	299	243	88	244	99	88	18	118	e5500
7	e25	91	87	292	88	88	241	99	88	16	394	e7000
8	e21	96	87	284	89	92	158	100	86	15	121	e1200
9	e21	101	87	217	93	96	94	100	86	15	121	e600
10	e21	104	88	90	239	99	95	101	79	15	120	e180
11	e21	761	89	91	320	101	96	101	75	15	119	e175
12	e21	1710	90	91	318	133	98	100	75	15	119	e170
13	e21	979	90	91	313	189	98	100	75	15	119	e150
14	e21	894	90	91	306	187	214	100	75	15	118	e105
15	e80	658	91	91	299	186	317	98	75	15	117	e103
16	e35	122	186	92	300	186	309	98	75	15	50	e100
17	e25	82	355	94	208	684	239	99	75	15	18	e260
18	e25	82	274	179	90	502	90	100	75	15	18	e350
19	e25	83	97	1710	91	303	90	101	66	15	18	e195
20	e300	83	98	2570	92	836	89	101	18	15	18	e192
21	e850	83	99	2010	95	752	90	100	18	14	160	e189
22	e2400	83	100	1050	130	717	91	100	18	14	408	e186
23	e890	83	100	246	219	448	92	99	18	14	187	e90
24	e690	83	100	258	218	181	92	98	18	14	16	e70
25	e500	83	100	259	217	89	92	97	18	15	16	e69
26	e130	83	100	679	214	90	91	96	18	60	16	67
27	e310	83	100	1170	211	91	91	96	18	17	16	67
28	e1300	82	100	1150	208	176	91	96	18	17	17	68
29	e2000	83	100	918	208	237	91	96	18	18	17	68
30	e400	83	100	432	---	235	160	96	18	17	17	67
31	e130	---	100	261	---	234	---	97	---	18	17	---
TOTAL	10892	8104	3422	15242	6218	7795	4659	4072	1744	537	4394	17330
MEAN	351	270	110	492	214	251	155	131	58.1	17.3	142	578
MAX	2400	1710	355	2570	364	836	317	325	94	60	674	7000
MIN	20	82	85	90	88	88	89	96	18	14	16	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)

MEAN	58.4	65.6	116	393	336	446	241	120	82.2	114	80.0	135
MAX	351	334	361	1201	926	1165	692	864	456	1058	294	675
(WY)	1996	1986	1983	1978	1979	1993	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

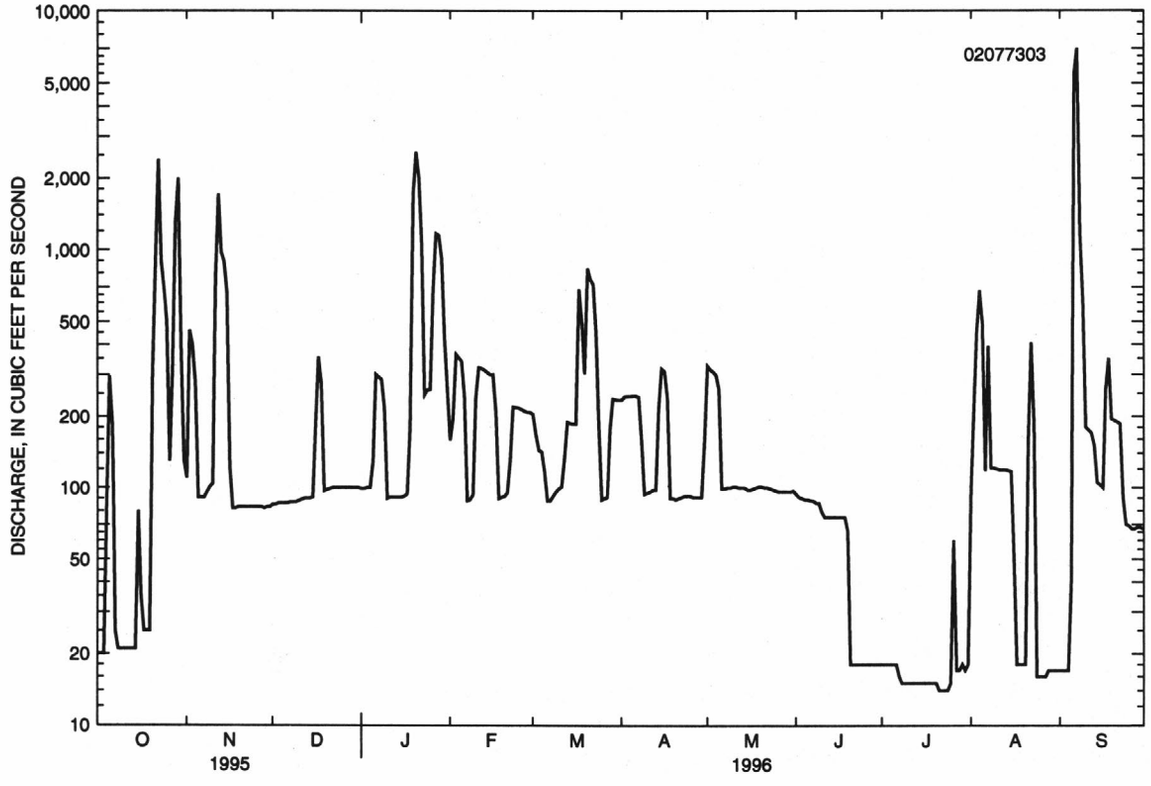
ROANOKE RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1974 - 1996	
ANNUAL TOTAL	70030		84409			
ANNUAL MEAN	192		231		182	
HIGHEST ANNUAL MEAN					392	1975
LOWEST ANNUAL MEAN					17.9	1981
HIGHEST DAILY MEAN	6590	Jun 30	7000	Sep 7	9280	Jul 14 1975
LOWEST DAILY MEAN	15	Jun 4	14	Jul 21	.31	Sep 21 1977
ANNUAL SEVEN-DAY MINIMUM	17	May 29	14	Jul 18	.48	Sep 16 1977
INSTANTANEOUS PEAK FLOW			8810	Sep 6	11300	Jul 14 1975
INSTANTANEOUS PEAK STAGE			22.27*	Sep 6	24.40	Jul 14 1975
INSTANTANEOUS LOW FLOW			14*	Jul 20	0	Jun 26 1980
10 PERCENT EXCEEDS	460		402		410	
50 PERCENT EXCEEDS	65		97		35	
90 PERCENT EXCEEDS	18		18		11	

e Estimated.

* See REMARKS.



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 sea level. (levels by Carolina Power & Light Co.).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Mayo Steam Electric Generating Plant. Minimum discharge for period of record, no flow, occurred periodically in 1977, 1980, 1981, and 1982 as a result of regulation. Minimum discharge for the current water year not determined due to beaver activity.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	92	37	14	124	50	99	56	32	3.0	32	16
2	1.5	84	34	15	111	46	116	54	29	3.0	33	14
3	1.5	75	31	19	149	41	114	51	27	3.0	31	24
4	1.6	66	29	18	148	37	106	46	26	3.0	27	61
5	1.6	56	27	17	127	35	95	42	24	3.0	24	73
6	1.4	e50	24	16	103	37	86	45	22	3.0	21	2210
7	1.5	e44	25	27	93	48	81	48	21	3.0	159	2260
8	1.7	e130	25	30	96	77	75	47	19	3.0	135	1380
9	1.9	e120	32	28	123	79	83	45	18	3.0	117	863
10	2.2	e105	36	25	e110	74	82	42	18	3.0	100	700
11	2.4	e90	34	23	e95	67	77	41	22	3.0	86	568
12	2.9	e115	30	24	e84	62	72	39	27	3.1	73	449
13	3.4	e100	28	23	e77	58	67	34	24	3.1	70	335
14	4.6	e91	26	22	e69	55	63	31	22	2.9	63	248
15	5.3	e82	25	23	e80	53	58	28	20	3.0	55	183
16	6.2	e75	24	31	e98	53	59	31	18	3.0	47	146
17	5.8	e69	23	40	e90	71	54	32	17	3.0	40	142
18	6.5	e61	22	69	e79	76	50	32	15	3.0	34	115
19	7.0	e57	27	229	77	118	48	30	13	3.0	29	97
20	15	e51	31	382	73	182	47	28	11	3.0	25	83
21	43	e47	30	328	93	162	e45	26	8.6	3.0	22	72
22	42	e42	27	267	94	139	e44	22	6.8	3.0	19	75
23	34	e38	25	214	92	119	e42	20	5.1	3.0	16	65
24	25	e35	23	189	88	106	41	18	4.2	3.0	14	56
25	15	e32	21	215	81	96	39	15	4.0	5.4	11	48
26	8.1	e29	19	185	75	85	37	17	3.2	29	9.0	42
27	27	e27	17	190	68	77	35	20	3.1	31	10	37
28	169	24	15	239	64	87	33	36	3.1	29	22	37
29	149	32	14	207	56	103	33	38	3.1	28	20	56
30	124	38	13	171	---	100	46	38	3.0	26	19	50
31	105	---	12	144	---	94	---	36	---	24	19	---
TOTAL	816.8	1957	786	3424	2717	2487	1927	1088	469.2	244.5	1382.0	10505
MEAN	26.3	65.2	25.4	110	93.7	80.2	64.2	35.1	15.6	7.89	44.6	350
MAX	169	130	37	382	149	182	116	56	32	31	159	2260
MIN	1.4	24	12	14	56	35	33	15	3.0	2.9	9.0	14
CFSM	.49	1.22	.47	2.06	1.75	1.50	1.20	.66	.29	.15	.83	6.55
IN.	.57	1.36	.55	2.38	1.89	1.73	1.34	.76	.33	.17	.96	7.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

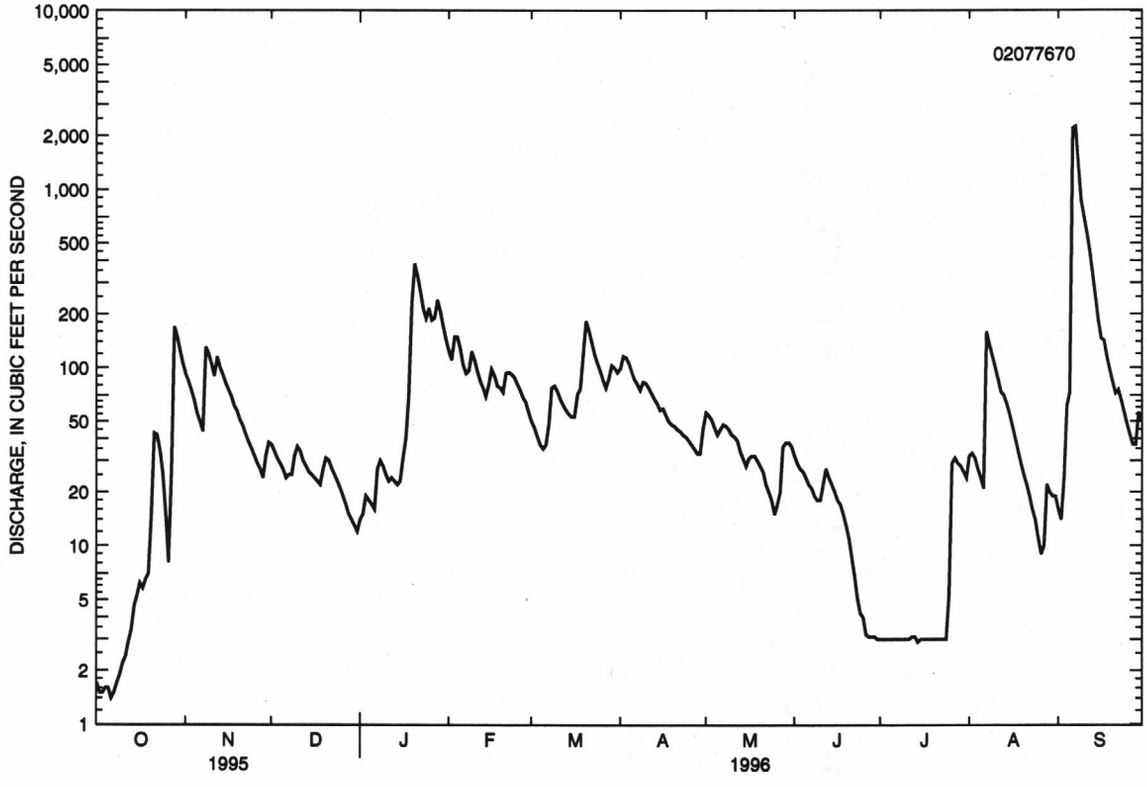
MEAN	10.1	16.8	21.2	67.1	61.5	98.4	69.4	38.8	17.1	19.0	13.2	27.5
MAX	62.2	76.0	65.4	254	190	247	214	210	73.4	118	56.1	350
(WY)	1990	1980	1978	1978	1979	1987	1993	1978	1995	1995	1984	1996
MIN	.011	.011	.016	.003	.28	.14	.20	.12	.075	.24	.038	.000
(WY)	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1980

ROANOKE RIVER BASIN

02077670 MAYO CREEK NEAR BETHEL HILL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996	
ANNUAL TOTAL	14033.3		27803.5			
ANNUAL MEAN	38.4		76.0		38.3	
HIGHEST ANNUAL MEAN					87.8	1978
LOWEST ANNUAL MEAN					.11	1981
HIGHEST DAILY MEAN	452	Jul 2	2260	Sep 7	2260	Sep 7 1996
LOWEST DAILY MEAN	1.4	Oct 6	1.4	Oct 6	0*	Jul 31 1977
ANNUAL SEVEN-DAY MINIMUM	1.5	Oct 1	1.5	Oct 1	0*	Jul 31 1977
INSTANTANEOUS PEAK FLOW			3040	Sep 6	3950	Apr 26 1978
INSTANTANEOUS PEAK STAGE			10.12	Sep 6	10.83	Apr 26 1978
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		0*	Aug 1 1977
ANNUAL RUNOFF (CFSM)	.72		1.42		.72	
ANNUAL RUNOFF (INCHES)	9.76		19.33		9.74	
10 PERCENT EXCEEDS	105		125		97	
50 PERCENT EXCEEDS	14		37		7.4	
90 PERCENT EXCEEDS	3.3		3.1		.31	

e Estimated.
* See REMARKS.



ROANOKE RIVER BASIN

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC

LOCATION.--Lat 36°27'37", long 77°38'04", Halifax County, Hydrologic Unit 03010107, on right bank 1.2 mi 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 "Roanoke River 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 sea level. 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 telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. 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.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3170	13100	8040	8010	18600	18500	5050	6640	9270	5190	4090	4700
2	2170	13100	8040	8010	18600	18500	8800	7590	9250	3300	4760	4240
3	8240	13300	8060	7960	18700	18400	11400	8290	9260	3050	5360	3080
4	3220	13400	8050	8010	18600	18500	13800	8280	9260	3060	3260	6440
5	13700	13100	8070	8030	18600	18500	13700	8270	9170	3050	3870	14500
6	4850	13100	8070	4950	18600	18500	13800	9240	9170	3050	3020	16200
7	2130	13300	8070	7330	18600	14000	13700	12100	9200	3040	6770	20100
8	2130	12600	9130	8690	18600	9690	13800	12100	9160	2900	5220	20300
9	5300	7880	8020	7800	18600	8170	13800	12200	9170	7080	2860	25500
10	2770	10100	8020	4020	18500	8620	12500	12200	9100	5700	2380	35100
11	4340	8240	8020	4720	18500	10000	8640	12200	11700	5220	2190	36000
12	2800	8140	7980	9470	18500	7220	8540	12200	18500	5490	2370	35500
13	3280	9180	7980	4160	18500	5800	8550	12200	19300	11600	6730	35400
14	2620	8200	7990	1890	18500	2830	8550	12200	19400	11500	12600	35600
15	2640	8110	7970	3740	18500	2270	8600	12200	19200	8240	14200	35000
16	2330	8710	7960	6450	18500	2120	8620	12300	19200	7940	14200	35200
17	2190	7950	7960	8240	18500	2430	8610	12300	16700	8090	14300	35500
18	2120	8090	7940	9870	18500	3470	8640	12200	15100	8090	14400	35000
19	2060	8050	7960	10400	18500	9560	8250	12200	15100	8080	14400	34400
20	2070	8060	7950	18500	18500	15400	7840	12100	15000	8080	14500	34700
21	2100	8010	7940	18600	18500	18300	7860	11600	12800	8300	14600	34700
22	2080	8080	8020	18600	18500	18300	8190	9660	9730	4850	14600	e34800
23	7750	8040	3640	18500	18600	18300	8560	9110	9720	2440	14600	e30000
24	13200	8090	4860	18600	18500	18300	8590	9110	9740	2180	8680	28300
25	13400	8010	2460	18600	18500	17800	8610	9120	7550	2330	8470	28600
26	13000	7990	5960	18600	18500	14300	7830	8710	5510	3100	8480	24500
27	13100	8120	7960	18700	18400	14400	6560	7710	5480	3060	8450	24200
28	13100	8100	8050	18600	18400	14300	6610	7750	5470	2190	8490	24500
29	13100	8100	8020	18600	18400	14200	6600	8390	5470	3660	8400	24700
30	13000	8010	8040	18500	---	7150	6640	9280	e5300	2360	9340	22200
31	13200	---	8020	18500	---	1790	---	9310	---	2160	4620	---
TOTAL	191160	286260	234250	354650	537300	369620	281240	318760	337980	158380	260210	778960
MEAN	6166	9542	7556	11440	18530	11920	9375	10280	11270	5109	8394	25970
MAX	13700	13400	9130	18700	18700	18500	13800	12300	19400	11600	14600	36000
MIN	2060	7880	2460	1890	18400	1790	5050	6640	5300	2160	2190	3080
†	+2512	-962	-1916	+8198	-3706	+261	-14	-329	-2604	-628	+1160	+6367

ROANOKE RIVER BASIN

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996*, BY WATER YEAR (WY)

MEAN	5495	6615	7400	9948	10520	10850	11230	10430	7581	6076	5361	5510
MAX	20360	17690	18380	17850	19590	23950	32660	31750	15260	20560	9755	25970
(WY)	1980	1986	1973	1991	1978	1979	1993	1978	1982	1972	1975	1996
MIN	2031	1987	3417	3540	2613	2259	2527	3974	2365	2581	2519	2186
(WY)	1971	1987	1981	1989	1981	1981	1985	1981	1977	1970	1993	1968

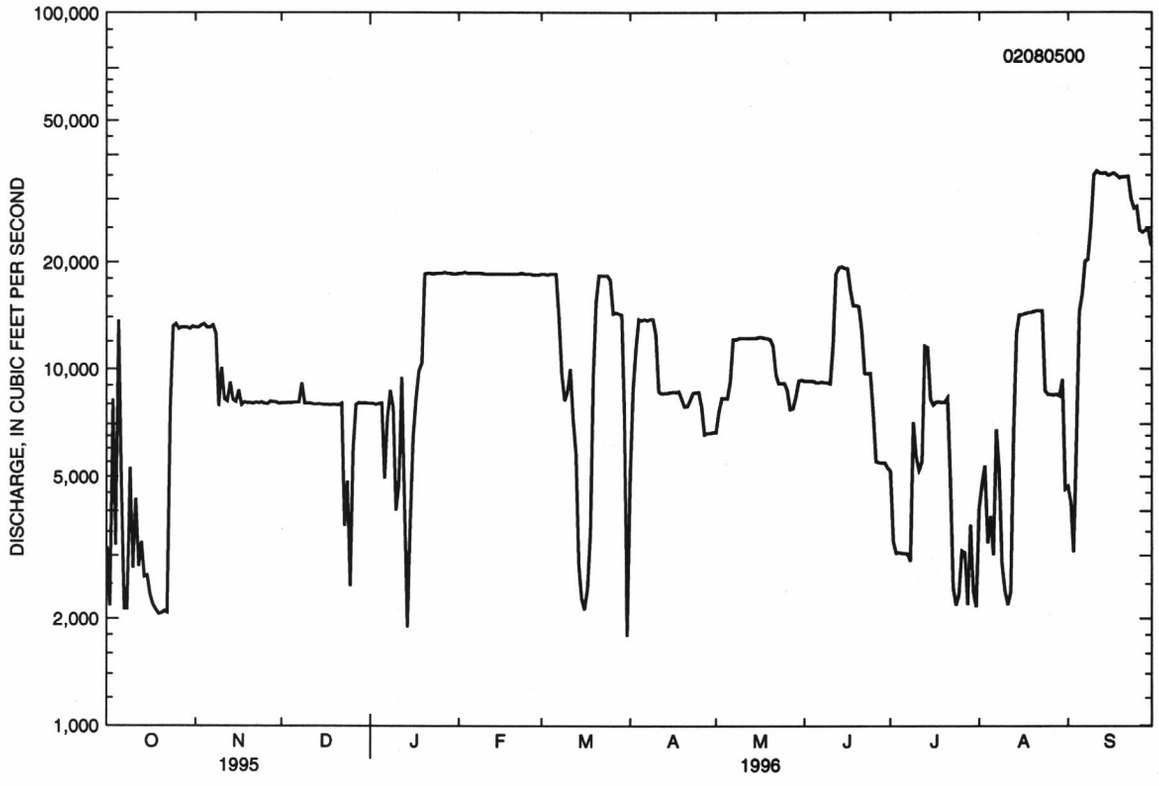
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996*	
ANNUAL TOTAL	2969150		4108770			
ANNUAL MEAN	8135		11230	‡11985	8069	(UNADJUSTED)
HIGHEST ANNUAL MEAN					12920	1973
LOWEST ANNUAL MEAN					3117	1981
HIGHEST DAILY MEAN	25300	Jul 11	36000	Sep 11	36000	Sep 11 1996
LOWEST DAILY MEAN	1780	Mar 26	1790	Mar 31	818	Nov 15 1970
ANNUAL SEVEN-DAY MINIMUM	2140	Oct 16	2140	Oct 16	989	Nov 5 1986
INSTANTANEOUS PEAK FLOW			36100	Sep 11	37700	Apr 16 1993
INSTANTANEOUS PEAK STAGE			11.61	Sep 11	11.87	Apr 16 1993
INSTANTANEOUS LOW FLOW			1580	Mar 18	760	Nov 23 1970
10 PERCENT EXCEEDS	14200		18600		18800	
50 PERCENT EXCEEDS	8010		8640		6140	
90 PERCENT EXCEEDS	2590		3050		2010	

e Estimated.

† Change in contents, equivalent in cubic feet per second, in Leesville and Smith Mountain Lake, provided by Appalachian Power Co.; Philpott and Kerr Reservoirs, provided by U.S. Army Corps of Engineers; and Lake Gaston and Roanoke Rapids Lake, provided by North Carolina Power Company.

‡ Adjusted for change in contents.

* Regulated period only (1964-1996). See REMARKS.



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 September 1995. Station operated as part of NAWQA Program in November 1995. Samples collected at bridge on State Highway 48 at Roanoke Rapids, 1.2 mi upstream from gaging station. Miscellaneous water-quality 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 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	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)
NOV											
27...	1230	8140	115	6.1	11.5	757	--	29	6.8	2.8	9.9
SEP											
17...	1415	35400	--	--	--	--	1.4	--	--	--	--

DATE	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)
NOV											
27...	40	0.8	2.8	34	28	7.4	9.5	<0.10	9.8	66	0.230
SEP											
17...	--	--	--	--	--	--	--	--	--	--	0.170

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
NOV 27...	--	<0.010	0.230	0.230	--	<0.015	0.30	0.30	0.20	0.53	0.43
SEP 17...	0.010	--	0.180	--	0.040	--	0.41	0.45	--	0.63	--

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
NOV 27...	0.020	0.020	--	<0.010	120	4.0	4.0	0.40	16	352
SEP 17...	0.020	--	0.040	--	--	--	--	--	--	--

ROANOKE RIVER BASIN

0208111310 CASHIE RIVER AT SECONDARY ROAD 1257 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 mi upstream from State Highway 13 near Windsor.

DRAINAGE AREA.--108 mi^2.

PERIOD OF RECORD.--1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 15 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those below 10 ft^3/s, which are poor. Periods of no flow occur periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	2.5	11	33	393	108	326	59	5.0	.08	80	3.4
2	.04	4.6	11	34	381	99	324	72	3.1	.08	122	1.6
3	.04	14	12	35	461	93	295	66	1.8	.10	145	1.1
4	.18	18	13	33	504	92	251	49	1.3	.15	484	148
5	.98	20	13	29	504	87	201	35	1.3	.08	931	1150
6	.40	19	12	27	504	87	154	30	1.0	.06	784	1040
7	.33	38	14	48	414	94	137	23	.66	.06	740	993
8	.30	75	16	101	221	127	139	19	.62	.05	497	e800
9	.30	105	32	162	241	181	151	18	4.3	.07	304	e600
10	4.9	103	68	154	299	214	163	15	25	.06	185	e460
11	12	109	112	143	329	213	194	12	65	.04	114	346
12	9.8	126	116	170	304	180	219	10	92	5.4	72	349
13	6.8	129	112	265	248	144	203	7.4	100	125	54	576
14	5.1	130	96	318	196	117	164	6.2	72	221	60	639
15	7.0	120	79	320	157	103	128	5.8	45	218	60	522
16	7.2	143	69	286	133	115	219	9.1	21	185	43	383
17	5.8	137	60	240	122	104	370	14	9.0	206	26	332
18	4.7	115	50	206	122	104	249	15	4.2	194	14	428
19	3.6	99	59	198	121	112	150	15	3.7	131	6.6	606
20	2.7	84	78	244	125	120	106	11	3.7	73	5.2	552
21	2.2	70	93	322	171	112	76	7.2	1.6	36	11	385
22	1.8	55	92	344	318	99	57	4.7	.86	32	8.1	255
23	1.7	43	90	303	554	86	45	3.5	.62	95	4.8	168
24	2.0	35	79	235	529	76	38	3.0	.45	83	2.4	112
25	2.1	30	69	187	385	67	36	4.6	.39	67	.97	75
26	2.1	25	59	161	279	64	39	3.8	.27	121	.70	50
27	2.0	22	51	175	208	51	40	3.5	.18	173	3.0	33
28	2.6	18	45	265	164	46	35	11	.14	138	41	22
29	2.3	15	39	402	131	114	32	12	.12	137	41	15
30	2.0	13	35	532	---	259	40	12	.09	110	19	10
31	2.0	---	33	460	---	313	---	7.8	---	79	7.7	---
TOTAL	94.99	1917.1	1718	6432	8518	3781	4581	564.6	464.40	2430.23	4866.47	11055.1
MEAN	3.06	63.9	55.4	207	294	122	153	18.2	15.5	78.4	157	369
MAX	12	143	116	532	554	313	370	72	100	221	931	1150
MIN	.02	2.5	11	27	121	46	32	3.0	.09	.04	.70	1.1
CFSM	.03	.59	.51	1.92	2.72	1.13	1.41	.17	.14	.73	1.45	3.41
IN.	.03	.66	.59	2.22	2.93	1.30	1.58	.19	.16	.84	1.68	3.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

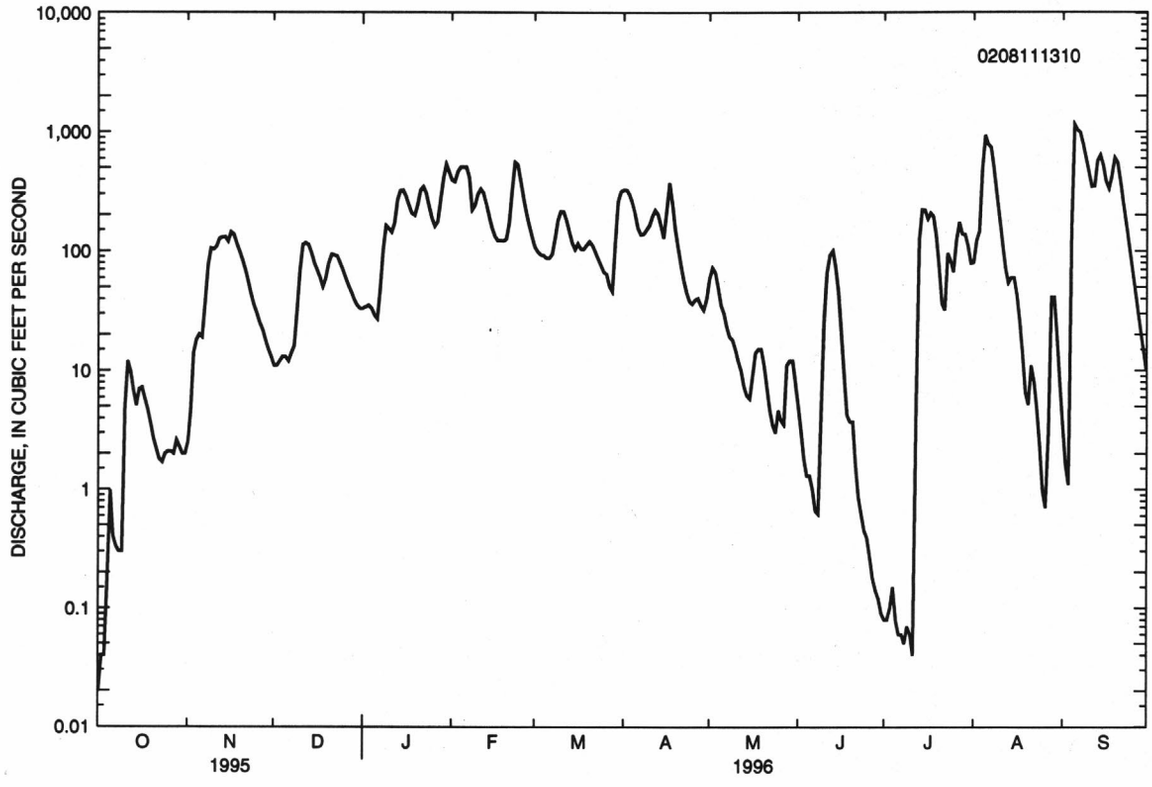
MEAN	27.4	43.9	78.2	193	179	282	157	66.3	48.5	36.4	109	50.9
MAX	181	158	254	509	294	663	326	321	129	102	488	369
(WY)	1990	1993	1990	1993	1996	1989	1989	1989	1992	1991	1992	1996
MIN	0	.065	1.70	52.6	64.1	58.3	5.25	1.07	.010	0	.009	0
(WY)	1995	1995	1995	1995	1991	1988	1995	1994	1994	1994	1993	1994

ROANOKE RIVER BASIN

0208111310 CASHIE RIVER AT SECONDARY ROAD 1257 NEAR WINDSOR, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	25731.13		46422.89			
ANNUAL MEAN	70.5		127		108	
HIGHEST ANNUAL MEAN					156	1989
LOWEST ANNUAL MEAN					57.1	1988
HIGHEST DAILY MEAN	1150	Feb 19	1150	Sep 5	3000	Aug 19 1992
LOWEST DAILY MEAN	0	Aug 19	.02	Oct 1	0	Jul 30 1987
ANNUAL SEVEN-DAY MINIMUM	0	Aug 19	.06	Jul 5	0	Oct 8 1987
INSTANTANEOUS PEAK FLOW			1270	Sep 5	3150	Aug 18 1992
INSTANTANEOUS PEAK STAGE			8.67	Sep 5	11.51	Aug 18 1992
INSTANTANEOUS LOW FLOW			.01	Oct 1	0*	Jul 29 1987
ANNUAL RUNOFF (CFSM)	.65		1.17		1.00	
ANNUAL RUNOFF (INCHES)	8.86		15.99		13.57	
10 PERCENT EXCEEDS	161		336		285	
50 PERCENT EXCEEDS	14		67		24	
90 PERCENT EXCEEDS	.02		1.3		.08	

e Estimated.
* See REMARKS.



PAMLICO RIVER BASIN

02081500 TAR RIVER NEAR TAR RIVER, NC

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

DRAINAGE AREA.--167 mi^2.

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

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

GAGE.--Water-stage recorder with satellite telemetry and concrete control with sharp-crested weir. Datum of gage is 287.25 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional intermittent diversion for irrigation. Maximum discharge for period of record and current water year from rating curve extended above 11,500 ft^3/s, by logarithmic plotting. Minimum discharge for the current water year also occurred on Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	45	74	50	234	88	241	885	68	7.3	314	25
2	9.6	40	59	58	e200	82	408	259	50	6.6	331	19
3	9.4	76	51	83	e500	80	245	148	40	6.1	184	16
4	8.5	152	44	97	281	73	165	102	36	6.0	86	91
5	225	113	40	72	203	68	128	83	38	5.7	46	76
6	206	73	39	61	189	78	106	180	37	5.4	29	9720
7	87	366	43	70	141	300	112	648	34	5.3	1270	10800
8	40	1320	66	88	255	942	104	325	29	5.6	931	830
9	22	293	450	75	793	429	231	179	27	8.7	154	308
10	14	144	456	66	485	237	354	115	39	6.0	193	298
11	9.0	144	176	70	279	173	199	88	41	4.9	99	e880
12	6.6	1760	109	69	202	145	152	85	38	5.0	62	e395
13	7.1	491	88	77	147	125	129	82	118	7.2	301	203
14	16	332	80	87	123	110	120	67	53	7.2	249	117
15	98	327	70	242	117	102	117	59	33	6.4	101	81
16	71	159	66	e475	123	131	257	71	27	6.8	65	68
17	36	102	62	e525	138	374	192	120	22	6.1	46	183
18	23	83	60	851	135	355	125	97	20	5.4	35	100
19	15	72	87	2110	145	616	98	72	19	5.5	29	68
20	15	64	275	2110	633	1350	94	55	17	6.8	23	56
21	378	62	162	404	1100	377	118	45	17	6.4	22	47
22	249	55	100	252	383	e230	119	39	15	4.9	19	43
23	92	47	80	191	272	168	85	34	14	33	17	38
24	52	45	70	263	218	131	76	30	13	12	16	36
25	34	58	64	609	164	114	65	28	12	59	15	30
26	24	60	59	279	133	102	63	29	11	181	14	32
27	18	57	56	691	115	94	81	30	9.8	67	42	31
28	597	49	51	808	104	176	78	430	9.0	32	266	28
29	267	45	47	308	96	491	66	274	8.4	200	126	75
30	99	62	44	234	---	260	577	156	e7.7	63	54	57
31	63	---	45	237	---	177	---	108	---	45	34	---
TOTAL	2799.0	6696	3173	11612	7908	8178	4905	4923	902.9	827.3	5173	24751
MEAN	90.3	223	102	375	273	264	163	159	30.1	26.7	167	825
MAX	597	1760	456	2110	1100	1350	577	885	118	200	1270	10800
MIN	6.6	40	39	50	96	68	63	28	7.7	4.9	14	16
CFSM	.54	1.34	.61	2.24	1.63	1.58	.98	.95	.18	.16	1.00	4.94
IN.	.62	1.49	.71	2.59	1.76	1.82	1.09	1.10	.20	.18	1.15	5.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	65.7	114	147	255	320	329	213	123	78.4	81.7	79.9	74.6
MAX	565	599	558	819	798	917	675	475	488	677	542	825
(WY)	1972	1973	1973	1978	1960	1975	1978	1978	1982	1975	1955	1996
MIN	.41	.28	4.39	7.04	62.6	61.0	33.1	16.9	4.30	.92	1.39	.28
(WY)	1971	1942	1942	1942	1968	1981	1995	1941	1970	1966	1976	1968

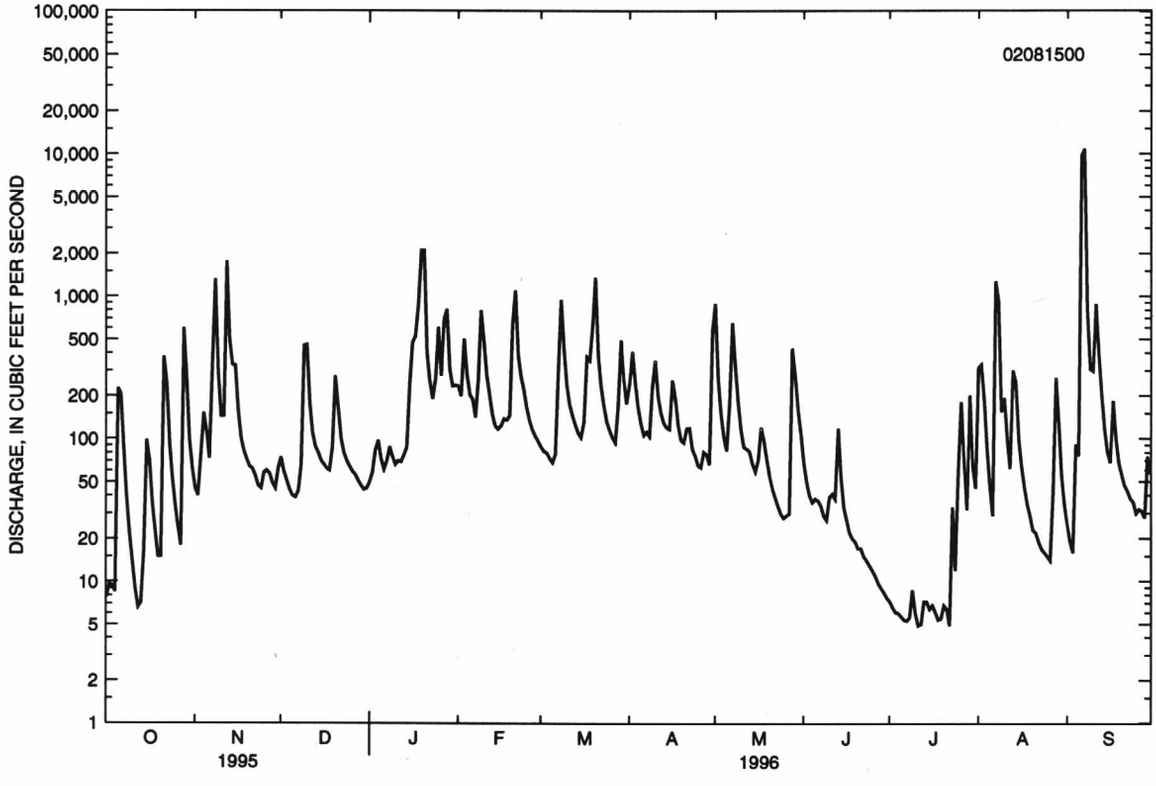
PAMLICO RIVER BASIN

02081500 TAR RIVER NEAR TAR RIVER, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	55971.6		81848.2			
ANNUAL MEAN	153		224		156	
HIGHEST ANNUAL MEAN					336	1973
LOWEST ANNUAL MEAN					51.0	1981
HIGHEST DAILY MEAN	2470	Feb 17	10800	Sep 7	10800	Sep 7 1996
LOWEST DAILY MEAN	1.5	Sep 22	4.9	Jul 11	.02	Aug 13 1977
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 17	5.8	Jul 2	.07	Aug 8 1977
INSTANTANEOUS PEAK FLOW			19900*	Sep 6	19900*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			24.06	Sep 6	24.06	Sep 6 1996
INSTANTANEOUS LOW FLOW			2.5*	Oct 3	0	Aug 14 1977
ANNUAL RUNOFF (CFSM)	.92		1.34		.93	
ANNUAL RUNOFF (INCHES)	12.47		18.23		12.70	
10 PERCENT EXCEEDS	335		398		327	
50 PERCENT EXCEEDS	51		81		44	
90 PERCENT EXCEEDS	6.5		13		3.7	

e Estimated.

* See REMARKS.



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 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 176.71 ft above sea level. 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 telemetry at station.

REMARKS.--Records good except those for the period Sept. 19-30, which are fair, and those for estimated daily discharges, which are poor.

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 U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	189	210	210	720	348	521	2650	236	43	256	75
2	19	233	215	229	758	328	740	1660	154	42	1010	64
3	19	360	178	291	1780	313	725	611	123	41	543	61
4	495	381	166	339	1210	289	504	431	112	39	352	83
5	1850	465	153	292	e600	272	421	346	125	39	192	213
6	1260	320	146	232	e570	324	371	398	130	35	116	4080
7	524	410	165	228	543	473	373	1670	107	35	246	14400
8	265	2380	219	287	594	1530	365	1530	93	36	2080	18200
9	146	2820	475	368	1440	1570	424	706	107	42	830	8780
10	102	703	1420	302	1690	762	836	474	190	73	320	2950
11	83	494	696	262	956	553	598	378	267	52	337	2640
12	69	1820	444	281	686	478	444	383	250	50	188	3480
13	61	3180	363	286	543	430	384	318	317	89	156	2110
14	70	1280	318	320	461	393	349	276	312	92	616	729
15	215	1160	289	369	431	388	345	248	161	75	348	507
16	355	738	265	720	443	402	556	336	112	96	187	405
17	179	492	245	1080	471	502	631	422	93	72	121	668
18	109	393	231	1490	457	963	437	383	82	58	95	680
19	87	338	295	2720	449	702	350	295	74	52	92	e430
20	76	298	464	4370	651	1890	319	224	74	45	81	329
21	823	267	530	5100	2390	1690	375	176	85	40	69	278
22	1430	244	381	1450	2350	688	389	144	71	37	77	245
23	473	214	307	679	937	516	344	123	63	62	87	217
24	261	203	260	605	736	435	294	111	57	148	84	188
25	169	232	234	1260	593	389	264	107	59	101	107	173
26	124	250	218	988	493	363	240	110	72	426	90	167
27	103	227	202	1020	443	341	287	130	60	382	74	190
28	552	207	187	2420	412	365	290	313	50	147	129	176
29	1150	191	172	1420	379	997	257	859	46	377	499	1050
30	430	180	172	773	---	854	911	443	43	392	192	625
31	252	---	195	720	---	564	---	345	---	162	101	---
TOTAL	11771	20669	9815	31111	24186	20112	13344	16600	3725	3380	9675	64193
MEAN	380	689	317	1004	834	649	445	535	124	109	312	2140
MAX	1850	3180	1420	5100	2390	1890	911	2650	317	426	2080	18200
MIN	19	180	146	210	379	272	240	107	43	35	69	61
CFSM	.89	1.61	.74	2.35	1.95	1.52	1.04	1.25	.29	.26	.73	5.01
IN.	1.03	1.80	.86	2.71	2.11	1.75	1.16	1.45	.32	.29	.84	5.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

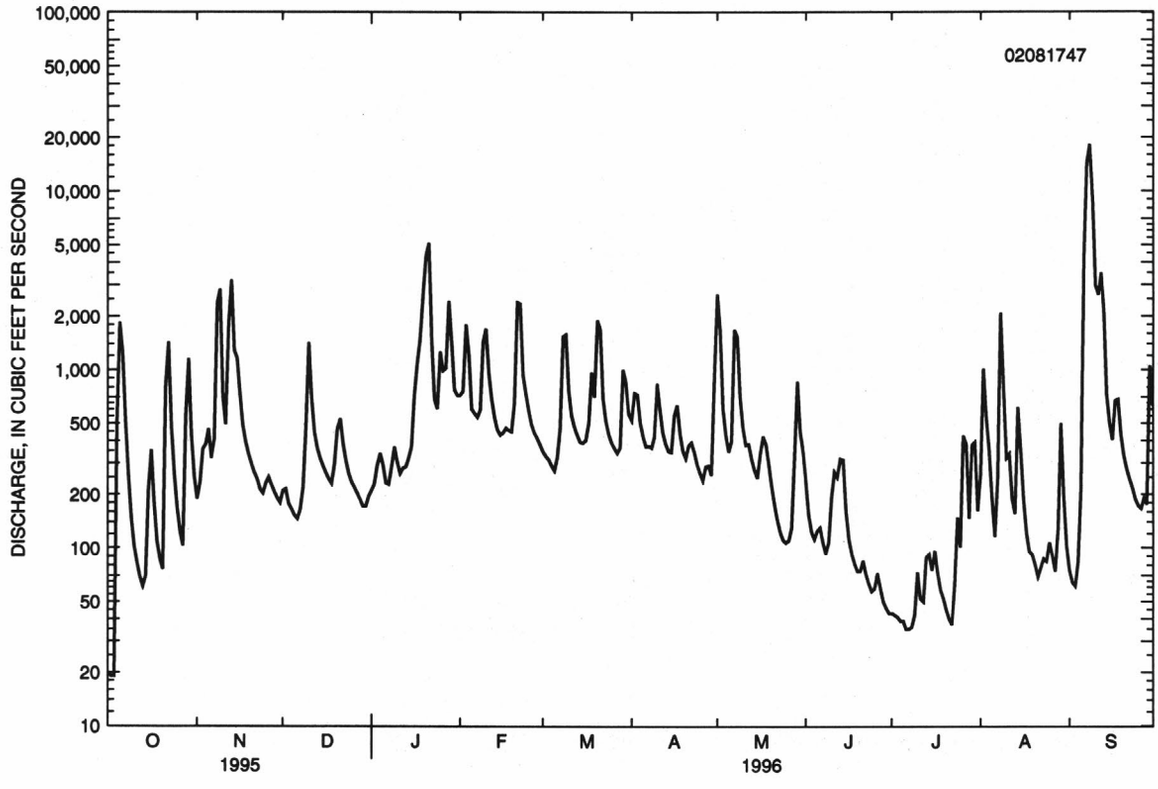
MEAN	149	298	391	814	772	979	620	383	258	243	165	229
MAX	582	1192	1108	1845	1616	2178	1557	984	1451	1692	512	2140
(WY)	1990	1986	1984	1978	1983	1993	1993	1989	1982	1975	1986	1996
MIN	28.5	47.2	86.5	78.0	202	214	127	104	35.4	43.3	26.8	19.7
(WY)	1987	1992	1981	1981	1977	1988	1995	1995	1986	1986	1988	1980

PAMLICO RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	145428		228581			
ANNUAL MEAN	398		625		441	
HIGHEST ANNUAL MEAN					729	1984
LOWEST ANNUAL MEAN					131	1981
HIGHEST DAILY MEAN	5400	Feb 18	18200	Sep 8	18200	Sep 8 1996
LOWEST DAILY MEAN	12	Aug 24	19	Oct 2	8.1	Aug 14 1977
ANNUAL SEVEN-DAY MINIMUM	14	Aug 20	38	Jul 2	9.2	Sep 16 1985
INSTANTANEOUS PEAK FLOW			21100	Sep 7	21100	Sep 7 1996
INSTANTANEOUS PEAK STAGE			25.34	Sep 7	25.34	Sep 7 1996
INSTANTANEOUS LOW FLOW			17	Oct 4	7.3	Aug 14 1977
ANNUAL RUNOFF (CFSM)	.93		1.46		1.03	
ANNUAL RUNOFF (INCHES)	12.67		19.91		14.03	
10 PERCENT EXCEEDS	883		1320		1020	
50 PERCENT EXCEEDS	179		320		205	
90 PERCENT EXCEEDS	31		73		41	

e Estimated.



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 sea level (levels by North Carolina State Highway Commission). National Weather Service telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. The city of Rocky Mount diverted an average of 10.1 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. 29, 30, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	593	451	416	1620	839	e1200	1930	726	123	414	255
2	113	635	420	412	e1800	838	e1000	3290	550	116	377	192
3	108	1390	428	437	e2200	792	e1200	2750	438	152	1300	165
4	139	1560	423	661	e2800	735	e1000	1330	362	162	1400	163
5	3640	1360	404	698	e1800	710	e900	867	323	152	1190	171
6	6400	1080	387	643	1410	714	e800	703	322	134	677	3880
7	5730	1080	410	664	1230	e1000	e760	727	327	118	409	6410
8	2590	2470	470	694	e1400	e1600	e740	1780	321	105	377	8090
9	1240	3670	735	663	e1600	e2200	e800	1900	339	125	1680	9450
10	733	3930	1360	706	e2000	e2000	e1000	1140	292	124	1210	12300
11	480	2040	2090	666	e2400	e1600	e1200	811	671	125	542	13400
12	365	1530	1480	715	e1600	e1200	e1000	649	1450	124	436	12400
13	300	2360	956	788	1300	1070	e800	587	1780	411	370	9640
14	226	3660	771	879	1060	962	e740	514	1540	583	324	5940
15	386	2950	674	976	913	914	e700	466	1040	709	573	2380
16	791	2110	622	1140	908	918	e1000	513	658	650	545	1290
17	886	1550	614	1560	994	986	e1600	656	461	432	366	1190
18	649	1110	564	2010	1010	e1000	e1400	793	348	337	456	1660
19	439	880	609	e2400	964	e1200	e400	753	278	253	417	1690
20	330	770	691	e4000	e1000	e1400	e600	596	248	193	295	1300
21	330	696	830	e5000	e1400	e1600	e900	475	212	162	234	918
22	881	629	899	e4600	e2600	e2000	e1200	389	203	148	200	731
23	1710	581	746	e2800	e3600	e1000	e500	335	190	135	197	602
24	965	516	627	1690	e2000	e800	e200	294	180	157	168	514
25	583	505	549	1340	e1400	e700	e400	262	171	183	252	444
26	406	515	505	1830	e1200	e680	208	247	164	318	777	408
27	326	538	471	e2200	1100	e660	420	250	150	411	518	383
28	459	514	446	e3000	995	e640	509	923	146	572	316	377
29	971	481	421	e3800	903	e800	532	1270	138	402	243	401
30	1540	467	402	e2000	---	e1800	635	1570	133	376	435	998
31	899	---	405	1800	---	e1600	---	1050	---	559	381	---
TOTAL	34739	42170	20860	51188	45207	34958	24344	29820	14161	8551	17079	97742
MEAN	1121	1406	673	1651	1559	1128	811	962	472	276	551	3258
MAX	6400	3930	2090	5000	3600	2200	1600	3290	1780	709	1680	13400
MIN	108	467	387	412	903	640	200	247	133	105	168	163

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	298	549	735	1369	1382	1750	1149	726	556	477	370	357
MAX	1190	1876	2406	2794	2803	3438	2864	2123	2064	2321	1045	3258
(WY)	1973	1973	1973	1978	1983	1989	1987	1989	1982	1975	1973	1996
MIN	60.2	66.2	109	186	456	358	284	192	101	67.9	77.9	75.4
(WY)	1994	1981	1992	1981	1991	1981	1981	1995	1991	1986	1988	1993

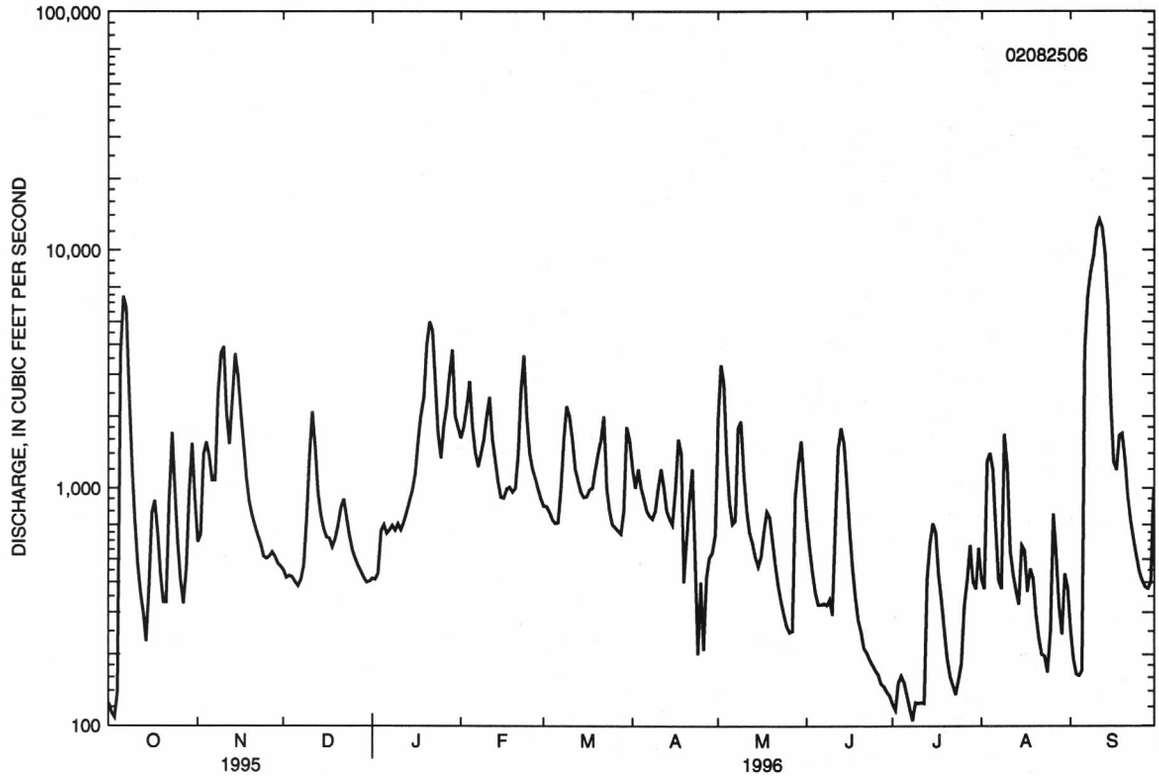
PAMLICO RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1972 - 1996	
ANNUAL TOTAL	299246		420819			
ANNUAL MEAN	820		1150		808	
HIGHEST ANNUAL MEAN					1471	1973
LOWEST ANNUAL MEAN					211	1981
HIGHEST DAILY MEAN	6400	Oct 6	13400	Sep 11	13400	Sep 11 1996
LOWEST DAILY MEAN	101	May 26	105	Jul 8	29	Oct 28 1993
ANNUAL SEVEN-DAY MINIMUM	115	May 20	122	Jul 6	36	Oct 27 1993
INSTANTANEOUS PEAK FLOW			13700	Sep 11	13700	Sep 11 1996
INSTANTANEOUS PEAK STAGE			22.99	Sep 11	22.99	Sep 11 1996
INSTANTANEOUS LOW FLOW			101	Jul 8	28*	Oct 28 1993
10 PERCENT EXCEEDS	1990		2140		1940	
50 PERCENT EXCEEDS	410		704		374	
90 PERCENT EXCEEDS	130		199		95	

e Estimated.

* 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 sea level. City of Rocky Mount telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Some regulation at low flow caused by mill above station. The city of Rocky Mount diverted an average of 21.0 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	648	569	542	1780	876	1460	1750	718	117	473	301
2	89	760	474	625	1920	906	1290	3240	566	119	300	177
3	90	1600	485	643	2620	844	1340	2960	432	128	1380	179
4	400	1770	500	787	3310	780	1270	1350	392	157	1990	175
5	4270	1560	471	806	2680	743	997	888	333	161	1590	211
6	7820	1200	451	746	1600	742	863	706	273	133	815	4760
7	8660	1340	488	804	1350	1210	853	729	346	113	458	7530
8	4950	2810	603	841	1390	1960	836	1530	268	132	317	10200
9	1670	4060	970	808	1780	2650	987	1800	343	131	1310	10300
10	854	4650	1520	835	2490	2640	1070	1110	355	139	1200	12100
11	601	2560	2210	781	2720	1680	1330	804	615	190	536	14100
12	430	1710	1640	975	1900	1260	1140	672	1520	179	447	15000
13	357	2520	1100	1030	1390	1090	905	606	2150	747	307	13200
14	258	3980	873	1140	1140	992	804	483	1830	691	362	9040
15	622	3780	776	1240	999	948	779	502	1200	841	499	4280
16	965	2440	719	1370	991	1040	1280	568	730	848	552	1670
17	1020	1750	684	1710	1090	1090	1740	684	568	484	354	1310
18	775	1250	654	2160	1130	1130	1730	814	372	360	416	1670
19	516	1000	792	3190	1070	1490	443	776	322	372	439	1960
20	330	859	839	4640	1100	1460	778	628	241	109	286	1760
21	412	775	925	5390	2250	2070	757	523	288	162	268	1170
22	733	720	1000	5350	3770	2250	1370	422	223	192	175	855
23	1580	666	846	4750	4150	1280	1120	347	157	145	216	707
24	1030	560	716	2010	2390	950	225	290	202	134	169	600
25	617	587	644	1430	1630	822	529	240	196	196	210	539
26	413	600	620	1800	1340	738	203	267	157	362	899	462
27	349	667	552	2400	1150	708	453	340	146	315	580	457
28	636	585	533	3460	1040	791	555	1060	144	518	386	321
29	884	495	530	4500	950	1380	578	1300	142	426	208	553
30	1500	544	478	3630	---	1990	711	1540	138	321	398	760
31	993	---	498	2090	---	1870	---	1110	---	505	311	---
TOTAL	43969	48446	24160	62483	53120	40380	28396	30039	15367	9427	17851	116347
MEAN	1418	1615	779	2016	1832	1303	947	969	512	304	576	3878
MAX	8660	4650	2210	5390	4150	2650	1740	3240	2150	848	1990	15000
MIN	89	495	451	542	950	708	203	240	138	109	169	175

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

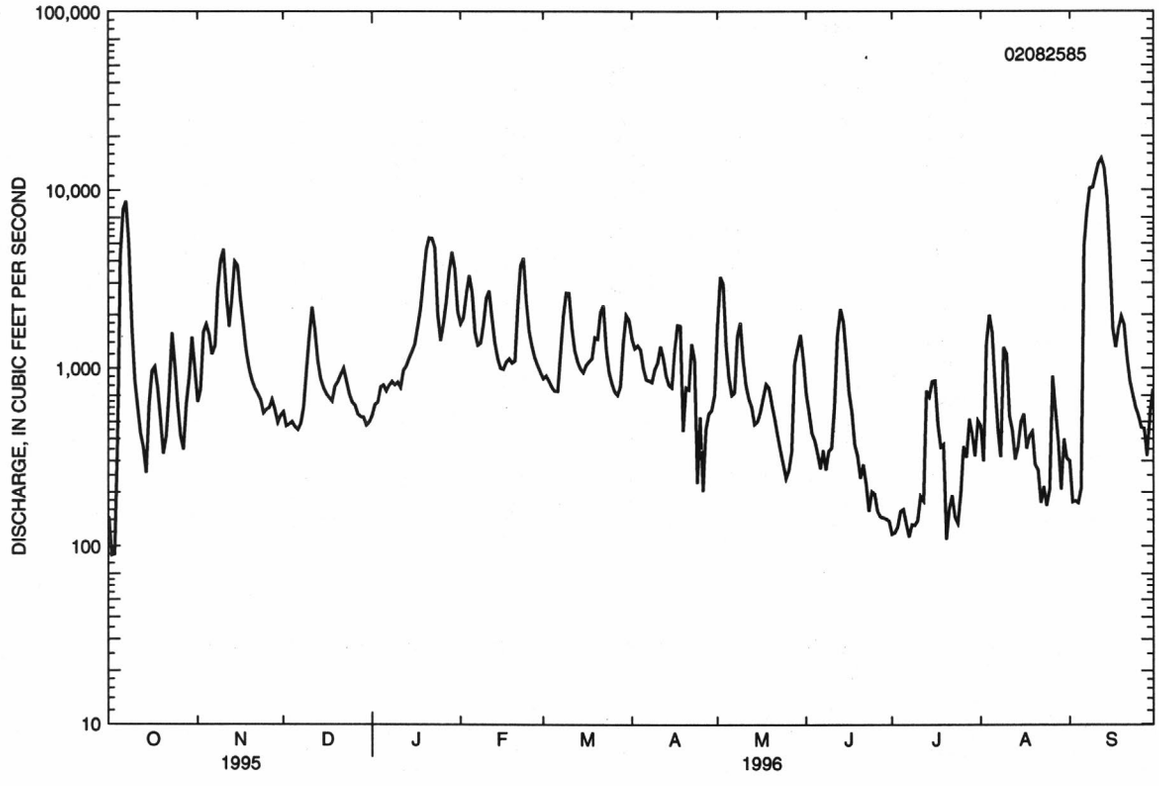
MEAN	301	603	772	1563	1559	2122	1381	883	668	402	411	381
MAX	1418	1905	1720	3230	3280	4301	3447	2725	2238	1316	977	3878
(WY)	1996	1980	1984	1978	1983	1989	1987	1989	1982	1984	1989	1996
MIN	55.3	74.5	125	254	546	477	332	210	128	54.1	79.7	70.6
(WY)	1994	1981	1992	1981	1977	1981	1995	1995	1986	1986	1987	1993

PAMLICO RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996	
ANNUAL TOTAL	346034		489985			
ANNUAL MEAN	948		1339		918	
HIGHEST ANNUAL MEAN					1500	1984
LOWEST ANNUAL MEAN					262	1981
HIGHEST DAILY MEAN	8660	Oct 7	15000	Sep 12	15000	Sep 12 1996
LOWEST DAILY MEAN	81	May 24	89	Oct 2	6.6	Oct 3 1983
ANNUAL SEVEN-DAY MINIMUM	95	Aug 3	133	Jul 1	31	Oct 18 1993
INSTANTANEOUS PEAK FLOW			15100	Sep 12	15100	Sep 12 1996
INSTANTANEOUS PEAK STAGE			25.88	Sep 12	25.88	Sep 12 1996
INSTANTANEOUS LOW FLOW			7.2*	Jul 11	5.7*	Sep 23 1988
10 PERCENT EXCEEDS	2180		2630		2230	
50 PERCENT EXCEEDS	478		798		432	
90 PERCENT EXCEEDS	124		209		94	

* See REMARKS.



PAMLICO RIVER BASIN

02082731 DEVILS CRADLE CREEK NEAR ALERT, NC

LOCATION.-- Lat 36°12'03", long 78°14'19", Franklin County, Hydrologic Unit 03020101, on bridge on secondary road 1412, 6.8 mi northeast of Louisburg, 2.2 mi downstream of Highway 401.

DRAINAGE AREA.--13.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- May 1993 to current year.

GAGE..-- Water-stage recorder. Elevation of gage is 250 ft above sea level, from topographic map.

REMARKS.-- Records good except those for discharges below 4 ft^3/s, which are fair. Minimum discharge for period of record also occurred Aug. 25, 26, 1993. Minimum discharge for the current water year also occurred July 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	7.9	8.2	9.2	22	11	16	60	6.6	3.2	12	4.7
2	2.7	12	8.1	9.3	57	12	14	25	5.9	3.1	14	4.2
3	2.7	16	8.6	13	59	10	11	16	5.4	3.3	29	5.1
4	101	15	7.8	9.4	30	9.8	11	13	5.8	3.0	13	6.0
5	266	11	7.3	11	32	9.9	10	11	8.1	2.7	8.3	7.5
6	79	9.9	7.4	8.1	33	18	11	43	6.1	2.3	6.2	565
7	28	55	9.9	13	33	26	14	115	5.6	2.2	20	167
8	12	115	10	17	37	32	12	38	5.9	2.4	21	40
9	7.5	29	35	14	49	20	24	21	15	3.9	11	76
10	5.7	17	22	8.9	30	15	17	15	13	3.8	9.0	89
11	5.2	26	12	7.8	22	13	13	15	21	2.8	7.0	302
12	5.0	121	10	10	17	12	12	17	16	4.3	6.6	216
13	5.0	37	9.7	11	16	11	11	11	16	9.2	11	69
14	8.9	32	9.0	12	14	11	10	9.3	8.9	5.0	9.3	30
15	42	29	8.5	17	15	14	11	8.9	9.0	5.0	7.6	17
16	16	18	8.3	27	19	14	14	22	8.4	5.8	5.9	15
17	8.3	14	7.8	32	18	25	11	18	7.2	4.7	5.3	53
18	6.4	12	7.8	48	16	15	9.5	12	7.0	5.0	4.8	26
19	5.7	11	15	187	16	18	9.2	9.0	6.0	4.3	4.6	14
20	5.8	10	13	86	71	17	9.7	7.8	5.7	3.6	4.5	12
21	31	10	9.6	36	78	13	12	7.1	5.3	3.1	3.9	9.9
22	20	9.1	8.6	25	36	11	10	6.6	4.2	2.9	5.7	9.3
23	9.9	8.8	7.9	21	27	9.9	9.1	6.0	3.4	3.1	11	8.4
24	7.4	9.4	7.9	26	22	8.9	9.1	5.7	3.8	3.4	14	7.8
25	6.5	12	7.0	30	17	8.5	8.1	6.3	4.3	3.6	20	7.5
26	6.2	10	7.0	21	15	8.5	8.9	6.5	3.9	11	9.8	8.0
27	6.2	9.5	6.8	65	14	7.7	10	7.1	3.5	9.0	7.2	8.8
28	28	13	6.5	47	13	16	8.7	14	3.3	6.7	6.2	7.8
29	14	10	6.2	27	11	18	8.2	10	3.2	28	6.3	166
30	8.7	8.7	6.3	23	---	12	99	9.7	3.2	13	5.8	46
31	7.8	---	8.5	26	---	11	---	7.6	---	8.1	5.2	---
TOTAL	761.3	698.3	307.7	897.7	839	438.2	433.5	573.6	220.7	171.5	305.2	1998.0
MEAN	24.6	23.3	9.93	29.0	28.9	14.1	14.4	18.5	7.36	5.53	9.85	66.6
MAX	266	121	35	187	78	32	99	115	21	28	29	565
MIN	2.7	7.9	6.2	7.8	11	7.7	8.1	5.7	3.2	2.2	3.9	4.2
CFSM	1.83	1.74	.74	2.16	2.16	1.05	1.08	1.38	.55	.41	.73	4.97
IN.	2.11	1.94	.85	2.49	2.33	1.22	1.20	1.59	.61	.48	.85	5.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

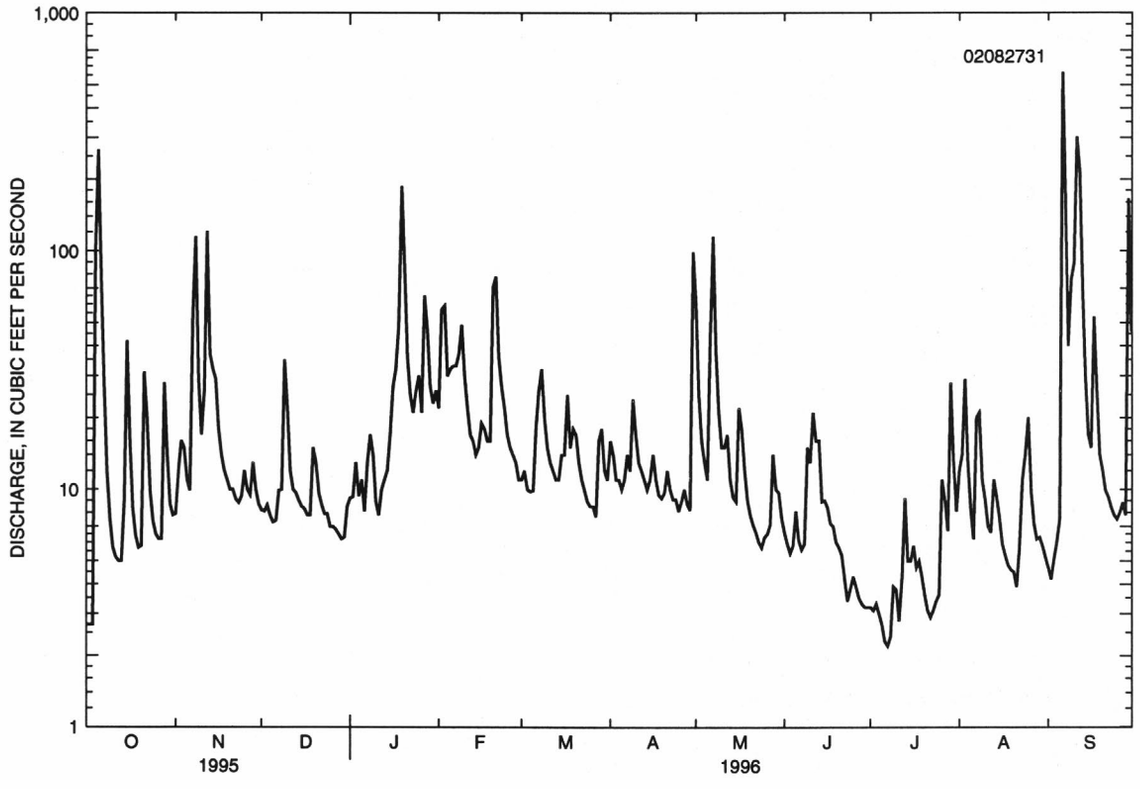
MEAN	10.1	12.1	9.76	18.8	22.4	26.5	10.3	9.32	10.6	6.40	4.98	18.6
MAX	24.6	23.3	14.3	29.0	28.9	42.9	14.4	18.5	20.8	10.8	9.85	66.6
(WY)	1996	1996	1994	1996	1996	1994	1996	1996	1995	1995	1996	1996
MIN	2.15	4.81	5.11	12.1	18.1	14.1	5.75	4.29	5.35	3.46	1.85	2.08
(WY)	1994	1995	1995	1995	1994	1996	1995	1995	1994	1994	1993	1994

PAMLICO RIVER BASIN

02082731 DEVILS CRADLE CREEK NEAR ALERT, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	4812.50		7644.7			
ANNUAL MEAN	13.2		20.9		13.9	
HIGHEST ANNUAL MEAN					20.9	1996
LOWEST ANNUAL MEAN					9.49	1995
HIGHEST DAILY MEAN	266	Oct 5	565	Sep 6	565	Sep 6 1996
LOWEST DAILY MEAN	.46	Aug 22	2.2	Jul 7	.22	Aug 25 1993
ANNUAL SEVEN-DAY MINIMUM	.48	Aug 20	2.7	Jul 2	.48	Aug 20 1995
INSTANTANEOUS PEAK FLOW			987	Sep 6	987	Sep 6 1996
INSTANTANEOUS PEAK STAGE			9.24	Sep 6	9.24	Sep 6 1996
INSTANTANEOUS LOW FLOW			2.1*	Jul 6	.19*	Aug 24 1993
ANNUAL RUNOFF (CFSM)	.98		1.56		1.03	
ANNUAL RUNOFF (INCHES)	13.36		21.22		14.05	
10 PERCENT EXCEEDS	25		36		24	
50 PERCENT EXCEEDS	7.0		10		6.7	
90 PERCENT EXCEEDS	1.7		4.7		1.8	

* 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 sea level.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	121	130	117	325	189	246	530	129	68	90	55
2	23	144	128	125	387	186	251	508	117	72	88	48
3	21	360	124	172	607	179	217	431	109	71	215	44
4	90	243	122	180	496	170	198	231	104	71	248	48
5	1320	191	121	150	422	165	183	186	104	70	104	52
6	1480	167	121	126	349	213	176	175	112	67	76	804
7	996	261	128	138	316	380	198	286	107	65	65	1360
8	518	759	147	151	312	458	191	479	101	66	61	1700
9	211	595	251	171	479	386	223	375	100	77	69	2300
10	139	519	350	151	445	309	246	231	169	91	85	1460
11	119	313	253	131	401	241	230	184	210	85	70	1820
12	108	386	187	141	303	215	199	180	418	89	57	1380
13	100	470	145	164	246	200	178	185	278	127	68	897
14	99	583	134	182	223	190	179	157	168	126	89	691
15	232	557	126	210	211	187	231	148	149	121	72	601
16	260	334	122	308	228	236	613	176	122	116	74	332
17	176	263	119	347	259	224	283	236	111	99	65	383
18	138	204	116	433	245	248	226	206	102	87	56	442
19	116	180	128	878	233	325	195	174	95	77	51	282
20	108	167	164	893	307	354	180	150	91	75	56	211
21	106	158	153	755	762	279	186	137	87	64	46	163
22	130	149	137	661	685	256	190	128	87	52	43	140
23	176	140	123	317	594	209	189	121	89	44	51	125
24	156	136	116	257	401	188	174	115	83	34	68	114
25	122	141	112	301	295	177	164	112	79	29	103	107
26	109	149	110	274	252	172	158	113	77	43	137	102
27	102	142	109	575	232	168	163	117	74	58	143	100
28	167	138	105	721	213	240	164	228	71	112	108	99
29	235	134	103	512	202	429	159	201	71	95	73	119
30	155	134	101	417	---	294	241	169	67	89	62	331
31	136	---	104	348	---	252	---	153	---	109	61	---
TOTAL	7873	8238	4389	10306	10430	7719	6431	6822	3681	2449	2654	16310
MEAN	254	275	142	332	360	249	214	220	123	79.0	85.6	544
MAX	1480	759	350	893	762	458	613	530	418	127	248	2300
MIN	21	121	101	117	202	165	158	112	67	29	43	44
CFSM	1.53	1.65	.85	2.00	2.17	1.50	1.29	1.33	.74	.48	.52	3.28
IN.	1.76	1.85	.98	2.31	2.34	1.73	1.44	1.53	.82	.55	.59	3.66

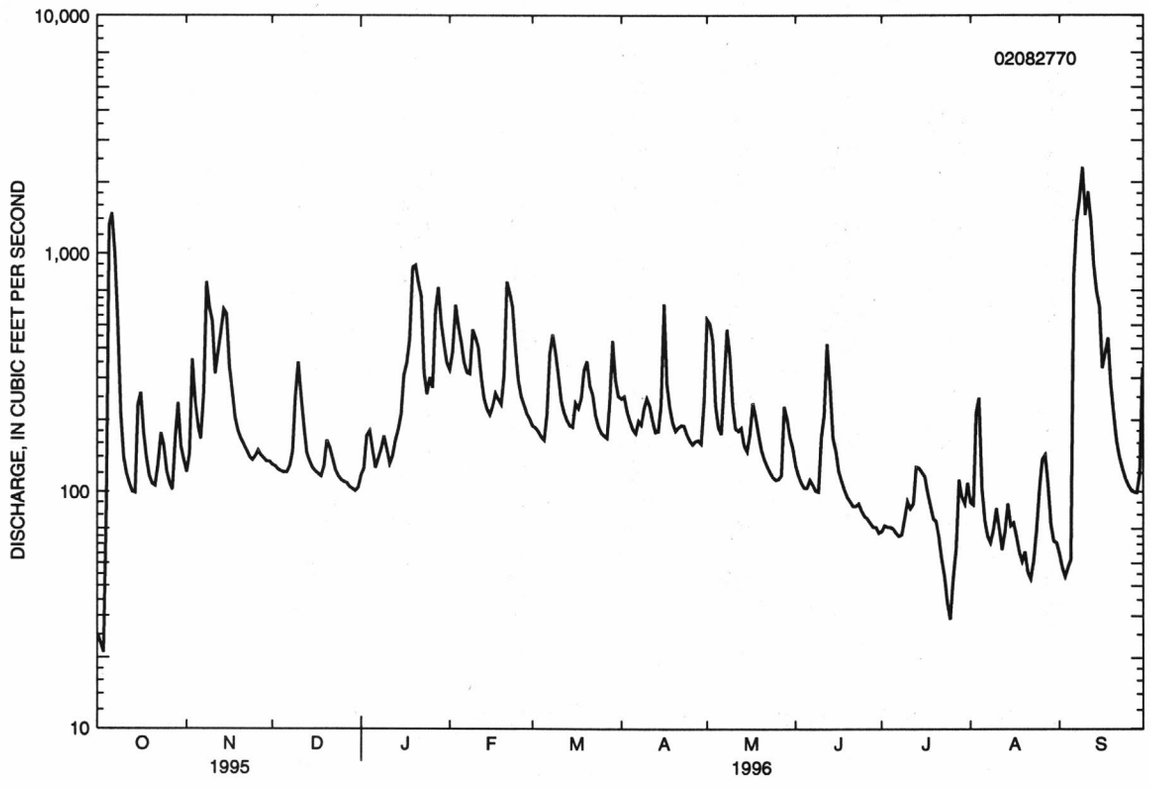
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	82.6	117	148	238	279	303	223	150	127	95.4	85.5	72.4
MAX	420	436	382	500	516	711	774	466	468	470	326	544
(WY)	1972	1986	1973	1987	1983	1989	1987	1984	1979	1975	1986	1996
MIN	9.65	27.8	37.3	59.5	92.6	77.6	72.9	47.5	26.4	12.3	10.2	4.90
(WY)	1971	1982	1966	1981	1968	1988	1981	1995	1981	1981	1993	1968

PAMLICO RIVER BASIN

02082770 SWIFT CREEK AT HILLIARDSTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996	
ANNUAL TOTAL	62570.8		87302			
ANNUAL MEAN	171		239		160	
HIGHEST ANNUAL MEAN					290	1984
LOWEST ANNUAL MEAN					51.0	1981
HIGHEST DAILY MEAN	2700	Jun 14	2300	Sep 9	4780	May 31 1984
LOWEST DAILY MEAN	6.0	Aug 25	21	Oct 3	.60	Sep 25 1968
ANNUAL SEVEN-DAY MINIMUM	7.7	Aug 21	46	Jul 21	1.1	Sep 21 1968
INSTANTANEOUS PEAK FLOW			2460	Sep 9	6030	Jun 5 1979
INSTANTANEOUS PEAK STAGE			12.45	Sep 9	14.27	Jun 5 1979
INSTANTANEOUS LOW FLOW			20	Oct 4	.60	Sep 25 1968
ANNUAL RUNOFF (CFSM)	1.03		1.44		.96	
ANNUAL RUNOFF (INCHES)	14.02		19.56		13.07	
10 PERCENT EXCEEDS	336		473		341	
50 PERCENT EXCEEDS	103		164		90	
90 PERCENT EXCEEDS	23		70		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.

DRAINAGE AREA.--177 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 116.44 ft above sea level. Feb. 14, 1962, to Apr. 23, 1979, auxiliary nonrecording gage 3.6 mi downstream. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge for period of record, from rating curve extended above 6,900 ft^3/s on basis of slope-conveyance study of peak flow. Maximum gage height for period of record, from floodmarks. Minimum discharge for current water year also occurred Oct. 4.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	48	78	97	279	119	204	630	76	37	90	31
2	9.5	58	74	110	334	119	225	466	65	35	333	29
3	9.1	118	71	160	607	115	171	208	58	32	657	29
4	38	106	70	161	444	105	139	149	54	31	915	44
5	968	102	68	120	284	99	122	124	62	30	455	69
6	1190	80	66	101	263	135	112	339	78	27	139	1290
7	514	182	72	110	194	299	148	872	64	27	96	1580
8	172	700	92	141	251	418	149	610	55	28	79	1820
9	80	585	238	164	549	336	187	290	54	45	71	820
10	52	211	410	126	598	203	351	195	273	62	65	488
11	39	135	208	123	409	158	213	150	241	46	63	2010
12	33	334	124	137	261	143	152	169	291	43	55	1050
13	29	448	104	185	195	133	129	167	369	193	64	394
14	28	353	96	214	167	124	119	127	152	240	131	185
15	150	584	90	236	165	124	127	110	89	128	115	107
16	206	369	87	381	196	149	600	167	79	124	87	77
17	95	193	85	458	230	231	415	238	64	86	67	173
18	60	141	80	577	207	270	232	182	54	76	56	150
19	45	119	106	1210	201	293	182	134	48	56	49	90
20	38	105	189	1580	267	518	162	105	44	45	46	67
21	41	97	153	852	669	309	188	88	155	39	43	52
22	51	90	116	352	679	196	198	76	128	34	41	45
23	45	83	98	241	388	154	158	67	65	30	61	41
24	41	79	88	220	268	132	144	61	50	28	87	36
25	36	89	84	366	208	121	132	60	43	38	52	32
26	33	96	82	279	172	117	117	60	113	243	43	30
27	31	89	81	478	154	109	134	68	141	372	40	29
28	85	83	79	713	144	157	128	137	68	148	38	29
29	120	80	79	475	134	399	110	185	49	82	37	170
30	77	82	78	292	---	282	198	123	41	99	36	250
31	55	---	80	287	---	185	---	95	---	72	33	---
TOTAL	4380.6	5839	3426	10946	8917	6252	5646	6452	3123	2576	4144	11217
MEAN	141	195	111	353	307	202	188	208	104	83.1	134	374
MAX	1190	700	410	1580	679	518	600	872	369	372	915	2010
MIN	9.1	48	66	97	134	99	110	60	41	27	33	29
CFSM	.80	1.10	.62	1.99	1.74	1.14	1.06	1.18	.59	.47	.76	2.11
IN.	.92	1.23	.72	2.30	1.87	1.31	1.19	1.36	.66	.54	.87	2.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY)

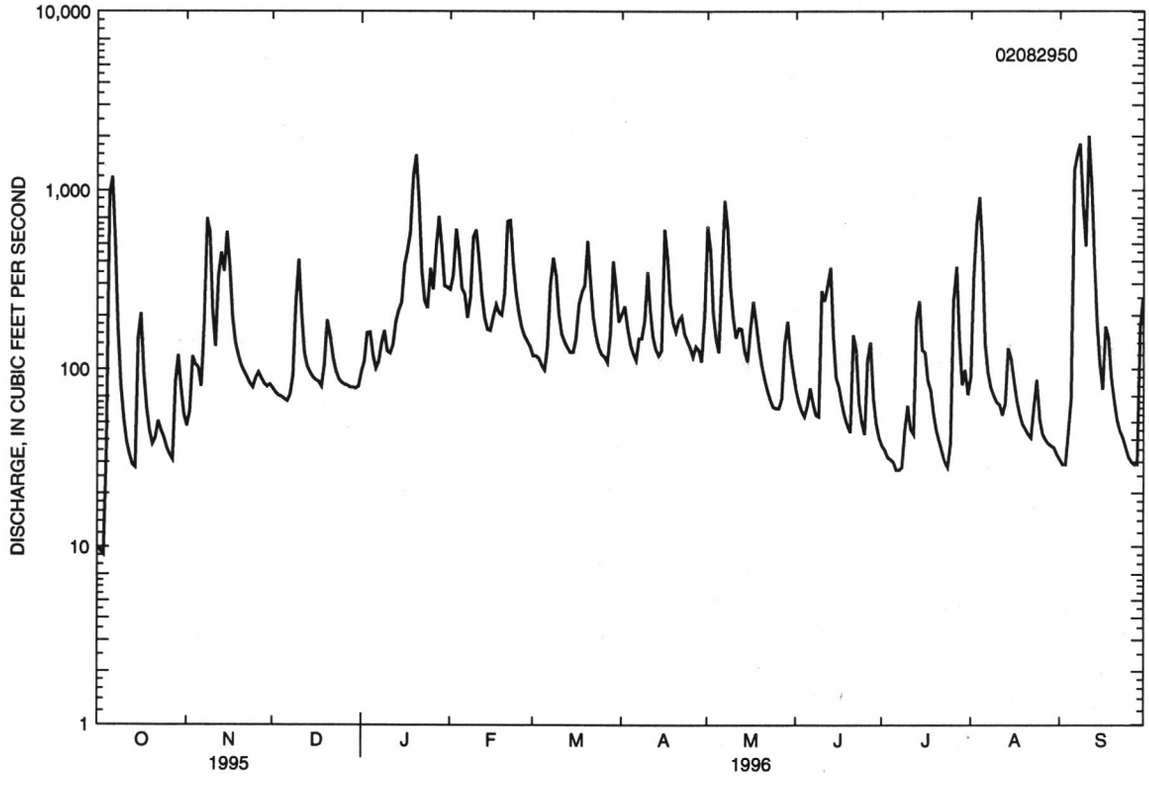
MEAN	97.5	121	152	252	328	336	229	140	102	87.8	79.5	56.4
MAX	982	860	482	570	742	650	720	550	300	602	330	374
(WY)	1973	1986	1973	1962	1984	1993	1987	1984	1965	1975	1967	1996
MIN	3.78	12.9	24.9	37.6	83.4	83.0	56.8	35.7	15.1	9.58	4.21	2.34
(WY)	1971	1982	1995	1981	1991	1981	1967	1995	1986	1981	1993	1980

PAMLICO RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996	
ANNUAL TOTAL	45561.3		72918.6			
ANNUAL MEAN	125		199		164	
HIGHEST ANNUAL MEAN					327	1973
LOWEST ANNUAL MEAN					47.2	1981
HIGHEST DAILY MEAN	3070	Mar 10	2010	Sep 11	15000	Oct 7 1972
LOWEST DAILY MEAN	3.4	Aug 26	9.1	Oct 3	.78	Sep 4 1980
ANNUAL SEVEN-DAY MINIMUM	3.9	Aug 20	30	Jul 2	1.1	Sep 26 1968
INSTANTANEOUS PEAK FLOW			2180	Sep 11	18000*	Oct 7 1972
INSTANTANEOUS PEAK STAGE			13.42	Sep 11	24.80*	Oct 7 1972
INSTANTANEOUS LOW FLOW			8.7*	Oct 3	.72	Sep 5 1980
ANNUAL RUNOFF (CFSM)	.71		1.13		.93	
ANNUAL RUNOFF (INCHES)	9.58		15.33		12.62	
10 PERCENT EXCEEDS	290		445		355	
50 PERCENT EXCEEDS	54		121		77	
90 PERCENT EXCEEDS	9.6		39		16	

* 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 74.26 ft above sea level. Prior to Oct. 28, 1932, nonrecording gage and Oct. 29, 1932, to Sept. 30, 1992, at same site at datum 76.26 ft. National Weather Service telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation and some regulation at low flow caused by upstream mills. Maximum gage height and discharge for current water year may have occurred during period of estimated record Sept. 10-30.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Apr. 19, 1910, reached a stage of 20.1 ft, at datum 76.26 ft (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 at datum 76.26 ft; discharge, 20,300 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	222	304	295	907	468	618	954	257	102	257	89
2	46	229	284	342	889	451	680	1300	207	94	296	80
3	42	549	269	424	1540	451	623	965	179	92	717	76
4	103	585	260	526	1570	428	524	600	162	86	1140	82
5	2100	469	256	453	980	396	463	418	160	83	1140	101
6	3230	390	255	365	713	411	426	388	177	80	445	1070
7	3230	386	261	370	710	741	456	1150	195	73	252	2580
8	1850	1440	317	390	718	1120	509	1690	168	68	191	2980
9	637	1810	486	396	1100	1130	532	1010	154	87	200	3300
10	320	1330	915	439	1450	862	735	597	252	134	158	e3200
11	215	754	832	377	1340	646	730	455	601	148	139	e3250
12	167	668	571	419	949	561	560	387	768	127	131	e1400
13	140	1020	441	519	715	519	473	429	1080	288	125	e900
14	128	1170	390	611	598	481	453	365	611	551	186	e500
15	281	1500	364	669	547	456	437	310	360	423	314	e300
16	703	1210	345	842	556	500	951	335	272	375	254	e400
17	527	760	332	997	664	554	963	533	225	350	189	e500
18	326	558	316	1120	685	691	649	542	193	241	148	e400
19	227	464	328	1970	638	714	503	427	163	188	125	e300
20	181	412	461	3120	629	996	438	341	147	142	109	e200
21	170	382	529	3460	1240	924	424	283	161	117	100	e180
22	173	353	444	2820	1890	687	476	239	449	98	99	e160
23	224	329	376	1610	1890	556	451	208	263	85	105	e150
24	224	303	335	814	1350	481	394	183	161	77	141	e140
25	191	306	307	834	830	437	365	168	128	75	156	e120
26	157	334	292	895	644	418	332	166	129	145	143	e110
27	140	339	282	1080	565	406	326	175	301	429	140	e100
28	221	320	264	2200	527	429	344	256	265	559	157	e110
29	442	303	257	1980	501	919	329	414	153	313	136	e300
30	397	297	251	1210	---	974	348	415	119	201	121	e400
31	281	---	266	932	---	722	---	328	---	271	102	---
TOTAL	17124	19192	11590	32479	27335	19529	15512	16031	8460	6102	7916	23478
MEAN	552	640	374	1048	943	630	517	517	282	197	255	783
MAX	3230	1810	915	3460	1890	1130	963	1690	1080	559	1140	3300
MIN	42	222	251	295	501	396	326	166	119	68	99	76
CFSM	1.05	1.22	.71	1.99	1.79	1.20	.98	.98	.54	.37	.49	1.49
IN.	1.21	1.36	.82	2.30	1.93	1.38	1.10	1.13	.60	.43	.56	1.66

PAMLICO RIVER BASIN

02083000 FISHING CREEK NEAR ENFIELD, NC

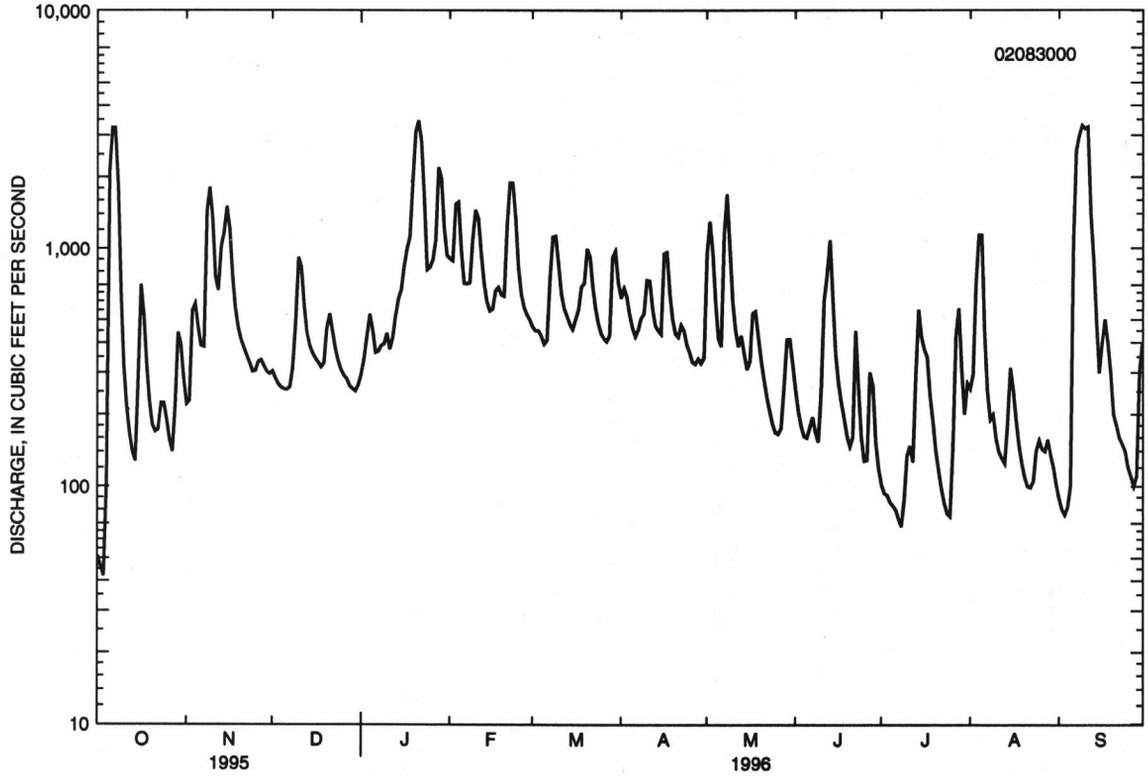
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1996, BY WATER YEAR (WY)

MEAN	256	330	477	716	867	898	698	434	317	303	329	258
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	128	70.6	42.8	26.8	14.2
(WY)	1934	1934	1934	1934	1934	1981	1967	1995	1986	1981	1993	1980

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1927 - 1996	
ANNUAL TOTAL	149605		204748			
ANNUAL MEAN	410		559		489	
HIGHEST ANNUAL MEAN					871	1984
LOWEST ANNUAL MEAN					148	1981
HIGHEST DAILY MEAN	4440	Mar 11	3460	Jan 21	12100	Aug 18 1940
LOWEST DAILY MEAN	16	Aug 26	42	Oct 3	6.9	Oct 5 1968
ANNUAL SEVEN-DAY MINIMUM	20	Aug 21	81	Jul 3	8.1	Sep 30 1968
INSTANTANEOUS PEAK FLOW			3510*	Jan 21	12600	Dec 2 1934
INSTANTANEOUS PEAK STAGE			15.82*	Jan 21	17.72	Aug 18 1940
INSTANTANEOUS LOW FLOW			40	Oct 4	NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	.78		1.06		.93	
ANNUAL RUNOFF (INCHES)	10.58		14.48		12.62	
10 PERCENT EXCEEDS	935		1140		1090	
50 PERCENT EXCEEDS	222		395		270	
90 PERCENT EXCEEDS	46		126		69	

e Estimated.

* See REMARKS.



PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC

LOCATION.--Lat 35° 53'38", long 7732'00", 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 sea level. 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 telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation at low flow caused by mills upstream from station. Town of Tarboro diverted 4.8 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 flood marks; discharge, 52,800 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	378	1930	1200	1190	8200	2400	4380	1650	1840	339	903	759
2	340	1570	1220	1260	7340	2230	4190	3150	1370	301	963	660
3	266	2690	1130	1390	6740	2200	3820	4370	1070	289	875	488
4	300	3480	1090	1500	6760	2090	3550	4740	894	282	2270	587
5	1620	3600	1080	1750	6970	1940	3170	3180	773	290	3050	591
6	e4500	3190	1030	1820	6950	1820	2690	2370	662	299	3010	2490
7	e7000	2850	1030	1820	5800	1920	2470	1950	582	278	2080	4860
8	e8000	4180	1110	2060	4960	3230	2410	2060	632	245	1440	6570
9	e8800	5240	1400	2130	4650	4350	2440	3350	572	272	1120	7440
10	e9000	6120	2520	2070	5070	5250	2780	3660	609	302	1740	9120
11	e7000	6860	3280	2100	5670	5710	2970	2950	642	270	1660	11300
12	4390	7060	4050	2250	6100	4760	3260	2290	1260	444	1060	13800
13	2130	6180	3660	2730	5880	3500	2980	1930	2580	1060	870	17700
14	1420	5640	2840	3040	5000	2870	2560	1650	3310	1630	732	20500
15	1250	6120	2370	3300	3790	2490	2280	1410	3250	1550	715	21400
16	1550	6730	2070	3580	3040	2470	2150	1300	2490	1980	912	19900
17	2050	6600	1840	3900	2850	2670	2680	1330	1780	1980	1090	14900
18	2250	5860	1670	4370	2880	2660	3480	1530	1320	1450	918	10300
19	1820	4420	1680	5040	2900	2690	3410	1790	942	1130	822	7710
20	1460	3450	2060	5920	2810	3070	2200	1690	757	949	806	6090
21	1230	2710	2160	6910	3200	3230	2110	1450	614	667	649	4630
22	1150	2280	2250	7850	4810	3940	1970	1250	595	513	561	3250
23	1430	1980	2220	8820	5810	4130	2530	1020	585	489	460	2540
24	2140	1750	1980	9640	6710	3100	2230	893	627	420	465	2040
25	1690	1530	1760	9350	6850	2420	1430	764	509	372	435	1690
26	1210	1450	1600	7280	6080	2090	1430	623	448	407	550	1440
27	938	1410	1500	6480	4600	1870	1140	617	371	580	1280	1250
28	908	1460	1370	6330	3470	1810	1220	889	347	567	1080	1140
29	1230	1350	1300	6930	2750	2360	1320	1620	447	1060	864	1010
30	1790	1220	1250	7700	---	3270	1370	1960	400	1010	709	1140
31	2380	---	1190	8370	---	4130	---	2250	---	764	773	---
TOTAL	81620	110910	56910	138880	148640	92670	76620	61686	32278	22189	34862	197295
MEAN	2633	3697	1836	4480	5126	2989	2554	1990	1076	716	1125	6576
MAX	9000	7060	4050	9640	8200	5710	4380	4740	3310	1980	3050	21400
MIN	266	1220	1030	1190	2750	1810	1140	617	347	245	435	488
CFSM	1.21	1.69	.84	2.05	2.35	1.37	1.17	.91	.49	.33	.52	3.01
IN.	1.39	1.89	.97	2.37	2.53	1.58	1.31	1.05	.55	.38	.59	3.36

PAMLICO RIVER BASIN

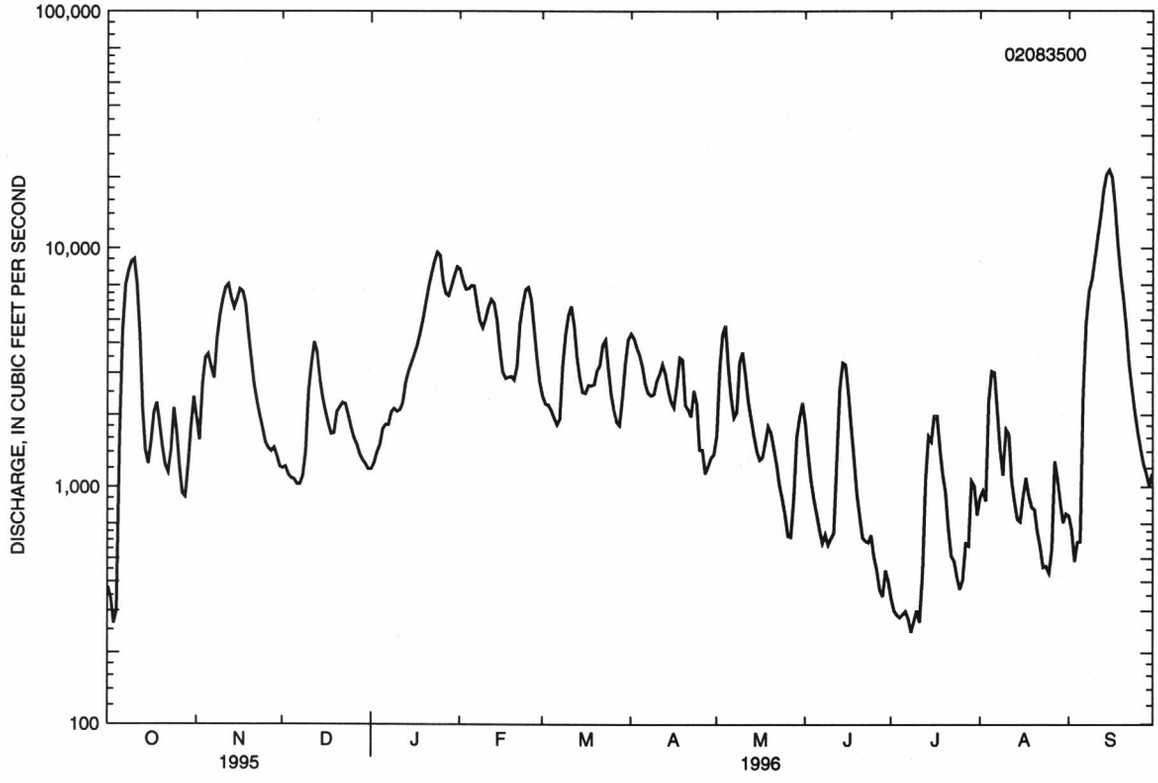
02083500 TAR RIVER AT TARBORO, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1996@, BY WATER YEAR (WY)

MEAN	1016	1267	2007	3309	4255	4428	3250	1859	1351	1328	1442	1243
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	688	451	243	192	180	63.8
(WY)	1934	1934	1934	1934	1934	1981	1995	1995	1986	1986	1993	1968

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1896 - 1996@	
ANNUAL TOTAL	786501		1054560			
ANNUAL MEAN	2155		2881		2220	
HIGHEST ANNUAL MEAN					4057	1960
LOWEST ANNUAL MEAN					594	1981
HIGHEST DAILY MEAN	12900	Mar 13	21400	Sep 15	36100	Aug 20 1940
LOWEST DAILY MEAN	172	Aug 25	245	Jul 8	36	Oct 17 1933
ANNUAL SEVEN-DAY MINIMUM	184	Aug 20	279	Jul 3	40	Sep 26 1932
INSTANTANEOUS PEAK FLOW			21600	Sep 15	37200	Aug 20 1940
INSTANTANEOUS PEAK STAGE			26.57	Sep 15	31.77	Aug 20 1940
INSTANTANEOUS LOW FLOW			237	Jul 8	36*	Oct 17 1933
ANNUAL RUNOFF (CFSM)	.99		1.32		1.02	
ANNUAL RUNOFF (INCHES)	13.40		17.97		13.82	
10 PERCENT EXCEEDS	6450		6630		5600	
50 PERCENT EXCEEDS	1190		2010		1220	
90 PERCENT EXCEEDS	280		581		286	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1967, July 1973 to September 1986.

WATER TEMPERATURE: October 1944 to September 1945, October 1953 to September 1954, October 1961 to September 1967, July 1973 to September 1986.

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

REMARKS.--Station operated as part of NAWQA Program from March 1993 to present. Station also operated as part of NASQAN network from October 1974 to September 1994. Daily records of specific conductance for water years 1954, 1959-64 are available in the files of the 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 1995 TO SEPTEMBER 1996

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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)
NOV										
30...	1115	1200	102	6.1	9.0	--	767	9.8	84	--
MAY										
07...	1100	1970	86	7.2	20.5	--	773	7.1	77	--
JUN										
25...	1130	498	115	7.4	28.5	--	762	7.1	92	--
AUG										
28...	1130	1080	95	7.5	25.0	--	768	6.8	81	--
SEP										
11...	1345	10800	59	6.5	25.0	120	756	3.3	40	2.5

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	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)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
30...	25	6.2	2.2	7.8	37	0.7	3.4	23	19	9.0
MAY										
07...	24	5.7	2.3	6.4	34	0.6	2.3	24	20	5.5
JUN										
25...	27	6.7	2.6	10	41	0.8	2.7	36	30	8.3
AUG										
28...	22	5.4	2.1	8.4	42	0.8	2.8	27	22	9.4
SEP										
11...	15	3.8	1.3	3.2	26	0.4	3.7	--	--	4.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV										
30...	8.2	<0.10	13	68	0.350	--	<0.010	0.350	0.350	--
MAY										
07...	6.3	0.10	11	81	0.320	--	0.020	0.340	0.340	--
JUN										
25...	7.2	0.20	15	86	0.540	--	<0.010	0.540	0.540	--
AUG										
28...	5.5	0.10	12	66	0.370	--	0.010	0.380	0.380	--
SEP										
11...	3.0	<0.10	6.7	80	--	0.010	--	<0.020	--	0.040

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)
NOV										
30...	<0.015	0.40	--	0.40	0.30	0.75	0.65	0.030	0.040	--
MAY										
07...	0.060	0.54	0.54	0.60	0.60	0.94	0.94	0.090	0.060	--
JUN										
25...	0.050	0.35	0.25	0.40	0.30	0.94	0.84	0.070	0.040	--
AUG										
28...	0.040	0.46	0.36	0.50	0.40	0.88	0.78	0.080	0.070	--
SEP										
11...	--	0.84	--	0.88	--	0.88	--	0.110	--	0.080

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV										
30...	0.030	810	45	--	--	7.8	0.40	20	65	--
MAY										
07...	0.060	1700	32	--	--	10	0.50	24	128	98
JUN										
25...	0.060	1200	51	--	--	6.7	0.20	16	22	66
AUG										
28...	0.050	730	23	--	--	6.6	0.50	19	55	94
SEP										
11...	--	--	--	28	16	--	--	42	1220	--

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 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Minimum discharge for period of record also occurred Aug. 29 and Sept. 3, 1980. Minimum discharge for current water year also occurred Oct. 3.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	11	24	22	189	58	167	41	28	7.9	21	6.5
2	2.8	19	21	24	191	64	194	38	23	15	60	5.8
3	2.5	71	19	25	282	72	139	32	21	52	46	5.2
4	4.8	43	19	23	205	62	107	27	19	20	134	38
5	13	32	20	23	152	57	87	23	18	15	110	57
6	9.5	28	18	19	125	57	72	21	16	12	47	495
7	9.4	48	19	33	114	71	93	20	15	11	31	589
8	10	191	20	95	145	158	94	20	14	7.8	23	303
9	12	99	55	72	216	145	92	19	14	9.8	20	158
10	15	64	89	66	177	106	101	17	15	7.6	16	98
11	16	56	60	64	143	88	84	17	18	8.4	14	97
12	14	67	49	118	121	80	70	17	20	25	14	256
13	13	60	45	164	101	72	62	16	18	381	13	245
14	12	71	40	127	91	65	55	15	17	160	13	236
15	20	123	37	106	84	61	50	14	16	149	12	158
16	26	82	32	90	82	76	48	16	14	102	12	110
17	21	63	29	79	95	81	44	17	12	75	11	359
18	18	55	27	72	95	71	39	16	11	58	9.8	381
19	15	48	34	232	85	70	36	15	11	45	8.5	219
20	13	45	61	250	80	75	34	13	12	36	8.1	142
21	14	41	52	165	212	66	33	13	10	33	7.6	99
22	12	37	44	125	210	57	31	12	9.0	29	6.9	76
23	12	33	38	105	166	51	28	11	8.8	36	8.1	65
24	12	31	33	99	136	46	32	11	8.5	35	5.3	54
25	11	32	30	118	109	43	31	10	20	28	4.9	47
26	9.7	30	28	100	92	41	29	9.5	21	71	5.5	39
27	9.0	29	26	184	81	39	28	9.8	18	42	6.2	34
28	11	26	23	341	73	50	26	163	15	29	16	31
29	9.8	22	21	216	65	173	24	71	14	24	16	28
30	9.0	23	20	194	---	138	27	47	11	25	11	27
31	10	---	19	195	---	109	---	36	---	23	7.7	---
TOTAL	369.5	1580	1052	3546	3917	2402	1957	807.3	467.3	1572.5	718.6	4458.5
MEAN	11.9	52.7	33.9	114	135	77.5	65.2	26.0	15.6	50.7	23.2	149
MAX	26	191	89	341	282	173	194	163	28	381	134	589
MIN	2.5	11	18	19	65	39	24	9.5	8.5	7.6	4.9	5.2
CFSM	.15	.67	.43	1.46	1.73	.99	.84	.33	.20	.65	.30	1.90
IN.	.18	.75	.50	1.69	1.87	1.14	.93	.38	.22	.75	.34	2.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996, BY WATER YEAR (WY)

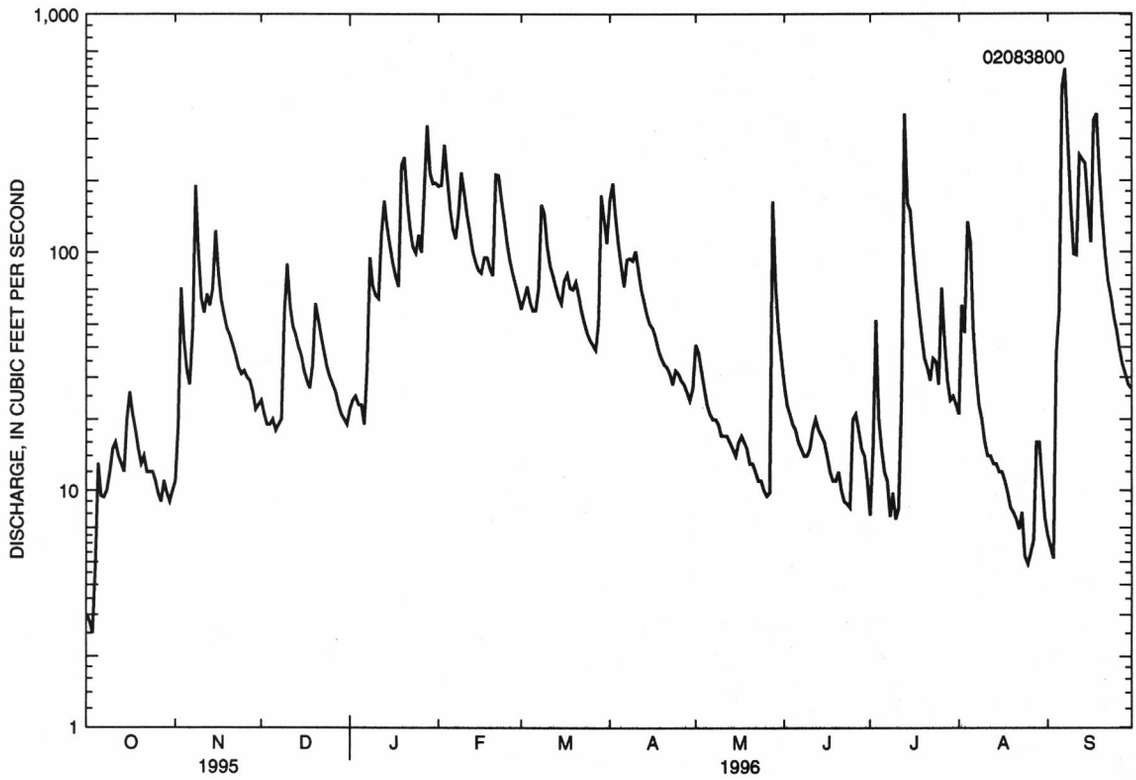
MEAN	47.6	36.8	60.0	119	151	156	94.6	60.7	43.0	38.7	68.6	39.3
MAX	462	181	218	296	327	282	282	251	274	210	452	329
(WY)	1972	1978	1958	1978	1960	1983	1959	1978	1979	1962	1967	1960
MIN	2.82	3.14	3.77	9.96	22.5	17.5	13.2	9.91	3.80	3.16	1.32	2.67
(WY)	1979	1987	1969	1981	1981	1981	1981	1981	1994	1993	1993	1980

PAMLICO RIVER BASIN

02083800 CONETOE CREEK NEAR BETHEL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1957 - 1996	
ANNUAL TOTAL	18374.3		22847.7			
ANNUAL MEAN	50.3		62.4		76.2	
HIGHEST ANNUAL MEAN					148	1960
LOWEST ANNUAL MEAN					12.0	1981
HIGHEST DAILY MEAN	529	Mar 9	589	Sep 7	2480	Aug 23 1967
LOWEST DAILY MEAN	2.5	Oct 3	2.5	Oct 3	.74	Aug 25 1993
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 27	6.4	Aug 21	.79	Aug 21 1993
INSTANTANEOUS PEAK FLOW			624	Sep 7	2580	Aug 23 1967
INSTANTANEOUS PEAK STAGE			10.78	Sep 7	15.74	Aug 23 1967
INSTANTANEOUS LOW FLOW			2.4*	Oct 2	.40*	Aug 28 1980
ANNUAL RUNOFF (CFSM)	.64		.80		.98	
ANNUAL RUNOFF (INCHES)	8.75		10.88		13.26	
10 PERCENT EXCEEDS	125		158		181	
50 PERCENT EXCEEDS	20		33		32	
90 PERCENT EXCEEDS	4.6		10		5.2	

* See REMARKS.



PAMLICO RIVER BASIN

02083833 PETE MITCHELL SWAMP AT SR 1409 NEAR PENNY HILL, NC

LOCATION.--Lat 35°45'59", long 77°29'36", Pitt County, Hydrologic Unit 03020103, on left bank 5 ft downstream of bridge on Secondary Road 1409, 1.7 mi northeast of Penny Hill.

DRAINAGE AREA.--11.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1993 to current year.

GAGE.--Water stage recorder. Datum gage is 25 ft above sea level, from topographic map.

REMARKS.--Records fair except those above 78 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	4.5	10	10	37	19	31	10	11	3.7	5.7	1.4
2	.82	5.8	10	10	42	20	31	9.0	9.6	3.6	7.2	1.5
3	.61	15	10	11	61	19	26	8.0	8.8	4.1	8.4	1.4
4	6.9	13	10	9.8	41	18	23	7.3	8.1	3.5	8.1	5.0
5	6.3	12	8.1	10	33	18	20	6.7	7.2	3.3	7.4	28
6	11	9.4	7.5	8.9	30	19	18	6.4	6.6	3.0	6.6	174
7	12	19	9.4	11	28	21	18	6.0	6.5	3.0	6.1	179
8	13	43	9.8	20	32	30	16	6.0	5.8	2.8	6.1	119
9	16	30	17	18	42	29	17	6.1	5.8	2.5	5.4	62
10	15	24	23	17	35	24	15	5.6	6.0	2.2	5.5	45
11	13	22	19	17	32	22	13	5.4	6.1	1.8	4.5	52
12	12	28	16	27	28	22	12	6.1	8.4	9.5	4.6	86
13	11	24	14	34	24	20	12	5.1	9.3	108	4.1	82
14	10	27	13	30	23	19	11	4.7	9.1	58	3.8	83
15	14	34	13	26	22	23	10	4.6	8.1	51	3.5	63
16	14	28	11	23	21	23	10	5.4	7.1	33	3.3	49
17	12	25	9.8	21	22	23	9.3	5.9	6.4	24	2.3	118
18	11	24	9.9	20	22	23	9.4	5.7	6.1	22	3.2	128
19	9.2	19	12	38	20	23	9.2	5.4	5.6	13	3.0	62
20	9.5	17	16	40	20	21	9.2	5.2	6.6	12	1.9	39
21	12	18	15	29	43	18	9.0	5.1	5.5	7.9	1.5	31
22	11	17	13	25	41	17	8.5	5.0	4.7	8.0	1.5	27
23	9.6	17	12	23	36	15	6.7	4.6	4.3	7.3	1.5	23
24	8.7	14	12	23	32	15	8.0	4.4	3.7	7.0	1.5	20
25	9.9	13	11	22	29	14	8.2	4.4	8.0	6.8	1.6	17
26	9.5	13	11	20	27	14	8.1	4.4	7.8	11	1.6	14
27	7.8	13	11	43	15	13	7.8	6.1	6.1	7.6	1.7	13
28	9.3	12	9.9	75	21	17	6.4	44	5.0	6.3	1.7	12
29	6.6	13	9.3	44	21	29	6.7	23	4.3	5.9	1.5	9.8
30	4.5	11	9.0	39	---	27	8.8	17	3.8	5.7	1.5	11
31	4.2	---	9.4	39	---	25	---	13	---	5.6	1.4	---
TOTAL	291.10	564.7	371.1	783.7	880	640	398.3	255.6	201.4	443.1	117.7	1556.1
MEAN	9.39	18.8	12.0	25.3	30.3	20.6	13.3	8.25	6.71	14.3	3.80	51.9
MAX	16	43	23	75	61	30	31	44	11	108	8.4	179
MIN	.61	4.5	7.5	8.9	15	13	6.4	4.4	3.7	1.8	1.4	1.4
CFSM	.85	1.71	1.09	2.30	2.76	1.88	1.21	.75	.61	1.30	.35	4.72
IN.	.98	1.91	1.25	2.65	2.98	2.16	1.35	.86	.68	1.50	.40	5.26

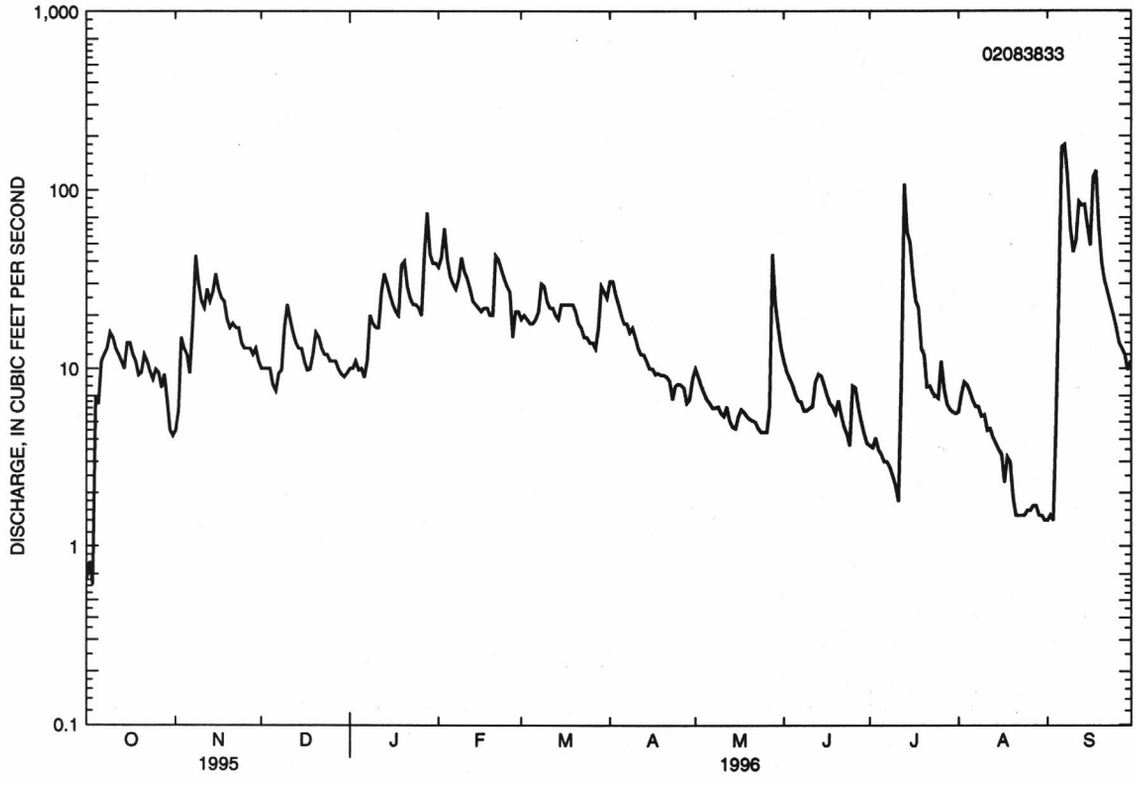
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	4.11	7.99	7.27	16.9	25.5	34.2	15.7	8.85	13.9	11.0	2.11	14.2
MAX	9.39	18.8	12.0	25.3	30.3	53.0	36.4	18.4	42.3	24.3	3.80	51.9
(WY)	1996	1996	1996	1996	1996	1993	1993	1993	1995	1995	1996	1996
MIN	.80	.68	.64	1.39	21.7	20.6	4.22	4.11	1.35	1.96	.94	.74
(WY)	1995	1995	1995	1995	1994	1996	1995	1994	1994	1993	1994	1994

PAMLICO RIVER BASIN

02083833 PETE MITCHELL SWAMP AT SR 1409 NEAR PENNY HILL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	5306.26		6502.80			
ANNUAL MEAN	14.5		17.8		12.9	
HIGHEST ANNUAL MEAN					17.8	1996
LOWEST ANNUAL MEAN					9.45	1994
HIGHEST DAILY MEAN	130	Jun 13	179	Sep 7	179	Sep 7 1996
LOWEST DAILY MEAN	.44	Jan 3	.61	Oct 3	.25	Aug 20 1993
ANNUAL SEVEN-DAY MINIMUM	.59	Jan 1	1.5	Aug 28	.44	Oct 7 1994
INSTANTANEOUS PEAK FLOW			193	Sep 6	193	Sep 6 1996
INSTANTANEOUS PEAK STAGE			7.28	Sep 6	7.28	Sep 6 1996
INSTANTANEOUS LOW FLOW			.48	Oct 3	.12	Jul 21 1993
ANNUAL RUNOFF (CFSM)	1.32		1.62		1.17	
ANNUAL RUNOFF (INCHES)	17.94		21.99		15.89	
10 PERCENT EXCEEDS	33		34		32	
50 PERCENT EXCEEDS	6.9		11		5.9	
90 PERCENT EXCEEDS	.98		4.0		.71	



02083833 PETE MITCHELL SWAMP AT SR1409 NEAR PENNY HILL, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1993 to current year.

REMARKS.--Station operated as part of NAWQA Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV 1995											
30...	0930	11	214	6.0	9.5	767	8.9	77	68	19	5.1
MAY 1996											
09...	1000	6.1	204	6.6	19.5	772	8.0	86	69	19	5.2
JUN											
27...	1115	6.3	203	6.7	23.5	769	7.2	84	71	20	5.1
AUG											
28...	1345	1.8	287	6.3	22.5	766	4.4	50	100	29	7.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
NOV 1995											
30...	5.0	13	0.3	5.9	8	7	41	17	0.10	11	123
MAY 1996											
09...	5.0	13	0.3	4.7	14	11	40	16	0.10	7.4	134
JUN											
27...	4.5	11	0.2	6.1	19	16	37	15	0.20	2.2	128
AUG											
28...	4.9	9	0.2	9.2	16	13	64	20	0.20	9.6	164

02083833 PETE MITCHELL SWAMP AT SR1409 NEAR PENNY HILL, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
NOV 1995											
30...	3.80	<0.010	3.80	3.80	<0.015	0.40	--	0.40	0.20	4.2	4.0
MAY 1996											
09...	3.00	<0.010	3.00	3.00	0.040	0.46	0.26	0.50	0.30	3.5	3.3
JUN											
27...	2.20	<0.010	2.20	2.20	0.060	0.34	0.14	0.40	0.20	2.6	2.4
AUG											
28...	5.38	0.020	5.40	5.40	0.020	0.28	0.18	0.30	0.20	5.7	5.6

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1995										
30...	<0.010	<0.010	<0.010	77	49	3.8	0.50	36	1.1	--
MAY 1996										
09...	0.010	<0.010	<0.010	180	20	5.2	0.40	--	--	--
JUN										
27...	<0.010	<0.010	<0.010	64	15	5.1	0.10	1	0.02	100
AUG										
28...	<0.010	<0.010	<0.010	43	57	3.0	0.20	--	--	--

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.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is sea level.

REMARKS.--Records poor. No flow at times during most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	5.7	8.2	13	70	34	116	17	15	3.4	15	9.1
2	0	11	7.6	14	85	40	142	11	10	4.1	21	9.2
3	0	58	7.8	13	308	43	94	7.4	9.9	5.4	569	9.1
4	0	23	9.7	12	241	39	68	4.9	12	5.6	132	72
5	.10	15	8.7	11	222	36	51	4.3	13	5.0	34	307
6	.69	9.8	8.3	10	213	34	43	3.8	11	4.4	18	888
7	1.8	12	12	29	160	67	53	6.1	10	4.1	13	650
8	5.8	44	19	73	76	373	49	5.6	10	3.1	9.6	279
9	4.2	32	26	58	77	258	44	4.4	74	5.2	7.8	214
10	3.0	21	42	47	70	129	38	3.3	258	37	6.4	211
11	2.1	17	28	40	60	88	31	2.6	134	16	5.6	153
12	1.8	32	23	63	51	71	27	2.4	96	118	5.4	607
13	1.6	31	20	99	44	60	22	1.6	54	1770	8.0	1520
14	2.0	35	18	69	40	51	19	1.9	42	755	8.7	585
15	6.1	52	16	54	38	45	17	3.3	51	274	7.6	258
16	6.6	36	15	46	36	43	25	6.0	27	148	6.5	145
17	5.4	27	13	41	34	41	31	7.6	19	97	6.8	850
18	4.0	21	12	39	32	47	26	6.0	18	63	13	958
19	3.8	17	20	100	30	47	20	5.1	13	46	11	433
20	3.4	14	31	343	31	45	16	5.5	20	35	9.1	241
21	4.9	12	29	144	159	40	13	6.5	11	26	6.4	129
22	5.0	10	24	92	187	36	10	7.0	8.1	24	5.2	74
23	4.3	8.9	22	71	111	32	9.6	7.5	8.1	64	5.4	49
24	4.0	9.0	20	62	82	30	9.3	6.6	53	38	5.4	34
25	3.9	9.5	17	65	63	28	7.8	5.5	27	34	5.8	25
26	4.6	9.0	15	59	51	27	6.4	4.5	15	25	6.1	20
27	4.5	8.5	14	79	44	27	6.4	8.5	11	18	7.8	16
28	6.9	8.2	12	217	40	54	5.9	398	7.6	15	16	14
29	7.5	8.0	12	125	37	215	5.6	119	5.0	29	22	14
30	6.4	8.7	12	86	---	134	9.2	41	3.8	28	13	15
31	5.5	---	11	73	---	88	---	27	---	18	10	---
TOTAL	109.91	605.3	533.3	2247	2692	2302	1015.2	740.9	1046.5	3718.3	1010.6	8788.4
MEAN	3.55	20.2	17.2	72.5	92.8	74.3	33.8	23.9	34.9	120	32.6	293
MAX	7.5	58	42	343	308	373	142	398	258	1770	569	1520
MIN	0	5.7	7.6	10	30	27	5.6	1.6	3.8	3.1	5.2	9.1
CFSM	.08	.45	.38	1.61	2.06	1.65	.75	.53	.78	2.67	.72	6.51
IN.	.09	.50	.44	1.86	2.23	1.90	.84	.61	.87	3.07	.84	7.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996@, BY WATER YEAR (WY)

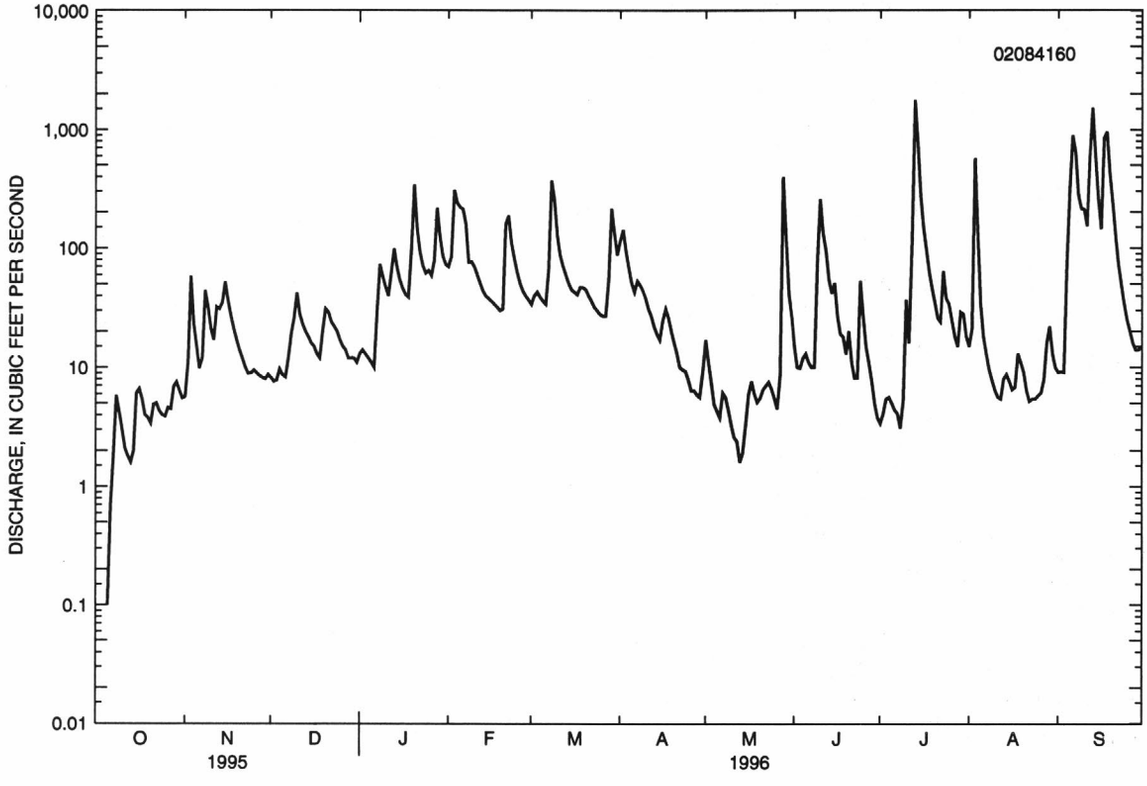
MEAN	15.2	37.0	48.2	102	87.3	104	51.9	34.7	39.3	22.4	35.7	40.0
MAX	70.5	219	94.2	244	188	201	144	139	192	120	238	293
(WY)	1978	1978	1978	1978	1995	1980	1978	1978	1995	1996	1992	1996
MIN	.27	1.23	4.57	15.2	19.7	18.0	4.49	.65	.001	1.06	0	.22
(WY)	1977	1982	1982	1986	1977	1981	1981	1985	1985	1994	1976	1995

PAMLICO RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1976 - 1996@	
ANNUAL TOTAL	21420.96		24809.41			
ANNUAL MEAN	58.7		67.8		50.6	
HIGHEST ANNUAL MEAN					90.5	1978
LOWEST ANNUAL MEAN					22.1	1986
HIGHEST DAILY MEAN	1210	Jun 7	1770	Jul 13	2150	Nov 7 1977
LOWEST DAILY MEAN	0	Sep 16	0	Oct 2	0	Jul 19 1976
ANNUAL SEVEN-DAY MINIMUM	.02	Sep 16	.37	Oct 1	0	Jul 19 1976
INSTANTANEOUS PEAK FLOW			2190	Jul 13	2660	Sep 14 1984
INSTANTANEOUS PEAK STAGE			11.79	Sep 13	12.48	Sep 14 1984
INSTANTANEOUS LOW FLOW			0*	Oct 2	0*	Jul 19 1976
ANNUAL RUNOFF (CFSM)	1.30		1.51		1.12	
ANNUAL RUNOFF (INCHES)	17.71		20.51		15.27	
10 PERCENT EXCEEDS	133		143		125	
50 PERCENT EXCEEDS	13		20		13	
90 PERCENT EXCEEDS	.12		4.6		.38	

* See REMARKS.
@ See PERIOD OF RECORD.



PAMLICO RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to March 1987, May 1992 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1975 to March 1987, May 1992 to July 1993.

pH: May 1992 to July 1993.

WATER TEMPERATURE: November 1975 to March 1987, May 1992 to July 1993.

DISSOLVED OXYGEN: May 1992 to July 1993.

SUSPENDED SEDIMENT DISCHARGE: November 1975 to March 1987.

INSTRUMENTATION.--Water-quality monitor and sediment-pumping sampler November 1975 to March 1987. Water-quality monitor May 1992 to July 1993.

REMARKS.--Station operated as part of NAWQA Program from May 1992 to current year. Station operated to define the effects of channelization on stream quantity and quality in the Chicod Creek basin from November 1975 to March 1987. Water-quality monitor records for May 1992 to July 1993 are available in the Raleigh District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: (November 1975 to March 1987) Maximum recorded, >508 microsiemens July 6, Aug. 14, 1985; minimum, 30 microsiemens May 5, 1978.

WATER TEMPERATURE: (November 1975 to March 1987) Maximum, 32.0°C June 15, 16, 1981; minimum, 0.0°C Dec. 20, 1975, Jan 10, 11, 18-25, 1976, Jan. 5, 6, 9, 11, 1981, Jan. 20, 1983, Jan. 22, 1984, Jan. 21, 22, 23, 24, 27, 1985, Jan. 29, 1986.

SEDIMENT CONCENTRATION: (November 1975 to March 1987) Maximum daily mean, 662 mg/L May 5, 1978; minimum daily mean, 0 mg/L during periods of no flow.

SEDIMENT LOAD: (November 1975 to March 1987) Maximum daily, 3,650 tons May 5, 1978; minimum daily, 0.0 tons during periods of no flow.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV											
28...	1530	8.2	206	6.3	12.0	761	4.7	43	63	20	3.1
MAY											
09...	0745	4.5	168	7.3	18.0	773	4.2	44	56	18	2.7
JUN											
27...	0815	12	130	7.2	22.0	771	5.6	63	41	13	2.1
AUG											
28...	1600	18	238	7.4	23.5	766	2.6	31	54	17	2.8

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
NOV											
28...	8.0	19	0.4	7.4	41	34	26	17	0.10	8.6	131
MAY											
09...	7.6	21	0.4	4.9	57	47	7.9	13	0.20	6.9	120
JUN											
27...	4.9	18	0.3	6.0	39	31	7.6	9.8	0.20	5.9	92
AUG											
28...	10	22	0.6	18	82	67	10	17	0.20	6.1	132

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
NOV											
28...	0.400	<0.010	0.400	0.400	<0.015	0.50	--	0.50	0.40	0.90	0.80
MAY											
09...	0.600	0.080	0.680	0.680	0.310	0.79	0.69	1.1	1.0	1.8	1.7
JUN											
27...	0.510	0.020	0.530	0.530	0.110	0.69	0.49	0.80	0.60	1.3	1.1
AUG											
28...	0.690	0.140	0.830	0.830	4.00	1.1	1.0	5.1	5.0	5.9	5.8

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV										
28...	0.090	0.100	0.090	260	44	9.0	0.20	--	--	--
MAY										
09...	0.340	0.300	0.280	1600	39	13	0.50	--	--	--
JUN										
27...	0.300	0.240	0.260	1100	36	12	0.40	12	0.39	99
AUG										
28...	1.10	0.980	1.00	1100	41	14	3.6	11	0.53	99

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.--March 1993 to current year.

REMARKS.--Station operated as part of NAWQA Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
NOV 1995												
29...	1100	127	5.5	12.0	760	1.1	10	33	8.8	2.7	7.3	31

DATE	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
NOV 1995												
29...	0.6	2.2	6	5	18	13	0.10	13	119	<0.010	<0.050	<0.015

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV 1995											
29...	0.60	0.60	0.70	0.60	0.080	0.080	0.060	4300	92	32	1.0

Jerry Rinehardt (1944-1996) making bridge measurement on Watauga River
near Sugar Grove, N.C.

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 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.07	4.4	8.7	37	38	95	10	.09	.22	12	4.3
2	0	.09	3.8	8.5	40	56	98	10	.69	.23	17	3.4
3	0	.30	4.5	8.2	59	64	88	8.6	1.6	.31	31	2.6
4	.03	.25	4.2	7.7	63	57	79	7.3	2.0	.33	40	4.1
5	.15	.16	3.8	6.8	59	47	69	6.2	2.3	.17	52	16
6	.12	.47	4.1	6.4	54	41	61	5.2	2.4	.13	59	47
7	.07	.30	4.2	12	50	41	62	4.5	2.6	.09	55	68
8	.05	3.2	4.7	22	47	79	61	4.2	3.0	.07	47	73
9	.03	4.3	6.6	22	49	92	57	4.0	4.0	.08	40	73
10	.02	2.7	9.5	22	49	87	54	3.4	5.6	.24	33	70
11	.02	1.9	9.4	21	47	80	49	2.8	5.5	.24	27	66
12	.02	8.8	9.4	23	44	73	44	2.3	5.8	.65	22	85
13	.02	8.6	9.3	30	41	65	39	1.9	4.3	15	19	124
14	.02	7.5	9.2	29	38	59	36	1.3	2.6	22	17	133
15	.07	8.2	9.3	27	36	52	33	.93	1.5	19	15	130
16	.10	7.4	9.2	26	34	47	30	1.1	.83	12	12	122
17	.09	6.4	8.8	25	32	43	28	1.5	.52	7.0	10	175
18	.07	6.2	8.4	24	30	42	25	1.6	.48	4.4	8.2	191
19	.07	6.7	9.6	28	28	42	23	1.2	.60	3.0	7.1	184
20	.08	5.3	13	36	28	40	21	.94	.64	1.9	6.1	174
21	.09	4.7	14	36	60	37	19	.81	.93	1.2	5.2	162
22	.09	5.6	14	34	76	35	17	.54	.96	.93	4.2	150
23	.08	5.1	13	32	73	32	16	.36	.88	5.2	3.5	138
24	.07	4.6	13	30	67	30	14	.28	.61	9.9	2.7	124
25	.06	5.6	12	30	60	27	13	.21	.42	11	2.3	110
26	.07	5.0	12	29	54	25	12	.17	.28	25	2.1	95
27	.09	4.5	11	30	49	24	11	.11	.35	33	4.4	81
28	.11	4.3	11	42	44	34	9.8	.48	.37	30	9.0	67
29	.13	4.7	10	43	41	85	8.6	.81	.31	24	8.2	56
30	.12	5.2	9.3	41	---	92	8.3	.65	.25	19	6.6	48
31	.08	---	8.9	39	---	86	---	.33	---	15	5.2	---
TOTAL	2.03	128.14	273.6	779.3	1389	1652	1180.7	83.72	52.41	261.29	582.8	2776.4
MEAN	.065	4.27	8.83	25.1	47.9	53.3	39.4	2.70	1.75	8.43	18.8	92.5
MAX	.15	8.8	14	43	76	92	98	10	5.8	33	59	191
MIN	0	.07	3.8	6.4	28	24	8.3	.11	.09	.07	2.1	2.6
CFSM	0	.19	.38	1.09	2.08	2.32	1.71	.12	.08	.37	.82	4.02
IN.	0	.21	.44	1.26	2.25	2.67	1.91	.14	.08	.42	.94	4.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

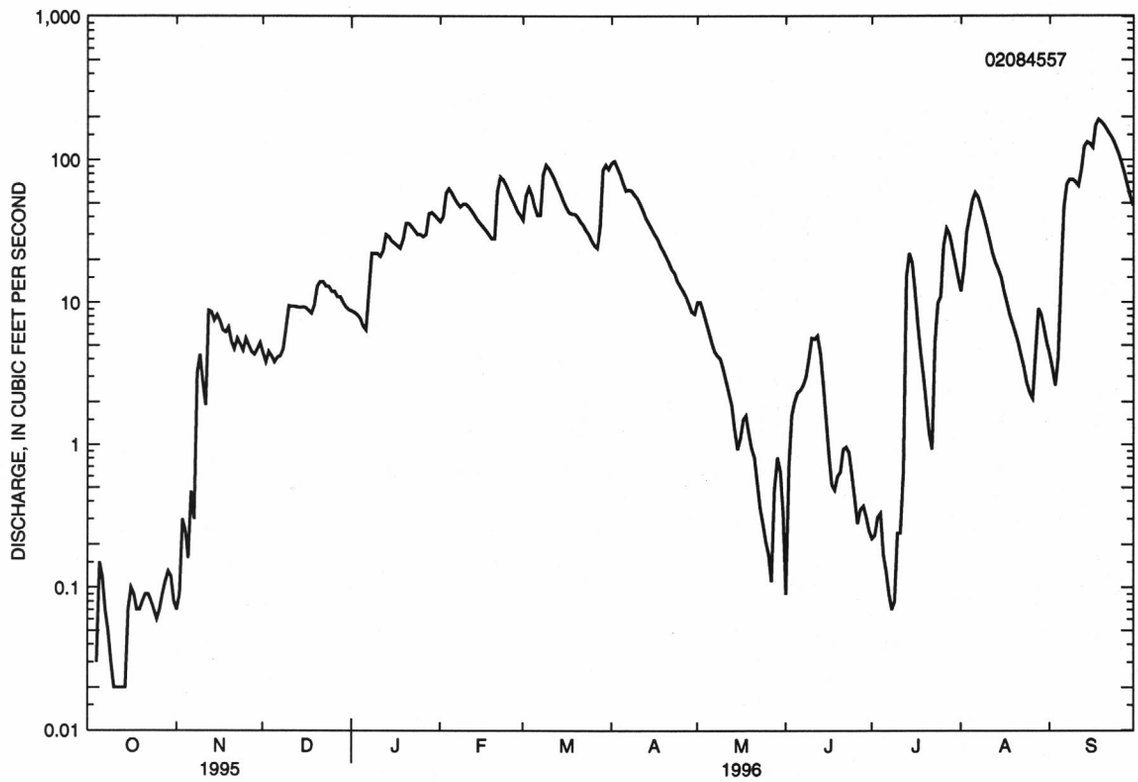
MEAN	6.86	14.7	15.8	44.5	46.0	62.8	43.9	26.8	9.61	6.60	12.9	13.3
MAX	44.0	121	56.6	124	110	142	101	122	29.8	55.2	64.8	92.5
(WY)	1990	1978	1990	1978	1983	1983	1983	1978	1995	1989	1986	1996
MIN	.018	.052	.033	.72	10.2	8.78	4.68	.58	.29	.27	.078	.034
(WY)	1979	1979	1989	1989	1989	1992	1985	1985	1985	1982	1995	1995

PAMLICO RIVER BASIN

02084557 VAN SWAMP NEAR HOKE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996	
ANNUAL TOTAL	8326.83		9161.39			
ANNUAL MEAN	22.8		25.0		25.1	
HIGHEST ANNUAL MEAN					51.7	1978
LOWEST ANNUAL MEAN					7.76	1981
HIGHEST DAILY MEAN	234	Feb 19	191	Sep 18	385	Nov 7 1977
LOWEST DAILY MEAN	0	Aug 24	0	Oct 2	0	Aug 21 1983
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 27	.03	Oct 8	0	Sep 12 1985
INSTANTANEOUS PEAK FLOW			196	Sep 17	409	Nov 6 1977
INSTANTANEOUS PEAK STAGE			5.33	Sep 17	5.78	Feb 19 1995
INSTANTANEOUS LOW FLOW			0*	Oct 2	0*	Oct 1 1978
ANNUAL RUNOFF (CFSM)	.99		1.09		1.09	
ANNUAL RUNOFF (INCHES)	13.47		14.82		14.81	
10 PERCENT EXCEEDS	51		67		74	
50 PERCENT EXCEEDS	6.2		9.4		7.5	
90 PERCENT EXCEEDS	.03		.13		.14	

* See REMARKS.



02084557 VAN SWAMP NEAR HOKE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1993 to current year.

REMARKS.--Station operated as part of NAWQA Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	ACIDITY (MG/L AS CACO3) (00435)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
NOV 1995										
29...	0845	4.4	150	3.8	12.5	761	5.8	55	4.2	16

DATE	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)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
NOV 1995										
29...	3.8	1.7	5.9	41	0.6	1.5	23	10	<0.10	19

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV 1995									
29...	134	0.140	<0.010	0.140	0.140	<0.015	1.1	1.1	1.0

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 1995									
29...	1.2	1.1	<0.010	<0.010	<0.010	820	52	40	0.30

Sand covered highway at Topsail Beach, North Carolina after Hurricane Fran.

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. Elevation of gage is 560 ft above sea level, from topographic map.

REMARKS.--Records fair except those below 1.0 ft^3/s, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 5,500 ft^3/s, on the basis of computation of peak flow through culvert; maximum gage height 15.47 ft, from floodmark. No flow occurs periodically most years. Minimum discharge for the current water year also occurred on Oct. 4.

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in reports for 1988, 1989, 1990, 1991, 1992, 1993, 1994, and 1995.

Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Discharge (ft^3/s)	Gage height (ft)
1988	Aug. 29, 1988	348	7.68	1992	Jan. 4, 1992	410	8.06
1989	Feb. 21, 1989	685	9.40	1993	Mar. 4, 1993	1,750	12.52
1990	Feb. 16, 1990	423	8.14	1994	Mar. 2, 1994	808	9.88
1991	Sept. 24, 1991	309	7.41	1995	Jan. 29, 1995	1,540	12.03

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	14	17	7.1	24	13	45	32	4.4	.74	18	.48
2	.13	20	16	8.4	53	12	41	16	2.3	.67	2.9	.34
3	.11	28	16	12	42	11	23	11	2.2	.75	3.8	18
4	3.6	27	16	8.5	27	10	18	8.1	2.4	1.2	2.3	28
5	32	20	16	6.4	27	9.8	15	6.5	3.0	1.0	.87	37
6	17	18	16	6.0	26	18	14	9.0	2.9	.91	.49	1080
7	3.0	151	22	10	24	47	14	52	2.3	.75	31	54
8	.90	62	21	10	41	68	12	21	2.0	.68	6.0	35
9	.58	25	70	10	49	26	35	15	3.8	.75	2.8	26
10	.53	20	28	9.4	28	18	21	11	4.0	.67	5.1	21
11	.60	79	20	8.5	24	16	16	8.2	4.1	.50	2.1	24
12	.65	95	18	8.3	21	15	14	7.6	20	.95	1.6	28
13	.74	28	17	8.3	19	14	11	5.6	109	2.4	21	24
14	3.7	23	16	12	19	13	10	5.8	128	2.1	7.4	20
15	21	20	15	21	18	12	9.3	5.7	26	1.6	3.1	17
16	6.1	18	14	31	19	11	14	22	17	1.9	2.0	21
17	1.9	16	13	37	19	14	11	18	12	1.7	1.7	34
18	1.3	16	14	57	19	13	8.8	9.7	8.7	1.5	1.6	19
19	1.2	15	20	222	18	71	8.1	6.3	6.2	1.3	.98	15
20	155	15	20	44	43	44	8.5	4.8	3.1	1.1	.81	13
21	273	13	16	27	33	24	13	3.5	3.1	.75	.67	12
22	24	13	15	22	23	18	8.7	3.1	1.7	.46	.53	12
23	16	14	14	20	21	16	7.3	2.6	1.3	.38	.44	11
24	14	15	13	41	19	15	6.0	2.2	1.6	.31	7.0	9.7
25	13	19	12	32	16	14	5.1	2.7	1.7	.50	8.3	9.5
26	12	17	9.8	23	16	14	6.7	3.4	1.7	2.8	1.5	12
27	14	16	6.5	146	15	12	9.0	3.7	1.1	1.6	2.3	11
28	93	16	5.2	44	14	31	5.3	14	1.0	3.2	5.4	9.9
29	28	17	4.9	28	14	30	5.9	13	.86	3.0	1.3	20
30	19	18	4.7	25	---	19	66	46	.72	1.1	.90	11
31	15	---	5.6	34	---	17	---	11	---	1.2	.66	---
TOTAL	771.20	868	511.7	978.9	731	665.8	481.7	380.5	378.18	38.47	144.55	1632.92
MEAN	24.9	28.9	16.5	31.6	25.2	21.5	16.1	12.3	12.6	1.24	4.66	54.4
MAX	273	151	70	222	53	71	66	52	128	3.2	31	1080
MIN	.11	13	4.7	6.0	14	9.8	5.1	2.2	.72	.31	.44	.34
CFSM	1.76	2.05	1.17	2.24	1.79	1.52	1.14	.87	.89	.09	.33	3.86
IN.	2.03	2.29	1.35	2.58	1.93	1.76	1.27	1.00	1.00	.10	.38	4.31

NEUSE RIVER BASIN

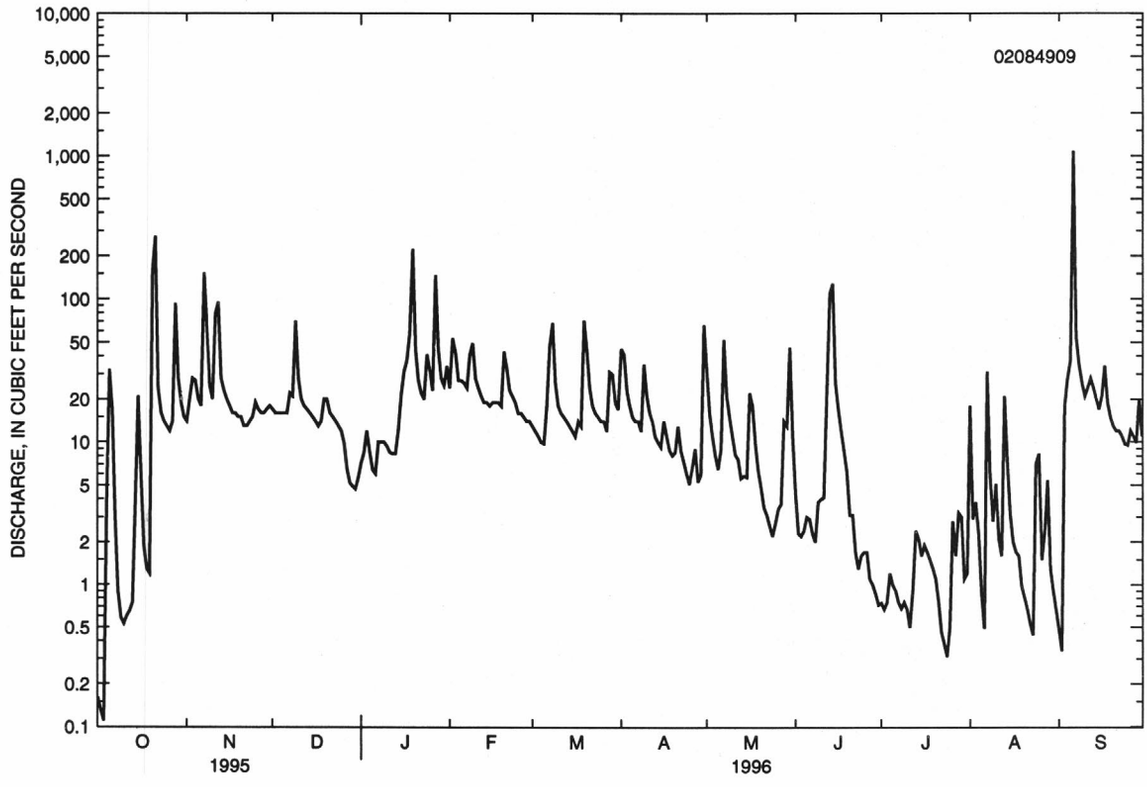
02084909 SEVENMILE CREEK NEAR EFLAND, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	7.58	9.90	10.2	26.6	22.1	31.3	17.1	11.4	9.45	4.36	4.06	9.64
MAX	24.9	28.9	17.6	58.2	46.5	60.1	36.3	36.3	30.6	14.4	8.27	54.4
(WY)	1996	1996	1991	1991	1989	1993	1993	1989	1995	1989	1989	1996
MIN	.17	1.74	2.90	7.63	9.22	4.39	.99	1.26	.53	.21	.93	.027
(WY)	1995	1992	1992	1989	1991	1988	1995	1995	1994	1988	1990	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	5248.68		7582.92			
ANNUAL MEAN	14.4		20.7		13.6	
HIGHEST ANNUAL MEAN					20.7	1996
LOWEST ANNUAL MEAN					5.92	1988
HIGHEST DAILY MEAN	468	Jun 29	1080	Sep 6	1080	Sep 6 1996
LOWEST DAILY MEAN	.05	May 24	.11	Oct 3	0*	Aug 3 1988
ANNUAL SEVEN-DAY MINIMUM	.08	May 12	.69	Jul 19	0*	Aug 13 1988
INSTANTANEOUS PEAK FLOW			3440*	Sep 6	3440*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			15.47*	Sep 6	15.47*	Sep 6 1996
INSTANTANEOUS LOW FLOW			.10*	Oct 3	0*	Aug 6 1987
ANNUAL RUNOFF (CFSM)	1.02		1.47		.97	
ANNUAL RUNOFF (INCHES)	13.85		20.01		13.12	
10 PERCENT EXCEEDS	28		34		25	
50 PERCENT EXCEEDS	5.5		13		5.3	
90 PERCENT EXCEEDS	.10		.97		.31	

* 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 sea level. Telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversions upstream from station of 0.8 ft^3/s by Orange-Alamance Water System, Inc. and 2.4 ft^3/s by town of Hillsborough for municipal supply, part of which is returned downstream of station as treated effluent. Maximum gage height for period of record and current water year, 21.13 ft, from high water mark in gage shelter.

REVISIONS.--The maximum discharge for the water year 1945 has been revised to 8980 ft^3/s, Sept. 18, 1945, gage height, 20.01 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	41	37	39	99	46	164	199	31	5.5	76	5.4
2	2.7	50	34	42	175	46	181	92	25	4.6	32	5.9
3	1.9	87	33	51	206	45	110	63	21	10	21	80
4	26	98	31	42	111	42	87	51	19	7.1	16	162
5	208	61	30	35	82	45	76	44	20	4.7	9.9	157
6	148	45	29	36	72	67	67	53	18	3.7	6.4	e4600
7	36	492	50	51	75	173	68	214	15	3.1	169	e700
8	19	469	54	51	149	305	60	89	15	2.7	23	e125
9	13	126	313	40	274	132	151	61	22	5.0	14	e95
10	10	79	142	38	152	91	119	48	25	6.6	14	75
11	8.6	292	81	36	111	74	83	42	24	5.7	11	168
12	7.6	530	61	39	86	67	70	39	50	8.7	8.2	227
13	8.3	141	54	40	72	60	61	33	130	11	71	87
14	29	101	49	46	68	55	66	32	276	8.8	36	56
15	92	83	45	78	67	59	61	33	45	7.4	19	35
16	27	61	45	151	73	72	72	78	30	6.8	11	62
17	17	52	41	183	72	165	64	81	22	5.7	13	145
18	12	47	41	322	68	121	53	48	17	5.1	12	48
19	11	43	67	1160	67	356	49	37	14	6.0	7.3	32
20	232	40	80	357	159	296	52	31	21	4.7	5.5	25
21	2570	38	59	146	166	129	120	27	36	4.3	5.2	21
22	306	35	48	103	106	92	71	19	25	3.3	4.8	21
23	185	34	43	87	88	76	54	17	14	3.1	5.6	18
24	90	36	39	176	77	66	47	16	11	3.8	22	15
25	44	49	39	186	65	60	41	18	12	5.4	51	15
26	31	43	37	108	58	58	47	21	12	24	12	24
27	42	37	35	587	55	53	58	24	8.0	14	9.3	23
28	656	34	33	258	53	110	45	120	6.3	15	13	25
29	144	36	32	133	50	160	43	79	6.4	13	8.6	100
30	70	46	31	112	---	102	261	128	6.0	7.0	6.6	33
31	47	---	34	126	---	83	---	45	---	13	6.3	---
TOTAL	5097.2	3326	1747	4859	2956	3306	2501	1882	976.7	228.8	719.7	7185.3
MEAN	164	111	56.4	157	102	107	83.4	60.7	32.6	7.38	23.2	240
MAX	2570	530	313	1160	274	356	261	214	276	24	169	4600
MIN	1.9	34	29	35	50	42	41	16	6.0	2.7	4.8	5.4
CFSM	2.49	1.68	.85	2.37	1.54	1.62	1.26	.92	.49	.11	.35	3.63
IN.	2.87	1.87	.98	2.74	1.67	1.86	1.41	1.06	.55	.13	.41	4.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996@, BY WATER YEAR (WY)

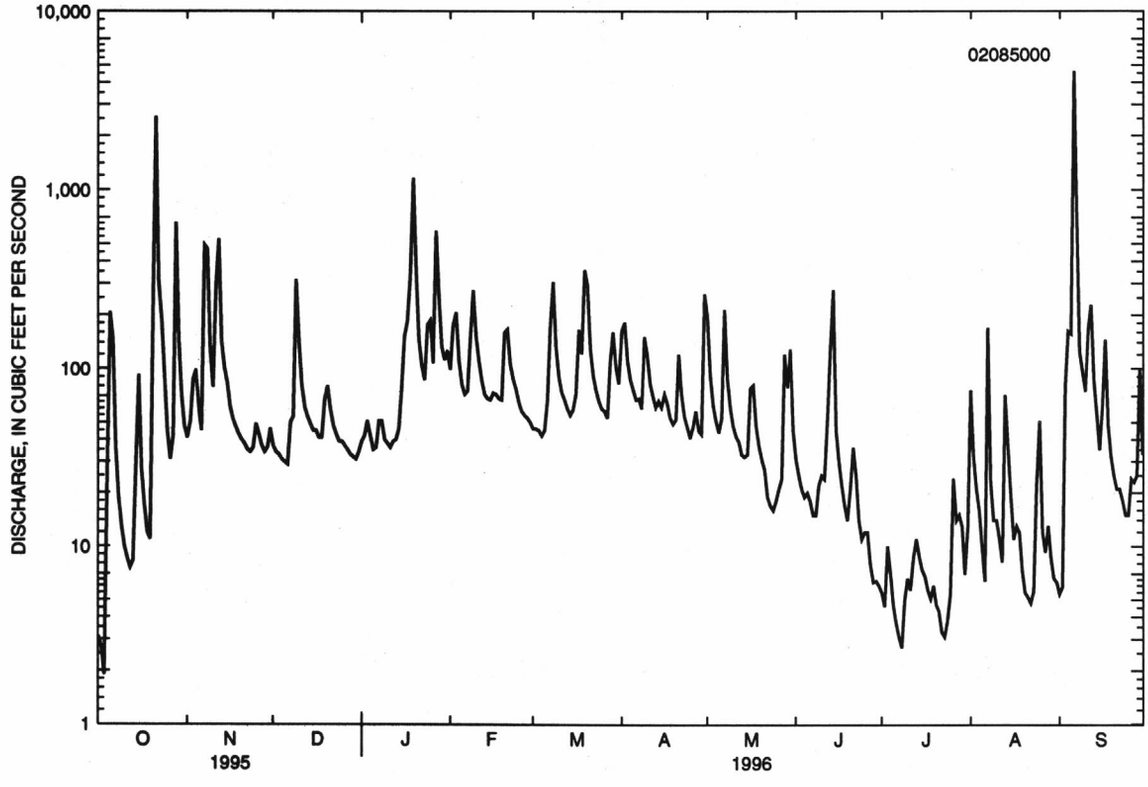
MEAN	29.3	45.5	55.8	89.4	110	117	91.7	52.1	39.1	39.3	34.3	35.6
MAX	181	213	166	326	273	329	264	165	210	359	256	342
(WY)	1930	1986	1946	1936	1960	1993	1936	1931	1995	1938	1939	1945
MIN	.63	.82	3.64	5.16	21.5	29.9	14.8	9.67	1.75	1.28	.85	.28
(WY)	1987	1942	1942	1942	1931	1988	1995	1986	1986	1986	1987	1954

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996@	
ANNUAL TOTAL	26911.9		34784.7			
ANNUAL MEAN	73.7		95.0		61.4	
HIGHEST ANNUAL MEAN					108	1960
LOWEST ANNUAL MEAN					26.3	1988
HIGHEST DAILY MEAN	2890	Jun 29	4600	Sep 6	4600	Sep 6 1996
LOWEST DAILY MEAN	1.6	Aug 22	1.9	Oct 3	.02	Jul 10 1986
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 18	4.3	Jul 18	.10	Oct 6 1954
INSTANTANEOUS PEAK FLOW			10800	Sep 6	10800	Sep 6 1996
INSTANTANEOUS PEAK STAGE			21.13*	Sep 6	21.13*	Sep 6 1996
INSTANTANEOUS LOW FLOW			1.5	Oct 3	.01	Jul 10 1986
ANNUAL RUNOFF (CFSM)	1.12		1.44		.93	
ANNUAL RUNOFF (INCHES)	15.17		19.61		12.63	
10 PERCENT EXCEEDS	143		167		117	
50 PERCENT EXCEEDS	25		46		26	
90 PERCENT EXCEEDS	3.8		7.2		4.4	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990 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 1995 TO SEPTEMBER 1996

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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
24...	1030	91	60	7.0	16.0	110	755	9.1	93	19	4.5
DEC											
08...	1230	50	79	7.2	6.5	49	761	12.1	98	27	6.3
JAN											
23...	1300	84	304	4.6	4.0	7	756	13.0	100	27	6.5
MAR											
20...	1030	287	71	6.9	9.0	180	741	12.6	112	19	4.5
MAY											
16...	1030	65	84	7.1	15.0	80	757	10.1	101	29	7.0
AUG											
14...	1215	35	90	7.1	22.0	70	758	7.5	86	28	6.6
SEP											
06...	1445	9120	33	6.4	22.0	350	760	7.5	86	12	2.9

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT											
24...	1.8	3.0	23	0.3	2.4	21	17	--	--	2.4	3.2
DEC											
08...	2.8	4.7	26	0.4	1.6	34	28	--	--	2.7	5.0
JAN											
23...	2.7	4.3	24	0.4	1.7	--	--	--	--	170	5.4
MAR											
20...	2.0	3.8	28	0.4	1.8	17	14	--	--	5.1	5.6
MAY											
16...	2.8	5.5	28	0.4	1.4	32	26	--	--	5.3	5.5
AUG											
14...	2.7	5.2	28	0.4	1.6	32	26	--	--	4.6	5.6
SEP											
06...	1.1	1.4	17	0.2	2.2	--	--	12	10	3.3	1.6

NEUSE RIVER BASIN

02085000 ENO RIVER AT HILLSBOROUGH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT											
24...	0.20	7.8	44	--	--	--	--	--	--	--	--
DEC											
08...	0.20	13	66	0.350	<0.010	0.350	0.350	<0.015	0.20	--	0.20
JAN											
23...	<0.10	11	212	0.390	<0.010	0.390	0.390	<0.015	--	--	<0.20
MAR											
20...	<0.10	9.5	62	0.230	0.020	0.250	0.250	0.140	0.46	0.46	0.60
MAY											
16...	<0.10	14	76	0.340	0.010	0.350	0.350	0.050	0.35	0.25	0.40
AUG											
14...	<0.10	13	68	0.350	0.020	0.370	0.370	0.060	0.44	0.24	0.50
SEP											
06...	0.30	4.8	47	0.160	0.010	0.170	0.170	0.060	0.74	0.44	0.80

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)
OCT											
24...	--	--	--	--	--	--	540	<1	<1	<1	<1
DEC											
08...	<0.20	0.55	--	0.030	0.020	0.030	--	--	--	--	--
JAN											
23...	<0.20	--	--	0.040	0.020	0.010	--	--	--	--	--
MAR											
20...	0.60	0.85	0.85	0.090	0.050	0.030	870	2	<1	8	1
MAY											
16...	0.30	0.75	0.65	0.050	0.030	0.010	--	--	--	--	--
AUG											
14...	0.30	0.87	0.67	0.050	0.010	0.020	--	--	--	--	--
SEP											
06...	0.50	0.97	0.67	0.130	0.020	0.030	2100	14	<1	2	3

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT											
24...	1	1600	<1	120	<0.10	<1	<1	<1	<1	<10	8.8
DEC											
08...	--	--	--	--	--	--	--	--	--	--	4.6
JAN											
23...	--	--	--	--	--	--	--	--	--	--	3.0
MAR											
20...	2	1400	1	150	<0.10	<1	7	<1	<1	10	12
MAY											
16...	--	--	--	--	--	--	--	--	--	--	6.4
AUG											
14...	--	--	--	--	--	--	--	--	--	--	5.9
SEP											
06...	4	3000	4	330	<0.10	<1	2	<1	<1	20	15

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BENZENE TOTAL (UG/L) (34030)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)
OCT 24...	--	--	--	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--	--	--	--
JAN 23...	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
SEP 06...	--	--	--	--	--	--	--	--	--	--	--

DATE	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)
OCT 24...	--	--	--	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--	--	--	--
JAN 23...	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
SEP 06...	--	--	--	--	--	--	--	--	--	--	--

DATE	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L) (34546)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTH-ALENE TOTAL (UG/L) (34696)
OCT 24...	--	--	--	--	--	--	--	--	--	--	--
DEC 08...	--	--	--	--	--	--	--	--	--	--	--
JAN 23...	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
SEP 06...	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT										
24...	--	--	--	--	--	--	--	--	35	8.6
DEC										
08...	--	--	--	--	--	--	--	--	20	2.7
JAN										
23...	--	--	--	--	--	--	--	--	--	--
MAR										
20...	--	--	--	--	--	--	--	--	61	47
MAY										
16...	--	--	--	--	--	--	--	--	45	7.9
AUG										
14...	<0.200	<0.200	<0.200	<0.200	0.045	E0.005	E0.006	<0.004	37	3.5
SEP										
06...	--	--	--	--	--	--	--	--	273	6720

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 sea level, from topographic map. Prior to Nov. 19, 1966, at site 275 ft upstream, at datum 272.35 ft. Nov. 20, 1966, to Sept. 30, 1967, water-stage recorder at present site, at datum 270.94 ft. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation during periods of low flow caused by mill 600 ft upstream. Maximum gage height for period of record and current water year, 23.58 ft, from floodmark. Minimum discharge for period of record also occurred Aug. 15, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	71	67	66	208	86	270	529	72	15	79	9.2
2	6.5	80	62	75	354	84	357	188	57	20	76	8.8
3	6.3	132	57	88	534	83	210	120	49	19	48	46
4	82	138	55	87	249	78	154	93	45	19	36	319
5	328	111	55	73	163	76	129	79	52	18	28	331
6	380	79	55	66	144	96	116	84	43	13	21	e9900
7	110	531	71	80	138	324	116	348	37	11	304	1990
8	60	1030	95	88	240	768	106	168	34	10	86	496
9	42	277	587	76	545	342	225	112	37	10	47	297
10	34	139	358	70	335	189	258	88	52	12	34	133
11	30	375	157	68	212	144	152	80	59	14	30	188
12	21	1160	112	68	160	127	123	81	76	20	24	477
13	21	338	96	71	132	116	112	68	144	29	46	177
14	e41	184	87	80	121	106	104	65	576	30	82	113
15	e160	146	80	129	117	109	106	65	123	23	46	77
16	e60	110	77	334	123	111	123	236	73	22	32	66
17	e48	93	73	372	133	170	115	228	58	18	29	247
18	e38	83	69	608	119	200	97	114	50	15	28	110
19	34	78	90	1930	116	570	90	82	43	14	25	72
20	65	73	121	863	179	742	97	70	40	15	16	59
21	2730	68	104	351	369	293	152	62	75	13	12	52
22	543	64	84	212	201	179	125	55	62	10	11	49
23	260	61	76	161	157	140	98	47	45	10	12	46
24	155	62	70	288	137	120	86	46	35	8.4	19	42
25	80	74	67	463	117	111	77	45	30	16	66	40
26	59	78	66	217	105	105	81	46	32	16	44	42
27	57	68	64	934	100	97	101	55	31	34	25	51
28	798	62	62	651	96	137	88	174	23	28	19	48
29	305	62	59	297	92	321	80	239	18	51	22	212
30	118	66	57	220	---	190	431	385	16	30	17	93
31	81	---	58	267	---	142	---	118	---	20	12	---
TOTAL	6759.6	5893	3191	9353	5696	6356	4379	4170	2087	583.4	1376	15791.0
MEAN	218	196	103	302	196	205	146	135	69.6	18.8	44.4	526
MAX	2730	1160	587	1930	545	768	431	529	576	51	304	9900
MIN	6.3	61	55	66	92	76	77	45	16	8.4	11	8.8
CFSM	1.55	1.39	.73	2.14	1.39	1.45	1.04	.95	.49	.13	.31	3.73
IN.	1.78	1.55	.84	2.47	1.50	1.68	1.16	1.10	.55	.15	.36	4.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	58.8	79.0	109	201	244	277	177	128	92.3	73.1	55.0	59.7
MAX	456	462	406	491	551	685	424	429	411	452	282	526
(WY)	1972	1986	1973	1978	1979	1993	1983	1978	1982	1975	1985	1996
MIN	4.77	11.0	19.4	21.4	64.7	67.4	34.9	26.1	6.86	6.35	3.34	.84
(WY)	1964	1970	1995	1981	1968	1988	1995	1986	1986	1977	1977	1968

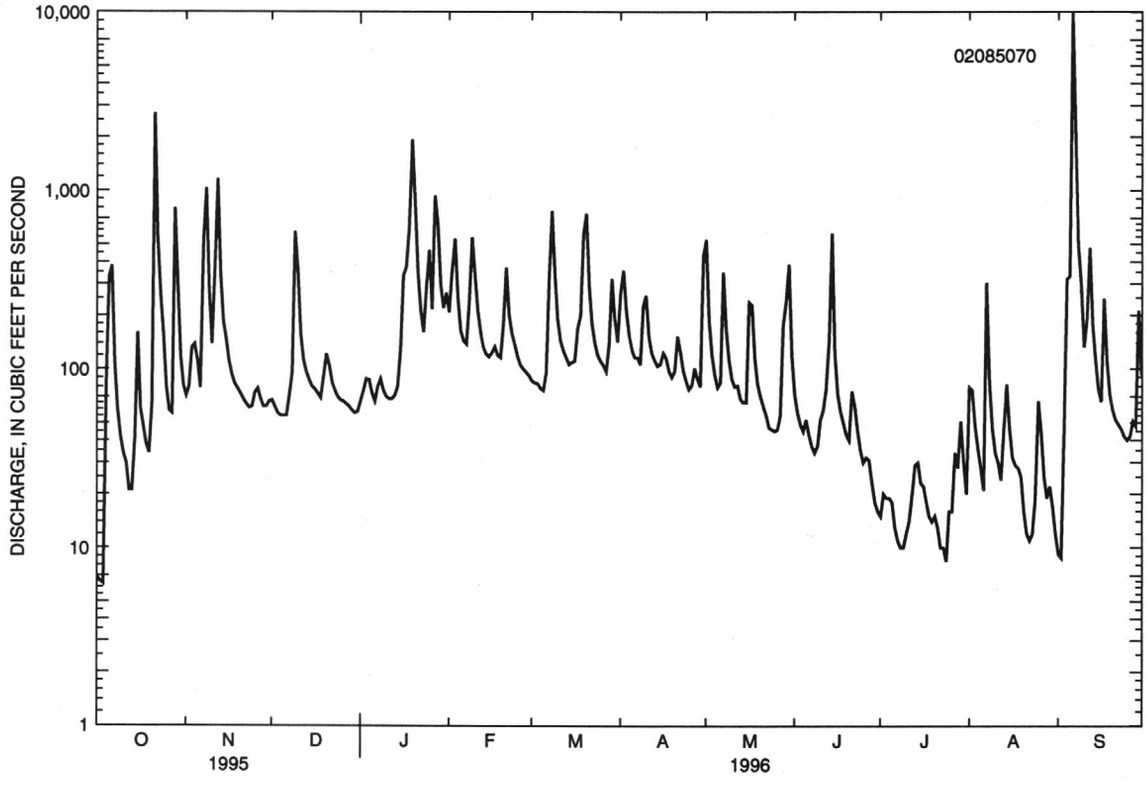
NEUSE RIVER BASIN

02085070 ENO RIVER NEAR DURHAM, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996	
ANNUAL TOTAL	49463.0		65635.0			
ANNUAL MEAN	136		179		129	
HIGHEST ANNUAL MEAN					244	1973
LOWEST ANNUAL MEAN					60.4	1977
HIGHEST DAILY MEAN	4660	Jun 29	9900	Sep 6	9900	Sep 6 1996
LOWEST DAILY MEAN	2.8	Aug 23	6.3	Oct 3	.08	Aug 14 1977
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 19	12	Jul 18	.20	Aug 8 1977
INSTANTANEOUS PEAK FLOW			14700	Sep 6	14700	Sep 6 1996
INSTANTANEOUS PEAK STAGE			23.58*	Sep 6	23.58*	Sep 6 1996
INSTANTANEOUS LOW FLOW			5.5	Oct 4	.06*	Aug 14 1977
ANNUAL RUNOFF (CFSM)	.96		1.27		.91	
ANNUAL RUNOFF (INCHES)	13.05		17.32		12.43	
10 PERCENT EXCEEDS	305		339		267	
50 PERCENT EXCEEDS	54		81		52	
90 PERCENT EXCEEDS	8.2		20		6.8	

e Estimated.

* See REMARKS.



NEUSE RIVER BASIN

02085079 ENO RIVER NEAR WEAVER, NC

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

DRAINAGE AREA.--148 mi^2.

PERIOD OF RECORD.--Water years 1983 to 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 October 1982 to September 1985.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Instantaneous discharge is from gage located at Eno River near Durham (02085070).

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 1995 TO SEPTEMBER 1996

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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
25...	1345	76	84	7.2	16.0	88	758	9.0	92	21	5.3
DEC											
13...	1345	94	96	7.1	3.5	90	760	13.3	101	27	6.5
JAN											
31...	1045	275	92	7.0	6.0	110	755	12.4	101	25	6.0
APR											
03...	1015	211	105	7.3	10.5	84	--	--	--	26	6.3
MAY											
31...	1015	111	125	7.2	18.0	180	768	8.7	91	28	6.6
AUG											
27...	1000	26	345	7.4	24.0	40	761	7.2	86	39	9.5

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT											
25...	2.0	6.4	36	0.6	2.4	27	22	5.8	5.7	0.20	9.3
DEC											
13...	2.6	8.4	38	0.7	2.0	27	23	11	6.2	<0.10	12
JAN											
31...	2.5	6.9	36	0.6	1.4	32	27	8.7	7.7	<0.10	12
APR											
03...	2.6	8.2	39	0.7	1.3	27	22	9.8	7.2	<0.10	11
MAY											
31...	2.7	12	46	1	2.0	30	25	16	6.9	<0.10	12
AUG											
27...	3.7	48	70	3	4.1	46	38	90	12	0.10	11

NEUSE RIVER BASIN

02085079 ENO RIVER NEAR WEAVER, NC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
OCT											
25...	64	0.270	0.020	0.290	0.290	0.030	0.37	0.27	0.40	0.30	0.69
DEC											
13...	70	0.420	<0.010	0.420	0.420	<0.015	0.40	--	0.40	<0.20	0.82
JAN											
31...	74	0.460	<0.010	0.460	0.460	<0.015	0.30	--	0.30	0.20	0.76
APR											
03...	68	0.330	<0.010	0.330	0.330	<0.015	0.30	--	0.30	0.20	0.63
MAY											
31...	92	0.520	0.010	0.530	0.530	0.070	0.43	0.43	0.50	0.50	1.0
AUG											
27...	188	0.520	<0.010	0.520	0.520	0.030	0.37	0.27	0.40	0.30	0.92

DATE	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)
OCT											
25...	0.59	0.040	0.020	0.030	340	<1	<1	<1	<1	2	1300
DEC											
13...	--	0.050	0.020	0.020	--	--	--	--	--	--	--
JAN											
31...	0.66	0.060	0.020	0.020	--	--	--	--	--	--	--
APR											
03...	0.53	0.040	0.020	0.010	430	<1	<1	4	<1	3	1400
MAY											
31...	1.0	0.060	0.070	0.020	--	--	--	--	--	--	--
AUG											
27...	0.82	0.010	<0.010	0.020	--	--	--	--	--	--	--

DATE	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT											
25...	<1	50	<0.10	1	<1	<1	<1	<10	8.0	37	7.6
DEC											
13...	--	--	--	--	--	--	--	--	6.3	28	7.1
JAN											
31...	--	--	--	--	--	--	--	--	5.5	51	38
APR											
03...	1	110	<0.10	<1	<1	<1	<1	<10	6.3	38	22
MAY											
31...	--	--	--	--	--	--	--	--	9.4	121	36
AUG											
27...	--	--	--	--	--	--	--	--	5.9	64	4.5

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 mi^2.

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 380 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from extension of rating curve above 2,300 ft^3/s, based on contracted-opening measurement of peak flow; maximum gage height, 13.26 ft, from high-water mark in gage shelter. Minimum discharge for period of record, no flow, also occurred Aug. 19-29, 1988. Minimum discharge for the current water year also occurred Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	e40	e38	e32	106	48	229	294	54	7.5	e60	5.1
2	3.1	e50	e37	e41	182	47	223	99	41	9.2	e47	4.8
3	2.8	e120	e34	e57	263	45	123	67	35	16	e36	40
4	8.3	e130	e32	47	126	41	93	52	34	10	e28	280
5	113	e79	e31	35	104	40	79	43	37	7.0	e22	295
6	184	e48	e29	33	96	54	69	44	33	6.1	e17	e6500
7	45	e310	e37	44	78	203	72	282	29	5.6	211	e1050
8	20	e650	e58	65	183	383	65	102	26	5.7	39	e210
9	12	e180	e400	48	385	170	202	66	28	9.1	17	e85
10	8.7	e56	e198	41	196	107	161	50	42	7.4	14	e52
11	7.2	e205	e85	44	128	86	94	43	32	6.4	11	e100
12	6.2	e695	e51	39	95	78	76	40	28	5.5	9.0	e280
13	6.3	e230	e42	42	78	70	68	37	49	6.5	50	e105
14	8.8	e130	e37	45	72	65	81	35	33	7.1	52	e65
15	72	e89	e35	98	70	66	74	34	23	6.6	19	e41
16	32	e70	e34	260	74	118	89	189	19	5.5	76	e34
17	16	e57	e33	300	77	390	82	195	17	4.5	134	e140
18	11	e43	e31	442	75	191	63	76	16	4.3	23	e73
19	8.9	e38	e61	1400	81	694	56	52	14	4.8	14	e52
20	34	e31	e105	441	187	499	55	43	47	3.9	10	e42
21	1100	e29	e78	178	223	190	149	39	298	3.4	8.5	e38
22	153	e28	e55	122	127	124	84	35	37	2.9	7.6	e36
23	70	e27	e46	98	103	96	63	32	20	2.7	12	e34
24	43	e26	e39	196	88	81	52	30	15	24	11	e32
25	29	e46	e35	252	72	73	47	30	12	55	39	e30
26	23	e50	e31	125	66	70	49	31	20	192	14	e29
27	22	e44	e29	626	61	62	65	36	18	31	9.8	e28
28	698	e37	e28	302	65	128	51	258	11	11	7.9	e27
29	165	e34	e27	154	56	244	44	121	9.3	7.9	6.7	e105
30	e68	e40	e26	128	---	123	335	406	8.3	8.9	6.0	e60
31	e56	---	e24	126	---	94	---	96	---	13	5.7	---
TOTAL	3029.3	3612	1826	5861	3517	4680	2993	2957	1085.6	490.5	1017.2	9872.9
MEAN	97.7	120	58.9	189	121	151	99.8	95.4	36.2	15.8	32.8	329
MAX	1100	695	400	1400	385	694	335	406	298	192	211	6500
MIN	2.8	26	24	32	56	40	44	30	8.3	2.7	5.7	4.8
CFSM	1.25	1.54	.75	2.42	1.55	1.93	1.28	1.22	.46	.20	.42	4.21
IN.	1.44	1.72	.87	2.79	1.67	2.23	1.42	1.41	.52	.23	.48	4.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	34.8	44.9	55.7	137	121	184	102	62.0	45.2	37.5	29.5	43.9
MAX	97.7	120	136	251	256	456	236	165	194	104	114	329
(WY)	1996	1996	1990	1991	1989	1993	1993	1990	1995	1989	1989	1996
MIN	.14	4.26	8.10	29.0	50.7	30.9	17.1	12.2	5.53	1.59	2.98	1.27
(WY)	1994	1992	1995	1989	1991	1988	1995	1995	1994	1988	1991	1990

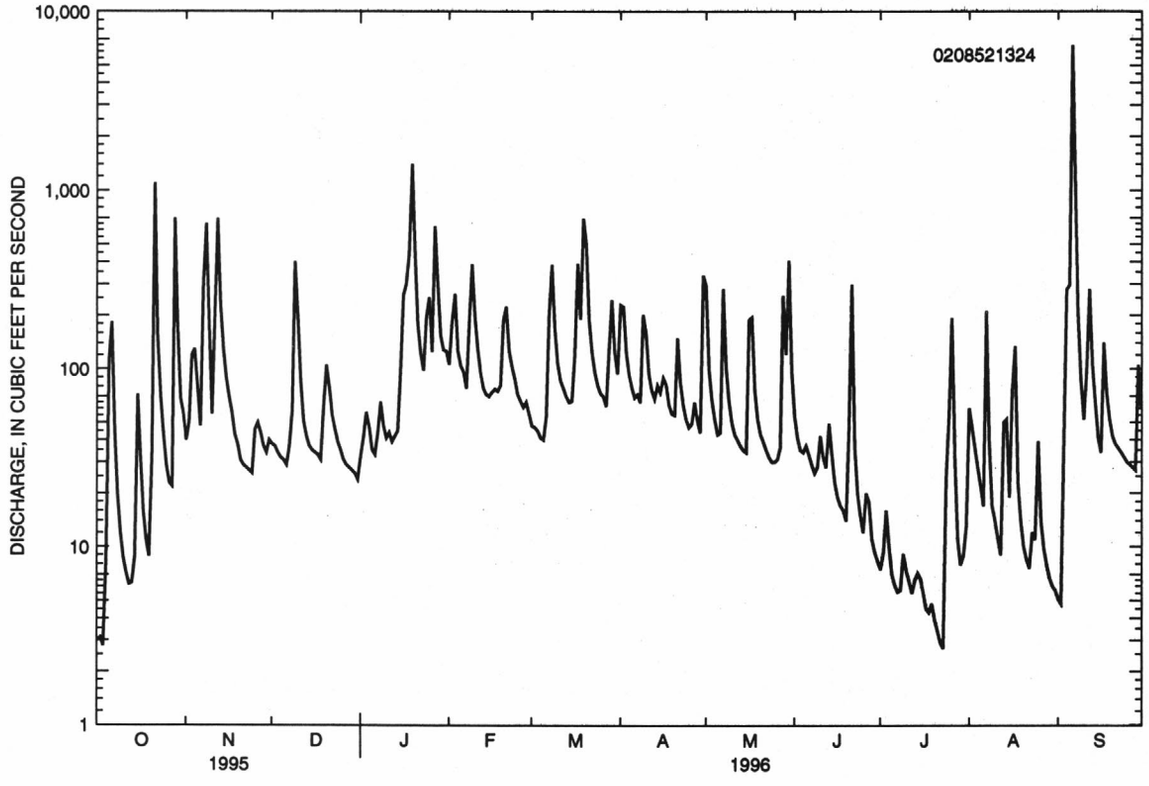
NEUSE RIVER BASIN

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

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	29159.4		40941.5			
ANNUAL MEAN	79.9		112		74.5	
HIGHEST ANNUAL MEAN					112	1996
LOWEST ANNUAL MEAN					30.8	1988
HIGHEST DAILY MEAN	2730	Jun 29	6500	Sep 6	6500	Sep 6 1996
LOWEST DAILY MEAN	2.2	Aug 23	2.7	Jul 23	0*	Aug 19 1988
ANNUAL SEVEN-DAY MINIMUM	3.1	Aug 19	3.8	Jul 17	0*	Aug 19 1988
INSTANTANEOUS PEAK FLOW			11600*	Sep 6	11600*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			13.26*	Sep 6	13.26*	Sep 6 1996
INSTANTANEOUS LOW FLOW			2.5*	Oct 3	0*	Aug 18 1988
ANNUAL RUNOFF (CFSM)	1.02		1.43		.95	
ANNUAL RUNOFF (INCHES)	13.87		19.48		12.95	
10 PERCENT EXCEEDS	167		215		160	
50 PERCENT EXCEEDS	27		47		25	
90 PERCENT EXCEEDS	5.8		8.6		1.9	

e Estimated.

* See REMARKS.



NEUSE RIVER BASIN

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC

LOCATION.--Lat 36°08"58", long 78°53'49", Durham County, Hydrologic Unit 03020201, on right bank at bridge on Secondary Road 1617 and 1.6 mi southwest of Bahama.

DRAINAGE AREA.--8.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 370 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum gage height for period of record and current year from floodmarks. Maximum gage-height for period of record and current water year occurred Sept. 6, 1996, discharge not determined. Minimum discharge for current water year not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.11	2.5	2.7	2.8	8.6	4.9	18	e16	e28	1.0	15	e2.4
2	e.09	4.3	2.6	3.2	25	4.8	19	e6.0	e16	2.0	6.9	e1.8
3	e.07	6.7	2.4	4.0	17	4.8	11	e3.4	e8.0	1.9	3.0	e13
4	e1.0	8.3	2.0	3.0	10	3.9	9.4	e2.5	e3.6	1.1	1.6	e60
5	e1.7	5.9	2.0	2.7	14	3.8	7.7	e1.9	e3.1	.80	1.1	e390
6	e.26	3.7	2.0	2.9	9.5	6.7	7.9	11	3.5	.64	.85	e1000
7	e.15	55	6.2	5.8	8.9	21	8.1	40	e2.5	.56	23	e200
8	e.12	23	5.1	4.9	17	28	6.6	14	e1.8	.58	5.0	e20
9	e.09	9.5	33	3.7	20	14	17	9.3	e2.2	2.3	2.7	e15
10	e.08	6.3	12	3.7	12	10	11	8.2	e4.2	.65	2.3	e250
11	e.07	40	7.7	3.5	9.6	8.7	8.5	6.4	3.4	.52	1.3	e120
12	e.06	34	5.9	3.9	8.1	7.8	6.9	6.8	e3.0	.76	1.2	e30
13	e.06	12	4.9	4.1	6.7	6.9	5.9	e3.6	e2.2	1.4	e25	e10
14	e.78	9.7	3.8	5.7	6.4	6.2	8.1	e3.9	e1.7	.73	e6.0	e6.0
15	e2.8	8.2	2.8	11	6.3	6.5	7.1	e7.0	e1.4	.49	e2.3	e4.8
16	e.40	6.1	2.4	16	8.2	7.6	10	e20	e1.1	.52	e1.9	e9.0
17	e.31	5.1	2.5	22	8.0	24	7.8	14	e.90	.42	e1.2	e13
18	e.29	4.7	3.2	30	8.2	13	5.8	e11	e.76	1.0	e1.8	e11
19	e.50	4.2	7.4	119	8.6	74	5.3	e7.2	e.68	1.0	e2.1	e8.6
20	e2.2	3.6	7.3	21	18	30	6.4	5.0	e1.2	.44	e2.3	e7.0
21	e40	3.0	5.0	12	14	14	8.9	e4.0	e5.0	.32	e2.3	e5.4
22	e10	2.9	4.1	9.6	10	11	6.1	e3.4	e3.2	.28	e2.4	e4.8
23	e3.0	2.7	3.6	8.2	9.0	9.3	4.9	e2.9	e2.0	.28	e2.6	e3.5
24	1.9	2.9	3.2	18	7.8	8.1	4.7	e2.6	e1.8	.39	e2.3	e3.0
25	1.5	4.2	3.1	14	6.4	7.6	4.3	e2.8	e1.8	2.7	e2.6	e2.4
26	1.2	3.6	2.9	9.2	5.5	6.9	6.8	3.5	1.8	5.4	e2.6	4.0
27	2.9	2.6	2.6	50	5.1	5.9	8.1	5.3	1.6	.89	e2.9	3.0
28	34	2.0	2.4	17	5.1	13	6.0	e4.9	1.4	.63	e2.5	e5.0
29	6.9	2.6	2.3	12	5.1	14	6.0	e10	1.1	.66	e2.5	e11
30	3.8	2.9	2.2	11	---	9.6	e60	e22	1.1	1.5	e2.4	e6.0
31	2.6	---	2.5	11	---	8.4	---	e31	---	3.2	e2.6	---
TOTAL	118.94	282.2	151.8	444.9	298.1	394.4	303.3	289.6	110.04	35.06	134.25	2219.7
MEAN	3.84	9.41	4.90	14.4	10.3	12.7	10.1	9.34	3.67	1.13	4.33	74.0
MAX	40	55	33	119	25	74	60	40	28	5.4	25	1000
MIN	.06	2.0	2.0	2.7	5.1	3.8	4.3	1.9	.68	.28	.85	1.8
CFSM	.48	1.18	.61	1.80	1.29	1.60	1.27	1.17	.46	.14	.54	9.29
IN.	.56	1.32	.71	2.08	1.39	1.84	1.42	1.35	.51	.16	.63	10.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	2.22	4.88	2.70	9.98	10.5	11.8	5.81	5.55	16.7	4.27	2.42	37.1
MAX	3.84	9.41	4.90	14.4	10.7	12.7	10.1	9.34	29.7	7.40	4.33	74.0
(WY)	1996	1996	1996	1996	1995	1996	1996	1996	1995	1995	1996	1996
MIN	.60	.36	.50	5.61	10.3	10.9	1.50	1.76	3.67	1.13	.52	.18
(WY)	1995	1995	1995	1995	1996	1995	1995	1995	1996	1996	1995	1995

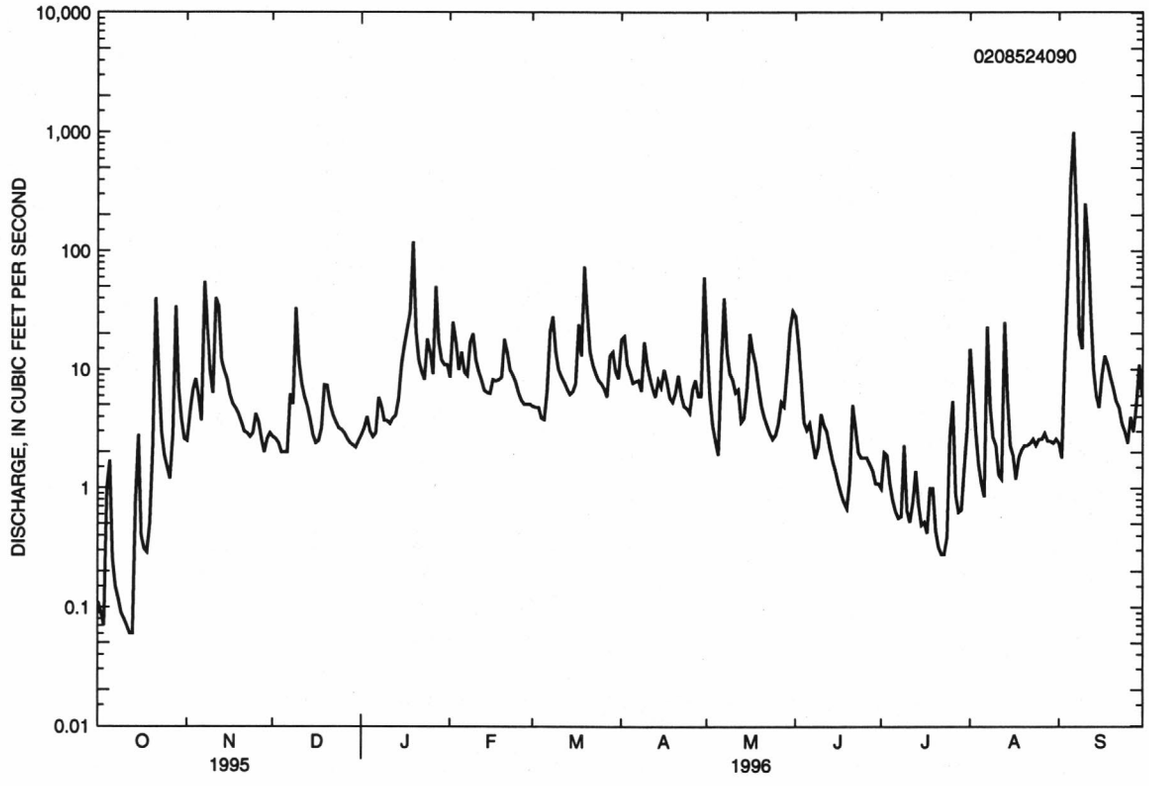
NEUSE RIVER BASIN

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1995 - 1996	
ANNUAL TOTAL	2604.58		4782.29			
ANNUAL MEAN	7.14		13.1		9.41	
HIGHEST ANNUAL MEAN					13.1	1996
LOWEST ANNUAL MEAN					5.74	1995
HIGHEST DAILY MEAN	364	Jun 29	e1000	Sep 6	e1000	Sep 6 1996
LOWEST DAILY MEAN	e.06	Oct 12	e.06	Oct 12	.02	Oct 3 1994
ANNUAL SEVEN-DAY MINIMUM	.09	Oct 7	.09	Oct 7	.02	Oct 1 1994
INSTANTANEOUS PEAK FLOW			NOT DETERMINED*		NOT DETERMINED*	
INSTANTANEOUS PEAK STAGE			12.56*	Sep 6	12.56*	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		.01	Oct 7 1994
ANNUAL RUNOFF (CFSM)	.90		1.64		1.18	
ANNUAL RUNOFF (INCHES)	12.16		22.33		16.05	
10 PERCENT EXCEEDS	12		18		14	
50 PERCENT EXCEEDS	2.0		4.9		2.6	
90 PERCENT EXCEEDS	.16		.83		.21	

e Estimated.

* See REMARKS.



0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988-91, 1994 to current year.

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

COOPERATION.--For the period February 1988 through June 1989 the inorganic chemical data and trace metal data were analyzed by the city of Durham's Brown Water Treatment Plant Laboratory.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT												
04...	1745	1.8	100	7.1	19.0	745	7.1	78	37	30	0.160	<0.010
NOV												
29...	1430	2.8	94	7.3	9.5	747	11.5	102	31	25	0.210	<0.010
DEC												
14...	0945	4.0	85	6.9	4.5	764	13.0	100	25	21	0.370	<0.010
JAN												
22...	1130	9.2	84	6.6	3.0	769	12.6	93	23	19	0.520	<0.010
27...	1040	108	78	6.6	--	--	--	--	--	--	0.350	<0.010
MAR												
04...	1215	3.5	96	7.5	7.5	770	13.7	113	--	--	0.370	0.020
28...	1330	15	98	7.2	8.0	766	11.2	94	27	22	0.370	<0.010
APR												
30...	1130	51	69	7.2	18.0	756	8.8	94	38	32	0.170	<0.010
JUN												
25...	1030	1.5	111	6.6	24.5	757	8.3	100	47	38	0.140	<0.010
JUL												
23...	1015	0.30	126	7.4	24.0	756	7.4	89	51	42	0.450	0.010
AUG												
13...	1130	5.2	117	7.0	21.0	750	8.2	94	42	34	0.350	0.020
SEP												
25...	1200	2.3	112	7.3	19.5	761	8.6	94	43	35	0.160	<0.010

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)
OCT												
04...	0.160	<0.015	0.40	--	0.40	0.30	0.56	0.46	0.080	0.030	0.030	690
NOV												
29...	0.210	<0.015	0.30	--	0.30	<0.20	0.51	--	0.030	<0.010	<0.010	--
DEC												
14...	0.370	<0.015	0.20	--	0.20	0.20	0.57	0.57	0.020	0.020	0.010	--
JAN												
22...	0.520	0.020	0.28	0.28	0.30	0.30	0.82	0.82	0.050	0.020	0.020	--
27...	0.350	0.050	1.2	0.45	1.2	0.50	1.6	0.85	0.400	0.070	0.050	2500
MAR												
04...	0.390	0.020	--	--	<0.20	<0.20	--	--	<0.010	0.010	<0.010	--
28...	0.370	0.030	0.37	0.17	0.40	0.20	0.77	0.57	0.040	0.020	0.020	230
APR												
30...	0.170	0.040	0.76	0.46	0.80	0.50	0.97	0.67	0.070	0.040	0.030	850
JUN												
25...	0.140	0.020	0.68	0.28	0.70	0.30	0.84	0.44	0.030	<0.010	<0.010	--
JUL												
23...	0.460	0.050	--	--	<0.20	<0.20	--	--	<0.010	<0.010	0.020	--
AUG												
13...	0.370	0.060	0.44	0.24	0.50	0.30	0.87	0.67	0.040	0.060	0.030	--
SEP												
25...	0.160	<0.015	0.20	--	0.20	0.20	0.36	0.36	0.020	<0.010	<0.010	80

NEUSE RIVER BASIN

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
OCT												
04...	2	<1	18	<1	2	980	2	170	<0.10	<1	<1	<1
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	<1	<1	2	3	3	3600	8	450	<0.10	<1	1	<1
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<1	<1	<1	<1	1	1100	<1	220	<0.10	<1	<1	<1
APR												
30...	<1	<1	<1	2	4	3800	4	1400	<0.10	<1	<1	<1
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	<1	<1	<1	<1	<1	700	<1	70	<0.10	<1	<1	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	PER-THANE TOTAL (UG/L) (39034)	ENDO-SULFAN, I TOTAL (UG/L) (39388)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	P,P'-DDD UNFILT RECOVER (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	P,P'-DDT UNFILT RECOVER (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)
OCT												
04...	<1	<10	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	<1	20	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<1	<10	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
APR												
30...	<1	10	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	<1	<10	--	--	--	--	--	--	--	--	--	--

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	TOXAPHENE, TOTAL (UG/L) (39400)	DIAZINON, TOTAL (UG/L) (39570)	ETHION, TOTAL (UG/L) (39398)	MALATHION, TOTAL (UG/L) (39530)	METHYL PARATHION, TOTAL (UG/L) (39600)	PARATHION, TOTAL (UG/L) (39540)	TOTAL TRITHION (UG/L) (39786)	PCB, TOTAL (UG/L) (39516)	PCNS UNFILT RECOVER (UG/L) (39250)	METHOXYCHLOR, TOTAL (UG/L) (39480)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
APR												
30...	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MIREX, TOTAL (UG/L) (39755)	DISULFOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	CHLORPYRIFOS TOTAL RECOVER (UG/L) (38932)	DEF TOTAL (UG/L) (39040)	FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L) (82614)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	--	<0.010	<0.010	<0.010	<0.010	<0.002	0.005	<0.002	<0.002	<0.004	<0.004
APR												
30...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.005	0.023	<0.002	<0.002	<0.004	<0.004
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.002	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004
APR												
30...	<0.002	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.002	<0.005	0.006	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002
APR												
30...	<0.002	<0.005	0.022	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.008	<0.005	<0.002
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.003	E0.004	<0.007	<0.004	<0.013	<0.005	<0.002	<0.010	<0.013	<0.001	<0.002	E0.005
APR												
30...	0.016	<0.018	<0.007	<0.004	<0.013	0.083	<0.002	<0.010	<0.013	<0.001	<0.002	E0.005
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.001	<0.003	<0.003	<0.007	<0.002	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021
APR												
30...	<0.001	<0.003	<0.003	<0.007	<0.002	<0.035	E3.90	<0.035	<0.035	<0.016	<0.016	<0.021
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BENTAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BROMACIL, WATER, DISS, REC (UG/L) (04029)	BROMOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	CARBARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBOFURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	3HYDRXY CARBOFURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	CHLORAMBEN, WATER, FLTRD, GF 0.7U REC (UG/L) (49307)	CHLOROTHALONIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CLOPYRALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONOACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOBENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.014	<0.035	<0.035	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020
APR												
30...	<0.014	<0.035	<0.035	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DICHLORPROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	ESFENVALERATE, WAT,FLT GF 0.7U REC (UG/L) (49298)	FENURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUOMETURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIOCARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METHOMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.032	<0.035	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026	<0.017
APR												
30...	E3.50	<0.035	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026	<0.017
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	1-NAPHTHOL, WATER, FLTRD, GF 0.7U REC (UG/L) (49295)	NEBURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLURAZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORYZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PICLORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PROPHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROPOXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DISSOLVED (UG/L) (39762)	TRICLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	64	0.31
NOV												
29...	--	--	--	--	--	--	--	--	--	--	17	0.13
DEC												
14...	--	--	--	--	--	--	--	--	--	--	23	0.25
JAN												
22...	--	--	--	--	--	--	--	--	--	--	26	0.65
27...	--	--	--	--	--	--	--	--	--	--	309	90
MAR												
04...	--	--	--	--	--	--	--	--	--	--	15	0.14
28...	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050	27	1.1
APR												
30...	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	E4.50	156	21
JUN												
25...	--	--	--	--	--	--	--	--	--	--	24	0.10
JUL												
23...	--	--	--	--	--	--	--	--	--	--	14	0.01
AUG												
13...	--	--	--	--	--	--	--	--	--	--	36	0.51
SEP												
25...	--	--	--	--	--	--	--	--	--	--	40	0.25

NEUSE RIVER BASIN

0208524845 LITTLE RIVER RESERVOIR 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. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT												
18...	1300	65	6.7	21.5	27	755	1.20	4.8	55	22	5.4	2.1
MAY												
13...	1245	72	7.2	22.5	35	765	1.25	8.6	99	21	5.1	2.1
JUL												
09...	1030	71	8.0	29.0	--	753	0.75	8.5	112	23	5.4	2.2
AUG												
29...	1315	76	8.4	27.5	10	763	1.20	9.2	116	23	5.4	2.3

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	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)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)
OCT												
18...	3.0	20	0.3	2.6	26	21	2.7	3.5	<0.10	8.1	54	0.180
MAY												
13...	4.5	30	0.4	1.2	23	19	4.7	5.6	<0.10	8.8	66	0.200
JUL												
09...	4.4	28	0.4	1.6	30	24	3.4	5.2	0.20	8.6	88	--
AUG												
29...	4.0	26	0.4	1.9	27	22	3.9	5.0	<0.10	8.7	48	--

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
OCT												
18...	<0.010	0.180	0.180	0.110	0.39	0.29	0.50	0.40	0.68	0.58	0.020	<0.010
MAY												
13...	<0.010	0.200	0.200	0.030	0.47	0.27	0.50	0.30	0.70	0.50	0.030	<0.010
JUL												
09...	<0.010	--	<0.050	0.030	0.47	0.27	0.50	0.30	0.50	--	<0.010	<0.010
AUG												
29...	<0.010	--	<0.050	<0.015	0.40	--	0.40	0.30	0.40	--	0.010	<0.010

0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)
OCT												
18...	<0.010	6.40	0.400	50	<1	<1	<1	<1	<1	190	<1	250
MAY												
13...	<0.010	1.20	<0.100	110	<1	<1	9	<1	1	440	<1	30
JUL												
09...	<0.010	9.20	0.400	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.010	5.70	0.400	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)	BENZENE TOTAL (UG/L) (34030)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)
OCT												
18...	<0.10	<1	<1	<1	<1	<10	7.8	--	--	--	--	--
MAY												
13...	0.10	<1	1	<1	<1	<10	6.9	--	--	--	--	--
JUL												
09...	--	--	--	--	--	--	7.5	--	--	--	--	--
AUG												
29...	--	--	--	--	--	--	7.3	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)
OCT												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

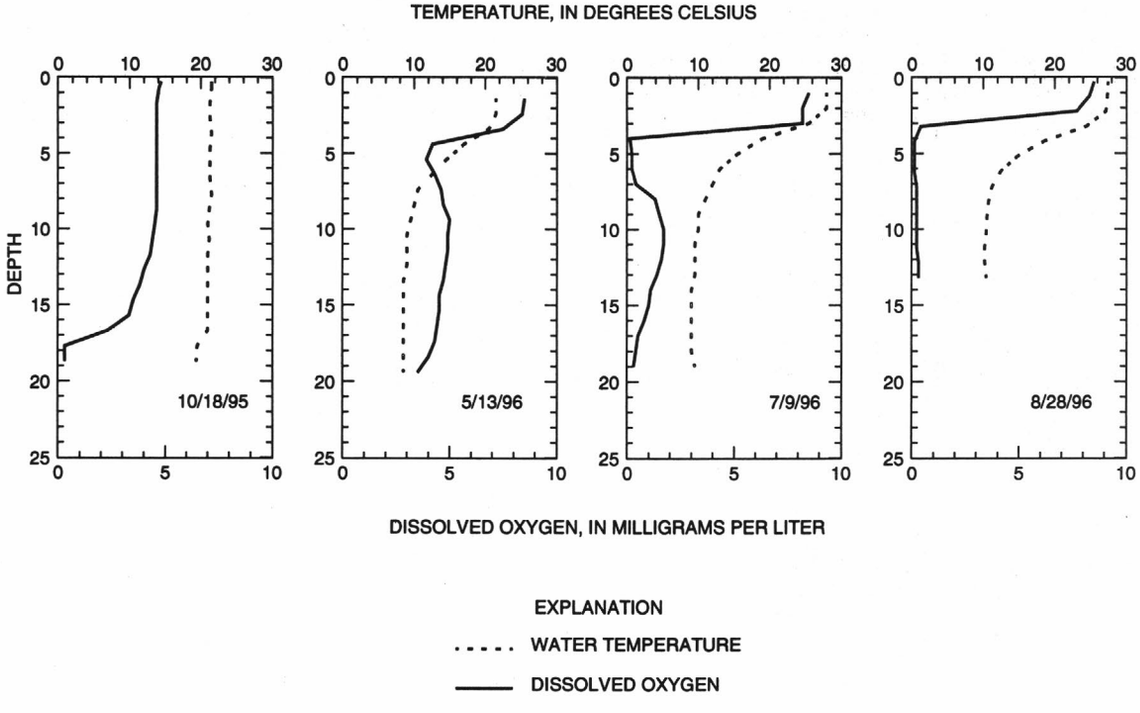
NEUSE RIVER BASIN

0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)
OCT												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L) (34546)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)
OCT												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	0.122	<0.018	E0.014	<0.004



0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC

LOCATION.--Lat 36°06'56", long 78°51'30", Durham County, Hydrologic Unit 03020201, 0.2 mi above mouth and 0.8 mi northeast of Fairntosh.

DRAINAGE AREA.--0.86 mi^2.

PERIOD OF RECORD.--Water years 1994 to current year.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT												
05...	1515	1.5	155	7.2	22.5	740	7.0	83	38	31	0.270	<0.010
NOV												
30...	1245	0.15	158	6.8	10.0	757	6.2	55	63	52	--	<0.010
DEC												
13...	1230	0.33	133	6.7	6.5	769	9.8	78	51	42	0.070	<0.010
JAN												
22...	1030	0.71	133	7.0	3.0	770	12.6	93	35	29	0.170	<0.010
27...	0930	19	73	6.6	--	--	--	--	--	--	0.320	<0.010
MAR												
05...	1230	0.27	147	6.9	7.5	763	11.7	98	59	48	--	0.010
28...	1145	4.5	115	7.1	7.5	766	11.0	91	34	28	0.260	<0.010
APR												
30...	1030	18	86	7.0	16.0	755	8.7	89	25	21	0.590	0.010
JUN												
26...	1215	0.08	203	7.4	27.0	764	7.2	90	85	70	0.080	<0.010
AUG												
13...	1345	0.49	157	6.9	21.0	752	8.7	99	49	40	0.190	0.010
SEP												
26...	1145	2.0	162	7.3	19.0	765	6.8	73	55	45	0.310	0.020

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)
OCT												
05...	0.270	0.020	0.58	0.68	0.60	0.70	0.87	0.97	0.230	0.190	0.170	540
NOV												
30...	<0.050	<0.015	0.20	--	0.20	<0.20	0.20	--	0.030	0.010	0.010	--
DEC												
13...	0.070	<0.015	--	--	<0.20	<0.20	--	--	0.010	0.020	0.010	--
JAN												
22...	0.170	<0.015	--	--	<0.20	<0.20	--	--	0.040	0.030	0.030	--
27...	0.320	<0.015	0.90	--	0.90	0.60	1.2	0.92	0.290	0.210	0.190	2500
MAR												
05...	<0.050	0.020	--	--	<0.20	<0.20	--	--	<0.010	<0.010	<0.010	--
28...	0.260	0.020	0.68	0.38	0.70	0.40	0.96	0.66	0.110	0.060	0.060	670
APR												
30...	0.600	0.120	1.2	0.78	1.3	0.90	1.9	1.5	0.360	0.260	0.240	1900
JUN												
26...	0.080	<0.015	0.40	--	0.40	0.30	0.48	0.38	0.020	0.020	0.020	--
AUG												
13...	0.200	0.080	0.72	0.42	0.80	0.50	1.0	0.70	0.080	0.030	0.030	--
SEP												
26...	0.330	0.350	1.1	0.85	1.4	1.2	1.7	1.5	0.330	0.260	0.290	900

NEUSE RIVER BASIN

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
OCT												
05...	2	<1	<1	<1	4	750	<1	130	<0.10	<1	<1	<1
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	<1	<1	3	2	3	2300	3	110	<0.10	1	1	<1
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	1	<1	2	1	4	2200	2	350	<0.10	<1	1	<1
APR												
30...	1	<1	1	2	6	1900	3	260	<0.10	<1	<1	<1
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	<1	<1	<1	<1	4	1300	1	240	<0.10	<1	2	<1

DATE	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	PER-THANE TOTAL (UG/L) (39034)	ENDO-SULFAN, I TOTAL (UG/L) (39388)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TECH-NICAL TOTAL (UG/L) (39350)	P,P'-DDD UNFILT RECOVER (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	P,P'-DDT UNFILT RECOVER (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)
OCT												
05...	<1	<10	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	<1	10	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<1	<10	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
APR												
30...	<1	10	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	<1	<10	--	--	--	--	--	--	--	--	--	--

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	TOX-APHENE, TOTAL (UG/L) (39400)	DI-AZINON, TOTAL (UG/L) (39570)	ETHION, TOTAL (UG/L) (39398)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)	PARA-THION, TOTAL (UG/L) (39540)	TOTAL TRI-THION (UG/L) (39786)	PCB, TOTAL (UG/L) (39516)	PCNS UNFILT RECOVER (UG/L) (39250)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
APR												
30...	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MIREX, TOTAL (UG/L) (39755)	DISUL-FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	CHLOR-PYRIFOS TOTAL RECOVER (UG/L) (38932)	DEF TOTAL (UG/L) (39040)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L) (82614)	PARA-CHLORO-META CRESOL TOTAL (UG/L) (34452)	2-CHLORO-PHENOL TOTAL (UG/L) (34586)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L) (34601)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L) (34621)	2,4-DI-METHYL-PHENOL TOTAL (UG/L) (34606)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L) (34657)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	--	<0.010	<0.010	<0.010	<0.010	<30.0	<5.00	<5.00	<20.0	<5.00	<30.0
APR												
30...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<30.0	<5.00	<5.00	<20.0	<5.00	<30.0
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

NEUSE RIVER BASIN

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	2,4,-DI-NITRO-PHENOL TOTAL (UG/L) (34616)	2-NITRO-PHENOL TOTAL (UG/L) (34591)	4-NITRO-PHENOL TOTAL (UG/L) (34646)	PENTA-CHLORO-PHENOL TOTAL (UG/L) (39032)	PHENOL (C6H-5OH) TOTAL (UG/L) (34694)	ACE-NAPHTH-ENE TOTAL (UG/L) (34205)	ACE-NAPHTH-YLENE TOTAL (UG/L) (34200)	ANTHRA-CENE TOTAL (UG/L) (34220)	BENZI-DINE TOTAL (UG/L) (39120)	BENZO A ANTHRAC ENE1,2-BENZANT HRACENE TOTAL (UG/L) (34526)	BENZO B FLUOR-AN-THENE TOTAL (UG/L) (34230)	BENZO K FLUOR-AN-THENE TOTAL (UG/L) (34242)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<20.0	<5.00	<30.0	<30.0	<5.00	<5.00	<5.00	<5.00	<40.0	<10.0	<10.0	<10.0
APR												
30...	<20.0	<5.00	<30.0	<30.0	<5.00	<5.00	<5.00	<5.00	<40.0	<10.0	<10.0	<10.0
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L) (34292)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS 2-CHLORO-ETHYL ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L) (34636)	2-CHLORO-NAPH-THALENE TOTAL (UG/L) (34581)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L) (34641)	CHRY-SENE TOTAL (UG/L) (34320)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L) (39110)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<10.0	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00
APR												
30...	<10.0	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	3,3'-DI-CHLORO-BENZI-DINE TOTAL (UG/L) (34631)	DIETHYL PHTHAL-ATE TOTAL (UG/L) (34336)	DI-METHYL PHTHAL-ATE TOTAL (UG/L) (34341)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L) (34611)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L) (34626)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L) (34596)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L) (39100)	FLUOR-ENE TOTAL (UG/L) (34381)	FLUOR-ANTHENE TOTAL (UG/L) (34376)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<5.00	<5.00	<5.00	<20.0	<150	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00	<5.00
APR												
30...	<5.00	<5.00	<5.00	<20.0	<140	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00	<5.00
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	HEXA-CHLORO-BENZENE TOTAL (UG/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	CYCLOPE NTADIEN HEXA-CHLORO-UNFLTRD RECOVER (UG/L) (34386)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	ISO-PHORONE TOTAL (UG/L) (34408)	NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE NITRO-WATER UNFLTRD RECOVER (UG/L) (34447)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L) (34438)	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L) (34433)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L) (34428)	PHENAN-THRENE TOTAL (UG/L) (34461)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<5.00	<5.00	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
APR												
30...	<5.00	<5.00	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PYRENE TOTAL (UG/L) (34469)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (UG/L) (82626)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<5.00	<5.00	<5.00	<0.002	0.035	<0.002	<0.002	<0.004	<0.004	<0.002	<0.006	<0.002
APR												
30...	<5.00	<5.00	<5.00	0.008	0.022	0.004	<0.002	0.007	<0.004	<0.002	<0.006	<0.002
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002	<0.005	<0.002
APR												
30...	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002	<0.005	0.023
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	0.520	<0.005	<0.002	<0.003	<0.018	<0.007
APR												
30...	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	3.20	<0.018	<0.007
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.004	<0.013	E6.70	<0.002	<0.010	<0.013	<0.001	<0.002	E0.006	<0.001	<0.003	<0.003
APR												
30...	<0.004	<0.013	0.970	<0.002	E0.022	<0.013	<0.001	E0.003	E0.020	<0.001	E0.055	<0.003
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)
OCT												
05...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.007	<0.002	<0.440	E0.400	<0.044	<0.044	<0.020	<0.020	<0.026	<0.018	<0.044	<0.044
APR												
30...	<0.014	<0.002	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
JUN												
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
26...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	CHLOR-AMBEN, WATER, FLTRD, GF 0.7U REC (UG/L) (49307)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
NOV											
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
13...	--	--	--	--	--	--	--	--	--	--	--
JAN											
22...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	<0.035	<0.110	<0.014	<0.044	<0.063	<0.021	<0.440	<0.025	<0.040	<0.044
APR											
30...	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032	<0.035
JUN											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

0208524950 LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	ESFEN-VAL-ERATE, WAT,FLT GF 0.7U REC (UG/L) (49298)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	1-NAPH THOL, WATER, FLTRD, GF 0.7U REC (UG/L) (49295)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
NOV											
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
13...	--	--	--	--	--	--	--	--	--	--	--
JAN											
22...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
28...	<0.025	E0.100	<0.024	<0.016	<0.044	<0.022	<0.063	<0.044	<0.032	<0.021	<0.009
APR											
30...	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026	<0.017	<0.007
JUN											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

DATE	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS-SOLVED (UG/L) (39762)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT											
05...	--	--	--	--	--	--	--	--	--	47	0.19
NOV											
30...	--	--	--	--	--	--	--	--	--	23	0.01
DEC											
13...	--	--	--	--	--	--	--	--	--	25	0.02
JAN											
22...	--	--	--	--	--	--	--	--	--	16	0.03
27...	--	--	--	--	--	--	--	--	--	138	7.0
MAR											
05...	--	--	--	--	--	--	--	--	--	22	0.02
28...	<0.019	<0.030	<0.023	<0.022	<0.063	<0.044	<0.044	<0.026	<0.063	118	1.4
APR											
30...	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050	119	5.7
JUN											
26...	--	--	--	--	--	--	--	--	--	8	0.00
AUG											
13...	--	--	--	--	--	--	--	--	--	51	0.07
SEP											
26...	--	--	--	--	--	--	--	--	--	86	0.46

View of Topsail Beach, North Carolina after Hurricane Fran.

NEUSE RIVER BASIN

0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC

LOCATION.--Lat 36°06'46", long 78°51'35", Durham County, Hydrologic Unit 030200201, 125 ft downstream of the mouth of Little River tributary and 0.5 mi downstream of Little River Dam.

DRAINAGE AREA.--98.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1995 to September 1996.

GAGE.--Water-stage recorder. Datum of gage is 270 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for current year, from rating curve extended above 2,000 ft^3/s on basis of computation of flow through culvert with road overflow. Maximum gage height for current year from floodmarks. Data for October 1 to 23, 1995 were not estimated due to the regulation from Little River Reservoir located 0.5 mile upstream of the gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	20	4.4	74	111	40	160	560	56	2.8	72	2.8
2	---	45	6.1	75	335	40	255	35	32	4.5	11	2.8
3	---	45	6.2	81	227	39	148	57	20	3.1	64	12
4	---	25	6.7	85	95	29	99	49	27	2.8	39	25
5	---	75	7.5	85	100	30	78	34	21	2.5	52	449
6	---	38	5.7	84	70	40	62	40	14	2.5	40	10300
7	---	656	7.6	84	63	123	61	215	7.3	2.6	31	1970
8	---	944	6.1	81	121	447	57	148	7.5	3.8	48	143
9	---	285	26	77	353	238	127	74	8.0	41	80	151
10	---	49	362	159	258	130	180	52	7.6	30	2.3	42
11	---	286	94	178	147	100	107	42	5.4	2.0	2.2	1600
12	---	1520	9.7	5.0	103	77	65	36	6.5	2.9	2.5	474
13	---	34	6.6	5.6	72	68	61	16	3.4	2.5	9.3	161
14	---	29	6.4	6.6	63	58	65	15	3.6	1.9	24	e133
15	---	30	464	9.0	66	51	62	11	3.3	1.9	86	e32
16	---	56	858	8.9	71	89	77	88	3.0	1.9	2.5	e80
17	---	31	889	9.8	68	280	72	212	5.7	2.3	81	94
18	---	50	841	11	63	258	61	98	3.1	2.7	15	e41
19	---	5.6	358	26	78	790	37	52	3.1	2.5	75	e17
20	---	49	136	9.7	117	839	53	38	5.2	2.4	2.1	e38
21	---	31	86	8.0	259	237	92	14	202	2.3	2.2	e24
22	---	40	77	7.4	153	143	92	8.6	73	2.3	2.5	52
23	---	1.7	76	7.2	108	100	66	9.9	16	2.5	22	e59
24	2.6	2.1	77	12	90	77	32	7.5	2.8	2.6	51	e9.6
25	63	46	77	8.3	73	73	30	7.4	3.1	5.7	42	e39
26	13	24	77	7.4	65	61	39	7.4	2.9	3.3	40	e38
27	68	6.4	76	268	55	56	43	8.8	2.7	2.3	2.2	35
28	339	1.9	83	442	55	79	41	111	2.8	3.0	2.1	40
29	288	2.3	87	208	48	223	37	146	2.7	2.8	2.1	e6.8
30	70	53	87	135	---	144	201	391	2.7	3.0	2.4	e59
31	76	---	81	148	---	109	---	158	---	2.8	2.7	---
TOTAL	---	4481.0	4985.0	2405.9	3487	5068	2560	2741.6	553.4	151.2	910.1	16130.0
MEAN	---	149	161	77.6	120	163	85.3	88.4	18.4	4.88	29.4	538
MAX	---	1520	889	442	353	839	255	560	202	41	86	10300
MIN	---	1.7	4.4	5.0	48	29	30	7.4	2.7	1.9	2.1	2.8
CFSM	---	1.51	1.63	.78	1.22	1.65	.86	.89	.19	.05	.30	5.43
IN.	---	1.68	1.87	.90	1.31	1.91	.96	1.03	.21	.06	.34	6.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEAR 1996*

MEAN	---	149	161	77.6	120	163	85.3	88.4	18.4	4.88	29.4	538
MAX	---	149	161	77.6	120	163	85.3	88.4	18.4	4.88	29.4	538
(WY)	---	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	---	149	161	77.6	120	163	85.3	88.4	18.4	4.88	29.4	538
(WY)	---	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996

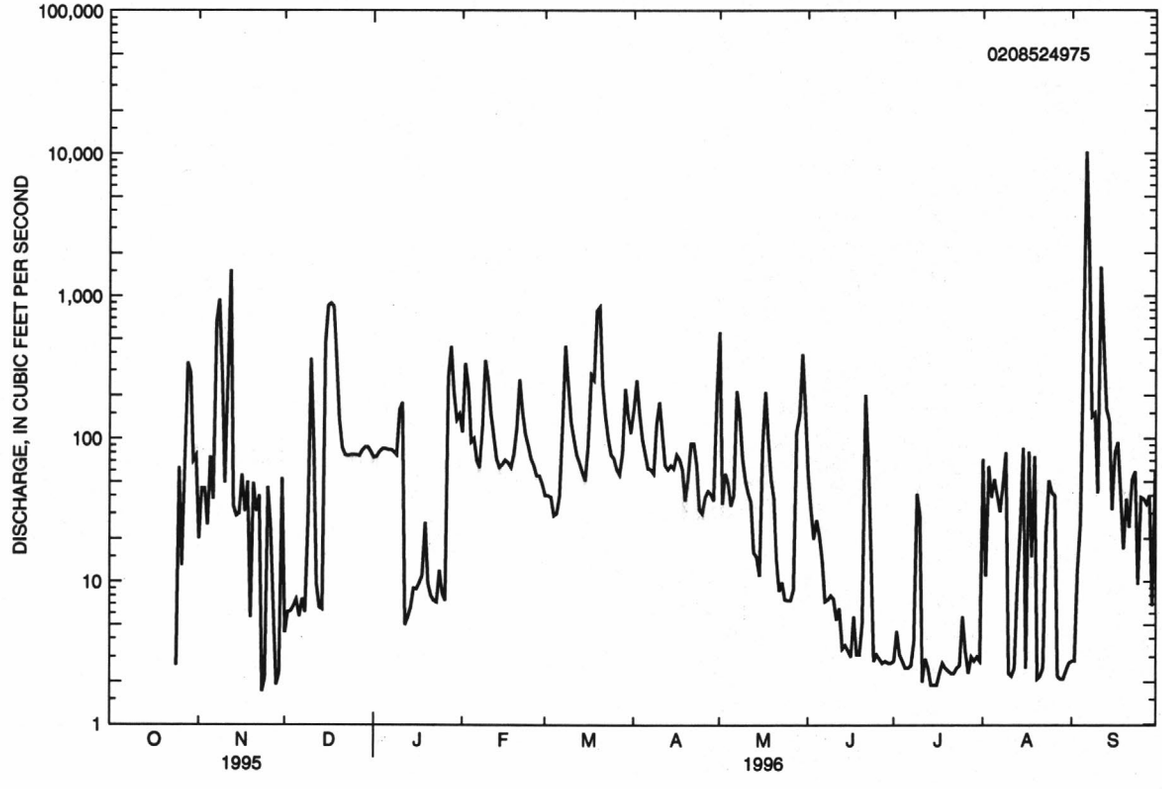
NEUSE RIVER BASIN

0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

SUMMARY STATISTICS FOR 1996 WATER YEAR*

HIGHEST DAILY MEAN	10300	Sep 6
LOWEST DAILY MEAN	1.7*	Nov 23
INSTANTANEOUS PEAK FLOW	16600*	Sep 6
INSTANTANEOUS PEAK STAGE	17.27*	Sep 6
INSTANTANEOUS LOW FLOW	1.4*	Oct 24

e Estimated.
* See Remarks.



0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1995 to current year.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)
OCT										
05...	1345	6.3	120	6.9	22.0	740	6.6	78	28	23
NOV										
29...	1030	2.3	78	6.8	11.0	750	9.6	89	31	25
DEC										
14...	1245	6.5	71	6.9	8.0	769	11.4	95	29	24
JAN										
22...	0930	7.3	107	7.0	3.0	770	11.4	84	11	9.0
MAR										
04...	1330	27	136	6.9	7.5	773	11.9	98	18	15
APR										
18...	1045	62	76	6.9	16.0	757	11.0	112	13	11
MAY										
01...	1100	384	72	7.3	18.5	764	10.6	113	24	20
01...	1430	1090	70	7.1	--	--	--	--	21	17
JUN										
26...	1030	2.5	91	7.0	26.0	765	6.8	84	35	29
JUL										
23...	1200	2.6	93	7.2	28.0	756	6.0	77	39	32
AUG										
13...	1500	3.4	99	6.9	23.0	753	7.2	85	33	27
SEP										
07...	1030	2270	44	6.5	--	--	--	--	--	--
26...	1030	5.8	55	6.7	20.0	765	5.2	57	15	12

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
OCT										
05...	0.330	<0.010	0.330	0.080	0.72	0.62	0.80	0.70	1.1	1.0
NOV										
29...	0.200	<0.010	0.200	0.040	0.46	0.36	0.50	0.40	0.70	0.60
DEC										
14...	0.230	<0.010	0.230	0.050	0.45	0.35	0.50	0.40	0.73	0.63
JAN										
22...	0.290	<0.010	0.290	0.090	0.21	0.21	0.30	0.30	0.59	0.59
MAR										
04...	0.360	0.020	0.380	0.020	0.28	0.18	0.30	0.20	0.68	0.58
APR										
18...	0.240	<0.010	0.240	0.020	0.38	0.28	0.40	0.30	0.64	0.54
MAY										
01...	0.210	<0.010	0.210	0.050	0.35	0.25	0.40	0.30	0.61	0.51
01...	0.280	<0.010	0.280	0.030	0.37	0.27	0.40	0.30	0.68	0.58
JUN										
26...	0.390	<0.010	0.390	<0.015	0.30	--	0.30	0.20	0.69	0.59
JUL										
23...	0.060	0.010	0.070	0.040	0.46	0.16	0.50	0.20	0.57	0.27
AUG										
13...	0.220	0.020	0.240	0.090	0.71	0.51	0.80	0.60	1.0	0.84
SEP										
07...	0.120	0.010	0.130	0.030	0.87	0.47	0.90	0.50	1.0	0.63
26...	--	<0.010	<0.050	0.100	0.50	0.30	0.60	0.40	0.60	--

NEUSE RIVER BASIN

0208524975 LITTLE RIVER BELOW LITTLE RIVER TRIBUTARY AT FAIRNTOSH, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)
OCT										
05...	0.270	0.230	0.220	430	2	<1	<1	<1	4	650
NOV										
29...	0.040	0.010	0.010	--	--	--	--	--	--	--
DEC										
14...	0.030	0.020	0.010	--	--	--	--	--	--	--
JAN										
22...	0.040	0.030	0.020	--	--	--	--	--	--	--
MAR										
04...	0.030	0.030	0.010	--	--	--	--	--	--	--
APR										
18...	0.050	0.010	<0.010	--	--	--	--	--	--	--
MAY										
01...	0.020	0.020	0.010	--	--	--	--	--	--	--
01...	0.030	0.020	0.020	--	--	--	--	--	--	--
JUN										
26...	<0.010	<0.010	0.010	--	--	--	--	--	--	--
JUL										
23...	<0.010	0.010	<0.010	--	--	--	--	--	--	--
AUG										
13...	0.090	0.070	0.070	--	--	--	--	--	--	--
SEP										
07...	0.110	0.030	0.030	--	--	--	--	--	--	--
26...	0.050	0.010	0.010	--	--	--	--	--	--	--

DATE	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT										
05...	<1	170	<0.10	<1	<1	<1	<1	<10	43	0.73
NOV										
29...	--	--	--	--	--	--	--	--	16	0.10
DEC										
14...	--	--	--	--	--	--	--	--	21	0.37
JAN										
22...	--	--	--	--	--	--	--	--	33	0.65
MAR										
04...	--	--	--	--	--	--	--	--	22	1.6
APR										
18...	--	--	--	--	--	--	--	--	10	1.7
MAY										
01...	--	--	--	--	--	--	--	--	16	17
01...	--	--	--	--	--	--	--	--	18	53
JUN										
26...	--	--	--	--	--	--	--	--	14	0.09
JUL										
23...	--	--	--	--	--	--	--	--	10	0.07
AUG										
13...	--	--	--	--	--	--	--	--	45	0.42
SEP										
07...	--	--	--	--	--	--	--	--	116	711
26...	--	--	--	--	--	--	--	--	29	0.45

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC

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

DRAINAGE AREA.--149 mi^2.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 346.85 ft above sea level. Prior to Oct. 22, 1925, nonrecording gage at present site at 346.27 ft. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, 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 and current water year from rating curve extended above 18,000 ft^3/s, on basis of slope-conveyance measurement of peak flow; maximum gage height, 17.26 ft, from high water mark inside gage shelter. Minimum discharge for the current water year also occurred on Oct 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	e71	125	e74	226	90	397	429	86	14	182	30
2	4.1	e64	101	82	e285	88	540	178	66	13	275	26
3	3.9	e88	85	110	538	84	262	122	56	12	223	51
4	7.2	e136	79	111	243	75	192	95	53	12	84	422
5	112	e101	73	85	e163	74	158	81	52	12	51	528
6	270	e67	69	e75	e183	102	135	143	46	10	41	e21800
7	72	e559	e90	e82	e157	465	138	226	41	11	626	e4100
8	37	e989	e149	124	e283	731	125	171	36	13	140	e800
9	25	248	468	e105	e793	327	390	112	35	13	69	e175
10	15	147	347	e92	e405	213	280	86	46	21	62	e115
11	12	e282	188	e88	e239	171	178	75	41	16	48	e120
12	10	1370	139	e92	e195	153	145	75	37	13	38	e165
13	8.9	333	117	e94	154	137	128	69	37	15	128	e125
14	10	227	105	e100	137	121	121	60	36	24	122	e105
15	87	201	97	e165	132	137	111	59	32	20	63	e84
16	66	150	93	436	136	169	163	230	29	15	45	e76
17	33	119	90	e447	142	564	147	306	26	13	43	e98
18	21	e104	84	e818	135	312	111	127	27	12	34	e84
19	16	e96	151	e3110	145	1410	100	84	24	12	29	64
20	16	e89	287	e860	442	818	99	67	22	11	26	56
21	2400	84	e183	e369	504	342	171	58	23	11	23	51
22	308	e76	e143	e271	267	235	126	52	24	9.8	22	48
23	136	71	e108	e222	216	182	100	48	22	22	22	50
24	75	70	e97	e335	186	153	87	45	19	41	22	46
25	56	82	e89	e552	148	135	78	44	17	43	22	42
26	45	92	e82	e272	129	126	83	47	15	1050	22	42
27	99	79	79	e1130	118	111	106	65	22	123	28	42
28	1520	72	76	e606	110	264	84	646	19	58	34	41
29	233	93	e70	e318	104	448	74	225	15	61	29	65
30	e123	215	68	e257	---	233	512	419	14	42	28	75
31	e83	---	e71	e245	---	180	---	145	---	35	30	---
TOTAL	5908.8	6375	4003	11727	6915	8650	5341	4589	1018	1777.8	2611	29526
MEAN	191	212	129	378	238	279	178	148	33.9	57.3	84.2	984
MAX	2400	1370	468	3110	793	1410	540	646	86	1050	626	21800
MIN	3.9	64	68	74	104	74	74	44	14	9.8	22	26
CFSM	1.28	1.43	.87	2.54	1.60	1.87	1.19	.99	.23	.38	.57	6.61
IN.	1.48	1.59	1.00	2.93	1.73	2.16	1.33	1.15	.25	.44	.65	7.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996, BY WATER YEAR (WY)

MEAN	65.8	96.6	131	221	270	281	218	114	80.0	88.6	77.8	81.7
MAX	561	489	421	761	669	897	612	573	551	798	431	984
(WY)	1972	1986	1973	1936	1979	1993	1936	1978	1938	1975	1939	1996
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

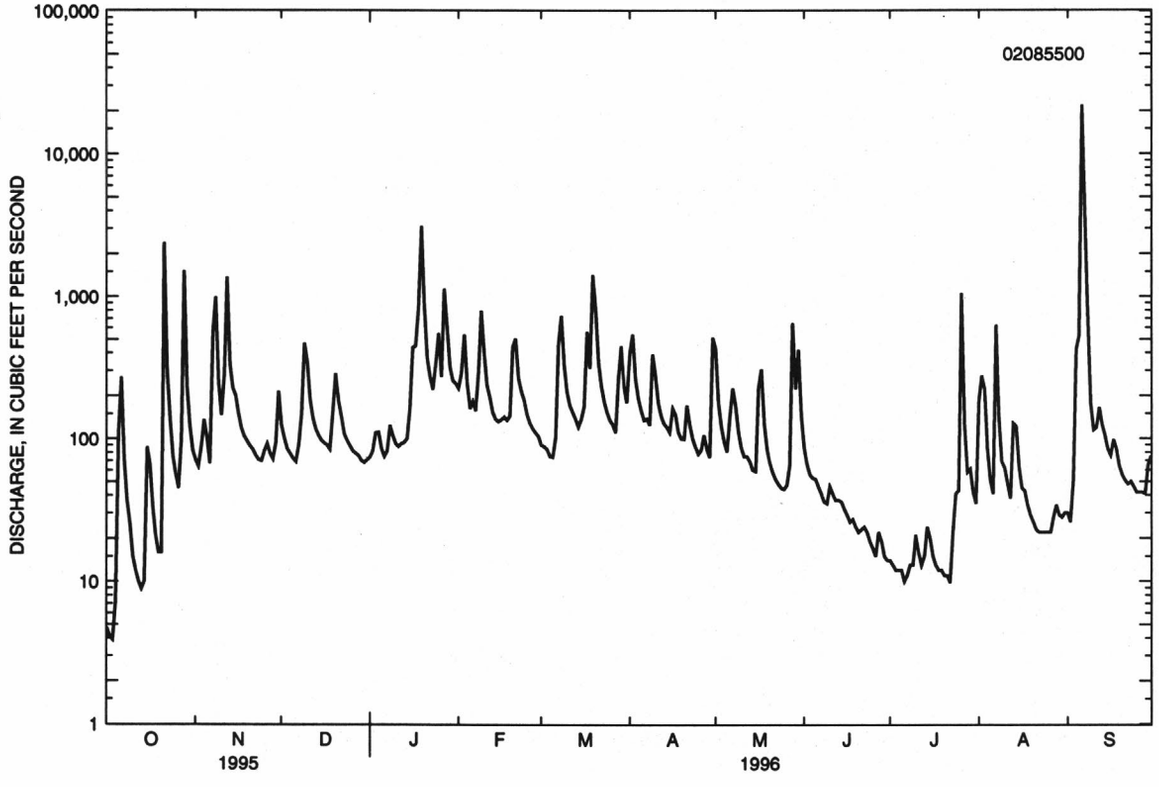
NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1925 - 1996	
ANNUAL TOTAL	53918.4		88441.6			
ANNUAL MEAN	148		242		143	
HIGHEST ANNUAL MEAN					285	1973
LOWEST ANNUAL MEAN					53.5	1981
HIGHEST DAILY MEAN	4130	Jun 29	e21800	Sep 6	e21800	Sep 6 1996
LOWEST DAILY MEAN	3.9	Oct 3	3.9	Oct 3	.27	Sep 24 1968
ANNUAL SEVEN-DAY MINIMUM	5.4	Sep 28	12	Jul 2	.28	Sep 24 1968
INSTANTANEOUS PEAK FLOW			33800*	Sep 6	33800*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			17.26*	Sep 6	17.26*	Sep 6 1996
INSTANTANEOUS LOW FLOW			3.8*	Oct 2	.23	Sep 26 1968
ANNUAL RUNOFF (CFSM)	.99		1.62		.96	
ANNUAL RUNOFF (INCHES)	13.46		22.08		13.07	
10 PERCENT EXCEEDS	275		409		280	
50 PERCENT EXCEEDS	52		92		49	
90 PERCENT EXCEEDS	8.9		20		7.1	

e Estimated.

* See REMARKS.



02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment and to define the impacts of various land-use development on surface-water quality in the Upper Neuse River basin.

COOPERATION.--For the period February 1988 through June 1989 the inorganic-chemical data and trace-metal data were analyzed by the city of Durham's Brown Water Treatment Laboratory.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)
OCT										
04...	1700	8.8	90	7.3	19.0	746	6.4	71	39	32
NOV										
29...	1330	75	74	7.0	10.0	747	10.3	93	27	22
DEC										
13...	1030	118	63	6.5	3.0	767	13.5	99	20	16
JAN										
22...	1245	264	61	6.6	3.0	769	12.6	93	17	14
27...	1130	1130	57	6.9	--	--	--	--	--	--
MAR										
05...	1045	75	71	7.1	6.5	761	12.7	104	26	21
28...	1330	174	70	7.1	--	--	--	--	21	17
APR										
30...	1330	718	72	7.1	18.0	748	8.9	96	26	21
JUN										
26...	1345	15	91	7.1	28.0	765	7.4	94	40	33
JUL										
23...	0930	11	101	7.1	25.0	756	4.9	60	43	35
AUG										
13...	1215	180	65	6.8	21.0	749	8.3	95	19	16
SEP										
26...	0915	43	84	7.1	19.0	765	8.2	88	31	25

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)
OCT										
04...	--	<0.010	<0.050	0.020	--	0.18	<0.20	0.20	--	--
NOV										
29...	0.340	<0.010	0.340	<0.015	0.30	--	0.30	<0.20	0.64	--
DEC										
13...	0.310	<0.010	0.310	<0.015	0.30	--	0.30	0.30	0.61	0.61
JAN										
22...	0.420	0.010	0.430	0.020	0.28	0.18	0.30	0.20	0.73	0.63
27...	0.290	<0.010	0.290	<0.015	0.70	--	0.70	0.30	0.99	0.59
MAR										
05...	0.260	0.010	0.270	<0.015	--	--	<0.20	<0.20	--	--
28...	0.280	<0.010	0.280	<0.015	0.20	--	0.20	<0.20	0.48	--
APR										
30...	0.250	<0.010	0.250	<0.015	0.50	--	0.50	0.30	0.75	0.55
JUN										
26...	0.220	<0.010	0.220	0.050	0.35	0.25	0.40	0.30	0.62	0.52
JUL										
23...	0.260	0.020	0.280	0.090	0.21	0.21	0.30	0.30	0.58	0.58
AUG										
13...	0.310	0.010	0.320	0.030	0.57	0.27	0.60	0.30	0.92	0.62
SEP										
26...	0.140	0.010	0.150	0.040	0.16	0.16	0.20	0.20	0.35	0.35

NEUSE RIVER BASIN

02085500 FLAT RIVER AT BAHAMA, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)
OCT										
04...	0.050	0.020	0.020	300	<1	<1	<1	<1	2	480
NOV										
29...	0.040	<0.010	<0.010	--	--	--	--	--	--	--
DEC										
13...	0.030	0.020	0.020	--	--	--	--	--	--	--
JAN										
22...	0.060	0.020	0.020	--	--	--	--	--	--	--
27...	0.190	0.040	0.030	--	--	--	--	--	--	--
MAR										
05...	0.010	<0.010	<0.010	--	--	--	--	--	--	--
28...	0.020	0.010	0.010	--	--	--	--	--	--	--
APR										
30...	0.070	0.020	0.020	--	--	--	--	--	--	--
JUN										
26...	<0.010	0.020	0.020	--	--	--	--	--	--	--
JUL										
23...	0.060	0.020	0.020	--	--	--	--	--	--	--
AUG										
13...	0.090	0.030	0.030	--	--	--	--	--	--	--
SEP										
26...	0.020	<0.010	<0.010	--	--	--	--	--	--	--

DATE	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT										
04...	<1	20	<0.10	<1	<1	<1	<1	<10	68	1.6
NOV										
29...	--	--	--	--	--	--	--	--	21	4.3
DEC										
13...	--	--	--	--	--	--	--	--	20	6.4
JAN										
22...	--	--	--	--	--	--	--	--	18	13
27...	--	--	--	--	--	--	--	--	211	644
MAR										
05...	--	--	--	--	--	--	--	--	20	4.1
28...	--	--	--	--	--	--	--	--	14	6.6
APR										
30...	--	--	--	--	--	--	--	--	85	165
JUN										
26...	--	--	--	--	--	--	--	--	22	0.89
JUL										
23...	--	--	--	--	--	--	--	--	24	0.71
AUG										
13...	--	--	--	--	--	--	--	--	134	65
SEP										
26...	--	--	--	--	--	--	--	--	21	2.4

02086490 LAKE MICHIE AT 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 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. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT												
18...	1030	68	6.8	20.0	34	755	0.90	4.9	54	20	4.6	2.1
MAY												
13...	1045	68	7.1	22.0	50	765	0.85	8.5	97	20	4.6	2.0
JUL												
22...	1000	75	8.6	29.0	30	754	0.75	8.9	117	22	5.2	2.2
AUG												
29...	1030	64	7.3	26.5	45	763	0.80	8.6	108	19	4.5	2.0

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	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)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)
OCT												
18...	3.8	26	0.4	2.5	29	24	3.0	4.4	<0.10	8.9	52	--
MAY												
13...	4.6	32	0.5	1.4	23	19	4.3	5.1	<0.10	10	66	0.140
JUL												
22...	4.7	30	0.4	1.5	26	24	3.4	5.4	0.10	10	38	0.060
AUG												
29...	3.7	26	0.4	2.4	13	11	4.2	4.0	<0.10	8.4	34	--

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
OCT												
18...	<0.010	--	<0.050	0.180	0.42	0.32	0.60	0.50	0.60	--	0.040	<0.010
MAY												
13...	<0.010	0.140	0.140	0.040	0.46	0.26	0.50	0.30	0.64	0.44	0.030	<0.010
JUL												
22...	<0.010	0.060	0.060	0.040	0.46	--	0.50	<0.20	0.56	--	0.010	<0.010
AUG												
29...	<0.010	--	<0.050	<0.015	0.50	--	0.50	0.30	0.50	--	<0.010	<0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)
OCT												
18...	<0.010	5.00	0.200	80	<1	<1	<1	<1	<1	300	<1	280
MAY												
13...	<0.010	4.10	<0.100	100	<1	<1	<1	<1	2	550	<1	40
JUL												
22...	<0.010	7.60	<0.100	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.010	6.20	0.200	--	--	--	--	--	--	--	--	--

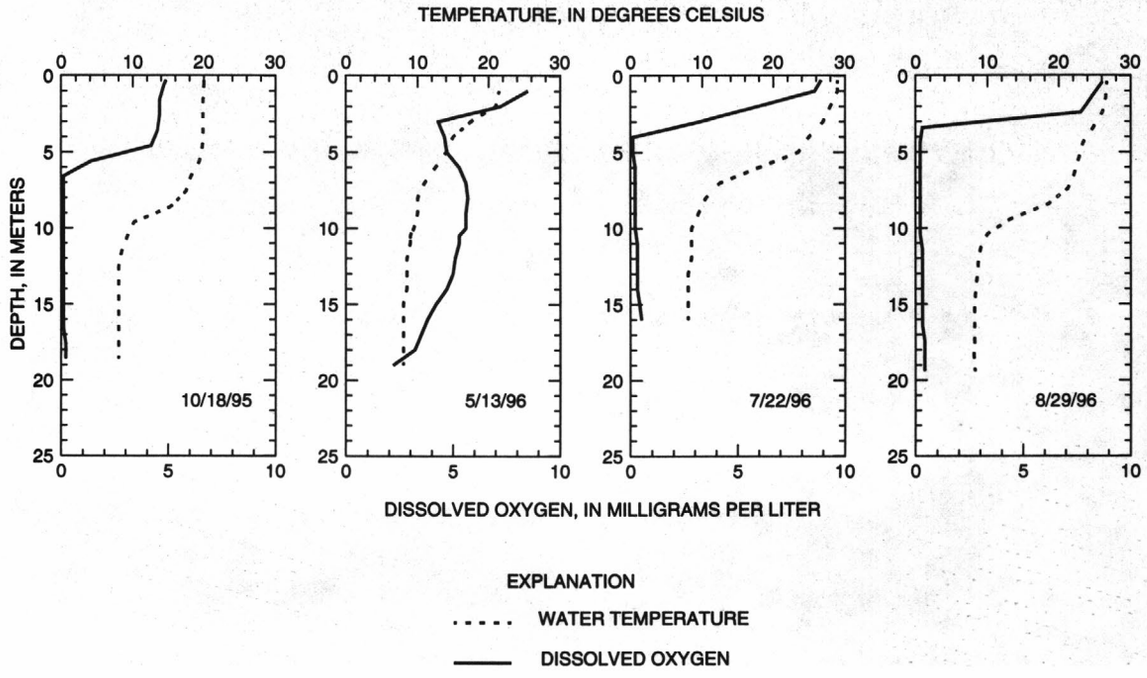
DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BENZENE TOTAL (UG/L) (34030)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)
OCT												
18...	<0.10	<1	<1	<1	<1	<10	7.6	--	--	--	--	--
MAY												
13...	0.10	<1	<1	<1	<1	<10	7.3	--	--	--	--	--
JUL												
22...	--	--	--	--	--	--	7.7	--	--	--	--	--
AUG												
29...	--	--	--	--	--	--	9.7	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)
OCT												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
22...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)
OCT												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
22...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L) (34546)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)
OCT												
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
22...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
29...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	0.069	<0.018	E0.019	<0.004



View from main street in Washington, North Carolina, after Hurricane Fran.

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC

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

DRAINAGE AREA.--1.14 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1988 to September 1990, October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow at times during most years. Maximum discharge for period of record and current year, from rating curve extended above 70 ft^3/s, on basis of computation of flow through culvert with road overflow. Maximum gage height for period of record and current year from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.08	.14	.21	1.3	.53	2.0	2.9	.33	.02	.21	.10
2	0	.17	.12	.31	3.9	.52	2.1	1.4	.28	.05	.16	.05
3	e0	.36	.09	.53	3.7	.47	1.5	.99	.26	.07	.14	.51
4	.22	1.4	.10	.29	1.7	.43	1.3	.78	.27	.02	.08	1.9
5	.24	.47	.05	.19	1.2	.45	1.1	.62	.26	.02	.04	3.3
6	.01	.18	.02	.19	1.0	.79	1.1	.75	.19	.02	.03	e225
7	e0	7.3	.27	.37	.82	4.6	1.1	1.2	.17	.01	.49	e3.2
8	e0	3.3	.29	.36	2.7	6.2	.97	.81	.18	.07	.16	.73
9	e0	.52	6.8	.35	4.3	2.5	2.5	.65	.29	.07	.13	.51
10	e0	.23	2.9	.31	2.1	1.5	1.7	.54	.24	.02	.12	7.5
11	0	6.6	1.5	.27	1.4	1.3	1.3	.55	.21	.02	.08	4.9
12	0	6.9	.85	.26	.91	1.1	1.1	.51	.20	.08	.10	2.4
13	0	3.3	.56	.27	.77	.94	1.0	.41	.18	.10	.47	1.3
14	.18	2.3	.41	.42	.75	.87	.92	.42	.14	.03	.16	.83
15	.26	1.7	.35	1.3	.69	.90	.90	.46	.13	.03	.12	.61
16	.03	.91	.31	2.4	.78	.83	1.1	1.2	.12	.05	.11	.64
17	.02	.57	.21	e6.0	.71	1.9	.87	.90	.11	.02	.08	.75
18	.02	.40	.27	e11	.75	1.4	.81	.54	.09	.05	.11	.49
19	.02	.19	.85	e20	.85	5.9	.79	.42	.11	.05	.12	.41
20	.18	.14	.95	e10	5.1	4.0	.89	.36	.31	.01	.14	.31
21	.54	.12	.47	e5.0	3.6	2.0	1.1	.30	.24	0	.14	.29
22	.15	.06	.32	e2.0	1.7	1.5	.85	.27	.11	0	.14	.29
23	.07	.02	.27	1.2	1.3	1.2	.74	.25	.09	0	.15	.24
24	.03	.10	.23	3.5	.98	1.1	.64	.24	.07	.01	.14	.22
25	.02	.18	.19	2.9	.79	1.1	.60	.26	.05	.10	.16	.20
26	.01	.13	.15	1.5	.74	1.0	.79	.29	.03	.07	.16	.28
27	.05	.12	.13	8.8	.67	.93	.71	.36	.03	.01	.18	.19
28	1.0	.11	.10	4.4	.64	2.0	.60	.68	.03	.03	.16	.21
29	.21	.13	.04	2.4	.54	2.0	.62	.65	.03	.04	.16	.47
30	.06	.14	.03	1.7	---	1.4	7.1	1.7	.03	.08	.15	.22
31	.03	---	.11	2.2	---	1.3	---	.47	---	.08	.16	---
TOTAL	3.35	38.13	19.08	90.63	46.39	52.66	38.80	21.88	4.78	1.23	4.75	258.05
MEAN	.11	1.27	.62	2.92	1.60	1.70	1.29	.71	.16	.040	.15	8.60
MAX	1.0	7.3	6.8	20	5.1	6.2	7.1	2.9	.33	.10	.49	225
MIN	0	.02	.02	.19	.54	.43	.60	.24	.03	0	.03	.05
CFSM	.09	1.11	.54	2.56	1.40	1.49	1.13	.62	.14	.03	.13	7.55
IN.	.11	1.24	.62	2.96	1.51	1.72	1.27	.71	.16	.04	.15	8.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996@, BY WATER YEAR (WY)

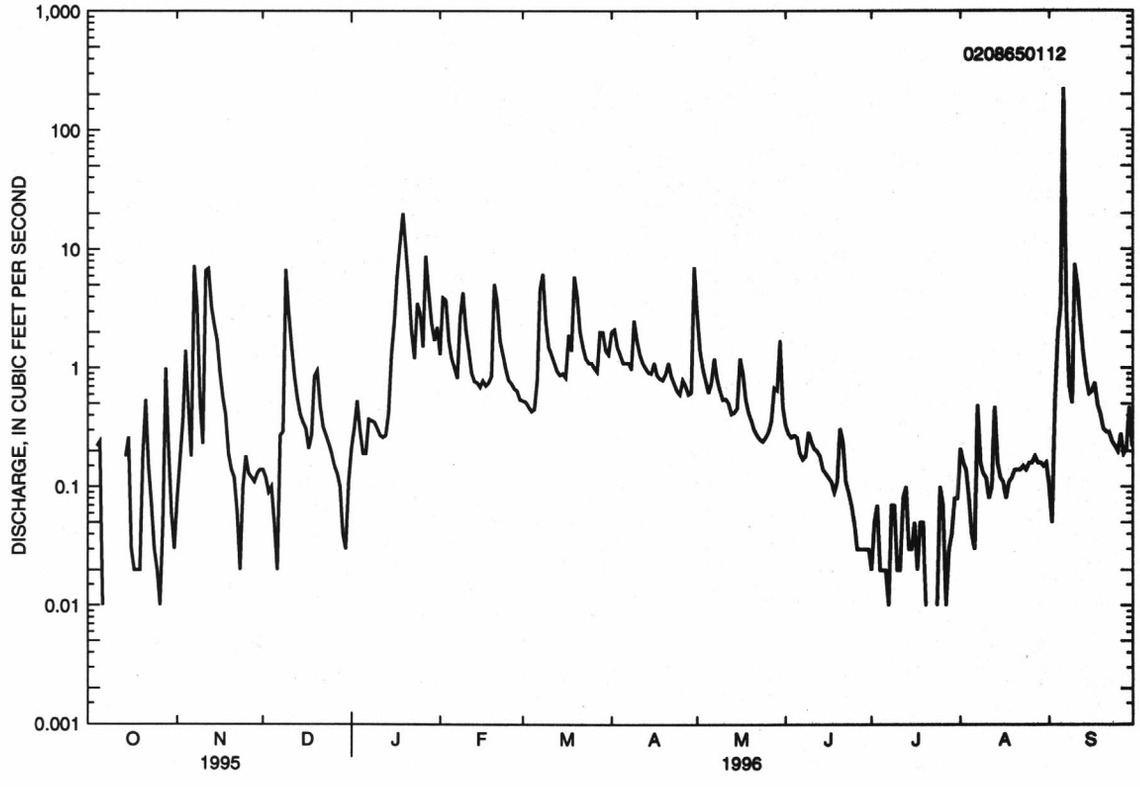
MEAN	.46	.53	.86	2.06	2.57	2.09	1.27	1.05	.97	.42	.15	1.76
MAX	1.46	1.27	3.26	2.92	3.38	4.65	2.05	2.20	4.07	1.26	.50	8.60
(WY)	1990	1996	1990	1996	1990	1989	1989	1989	1995	1989	1989	1996
MIN	.024	.079	.014	.47	1.60	.45	.064	.20	.052	.003	.001	0
(WY)	1989	1995	1989	1989	1996	1988	1995	1995	1988	1988	1988	1990

NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996@	
ANNUAL TOTAL	372.81		579.73			
ANNUAL MEAN	1.02		1.58		1.29	
HIGHEST ANNUAL MEAN					1.58	1996
LOWEST ANNUAL MEAN					.87	1995
HIGHEST DAILY MEAN	93	Jun 29	e225	Sep 6	e225	Sep 6 1996
LOWEST DAILY MEAN	0*	Jan 1	0*	Oct 1	0*	Jun 22 1988
ANNUAL SEVEN-DAY MINIMUM	0	Aug 13	0	Oct 7	0	Jul 2 1988
INSTANTANEOUS PEAK FLOW			1410*	Sep 6	1410*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			7.77*	Sep 6	7.77*	Sep 6 1996
INSTANTANEOUS LOW FLOW			0*	Oct 1	0*	Jun 15 1988
ANNUAL RUNOFF (CFSM)	.90		1.39		1.13	
ANNUAL RUNOFF (INCHES)	12.17		18.92		15.40	
10 PERCENT EXCEEDS	2.0		2.4		2.4	
50 PERCENT EXCEEDS	.13		.34		.24	
90 PERCENT EXCEEDS	0		.03		0	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



NEUSE RIVER BASIN

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988-91, 1994 to current year

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

COOPERATION.--For the period February 1988 through June 1989 the inorganic chemical data and trace metal data were analyzed by the city of Durham's Brown Water Treatment Plant Laboratory.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT												
04...	1800	0.24	81	7.1	19.0	746	7.3	80	38	31	--	<0.010
NOV												
30...	1030	0.12	80	7.0	7.5	755	10.7	90	34	28	--	<0.010
DEC												
14...	1200	0.41	66	6.8	5.5	766	12.0	94	24	20	0.060	<0.010
JAN												
17...	1115	2.3	49	6.4	4.5	767	12.6	97	--	--	--	0.010
27...	0840	19	46	6.7	--	--	--	--	--	--	--	<0.010
MAR												
04...	1015	0.41	59	6.8	4.5	774	13.2	100	63	52	0.070	0.010
28...	1445	2.3	60	6.9	7.5	761	11.9	99	21	17	0.110	0.020
APR												
30...	0945	8.9	60	6.9	16.0	755	9.4	96	21	17	0.090	<0.010
JUN												
25...	1400	0.04	94	7.1	23.0	756	7.8	92	47	38	0.150	<0.010
AUG												
13...	0940	0.37	75	6.8	20.0	752	7.6	85	29	24	0.180	0.010
SEP												
25...	1315	0.22	82	7.1	19.5	764	7.2	78	37	30	--	<0.010

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)
OCT												
04...	<0.050	<0.015	0.30	--	0.30	0.20	0.30	--	0.020	<0.010	<0.010	240
NOV												
30...	<0.050	<0.015	--	--	<0.20	<0.20	--	--	0.030	<0.010	<0.010	--
DEC												
14...	0.060	<0.015	--	--	<0.20	<0.20	--	--	0.050	<0.010	<0.010	--
JAN												
17...	<0.050	<0.015	--	--	<0.20	<0.20	--	--	0.020	<0.010	<0.010	--
27...	<0.050	<0.015	0.40	--	0.40	<0.20	0.40	--	0.080	0.010	<0.010	1700
MAR												
04...	0.080	0.020	--	--	<0.20	<0.20	--	--	<0.010	<0.010	<0.010	--
28...	0.130	0.020	0.18	--	0.20	<0.20	0.33	--	0.030	0.030	0.020	960
APR												
30...	0.090	<0.015	0.40	--	0.40	0.30	0.49	0.39	0.040	0.020	0.010	1900
JUN												
25...	0.150	0.020	0.18	--	0.20	<0.20	0.35	--	<0.010	<0.010	<0.010	--
AUG												
13...	0.190	0.030	0.37	0.17	0.40	0.20	0.59	0.39	0.050	0.020	0.020	--
SEP												
25...	<0.050	<0.015	--	--	<0.20	<0.20	--	--	0.030	<0.010	<0.010	60

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)
OCT												
04...	<1	<1	<1	<1	1	400	<1	<10	<0.10	<1	<1	<1
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	<1	<1	2	2	3	2400	2	110	<0.10	<1	1	<1
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<1	<1	1	<1	1	1700	<1	40	<0.10	<1	<1	<1
APR												
30...	<1	<1	2	3	4	3500	3	240	<0.10	<1	2	<1
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	<1	<1	<1	<1	<1	550	<1	100	<0.10	<1	<1	<1

DATE	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	PERTHANE TOTAL (UG/L) (39034)	ENDOSULFAN, I TOTAL (UG/L) (39388)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TECHNICAL TOTAL (UG/L) (39350)	P,P'-DDD UNFILT RECOVER (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	P,P'-DDT UNFILT RECOVER (UG/L) (39370)	DIELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	HEPTACHLOR, TOTAL (UG/L) (39410)
OCT												
04...	<1	<10	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	<1	<10	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<1	<10	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
APR												
30...	<1	20	<0.100	<0.010	<0.010	<0.100	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	<1	<10	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	TOXAPHENE, TOTAL (UG/L) (39400)	DIAZINON, TOTAL (UG/L) (39570)	ETHION, TOTAL (UG/L) (39398)	MALATHION, TOTAL (UG/L) (39530)	METHYL PARATHION, TOTAL (UG/L) (39600)	PARATHION, TOTAL (UG/L) (39540)	TOTAL TRITHION (UG/L) (39786)	PCB, TOTAL (UG/L) (39516)	PCNS UNFILT RECOVER (UG/L) (39250)	METHOXYCHLOR, TOTAL (UG/L) (39480)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
APR												
30...	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100	<0.100	<0.010
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MIREX, TOTAL (UG/L) (39755)	DISULFOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	CHLORPYRIFOS TOTAL RECOVER (UG/L) (38932)	DEF TOTAL (UG/L) (39040)	FONOFOS (DYFONATE) WATER WHOLE TOT.REC (UG/L) (82614)	PARACHLOROMETA CRESOL TOTAL (UG/L) (34452)	2CHLOROPHENOL TOTAL (UG/L) (34586)	2,4-DICHLOROPHENOL TOTAL (UG/L) (34601)	2,4,6-TRICHLOROPHENOL TOTAL (UG/L) (34621)	2,4-DIMETHYLPHENOL TOTAL (UG/L) (34606)	4,6-DINITRO-ORTHOCRESOL TOTAL (UG/L) (34657)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.010	--	<0.010	<0.010	<0.010	<0.010	<30.0	<5.00	<5.00	<20.0	<5.00	<30.0
APR												
30...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<30.0	<5.00	<5.00	<20.0	<5.00	<30.0
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	2,4,-DI-NITRO-PHENOL TOTAL (UG/L) (34616)	2-NITRO-PHENOL TOTAL (UG/L) (34591)	4-NITRO-PHENOL TOTAL (UG/L) (34646)	PENTA-CHLORO-PHENOL TOTAL (UG/L) (39032)	PHENOL (C6H-5OH) TOTAL (UG/L) (34694)	ACE-NAPHTH-ENE TOTAL (UG/L) (34205)	ACE-NAPHTH-YLENE TOTAL (UG/L) (34200)	ANTHRA-CENE TOTAL (UG/L) (34220)	BENZI-DINE TOTAL (UG/L) (39120)	BENZO A ANTHRAC ENE1,2-BENZANT HRACENE TOTAL (UG/L) (34526)	BENZO B FLUOR-AN-THENE TOTAL (UG/L) (34230)	BENZO K FLUOR-AN-THENE TOTAL (UG/L) (34242)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<20.0	<5.00	<30.0	<30.0	<5.00	<5.00	<5.00	<5.00	<40.0	<10.0	<10.0	<10.0
APR												
30...	<20.0	<5.00	<30.0	<30.0	<5.00	<5.00	<5.00	<5.00	<40.0	<10.0	<10.0	<10.0
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L) (34292)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS 2-CHLORO-ETHYL ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L) (34636)	2-CHLORO-NAPH-THALENE TOTAL (UG/L) (34581)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L) (34641)	CHRY-SENE TOTAL (UG/L) (34320)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L) (39110)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<10.0	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00
APR												
30...	<10.0	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	3,3'-DI-CHLORO-BENZI-DINE TOTAL (UG/L) (34631)	DIETHYL PHTHAL-ATE TOTAL (UG/L) (34336)	DI-METHYL PHTHAL-ATE TOTAL (UG/L) (34341)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L) (34611)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L) (34626)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L) (34596)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L) (39100)	FLUOR-ENE TOTAL (UG/L) (34381)	FLUOR-ANTHENE TOTAL (UG/L) (34376)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<5.00	<5.00	<5.00	<20.0	<25.0	<5.00	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00
APR												
30...	<5.00	<5.00	<5.00	<20.0	<120	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00	<5.00
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	HEXA-CHLORO-BENZENE TOTAL (UG/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	CYCLOPE NTADIEN HEXA-CHLORO-UNFLTRD RECOVER (UG/L) (34386)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	ISO-PHORONE TOTAL (UG/L) (34408)	NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE NITRO-WATER UNFLTRD RECOVER (UG/L) (34447)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L) (34438)	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L) (34433)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L) (34428)	PHENAN-THRENE TOTAL (UG/L) (34461)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<5.00	<5.00	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
APR												
30...	<5.00	<5.00	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PYRENE TOTAL (UG/L) (34469)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (UG/L) (82626)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	P,P' DDE DISSOLV (UG/L) (34653)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<5.00	<5.00	<5.00	<0.002	<0.001	<0.002	<0.002	<0.004	<0.004	<0.002	<0.006	<0.002
APR												
30...	<5.00	<5.00	<5.00	0.007	0.011	<0.002	<0.002	<0.004	<0.004	<0.002	<0.006	<0.002
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002	<0.005	<0.002
APR												
30...	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.002	<0.004	<0.002	<0.005	0.020
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.003	<0.018	<0.007
APR												
30...	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.005	<0.002	<0.003	<0.018	<0.007
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.004	<0.013	<0.005	<0.002	<0.010	<0.013	<0.001	<0.002	E0.004	<0.001	<0.003	<0.003
APR												
30...	<0.004	<0.013	<0.005	<0.002	<0.010	<0.013	<0.001	<0.002	E0.003	<0.001	<0.003	<0.003
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)
OCT												
04...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<0.007	<0.002	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
APR												
30...	<0.007	<0.002	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
25...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	CHLOR-AMBEN, WATER, FLTRD, GF 0.7U REC (UG/L) (49307)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
NOV											
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN											
17...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
28...	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032	<0.035
APR											
30...	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032	<0.035
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	ESFEN-VAL-ERATE, WAT,FLT GF 0.7U REC (UG/L) (49298)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	1-NAPH THOL, WATER, FLTRD, GF 0.7U REC (UG/L) (49295)
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
NOV											
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	--	--	--	--	--	--	--	--	--	--
JAN											
17...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
28...	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026	<0.017	<0.007
APR											
30...	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026	<0.017	<0.007
JUN											
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

DATE	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS-SOLVED (UG/L) (39762)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT											
04...	--	--	--	--	--	--	--	--	--	41	0.03
NOV											
30...	--	--	--	--	--	--	--	--	--	36	0.01
DEC											
14...	--	--	--	--	--	--	--	--	--	27	0.03
JAN											
17...	--	--	--	--	--	--	--	--	--	31	0.19
27...	--	--	--	--	--	--	--	--	--	231	12
MAR											
04...	--	--	--	--	--	--	--	--	--	19	0.02
28...	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050	44	0.27
APR											
30...	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050	222	5.3
JUN											
25...	--	--	--	--	--	--	--	--	--	51	0.01
AUG											
13...	--	--	--	--	--	--	--	--	--	79	0.08
SEP											
25...	--	--	--	--	--	--	--	--	--	40	0.02

Flooding at Crabtree Creek at US 1 at Raleigh, N.C., resulting from Hurricane Fran, which passed through North Carolina on September 5-6, 1996.

NEUSE RIVER BASIN

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.

WATER-DISCHARGE RECORDS

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 sea level. 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 telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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, 250.1 ft, reached Dec. 7, 1983. The City of Raleigh diverted an average of 63.3 ft^3/s, 1.2 mi upstream from station for municipal water supply, most of which was returned downstream as treated effluent. Prior to regulation, maximum discharge: 13,600 ft^3/s, July 17, 1975; gage height: 25.21 ft; minimum discharge: 4.6 ft^3/s, Sept. 24, 1980; gage height: 2.13 ft, at site then in use. Maximum gage-height and discharge for period of record and current water year may have been higher during period of estimated record, Aug. 27-Sept. 30. Minimum discharge for period of record not determined due to intermittent gate closure at dam.

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

REVISIONS.--The maximum discharges for water years 1991 to 1995 have been revised as shown in the following table. These figures supersede those published in the reports for 1991, 1992, 1993, 1994, and 1995.

Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Discharge (ft^3/s)	Gage height (ft)
1991	Jan. 16, 1991	3,830	3.99	1994	Jan. 20, 1994	5,860	5.46
1992	Jan. 7, 1992	3,700	3.92	1993	Jul. 4, 1995	4,180	4.19
1993	Mar. 8, 1993	6,590	6.26				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	2270	189	271	2690	491	1340	786	630	119	68	e164
2	150	2020	189	271	1380	491	1340	2090	630	121	69	e164
3	149	1790	189	273	937	495	1350	2460	630	121	70	e164
4	154	1800	191	271	1360	494	1360	2380	632	122	71	e164
5	159	1800	195	272	1740	345	1040	1610	632	133	71	e165
6	157	1770	206	272	2000	253	520	1080	635	148	103	e165
7	161	1160	214	273	2000	254	522	1070	387	149	130	e730
8	166	175	214	273	2000	257	527	1060	130	151	428	e2350
9	167	1730	220	527	2010	977	535	1050	130	122	710	e4480
10	166	3100	220	1140	2020	1990	544	799	128	68	723	e5930
11	159	2160	220	1680	2010	1980	550	567	130	68	731	e4010
12	165	1670	795	e1660	2010	1970	552	563	132	67	742	e4020
13	169	3110	1080	1650	1180	2000	561	558	446	67	750	e4470
14	169	3080	1090	941	573	1700	565	387	646	69	541	e6060
15	174	3100	1090	534	572	933	564	274	638	69	366	e7080
16	174	3070	1080	411	572	934	563	266	641	68	290	e7420
17	176	3070	1080	1100	569	934	567	733	353	67	168	e5780
18	184	3040	1560	2260	570	932	569	1210	121	67	172	e4120
19	191	3050	2160	2450	572	935	569	777	122	66	173	e3860
20	193	1250	2150	3080	570	2010	570	489	119	67	177	e5280
21	199	148	2150	3510	848	2950	570	491	119	67	168	e5570
22	749	164	1030	3480	2070	2900	573	333	119	98	150	e4890
23	1300	189	269	3430	2520	2820	577	195	119	132	154	e5960
24	1430	189	269	2970	2560	1490	584	168	119	143	157	e5920
25	1400	189	269	2740	2280	381	586	172	121	131	161	e5870
26	1400	190	269	2090	1490	381	476	172	120	117	163	e5830
27	1360	189	270	749	930	404	313	171	120	117	e163	e5780
28	783	189	269	2060	708	409	319	169	120	117	e163	e5440
29	1060	189	269	3090	493	634	321	168	120	91	e163	e3570
30	1510	185	268	3090	---	1330	325	169	121	68	e164	e3190
31	2310	---	271	2620	---	1340	---	337	---	68	e164	---
TOTAL	16833	46036	19935	49438	41234	35414	19352	22754	9110	3078	8323	118596
MEAN	543	1535	643	1595	1422	1142	645	734	304	99.3	268	3953
MAX	2310	3110	2160	3510	2690	2950	1360	2460	646	151	750	7420
MIN	149	148	189	271	493	253	313	168	119	66	68	164
†	+427	-287	+25	+66	-105	+83	+235	-4	-182	-49	+82	+142

NEUSE RIVER BASIN

02087183 NEUSE RIVER NEAR FALLS, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

MEAN	267	352	541	898	1167	1753	1149	548	330	352	287	450
MAX	865	1535	1818	2014	2531	3992	2586	1821	735	1501	1099	3953
(WY)	1990	1996	1986	1984	1985	1989	1984	1989	1984	1995	1989	1996
MIN	72.6	65.2	63.3	102	287	233	118	110	126	61.7	61.0	67.8
(WY)	1984	1984	1992	1994	1991	1988	1995	1995	1987	1983	1983	1985

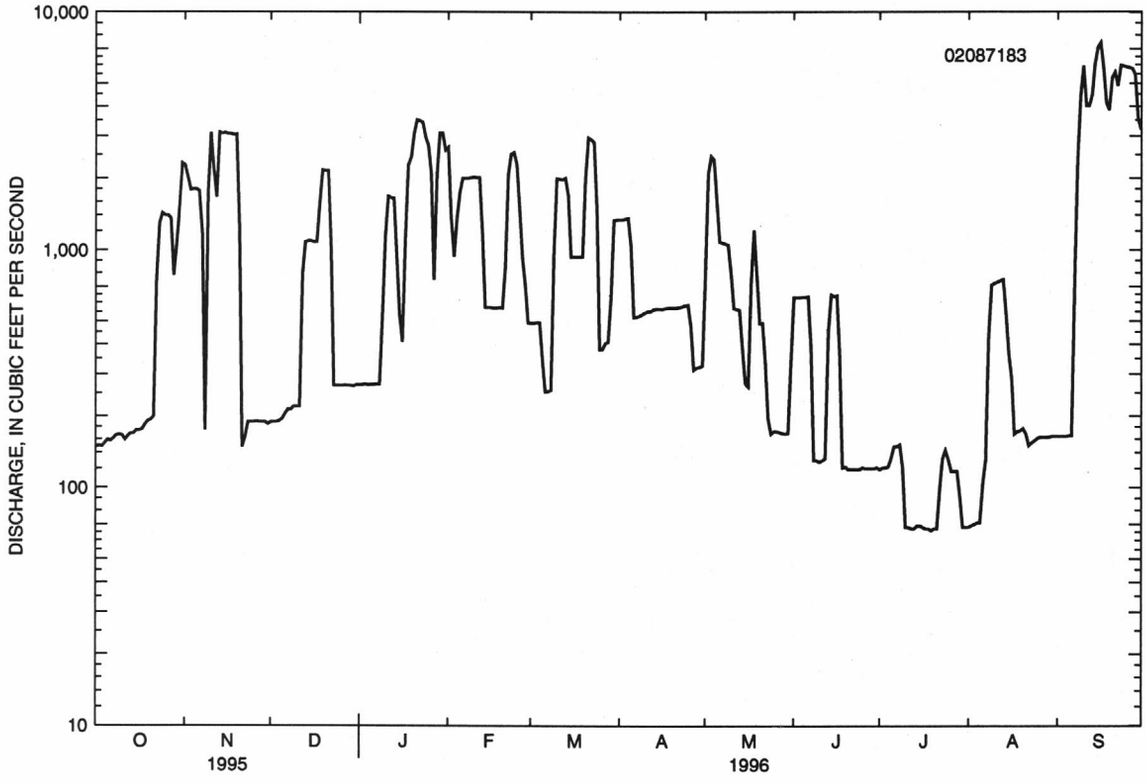
SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996*	
ANNUAL TOTAL	244957		390103			
ANNUAL MEAN	671		1066	‡1103	672	
HIGHEST ANNUAL MEAN					1161	1984
LOWEST ANNUAL MEAN					205	1988
HIGHEST DAILY MEAN	4000	Jul 4	e7420	Sep 16	e7420	Sep 16 1996
LOWEST DAILY MEAN	55	Jan 10	66	Jul 19	55	Jan 10 1995
ANNUAL SEVEN-DAY MINIMUM	56	Jan 10	67	Jul 15	56	Jan 10 1995
INSTANTANEOUS PEAK FLOW			7650*	Sep 16	7650*	Sep 16 1996
INSTANTANEOUS PEAK STAGE			8.05*	Sep 16	8.05*	Sep 16 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		NOT DETERMINED*	
10 PERCENT EXCEEDS	2530		2990		2320	
50 PERCENT EXCEEDS	170		538		182	
90 PERCENT EXCEEDS	100		121		80	

e Estimated

* Regulated period only (1983-1996). See REMARKS.

† Change in contents, equivalent in cubic feet per second, in Falls Reservoir provided by U.S. Army Corps of Engineers.

‡ Adjusted for change in contents.



02087183 NEUSE RIVER NEAR FALLS, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1961-1973, 1979-1987, 1989 to current year

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1960 to September 1967, October 1978 to September 1984.

WATER TEMPERATURE: October 1953 to September 1954, November 1960 to September 1967, October 1978 to September 1984.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment, 1989-1994. Daily records of specific conductance for period November 1960 to September 1964 are available in the District office in Raleigh. For water years 1954, 1961-73, data were published as Neuse River at Falls (station 02087182).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 355 microsiemens, Sept. 22, 1966; minimum daily, 37 microsiemens, Aug. 4, 1961.

WATER TEMPERATURE: Maximum daily, 32.0°C, Aug. 7, 16, 1980; minimum daily, 0.0°C, on many days during winter months of 1960-62.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, MEAN CUBIC FEET PER SECOND (00060)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
SEP 1996								
13...	1020	E4470	24.0	7.7	1.4	0.010	0.010	0.020
17...	1000	E5780	--	--	1.5	--	0.010	<0.020

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP 1996								
13...	0.180	0.56	0.74	0.76	<0.020	0.040	25	302
17...	0.170	0.58	0.75	0.75	<0.020	0.020	--	--

NEUSE RIVER BASIN

0208719000 NEUSE RIVER NEAR NEUSE, NC

LOCATION.--Lat 35°54'32", long 78°33'18", Wake County, Hydrologic Unit 03020201, at the bridge on U.S. Highway 1, 1.0 mi upstream from Smith Creek, and 1.25 mi northeast of Neuse, NC.

DRAINAGE AREA.--792 mi^2.

PERIOD OF RECORD.--September 1996.

REMARKS.--Sample collected during flooding from Hurricane Fran.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)
SEP 1996							
13...	1050	24.0	740	7.6	1.5	--	--
17...	1115	24.0	747	7.2	1.6	0.010	0.010

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)
SEP 1996							
13...	--	--	--	--	--	--	--
17...	0.020	0.160	0.56	0.72	0.74	<0.020	0.030

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 downstream 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 sea level.

REMARKS.--Records poor. Maximum gage height for period of record and current water year, from high water mark in gage well. Minimum discharge for period of record also occurred Oct. 8, 9, 1994. Minimum discharge for the current water year also occurred July 8.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973, reached a stage of about 17.98 ft, discharge, about 13,500 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	95	e59	126	213	83	163	627	58	11	201	34
2	32	306	e61	201	460	75	147	355	48	8.8	126	27
3	26	542	e54	346	534	69	139	219	42	11	196	168
4	1410	392	e52	264	338	61	120	143	130	8.2	124	146
5	2450	244	e51	209	238	57	103	103	253	9.0	101	254
6	1790	156	45	178	184	211	96	88	102	6.7	71	e7730
7	949	674	133	206	170	370	92	127	69	5.4	91	e2830
8	623	993	102	173	247	561	81	94	53	49	114	e2110
9	329	551	468	150	306	401	136	80	240	125	77	e2060
10	178	346	409	152	247	272	125	66	157	86	63	e2010
11	123	426	292	141	194	194	107	78	179	64	53	2040
12	95	706	223	161	151	143	93	78	189	247	81	2180
13	77	376	182	186	129	115	82	57	143	230	64	1090
14	161	e200	154	239	111	98	132	50	91	114	49	713
15	368	e180	138	364	99	98	142	53	75	204	40	518
16	179	e130	127	391	117	89	133	192	59	193	59	433
17	114	e100	118	e420	108	92	93	196	47	131	36	1480
18	82	e93	116	e450	104	78	76	125	40	95	40	824
19	63	e90	160	779	95	130	68	93	37	65	44	437
20	139	e82	162	589	313	e150	80	72	32	49	41	273
21	404	e79	147	385	517	e125	82	58	29	38	36	201
22	201	e70	134	255	420	128	65	49	27	30	176	155
23	127	e69	123	185	294	105	63	41	23	27	112	122
24	93	e66	114	203	215	89	59	38	20	42	94	98
25	75	e72	106	220	155	80	52	34	33	116	81	84
26	62	e76	101	173	130	74	73	33	26	254	66	241
27	53	e70	98	751	e120	68	68	57	18	122	71	379
28	654	e67	96	564	e105	212	57	256	14	78	85	290
29	283	e63	93	352	91	226	77	105	12	63	81	526
30	169	e61	90	261	---	186	847	135	12	68	56	400
31	113	---	116	260	---	148	---	80	---	80	43	---
TOTAL	11458	7375	4324	9334	6405	4788	3651	3782	2258	2630.1	2572	29853
MEAN	370	246	139	301	221	154	122	122	75.3	84.8	83.0	995
MAX	2450	993	468	779	534	561	847	627	253	254	201	7730
MIN	26	61	45	126	91	57	52	33	12	5.4	36	27
CFSM	3.00	2.00	1.13	2.45	1.80	1.26	.99	.99	.61	.69	.67	8.09
IN.	3.47	2.23	1.31	2.82	1.94	1.45	1.10	1.14	.68	.80	.78	9.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	121	111	95.8	239	163	237	128	78.2	131	81.2	79.8	179
MAX	370	255	153	325	305	454	355	122	257	151	163	995
(WY)	1996	1993	1993	1993	1995	1993	1993	1996	1990	1991	1992	1996
MIN	30.8	23.2	45.2	173	59.5	140	57.4	45.6	29.1	30.7	31.7	14.2
(WY)	1992	1992	1995	1994	1991	1992	1995	1995	1993	1993	1993	1990

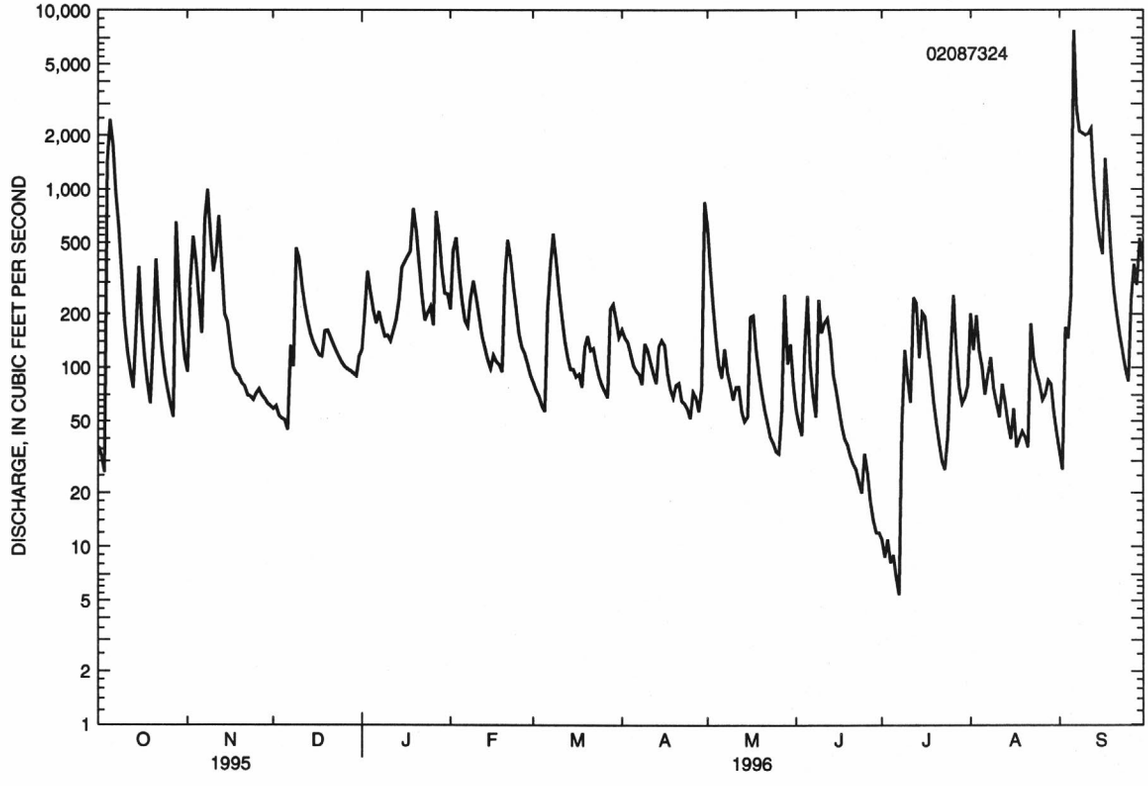
NEUSE RIVER BASIN

02087324 CRABTREE CREEK AT US 1 AT RALEIGH, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1990 - 1996	
ANNUAL TOTAL	59947.8		88430.1			
ANNUAL MEAN	164		242		138	
HIGHEST ANNUAL MEAN					242	1996
LOWEST ANNUAL MEAN					97.7	1991
HIGHEST DAILY MEAN	2450	Oct 5	7730	Sep 6	7730	Sep 6 1996
LOWEST DAILY MEAN	3.5	Aug 21	5.4	Jul 7	1.9	Oct 8 1994
ANNUAL SEVEN-DAY MINIMUM	6.1	Aug 15	8.6	Jul 1	2.3	Oct 2 1994
INSTANTANEOUS PEAK FLOW			12700	Sep 6	12700	Sep 6 1996
INSTANTANEOUS PEAK STAGE			18.23*	Sep 6	18.23*	Sep 6 1996
INSTANTANEOUS LOW FLOW			3.3*	Jul 7	1.9*	Oct 7 1994
ANNUAL RUNOFF (CFSM)	1.34		1.96		1.12	
ANNUAL RUNOFF (INCHES)	18.13		26.74		15.28	
10 PERCENT EXCEEDS	369		441		293	
50 PERCENT EXCEEDS	77		116		68	
90 PERCENT EXCEEDS	16		41		15	

e Estimated.

* See REMARKS.



NEUSE RIVER BASIN

0208732885 MARSH CREEK NEAR NEW HOPE, NC

LOCATION.--Lat 35°48'59", long 78°35'37", Wake County, Hydrologic Unit 03020201, on right upstream wingwall, 0.2 mi downstream 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 sea level, from topographic map. Recording rain gage at station.

REMARKS.-- Records fair. Maximum discharge for period of record and current water year from rating curve extended above 1,300 ft^3/s, on basis of indirect measurement of peak flow. Minimum discharge for period of record also occurred Sept. 4, 1993. Minimum discharge for the current water year also occurred Oct. 3, 4.

REVISIONS.--The maximum discharge for the 1995 water year has been revised to 3,230 ft^3/s; gage height, 12.84 ft, superseding figures published in the report for the 1995 water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	7.2	3.1	7.4	6.5	3.4	14	16	1.6	1.9	9.4	.67
2	.61	58	2.9	16	55	3.3	5.0	6.8	1.3	2.1	3.0	1.3
3	.55	17	2.7	19	13	3.1	3.8	4.8	1.3	2.2	6.3	35
4	267	13	2.8	5.4	7.1	2.9	3.3	4.9	50	1.8	1.9	11
5	99	7.2	2.9	4.1	6.6	3.2	3.3	4.0	34	2.0	1.5	73
6	19	6.3	2.8	3.6	7.6	38	7.9	4.9	3.7	2.0	1.3	890
7	6.0	107	21	6.7	11	30	7.0	6.8	1.9	2.1	7.9	22
8	3.9	20	5.8	5.3	17	27	4.4	4.4	1.4	19	3.2	50
9	3.1	8.8	52	5.1	10	8.3	18	3.9	77	17	1.8	47
10	2.8	6.9	7.6	8.7	5.9	5.8	6.1	3.4	13	5.1	1.5	117
11	2.6	89	4.8	6.4	4.8	4.9	4.7	7.2	20	3.4	1.3	106
12	2.4	32	3.9	12	3.9	4.5	4.0	5.3	13	54	14	53
13	2.4	10	3.4	14	3.6	4.1	3.7	3.6	6.5	17	6.2	8.5
14	29	21	3.3	16	3.8	3.8	15	3.6	3.5	4.5	3.4	5.3
15	21	7.4	3.2	18	3.8	6.5	25	6.6	5.9	48	2.2	3.7
16	3.5	5.0	3.1	14	11	6.3	16	44	3.2	6.9	5.8	37
17	2.5	4.2	2.9	12	6.4	7.1	6.3	8.6	2.4	6.1	2.6	123
18	2.1	3.8	4.0	13	4.4	5.3	4.7	4.9	2.1	4.1	1.3	14
19	2.0	3.9	11	62	3.6	14	4.2	3.6	9.3	2.7	1.3	7.5
20	12	4.0	5.3	11	56	6.3	10	3.1	7.0	2.7	1.2	5.5
21	86	3.4	3.5	6.7	21	4.2	9.5	2.9	3.6	1.7	1.1	4.4
22	12	3.0	3.0	5.1	8.1	3.5	5.0	2.7	2.6	1.5	26	5.2
23	9.0	3.0	2.8	4.5	6.1	3.3	6.2	2.5	2.0	1.7	8.3	3.6
24	7.8	4.5	2.7	15	4.9	3.1	5.6	7.0	1.9	5.7	7.2	3.1
25	7.0	6.8	2.7	7.0	4.3	3.1	3.8	4.4	3.8	20	6.5	2.8
26	6.7	3.9	2.7	4.9	4.2	3.3	12	3.7	1.8	14	1.9	9.7
27	7.2	3.4	2.6	87	4.0	3.1	6.6	23	1.8	3.0	1.4	5.1
28	83	3.2	2.5	11	4.0	37	4.0	73	1.8	4.2	1.3	7.5
29	9.1	4.4	2.4	7.1	3.5	11	17	7.2	1.7	3.4	1.3	20
30	6.9	3.4	2.5	8.5	---	6.3	184	11	2.0	6.6	1.0	6.7
31	6.5	---	7.0	16	---	6.5	---	2.9	---	12	.70	---
TOTAL	723.34	470.7	182.9	432.5	301.1	272.2	420.1	290.7	281.1	278.4	133.80	1678.57
MEAN	23.3	15.7	5.90	14.0	10.4	8.78	14.0	9.38	9.37	8.98	4.32	56.0
MAX	267	107	52	87	56	38	184	73	77	54	26	890
MIN	.55	3.0	2.4	3.6	3.5	2.9	3.3	2.5	1.3	1.5	.70	.67
CFSM	3.41	2.29	.86	2.04	1.52	1.28	2.05	1.37	1.37	1.31	.63	8.18
IN.	3.93	2.56	.99	2.35	1.64	1.48	2.28	1.58	1.53	1.51	.73	9.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

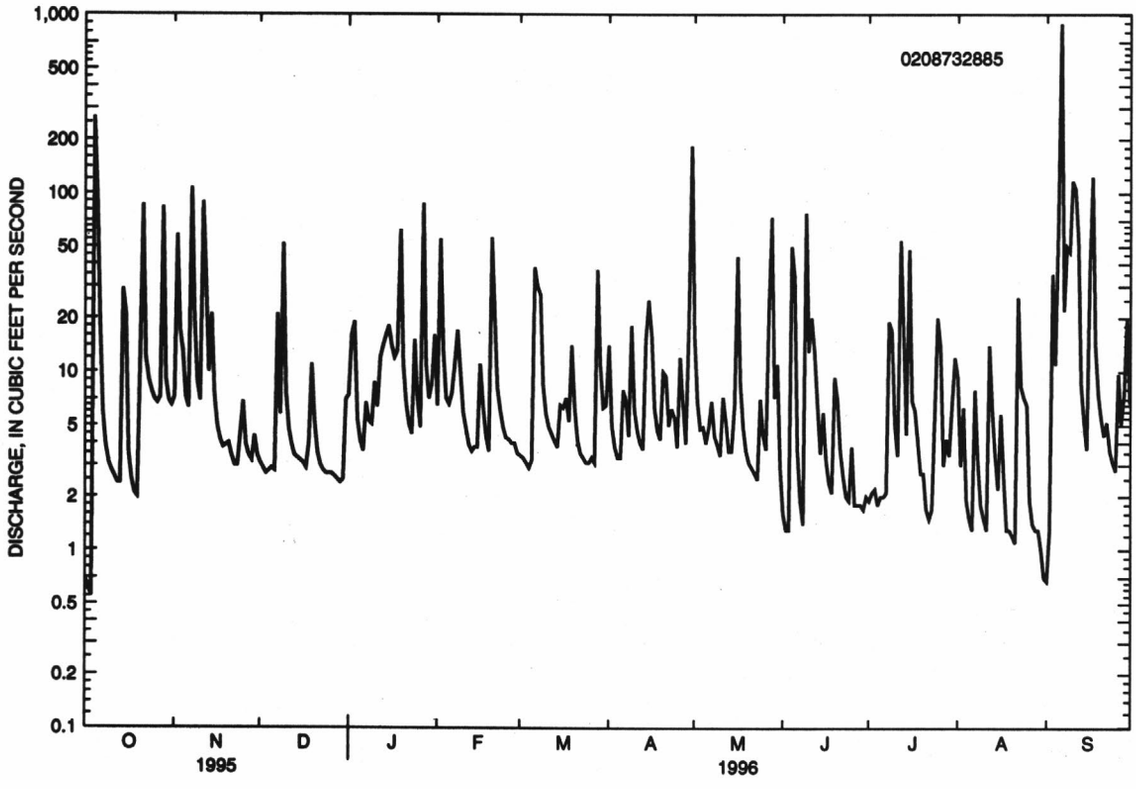
MEAN	6.98	7.55	6.32	11.3	11.5	13.4	9.28	9.58	9.22	7.47	9.88	9.51
MAX	23.3	15.7	10.3	20.7	20.7	23.9	19.2	25.9	20.3	17.5	38.0	56.0
(WY)	1996	1996	1990	1987	1989	1993	1989	1984	1989	1984	1986	1996
MIN	1.95	1.72	2.02	3.77	2.77	4.54	2.08	3.64	1.29	2.44	2.07	1.86
(WY)	1987	1992	1995	1986	1991	1986	1985	1985	1993	1987	1993	1990

NEUSE RIVER BASIN

0208732885 MARSH CREEK NEAR NEW HOPE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1984 - 1996	
ANNUAL TOTAL	4290.37		5465.41			
ANNUAL MEAN	11.8		14.9		9.33	
HIGHEST ANNUAL MEAN					14.9	1996
LOWEST ANNUAL MEAN					5.87	1988
HIGHEST DAILY MEAN	378	Aug 27	890	Sep 6	890	Sep 6 1996
LOWEST DAILY MEAN	.43	Aug 21	.55	Oct 3	.10	Sep 3 1993
ANNUAL SEVEN-DAY MINIMUM	.45	Aug 18	1.1	Aug 27	.15	Aug 28 1993
INSTANTANEOUS PEAK FLOW			3900*	Sep 6	3900*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			13.33	Sep 6	13.33	Sep 6 1996
INSTANTANEOUS LOW FLOW			.53*	Oct 2	.07*	Sep 3 1993
ANNUAL RUNOFF (CFSM)	1.72		2.18		1.36	
ANNUAL RUNOFF (INCHES)	23.33		29.72		18.54	
10 PERCENT EXCEEDS	21		26		18	
50 PERCENT EXCEEDS	3.0		5.1		3.4	
90 PERCENT EXCEEDS	1.0		2.0		1.3	

* See REMARKS.



NEUSE RIVER BASIN

02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, N.C.

LOCATION.--Lat 35 45'30"N, long 78 34'58"W, Wake County, Hydrologic Unit 03020201,, at bridge on Secondary Road 2544, 0.9 miles upstream from Big Branch, and 3.5 miles southeast of State Capitol Building in Raleigh, N.C.

DRAINAGE AREA.--29.0 mi^2.

PERIOD OF RECORD.--May 1996 to September 1996.

GAGE.--Water-stage recorder. Elevation of gage is 190 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge from computation of peak flow through culvert; maximum gage height, 17.03 ft, from high-water mark in gage shelter.

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD MAY TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								e70	12	5.0	38	12
2								e31	10	3.9	19	11
3								e22	9.3	5.6	22	67
4								e21	14	3.9	16	42
5								e18	69	3.5	12	55
6								e23	24	3.4	10	e3600
7								e27	15	3.5	13	e90
8								e20	11	9.1	24	e180
9								e18	103	34	17	e175
10								e17	146	16	12	e350
11								e27	56	9.2	9.1	e305
12								e23	52	155	29	e77
13								e17	46	238	27	e37
14								e27	23	18	16	e24
15								44	15	229	12	e17
16								58	13	68	18	e56
17								48	11	23	14	264
18								26	9.1	15	29	81
19								18	7.8	12	16	30
20								14	7.7	9.5	8.5	21
21								12	7.1	7.9	7.0	20
22								10	6.4	7.0	41	20
23								8.6	5.6	6.9	63	19
24								7.8	5.3	14	34	17
25								8.1	16	29	43	15
26								16	13	98	32	30
27								27	6.4	28	24	21
28								86	5.1	49	31	28
29								31	5.9	43	24	41
30								34	4.7	30	19	21
31								17	---	35	15	---
TOTAL								826.5	729.4	1212.4	694.6	5726
MEAN								26.7	24.3	39.1	22.4	191
MAX								86	146	238	63	3600
MIN								7.8	4.7	3.4	7.0	11
CFSM								.91	.83	1.33	.76	6.49
IN.								1.05	.92	1.53	.88	7.25

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD MAY TO SEPTEMBER 1996

MEAN								26.7	24.3	39.1	22.4	191
MAX								26.7	24.3	39.1	22.4	191
(WY)								1996	1996	1996	1996	1996
MIN								26.7	24.3	39.1	22.4	191
(WY)								1996	1996	1996	1996	1996

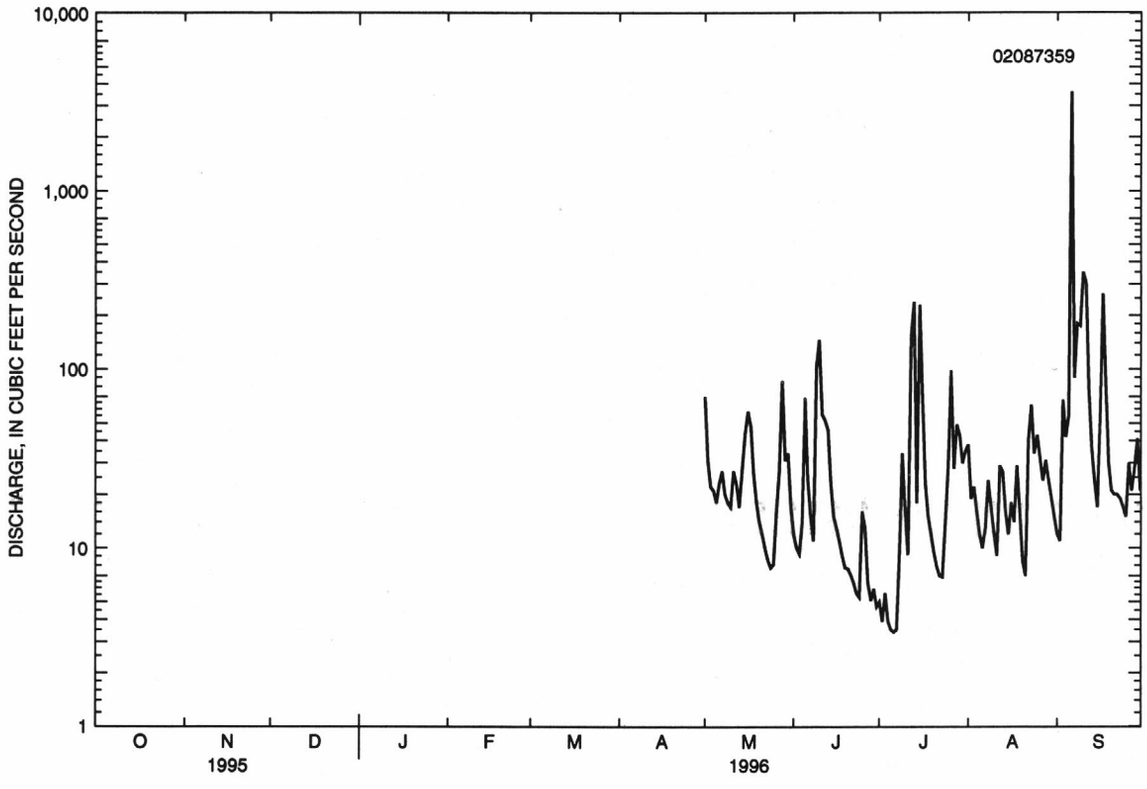
NEUSE RIVER BASIN

02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, N.C--Continued.

SUMMARY STATISTICS FOR PERIOD MAY TO SEPTEMBER 1996

INSTANTANEOUS PEAK FLOW	6760*	Sep 06
INSTANTANEOUS PEAK STAGE	17.03*	Sep 06
INSTANTANEOUS LOW FLOW	2.8	Jul 08

e Estimated.
* See REMARKS.



NEUSE RIVER BASIN

0208739600 NEUSE RIVER NEAR KNIGHTDALE, NC

LOCATION.--Lat 35°43'36", long 78°30'51", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 2555, 1.5 miles upstream from Poplar Creek and 6 miles south of Knightdale.

DRAINAGE AREA.--1,081 mi^2.

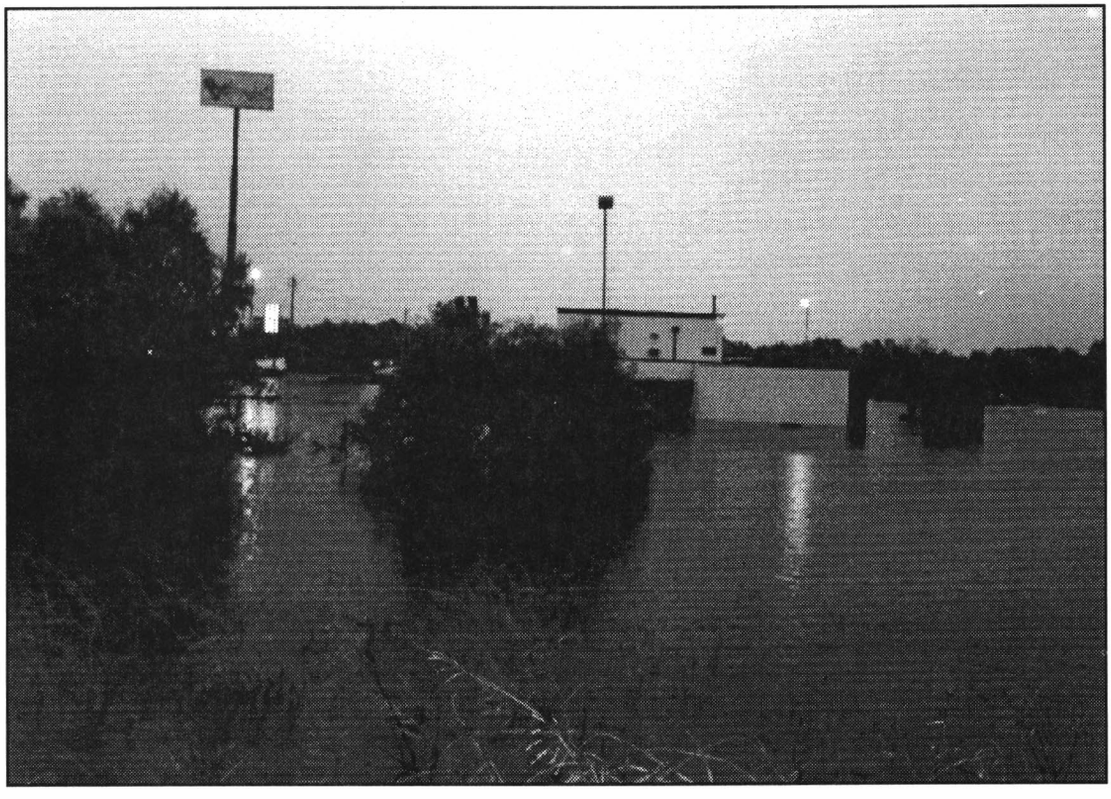
PERIOD OF RECORD.--September 1996.

REMARKS.--Sample collected during flooding from Hurricane Fran.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)
SEP 1996							
13...	1205	24.0	740	6.2	1.9	--	--
17...	1300	24.0	747	6.1	1.8	0.050	0.020

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)
SEP 1996							
13...	--	--	--	--	--	--	--
17...	0.070	0.120	0.62	0.74	0.81	0.040	0.040



Flooding from Neuse River at Kinston, N.C., resulting from Hurricane Fran, which passed through North Carolina on September 5-6, 1996.

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.

WATER-DISCHARGE RECORDS

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 sea level. Prior to Mar. 18, 1942, at site 1,100 ft upstream at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Falls Lake (station 02087182), since Dec. 7, 1983. The City of Raleigh diverted an average of 63.3 ft^3/s upstream from station, most of which was returned upstream from station as treated effluent. 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	344	2230	463	568	3210	807	1880	3360	741	256	481	295
2	338	2440	459	566	3360	801	1830	2210	903	263	453	279
3	328	3430	455	819	2920	782	1760	2810	867	264	550	513
4	2110	2640	454	839	2160	754	1710	2740	860	267	467	747
5	8390	2280	483	685	2090	745	1680	2570	1420	239	366	663
6	8230	2090	681	618	2410	729	1120	1580	1090	255	317	12800
7	3230	2660	903	653	2470	1380	894	1610	934	258	382	18900
8	1570	4450	906	728	2630	1850	818	1450	524	282	714	12200
9	1080	1910	1180	621	2850	1390	943	1380	559	491	813	e7700
10	731	2950	1370	992	2680	2270	955	1330	1360	407	873	e7700
11	603	3460	916	1570	2540	2490	860	940	696	279	828	7800
12	534	3860	764	2080	2450	2410	816	932	696	1170	828	8960
13	493	3280	1430	2140	2330	2340	791	833	669	1640	1020	8140
14	527	3610	1490	1850	1220	2320	875	787	947	649	863	6240
15	1350	3570	1470	1330	951	1710	1090	582	954	717	583	5970
16	880	3310	1450	1220	980	1360	1520	797	964	1030	484	6700
17	628	3170	1430	1170	1020	1330	1030	1070	881	545	492	8100
18	526	3100	1420	2240	950	1290	889	1510	482	547	436	9910
19	479	3050	2080	3520	915	1330	838	1570	346	390	501	8070
20	453	2940	2340	4270	1130	1480	814	903	342	314	382	5490
21	1520	1020	2300	3990	2150	2780	926	765	330	265	332	5290
22	1080	530	2200	4050	2240	3160	835	733	309	243	302	6090
23	1280	491	854	3900	2950	3100	796	523	289	269	629	5710
24	1450	497	546	3790	2930	2960	832	394	284	350	510	6100
25	1460	554	508	3400	2780	1210	762	413	294	387	950	6420
26	1420	541	494	3120	1940	687	758	386	308	719	476	6450
27	1380	508	485	3050	1500	641	753	440	284	525	454	6620
28	2300	490	482	3110	1330	860	556	1120	e269	380	451	6600
29	1660	483	472	3430	958	1460	520	751	e260	471	428	6490
30	1510	487	465	3690	---	1460	2410	789	252	339	362	5650
31	1890	---	491	3600	---	1810	---	633	---	360	322	---
TOTAL	49774	66031	31441	67609	60044	49696	32261	37911	19114	14571	17049	198597
MEAN	1606	2201	1014	2181	2070	1603	1075	1223	637	470	550	6620
MAX	8390	4450	2340	4270	3360	3160	2410	3360	1420	1640	1020	18900
MIN	328	483	454	566	915	641	520	386	252	239	302	279

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

MEAN	507	628	855	1415	1732	2427	1663	932	644	627	603	794
MAX	1606	2201	2013	2821	3188	4906	3345	2864	1211	1841	1539	6620
(WY)	1996	1996	1986	1984	1985	1989	1993	1989	1995	1995	1989	1996
MIN	212	215	237	419	520	483	290	309	314	234	204	136
(WY)	1984	1992	1995	1986	1991	1988	1986	1995	1987	1983	1983	1985

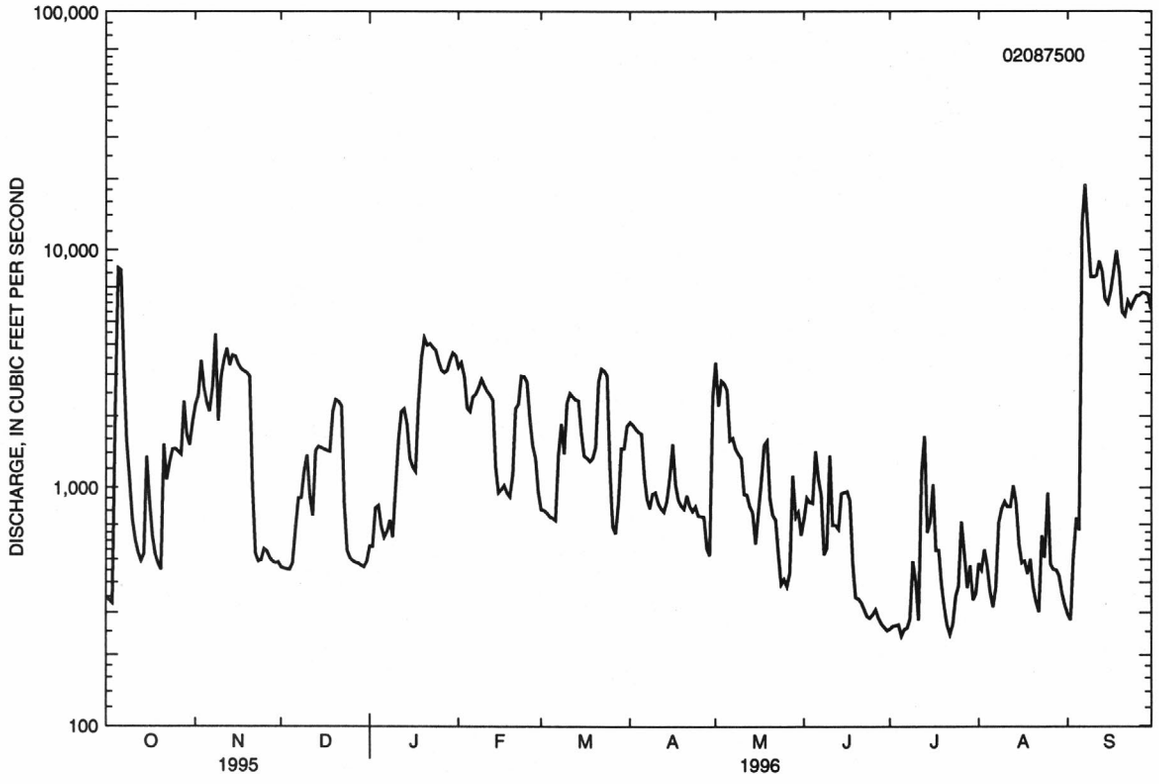
NEUSE RIVER BASIN

02087500 NEUSE RIVER NEAR CLAYTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996*	
ANNUAL TOTAL	441508		644098			
ANNUAL MEAN	1210		1760		1065	
HIGHEST ANNUAL MEAN					1760	1996
LOWEST ANNUAL MEAN					458	1988
HIGHEST DAILY MEAN	8750	Aug 28	18900	Sep 7	18900	Sep 7 1996
LOWEST DAILY MEAN	199	May 25	239	Jul 5	105	Sep 16 1985
ANNUAL SEVEN-DAY MINIMUM	233	May 21	257	Jun 30	117	Sep 12 1985
INSTANTANEOUS PEAK FLOW			19700*	Sep 7	19700*	Sep 7 1996
INSTANTANEOUS PEAK STAGE			20.12*	Sep 7	20.12*	Sep 7 1996
INSTANTANEOUS LOW FLOW			212	Jul 22	78*	Sep 18 1985
10 PERCENT EXCEEDS	3370		3600		3180	
50 PERCENT EXCEEDS	543		948		444	
90 PERCENT EXCEEDS	266		357		251	

e Estimated.

* Regulated period only (1983-1996). See REMARKS.



02087500 NEUSE RIVER NEAR CLAYTON, NC--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--1955, 1959 -60, 1968-78, 1982-84, current year.

REMARKS.--Samples for current year collected during flooding from Hurricane Fran.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
SEP 1996									
13...	1250	8180	24.0	740	5.0	1.9	0.120	0.020	0.140
17...	1330	8050	24.0	747	7.0	--	--	--	--

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP 1996								
13...	0.110	0.61	0.72	0.86	0.190	0.060	54	1190
17...	--	--	--	--	--	--	--	--

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, 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment from 1989-95. Samples for current year collected during flooding from Hurricane Fran.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)
SEP 1996										
10...	1300	6250	74	6.6	24.0	120	755	3.8	46	2.1
13...	1350	8480	--	--	24.0	--	--	3.5	43	1.9
17...	1415	8580	--	--	24.0	--	--	4.4	53	1.9

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	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)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
SEP 1996									
10...	19	4.8	1.7	4.4	30	0.4	2.7	29	25
13...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
SEP 1996									
10...	5.7	5.3	0.10	5.3	62	0.150	0.020	0.170	0.060
13...	--	--	--	--	--	0.120	0.020	0.140	0.090
17...	--	--	--	--	--	0.160	0.020	0.180	0.100

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP 1996									
10...	0.30	0.36	0.53	0.160	0.080	31	9.3	47	793
13...	0.63	0.72	0.86	<0.020	0.070	--	--	80	1830
17...	0.67	0.77	0.95	<0.050	0.040	--	--	--	--

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 sea level, from topographic map.

REMARKS.-- Records good except those for estimated daily discharges, and those below 5.0 ft^3/s, which are poor. Some regulation by Lake Wheeler (station 02087588). Maximum gage-height for period of record and current water year, 14.15 ft, from floodmarks. Minimum discharge for period of record, no flow, also occurred June 28, 29, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	19	16	19	46	18	46	319	15	1.2	12	4.6
2	2.6	45	9.2	27	97	17	47	94	11	1.4	9.8	3.2
3	2.1	174	9.7	45	176	18	37	48	9.0	4.7	31	20
4	329	88	10	39	86	12	29	32	8.9	4.1	26	38
5	1130	44	9.4	27	49	15	24	24	36	2.1	14	35
6	735	27	9.4	22	37	44	22	19	29	1.7	8.6	e2700
7	151	148	21	42	36	148	29	48	17	1.6	9.1	e840
8	54	521	31	37	59	265	25	41	11	1.4	24	e250
9	25	125	65	24	91	118	37	29	27	1.5	16	e93
10	14	56	74	21	64	60	38	22	83	1.2	11	e42
11	9.3	57	43	20	48	40	28	21	48	.83	7.4	e37
12	6.7	246	30	25	35	32	23	31	57	49	6.4	e60
13	5.5	110	24	27	26	27	21	20	41	154	13	e70
14	10	72	22	34	24	24	20	13	25	55	11	e32
15	86	61	20	51	22	26	23	11	15	104	8.3	e22
16	52	39	19	82	27	30	44	32	11	86	6.3	e15
17	24	30	17	76	31	33	31	69	8.5	52	4.9	e36
18	12	25	16	74	28	30	22	42	7.0	68	4.8	e60
19	8.2	22	22	147	23	51	17	27	5.3	31	3.4	e54
20	13	20	25	138	44	69	17	19	5.9	15	2.4	e27
21	109	19	20	69	242	41	27	14	4.9	7.8	1.9	e21
22	66	16	14	44	116	28	23	10	4.5	4.5	1.7	e18
23	32	14	12	33	64	22	20	8.2	4.1	3.1	5.5	e17
24	18	13	11	34	45	17	18	7.4	4.1	4.2	7.8	e16
25	12	17	9.9	36	33	17	15	6.0	5.1	11	14	e11
26	8.3	17	9.8	28	27	16	14	5.4	3.7	97	20	e9.6
27	7.3	17	8.8	266	24	15	26	18	2.4	48	24	e8.0
28	178	14	8.5	244	24	54	20	66	1.7	22	29	e8.5
29	106	13	8.4	90	20	106	19	50	1.3	13	27	e10
30	42	14	8.3	57	---	62	410	32	1.6	10	15	e15
31	23	---	11	52	---	43	---	22	---	9.5	7.7	---
TOTAL	3274.5	2083	614.4	1930	1644	1498	1172	1200.0	504.0	865.83	383.0	4572.9
MEAN	106	69.4	19.8	62.3	56.7	48.3	39.1	38.7	16.8	27.9	12.4	152
MAX	1130	521	74	266	242	265	410	319	83	154	31	2700
MIN	2.1	13	8.3	19	20	12	14	5.4	1.3	.83	1.7	3.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	27.6	29.3	22.6	50.6	50.1	67.5	34.0	26.4	26.7	15.4	19.5	25.0
MAX	106	69.4	50.9	81.4	115	120	90.5	75.7	65.8	51.5	81.4	152
(WY)	1996	1996	1990	1993	1995	1989	1993	1989	1992	1989	1989	1996
MIN	4.38	3.16	7.81	19.7	14.4	15.1	10.7	6.42	3.46	1.16	2.04	.11
(WY)	1992	1992	1989	1989	1991	1988	1995	1992	1993	1988	1988	1990

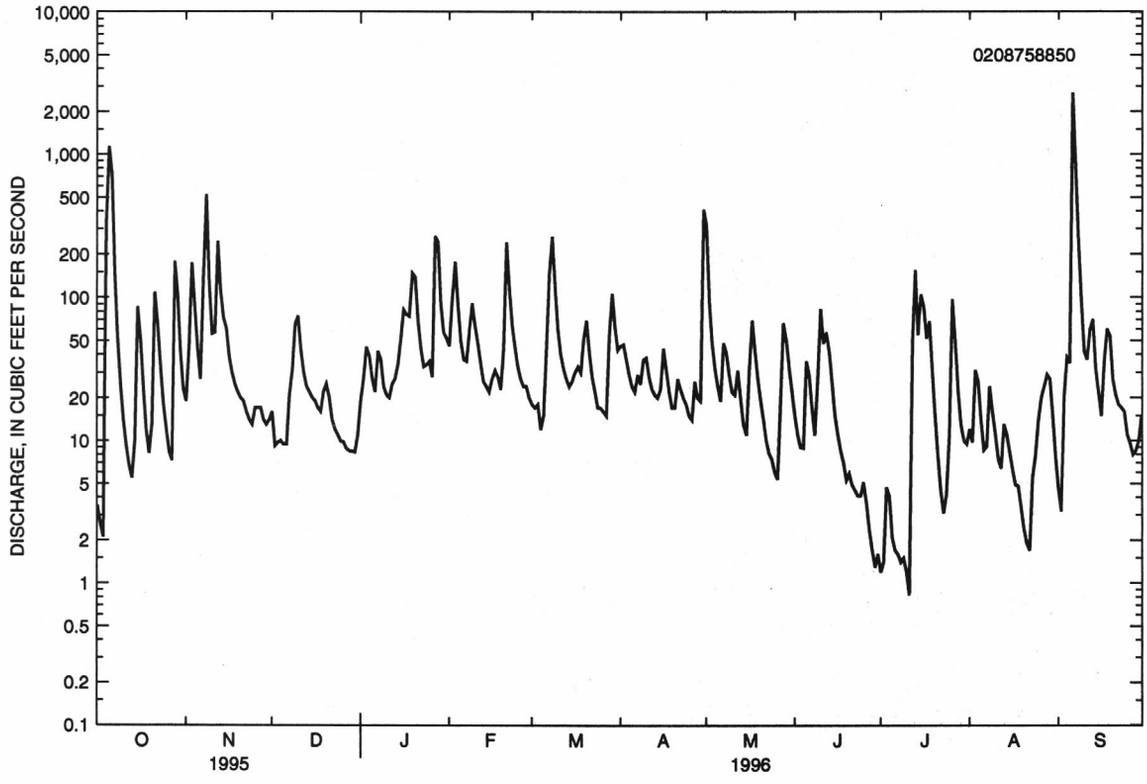
NEUSE RIVER BASIN

0208758850 SWIFT CREEK NEAR MCCULLARS CROSSROADS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	16120.29		19741.63			
ANNUAL MEAN	44.2		53.9		34.0	
HIGHEST ANNUAL MEAN					53.9	1996
LOWEST ANNUAL MEAN					18.4	1992
HIGHEST DAILY MEAN	1130	Oct 5	2700	Sep 6	2700	Sep 6 1996
LOWEST DAILY MEAN	.04	Sep 18	.83	Jul 11	.01	Jun 28 1993
ANNUAL SEVEN-DAY MINIMUM	.05	Sep 15	1.5	Jul 5	.03	Jun 24 1993
INSTANTANEOUS PEAK FLOW			6790	Sep 6	6790	Sep 6 1996
INSTANTANEOUS PEAK STAGE			14.15*	Sep 6	14.15*	Sep 6 1996
INSTANTANEOUS LOW FLOW			.69	Jul 12	0*	Jun 27 1993
10 PERCENT EXCEEDS	93		90		71	
50 PERCENT EXCEEDS	15		23		14	
90 PERCENT EXCEEDS	.23		5.4		.43	

e Estimated.

* See REMARKS.



NEUSE RIVER BASIN

02088000 MIDDLE CREEK NEAR CLAYTON, NC

LOCATION.--Lat 35°34'10", long 78°35'30", Johnston County, Hydrologic Unit 03020201, on left bank 800 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 Oct. 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 sea level. Nov. 1-20, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record and the current water year from rating curve extended above 10,000 ft^3/s, by logarithmic plotting; maximum gage height, 14.88 ft, from high water mark in gage well. Minimum discharge for period of record, no flow, also occurred Oct. 12-13, 1954, and July 13-28, 1986. Minimum discharge for the current water year also occurred July 7, 8, and 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	88	79	83	163	84	148	834	61	13	76	22
2	27	167	84	86	220	83	148	579	50	14	64	21
3	25	503	75	124	526	83	116	153	44	45	48	37
4	279	302	72	122	382	74	100	108	39	26	83	69
5	1640	160	72	93	179	71	91	87	59	17	47	61
6	1650	120	77	74	148	95	85	94	56	14	36	e6260
7	862	265	100	95	147	295	101	229	42	12	34	e2970
8	268	887	130	114	187	512	91	127	35	12	48	e1100
9	125	790	153	90	256	458	115	90	71	16	39	528
10	99	270	222	90	201	187	133	72	320	18	33	228
11	85	223	130	93	151	138	98	62	113	14	30	e200
12	e74	525	102	98	135	122	85	78	72	24	31	e330
13	68	507	97	108	116	111	78	63	73	152	45	376
14	74	267	94	125	108	104	83	49	52	77	42	181
15	274	233	86	150	104	101	165	46	41	57	36	118
16	187	161	77	183	112	107	307	74	36	273	30	94
17	101	135	72	171	125	113	159	147	32	96	25	157
18	76	127	72	165	112	108	100	88	28	85	23	240
19	66	125	89	214	101	110	85	63	26	55	21	199
20	65	113	97	350	157	165	78	49	30	38	19	98
21	246	107	84	169	e330	119	92	42	36	29	18	73
22	248	97	77	127	293	97	90	36	23	26	17	64
23	123	93	70	110	164	89	73	31	20	32	21	62
24	92	91	69	106	137	82	68	28	18	29	42	55
25	86	100	70	113	114	77	65	26	20	29	120	47
26	74	105	68	97	103	76	63	26	24	98	69	43
27	69	94	67	270	98	71	90	34	18	75	62	42
28	198	90	63	649	96	139	77	252	e15	66	61	43
29	234	86	59	471	93	449	63	196	e13	127	41	52
30	e105	81	59	196	---	216	295	289	e14	63	33	65
31	85	---	66	176	---	137	---	89	---	58	27	---
TOTAL	7634	6912	2732	5112	5058	4673	3342	4141	1481	1690	1321	13835
MEAN	246	230	88.1	165	174	151	111	134	49.4	54.5	42.6	461
MAX	1650	887	222	649	526	512	307	834	320	273	120	6260
MIN	25	81	59	74	93	71	63	26	13	12	17	21
CFSM	2.95	2.76	1.06	1.97	2.09	1.81	1.33	1.60	.59	.65	.51	5.52
IN.	3.40	3.08	1.22	2.28	2.25	2.08	1.49	1.84	.66	.75	.59	6.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	49.3	65.2	84.7	134	164	168	116	72.3	53.5	55.1	57.4	53.6
MAX	275	230	254	356	450	352	319	330	203	472	340	461
(WY)	1960	1996	1973	1954	1973	1989	1959	1958	1992	1965	1949	1996
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

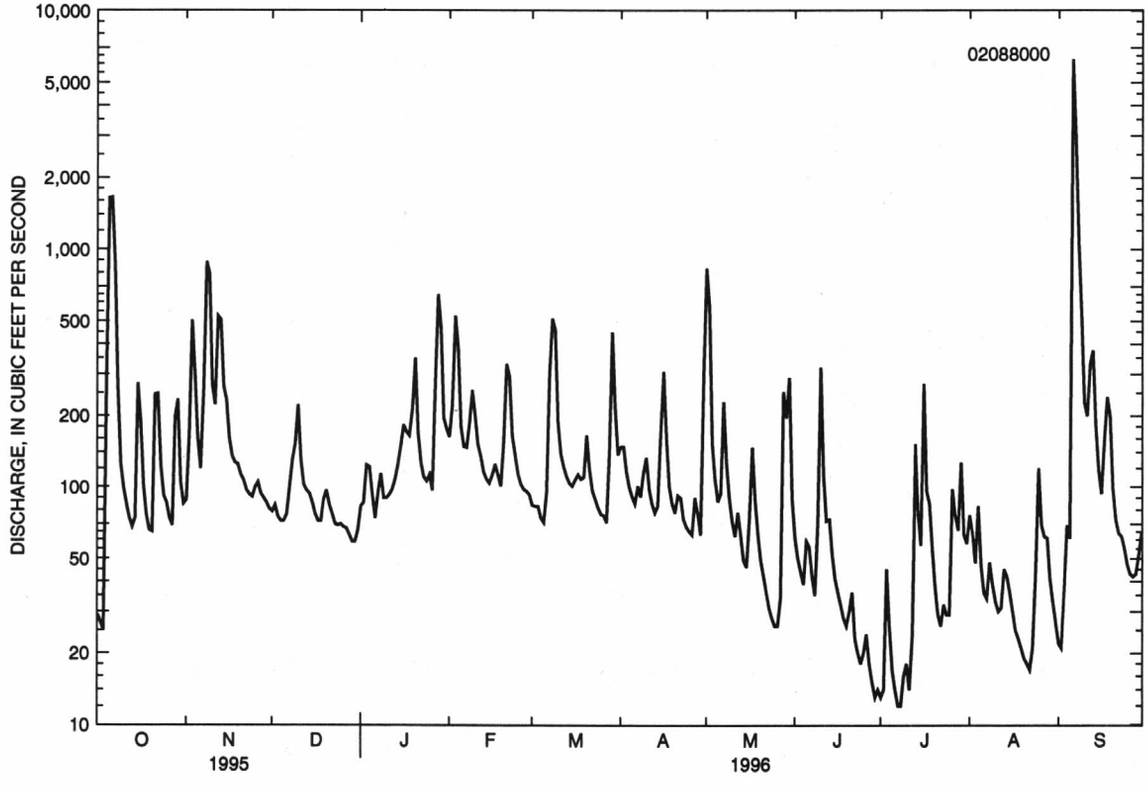
NEUSE RIVER BASIN

02088000 MIDDLE CREEK NEAR CLAYTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	50162.3		57931			
ANNUAL MEAN	137		158		89.0	
HIGHEST ANNUAL MEAN					161	1965
LOWEST ANNUAL MEAN					30.0	1981
HIGHEST DAILY MEAN	1650	Oct 6	6260	Sep 6	6260	Sep 6 1996
LOWEST DAILY MEAN	8.7	Aug 24	12	Jul 7	0*	Oct 11 1954
ANNUAL SEVEN-DAY MINIMUM	9.0	Aug 20	15	Jul 5	0*	Jul 13 1986
INSTANTANEOUS PEAK FLOW			11900*	Sep 6	11900*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			14.88*	Sep 6	14.88*	Sep 6 1996
INSTANTANEOUS LOW FLOW			11*	Jul 2	0*	Oct 11 1954
ANNUAL RUNOFF (CFSM)	1.65		1.90		1.07	
ANNUAL RUNOFF (INCHES)	22.35		25.81		14.48	
10 PERCENT EXCEEDS	272		270		197	
50 PERCENT EXCEEDS	74		90		45	
90 PERCENT EXCEEDS	18		28		7.2	

e Estimated.

* 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 sea level. Prior to Nov. 17, 1934, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. 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. Minimum discharge for current water year due to regulation from unknown source.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	270	180	161	686	248	405	423	789	6.6	165	63
2	88	282	175	194	586	265	441	496	470	12	137	51
3	72	614	164	211	691	259	403	588	281	23	109	50
4	92	754	156	221	710	228	325	665	172	7.6	92	60
5	1110	606	151	208	652	208	275	406	121	4.9	80	106
6	2200	510	148	192	567	205	235	245	104	1.9	71	2080
7	2410	547	160	223	510	355	238	276	100	1.8	197	3210
8	2260	1180	199	299	498	767	248	287	94	1.7	486	4680
9	2070	1430	281	284	568	839	241	265	89	49	630	5390
10	1340	1210	388	276	581	666	284	212	81	144	452	4550
11	512	1010	381	283	527	514	271	156	124	35	278	3460
12	278	922	353	364	474	398	236	140	216	215	243	2810
13	201	819	315	485	409	331	213	146	260	1280	218	2450
14	181	806	268	469	350	291	215	122	228	1350	175	2470
15	606	803	233	432	316	270	195	100	158	655	176	2540
16	889	682	215	394	300	267	242	107	109	847	146	2380
17	541	534	201	367	319	272	390	163	84	e750	100	2170
18	346	427	192	356	339	270	426	194	75	e600	79	1920
19	267	359	291	426	324	263	347	171	67	e400	65	1570
20	213	315	367	691	366	267	265	143	55	308	57	1050
21	188	284	307	738	750	255	235	122	52	190	49	778
22	208	252	254	608	857	239	223	100	56	106	80	644
23	197	228	224	563	753	223	196	82	40	98	81	583
24	213	213	200	453	628	199	176	67	32	93	42	474
25	218	211	184	413	492	181	159	59	28	76	40	348
26	182	220	171	375	394	173	144	53	24	145	81	255
27	149	215	159	462	332	162	143	48	17	135	185	183
28	243	207	148	737	301	188	142	98	13	92	214	127
29	309	199	140	816	280	394	129	292	10	120	207	117
30	245	189	135	832	---	568	165	782	7.7	90	124	118
31	258	---	137	813	---	466	---	1080	---	164	83	---
TOTAL	18195	16298	6877	13346	14560	10231	7607	8088	3956.7	8001.5	5142	46687
MEAN	587	543	222	431	502	330	254	261	132	258	166	1556
MAX	2410	1430	388	832	857	839	441	1080	789	1350	630	5390
MIN	72	189	135	161	280	162	129	48	7.7	1.7	40	50
CFSM	2.53	2.34	.96	1.86	2.16	1.42	1.09	1.12	.57	1.11	.71	6.71
IN.	2.92	2.61	1.10	2.14	2.33	1.64	1.22	1.30	.63	1.28	.82	7.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	133	147	230	385	472	480	329	191	156	184	185	146
MAX	1202	645	717	999	1285	1204	969	835	698	826	783	1556
(WY)	1965	1948	1937	1954	1948	1989	1959	1989	1995	1959	1931	1996
MIN	6.00	13.0	16.0	24.1	49.6	120	53.3	17.3	14.1	16.9	4.10	2.83
(WY)	1934	1934	1934	1934	1934	1981	1986	1986	1986	1994	1993	1980

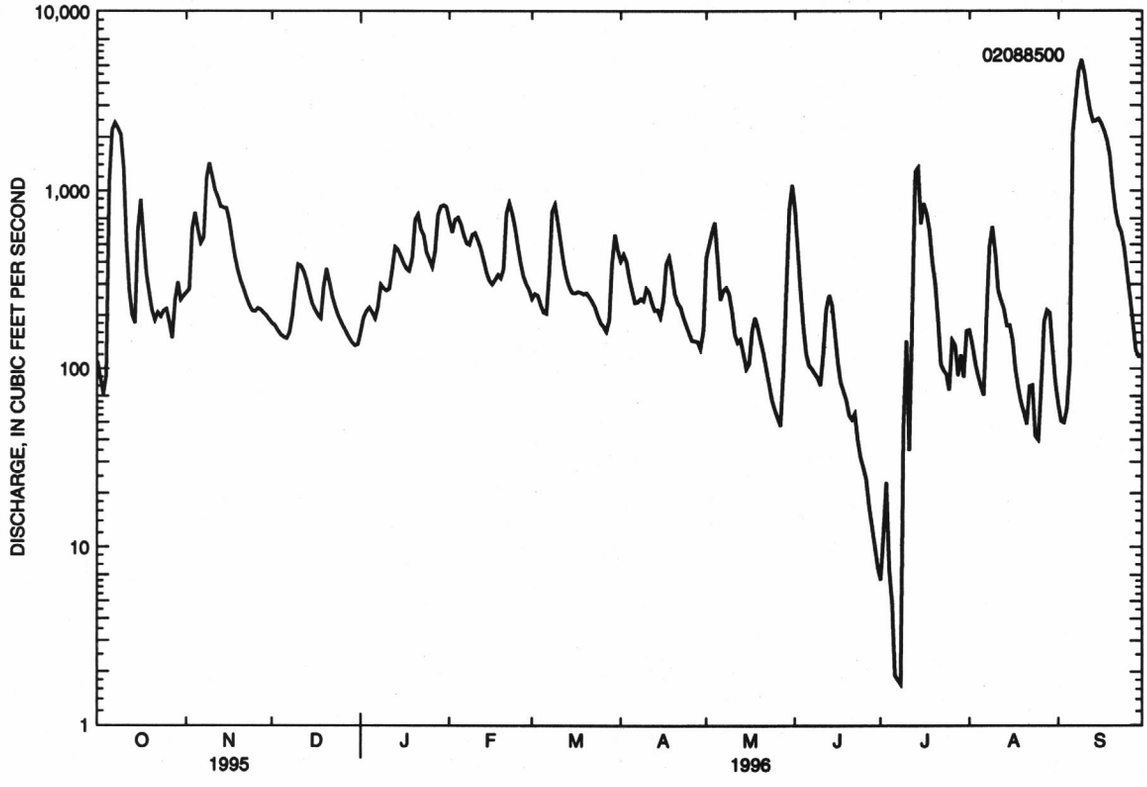
NEUSE RIVER BASIN

02088500 LITTLE RIVER NEAR PRINCETON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	124014.6		158989.2			
ANNUAL MEAN	340		434		253	
HIGHEST ANNUAL MEAN					511	1960
LOWEST ANNUAL MEAN					91.8	1951
HIGHEST DAILY MEAN	2410	Oct 7	5390	Sep 9	6790	Oct 6 1964
LOWEST DAILY MEAN	2.4	Aug 24	1.7	Jul 8	.08	Jun 16 1986
ANNUAL SEVEN-DAY MINIMUM	5.2	Aug 20	7.6	Jul 2	.36	Aug 29 1993
INSTANTANEOUS PEAK FLOW			5480	Sep 9	7150	Oct 6 1964
INSTANTANEOUS PEAK STAGE			13.32	Sep 9	13.94	Oct 6 1964
INSTANTANEOUS LOW FLOW			1.4*	Jul 8	.08*	Jun 1 1986
ANNUAL RUNOFF (CFSM)	1.46		1.87		1.09	
ANNUAL RUNOFF (INCHES)	19.89		25.49		14.81	
10 PERCENT EXCEEDS	934		814		630	
50 PERCENT EXCEEDS	182		244		118	
90 PERCENT EXCEEDS	24		72		21	

e Estimated.

* 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.

WATER-DISCHARGE RECORDS

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 sea level. 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 telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182). 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, 1985.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	3510	1730	1420	6920	2860	4110	2110	3290	484	1560	1280
2	899	3630	1660	1500	6990	2430	4110	3720	2770	451	1590	1040
3	765	4120	1600	1680	7240	2280	4070	4210	2360	540	1580	879
4	743	4500	1560	1780	7260	2210	3950	4600	1800	581	1450	824
5	1580	5040	1520	2120	7180	2090	3640	4870	1530	585	1360	1420
6	4420	5470	1500	2050	6980	1980	3320	4910	1520	604	1220	5640
7	6050	5740	1560	1920	6630	2420	3040	4540	1680	530	1060	6720
8	7970	6120	1640	2030	6100	3280	2500	4030	1460	450	1420	8260
9	10000	6170	2070	2290	5640	5360	2310	3660	1250	397	2520	10900
10	11200	6470	2490	2320	5400	5920	2220	3240	910	545	2710	17800
11	12000	7050	3180	2230	5350	6240	2370	2730	1640	725	2660	26500
12	11500	7620	3280	2660	5350	6000	2310	2330	2170	1010	2360	28800
13	8220	7820	2850	3250	5240	5490	2110	1840	1760	2280	2090	27500
14	4350	7920	2640	3800	4990	5040	1980	1680	1670	3710	2000	24200
15	3200	7980	2800	4020	4530	4630	1960	1520	1630	4020	2040	21000
16	3870	8000	2750	3810	3270	4270	2030	1390	1620	3730	2010	18500
17	4350	7930	2640	3290	2810	3710	2690	1280	1510	3820	1770	18000
18	4190	7740	2540	3020	2750	3210	3420	1680	1400	3810	1500	17700
19	3080	7420	2550	3210	2720	3080	3260	1990	1220	3680	1460	16800
20	2460	6960	2870	3810	2670	3000	2690	2280	938	2760	1340	15800
21	2100	6430	3540	4320	3010	3000	2290	2100	779	1890	1200	15000
22	2120	5880	3820	4850	4180	3190	2070	1510	747	1450	1020	14300
23	2880	4500	3840	5290	4760	3650	2000	1200	708	1170	889	13600
24	2790	2750	3620	5650	5120	3900	1910	1060	601	1020	862	12900
25	2700	2180	2340	5910	5200	4020	1740	834	660	1030	904	12000
26	2720	2030	1870	5970	5140	3980	1650	691	725	1030	1200	10900
27	2630	2030	1700	6080	4970	2610	1560	670	763	1110	2040	9900
28	2990	1960	1640	6500	4520	2060	1540	963	751	1480	1960	9020
29	3230	1850	1550	6760	3380	2310	1470	1660	709	1480	1930	8390
30	3780	1790	1470	6910	---	3490	1440	2450	593	1560	2000	7970
31	3820	---	1420	6950	---	3890	---	2970	---	1580	1640	---
TOTAL	133747	158610	72240	117400	146300	111600	75760	74718	41164	49512	51345	383543
MEAN	4314	5287	2330	3787	5045	3600	2525	2410	1372	1597	1656	12780
MAX	12000	8000	3840	6950	7260	6240	4110	4910	3290	4020	2710	28800
MIN	743	1790	1420	1420	2670	1980	1440	670	593	397	862	824

NEUSE RIVER BASIN

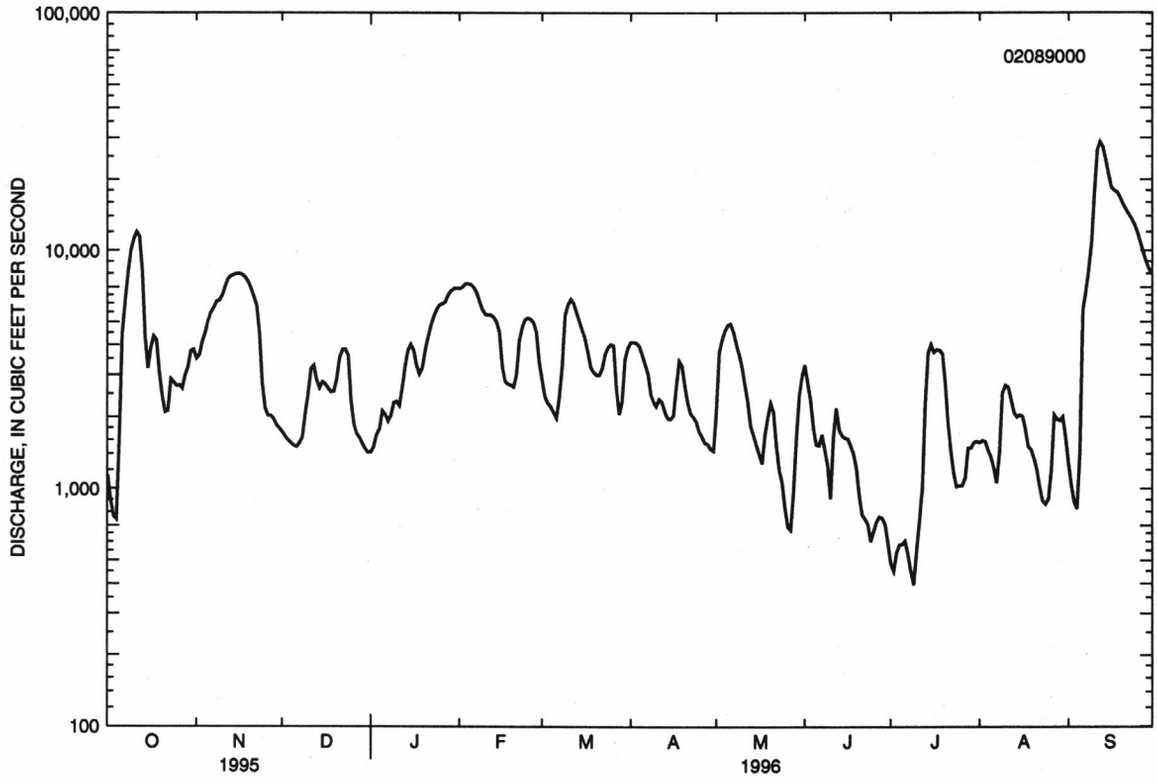
02089000 NEUSE RIVER NEAR GOLDSBORO, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996*, BY WATER YEAR (WY)

MEAN	1050	1362	1960	3249	3862	5381	3968	2084	1630	1530	1476	1747
MAX	4314	5287	4517	6644	7006	10290	7850	7276	5530	4668	3601	12780
(WY)	1996	1996	1990	1993	1983	1989	1989	1989	1995	1989	1989	1996
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996*	
ANNUAL TOTAL	1179480		1415939			
ANNUAL MEAN	3231		3869		2492	
HIGHEST ANNUAL MEAN					3869	1996
LOWEST ANNUAL MEAN					1042	1988
HIGHEST DAILY MEAN	13400	Feb 23	28800	Sep 12	28800	Sep 12 1996
LOWEST DAILY MEAN	228	Aug 24	397	Jul 9	162	Sep 10 1983
ANNUAL SEVEN-DAY MINIMUM	258	Aug 20	527	Jul 3	172	Sep 15 1985
INSTANTANEOUS PEAK FLOW			29300	Sep 12	29300	Sep 12 1996
INSTANTANEOUS PEAK STAGE			26.21	Sep 12	26.21	Sep 12 1996
INSTANTANEOUS LOW FLOW			373	Jul 9	157*	Sep 19 1985
10 PERCENT EXCEEDS	7950		7480		6680	
50 PERCENT EXCEEDS	1960		2660		1260	
90 PERCENT EXCEEDS	506		1020		377	

* Regulated period only (1983-1996). See REMARKS.



WATER QUALITY RECORDS

PERIOD OF RECORD.--1954-55, 1957 -60, 1969, 1971-73, 1976-77, 1982, current year.

REMARKS.--Samples for current year collected during flooding from Hurricane Fran.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
SEP 1996												
10...	1800	18400	53	6.1	26.0	180	756	0.4	5	8.1	13	3.0
12...	1215	29000	47	6.1	25.0	180	755	0.4	5	5.6	11	2.7
17...	1500	17900	--	--	23.5	--	747	0.6	1	4.5	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
SEP 1996												
10...	1.3	1.6	16	0.2	4.5	20	16	3.1	3.7	<0.10	3.8	68
12...	1.1	2.6	26	0.3	4.1	--	12	3.1	3.1	<0.10	5.0	66
17...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP 1996												
10...	0.020	<0.020	0.010	0.67	0.68	0.68	0.200	0.100	21	19	39	1940
12...	0.020	<0.020	0.010	1.2	1.2	1.2	0.170	0.120	20	20	--	--
17...	<0.010	<0.020	0.110	0.99	1.1	1.1	0.110	0.070	--	--	76	3670

Flooding from Neuse River at Kinston, N.C., resulting from Hurricane Fran, which passed through North Carolina on September 5-6, 1996.

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 1326, 0.7 mi west of Mays Store, and 1.0 mi downstream of Secondary Road 1002.

DRAINAGE AREA.--57.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except those discharges greater than 300 ft^3/s, which are poor. Minimum discharge for the current water year also occurred May 25, 26, 27, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	41	36	36	100	42	70	40	80	17	70	25
2	29	69	35	39	139	47	69	35	55	17	55	26
3	24	214	35	37	287	46	61	31	33	70	54	29
4	27	129	34	35	237	42	55	28	28	37	62	31
5	89	74	33	35	164	41	50	25	25	29	46	42
6	111	57	33	34	126	42	46	24	23	26	37	672
7	69	63	41	48	109	93	50	28	22	24	42	768
8	56	206	45	67	107	321	47	30	20	21	40	446
9	44	138	61	56	114	243	48	42	21	21	30	286
10	38	94	77	52	99	157	48	39	24	71	27	226
11	37	77	62	48	87	121	45	36	29	36	24	232
12	32	77	53	55	77	94	42	32	42	86	27	407
13	30	69	49	63	68	78	39	23	37	476	87	429
14	30	70	45	59	63	70	39	21	31	304	60	339
15	63	74	43	55	60	65	37	20	28	182	48	251
16	55	65	41	52	58	64	36	21	26	124	39	203
17	44	59	39	62	58	61	33	22	22	91	33	528
18	37	54	38	53	55	61	32	21	21	65	33	636
19	34	51	44	94	52	60	30	20	19	43	29	417
20	32	48	48	93	53	55	30	19	21	33	25	282
21	33	48	45	76	72	52	29	18	20	34	23	240
22	31	44	43	67	70	48	28	17	18	27	21	216
23	30	42	41	61	67	45	26	16	17	25	20	178
24	28	40	39	60	73	43	28	16	17	25	20	126
25	28	40	38	66	70	41	27	16	31	25	22	111
26	27	39	37	61	66	40	26	16	29	34	23	102
27	27	38	36	105	64	39	27	16	22	27	50	94
28	72	38	35	158	60	52	25	44	20	64	38	88
29	59	38	35	115	50	101	24	48	18	352	32	81
30	46	38	34	96	---	86	28	106	17	150	28	77
31	41	---	35	104	---	70	---	112	---	122	26	---
TOTAL	1339	2134	1310	2042	2705	2420	1175	982	816	2658	1171	7588
MEAN	43.2	71.1	42.3	65.9	93.3	78.1	39.2	31.7	27.2	85.7	37.8	253
MAX	111	214	77	158	287	321	70	112	80	476	87	768
MIN	24	38	33	34	50	39	24	16	17	17	20	25
CFSM	.75	1.23	.73	1.14	1.62	1.35	.68	.55	.47	1.49	.65	4.38
IN.	.86	1.38	.84	1.32	1.74	1.56	.76	.63	.53	1.71	.75	4.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

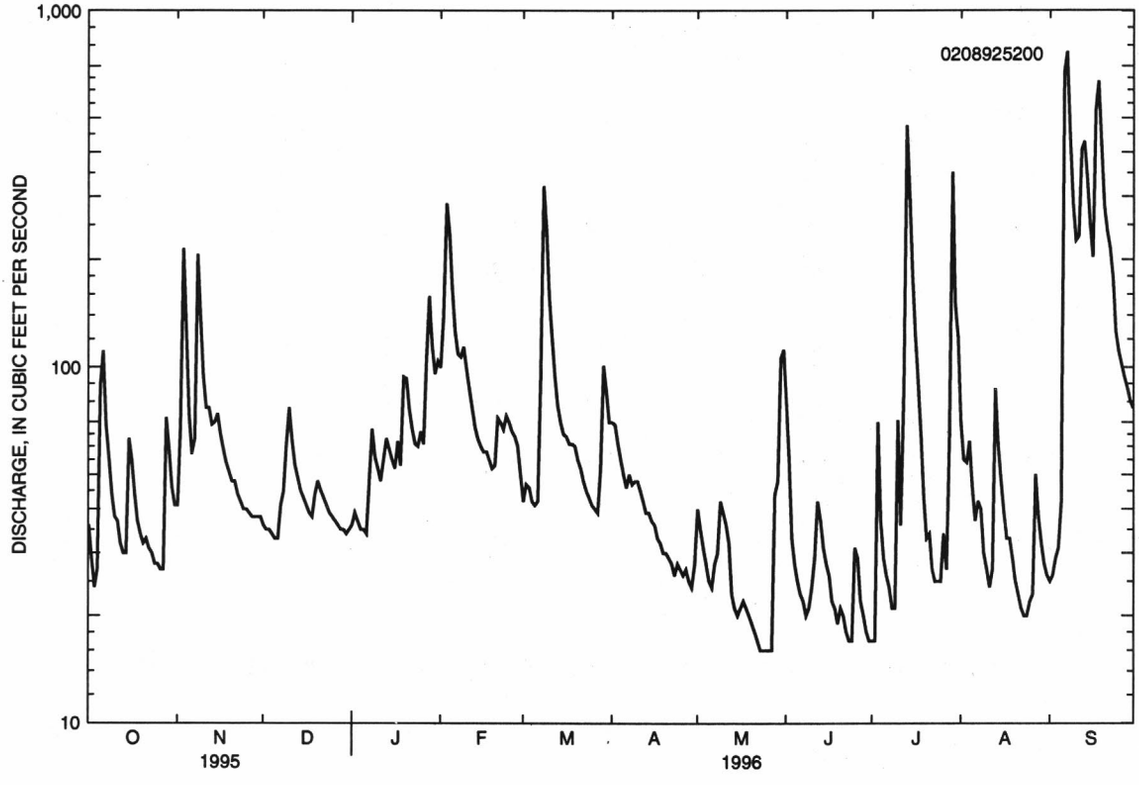
MEAN	38.4	45.4	51.6	87.7	65.2	97.4	66.3	60.7	60.5	51.2	71.3	61.7
MAX	75.5	119	133	266	93.3	153	150	216	201	98.5	231	253
(WY)	1992	1993	1993	1993	1996	1993	1989	1989	1995	1989	1992	1996
MIN	17.2	15.8	21.5	29.0	45.0	35.3	26.5	19.8	13.2	12.5	12.8	17.6
(WY)	1995	1995	1995	1995	1988	1988	1995	1994	1994	1993	1993	1994

NEUSE RIVER BASIN

0208925200 BEAR CREEK AT MAYS STORE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	23591		26340			
ANNUAL MEAN	64.6		72.0		63.1	
HIGHEST ANNUAL MEAN					85.3	1993
LOWEST ANNUAL MEAN					31.7	1988
HIGHEST DAILY MEAN	592	Jun 13	768	Sep 7	1060	May 29 1990
LOWEST DAILY MEAN	16	May 9	16	May 23	9.5	Jul 16 1994
ANNUAL SEVEN-DAY MINIMUM	18	May 29	16	May 21	9.9	Aug 28 1993
INSTANTANEOUS PEAK FLOW			1000	Sep 7	1220	May 29 1990
INSTANTANEOUS PEAK STAGE			9.06	Sep 18	9.25	May 29 1990
INSTANTANEOUS LOW FLOW			15*	May 24	8.8	Jul 17 1994
ANNUAL RUNOFF (CFSM)	1.12		1.25		1.09	
ANNUAL RUNOFF (INCHES)	15.21		16.98		14.87	
10 PERCENT EXCEEDS	152		126		129	
50 PERCENT EXCEEDS	36		43		37	
90 PERCENT EXCEEDS	20		22		16	

* See REMARKS.



NEUSE RIVER BASIN

0208925200 BEAR CREEK AT MAYS STORE, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1993 to current year.

REMARKS.--Station operated as part of NAWQA Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	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)
NOV 28...	0915	38	121	5.9	13.5	762	31	7.4	3.1	5.5

DATE	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
NOV 28...	25	0.4	4.2	8	7	15	12	0.10	10	72

NEUSE RIVER BASIN

0208925200 BEAR CREEK AT MAYS STORE, NC--Continued

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
NOV 28...	2.79	0.010	2.80	2.80	0.040	0.26	0.26	0.30	0.30	3.1

DATE	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
NOV 28...	3.1	0.040	0.030	0.020	220	44	3.1	0.80	25	2.6

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.

GAGE.--Water-stage recorder. Datum of gage is 10.90 ft above sea level. Prior to Nov. 25, 1934, nonrecording gage at highway bridge 1 mi downstream at 10.10 ft. National Weather Service telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Falls Lake (station 02087182). 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1890	3740	1990	1670	7030	4890	3780	1630	2770	788	1800	1750
2	1460	3820	1910	1650	7190	3880	4190	2050	3090	730	1720	1420
3	1170	3860	1840	1680	7380	3120	4400	2960	3000	723	1720	1200
4	1080	4150	1770	1790	7530	2730	4450	3490	2580	796	1700	1070
5	1070	4420	1720	1880	7590	2500	4410	4000	2060	750	1610	1170
6	1650	4690	1670	2080	7560	2360	4260	4380	1680	760	1490	3340
7	3190	5060	1700	2240	7470	2390	3980	4720	1580	757	1380	4600
8	3880	5530	1790	2280	7350	3190	3620	4870	1660	724	1250	5800
9	5010	5920	1880	2320	7150	4030	3140	4740	1630	670	1360	6530
10	6240	6210	2160	2430	6840	4570	2710	4360	1490	650	2290	7790
11	7880	6390	2520	2510	6480	5250	2500	3880	1280	715	2560	9160
12	8980	6580	2920	2510	6150	5860	2490	3330	1620	1030	2640	11700
13	10000	6850	3230	2720	5920	6250	2480	2710	2090	1910	2590	16700
14	10500	7310	3180	3100	5780	6310	2340	2130	1940	2840	2390	22100
15	10300	7670	2920	3500	5670	6100	2210	1820	1750	3290	2180	24900
16	7850	7890	2870	3840	5470	5730	2250	1670	1700	3810	2140	26500
17	5750	8000	2870	4010	5020	5350	2250	1540	1660	4080	2120	26900
18	5090	8040	2790	3900	3880	4950	2590	1430	1560	4110	2070	26200
19	4760	8030	2760	3680	3390	4350	3100	1620	1480	4110	1760	24300
20	4430	7940	2760	3550	3090	3820	3330	1920	1470	4040	1570	22100
21	3460	7750	2880	3710	3080	3480	3090	2160	1190	3780	1430	20200
22	2580	7430	3230	4040	3200	3310	2630	2120	977	2740	1300	18600
23	2340	7010	3590	4400	3600	3300	2290	1700	899	1950	1140	17200
24	2640	6560	3810	4820	4140	3520	2160	1360	865	1600	1020	16000
25	2840	5390	3850	5220	4680	3800	2050	1190	828	1340	971	14900
26	2790	3760	3190	5570	5090	4010	1900	1040	1010	1320	991	13900
27	2760	2720	2350	5940	5310	4140	1790	904	998	1300	1120	13200
28	2780	2360	2030	6240	5380	3990	1690	890	932	1280	1780	12400
29	2930	2190	1900	6450	5280	3310	1640	1070	897	1600	1940	11400
30	3140	2070	1820	6650	---	2940	1630	1540	860	1830	1940	10400
31	3440	---	1730	6860	---	3210	---	2310	---	1830	1960	---
TOTAL	133880	169340	77630	113240	163700	126640	85350	75534	47546	57853	53932	393430
MEAN	4319	5645	2504	3653	5645	4085	2845	2437	1585	1866	1740	13110
MAX	10500	8040	3850	6860	7590	6310	4450	4870	3090	4110	2640	26900
MIN	1070	2070	1670	1650	3080	2360	1630	890	828	650	971	1070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996*, BY WATER YEAR (WY)

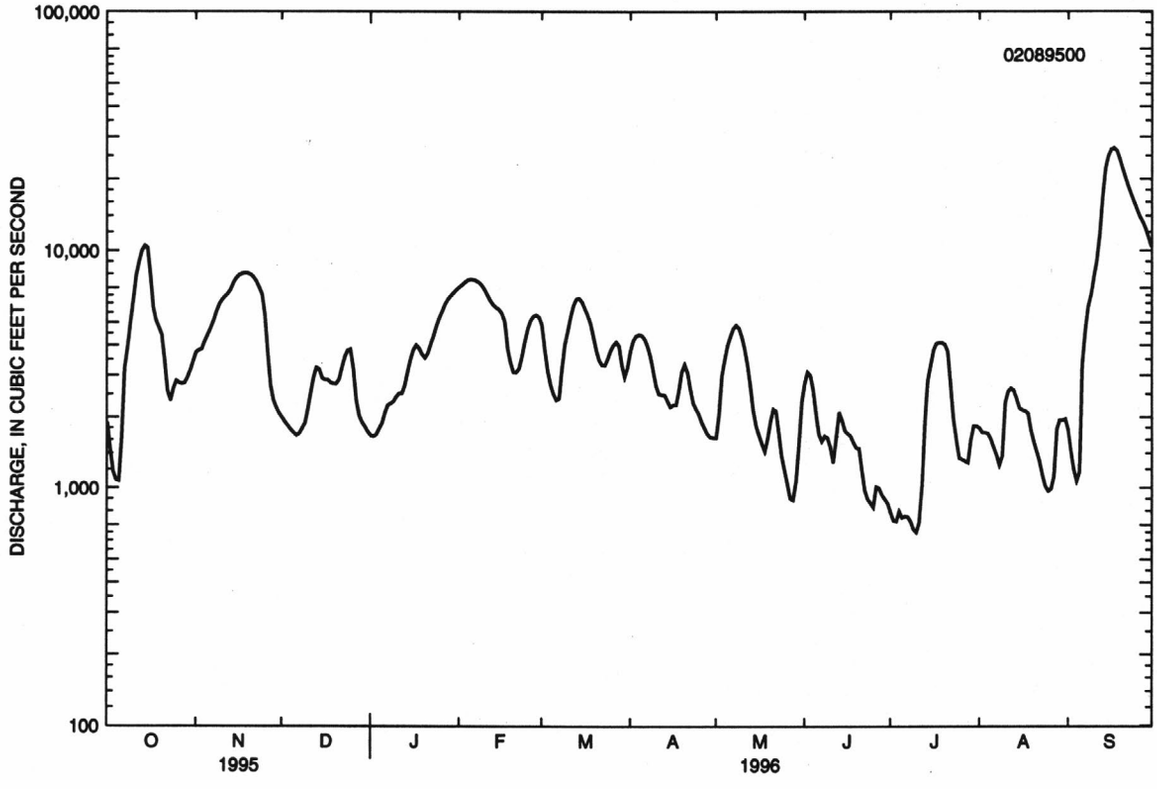
MEAN	1207	1505	2268	3523	4222	5989	4628	2346	1933	1758	1777	1999
MAX	4319	5645	5097	7560	7673	10720	9582	8773	6062	5223	4068	13110
(WY)	1996	1996	1990	1993	1983	1989	1989	1989	1995	1989	1989	1996
MIN	366	430	760	1181	1767	1673	878	563	460	468	314	357
(WY)	1984	1988	1988	1986	1986	1988	1986	1986	1986	1987	1983	1985

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996*	
ANNUAL TOTAL	1295358		1498075			
ANNUAL MEAN	3549		4093		2755	
HIGHEST ANNUAL MEAN					4216	1989
LOWEST ANNUAL MEAN					1204	1988
HIGHEST DAILY MEAN	12500	Feb 26	26900	Sep 17	26900	Sep 17 1996
LOWEST DAILY MEAN	458	Aug 26	650	Jul 10	200	Sep 20 1985
ANNUAL SEVEN-DAY MINIMUM	494	Aug 21	718	Jul 5	214	Sep 16 1985
INSTANTANEOUS PEAK FLOW			27100	Sep 17	27100	Sep 17 1996
INSTANTANEOUS PEAK STAGE			23.26	Sep 17	23.26	Sep 17 1996
INSTANTANEOUS LOW FLOW			612	Jul 10	196	Sep 20 1985
10 PERCENT EXCEEDS	8460		7540		7310	
50 PERCENT EXCEEDS	2330		2900		1550	
90 PERCENT EXCEEDS	707		1190		476	

* Regulated period only (1983-1996). 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 NAWQA Program from March 1993 to present. Station also operated as part of NASQAN network from October 1974 to September 1994. Daily records of specific conductance for January 1955 to September 1956 are available in the files of the district office in Raleigh.

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 1995 TO SEPTEMBER 1996

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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)
NOV										
28...	1130	2360	116	6.2	10.5	--	761	--	--	--
MAY										
08...	1015	4880	93	6.8	20.0	--	769	7.2	78	--
JUN										
26...	1100	1040	134	7.2	28.5	--	767	7.0	90	--
AUG										
29...	0930	1940	104	7.5	25.0	--	768	5.3	64	--
SEP										
10...	1700	7530	67	7.2	25.5	220	764	1.2	15	4.4
16...	1245	26700	60	6.8	24.0	200	764	0.9	11	7.5

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	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)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
28...	24	5.9	2.3	9.5	41	0.8	4.1	20	16	11
MAY										
08...	21	4.8	2.1	8.2	43	0.8	2.7	16	13	9.2
JUN										
26...	26	6.1	2.7	13	48	1	3.7	24	20	12
AUG										
29...	21	5.2	2.0	9.1	43	0.9	4.2	19	16	11
SEP										
10...	18	4.5	1.6	2.6	19	0.3	4.8	18	14	5.3
16...	14	3.4	1.3	2.7	23	0.3	5.0	21	18	1.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV										
28...	11	<0.10	9.5	73	0.870	--	<0.010	0.870	0.870	--
MAY										
08...	8.8	0.10	7.8	72	0.390	--	0.010	0.400	0.400	--
JUN										
26...	12	0.20	9.1	84	1.39	--	0.010	1.40	1.40	--
AUG										
29...	9.0	0.20	8.4	68	1.08	--	0.020	1.10	1.10	--
SEP										
10...	5.2	0.10	5.4	74	--	0.010	--	<0.020	--	0.070
16...	4.0	<0.10	6.3	82	--	0.010	--	<0.020	--	0.070

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)
NOV										
28...	0.020	0.38	0.38	0.40	0.40	1.3	1.3	0.040	0.040	--
MAY										
08...	0.090	0.51	0.41	0.60	0.50	1.0	0.90	0.100	0.070	--
JUN										
26...	0.070	0.43	0.23	0.50	0.30	1.9	1.7	0.140	0.070	--
AUG										
29...	0.040	0.46	0.36	0.50	0.40	1.6	1.5	0.160	0.080	--
SEP										
10...	--	0.51	--	0.58	--	0.58	--	0.200	--	0.120
16...	--	1.5	--	1.6	--	1.6	--	0.290	--	0.190

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV										
28...	0.030	630	54	--	--	5.9	0.50	--	--	--
MAY										
08...	0.060	940	24	--	--	8.0	0.70	32	422	93
JUN										
26...	0.090	700	28	--	--	5.6	0.40	31	87	90
AUG										
29...	0.090	590	17	--	--	6.6	1.1	38	199	96
SEP										
10...	--	--	--	28	20	--	--	47	956	--
16...	--	--	--	20	24	--	--	39	2810	--

NEUSE RIVER BASIN

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC

LOCATION.--Lat 35°41'29", long 78°06'38", Wilson County, Hydrologic Unit 03020203, on right bank 250 ft upstream from bridge on State Highway 581, 1.0 mi downstream 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 sea level (levels by U.S. Army Corps of Engineers). Satellite telemetry at station.

REMARKS.-- Records good except those for estimated daily discharges, which are fair. 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 occurred frequently in June and July, due to regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	93	100	96	406	157	363	335	293	12	39	19
2	24	111	93	113	398	147	350	427	166	12	51	16
3	21	416	88	158	512	146	291	334	106	13	53	15
4	50	490	87	181	588	126	220	195	74	13	77	16
5	798	363	85	172	509	121	178	129	59	12	140	20
6	1650	237	84	149	394	125	152	106	69	12	96	1260
7	1440	276	92	171	315	228	158	124	66	12	57	3100
8	971	775	122	173	312	525	166	155	54	12	35	2990
9	535	898	178	162	415	582	188	129	48	12	26	1730
10	213	774	290	157	455	469	226	105	55	12	24	977
11	114	502	361	161	416	321	234	96	83	12	20	570
12	87	426	287	236	320	234	186	96	274	20	20	599
13	72	498	192	299	248	192	149	83	587	195	31	1200
14	93	491	153	333	211	179	131	78	554	204	31	1050
15	424	470	125	359	192	165	130	73	261	157	32	698
16	480	406	115	356	194	158	299	91	144	301	27	372
17	294	283	113	351	211	180	409	128	90	275	23	298
18	167	204	108	340	238	171	359	144	58	245	21	253
19	110	172	138	408	228	169	241	115	39	138	17	388
20	86	148	177	668	258	175	174	94	33	85	16	393
21	83	135	160	731	581	181	159	82	28	49	15	248
22	68	124	127	516	824	160	143	66	24	32	14	174
23	71	108	107	336	783	138	126	51	21	37	14	116
24	75	104	100	258	548	116	108	41	17	56	13	81
25	70	105	96	256	366	109	97	33	18	45	13	67
26	56	109	93	249	279	111	96	29	15	70	15	49
27	45	108	86	306	230	105	98	33	13	48	22	37
28	83	105	82	614	211	134	99	131	13	34	40	34
29	113	105	85	781	185	318	92	207	12	30	45	43
30	118	99	84	670	---	519	126	587	12	28	32	e50
31	108	---	87	486	---	489	---	547	---	29	24	---
TOTAL	8551	9135	4095	10246	10827	6950	5748	4844	3286	2212	1083	16863
MEAN	276	304	132	331	373	224	192	156	110	71.4	34.9	562
MAX	1650	898	361	781	824	582	409	587	587	301	140	3100
MIN	21	93	82	96	185	105	92	29	12	12	13	15
CFSM	1.71	1.89	.82	2.05	2.32	1.39	1.19	.97	.68	.44	.22	3.49
IN.	1.98	2.11	.95	2.37	2.50	1.61	1.33	1.12	.76	.51	.25	3.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	73.2	89.2	134	258	305	340	205	127	98.8	91.7	102	60.8
MAX	644	304	404	690	533	803	701	537	359	624	512	562
(WY)	1965	1996	1973	1987	1983	1989	1987	1989	1965	1984	1986	1996
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

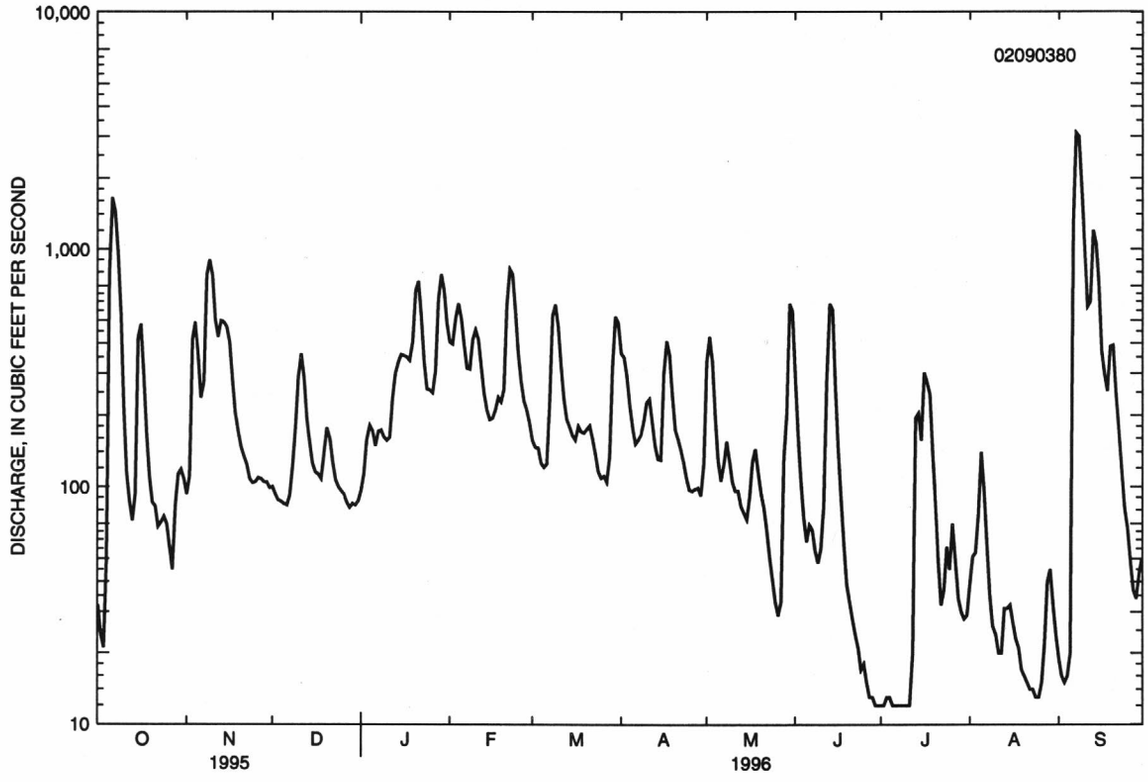
NEUSE RIVER BASIN

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	70543.4		83840			
ANNUAL MEAN	193		229		156	
HIGHEST ANNUAL MEAN					278	1984
LOWEST ANNUAL MEAN					35.5	1981
HIGHEST DAILY MEAN	2270	Mar 10	3100	Sep 7	5500	Oct 6 1964
LOWEST DAILY MEAN	8.1	May 26	12	Jun 29	.04	Sep 9 1976
ANNUAL SEVEN-DAY MINIMUM	8.7	May 22	12	Jul 5	.04	Sep 8 1976
INSTANTANEOUS PEAK FLOW			3540	Sep 7	5860	Oct 6 1964
INSTANTANEOUS PEAK STAGE			14.12	Sep 7	16.28	Oct 6 1964
INSTANTANEOUS LOW FLOW			12*	Jun 28	.04*	Sep 9 1976
ANNUAL RUNOFF (CFSM)	1.20		1.42		.97	
ANNUAL RUNOFF (INCHES)	16.30		19.37		13.20	
10 PERCENT EXCEEDS	480		513		388	
50 PERCENT EXCEEDS	90		130		69	
90 PERCENT EXCEEDS	13		21		10	

e Estimated.

* 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 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 90 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred several times in June and July, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	1.7	1.6	1.8	3.5	1.6	3.4	2.7	4.3	.44	.91	.63
2	.54	4.6	1.6	1.6	9.2	2.7	2.8	1.4	2.4	8.9	1.3	.55
3	.50	5.1	1.4	1.4	10	1.9	2.4	1.1	1.7	20	1.0	.58
4	2.3	2.4	1.4	1.2	5.5	1.6	2.1	.99	1.4	2.4	1.1	.67
5	11	1.8	1.3	1.1	4.1	1.5	1.8	.94	1.2	1.1	2.1	11
6	6.1	1.6	1.4	.93	3.7	1.9	2.1	.80	11	.84	1.1	122
7	2.4	9.5	3.8	3.6	3.9	11	2.6	.93	1.6	.55	19	35
8	2.1	12	2.4	2.7	5.3	12	2.1	.99	.81	.52	5.1	24
9	1.4	4.2	4.7	1.8	5.3	6.0	2.7	.73	.53	.57	2.0	e26
10	1.0	2.9	3.5	1.7	3.8	4.2	2.0	.75	.43	.64	1.6	e20
11	1.1	3.1	2.3	1.5	3.1	3.5	1.8	.95	15	.49	1.2	e14
12	.98	5.3	2.0	2.8	2.7	3.4	1.7	1.4	2.6	27	1.5	e20
13	.97	3.3	1.8	2.5	2.2	2.9	1.7	.86	.92	41	2.5	e16
14	1.6	8.5	1.6	2.0	2.1	2.6	1.5	.60	.58	10	2.1	e14
15	6.6	5.2	1.6	1.6	2.2	2.5	1.5	.68	.43	6.9	1.7	e10
16	2.4	3.5	1.7	1.4	3.0	2.5	1.5	1.1	.43	6.7	1.2	e9.0
17	1.5	2.7	1.5	1.2	2.6	2.5	1.2	1.2	.42	4.1	.99	e16
18	1.2	2.5	1.6	2.1	2.2	2.6	1.2	1.0	.42	2.6	.83	e30
19	.98	2.2	2.4	3.7	5.2	2.6	1.1	.90	.74	1.7	.80	e20
20	.97	2.4	2.2	2.4	4.3	2.2	1.1	.80	1.3	1.4	.70	e14
21	1.3	2.3	1.7	1.7	5.8	1.9	1.3	.80	1.1	1.0	.74	e10
22	.99	2.1	1.5	1.6	3.7	1.7	1.2	.72	.77	.89	.55	e6.0
23	.90	1.8	1.4	1.6	3.0	1.6	1.3	.60	.57	.96	.50	e4.0
24	.85	1.8	1.4	2.5	2.4	1.5	1.6	.42	.48	1.0	.50	e3.4
25	.90	2.5	1.3	2.3	2.1	1.5	1.4	.47	11	1.2	.49	e3.0
26	.84	2.1	1.3	1.6	1.8	1.5	1.2	.48	1.5	1.2	.79	e2.8
27	.83	1.8	1.3	19	1.7	1.5	1.2	.69	.80	1.1	3.7	e2.6
28	7.0	1.6	1.2	9.4	1.9	5.4	1.1	15	.59	.95	1.9	e2.4
29	2.1	1.7	1.2	4.5	1.7	4.3	1.0	18	.51	1.2	1.0	e2.2
30	1.3	1.6	1.6	3.8	---	2.7	3.4	55	.47	1.1	.76	e2.6
31	1.1	---	1.4	4.2	---	2.4	---	9.9	---	.96	.67	---
TOTAL	64.36	103.8	57.1	91.23	108.0	97.7	53.0	122.90	66.00	149.41	60.33	442.43
MEAN	2.08	3.46	1.84	2.94	3.72	3.15	1.77	3.96	2.20	4.82	1.95	14.7
MAX	11	12	4.7	19	10	12	3.4	55	15	41	19	122
MIN	.50	1.6	1.2	.93	1.7	1.5	1.0	.42	.42	.44	.49	.55
CFSM	1.10	1.83	.97	1.56	1.97	1.67	.93	2.10	1.16	2.55	1.03	7.80
IN.	1.27	2.04	1.12	1.80	2.13	1.92	1.04	2.42	1.30	2.94	1.19	8.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

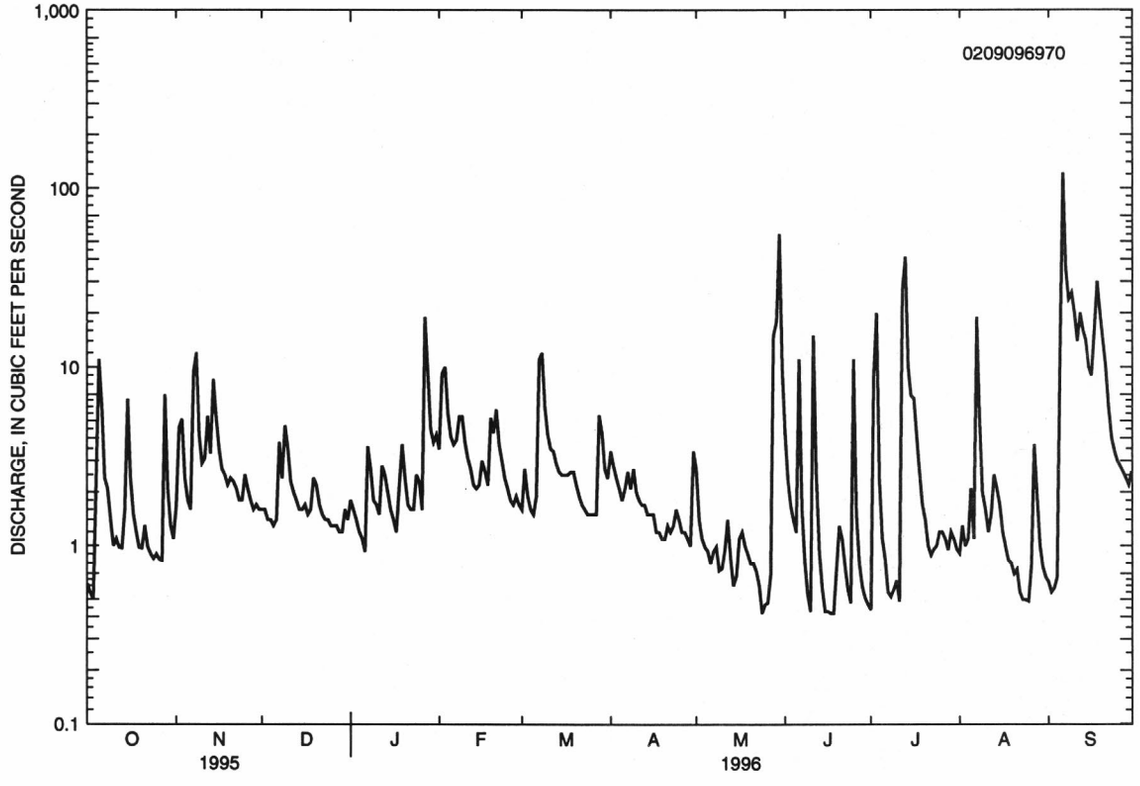
MEAN	1.37	2.36	2.60	3.92	3.42	5.20	3.32	2.37	2.37	2.23	3.17	2.74
MAX	2.67	5.70	6.62	10.0	6.71	9.45	11.2	7.12	10.2	7.57	8.22	14.7
(WY)	1990	1993	1993	1993	1995	1989	1989	1989	1995	1989	1992	1996
MIN	.47	.63	.69	1.38	1.42	2.29	1.28	.76	.28	.24	.38	.26
(WY)	1995	1995	1995	1991	1991	1992	1995	1994	1994	1994	1993	1990

NEUSE RIVER BASIN

0209096970 MOCCASIN RUN NEAR PATETOWN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	1209.92		1416.26			
ANNUAL MEAN	3.31		3.87		3.03	
HIGHEST ANNUAL MEAN					4.69	1989
LOWEST ANNUAL MEAN					1.86	1994
HIGHEST DAILY MEAN	67	Feb 16	122	Sep 6	122	Sep 6 1996
LOWEST DAILY MEAN	.24	Jul 20	.42	May 24	.10	Jun 14 1994
ANNUAL SEVEN-DAY MINIMUM	.43	Jul 14	.56	Jun 13	.10	Jun 14 1994
INSTANTANEOUS PEAK FLOW			202	Sep 6	202	Sep 6 1996
INSTANTANEOUS PEAK STAGE			5.38	Sep 6	5.38	Sep 6 1996
INSTANTANEOUS LOW FLOW			.33	Jun 18	.10*	Jul 18 1992
ANNUAL RUNOFF (CFSM)	1.75		2.05		1.61	
ANNUAL RUNOFF (INCHES)	23.81		27.88		21.81	
10 PERCENT EXCEEDS	6.5		9.3		5.7	
50 PERCENT EXCEEDS	1.4		1.7		1.3	
90 PERCENT EXCEEDS	.62		.69		.30	

e Estimated.
* See REMARKS.



NEUSE RIVER BASIN

02091000 NAHUNTA SWAMP NEAR SHINE, NC

LOCATION.--Lat 35°29'20", long 77°48'22", Greene County, Hydrologic Unit 03020203, on right bank 10 ft downstream 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 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 50.74 ft above sea level. Prior to Apr. 1, 1955, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Oct. 8, 1954. Maximum gage height for current water year, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	66	57	49	138	49	99	111	153	e12	38	e18
2	20	90	62	53	212	68	104	66	74	e150	57	e16
3	19	209	54	52	326	67	85	42	50	e400	41	e20
4	38	171	50	48	196	53	77	32	37	e200	35	e100
5	178	116	48	43	134	48	61	25	32	e100	50	e500
6	290	90	49	40	112	49	57	21	34	e50	32	e1200
7	196	136	74	73	110	198	77	33	25	e30	151	e900
8	133	355	89	110	136	383	66	52	20	e20	111	e600
9	86	203	123	80	154	242	71	36	20	e30	49	e550
10	64	131	138	73	126	159	64	25	26	e40	39	417
11	53	103	101	65	107	121	55	20	357	e30	29	386
12	46	151	79	90	92	107	49	24	e340	e400	29	460
13	41	136	66	113	81	95	44	19	e100	e500	61	441
14	45	154	61	96	74	87	48	17	e30	e300	e42	335
15	136	173	58	82	72	81	49	15	e20	e100	e38	250
16	115	128	56	71	76	88	48	21	e16	e90	e34	213
17	80	104	54	64	77	84	43	33	e14	e70	e30	e500
18	58	92	50	68	70	80	37	32	e12	e60	e26	e900
19	49	87	64	144	64	81	33	20	e20	e54	e22	e600
20	43	77	79	132	74	77	33	15	e30	e50	e20	e500
21	52	74	66	100	177	68	32	13	e20	e46	e26	303
22	66	70	58	83	169	61	30	11	e16	e40	e20	177
23	53	65	53	77	121	57	27	10	e14	e50	e18	129
24	44	62	50	80	98	61	40	8.6	e30	e70	e16	107
25	40	65	47	98	79	57	37	7.7	e200	e90	e14	93
26	39	67	45	83	68	55	30	7.7	e160	e80	e30	82
27	36	64	44	220	63	52	31	9.9	e80	e70	e50	73
28	182	62	42	383	59	95	28	266	e50	e50	e40	67
29	112	60	40	298	56	167	24	118	e30	e40	e30	65
30	73	59	38	177	---	110	50	629	e20	e50	e22	72
31	59	---	41	141	---	89	---	591	---	39	e20	---
TOTAL	2469	3420	1936	3286	3321	3089	1529	2330.9	2030	3311	1220	10074
MEAN	79.6	114	62.5	106	115	99.6	51.0	75.2	67.7	107	39.4	336
MAX	290	355	138	383	326	383	104	629	357	500	151	1200
MIN	19	59	38	40	56	48	24	7.7	12	12	14	16
CFSM	.99	1.42	.78	1.32	1.42	1.24	.63	.94	.84	1.33	.49	4.18
IN.	1.14	1.58	.90	1.52	1.54	1.43	.71	1.08	.94	1.53	.56	4.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

MEAN	46.6	55.6	68.8	116	141	145	103	60.2	54.4	61.8	72.4	62.9
MAX	473	253	184	261	307	311	252	277	243	395	360	396
(WY)	1965	1978	1958	1993	1983	1983	1974	1989	1995	1965	1974	1955
MIN	2.26	11.2	19.7	31.1	34.6	33.7	19.1	10.8	5.35	3.10	4.71	2.58
(WY)	1955	1987	1995	1955	1988	1986	1986	1986	1986	1987	1954	1954

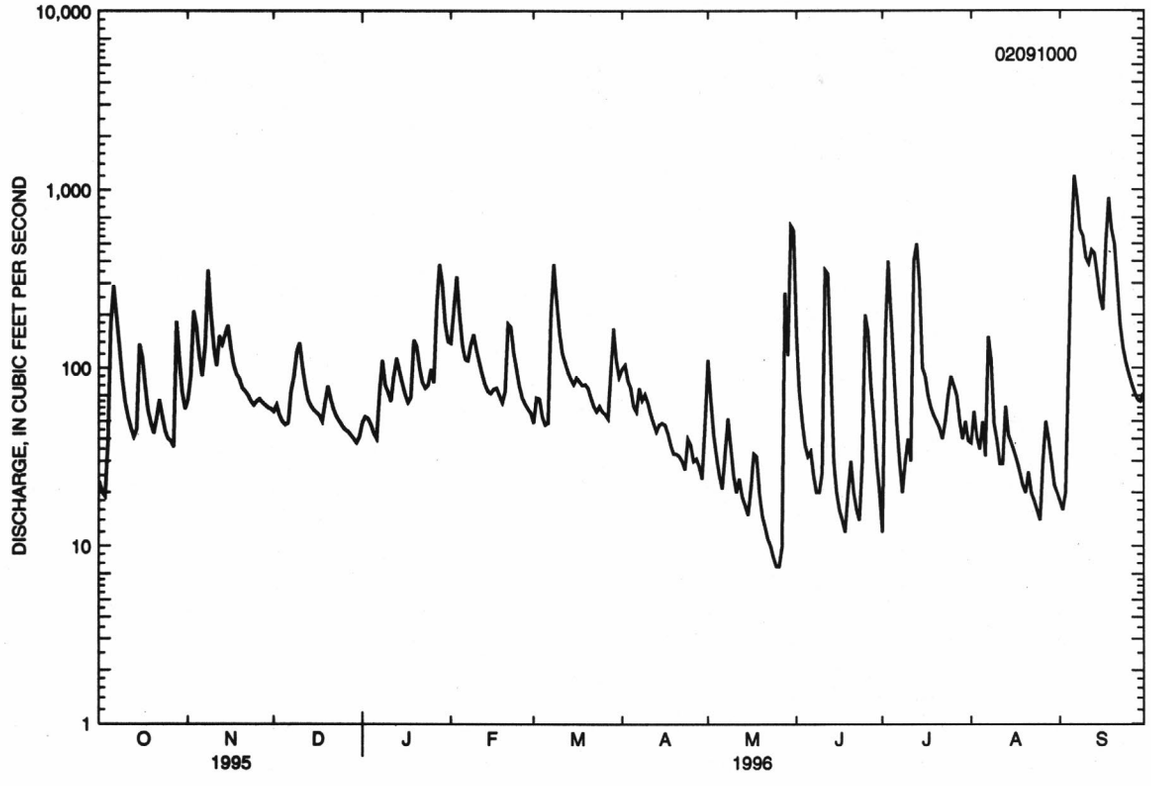
NEUSE RIVER BASIN

02091000 NAHUNTA SWAMP NEAR SHINE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996		
ANNUAL TOTAL	34568.2		38015.9				
ANNUAL MEAN	94.7		104		82.4		
HIGHEST ANNUAL MEAN					150		1965
LOWEST ANNUAL MEAN					22.9		1986
HIGHEST DAILY MEAN	862	Feb 17	1200	Sep 6	4560	Oct 6	1964
LOWEST DAILY MEAN	5.0	Aug 24	7.7	May 25	1.0	Oct 7	1954
ANNUAL SEVEN-DAY MINIMUM	5.3	Aug 20	9.7	May 21	1.3	Oct 4	1954
INSTANTANEOUS PEAK FLOW			1240	Sep 6	5470	Oct 3	1964
INSTANTANEOUS PEAK STAGE			10.44*	Sep 6	14.14	Oct 6	1964
INSTANTANEOUS LOW FLOW			7.3	May 25	1.0*	Oct 7	1954
ANNUAL RUNOFF (CFSM)	1.18		1.29		1.02		
ANNUAL RUNOFF (INCHES)	15.99		17.59		13.92		
10 PERCENT EXCEEDS	210		205		175		
50 PERCENT EXCEEDS	53		64		43		
90 PERCENT EXCEEDS	15		20		10		

e Estimated

* See REMARKS.



NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC

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 sea level (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. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	347	592	582	496	2110	1410	1040	411	1200	189	440	304
2	303	613	572	504	2260	1150	1130	520	1420	168	419	242
3	253	800	555	528	2440	973	1210	621	1540	204	446	204
4	215	869	530	544	2500	872	1290	679	1560	541	432	184
5	234	952	502	554	2480	819	1330	722	1370	551	452	182
6	516	1070	487	563	2330	781	1290	722	786	374	512	1160
7	818	1220	493	605	2230	790	1170	629	450	281	459	1650
8	992	1480	530	704	2170	1130	1010	526	347	214	512	1910
9	1240	1630	604	785	2100	1320	893	543	285	176	675	2220
10	1590	1700	728	838	1960	1440	823	633	266	161	761	2580
11	1910	1790	833	857	1860	1540	788	706	285	162	594	3020
12	2140	1990	923	860	1760	1670	769	636	569	419	374	3930
13	2220	2220	999	872	1690	1770	753	492	827	1670	315	5250
14	2060	2380	1050	921	1670	1760	735	385	805	1790	341	5720
15	1640	2400	1060	1000	1610	1610	705	323	763	1990	337	5760
16	1170	2300	1010	1100	1500	1370	680	294	839	2230	296	5530
17	998	2150	901	1190	1330	1120	625	283	933	2430	260	6000
18	956	2000	773	1260	1170	971	583	315	952	2420	231	6320
19	1020	1910	699	1320	1040	899	590	346	714	2230	246	5920
20	1100	1820	687	1330	972	851	661	358	540	1950	225	5230
21	1130	1690	734	1340	967	811	708	361	484	1630	188	4270
22	906	1470	802	1370	1020	776	687	336	477	1300	162	3510
23	682	1230	866	1450	1160	745	612	292	504	924	142	2840
24	603	994	886	1570	1320	712	543	248	391	603	128	2370
25	541	839	852	1670	1490	671	502	217	438	446	125	2000
26	476	716	754	1700	1660	624	494	194	747	444	173	1710
27	416	661	664	1690	1760	580	464	179	589	398	421	1420
28	401	632	595	1660	1780	567	426	253	367	396	456	1140
29	495	609	552	1660	1660	692	400	475	274	689	466	893
30	558	595	527	1780	---	828	381	747	219	730	458	732
31	579	---	505	1940	---	931	---	1010	---	534	393	---
TOTAL	28509	41322	22255	34661	49999	32183	23292	14456	20941	28244	11439	84201
MEAN	920	1377	718	1118	1724	1038	776	466	698	911	369	2807
MAX	2220	2400	1060	1940	2500	1770	1330	1010	1560	2430	761	6320
MIN	215	592	487	496	967	567	381	179	219	161	125	182
CFSM	1.25	1.88	.98	1.53	2.35	1.42	1.06	.64	.95	1.24	.50	3.83
IN.	1.45	2.10	1.13	1.76	2.54	1.63	1.18	.73	1.06	1.43	.58	4.27

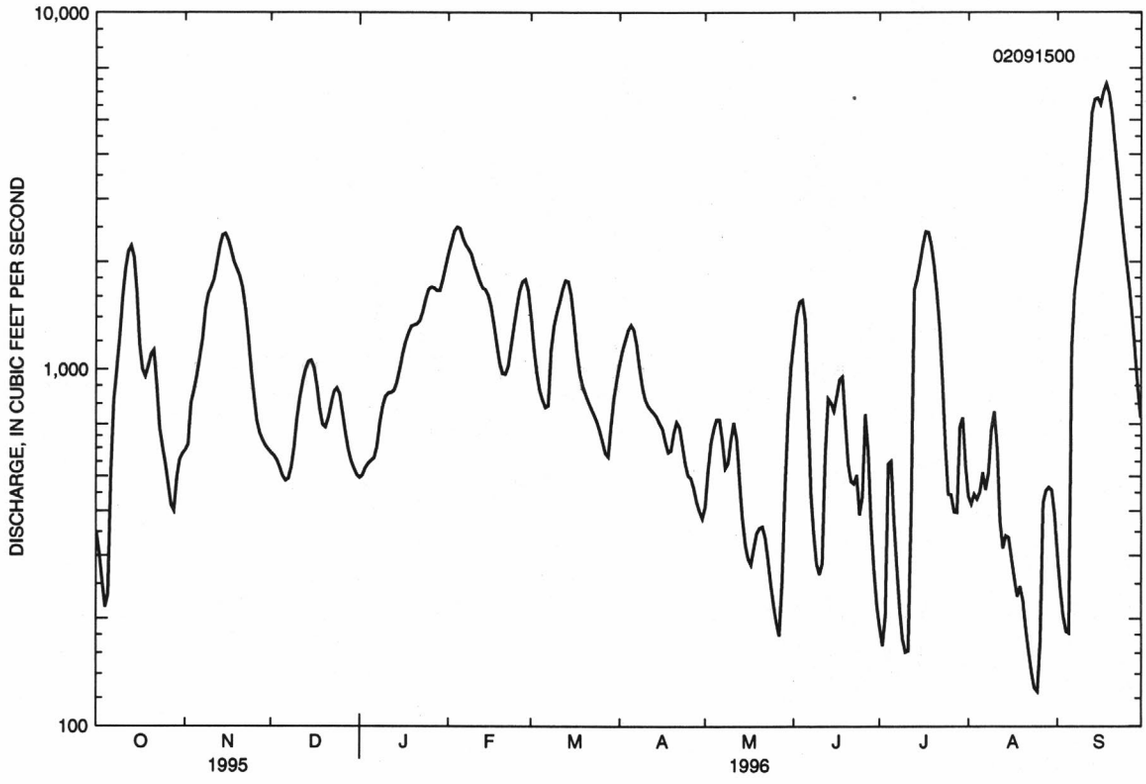
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1996, BY WATER YEAR (WY)

MEAN	443	459	673	1099	1357	1455	1035	587	470	572	645	529
MAX	4183	2150	2349	2626	4316	3491	2752	3363	1770	2203	2422	3675
(WY)	1965	1948	1949	1993	1948	1989	1989	1989	1995	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

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1929 - 1996	
ANNUAL TOTAL	328672		391502			
ANNUAL MEAN	900		1070		766	
HIGHEST ANNUAL MEAN					1422	1960
LOWEST ANNUAL MEAN					242	1951
HIGHEST DAILY MEAN	4100	Feb 23	6320	Sep 18	16000	Oct 7 1964
LOWEST DAILY MEAN	50	Aug 25	125	Aug 25	15	Oct 28 1933
ANNUAL SEVEN-DAY MINIMUM	53	Aug 21	163	Aug 20	16	Oct 8 1954
INSTANTANEOUS PEAK FLOW			6390	Sep 18	17200	Oct 8 1964
INSTANTANEOUS PEAK STAGE			15.11	Sep 18	22.11	Oct 8 1964
INSTANTANEOUS LOW FLOW			120	Aug 25	15	Oct 28 1933
ANNUAL RUNOFF (CFSM)	1.23		1.46		1.05	
ANNUAL RUNOFF (INCHES)	16.68		19.87		14.21	
10 PERCENT EXCEEDS	2230		2070		1910	
50 PERCENT EXCEEDS	527		778		443	
90 PERCENT EXCEEDS	115		290		86	



02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1969-72, 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1979 to September 1984.

WATER TEMPERATURE: October 1949 to September 1950, March 1979 to September 1984.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1984.

REMARKS.--Station operated as part of NAWQA Program from March 1993 to present. Station also operated as part of NASQAN network from March 1979 to September 1993. 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 1995 TO SEPTEMBER 1996

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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)
NOV										
28...	1330	633	97	5.9	10.5	--	760	10.6	95	--
MAY										
08...	1315	516	82	6.9	20.5	--	772	6.5	71	--
JUN										
26...	1415	738	69	6.6	25.5	--	767	4.9	59	--
AUG										
26...	0915	132	99	6.8	24.5	--	767	6.2	74	--
SEP										
10...	1315	2600	66	6.7	26.0	200	764	1.0	12	6.9
12...	1545	4130	68	6.3	24.0	200	755	0.3	4	8.5

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	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)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV										
28...	21	5.1	2.1	6.6	35	0.6	4.3	14	12	7.6
MAY										
08...	19	4.2	2.1	6.6	39	0.7	2.5	17	14	4.3
JUN										
26...	15	3.4	1.5	4.2	32	0.5	3.7	7	6	5.6
AUG										
26...	21	4.8	2.1	7.9	41	0.8	2.9	--	--	7.4
SEP										
10...	15	3.7	1.5	2.8	21	0.3	6.0	16	13	4.1
12...	16	3.9	1.6	3.7	26	0.4	5.6	--	--	3.5

02091500 CONTENTNEA CREEK AT HOOKERTON, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV										
28...	12	<0.10	7.4	64	0.610	--	0.010	0.620	0.620	--
MAY										
08...	9.7	0.10	5.6	73	0.430	--	0.010	0.440	0.440	--
JUN										
26...	7.1	0.10	5.8	58	0.680	--	0.020	0.700	0.700	--
AUG										
26...	12	0.10	8.6	78	0.770	--	0.020	0.790	0.790	--
SEP										
10...	6.5	0.10	5.5	84	--	0.010	--	<0.020	--	0.080
12...	6.7	0.10	5.4	122	0.010	0.010	--	0.020	--	0.040

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)
NOV										
28...	0.040	0.46	0.46	0.50	0.50	1.1	1.1	0.040	0.040	--
MAY										
08...	0.100	0.60	0.60	0.70	0.70	1.1	1.1	0.150	0.130	--
JUN										
26...	0.170	0.73	0.43	0.90	0.60	1.6	1.3	0.240	0.110	--
AUG										
26...	0.140	0.46	0.36	0.60	0.50	1.4	1.3	0.130	0.130	--
SEP										
10...	--	0.66	--	0.74	--	0.74	--	0.380	--	0.210
12...	--	2.0	--	2.0	--	2.0	--	0.420	--	0.220

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV										
28...	0.030	750	37	--	--	8.2	0.30	20	34	--
MAY										
08...	0.110	2300	62	--	--	12	0.60	18	25	93
JUN										
26...	0.110	1200	80	--	--	9.8	1.3	45	90	91
AUG										
26...	0.130	1700	82	--	--	7.5	0.60	--	--	--
SEP										
10...	--	--	--	17	25	--	--	46	323	--
12...	--	--	--	20	27	--	--	56	624	--

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.

DRAINAGE AREA.--4,470 mi^2.

TIDAL-ELEVATION RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 10 ft above sea level; gage readings have been adjusted to sea level.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.28 ft, Sept. 5, 1996; minimum elevation, -3.96 ft, Mar. 14, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 8.28 ft, Sept. 5; minimum elevation, -2.26 ft, Apr. 26.

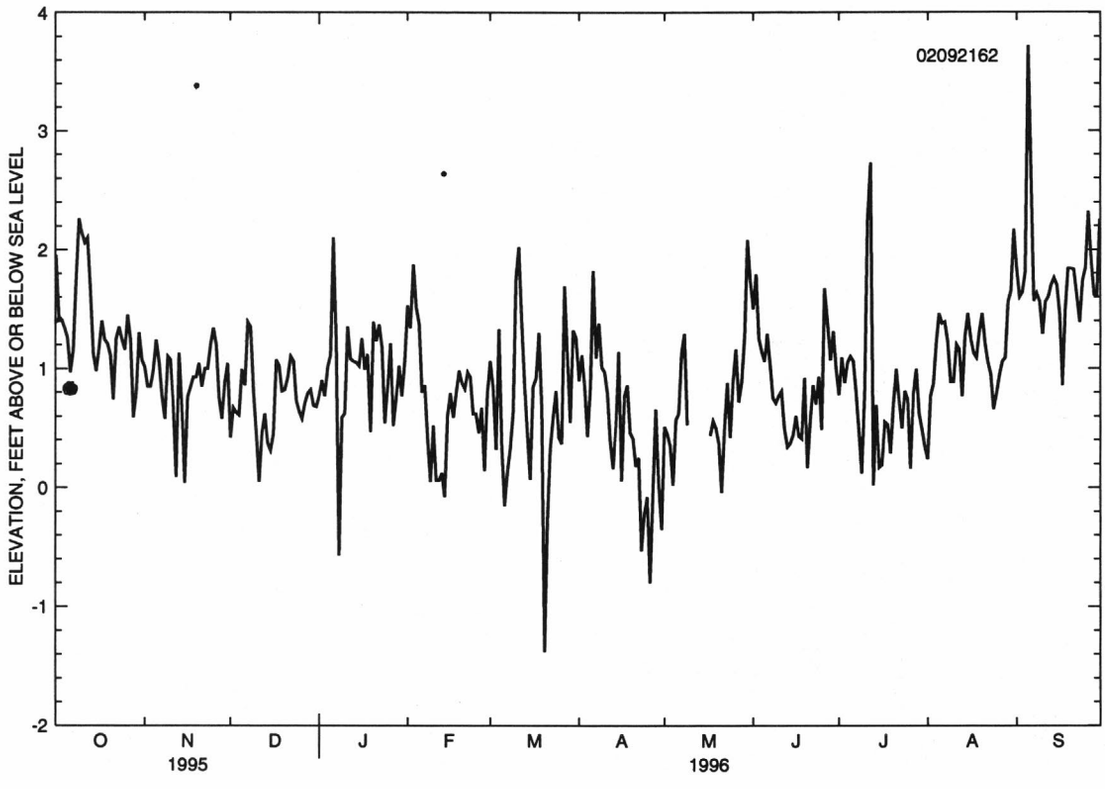
ELEVATION, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.95	1.01	.42	.77	1.53	1.06	.90	.51	1.50	.78	.24	1.84
2	1.43	.85	.67	.90	1.34	.85	1.11	.45	1.79	1.09	.77	1.60
3	1.41	.85	.63	.77	1.87	.32	.85	.35	1.25	.88	.87	1.64
4	1.34	.99	.61	1.01	1.51	1.33	.43	.02	1.14	1.05	1.21	1.81
5	1.26	1.24	.99	1.11	1.38	.35	.84	.57	1.06	1.10	1.46	3.72
6	.97	1.06	.86	2.10	.80	-.15	1.82	.62	1.29	1.06	1.38	2.67
7	1.15	.76	1.39	1.21	.86	.13	1.09	1.13	1.03	.80	1.39	1.57
8	1.72	.58	1.35	-.57	.41	.33	1.38	1.29	.75	.47	1.22	1.63
9	2.26	1.10	.81	.59	.05	.63	1.01	.53	.71	.12	.89	1.56
10	2.14	1.07	.46	.62	.52	1.76	.97	---	.77	.80	.89	1.29
11	2.06	.67	.05	1.35	.06	2.02	.79	---	.81	2.25	1.20	1.56
12	2.10	.09	.46	1.08	.06	1.39	.38	---	.50	2.73	1.16	1.60
13	1.66	1.13	.62	1.06	.12	.87	.16	---	.34	.02	.77	1.70
14	1.12	.68	.37	1.05	-.08	.46	.52	---	.37	.69	1.27	1.76
15	.98	.04	.31	1.02	.60	.07	1.14	---	.44	.17	1.46	1.70
16	1.17	.76	.45	1.25	.79	.85	.06	---	.60	.19	1.25	1.46
17	1.40	.84	1.07	.99	.59	.92	.77	.44	.43	.55	1.13	.86
18	1.24	.93	1.02	1.12	.80	1.30	.86	.56	.41	.53	1.09	1.49
19	1.21	.93	.81	.47	.98	.66	.46	.50	.92	.29	1.31	1.84
20	1.11	1.04	.82	1.39	.88	-1.38	.41	.37	.17	.70	1.46	1.84
21	.74	.85	.93	1.23	.83	-.27	.18	-.04	.56	.99	1.21	1.83
22	1.25	1.00	1.10	1.37	.97	.33	.25	.50	.86	.73	1.05	1.62
23	1.35	1.00	1.06	1.18	.93	.59	-.53	.88	.70	.50	.95	1.39
24	1.24	1.20	.73	.54	.62	.81	-.22	.42	.93	.81	.66	1.74
25	1.16	1.34	.64	.84	.62	.42	-.08	.89	.49	.74	.80	1.84
26	1.45	1.20	.58	1.21	.46	.37	-.80	1.16	1.67	.16	.95	2.32
27	1.24	.75	.71	.52	.67	1.69	-.05	.72	1.40	.80	1.06	1.92
28	.59	.58	.79	.75	.14	1.10	.66	.88	1.07	.99	1.09	1.62
29	.80	.89	.82	1.02	.79	.55	.04	1.27	1.31	.62	1.56	1.61
30	1.30	1.04	.69	.77	---	1.32	-.35	2.08	.99	.49	1.65	2.25
31	1.07	---	.68	1.06	---	1.26	---	1.73	---	.34	2.17	---
MEAN	1.35	.88	.74	.96	.73	.71	.50	---	.88	.76	1.15	1.78
MAX	2.26	1.34	1.39	2.10	1.87	2.02	1.82	---	1.79	2.73	2.17	3.72
MIN	.59	.04	.05	-.57	-.08	-1.38	-.80	---	.17	.02	.24	.86

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC--Continued



02092162 NEUSE RIVER AT NEW BERN, NC--Continued

LOCATION.--Lat 35°06'42", long 77°01'37", Craven County, Hydrologic Unit 03020204, at bridge on U.S. Highway 17.

PERIOD OF RECORD.--1958-64, 1968-73, 1988-89, current year

REMARKS.--Samples for current year collected during flooding from Hurricane Fran

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	APPROXIMATE DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
SEP 1996									
11...	0830	4.00	178	6.3	140	36	10	2.6	13
11...	0831	9.00	178	6.3	160	38	11	2.6	15

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)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)
SEP 1996									
11...	40	0.9	5.2	13	25	0.10	5.0	132	--
11...	42	1	5.2	14	26	0.10	5.1	124	0.010

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
SEP 1996									
11...	--	--	--	--	--	--	--	--	60
11...	0.010	0.020	0.090	0.91	1.0	1.0	0.220	0.150	60

Moccasin Run near Patetown, N.C., gaging station after Hurricane Fran,
which passed through North Carolina on September 5-6, 1996.

NEUSE RIVER BASIN

02092500 TRENT RIVER NEAR TRENTON, NC

LOCATION.--Lat 35°03'54", long 77°27'24", Jones County, Hydrologic Unit 03020204, on left bank 50 ft downstream 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 sea level. Prior to Mar. 21, 1951, nonrecording gage on bridge 50 ft upstream at same datum. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred Oct. 24, 25, 26, 1974. Minimum discharge for current water year also occurred Oct. 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	51	39	57	432	83	526	44	14	57	299	9.1
2	2.3	70	38	66	405	90	577	58	15	39	275	8.9
3	2.2	96	38	91	438	119	600	64	12	31	249	9.0
4	4.1	107	39	82	483	135	563	59	9.1	45	247	14
5	5.7	97	38	84	500	125	477	49	7.0	63	257	49
6	12	82	36	68	457	112	373	40	5.3	76	217	582
7	27	72	37	e80	377	176	292	37	4.4	64	180	1010
8	66	109	42	e120	305	629	246	41	16	41	159	1550
9	68	170	51	165	256	1050	220	41	30	26	159	2010
10	57	184	62	172	223	1370	189	43	48	19	177	2000
11	44	157	68	155	197	1200	168	41	123	42	192	1840
12	39	148	73	159	188	821	142	36	260	126	181	1780
13	35	142	75	189	184	593	120	34	342	880	148	1670
14	32	149	71	193	171	439	104	29	393	1620	108	1470
15	77	171	65	173	153	345	90	24	372	1940	85	1310
16	148	180	60	149	138	303	91	22	269	2030	74	1170
17	160	167	56	132	129	277	120	23	290	1620	66	988
18	123	145	51	120	119	281	134	22	358	1040	60	778
19	93	125	58	214	110	308	124	21	400	657	57	607
20	76	107	103	338	105	336	109	15	474	464	57	488
21	78	92	131	428	169	341	90	12	481	317	55	406
22	95	79	125	473	215	315	75	9.3	496	209	49	353
23	96	69	108	403	217	262	66	7.3	442	138	39	315
24	75	66	95	306	201	205	56	6.0	290	135	30	283
25	57	60	82	233	177	163	45	5.4	205	165	24	252
26	45	54	73	194	150	140	40	4.9	249	194	20	223
27	36	49	65	198	126	129	38	5.2	289	241	18	193
28	43	47	59	319	108	139	36	6.7	267	315	15	166
29	64	48	54	422	96	289	32	10	184	398	12	147
30	62	43	52	492	---	373	32	16	100	393	11	132
31	55	---	51	474	---	453	---	16	---	340	9.4	---
TOTAL	1779.9	3136	1995	6749	6829	11601	5775	841.8	6444.8	13725	3529.4	21813.0
MEAN	57.4	105	64.4	218	235	374	192	27.2	215	443	114	727
MAX	160	184	131	492	500	1370	600	64	496	2030	299	2010
MIN	2.2	43	36	57	96	83	32	4.9	4.4	19	9.4	8.9
CFSM	.34	.62	.38	1.30	1.40	2.23	1.15	.16	1.28	2.64	.68	4.33
IN.	.39	.69	.44	1.49	1.51	2.57	1.28	.19	1.43	3.04	.78	4.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

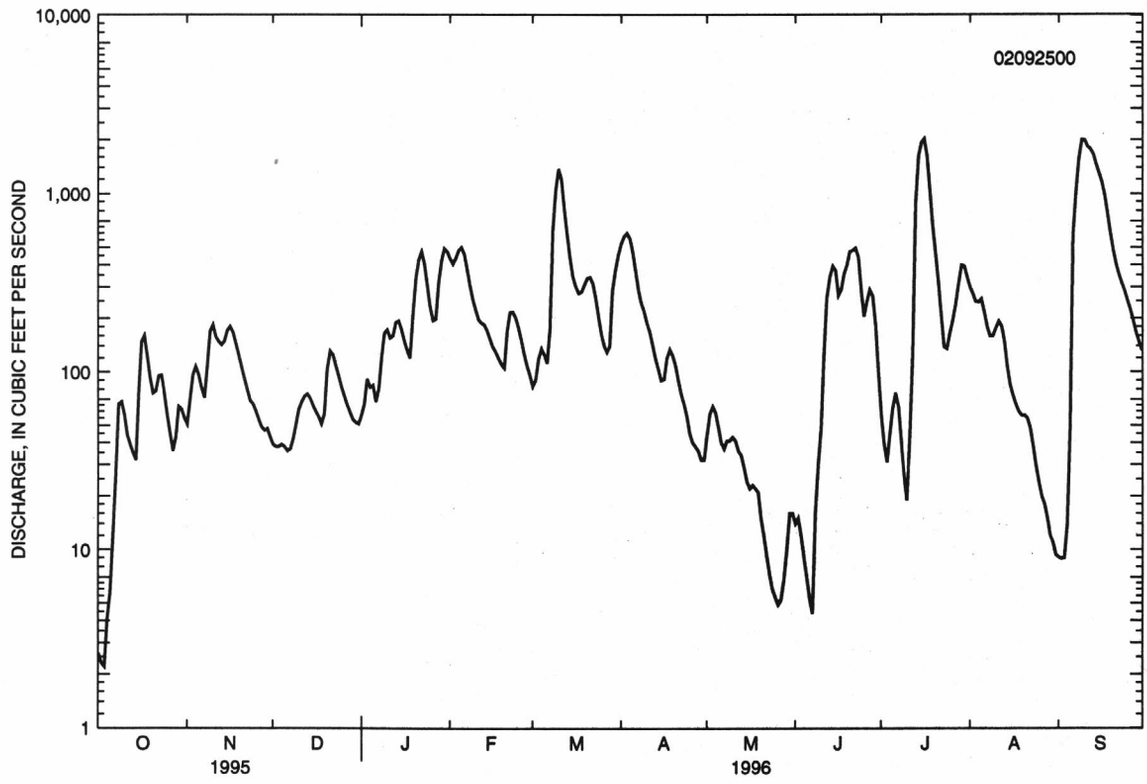
MEAN	92.8	89.5	166	302	324	350	217	119	131	156	179	133
MAX	864	295	551	703	746	963	684	435	768	1381	1587	1577
(WY)	1972	1963	1958	1978	1973	1983	1973	1978	1961	1962	1955	1955
MIN	1.58	1.80	6.65	17.2	31.8	36.5	23.1	10.2	2.77	4.78	1.81	2.55
(WY)	1955	1955	1955	1955	1955	1955	1955	1985	1985	1993	1993	1995

NEUSE RIVER BASIN

02092500 TRENT RIVER NEAR TRENTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	69584.1		84218.9			
ANNUAL MEAN	191		230		190	
HIGHEST ANNUAL MEAN					316	1960
LOWEST ANNUAL MEAN					79.8	1985
HIGHEST DAILY MEAN	1980	Feb 20	2030	Jul 16	8580	Sep 21 1955
LOWEST DAILY MEAN	1.4	Sep 15	2.2	Oct 3	.33	Oct 7 1993
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 11	6.4	May 22	.39	Oct 22 1973
INSTANTANEOUS PEAK FLOW			2100	Jul 15	9100	Sep 21 1955
INSTANTANEOUS PEAK STAGE			15.05	Sep 9	17.84	Sep 21 1955
INSTANTANEOUS LOW FLOW			2.1*	Oct 2	.30*	Oct 23 1974
ANNUAL RUNOFF (CFSM)	1.13		1.37		1.13	
ANNUAL RUNOFF (INCHES)	15.41		18.65		15.34	
10 PERCENT EXCEEDS	567		482		473	
50 PERCENT EXCEEDS	66		120		80	
90 PERCENT EXCEEDS	3.6		20		8.3	

e Estimated.
* See REMARKS.



NEW RIVER BASIN

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 sea level (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 good except those for estimated daily discharges and those below 5 ft^3/s, which are poor. Maximum gage height for period of record, from floodmark, site and datum then in use. Minimum discharge for period of record also occurred Oct. 3, 4, 1993. Low flows 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	120	e36	e80	284	68	322	73	21	25	190	69
2	17	194	e34	e90	239	126	307	46	17	23	514	59
3	16	175	e32	e70	453	122	202	38	15	26	546	60
4	25	138	e30	e60	421	99	149	33	17	24	559	179
5	77	100	e28	e50	280	88	116	29	17	22	855	375
6	98	84	e30	e40	209	86	99	26	14	20	742	1900
7	190	98	e50	e180	179	328	113	62	12	19	420	2530
8	352	473	e100	e140	164	957	102	40	11	17	255	1970
9	175	311	e90	e100	150	1090	90	33	24	16	180	1430
10	92	184	e80	e80	130	e850	79	27	82	14	145	1140
11	80	143	e60	68	119	e600	71	24	215	31	119	1000
12	87	172	e50	137	124	e400	65	150	200	202	103	1030
13	68	140	e48	156	111	e350	59	63	89	786	112	1030
14	164	149	e46	130	104	e300	56	45	62	1070	e100	890
15	631	177	e44	104	98	e250	54	36	57	842	97	685
16	616	140	e42	87	101	e200	68	36	139	473	87	494
17	244	115	e40	77	95	e180	59	36	74	276	74	370
18	135	99	e80	89	90	e200	51	30	51	180	75	311
19	95	89	e150	334	83	e300	47	26	46	129	e120	270
20	91	81	e100	413	89	e260	44	22	139	97	e80	241
21	160	76	e90	268	205	e200	40	20	72	77	67	218
22	141	70	e80	183	183	e150	37	18	49	67	59	264
23	114	66	e70	145	154	e130	35	18	38	118	53	320
24	88	62	e60	133	129	e110	37	16	33	771	49	282
25	74	57	e50	144	105	e90	34	15	39	938	45	238
26	64	58	e46	116	93	e80	32	14	39	610	43	195
27	60	55	e40	248	85	71	37	15	33	347	43	169
28	184	e46	e38	495	79	144	32	20	29	317	95	153
29	153	e40	e36	360	75	287	32	38	26	432	143	148
30	98	e38	e34	242	---	189	51	29	25	337	105	143
31	78	---	e90	234	---	164	---	25	---	240	85	---
TOTAL	4482	3750	1804	5053	4631	8469	2520	1103	1685	8546	6160	18163
MEAN	145	125	58.2	163	160	273	84.0	35.6	56.2	276	199	605
MAX	631	473	150	495	453	1090	322	150	215	1070	855	2530
MIN	15	38	28	40	75	68	32	14	11	14	43	59
CFSM	1.94	1.68	.78	2.19	2.14	3.67	1.13	.48	.75	3.70	2.67	8.13
IN.	2.24	1.87	.90	2.52	2.31	4.23	1.26	.55	.84	4.27	3.08	9.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1996@, BY WATER YEAR (WY)

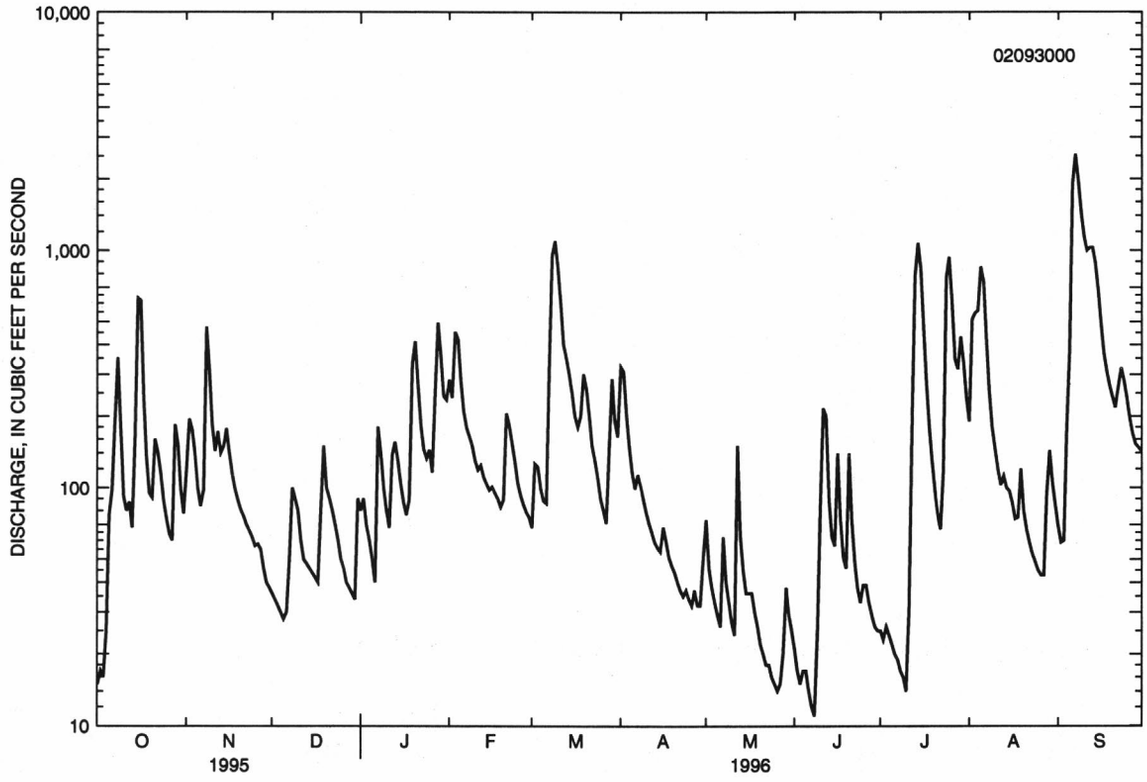
MEAN	73.1	62.6	90.0	155	172	183	117	71.6	96.9	125	112	99.5
MAX	553	190	277	374	403	418	377	188	423	717	734	887
(WY)	1972	1970	1958	1993	1973	1959	1973	1969	1961	1962	1955	1955
MIN	2.01	4.30	13.3	32.4	33.1	27.7	21.0	16.4	11.3	7.21	6.25	4.25
(WY)	1955	1955	1955	1955	1955	1955	1955	1957	1970	1993	1954	1954

NEW RIVER BASIN

02093000 NEW RIVER NEAR GUM BRANCH, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1949 - 1996@	
ANNUAL TOTAL	47875		66366			
ANNUAL MEAN	131		181		113	
HIGHEST ANNUAL MEAN					208	1972
LOWEST ANNUAL MEAN					59.9	1953
HIGHEST DAILY MEAN	1430	Jun 7	2530	Sep 7	6490	Sep 20 1955
LOWEST DAILY MEAN	10	Aug 7	11	Jun 8	1.9	Oct 6 1954
ANNUAL SEVEN-DAY MINIMUM	13	Aug 2	15	Jun 2	2.0	Oct 4 1954
INSTANTANEOUS PEAK FLOW			2640	Sep 7	7900	Sep 20 1955
INSTANTANEOUS PEAK STAGE			19.69	Sep 7	19.99*	Sep 20 1955
INSTANTANEOUS LOW FLOW			10	Jun 9	1.8*	Oct 7 1954
ANNUAL RUNOFF (CFSM)	1.76		2.43		1.52	
ANNUAL RUNOFF (INCHES)	23.91		33.14		20.66	
10 PERCENT EXCEEDS	319		404		247	
50 PERCENT EXCEEDS	66		90		52	
90 PERCENT EXCEEDS	17		26		12	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level. Prior to Dec. 13, 1955, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Some diurnal fluctuation at medium and low flows caused by upstream mill. Maximum discharge for period of record, 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 July 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	18	13	13	22	16	44	27	15	7.6	27	11
2	7.7	17	12	16	56	16	52	19	13	7.7	16	10
3	7.6	17	12	20	76	15	30	17	12	7.8	10	78
4	18	21	12	15	35	14	25	16	12	7.1	8.7	862
5	43	18	11	14	32	14	22	15	12	6.7	8.2	191
6	27	17	11	13	25	20	21	19	13	6.8	7.7	1090
7	17	47	15	16	23	37	20	27	12	6.5	105	164
8	15	69	13	19	45	62	19	19	15	6.8	32	68
9	13	34	24	16	119	28	31	17	40	8.2	18	44
10	12	25	18	14	79	22	23	15	41	6.8	15	40
11	11	93	15	14	48	21	21	16	23	6.3	14	63
12	11	181	13	15	35	20	19	17	18	7.2	14	44
13	10	51	13	14	29	19	18	14	16	7.4	59	33
14	13	32	13	15	26	18	18	15	14	6.5	21	25
15	21	26	12	17	25	18	21	15	13	7.7	16	22
16	11	21	12	26	24	18	21	32	15	7.2	13	22
17	9.2	18	12	29	24	25	18	22	18	6.2	13	25
18	9.1	17	13	58	23	25	17	18	13	6.0	15	20
19	8.9	16	18	406	21	102	17	15	12	5.8	11	18
20	13	15	18	101	25	91	18	15	12	5.7	11	17
21	37	14	14	41	27	36	19	13	11	5.5	10	17
22	19	13	12	30	23	28	17	12	11	5.5	10	17
23	16	13	12	25	21	24	16	12	11	5.4	8.7	16
24	14	14	12	59	20	22	15	12	10	5.5	8.6	15
25	13	15	12	48	18	21	15	14	9.9	17	8.6	15
26	12	13	11	27	18	20	17	13	9.2	22	24	15
27	24	13	11	306	18	18	17	17	8.9	9.2	26	16
28	212	12	10	77	18	37	15	88	8.5	15	31	16
29	44	18	10	37	16	33	15	28	8.3	23	14	19
30	25	14	11	30	---	24	37	20	7.8	11	12	15
31	20	---	11	26	---	22	---	17	---	9.4	11	---
TOTAL	721.3	892	406	1557	971	886	658	616	434.6	266.5	598.5	3008
MEAN	23.3	29.7	13.1	50.2	33.5	28.6	21.9	19.9	14.5	8.60	19.3	100
MAX	212	181	24	406	119	102	52	88	41	23	105	1090
MIN	7.6	12	10	13	16	14	15	12	7.8	5.4	7.7	10
CFSM	1.13	1.44	.64	2.44	1.63	1.39	1.06	.96	.70	.42	.94	4.87
IN.	1.30	1.61	.73	2.81	1.75	1.60	1.19	1.11	.78	.48	1.08	5.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1996, BY WATER YEAR (WY)

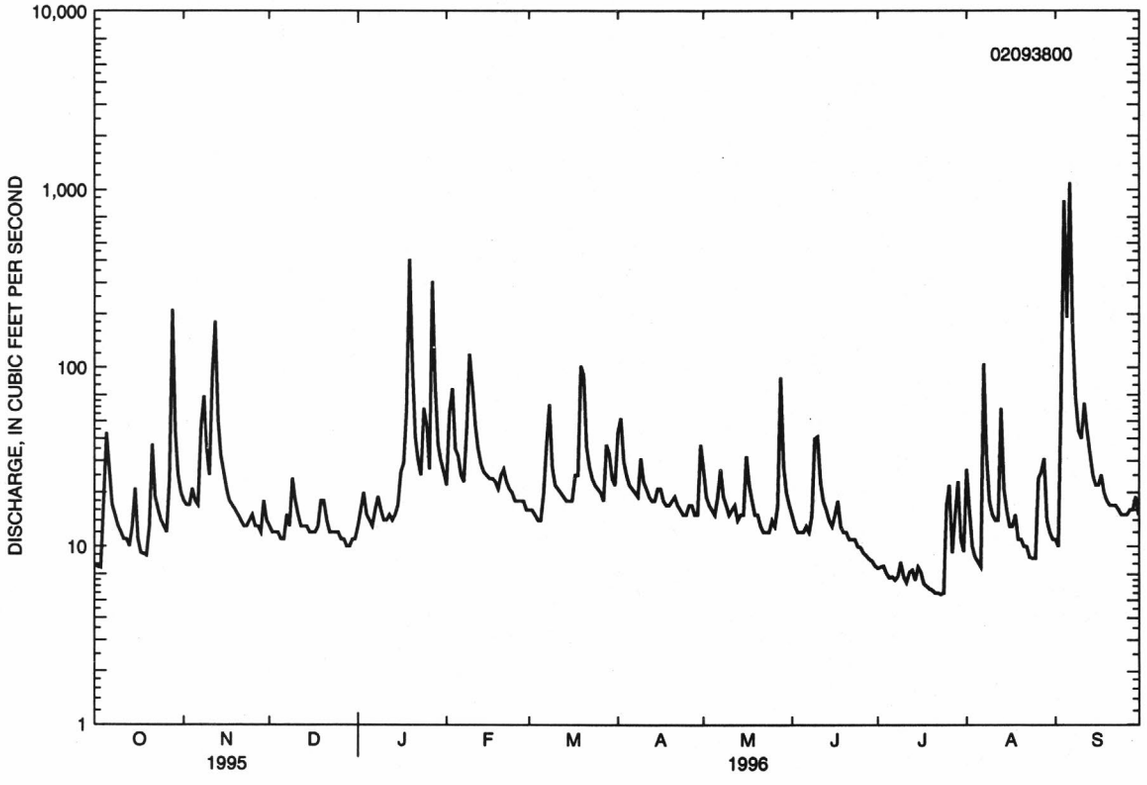
MEAN	18.9	17.8	23.4	30.5	35.4	37.9	29.0	23.2	19.5	19.9	17.1	18.3
MAX	80.2	40.4	48.7	82.0	78.7	102	75.8	58.9	74.4	152	62.0	100
(WY)	1991	1986	1963	1978	1979	1975	1987	1991	1982	1984	1978	1996
MIN	5.90	7.21	8.67	8.52	13.5	12.4	9.79	8.19	5.03	3.64	5.88	3.39
(WY)	1968	1968	1956	1956	1968	1967	1967	1986	1986	1977	1977	1968

CAPE FEAR RIVER BASIN

02093800 REEDY FORK NEAR OAK RIDGE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1956 - 1996	
ANNUAL TOTAL	8186.9		11014.9			
ANNUAL MEAN	22.4		30.1		24.2	
HIGHEST ANNUAL MEAN					42.7	1984
LOWEST ANNUAL MEAN					11.7	1967
HIGHEST DAILY MEAN	221	Feb 17	1090	Sep 6	1250	Jul 28 1984
LOWEST DAILY MEAN	4.8	Aug 24	5.4	Jul 23	1.7	Aug 7 1977
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 19	5.6	Jul 18	2.3	Sep 29 1968
INSTANTANEOUS PEAK FLOW			2330	Sep 6	3950*	Oct 10 1959
INSTANTANEOUS PEAK STAGE			11.31	Sep 6	12.41	Sep 22 1979
INSTANTANEOUS LOW FLOW			5.1*	Jul 21	1.2	Aug 7 1977
ANNUAL RUNOFF (CFSM)	1.09		1.46		1.17	
ANNUAL RUNOFF (INCHES)	14.78		19.89		15.95	
10 PERCENT EXCEEDS	36		44		38	
50 PERCENT EXCEEDS	14		17		14	
90 PERCENT EXCEEDS	7.4		8.8		7.0	

* 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 sea level.

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 23.4 ft^3/s from Lake Brandt and an average of 37.6 ft^3/s from Lake Townsend for municipal water supply. Prior to regulation, maximum discharge: 11,600 ft^3/s, Sept. 25, 1947; gage height: 20.77 ft; minimum discharge not determined. Minimum discharge for regulated period also occurred July 30, Aug. 6, 7, 1977. Minimum discharge for current water year also occurred Sept. 3.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	64	23	20	123	24	136	111	20	12	42	6.5
2	10	185	21	22	312	23	418	34	17	12	113	6.0
3	7.5	320	18	30	431	23	93	26	16	12	28	106
4	40	304	18	24	104	21	43	23	15	12	16	568
5	461	35	17	39	44	22	38	21	16	9.7	12	1450
6	50	17	18	155	38	83	34	143	16	9.0	10	5230
7	21	87	21	37	37	126	35	49	14	9.1	351	4440
8	15	96	24	29	348	127	82	27	17	13	63	2280
9	12	45	59	23	145	163	432	21	64	16	26	675
10	11	29	40	35	73	43	124	19	174	13	20	63
11	9.7	283	28	375	50	53	37	17	24	11	15	38
12	8.9	900	35	357	43	248	28	39	21	13	20	46
13	8.9	211	396	58	399	37	31	19	19	14	212	35
14	16	132	388	26	380	31	25	17	16	12	47	30
15	29	272	325	33	64	97	44	18	15	10	26	27
16	16	45	44	56	33	154	172	221	13	11	19	24
17	13	26	21	420	30	395	42	194	14	12	16	172
18	13	23	19	168	28	66	26	33	17	10	16	29
19	11	23	99	791	28	561	65	23	14	8.7	13	23
20	38	20	45	705	176	621	70	20	12	8.7	10	19
21	147	19	26	778	139	88	115	18	12	8.0	8.7	16
22	43	19	21	704	43	41	28	16	11	7.6	7.4	16
23	23	19	21	389	33	35	23	14	11	7.9	7.0	14
24	16	19	20	137	29	30	72	14	13	7.6	8.0	14
25	13	21	19	118	25	46	24	18	11	44	13	18
26	12	20	19	164	25	89	23	19	9.5	113	9.5	20
27	102	18	19	1140	26	27	26	22	8.6	24	13	25
28	702	18	19	787	26	277	20	228	9.4	38	16	36
29	62	36	18	490	26	196	20	278	13	20	12	87
30	32	32	17	425	---	44	249	117	13	13	9.7	22
31	24	---	18	393	---	82	---	25	---	9.8	7.5	---
TOTAL	1977.0	3338	1876	8928	3258	3873	2575	1844	645.5	521.1	1186.8	15535.5
MEAN	63.8	111	60.5	288	112	125	85.8	59.5	21.5	16.8	38.3	518
MAX	702	900	396	1140	431	621	432	278	174	113	351	5230
MIN	7.5	17	17	20	25	21	20	14	8.6	7.6	7.0	6.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996*, BY WATER YEAR (WY)

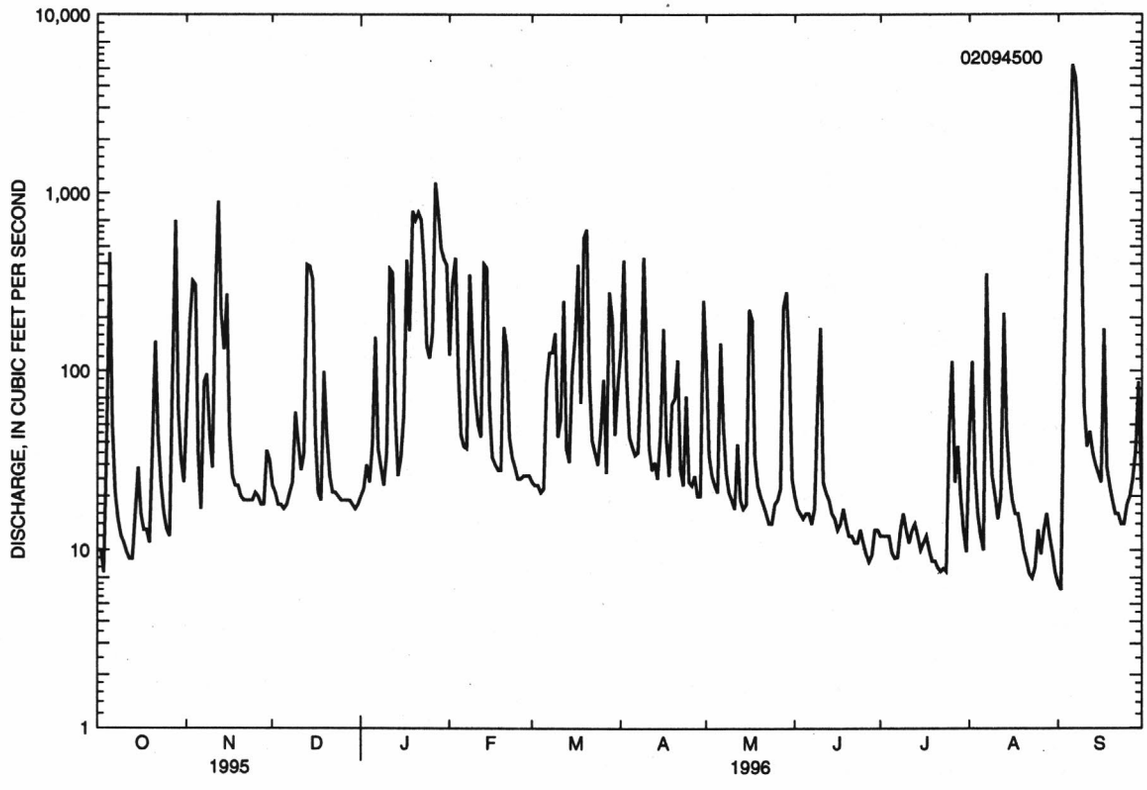
MEAN	57.3	47.6	91.6	186	154	179	137	97.1	67.8	67.9	45.2	69.1
MAX	432	165	221	644	456	613	613	365	477	596	216	518
(WY)	1991	1993	1973	1978	1979	1993	1987	1978	1982	1984	1978	1996
MIN	2.85	6.70	5.97	11.1	19.9	16.4	11.2	7.43	6.08	2.83	2.82	3.31
(WY)	1969	1970	1969	1981	1977	1976	1976	1986	1986	1986	1977	1983

CAPE FEAR RIVER BASIN

02094500 REEDY FORK NEAR GIBSONVILLE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1969 - 1996*	
ANNUAL TOTAL	27818.8		45557.9			
ANNUAL MEAN	76.2		124		99.7	
HIGHEST ANNUAL MEAN					188	1984
LOWEST ANNUAL MEAN					20.8	1981
HIGHEST DAILY MEAN	1900	Jun 29	5230	Sep 6	5230	Sep 6 1996
LOWEST DAILY MEAN	5.6	May 27	6.0	Sep 2	1.2	Oct 3 1968
ANNUAL SEVEN-DAY MINIMUM	6.0	May 21	8.4	Jul 18	1.4	Oct 1 1968
INSTANTANEOUS PEAK FLOW			6330	Sep 6	6330	Sep 6 1996
INSTANTANEOUS PEAK STAGE			15.65	Sep 6	15.65	Sep 6 1996
INSTANTANEOUS LOW FLOW			5.8*	Sep 2	1.4*	Jul 29 1977
10 PERCENT EXCEEDS	184		314		277	
50 PERCENT EXCEEDS	19		26		23	
90 PERCENT EXCEEDS	7.9		11		5.7	

* Regulated period only (1969-1996). 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 sea level. U.S. Army Corps of Engineers telephone and satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuations and occasional regulation at low flows. City of Burlington diverted an average of 5.5 ft^3/s from two Stony Creek Reservoirs (stations 02096003 and 02096432) for municipal water supply, about half of which was returned upstream of station as treated effluent, the remainder was returned downstream of station. Maximum discharge for period of record and current water year from rating curve extended above 38,000 ft^3/s, by logarithmic plotting; maximum gage height, 32.83 ft, from floodmark. Minimum discharge for the current water year also occurred July 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	538	509	293	938	416	1150	1950	445	128	447	171
2	111	649	404	336	1350	402	3270	794	327	141	1630	147
3	114	665	354	508	3010	388	1480	552	268	130	582	791
4	215	844	327	449	1360	360	925	420	256	152	391	2580
5	2360	492	318	370	833	362	704	351	249	109	271	3900
6	1740	295	304	470	720	463	565	452	233	99	208	e35000
7	607	1070	359	440	690	1370	511	1210	215	99	3040	e42000
8	397	2930	500	435	1340	2880	466	841	198	142	2270	e26000
9	273	1050	1450	405	2330	1430	1250	531	599	537	898	e4700
10	222	733	1110	405	1670	891	1150	420	905	189	981	e1300
11	189	1160	542	606	1390	662	616	336	496	133	461	e2500
12	175	6220	437	742	1200	782	498	330	420	139	303	e1750
13	163	2150	610	545	1300	551	454	314	622	171	2540	e1300
14	182	1470	736	415	1250	449	468	292	349	148	1190	e950
15	771	1220	696	587	853	472	453	311	267	127	546	e790
16	363	822	452	1140	664	690	714	1550	239	120	375	e690
17	254	498	329	1420	660	2360	689	2180	226	129	276	e610
18	214	396	302	2290	580	1330	446	824	193	118	232	e820
19	191	364	487	6740	557	2810	393	543	202	120	233	e590
20	601	336	774	4780	894	3540	489	386	170	110	190	e500
21	5070	312	558	3110	1440	1570	738	331	167	103	191	e430
22	1560	291	426	2350	857	1060	490	286	154	95	165	e400
23	676	276	366	1540	726	780	404	254	150	96	171	e390
24	460	277	326	1390	633	576	408	e270	145	190	283	e375
25	322	410	298	1950	546	501	337	e290	142	285	519	e350
26	291	360	290	1020	498	562	331	302	144	2690	247	e400
27	323	301	277	5340	482	452	506	291	152	782	264	386
28	7470	283	271	4600	469	905	356	1230	149	281	419	403
29	2540	894	260	2520	449	1730	317	1010	136	546	297	517
30	982	994	256	1820	---	909	1690	1090	135	253	233	436
31	765	---	261	1490	---	714	---	673	---	202	199	---
TOTAL	29709	28300	14589	50506	29689	32367	22268	20614	8353	8564	20052	131176
MEAN	958	943	471	1629	1024	1044	742	665	278	276	647	4373
MAX	7470	6220	1450	6740	3010	3540	3270	2180	905	2690	3040	42000
MIN	108	276	256	293	449	360	317	254	135	95	165	147
CFSM	1.58	1.56	.78	2.69	1.69	1.72	1.22	1.10	.46	.46	1.07	7.22
IN.	1.82	1.74	.90	3.10	1.82	1.99	1.37	1.27	.51	.53	1.23	8.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1996, BY WATER YEAR (WY)

MEAN	397	413	571	897	1002	1016	808	484	424	401	360	413
MAX	2480	1286	1487	2977	2394	3276	2771	1948	2145	2348	1662	4373
(WY)	1960	1948	1946	1937	1960	1993	1987	1978	1982	1984	1939	1996
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

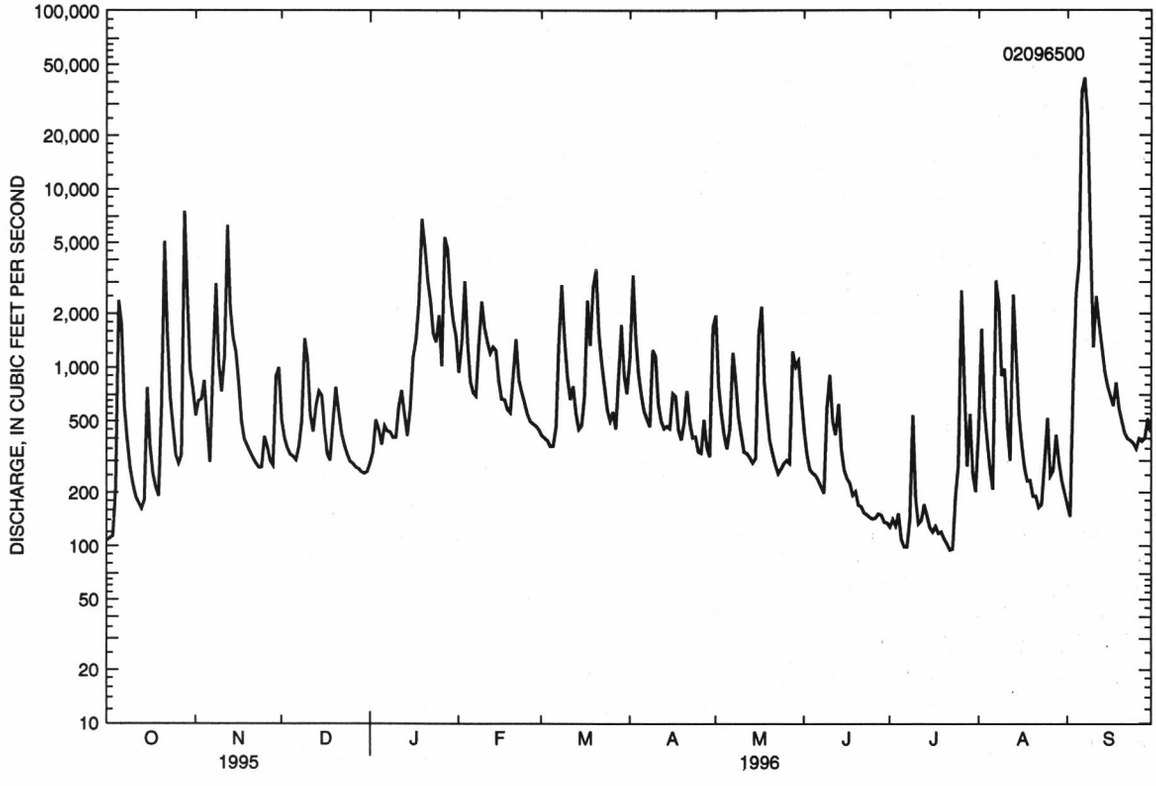
CAPE FEAR RIVER BASIN

02096500 HAW RIVER AT HAW RIVER, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1929 - 1996	
ANNUAL TOTAL	271308		396187			
ANNUAL MEAN	743		1082		597	
HIGHEST ANNUAL MEAN					1082	1996
LOWEST ANNUAL MEAN					229	1967
HIGHEST DAILY MEAN	19900	Jun 29	42000	Sep 7	42000	Sep 7 1996
LOWEST DAILY MEAN	98	Aug 20	95	Jul 22	5.0	Sep 6 1930
ANNUAL SEVEN-DAY MINIMUM	104	Aug 16	110	Jul 17	16	Oct 7 1954
INSTANTANEOUS PEAK FLOW			51400*	Sep 6	51400*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			32.83*	Sep 6	32.83*	Sep 6 1996
INSTANTANEOUS LOW FLOW			90*	Jul 22	3.0	Sep 5 1930
ANNUAL RUNOFF (CFSM)	1.23		1.79		.98	
ANNUAL RUNOFF (INCHES)	16.65		24.32		13.38	
10 PERCENT EXCEEDS	1570		1860		1240	
50 PERCENT EXCEEDS	313		468		296	
90 PERCENT EXCEEDS	126		169		101	

e Estimated.

* 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^2

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 510 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 500 ft^3/s, based on contracted-opening measurement of peak flow; maximum gage-height, 7.90 ft, from floodmark. No flow occurs at times most years. Minimum discharge for the current water year also occurred Oct. 2, 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	4.7	4.6	4.2	12	4.7	19	14	3.7	.48	1.7	.13
2	e.04	15	4.3	5.0	29	4.7	15	7.0	3.0	.43	2.6	.11
3	e.04	16	4.0	7.8	21	4.4	9.5	5.1	2.5	.48	1.9	3.3
4	1.0	12	4.0	5.6	14	4.0	7.4	4.1	2.2	.41	.52	4.3
5	17	7.2	3.5	4.5	13	4.2	6.3	3.5	2.0	.34	.36	10
6	6.6	5.8	3.2	4.3	13	9.5	6.0	4.8	1.8	.30	.27	e355
7	2.0	106	6.7	6.6	12	32	6.3	17	1.5	.29	3.7	e15
8	1.1	32	6.4	7.1	22	43	5.4	6.1	1.4	.27	1.0	7.6
9	.82	13	47	6.0	23	15	16	4.3	1.6	.31	.76	5.1
10	.64	8.7	15	4.2	14	10	10	3.3	1.8	.30	.73	4.2
11	.49	76	9.1	4.0	11	9.0	7.4	3.1	4.6	.23	.42	206
12	.45	46	7.1	4.2	8.7	7.7	6.2	3.6	5.4	.28	.32	55
13	.38	16	6.1	4.4	7.5	6.9	5.5	2.7	28	.66	1.9	13
14	1.9	12	5.5	5.5	7.3	6.4	5.1	3.1	24	.38	1.1	7.0
15	6.7	9.8	5.1	14	6.8	6.5	5.1	2.8	4.6	.28	.61	4.9
16	2.0	7.7	4.8	25	7.3	7.5	7.0	15	2.8	.26	.41	8.7
17	1.1	6.9	4.4	29	7.1	10	5.2	9.6	2.1	.25	.35	20
18	.83	6.4	4.5	46	6.9	8.4	4.5	4.6	1.7	.20	.29	6.4
19	.70	6.0	7.7	117	6.4	49	4.4	3.2	1.5	.17	.24	4.3
20	84	5.6	8.1	25	18	22	4.3	2.5	1.4	.13	.22	3.5
21	54	5.1	5.9	14	15	12	4.6	2.2	1.2	.10	.19	3.0
22	9.7	4.9	4.8	10	10	8.7	4.0	1.9	1.1	.08	.18	3.0
23	5.8	4.7	4.3	8.8	8.7	7.1	3.7	1.7	.98	.06	.16	2.5
24	4.5	5.0	4.0	25	8.0	6.3	3.3	1.7	1.1	.06	.16	2.3
25	3.8	7.1	3.8	17	6.6	6.4	3.1	2.0	.91	.07	.18	2.1
26	3.3	5.9	3.7	11	6.1	6.1	4.3	1.9	.81	.17	.15	2.9
27	4.5	5.2	3.5	82	5.7	5.1	4.5	2.0	.63	.16	.16	2.5
28	38	4.9	3.4	22	5.7	14	3.3	12	.59	.16	.71	3.7
29	8.6	4.8	3.2	14	5.1	14	3.6	19	.56	.38	.35	16
30	5.7	4.9	3.2	13	---	8.8	38	27	.51	.25	.22	4.4
31	4.6	---	3.6	17	---	7.2	---	5.7	---	.25	.16	---
TOTAL	270.33	465.3	204.5	563.2	330.9	360.6	228.0	196.5	105.99	8.19	22.02	775.94
MEAN	8.72	15.5	6.60	18.2	11.4	11.6	7.60	6.34	3.53	.26	.71	25.9
MAX	84	106	47	117	29	49	38	27	28	.66	3.7	355
MIN	.04	4.7	3.2	4.0	5.1	4.0	3.1	1.7	.51	.06	.15	.11
CFSM	1.16	2.06	.87	2.41	1.51	1.54	1.01	.84	.47	.04	.09	3.43
IN.	1.33	2.30	1.01	2.78	1.63	1.78	1.12	.97	.52	.04	.11	3.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

MEAN	2.72	4.25	5.28	13.5	12.1	20.1	8.71	6.91	5.26	2.46	1.30	4.48
MAX	8.72	15.5	10.2	26.0	23.9	39.2	16.7	18.7	16.4	10.2	4.47	25.9
(WY)	1996	1996	1990	1991	1989	1993	1993	1989	1995	1989	1995	1996
MIN	.031	.62	.75	3.89	4.66	9.03	1.47	1.30	.53	.19	.20	.018
(WY)	1994	1992	1992	1989	1991	1995	1995	1995	1993	1994	1990	1990

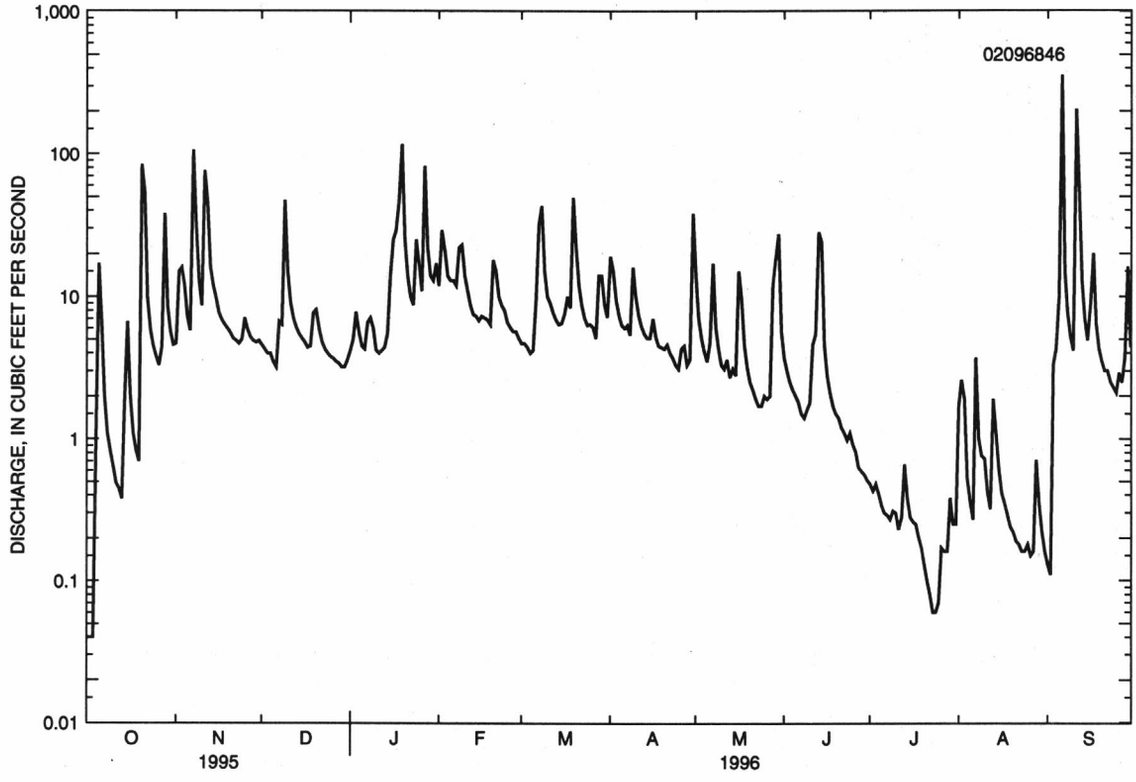
CAPE FEAR RIVER BASIN

02096846 CANE CREEK NEAR ORANGE GROVE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1989 - 1996	
ANNUAL TOTAL	2640.03		3531.47			
ANNUAL MEAN	7.23		9.65		6.98	
HIGHEST ANNUAL MEAN					9.65	1996
LOWEST ANNUAL MEAN					4.86	1995
HIGHEST DAILY MEAN	315	Jun 29	355	Sep 6	516	Mar 4 1993
LOWEST DAILY MEAN	.03	Aug 20	.04	Oct 1	0*	Sep 17 1990
ANNUAL SEVEN-DAY MINIMUM	.03	Aug 19	.10	Jul 19	0*	Sep 17 1990
INSTANTANEOUS PEAK FLOW			2060*	Sep 6	2060*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			7.90*	Sep 6	7.90*	Sep 6 1996
INSTANTANEOUS LOW FLOW			.04*	Oct 1	0*	Sep 17 1990
ANNUAL RUNOFF (CFSM)	.96		1.28		.93	
ANNUAL RUNOFF (INCHES)	13.03		17.42		12.58	
10 PERCENT EXCEEDS	13		17		14	
50 PERCENT EXCEEDS	2.0		4.6		2.3	
90 PERCENT EXCEEDS	.29		.29		.16	

e Estimated.

* See REMARKS.



02096846 CANE CREEK NEAR ORANGE 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 1995 TO SEPTEMBER 1996

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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
24...	1245	4.3	82	6.9	14.5	65	755	9.3	92	26	6.4
DEC											
08...	1015	6.4	76	6.9	4.0	52	760	13.0	99	25	6.2
JAN											
23...	1030	8.8	62	6.9	3.5	53	756	13.8	105	19	4.6
MAR											
20...	1300	19	58	6.8	8.0	110	739	11.4	99	17	4.1
MAY											
16...	1315	21	83	7.1	13.0	90	758	11.2	107	26	6.3
AUG											
14...	1100	1.1	93	7.3	20.0	80	758	8.3	92	29	7.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT											
24...	2.5	4.8	27	0.4	1.8	22	18	3.8	5.8	0.20	13
DEC											
08...	2.4	5.1	29	0.4	1.3	20	16	3.1	6.4	0.20	14
JAN											
23...	1.9	4.1	31	0.4	0.80	22	18	4.4	5.7	<0.10	13
MAR											
20...	1.7	3.8	31	0.4	0.80	13	11	5.3	4.5	<0.10	11
MAY											
16...	2.4	4.8	27	0.4	2.1	29	24	3.2	5.8	<0.10	13
AUG											
14...	2.6	4.8	24	0.4	3.7	33	27	3.7	5.2	<0.10	14

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
OCT											
24...	58	1.19	0.010	1.20	1.20	<0.015	0.30	--	0.30	0.30	1.5
DEC											
08...	66	0.520	<0.010	0.520	0.520	<0.015	0.30	--	0.30	<0.20	0.82
JAN											
23...	25	0.750	<0.010	0.750	0.750	<0.015	--	--	<0.20	<0.20	--
MAR											
20...	58	0.220	0.020	0.240	0.240	<0.015	0.30	--	0.30	0.40	0.54
MAY											
16...	86	0.740	0.020	0.760	0.760	0.090	1.0	0.41	1.1	0.50	1.9
AUG											
14...	74	0.570	0.020	0.590	0.590	0.030	0.57	0.27	0.60	0.30	1.2

DATE	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)
OCT											
24...	1.5	0.030	0.020	0.030	190	<1	<1	<1	<1	<1	530
DEC											
08...	--	0.050	0.020	0.020	--	--	--	--	--	--	--
JAN											
23...	--	0.030	<0.010	0.010	--	--	--	--	--	--	--
MAR											
20...	0.64	0.040	0.030	0.020	480	<1	<1	<1	<1	<1	600
MAY											
16...	1.3	0.130	0.060	0.040	--	--	--	--	--	--	--
AUG											
14...	0.89	0.120	0.070	0.100	--	--	--	--	--	--	--

DATE	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT											
24...	<1	10	<0.10	<1	<1	<1	<1	<10	7.8	17	0.20
DEC											
08...	--	--	--	--	--	--	--	--	5.4	17	0.29
JAN											
23...	--	--	--	--	--	--	--	--	3.5	27	0.64
MAR											
20...	<1	40	<0.10	<1	<1	<1	<1	<10	9.2	--	--
MAY											
16...	--	--	--	--	--	--	--	--	8.0	84	4.8
AUG											
14...	--	--	--	--	--	--	--	--	8.7	19	0.06

CAPE FEAR RIVER BASIN

0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC

LOCATION.--Lat 35°56'59", long 79°14'29", 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 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. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT												
26...	1030	60	6.7	18.0	55	740	0.95	5.2	57	19	4.7	1.8
MAY												
09...	1015	71	7.2	21.5	20	765	1.70	9.5	108	22	5.2	2.1
JUL												
08...	1000	75	7.8	28.0	--	750	0.75	7.9	103	25	5.9	2.4
AUG												
28...	1045	79	8.3	27.5	10	757	0.35	8.5	108	25	6.0	2.4

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	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)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)
OCT												
26...	2.4	18	0.2	3.1	20	16	1.8	4.0	0.20	5.2	54	0.110
MAY												
09...	4.2	28	0.4	1.7	23	19	5.3	5.5	<0.10	6.4	38	0.380
JUL												
08...	4.3	26	0.4	1.7	28	23	3.7	5.9	<0.10	5.4	52	--
AUG												
28...	4.3	25	0.4	2.0	29	24	3.6	5.2	<0.10	5.5	50	--

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
OCT												
26...	0.020	0.130	0.130	0.030	0.47	0.37	0.50	0.40	0.63	0.53	0.030	<0.010
MAY												
09...	0.010	0.390	0.390	0.020	0.38	0.28	0.40	0.30	0.79	0.69	<0.010	0.020
JUL												
08...	<0.010	--	<0.050	0.050	0.75	0.25	0.80	0.30	0.80	--	0.010	<0.010
AUG												
28...	<0.010	--	<0.050	0.030	0.37	0.27	0.40	0.30	0.40	--	<0.010	<0.010

0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
OCT												
26...	0.010	8.20	0.300	150	<1	<1	1	<1	2	350	<1	160
MAY												
09...	<0.010	0.200	<0.100	60	<1	<1	<1	<1	1	290	<1	30
JUL												
08...	0.020	7.10	0.300	--	--	--	--	--	--	--	--	--
AUG												
28...	<0.010	6.10	0.400	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BENZENE TOTAL (UG/L) (34030)	BROMOFORM TOTAL (UG/L) (32104)	CARBONTETRACHLORIDE TOTAL (UG/L) (32102)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)
OCT												
26...	0.20	<1	15	<1	<1	10	8.6	--	--	--	--	--
MAY												
09...	<0.10	<1	<1	<1	<1	<10	5.0	--	--	--	--	--
JUL												
08...	--	--	--	--	--	--	8.4	--	--	--	--	--
AUG												
28...	--	--	--	--	--	--	6.5	<0.400	<0.400	<0.400	<0.400	<0.400

0209684980 CANE CREEK RESERVOIR AT DAM NEAR WHITE CROSS, NC--Continued

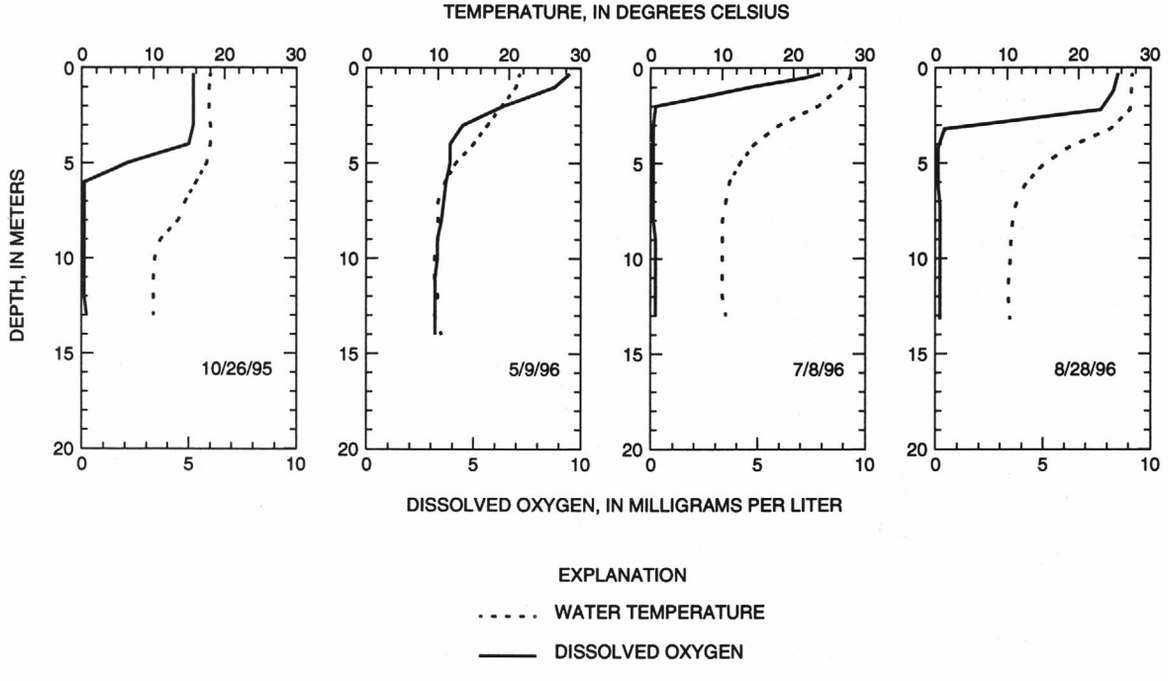
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	1,2-TRANSDICHLOROETHENE TOTAL (UG/L) (34546)	HEXACHLOROBUTADIENE TOTAL (UG/L) (39702)	ETHANE HEXACHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTHALENE TOTAL (UG/L) (34696)	BENZENE 1,2,4-TRICHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DICHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO- WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) (77651)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	PROMETON, WATER, DISS, REC (UG/L) (04037)	DEETHYLATRAZINE, WATER, DISS, REC (UG/L) (04040)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)
OCT												
26...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
28...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	0.047	<0.018	E0.011	<0.004



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 of Bynum, and 1.1 mi downstream of U.S. Highways 15 and 501.

DRAINAGE AREA.--1,275 mi^2.

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 sea level. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Considerable regulation for short periods at low flow caused by power plant above station. Maximum discharge for period of record and current water year, from rating curve extended above 36,000 ft^3/s, on basis of slope-conveyance measurement of peak flow; maximum gage height, 21.76 ft, from floodmarks. Minimum discharge for period of record also occurred Sept. 27, 1983. Minimum discharge for period of record and current water year, due to regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	1010	1240	553	2260	1010	1780	4210	891	192	e470	223
2	132	1120	920	632	e1640	952	4100	1960	652	211	e600	193
3	125	2140	814	854	e5410	926	3030	1210	546	280	1190	346
4	250	1710	751	1060	3260	874	1820	891	452	231	553	3420
5	3340	1420	700	794	2450	842	1490	759	478	209	443	3720
6	4090	840	573	712	2160	954	1200	651	444	186	311	e58000
7	1590	3010	647	977	1590	2210	1090	1210	408	155	1760	e35000
8	792	9060	976	1000	2020	6100	1020	1500	371	162	3180	e9500
9	568	3250	2550	903	4190	3750	1430	984	368	191	1330	e4950
10	325	1830	3470	761	3540	2310	2460	764	1740	604	1020	2740
11	293	1800	1760	769	2650	1750	1500	594	1530	175	929	e2080
12	268	10600	1270	1050	2300	1510	1170	578	920	197	412	e6570
13	229	4970	1050	1110	1930	1550	992	545	859	238	1410	2990
14	230	2650	1270	900	1960	1230	991	519	1970	205	2350	1990
15	896	2140	1240	937	1760	1110	968	516	799	213	933	1210
16	1120	1790	1160	2300	1420	1260	984	1370	473	184	636	895
17	508	1090	841	2780	1400	2120	1270	3660	432	173	526	1150
18	355	868	781	4160	1360	2810	984	1540	405	168	370	1370
19	289	816	865	11100	1210	2760	781	895	338	169	284	824
20	312	738	1350	11000	1550	6330	775	681	346	175	293	603
21	13700	712	1260	4770	3050	3060	1070	606	296	202	329	554
22	4880	688	910	3490	2170	1930	1240	533	286	163	244	410
23	1860	608	659	2690	1720	1530	856	459	278	155	207	458
24	1120	607	687	2310	1530	1240	749	410	267	136	215	466
25	759	708	586	3840	1350	1070	742	528	261	199	398	442
26	594	871	575	2380	1190	995	656	535	254	1560	504	817
27	523	731	558	6480	1130	1020	820	556	244	2100	328	1990
28	8010	677	526	9210	1100	1120	892	1570	216	521	321	1070
29	5630	699	517	4230	1050	2740	610	2190	206	569	496	1890
30	1960	1850	498	3060	---	1990	1370	2540	174	582	325	1240
31	1330	---	503	2750	---	1470	---	1580	---	e345	279	---
TOTAL	56223	61003	31507	89562	60350	60523	38840	36544	16904	10850	22646	147111
MEAN	1814	2033	1016	2889	2081	1952	1295	1179	563	350	731	4904
MAX	13700	10600	3470	11100	5410	6330	4100	4210	1970	2100	3180	58000
MIN	125	607	498	553	1050	842	610	410	174	136	207	193
CFSM	1.42	1.59	.80	2.27	1.63	1.53	1.02	.92	.44	.27	.57	3.85
IN.	1.64	1.78	.92	2.61	1.76	1.77	1.13	1.07	.49	.32	.66	4.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

MEAN	671	770	1158	2290	2167	2638	1663	1165	943	854	615	849
MAX	2906	2888	2681	5895	5465	6110	4044	3936	4632	4477	1893	4904
(WY)	1991	1986	1984	1978	1979	1975	1987	1978	1982	1975	1985	1996
MIN	154	225	275	262	627	648	412	256	155	135	118	111
(WY)	1987	1974	1981	1981	1977	1988	1995	1986	1986	1986	1987	1983

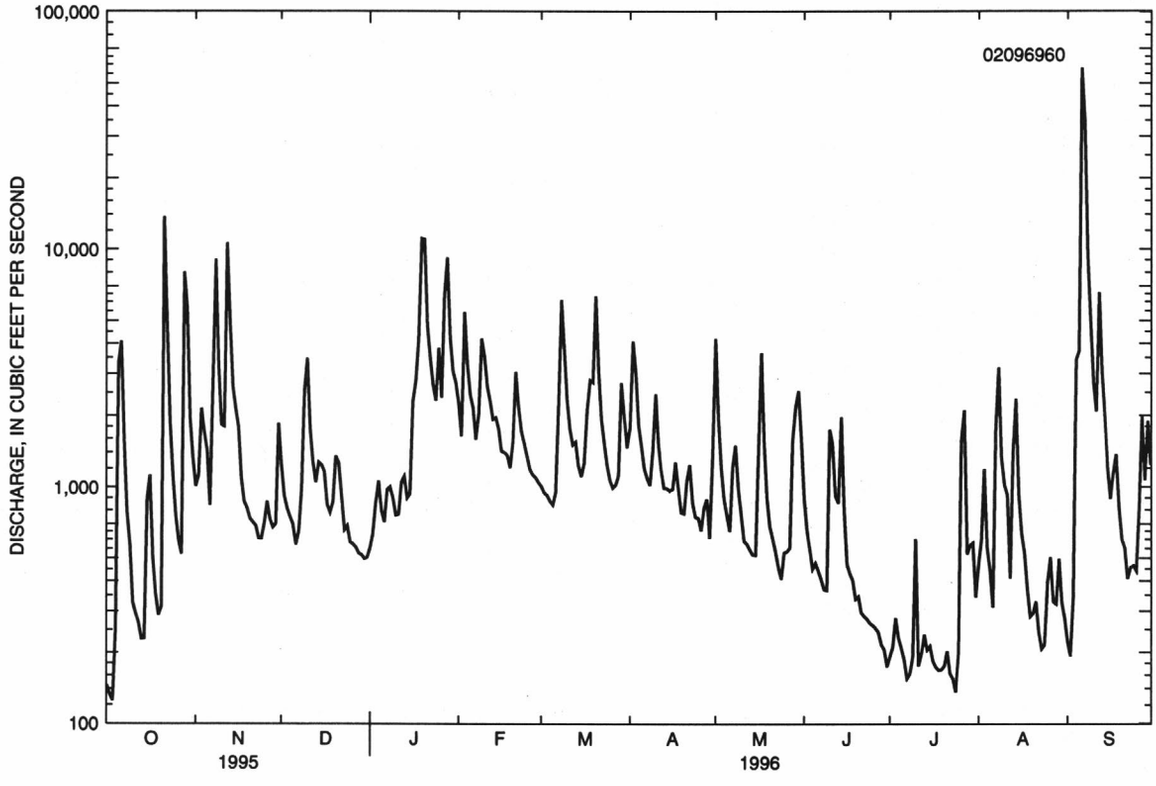
CAPE FEAR RIVER BASIN

02096960 HAW RIVER NEAR BYNUM, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1973 - 1996	
ANNUAL TOTAL	508943		632063			
ANNUAL MEAN	1394		1727		1312	
HIGHEST ANNUAL MEAN					2181	1975
LOWEST ANNUAL MEAN					164	1973
HIGHEST DAILY MEAN	31500	Jun 29	58000	Sep 6	58000	Sep 6 1996
LOWEST DAILY MEAN	97	Aug 21	125	Oct 3	.18	Sep 10 1983
ANNUAL SEVEN-DAY MINIMUM	111	Aug 18	167	Jul 18	46	Sep 7 1983
INSTANTANEOUS PEAK FLOW			76700*	Sep 6	76700*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			21.76*	Sep 6	21.76*	Sep 6 1996
INSTANTANEOUS LOW FLOW			117*	Jul 7	.18*	Sep 10 1983
ANNUAL RUNOFF (CFSM)	1.09		1.35		1.03	
ANNUAL RUNOFF (INCHES)	14.85		18.44		13.98	
10 PERCENT EXCEEDS	3030		3250		2850	
50 PERCENT EXCEEDS	579		944		584	
90 PERCENT EXCEEDS	184		244		168	

e Estimated.

* See REMARKS.



CAPE FEAR RIVER BASIN

02096960 HAW RIVER NEAR BYNUM, NC--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-86, 1989 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to September 1984.

WATER TEMPERATURE: October 1981 to September 1984.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1984.

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, 514 microsiemens, Sept. 19, 1983; minimum, 46 microsiemens, Mar. 21, 1983.

WATER TEMPERATURE: Maximum, 35.0°C, July 21, 1983; minimum, 0.0°C, on several days during winter months in water years 1982 and 1984.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	BENZENE TOTAL (UG/L) (34030)	BROMO-FORM TOTAL (UG/L) (32104)
AUG 27...	1230	328	380	7.7	26.0	761	8.6	106	<0.400	<0.400

DATE	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)
AUG 27...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)
AUG 27...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L) (34546)	HEXACHLOROBUTADIENE TOTAL (UG/L) (39702)	ETHANE HEXACHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)
AUG 27...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	NAPHTHALENE TOTAL (UG/L) (34696)	BENZENE 1,2,4-TRICHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) (77651)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	PROMETON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)
AUG 27...	<0.400	<0.400	<0.400	<0.400	<0.400	0.040	0.043	E0.006	<0.004

0209719700 JORDAN LAKE, HAW RIVER ARM, ABOVE B. EVERETT JORDAN DAM, NC

LOCATION.--Lat 35°39'39", long 79°04'23", Chatham County, Hydrologic Unit 03030002, 0.5 mi above B. Everett Jordan Dam, and 1.4 mi southwest of Merry Oaks.

PERIOD OF RECORD.--Water years 1989 to current year. Prior to October 1993, published as Haw River at U.S. Highway 64 near Pittsboro (0209699980).

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT											
11...	1500	165	7.3	23.0	32	757	0.75	8.0	95	28	6.9
MAY											
02...	1445	174	7.4	22.5	80	764	0.65	8.8	101	34	8.0
JUN											
13...	1445	208	9.3	30.0	20	763	0.55	13.5	180	34	8.1
SEP											
30...	1400	115	6.8	23.0	40	770	0.65	5.5	63	25	6.1

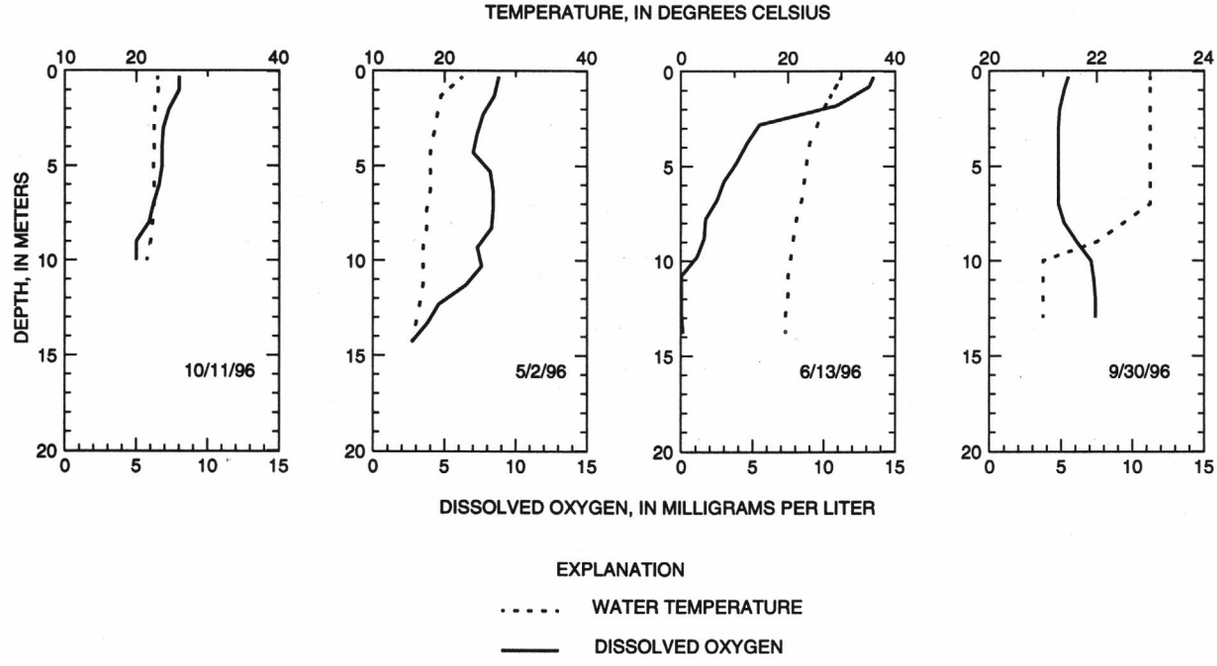
DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT											
11...	2.6	19	55	2	4.1	41	33	19	13	0.10	6.5
MAY											
02...	3.3	18	51	1	3.1	45	37	19	13	0.10	8.1
JUN											
13...	3.3	22	56	2	3.2	--	--	23	25	0.20	10
SEP											
30...	2.3	10	43	0.9	3.1	30	24	11	9.4	0.20	6.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)
OCT											
11...	100	0.420	0.020	0.440	0.440	0.020	0.48	0.28	0.50	0.30	0.94
MAY											
02...	130	0.590	0.010	0.600	0.600	0.080	0.52	0.22	0.60	0.30	1.2
JUN											
13...	116	0.220	0.020	0.240	0.240	0.050	0.65	0.35	0.70	0.40	0.94
SEP											
30...	88	0.190	<0.010	0.190	0.190	0.050	0.75	0.35	0.80	0.40	0.99

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
OCT											
11...	0.74	0.090	0.030	0.030	16.0	0.900	70	1	<1	<1	<1
MAY											
02...	0.90	0.080	0.040	0.030	2.10	<0.100	170	<1	<1	7	1
JUN											
13...	0.64	0.100	<0.010	<0.010	19.0	0.600	--	--	--	--	--
SEP											
30...	0.59	0.060	0.020	<0.010	2.70	0.300	--	--	--	--	--

DATE	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)
OCT											
11...	1	180	<1	40	<0.10	2	<1	<1	<1	<10	--
MAY											
02...	2	620	<1	70	<0.10	2	24	<1	<1	<10	6.5
JUN											
13...	--	--	--	--	--	--	--	--	--	--	7.1
SEP											
30...	--	--	--	--	--	--	--	--	--	--	9.8



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 sea level, from topographic map.

REMARKS.--Records poor. Considerable diurnal fluctuations at low flow. An average of 42.8 ft^3/s was diverted from the Neuse River Basin for Durham municipal water supply; 15.7 ft^3/s was returned to the Cape Fear River Basin, and about 14.1 ft^3/s was returned to the Neuse River Basin. Maximum discharge for period of record and current water year 12,700 ft^3/s, from rating curve extended above 3,500 ft^3/s, by logarithmic plotting. Maximum gage height for period of record and current water year, 18.74 ft, occurred as a result of backwater from B. Everett Jordan Lake; maximum gage height unaffected by backwater, 14.05 ft, Sept. 6, 1996. Minimum discharge for period of record not determined due to 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	42	40	30	203	59	164	516	e25	8.8	46	12
2	8.6	84	37	43	200	56	204	293	e27	15	38	12
3	8.6	272	33	69	392	53	147	97	e30	18	37	74
4	64	245	30	85	319	50	106	68	e100	15	41	180
5	423	150	28	71	229	47	83	56	e72	14	25	404
6	470	88	27	57	179	81	71	67	e50	15	18	6300
7	134	141	36	55	157	260	86	149	e30	13	50	e500
8	42	557	69	55	177	445	73	103	e21	15	72	e70
9	31	551	134	53	251	476	172	67	e30	25	32	e120
10	27	363	336	48	261	272	215	53	e50	27	51	e40
11	23	223	251	51	215	135	114	45	26	17	23	e200
12	22	392	162	51	176	104	83	47	39	16	18	e275
13	22	598	112	53	139	90	71	47	46	76	89	e70
14	22	394	80	65	114	78	67	46	187	30	53	e19
15	220	241	61	97	99	75	63	47	244	21	24	e10
16	117	80	51	166	92	155	75	95	121	41	19	e9.0
17	40	13	43	239	106	150	75	242	46	22	97	e80
18	30	25	40	320	104	152	56	101	32	17	36	e30
19	27	32	50	509	96	163	48	58	26	15	83	e12
20	27	34	69	836	100	420	46	44	25	14	29	e8.5
21	257	34	69	472	163	440	74	e37	23	12	19	e7.0
22	309	32	59	299	247	216	63	e29	25	13	17	e4.0
23	106	31	49	224	233	113	50	e26	21	15	25	e5.0
24	59	30	42	186	183	87	43	e24	20	32	21	e5.0
25	38	43	37	263	101	75	38	e23	20	24	98	21
26	31	53	33	258	75	70	39	e21	26	126	34	65
27	28	48	31	270	69	66	95	e45	21	34	20	145
28	102	43	26	534	66	97	56	e130	18	18	17	40
29	185	39	23	373	64	252	42	e60	15	16	16	256
30	106	41	23	255	---	154	287	e30	14	17	15	561
31	57	---	24	219	---	104	---	e40	---	20	14	---
TOTAL	3044.3	4919	2105	6306	4810	4995	2806	2706	1430	761.8	1177	9534.5
MEAN	98.2	164	67.9	203	166	161	93.5	87.3	47.7	24.6	38.0	318
MAX	470	598	336	836	392	476	287	516	244	126	98	6300
MIN	8.1	13	23	30	64	47	38	21	14	8.8	14	4.0
CFSM	1.29	2.16	.89	2.68	2.19	2.12	1.23	1.15	.63	.32	.50	4.19
IN.	1.49	2.41	1.03	3.09	2.36	2.45	1.38	1.33	.70	.37	.58	4.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

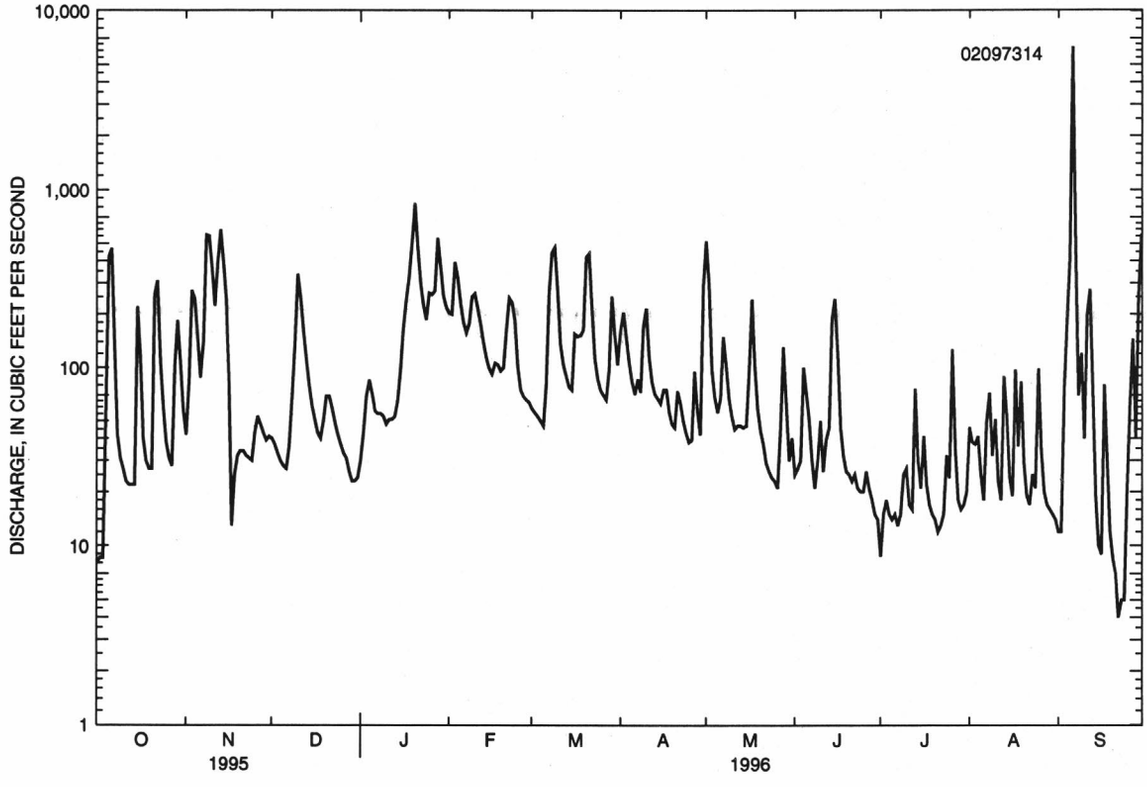
MEAN	45.5	85.0	83.9	169	203	210	147	83.9	47.4	46.8	43.0	47.7
MAX	122	371	264	509	402	399	618	207	154	156	97.8	318
(WY)	1990	1986	1984	1991	1985	1993	1987	1989	1995	1995	1986	1996
MIN	12.8	16.1	17.0	38.6	62.3	42.0	13.5	29.4	14.3	12.9	17.3	10.8
(WY)	1987	1985	1989	1986	1986	1985	1985	1994	1985	1993	1987	1984

CAPE FEAR RIVER BASIN

02097314 NEW HOPE CREEK NEAR BLANDS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	38754.5		44594.6			
ANNUAL MEAN	106		122		101	
HIGHEST ANNUAL MEAN					156	1984
LOWEST ANNUAL MEAN					48.3	1988
HIGHEST DAILY MEAN	1750	Jun 30	6300	Sep 6	6300	Sep 6 1996
LOWEST DAILY MEAN	7.9	Sep 14	4.0	Sep 22	.39	Dec 30 1988
ANNUAL SEVEN-DAY MINIMUM	8.7	Sep 11	8.9	Sep 19	4.8	Nov 29 1990
INSTANTANEOUS PEAK FLOW			12700*	Sep 6	12700*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			18.74*	Sep 12	18.74*	Sep 12 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		NOT DETERMINED*	
ANNUAL RUNOFF (CFSM)	1.40		1.61		1.32	
ANNUAL RUNOFF (INCHES)	18.99		21.86		17.99	
10 PERCENT EXCEEDS	260		260		223	
50 PERCENT EXCEEDS	37		56		34	
90 PERCENT EXCEEDS	11		17		13	

e Estimated.
* See REMARKS.



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 January 1994, August 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 235 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, and discharges below 5 ft^3/s, which are poor. Slight diurnal fluctuation at low flow. An average of 42.8 ft^3/s was diverted from the Neuse River basin for Durham municipal water supply; 15.7 ft^3/s was returned to the Cape Fear River basin, of which 6.4 ft^3/s entered upstream from station as treated effluent. About 14.1 ft^3/s was returned to Neuse River basin as treated effluent. Maximum discharge for period of record and current water year from rating curve extended above 2,000 ft^3/s, by logarithmic plotting. Minimum discharge for the period Aug. to Sept., 1995 also occurred Aug. 5, 14, 24 and 25.

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD AUGUST TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											6.5	9.2
2											6.7	9.4
3											7.0	7.3
4											6.7	7.9
5											5.8	11
6											5.7	12
7											6.7	13
8											6.7	13
9											6.9	13
10											7.1	13
11											7.2	13
12											6.0	13
13											5.9	13
14											6.2	14
15											6.6	14
16											6.8	13
17											8.0	13
18											7.9	14
19											7.2	14
20											7.0	14
21											7.5	15
22											7.0	16
23											6.4	17
24											5.7	11
25											5.8	8.4
26											6.2	8.2
27											14	9.3
28											122	8.8
29											17	9.3
30											9.4	9.7
31											8.9	---
TOTAL											344.5	356.5
MEAN											11.1	11.9
MAX											122	17
MIN											5.7	7.3
CFSM											.53	.56
IN.											.61	.63

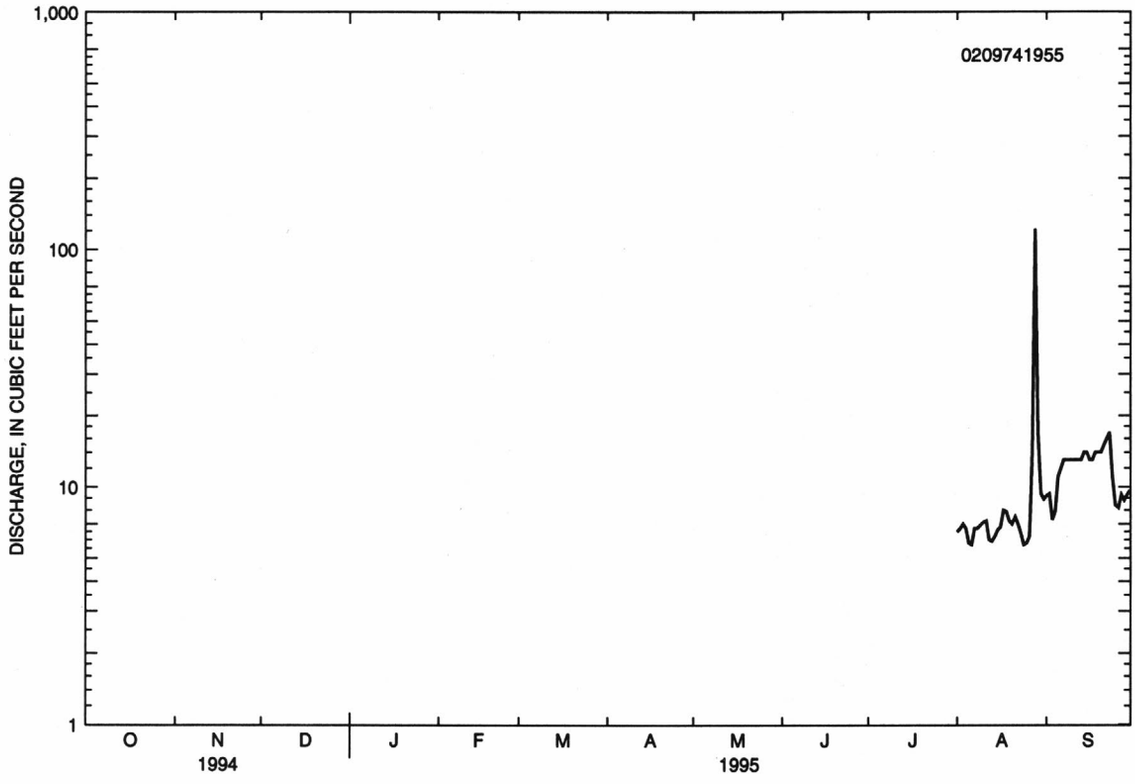
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD AUGUST TO SEPTEMBER 1996@

MEAN	16.0	24.6	31.0	51.0	60.0	64.9	36.2	23.1	14.2	16.1	18.6	9.91
MAX	49.2	82.7	86.3	90.5	102	111	84.5	59.1	44.4	48.6	66.7	26.1
(WY)	1990	1993	1984	1993	1989	1989	1993	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 PERIOD AUGUST TO SEPTEMBER 1995

INSTANTANEOUS PEAK FLOW	162	Aug 28
INSTANTANEOUS PEAK STAGE	8.14	Aug 28
INSTANTANEOUS LOW FLOW	4.5*	Jul 30

@ See PERIOD OF RECORD.
* See REMARKS.



CAPE FEAR RIVER BASIN

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	13	13	13	22	10	37	151	5.4	5.0	15	4.5
2	10	80	12	16	e170	9.7	45	21	5.7	5.3	12	5.4
3	11	420	11	41	e150	9.4	30	16	6.6	6.0	7.4	60
4	190	45	11	20	e50	11	24	14	8.9	3.7	6.9	30
5	1000	18	12	14	e20	12	22	13	24	3.7	7.0	60
6	189	13	11	12	e17	47	21	15	12	4.2	6.8	3350
7	15	270	22	15	e27	122	26	25	8.4	4.2	42	580
8	7.7	535	21	15	47	290	23	15	6.4	8.5	56	76
9	6.7	35	215	12	79	56	69	12	8.4	22	14	143
10	7.6	14	125	13	29	23	39	11	13	13	13	52
11	9.0	46	24	15	18	19	27	10	14	9.2	6.4	257
12	11	334	18	14	15	17	24	13	14	11	6.3	364
13	11	41	15	16	13	16	23	12	11	20	9.4	117
14	13	29	14	23	12	16	23	12	9.7	11	8.7	25
15	64	24	13	48	12	17	24	13	10	42	6.9	13
16	15	13	12	98	16	21	32	39	15	25	13	12
17	11	11	11	93	18	21	25	38	9.3	12	80	107
18	9.6	9.0	12	134	15	20	23	13	6.8	9.4	14	48
19	9.8	8.1	23	399	13	69	22	10	6.3	8.6	13	15
20	14	9.2	22	204	70	106	22	10	7.3	7.3	9.5	11
21	59	10	16	30	190	33	27	10	6.5	6.3	7.4	8.7
22	20	11	13	21	33	25	25	9.4	4.9	7.8	9.2	7.7
23	13	10	11	16	21	21	24	9.1	4.4	9.3	11	7.8
24	12	12	10	54	15	20	23	8.9	5.7	9.7	16	7.6
25	12	17	9.4	85	12	20	22	8.2	5.7	10	72	7.6
26	12	14	9.5	22	12	21	23	7.2	5.3	12	14	257
27	13	13	9.5	210	11	20	25	9.6	5.2	5.8	15	275
28	69	13	9.2	165	10	53	20	23	5.1	4.7	10	27
29	18	13	9.3	26	9.9	75	22	13	4.4	5.6	8.3	233
30	13	14	8.6	20	---	30	247	14	4.0	6.4	6.6	126
31	12	---	9.9	28	---	25	---	9.4	---	7.4	5.0	---
TOTAL	1867.2	2094.3	732.4	1892	1126.9	1255.1	1039	584.8	253.4	316.1	521.8	6287.3
MEAN	60.2	69.8	23.6	61.0	38.9	40.5	34.6	18.9	8.45	10.2	16.8	210
MAX	1000	535	215	399	190	290	247	151	24	42	80	3350
MIN	6.7	8.1	8.6	12	9.9	9.4	20	7.2	4.0	3.7	5.0	4.5
CFSM	2.85	3.31	1.12	2.89	1.84	1.92	1.64	.89	.40	.48	.80	9.93
IN.	3.29	3.69	1.29	3.34	1.99	2.21	1.83	1.03	.45	.56	.92	11.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

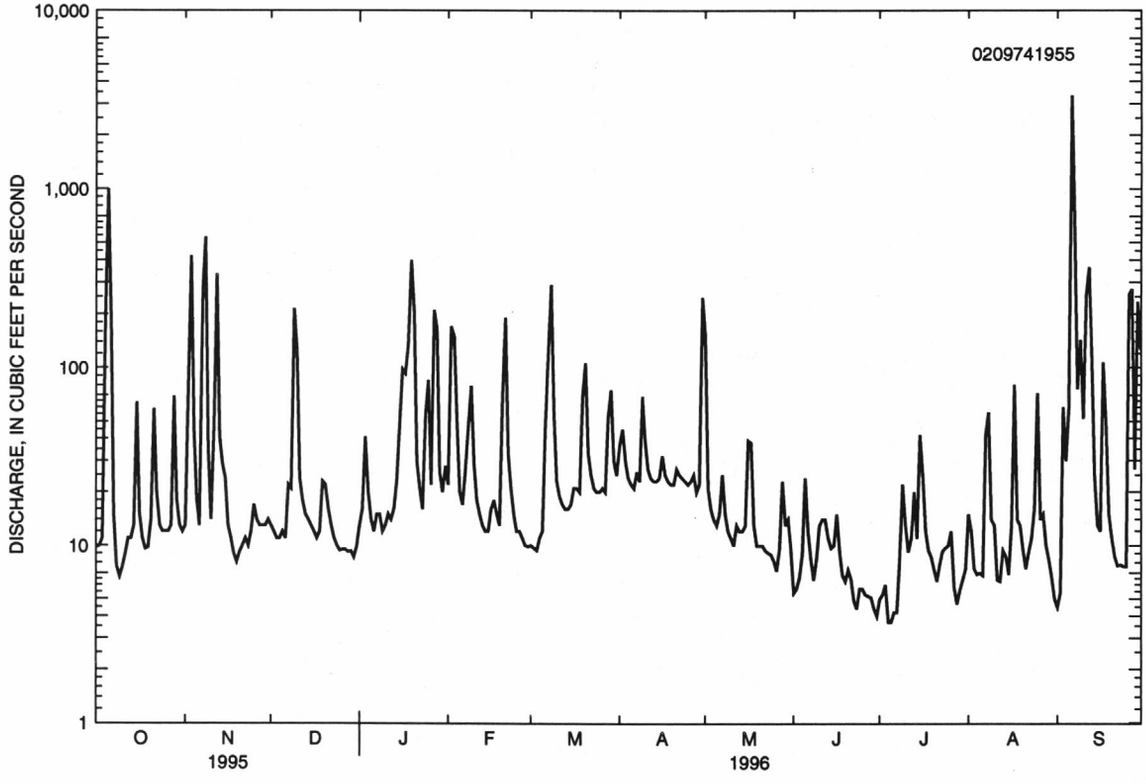
MEAN	19.4	28.0	30.5	51.7	58.2	62.9	36.1	22.7	13.8	15.6	18.4	25.3
MAX	60.2	82.7	86.3	90.5	102	111	84.5	59.1	44.4	48.6	66.7	210
(WY)	1996	1993	1984	1993	1989	1989	1993	1990	1992	1989	1986	1996
MIN	3.27	3.89	4.32	12.6	10.7	8.18	4.00	8.57	4.55	3.33	3.50	2.49
(WY)	1986	1985	1989	1986	1991	1985	1985	1987	1987	1983	1983	1983

CAPE FEAR RIVER BASIN

0209741955 NORTHEAST CREEK AT SECONDARY ROAD 1100 NEAR GENLEE, NC--Continued

SUMMARY STATISTICS	FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996@	
ANNUAL TOTAL	17970.3			
ANNUAL MEAN	49.1		32.3	
HIGHEST ANNUAL MEAN			49.1	1996
LOWEST ANNUAL MEAN			14.7	1988
HIGHEST DAILY MEAN	3350	Sep 6	3350	Sep 6 1996
LOWEST DAILY MEAN	3.7	Jul 4	.74	Jul 16 1991
ANNUAL SEVEN-DAY MINIMUM	4.6	Jun 30	1.5	Oct 7 1985
INSTANTANEOUS PEAK FLOW	5140*	Sep 6	5140*	Sep 6 1996
INSTANTANEOUS PEAK STAGE	13.92	Sep 6	13.92	Sep 6 1996
INSTANTANEOUS LOW FLOW	2.7	Jul 4	.76	Oct 7 1985
ANNUAL RUNOFF (CFSM)	2.33		1.53	
ANNUAL RUNOFF (INCHES)	31.68		20.80	
10 PERCENT EXCEEDS	81		63	
50 PERCENT EXCEEDS	14		8.6	
90 PERCENT EXCEEDS	6.9		3.8	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 420 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 2,700 ft^3/s, by logarithmic plotting. Maximum discharge for the current water year from rating curve extended above 600 ft^3/s, on basis of computation of peak flow through culvert. Minimum discharge for period of record also occurred Sept. 25-30 and Oct. 1-4, 1990. Minimum recorded discharge for the current water year, 0.38 ft^3/s, July 21, but may have been less during period of no gage-height record Oct. 4-24, or during period of recorder malfunction, June 10 to July 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	1.4	5.4	5.3	12	6.1	15	13	2.9	e.68	.94	.57
2	.61	12	5.7	5.6	32	6.2	13	7.0	2.4	e.62	.66	.55
3	.61	9.3	6.0	7.2	27	5.8	9.3	5.4	2.3	e.87	.87	2.5
4	e33	5.0	5.8	4.8	17	5.5	7.9	4.7	3.5	e.60	.58	1.5
5	e30	2.4	5.9	4.0	16	5.8	7.1	4.2	4.9	e.55	.52	22
6	e13	1.8	6.8	3.9	14	11	6.7	5.0	2.6	e.48	.48	737
7	e8.9	91	9.4	5.1	11	36	7.3	5.7	2.2	e.47	.69	18
8	e7.0	41	7.2	5.2	22	52	7.5	5.1	2.0	e.45	.66	8.1
9	e6.9	15	39	4.9	25	19	18	4.1	2.6	e.65	.77	5.7
10	e7.0	9.0	14	4.1	15	13	10	3.5	e3.0	.84	.91	5.3
11	e7.5	81	8.0	3.8	12	10	8.5	3.3	e6.9	.77	.64	16
12	e7.5	60	6.4	3.9	10	9.5	7.3	3.5	e8.0	.78	.63	44
13	e8.0	20	5.7	4.0	8.8	8.4	6.7	2.9	e40	1.2	1.2	12
14	e21	14	5.2	4.9	8.8	7.9	6.4	3.3	e36	.68	.79	7.4
15	e17	9.3	4.9	12	8.3	9.3	6.3	3.5	e6.8	.61	.66	5.2
16	e7.0	7.3	4.7	20	9.1	9.4	7.3	10	e4.2	.68	.55	4.7
17	e6.2	6.4	4.2	27	8.6	13	6.0	7.1	e3.3	.60	.53	7.5
18	e5.8	5.9	4.6	37	8.5	10	5.6	4.4	e2.6	.57	.47	4.4
19	e5.9	5.6	7.5	96	7.6	51	5.4	3.4	e2.3	.61	.52	3.5
20	e50	5.2	6.6	33	19	30	6.0	2.9	e2.1	.51	.59	3.0
21	e49	5.1	5.2	18	16	15	6.8	2.7	e1.8	.42	.54	2.8
22	e15	5.0	4.6	13	12	11	5.6	2.5	e1.7	.41	.51	2.7
23	e5.9	4.7	4.8	11	10	8.7	5.1	2.4	e1.6	.57	.52	2.4
24	e2.6	5.4	4.7	29	8.8	7.6	4.6	2.4	e1.7	.68	.52	2.2
25	1.1	6.8	4.0	21	7.6	7.2	4.5	2.7	e1.5	.53	.64	2.2
26	.89	5.6	3.9	13	7.3	6.8	7.1	2.6	e1.3	.63	.63	3.1
27	1.5	5.2	3.8	73	7.0	6.1	6.4	2.9	e.91	.50	.65	2.6
28	24	5.3	3.9	30	7.0	15	4.7	11	e.86	2.5	.79	9.0
29	3.2	5.9	3.7	18	6.3	15	4.7	7.4	e.80	1.0	.73	18
30	1.6	6.0	3.6	15	---	9.5	26	12	e.75	.55	.62	6.2
31	1.3	---	4.1	16	---	8.3	---	3.9	---	.54	.65	---
TOTAL	349.58	457.6	209.3	548.7	373.7	429.1	242.8	154.5	153.52	21.55	20.46	960.12
MEAN	11.3	15.3	6.75	17.7	12.9	13.8	8.09	4.98	5.12	.70	.66	32.0
MAX	50	91	39	96	32	52	26	13	40	2.5	1.2	737
MIN	.57	1.4	3.6	3.8	6.3	5.5	4.5	2.4	.75	.41	.47	.55
CFSM	1.35	1.83	.81	2.12	1.54	1.66	.97	.60	.61	.08	.08	3.83
IN.	1.56	2.04	.93	2.44	1.66	1.91	1.08	.69	.68	.10	.09	4.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

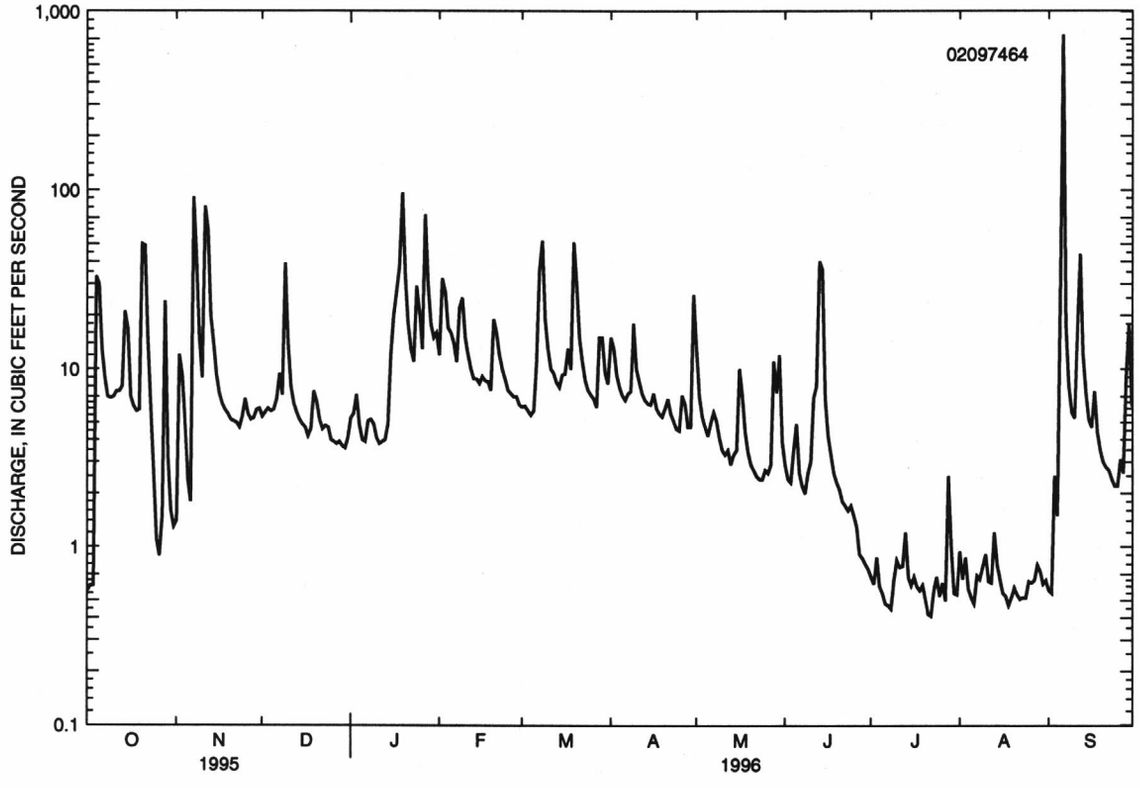
MEAN	4.66	5.59	5.38	12.4	13.7	20.7	10.4	9.23	6.62	3.14	4.08	5.63
MAX	13.1	15.3	13.2	20.6	22.7	39.8	18.2	30.1	19.9	7.37	18.7	32.0
(WY)	1990	1996	1990	1991	1990	1993	1993	1989	1995	1991	1995	1996
MIN	.65	1.22	1.03	2.54	4.15	11.7	2.33	2.41	.96	.54	.66	.075
(WY)	1995	1995	1995	1989	1991	1992	1995	1995	1993	1994	1996	1990

CAPE FEAR RIVER BASIN

02097464 MORGAN CREEK NEAR WHITE CROSS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1989 - 1996	
ANNUAL TOTAL	3687.02		3920.93			
ANNUAL MEAN	10.1		10.7		8.19	
HIGHEST ANNUAL MEAN					10.7	1996
LOWEST ANNUAL MEAN					5.38	1992
HIGHEST DAILY MEAN	402	Aug 27	737	Sep 6	737	Sep 6 1996
LOWEST DAILY MEAN	.23	Aug 18	.41	Jul 22	.02	Sep 27 1990
ANNUAL SEVEN-DAY MINIMUM	.26	Aug 17	.52	Aug 18	.02	Sep 26 1990
INSTANTANEOUS PEAK FLOW			2700*	Sep 6	3100*	Aug 27 1995
INSTANTANEOUS PEAK STAGE			10.80	Sep 6	11.20	Aug 27 1995
INSTANTANEOUS LOW FLOW			.38*	Jul 21	.02*	Sep 24 1990
ANNUAL RUNOFF (CFSM)	1.21		1.28		.98	
ANNUAL RUNOFF (INCHES)	16.43		17.47		13.32	
10 PERCENT EXCEEDS	20		19		17	
50 PERCENT EXCEEDS	3.3		5.4		3.4	
90 PERCENT EXCEEDS	.51		.63		.52	

e Estimated.
* See REMARKS.



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 1995 TO SEPTEMBER 1996

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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
24...	1415	1.2	104	7.2	15.5	55	755	8.6	87	35	8.6
DEC											
08...	1130	7.1	88	6.7	4.0	38	760	12.3	94	31	7.8
JAN											
23...	1200	11	75	6.9	4.0	48	757	13.7	106	25	6.0
MAR											
22...	1015	11	80	7.0	6.0	55	752	14.8	120	24	5.8
MAY											
16...	1430	19	80	7.2	13.0	56	759	11.6	111	28	7.1
AUG											
14...	1330	0.78	152	7.4	20.5	70	758	8.0	89	44	11

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT											
24...	3.3	4.9	21	0.4	3.6	36	30	4.3	6.8	0.20	13
DEC											
08...	2.9	4.9	24	0.4	1.6	38	31	3.4	6.2	0.20	14
JAN											
23...	2.5	4.2	25	0.4	1.5	31	25	4.5	5.4	<0.10	12
MAR											
22...	2.3	4.3	27	0.4	1.4	25	21	5.5	5.2	<0.10	11
MAY											
16...	2.5	4.4	24	0.4	1.5	29	24	3.1	5.2	<0.10	13
AUG											
14...	3.9	5.8	18	0.4	11	50	41	5.0	11	<0.10	14

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
OCT											
24...	66	0.980	0.020	1.00	1.00	<0.015	0.30	--	0.30	0.30	1.3
DEC											
08...	74	0.630	<0.010	0.630	0.630	<0.015	0.20	--	0.20	<0.20	0.83
JAN											
23...	58	0.760	0.010	0.770	0.770	0.090	0.11	--	0.20	<0.20	0.97
MAR											
22...	62	0.610	0.020	0.630	0.630	0.060	0.44	0.24	0.50	0.30	1.1
MAY											
16...	74	0.520	0.020	0.540	0.540	0.050	0.55	0.35	0.60	0.40	1.1
AUG											
14...	106	0.980	0.020	1.00	1.00	0.030	0.87	0.67	0.90	0.70	1.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)
OCT											
24...	1.3	0.190	0.170	0.180	100	<1	<1	<1	<1	1	630
DEC											
08...	--	0.080	0.070	0.050	--	--	--	--	--	--	--
JAN											
23...	--	0.080	0.060	0.060	--	--	--	--	--	--	--
MAR											
22...	0.93	0.090	0.090	0.080	240	<1	<1	<1	<1	<1	560
MAY											
16...	0.94	0.120	0.090	0.060	--	--	--	--	--	--	--
AUG											
14...	1.7	0.460	0.420	0.450	--	--	--	--	--	--	--

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT											
24...	<1	20	<0.10	<1	<1	<1	<1	<10	5.8	23	0.08
DEC											
08...	--	--	--	--	--	--	--	--	4.7	24	0.46
JAN											
23...	--	--	--	--	--	--	--	--	3.0	--	--
MAR											
22...	1	40	<0.10	<1	<1	<1	<1	<10	4.1	22	0.65
MAY											
16...	--	--	--	--	--	--	--	--	6.1	45	2.3
AUG											
14...	--	--	--	--	--	--	--	--	--	26	0.05

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 years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	BAROMETRIC PRESSURE (MM OF HG) (00025)	TRANSPARENCY (SECCHI DISK) (M) (00078)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT												
12...	1200	73	7.0	22.0	23	756	0.35	7.8	90	24	6.1	2.2
MAY												
09...	1215	88	8.0	24.0	25	765	0.75	10.4	123	26	6.6	2.3
JUL												
08...	1100	94	8.5	29.5	--	751	0.50	9.0	120	31	7.9	2.8
AUG												
28...	1230	98	8.4	27.5	20	757	0.25	9.6	122	30	7.7	2.7

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	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)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)
OCT												
12...	3.6	22	0.3	2.9	29	24	3.5	3.9	<0.10	11	60	--
MAY												
09...	5.7	31	0.5	1.6	35	29	5.5	6.1	<0.10	13	60	0.080
JUL												
08...	6.4	29	0.5	1.9	24	36	2.8	6.3	<0.10	15	80	--
AUG												
28...	6.0	28	0.5	2.1	39	32	2.4	5.7	<0.10	16	74	--

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
OCT												
12...	<0.010	--	<0.050	<0.015	0.90	--	0.90	<0.20	0.90	--	0.070	<0.010
MAY												
09...	<0.010	0.080	0.080	0.020	0.48	0.18	0.50	0.20	0.58	0.28	0.040	0.010
JUL												
08...	<0.010	--	<0.050	0.030	0.87	0.27	0.90	0.30	0.90	--	0.080	<0.010
AUG												
28...	<0.010	--	<0.050	<0.015	0.60	--	0.60	0.30	0.60	--	<0.010	<0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)
OCT												
12...	<0.010	46.0	1.60	40	<1	<1	<1	<1	<1	300	<1	160
MAY												
09...	<0.010	3.10	<0.100	40	<1	<1	<1	<1	<1	240	<1	70
JUL												
08...	0.010	15.0	2.80	--	--	--	--	--	--	--	--	--
AUG												
28...	<0.010	20.0	0.800	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)	BENZENE TOTAL (UG/L) (34030)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)
OCT												
12...	<0.10	<1	<1	<1	<1	<10	11	--	--	--	--	--
MAY												
09...	<0.10	<1	<1	<1	<1	<10	6.1	--	--	--	--	--
JUL												
08...	--	--	--	--	--	--	8.6	--	--	--	--	--
AUG												
28...	--	--	--	--	--	--	7.2	<0.400	<0.400	<0.400	<0.400	<0.400

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)
OCT 12...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

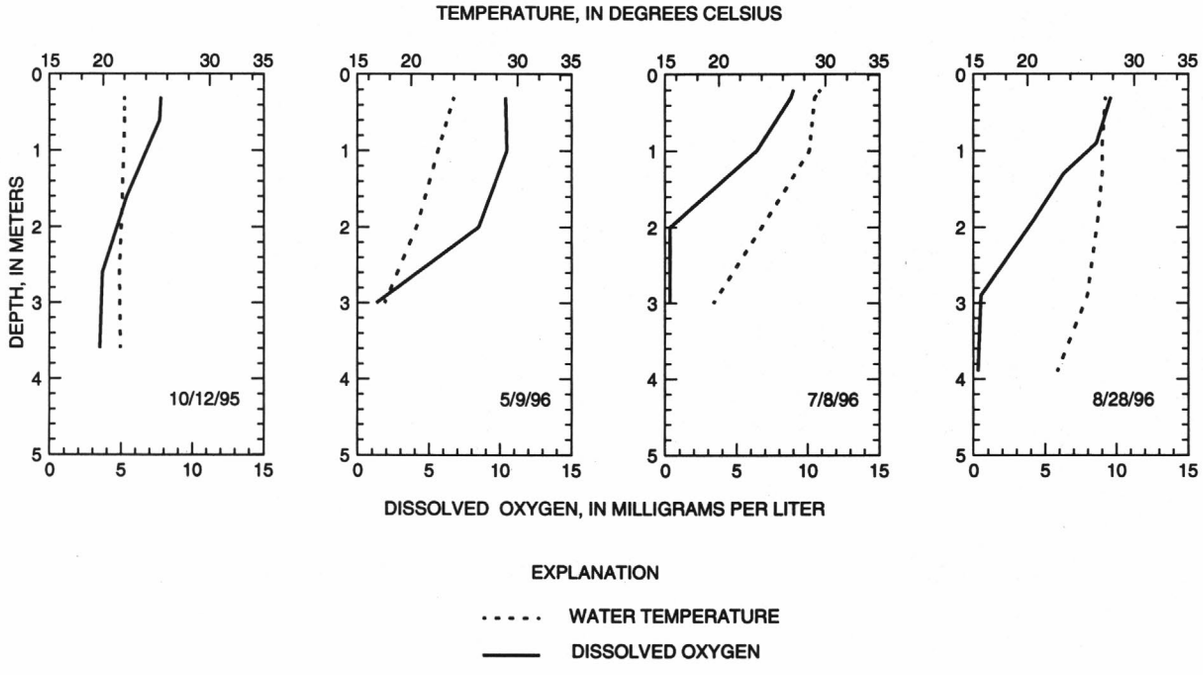
DATE	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)
OCT 12...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

CAPE FEAR RIVER BASIN

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	1,2-TRANSDICHLOROETHENE TOTAL (UG/L) (34546)	HEXACHLOROBUTADIENE TOTAL (UG/L) (39702)	ETHANE HEXACHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTHALENE TOTAL (UG/L) (34696)	BENZENE 1,2,4-TRICHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DICHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO- WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) (77651)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	PROMETON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)
OCT												
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
28...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	0.007	<0.018	E0.004	<0.004



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 sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. The City of Chapel Hill diverted an average of 8.1 ft^3/s for water supply upstream of station, and an average of 11.3 ft^3/s was returned as treated effluent upstream of station. Considerable diurnal fluctuation and occasional slight regulation caused by small reservoir and treated effluent outfall upstream from station. Maximum discharge for period of record and current water year from rating curve extended above 1,700 ft^3/s, by logarithmic plotting; maximum gage height, 16.18 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	29	19	55	22	66	65	14	17	29	12
2	13	69	26	22	120	21	59	35	14	18	19	12
3	13	75	27	34	128	21	44	26	15	19	42	73
4	128	51	27	27	71	19	37	21	16	14	15	54
5	79	29	26	21	53	19	33	18	18	13	14	95
6	21	22	27	20	49	45	34	20	15	12	13	e2600
7	15	351	47	32	49	109	36	31	14	12	23	e85
8	14	265	39	30	71	235	33	22	14	13	14	e25
9	14	78	151	22	92	92	74	20	23	16	18	e17
10	13	47	88	21	66	61	53	17	17	14	14	e17
11	14	198	58	20	54	50	42	16	22	11	12	e41
12	14	414	48	21	47	43	36	16	16	18	13	e130
13	15	105	40	23	39	37	32	15	15	17	20	e40
14	47	76	39	28	36	34	32	17	15	12	13	e13
15	32	61	36	45	34	36	34	16	28	16	13	e11
16	16	51	33	78	40	36	39	34	27	14	13	e11
17	15	43	31	89	36	41	27	23	27	12	14	e21
18	15	39	33	116	32	37	23	20	27	14	14	e14
19	14	37	40	640	30	116	21	16	26	14	13	e10
20	65	33	33	200	49	114	27	15	27	10	13	e9.0
21	65	33	24	97	62	63	27	14	27	9.2	14	e8.5
22	48	29	20	74	43	46	23	15	24	9.8	24	e8.0
23	26	26	18	59	38	38	21	14	21	e19	16	e7.0
24	19	26	18	92	34	32	22	14	28	e15	31	e6.5
25	16	27	17	94	28	31	20	13	24	e54	23	e7.0
26	15	22	17	62	27	29	24	12	20	e20	15	e13
27	18	19	16	268	26	26	23	15	18	13	14	e10
28	40	19	16	134	25	62	20	38	18	17	14	e29
29	27	24	15	81	23	71	20	19	17	15	14	e50
30	17	30	14	65	---	46	101	20	16	18	14	e15
31	16	---	15	68	---	40	---	15	---	23	13	---
TOTAL	877	2315	1068	2602	1457	1672	1083	652	603	499.0	531	3444.0
MEAN	28.3	77.2	34.5	83.9	50.2	53.9	36.1	21.0	20.1	16.1	17.1	115
MAX	128	414	151	640	128	235	101	65	28	54	42	2600
MIN	13	16	14	19	23	19	20	12	14	9.2	12	6.5
CFSM	.69	1.88	.84	2.05	1.23	1.32	.88	.51	.49	.39	.42	2.80
IN.	.80	2.10	.97	2.36	1.32	1.52	.98	.59	.55	.45	.48	3.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

MEAN	23.3	40.0	38.5	65.1	74.1	99.8	56.0	35.4	25.8	19.4	22.4	22.0
MAX	47.8	141	105	143	141	226	131	91.2	84.9	51.5	65.0	115
(WY)	1991	1986	1984	1993	1984	1993	1984	1990	1992	1984	1985	1996
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

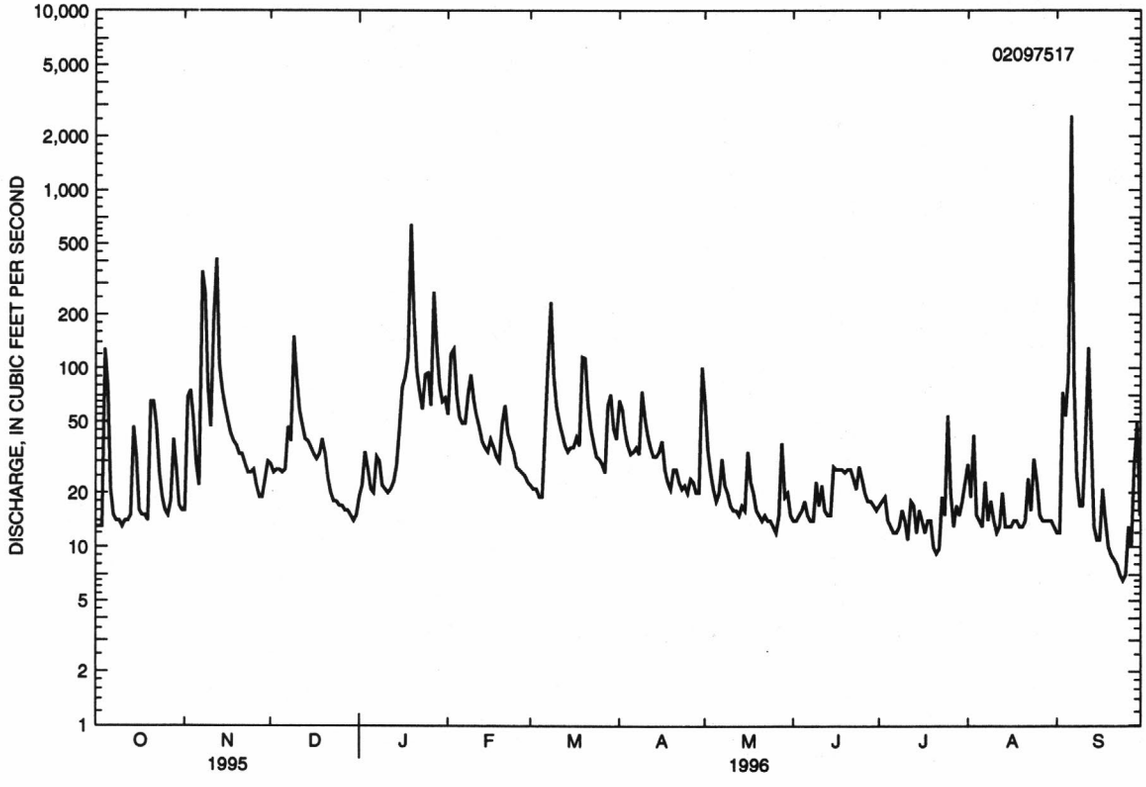
CAPE FEAR RIVER BASIN

02097517 MORGAN CREEK NEAR CHAPEL HILL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	15041		16803.0			
ANNUAL MEAN	41.2		45.9		42.3	
HIGHEST ANNUAL MEAN					75.6	1984
LOWEST ANNUAL MEAN					21.7	1988
HIGHEST DAILY MEAN	814	Jun 29	2600	Sep 6	2600	Sep 6 1996
LOWEST DAILY MEAN	10	Jun 18	6.5	Sep 24	.60	Nov 26 1982
ANNUAL SEVEN-DAY MINIMUM	12	Aug 13	8.0	Sep 19	2.1	Nov 22 1982
INSTANTANEOUS PEAK FLOW			4210*	Sep 6	4210*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			16.18*	Sep 6	16.18*	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	1.01		1.12		1.03	
ANNUAL RUNOFF (INCHES)	13.65		15.25		14.01	
10 PERCENT EXCEEDS	71		74		89	
50 PERCENT EXCEEDS	19		24		18	
90 PERCENT EXCEEDS	13		13		12	

e Estimated.

* See REMARKS.



0209768310 JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC

LOCATION.--Lat 35°47'55", long 79°00'22", Chatham County, Hydrologic Unit 03030002,.02 mi above Secondary Road 1008, and 0.2 mi east of Farrington.

PERIOD OF RECORD.--Water years 1992 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	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)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
11...	1300	132	7.4	23.0	23	757	0.35	8.4	98	27	6.9
MAY											
02...	1200	146	7.2	21.5	50	764	0.45	8.1	92	33	8.5
JUN											
13...	1200	146	7.4	27.5	80	762	0.45	7.2	91	32	8.0
SEP											
29...	1200	107	6.5	22.0	100	764	0.45	2.9	34	27	6.9

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT											
11...	2.3	13	48	1	3.3	32	27	14	12	0.10	4.3
MAY											
02...	2.8	13	44	1	2.6	23	19	13	22	0.20	3.6
JUN											
13...	2.8	12	43	0.9	2.5	--	--	13	18	0.20	4.1
SEP											
29...	2.3	7.8	36	0.7	3.1	32	26	7.4	8.0	0.10	6.5

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
OCT											
11...	74	0.050	<0.010	0.050	0.050	0.020	0.58	--	0.60	<0.20	0.65
MAY											
02...	116	0.140	0.010	0.150	0.150	0.220	0.68	0.28	0.90	0.50	1.0
JUN											
13...	84	0.200	0.030	0.230	0.230	0.110	0.59	0.39	0.70	0.50	0.93
SEP											
29...	92	--	<0.010	--	<0.050	0.130	0.77	0.37	0.90	0.50	0.90

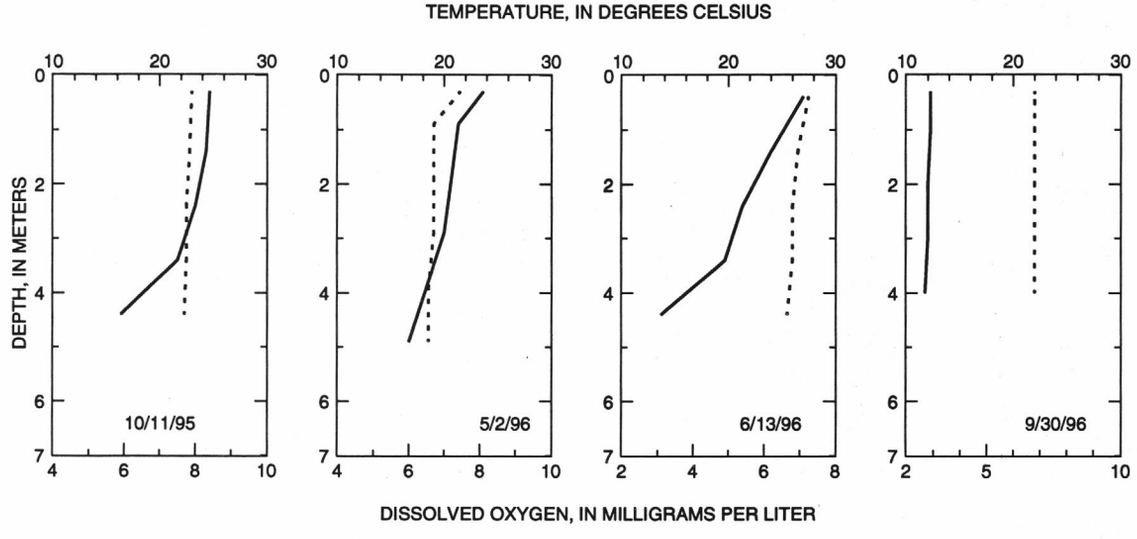
CAPE FEAR RIVER BASIN

0209768310 JORDAN LAKE AT BUOY 12 AT FARRINGTON, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
OCT											
11...	--	0.050	<0.010	<0.010	28.0	1.30	220	1	<1	1	<1
MAY											
02...	0.65	0.050	0.010	<0.010	0.800	<0.100	280	<1	<1	<1	<1
JUN											
13...	0.73	0.090	<0.010	<0.010	1.10	<0.100	--	--	--	--	--
SEP											
29...	--	0.100	<0.010	0.010	4.30	0.800	--	--	--	--	--

DATE	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	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)
OCT											
11...	<1	390	<1	190	<0.10	3	<1	<1	<1	<10	11
MAY											
02...	2	410	<1	100	<0.10	<1	3	<1	<1	20	8.2
JUN											
13...	--	--	--	--	--	--	--	--	--	--	8.0
SEP											
29...	--	--	--	--	--	--	--	--	--	--	14



0209799150 JORDAN LAKE ABOVE U.S. HIGHWAY 64 NEAR WILSONVILLE, NC

LOCATION.--Lat 35°44'29", long 79°01'10", Chatham County, Hydrologic Unit 03030002, 0.2 mi above bridge on U.S. Highway 64, and 1.1 mi west of Wilsonville.

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 assessment. Samples for nutrient and chlorophyll *a* and *b* analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	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)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT												
11...	1400	131	7.6	23.0	21	757	0.55	8.7	102	27	6.8	2.5
MAY												
02...	1300	119	7.0	22.5	50	764	0.70	7.9	91	25	6.4	2.3
JUN												
13...	1345	134	7.6	27.5	20	763	0.75	7.7	98	29	7.3	2.7
SEP												
30...	1300	110	6.7	22.5	50	765	0.55	4.1	47	26	6.6	2.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)
OCT												
11...	13	47	1	3.2	38	31	12	11	0.10	5.6	74	--
MAY												
02...	11	46	0.9	2.4	9.0	7.0	12	20	0.10	3.7	92	0.180
JUN												
13...	12	44	1	2.6	--	--	12	17	0.20	2.9	68	0.270
SEP												
30...	9.4	41	0.8	2.9	31	25	8.6	9.2	0.10	5.2	76	--

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT												
11...	<0.010	--	<0.050	<0.015	0.60	--	0.60	<0.20	0.60	--	0.050	<0.010
MAY												
02...	<0.010	0.180	0.180	0.140	0.56	0.26	0.70	0.40	0.88	0.58	0.040	0.010
JUN												
13...	<0.010	0.270	0.270	0.070	0.43	0.23	0.50	0.30	0.77	0.57	<0.010	<0.010
SEP												
30...	<0.010	--	<0.050	0.080	0.62	0.32	0.70	0.40	0.70	--	0.030	<0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
OCT												
11...	<0.010	24.0	0.500	60	1	<1	<1	<1	<1	170	<1	120
MAY												
02...	<0.010	1.10	<0.100	170	<1	<1	3	<1	1	300	<1	60
JUN												
13...	<0.010	2.30	0.100	--	--	--	--	--	--	--	--	--
SEP												
30...	<0.010	1.30	0.200	--	--	--	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BENZENE TOTAL (UG/L) (34030)	BROMOFORM TOTAL (UG/L) (32104)	CARBONTETRACHLORIDE TOTAL (UG/L) (32102)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLORODIBROMOMETHANE TOTAL (UG/L) (32105)
OCT												
11...	<0.10	1	<1	<1	<1	<10	9.6	--	--	--	--	--
MAY												
02...	<0.10	<1	2	<1	<1	<10	8.3	--	--	--	--	--
JUN												
13...	--	--	--	--	--	--	6.8	--	--	--	--	--
SEP												
30...	--	--	--	--	--	--	11	<0.400	<0.400	<0.400	<0.400	<0.400

0209799150 JORDAN LAKE ABOVE U.S. HIGHWAY 64 NEAR WILSONVILLE, NC--Continued

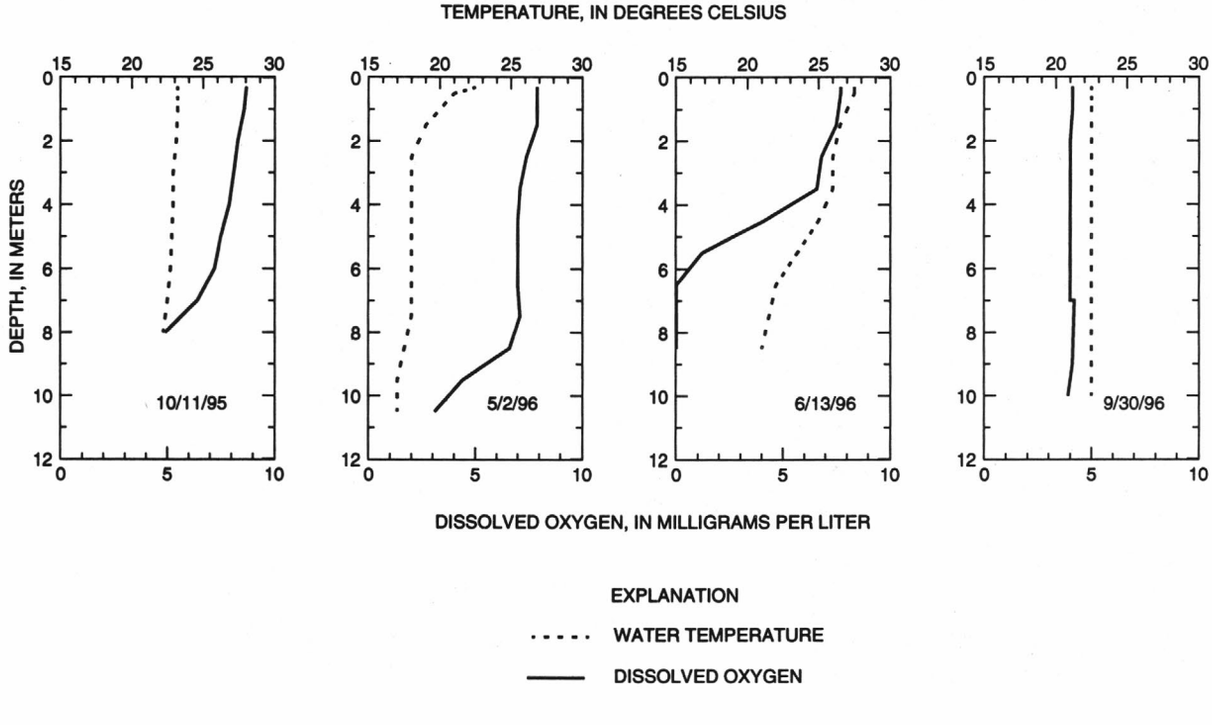
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)
OCT 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 02...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 30...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	0.400	<0.400	<0.400	<0.400

DATE	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)
OCT 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 02...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 30...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	1,2-TRANSDICHLOROETHENE TOTAL (UG/L) (34546)	HEXACHLOROBUTADIENE TOTAL (UG/L) (39702)	ETHANE HEXACHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTHALENE TOTAL (UG/L) (34696)	BENZENE 1,2,4-TRICHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DICHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO- WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) (77651)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	PROMETON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)
OCT												
11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
30...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	0.041	0.028	E0.004	<0.004



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 sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diurnal fluctuation at times during periods of 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 20.6 ft^3/s for municipal water supply, 18.0 ft^3/s was discharged as treated effluent into Richland Creek upstream from station and 8.1 ft^3/s into Rich Fork Creek in Pee Dee River basin. Maximum discharge for period of record and current water year, 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; maximum gage height for period of record and current water year, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	114	81	111	168	66	242	347	50	20	106	40
2	20	131	68	119	599	63	306	162	44	22	62	33
3	19	134	62	145	716	61	183	106	39	25	49	338
4	231	153	59	109	290	58	140	82	35	21	44	3890
5	474	111	56	99	178	57	117	71	33	19	40	1780
6	178	107	53	72	148	113	93	65	32	18	36	e9000
7	89	889	68	77	174	506	82	79	23	19	151	e3000
8	66	418	66	78	364	673	81	99	28	19	119	e1000
9	56	181	391	69	448	266	201	73	235	23	78	e700
10	49	142	170	69	300	176	148	62	242	24	77	e600
11	45	813	104	72	208	151	104	56	106	21	52	e2000
12	41	801	86	71	158	144	87	71	67	22	212	e900
13	39	223	80	72	120	130	81	64	101	27	589	e200
14	45	174	73	95	106	120	94	56	62	21	171	112
15	154	146	68	166	99	114	118	52	51	19	118	70
16	70	126	63	192	100	88	186	88	44	24	83	62
17	54	120	58	203	108	159	125	119	41	22	69	136
18	48	117	57	348	94	132	87	71	40	22	76	91
19	44	113	76	2160	84	625	75	58	65	22	47	75
20	178	111	98	790	131	558	73	51	85	19	36	69
21	442	110	84	375	171	256	82	44	79	18	32	71
22	135	98	72	312	129	165	74	38	54	31	25	70
23	84	65	65	217	105	125	71	34	44	30	23	63
24	67	65	61	327	93	104	66	32	37	16	59	66
25	60	105	58	165	85	93	62	28	30	1070	148	66
26	55	68	57	110	76	95	67	26	16	706	83	116
27	126	59	55	1810	74	83	91	33	13	70	59	104
28	1570	56	53	682	74	219	71	229	20	123	170	99
29	202	182	51	298	71	233	67	162	21	140	81	96
30	134	109	53	224	---	156	550	95	19	54	56	92
31	114	---	101	249	---	125	---	59	---	45	48	---
TOTAL	4911	6041	2547	9886	5471	5914	3824	2612	1756	2732	2999	24939
MEAN	158	201	82.2	319	189	191	127	84.3	58.5	88.1	96.7	831
MAX	1570	889	391	2160	716	673	550	347	242	1070	589	9000
MIN	19	56	51	69	71	57	62	26	13	16	23	33
CFSM	1.27	1.61	.66	2.55	1.51	1.53	1.02	.67	.47	.71	.77	6.65
IN.	1.46	1.80	.76	2.94	1.63	1.76	1.14	.78	.52	.81	.89	7.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1996, BY WATER YEAR (WY)

MEAN	77.7	83.1	126	198	230	229	171	105	79.1	82.7	75.7	85.0
MAX	474	354	389	645	584	697	529	445	351	465	311	831
(WY)	1991	1986	1933	1937	1960	1975	1936	1978	1982	1975	1949	1996
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

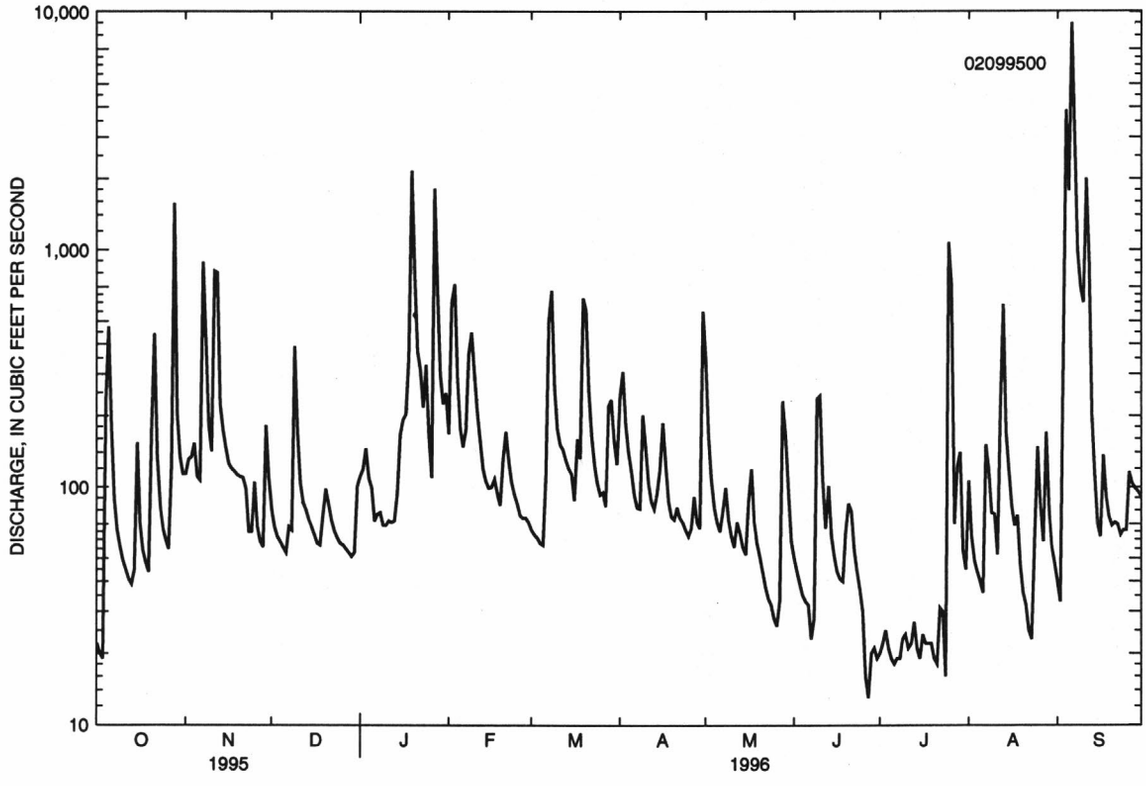
CAPE FEAR RIVER BASIN

02099500 DEEP RIVER NEAR RANDLEMAN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1929 - 1996	
ANNUAL TOTAL	43643		73632			
ANNUAL MEAN	120		201		128	
HIGHEST ANNUAL MEAN					230	1978
LOWEST ANNUAL MEAN					45.9	1967
HIGHEST DAILY MEAN	2280	Aug 28	9000	Sep 6	12000	Sep 25 1947
LOWEST DAILY MEAN	17	Aug 7	13	Jun 27	1.2	Nov 12 1933
ANNUAL SEVEN-DAY MINIMUM	17	Aug 14	19	Jun 26	3.9	Sep 30 1930
INSTANTANEOUS PEAK FLOW			15600*	Sep 6	20000*	Sep 25 1947
INSTANTANEOUS PEAK STAGE			28.75*	Sep 6	32.20*	Sep 25 1947
INSTANTANEOUS LOW FLOW			8.5	Jul 24	.50	Nov 28 1931
ANNUAL RUNOFF (CFSM)	.96		1.61		1.02	
ANNUAL RUNOFF (INCHES)	12.99		21.91		13.91	
10 PERCENT EXCEEDS	202		341		240	
50 PERCENT EXCEEDS	55		83		52	
90 PERCENT EXCEEDS	24		29		16	

e Estimated.

* 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 mi^2.

PERIOD OF RECORD.--November 1922 to current year.

REVISED RECORDS.--WSP 1032: 1923-24, 1925(M), 1926, 1927-28(M), 1929, 1930(M), 1932-33, 1934(M), 1935, 1936-37(M), 1944(M). WSP 1383: 1923(m), 1925, 1927, 1930, 1936. WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 419.50 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow slightly regulated by Oak Hollow Reservoir (station 02098495), High Point Municipal Lake (station 02099096), and small powerplant reservoirs. Prior to January 1963, diurnal fluctuation caused by power plant immediately upstream from station. Town of Asheboro diverted an average of 7.4 ft^3/s from Yadkin River Basin for water supply and discharged an average of 7.3 ft^3/s of treated effluent upstream from the station into Deep River. Maximum discharge for period of record from rating curve extended above 18,000 ft^3/s, on basis of slope-area measurement of peak flow; gage height: 34.04 ft. Maximum gage height for current water year, 26.51 ft, from high water mark inside gage shelter. Minimum discharge for period of record occurred frequently in 1941. Minimum discharge for current water year also occurred on July 22, 23, due to regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1901 reached a stage of 28.75 ft, from floodmarks 0.2 mi upstream; discharge, 30,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	231	262	219	e440	202	670	1160	138	44	153	67
2	43	1150	216	287	e1600	177	956	474	134	47	209	60
3	40	645	178	351	e1950	184	536	325	111	44	140	77
4	377	482	167	255	e750	163	407	228	105	58	88	3350
5	1670	309	146	218	e470	174	344	213	102	46	116	3500
6	576	265	171	232	e410	334	294	185	77	30	111	e16600
7	245	5170	231	227	e475	1370	274	186	48	32	105	e8600
8	154	1760	289	244	e950	2550	236	173	36	35	128	e1500
9	112	598	1600	202	e1200	863	438	204	1300	35	193	e1000
10	98	419	596	197	e770	525	488	167	1750	36	241	e1100
11	75	2930	355	197	e530	422	330	132	520	38	150	e2400
12	54	2260	283	205	e405	379	285	159	224	76	134	e2000
13	55	729	224	230	336	352	235	147	210	40	1010	564
14	230	506	226	296	297	320	244	129	191	39	359	326
15	404	394	200	682	289	310	245	117	163	39	212	204
16	204	318	199	835	280	320	343	176	100	39	162	223
17	131	265	188	940	273	414	363	311	62	80	611	343
18	96	271	153	1520	269	438	262	212	97	72	384	261
19	61	243	251	5630	242	1150	224	152	92	67	194	160
20	1050	238	296	1610	266	1630	208	142	123	112	126	136
21	1970	244	230	769	467	700	289	84	136	89	103	124
22	484	208	204	603	360	477	248	143	122	51	79	118
23	275	194	186	468	313	373	226	121	104	27	55	117
24	195	171	172	1060	281	322	194	63	72	60	49	e112
25	109	318	167	619	225	282	181	82	74	71	159	e105
26	98	226	154	456	236	271	188	137	68	1890	156	e98
27	731	179	151	4950	213	265	253	94	58	237	132	302
28	3070	161	147	1430	197	408	227	326	49	139	108	163
29	549	482	140	707	204	636	208	373	45	367	174	155
30	329	349	140	587	---	429	1180	573	43	153	125	133
31	237	---	149	e645	---	357	---	242	---	92	107	---
TOTAL	13768	21715	8071	26871	14698	16797	10576	7230	6354	4185	6073	43898
MEAN	444	724	260	867	507	542	353	233	212	135	196	1463
MAX	3070	5170	1600	5630	1950	2550	1180	1160	1750	1890	1010	16600
MIN	40	161	140	197	197	163	181	63	36	27	49	60
CFSM	1.27	2.07	.75	2.48	1.45	1.55	1.01	.67	.61	.39	.56	4.19
IN.	1.47	2.31	.86	2.86	1.57	1.79	1.13	.77	.68	.45	.65	4.68

CAPE FEAR RIVER BASIN

02100500 DEEP RIVER AT RAMSEUR, NC--Continued

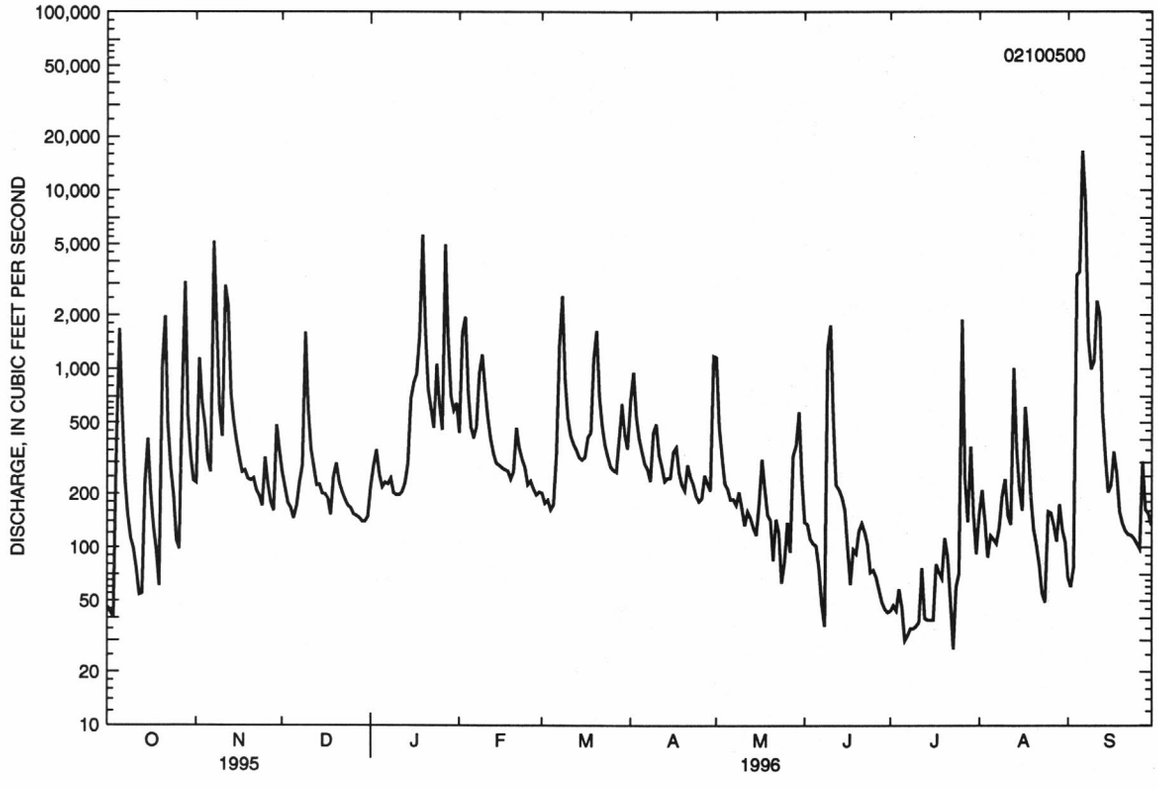
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1996, BY WATER YEAR (WY)

MEAN	210	219	346	553	657	649	489	291	218	227	211	242
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1923 - 1996	
ANNUAL TOTAL	137659		180236			
ANNUAL MEAN	377		492		358	
HIGHEST ANNUAL MEAN					665	1975
LOWEST ANNUAL MEAN					155	1967
HIGHEST DAILY MEAN	5980	Feb 17	e16600	Sep 6	27800	Sep 18 1945
LOWEST DAILY MEAN	39	Aug 20	27	Jul 23	.70	Nov 29 1941
ANNUAL SEVEN-DAY MINIMUM	41	Aug 18	36	Jul 5	3.6	Oct 19 1941
INSTANTANEOUS PEAK FLOW			23500	Sep 6	43000*	Sep 18 1945
INSTANTANEOUS PEAK STAGE			26.51*	Sep 6	34.04*	Sep 18 1945
INSTANTANEOUS LOW FLOW			26*	Jul 5	.40*	May 27 1941
ANNUAL RUNOFF (CFSM)	1.08		1.41		1.02	
ANNUAL RUNOFF (INCHES)	14.67		19.21		13.93	
10 PERCENT EXCEEDS	666		1020		686	
50 PERCENT EXCEEDS	180		226		152	
90 PERCENT EXCEEDS	51		67		37	

e Estimated.

* See REMARKS.



CAPE FEAR RIVER BASIN

0210106600 DEEP RIVER AT GLENDON, NC

LOCATION.--Lat 35°29'20" long 79°25'15", Moore County, Hydrologic Unit 0303003, on left bank 50 ft upstream of bridge on Secondary Road 1006, 0.5 mi north of Glendon and 4.5 mi upstream of McLendons Creek.

DRAINAGE AREA.--859 mi^2.

PERIOD OF RECORD.--July 1993 to September 1996 (discontinued).

GAGE.--Water stage recorder. Datum of gage is 220 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, discharges below 50 ft^3/s and discharges above 1,800 ft^3/s, which are poor. Diurnal fluctuation and some regulation at low flow caused by small powerplants upstream from station. Station operated to monitor low and medium discharges, as a result maximum gage height and discharge for period of record and current water year are not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	e430	e850	454	1820	537	1370	3410	396	66	458	136
2	91	e1300	e650	555	2090	509	1990	1350	271	65	375	108
3	82	e3200	e495	1160	5070	475	1580	793	230	65	955	137
4	2830	e1750	e370	1050	2720	456	1140	613	228	64	329	1440
5	e5200	e850	e330	695	1720	449	978	484	206	57	249	4930
6	e10100	e480	e320	554	1330	505	885	436	171	63	112	e21000
7	e3000	e2000	e360	654	1260	2620	865	402	178	68	130	e14500
8	e1000	e7300	809	780	1480	4940	845	385	161	39	134	e2700
9	e500	e5000	1460	593	2220	2770	886	362	151	34	635	e1400
10	e375	e2250	2600	576	2130	1580	1320	384	2620	42	3570	e1500
11	e275	e1200	1220	609	1600	1180	953	344	1340	42	635	e7100
12	e210	e5000	820	586	1300	1080	769	299	592	67	380	e6000
13	e200	e3800	680	604	1100	1000	708	314	391	141	622	e2000
14	e190	e2000	608	779	973	936	752	279	316	133	1180	e700
15	e400	e1600	572	1160	943	878	791	293	274	110	516	e425
16	e700	e1400	546	1870	871	970	694	266	239	54	334	e450
17	e450	e1100	523	1760	840	1140	760	419	178	24	297	e600
18	e300	e875	507	1760	788	1140	714	491	140	28	558	e730
19	e180	e800	492	4680	752	2270	639	385	94	70	418	e510
20	e850	e680	592	7140	815	4190	610	300	128	87	255	e390
21	e4000	e650	646	2350	1630	1990	610	287	139	94	162	e330
22	e2000	e600	564	1390	1350	1270	694	211	175	111	126	e270
23	e900	e540	512	1080	1060	999	619	178	147	101	123	e240
24	e380	e500	489	881	941	856	593	253	139	150	112	e200
25	e300	e480	467	1570	861	805	538	153	114	131	155	e190
26	e250	e800	449	1080	748	772	555	150	97	763	416	e250
27	e230	e840	439	3800	686	753	685	220	96	960	433	e320
28	e800	e700	417	6640	612	1220	686	217	88	304	266	e270
29	e2800	e560	412	2460	543	2310	617	655	80	309	194	e300
30	e1500	e675	401	1750	---	1450	3400	547	71	392	207	e290
31	e675	---	413	1780	---	1050	---	673	---	279	168	---
TOTAL	40870	49360	20013	52800	40253	43100	28246	15553	9450	4913	14504	69416
MEAN	1318	1645	646	1703	1388	1390	942	502	315	158	468	2314
MAX	10100	7300	2600	7140	5070	4940	3400	3410	2620	960	3570	21000
MIN	82	430	320	454	543	449	538	150	71	24	112	108

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

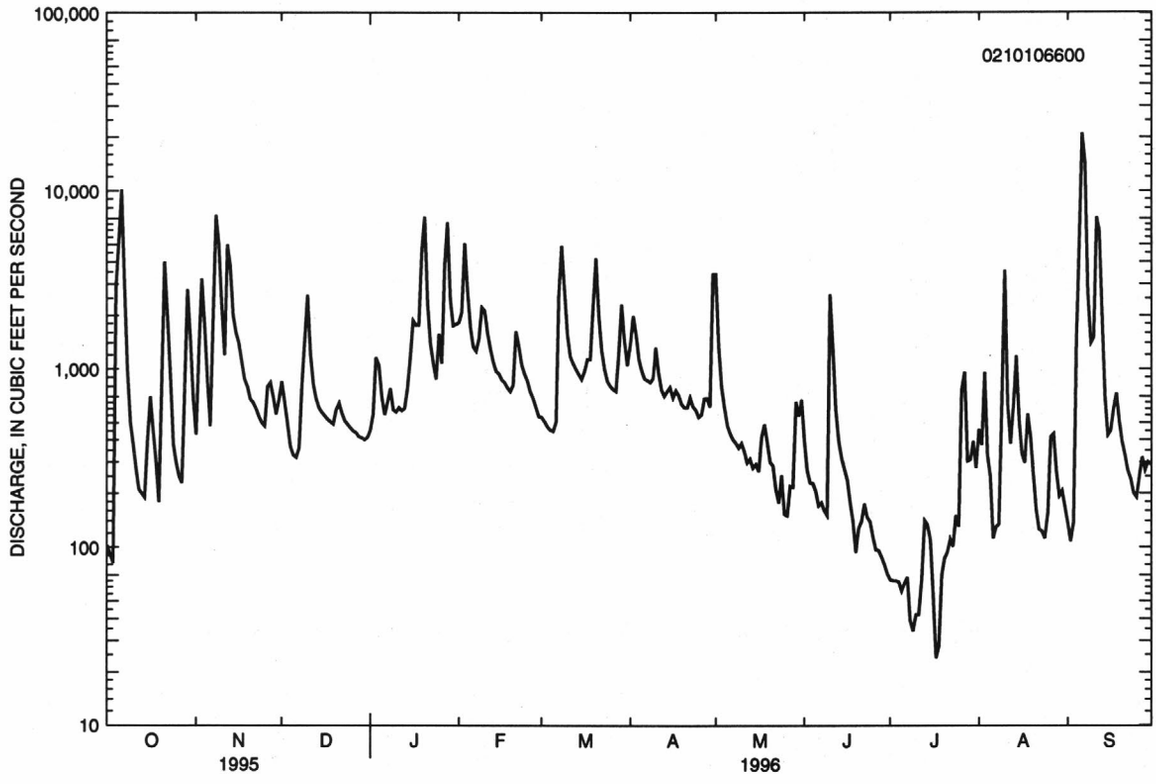
MEAN	491	676	423	1267	1506	1521	610	332	701	366	310	708
MAX	1318	1645	646	1703	1869	1893	942	502	1503	780	468	2314
(WY)	1996	1996	1996	1996	1995	1994	1996	1996	1995	1995	1996	1996
MIN	53.6	144	190	872	1266	1278	289	221	286	147	108	74.0
(WY)	1994	1995	1995	1994	1994	1995	1995	1994	1994	1993	1993	1993

CAPE FEAR RIVER BASIN

0210106600 DEEP RIVER AT GLENDON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	340714		388478			
ANNUAL MEAN	933		1061		767	
HIGHEST ANNUAL MEAN					1061	1996
LOWEST ANNUAL MEAN					571	1994
HIGHEST DAILY MEAN	12500	Jun 29	21000	Sep 6	21000	Sep 6 1996
LOWEST DAILY MEAN	41	Aug 23	24	Jul 17	18	Sep 3 1993
ANNUAL SEVEN-DAY MINIMUM	52	Aug 20	49	Jul 5	30	Oct 1 1993
INSTANTANEOUS PEAK FLOW			NOT DETERMINED*		NOT DETERMINED*	
INSTANTANEOUS PEAK STAGE			NOT DETERMINED*		NOT DETERMINED*	
INSTANTANEOUS LOW FLOW			23	Jul 17	11	Sep 4 1993
10 PERCENT EXCEEDS	2010		2260		1510	
50 PERCENT EXCEEDS	401		593		302	
90 PERCENT EXCEEDS	90		127		67	

e Estimated.
* See REMARKS.



CAPE FEAR RIVER BASIN

0210140200 DEEP RIVER AT CARBONTON, NC

LOCATION.--Lat 35°31'10", long 79°20'51", Chatham County, Hydrologic Unit 03030004, at bridge on State Highway 42, 0.5 mi east of Carbonton and 2.3 mi above Smiths Creek.

DRAINAGE AREA.--1,026 mi^2.

PERIOD OF RECORD.--Water years 1993 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 1995 TO SEPTEMBER 1996

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	BENZENE TOTAL (UG/L) (34030)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)
AUG 15...	1100	160	7.1	23.0	765	6.6	77	<0.400	<0.400	<0.400

DATE	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)
AUG 15...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)
AUG 15...	1.10	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

CAPE FEAR RIVER BASIN

0210140200 DEEP RIVER AT CARBONTON, NC

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L) (34546)	HEXACHLOROBUTADIENE TOTAL (UG/L) (39702)	ETHANE HEXACHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTHALENE TOTAL (UG/L) (34696)
AUG 15...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	BENZENE 1,2,4-TRICHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DICHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO-WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) (77651)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	PROMETON, WATER, DISS, REC (UG/L) (04037)	DEETHYLATRAZINE, WATER, DISS, REC (UG/L) (04040)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	SEDIMENT, SUSPENDED (MG/L) (80154)
AUG 15...	<0.400	<0.400	<0.400	<0.400	0.057	0.041	E0.005	<0.004	48

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 Crutchfield Crossroads.

DRAINAGE AREA.--7.42 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 620 ft above sea level, from topographic map.

REMARKS.--Records fair. Maximum discharge for period of record and the current water year from rating curve extended above 350 ft^3/s, by logarithmic plotting. No flow occurred several days in Aug. 1988. Minimum discharge for the current water year also occurred July 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	3.6	3.6	4.2	9.8	3.7	26	10	3.4	.49	12	.55
2	.44	45	3.3	4.7	41	3.7	13	5.6	2.3	.49	2.8	.54
3	.45	21	3.1	7.6	29	3.7	7.4	4.1	1.7	.43	1.5	29
4	29	18	3.1	4.2	14	3.6	7.8	3.1	1.5	.38	3.6	22
5	123	7.2	2.7	3.2	13	3.7	6.1	2.5	2.6	.33	1.8	36
6	19	5.3	3.2	3.1	12	16	5.0	2.2	1.5	.33	1.1	531
7	5.1	166	7.6	5.0	13	49	5.0	1.9	1.3	.33	.86	18
8	3.4	50	5.7	5.7	28	56	4.2	1.9	1.2	.42	.73	5.9
9	3.4	12	45	5.4	20	13	16	1.8	18	.69	7.6	3.7
10	1.7	7.4	12	4.2	12	8.2	7.8	1.6	11	.55	6.4	2.6
11	2.4	65	6.7	3.8	9.7	7.0	5.9	1.6	3.7	.50	2.7	11
12	2.4	53	5.2	3.7	7.7	6.2	4.7	2.2	2.0	.58	1.6	5.3
13	1.7	12	4.6	4.5	6.6	5.5	4.2	1.5	1.6	1.3	10	3.1
14	20	10	4.1	8.7	6.3	5.0	4.2	1.7	1.3	.70	3.3	2.1
15	23	7.5	3.7	22	5.7	4.8	3.9	1.8	1.1	.56	1.6	2.1
16	5.0	5.6	3.8	24	5.8	5.0	5.0	14	.99	.60	3.5	3.3
17	3.3	4.8	5.1	26	5.9	9.7	4.0	5.0	.96	.50	6.0	8.8
18	2.5	4.5	4.0	24	6.2	7.0	3.5	2.9	.90	.51	3.5	3.3
19	1.7	4.1	6.9	61	5.3	62	3.2	2.0	.83	3.5	1.8	2.1
20	70	3.4	6.0	17	13	21	4.4	1.6	.80	.72	1.2	2.7
21	85	3.8	4.2	9.4	11	10	5.2	2.3	.78	.45	.88	2.2
22	11	3.5	3.6	7.1	8.2	7.5	3.8	1.5	.69	.38	.77	1.5
23	5.4	3.2	3.2	6.3	7.3	6.1	3.0	1.1	.63	.38	.61	1.3
24	3.9	4.0	2.9	29	6.3	5.3	2.7	1.5	.64	.36	1.1	1.2
25	3.4	6.6	2.8	14	5.4	4.8	2.5	1.9	.60	.32	4.7	1.2
26	2.5	4.3	2.6	8.0	5.0	4.5	3.9	1.8	.55	.39	1.1	1.5
27	2.5	3.7	2.6	113	4.6	4.0	4.0	2.5	.50	.35	.87	1.5
28	39	3.6	2.5	21	4.5	12	3.0	6.1	.49	25	.77	1.4
29	7.1	4.7	2.3	12	4.0	8.5	3.5	23	.45	6.9	.69	3.3
30	5.3	4.7	2.3	11	---	6.2	39	39	.48	2.2	.61	1.7
31	3.4	---	3.1	13	---	5.5	---	6.0	---	4.6	.56	---
TOTAL	486.52	547.5	171.5	485.8	320.3	368.2	211.9	155.7	64.49	55.24	86.25	709.89
MEAN	15.7	18.2	5.53	15.7	11.0	11.9	7.06	5.02	2.15	1.78	2.78	23.7
MAX	123	166	45	113	41	62	39	39	18	25	12	531
MIN	.44	3.2	2.3	3.1	4.0	3.6	2.5	1.1	.45	.32	.56	.54
CFSM	2.12	2.46	.75	2.11	1.49	1.60	.95	.68	.29	.24	.37	3.19
IN.	2.44	2.74	.86	2.44	1.61	1.85	1.06	.78	.32	.28	.43	3.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

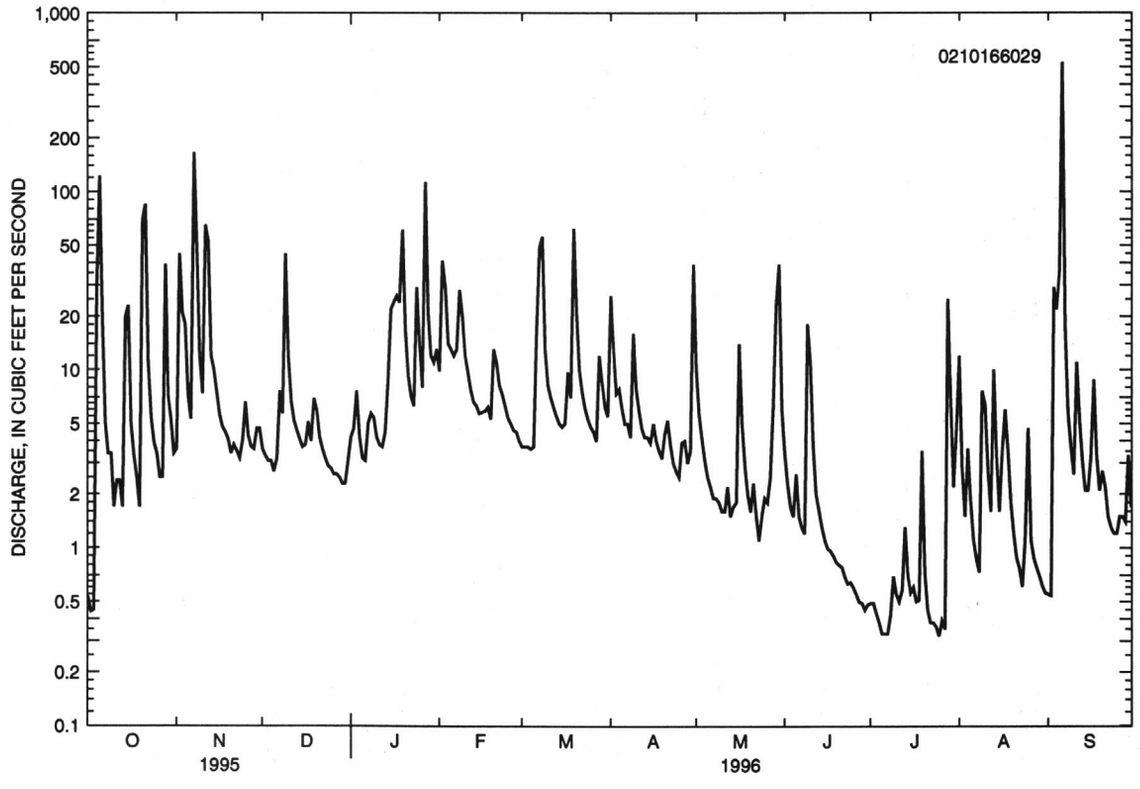
MEAN	7.20	6.30	4.81	13.0	13.1	17.4	8.92	5.81	4.83	4.46	2.26	4.60
MAX	17.1	18.2	10.6	19.8	20.8	29.6	19.0	19.2	20.5	14.8	8.61	23.7
(WY)	1990	1996	1990	1993	1995	1993	1993	1990	1995	1989	1994	1996
MIN	.77	1.52	1.29	2.33	4.89	6.95	1.94	1.58	.44	.50	.41	.26
(WY)	1994	1995	1995	1989	1991	1992	1995	1988	1988	1988	1993	1990

CAPE FEAR RIVER BASIN

0210166029 ROCKY RIVER NEAR CRUTCHFIELD CROSSROADS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	3860.56		3663.29			
ANNUAL MEAN	10.6		10.0		7.84	
HIGHEST ANNUAL MEAN					10.0	1996
LOWEST ANNUAL MEAN					4.26	1992
HIGHEST DAILY MEAN	322	Jan 15	531	Sep 6	531	Sep 6 1996
LOWEST DAILY MEAN	.30	Sep 16	.32	Jul 25	0*	Aug 20 1988
ANNUAL SEVEN-DAY MINIMUM	.35	Sep 15	.38	Jul 21	.02	Aug 17 1988
INSTANTANEOUS PEAK FLOW			1260*	Sep 6	1260*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			11.91	Sep 6	11.91	Sep 6 1996
INSTANTANEOUS LOW FLOW			.29*	Jul 25	0*	Aug 19 1988
ANNUAL RUNOFF (CFSM)	1.43		1.35		1.06	
ANNUAL RUNOFF (INCHES)	19.35		18.37		14.36	
10 PERCENT EXCEEDS	20		21		16	
50 PERCENT EXCEEDS	3.2		3.9		2.3	
90 PERCENT EXCEEDS	.61		.62		.43	

* See REMARKS.



CAPE FEAR RIVER BASIN

02101800 TICK CREEK NEAR MOUNT VERNON SPRINGS, NC

LOCATION.--Lat 35°39'37", long 79°24'08", Chatham County, Hydrologic Unit 03030003, on right bank 200 ft upstream from bridge on U.S. Highway 421, 1.5 mi east of Mount Vernon Springs, and 4 mi upstream from mouth.

DRAINAGE AREA.--15.5 mi^2

PERIOD OF RECORD.--June 1958 to September 1981, January 1994 to current year.

GAGE.--Water-stage recorder and v-notch sharp-crested weir. Elevation of gage is 455 ft above sea level, by barometer.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 2,200 ft^3/s, on basis of contracted-opening measurement of peak flow. No flow occurs at times most years. Minimum discharge for the current water year also occurred July 5, 6, 7, 8 and 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	7.8	9.0	e6.0	18	7.0	22	25	1.6	.03	5.2	2.1
2	.19	69	8.1	e6.7	82	7.0	17	12	1.4	.02	2.0	3.9
3	.22	48	7.1	e18	55	6.6	12	8.1	1.3	.02	4.1	264
4	171	24	7.0	e10	24	5.8	10	6.3	1.1	.01	2.6	103
5	234	13	6.6	e7.0	16	5.9	9.0	5.2	1.0	.01	.85	82
6	39	10	6.6	6.5	15	27	8.4	4.5	.90	.01	.49	1570
7	12	243	e20	9.9	20	68	9.3	3.9	.80	.01	.30	44
8	7.2	101	e9.9	7.9	35	86	7.9	4.2	2.2	.01	.18	16
9	5.4	28	e57	6.4	35	25	27	3.5	2.1	.05	56	9.6
10	4.7	17	e17	6.8	20	17	15	2.9	1.8	.05	21	14
11	4.6	92	e12	6.5	16	13	11	2.6	2.3	.03	3.2	23
12	4.4	114	e8.8	6.7	13	12	9.2	2.7	2.6	2.5	1.5	14
13	4.3	29	e7.8	7.8	11	11	9.1	2.4	1.9	1.6	2.1	8.8
14	9.6	21	e7.2	16	11	9.5	19	2.5	1.3	1.1	2.2	6.2
15	29	16	e6.9	40	9.8	9.2	11	2.7	.97	.85	1.8	5.0
16	7.3	12	e7.1	45	10	9.3	9.4	17	.73	.76	1.4	4.8
17	4.5	10	e9.9	39	10	16	7.5	9.1	.49	.79	1.4	17
18	3.4	8.9	e6.0	35	9.4	11	6.7	4.5	.37	.67	3.0	7.4
19	3.0	8.4	e13	205	8.2	91	6.3	3.1	.30	.35	2.1	5.1
20	127	7.7	e9.5	49	48	41	6.4	2.5	.29	.10	1.8	4.2
21	149	7.3	e7.0	25	31	20	8.2	2.1	.27	.03	2.8	3.7
22	24	6.6	e5.7	18	19	14	6.7	1.7	.22	.02	2.9	3.7
23	12	6.0	e5.1	15	16	12	6.6	1.5	.17	.02	3.1	3.3
24	8.3	6.1	e4.8	25	13	10	4.4	1.7	.13	.02	20	2.3
25	6.7	12	e4.4	20	10	9.5	4.5	2.3	.10	.02	25	3.0
26	5.5	8.4	e4.0	14	9.5	9.1	7.3	1.9	.07	.03	4.7	8.0
27	6.2	7.2	e4.0	118	8.9	8.5	9.2	3.1	.06	.03	8.0	5.8
28	84	7.4	e3.8	38	8.7	50	5.6	5.2	.04	.03	4.2	4.4
29	17	11	e3.6	22	7.7	33	6.6	3.7	.04	.03	2.6	10
30	9.6	12	e3.5	20	---	18	78	2.8	.03	1.6	2.7	8.9
31	7.4	---	e5.3	25	---	14	---	2.0	---	3.7	2.4	---
TOTAL	1000.72	963.8	287.7	875.2	590.2	676.4	370.3	152.7	26.58	14.50	191.62	2257.2
MEAN	32.3	32.1	9.28	28.2	20.4	21.8	12.3	4.93	.89	.47	6.18	75.2
MAX	234	243	57	205	82	91	78	25	2.6	3.7	56	1570
MIN	.19	6.0	3.5	6.0	7.7	5.8	4.4	1.5	.03	.01	.18	2.1
CFSM	2.08	2.07	.60	1.82	1.31	1.41	.80	.32	.06	.03	.40	4.85
IN.	2.40	2.31	.69	2.10	1.42	1.62	.89	.37	.06	.03	.46	5.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1996@, BY WATER YEAR (WY)

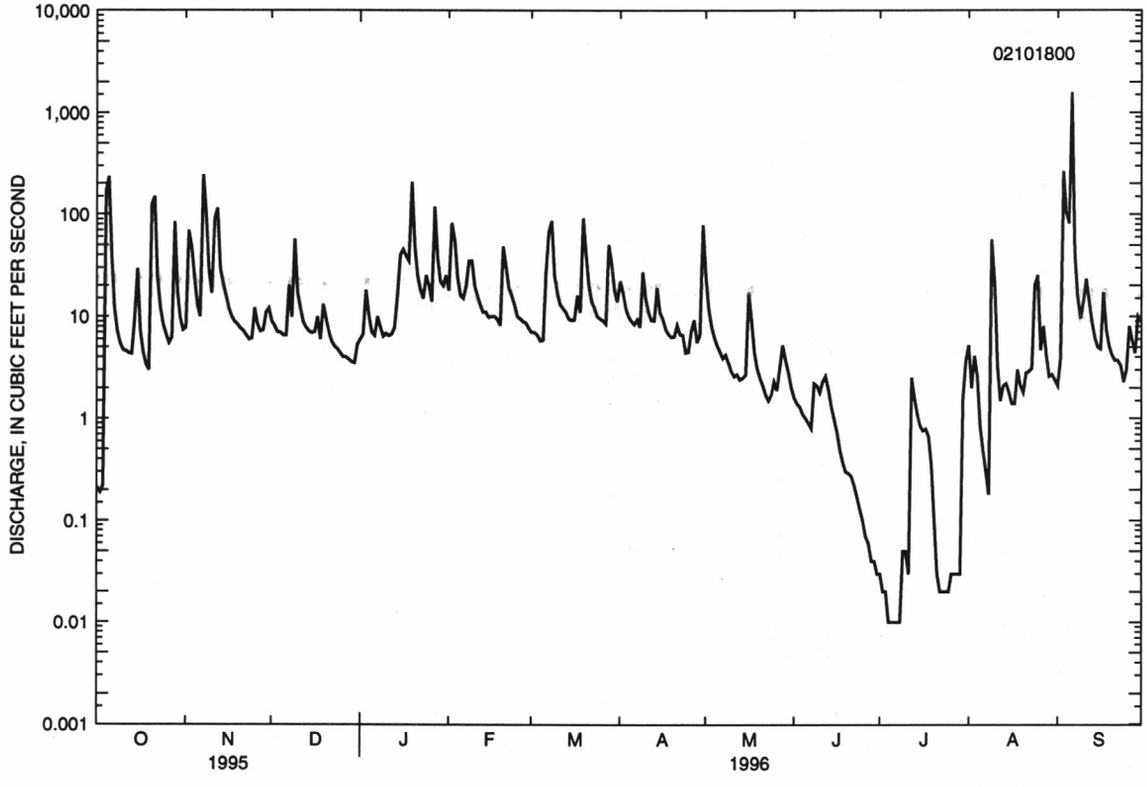
MEAN	8.01	7.26	11.7	26.3	33.6	30.6	18.1	9.37	8.45	8.62	8.23	6.52
MAX	56.6	33.0	53.4	80.4	81.0	63.0	48.3	39.1	48.0	66.6	55.3	75.2
(WY)	1972	1980	1973	1978	1960	1975	1960	1978	1973	1975	1964	1996
MIN	.003	.16	.79	1.27	5.18	4.80	2.45	1.59	.55	.098	.003	.000
(WY)	1964	1974	1961	1981	1968	1981	1981	1981	1981	1966	1977	1980

CAPE FEAR RIVER BASIN

02101800 TICK CREEK NEAR MOUNT VERNON SPRINGS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1958 - 1996@	
ANNUAL TOTAL	6113.17		7406.92			
ANNUAL MEAN	16.7		20.2		14.9	
HIGHEST ANNUAL MEAN					26.5	1973
LOWEST ANNUAL MEAN					3.84	1981
HIGHEST DAILY MEAN	560	Jun 29	1570	Sep 6	1570	Sep 6 1996
LOWEST DAILY MEAN	.01	Aug 21	.01	Jul 4	0*	Sep 2 1962
ANNUAL SEVEN-DAY MINIMUM	.01	Aug 18	.01	Jul 2	0*	Sep 2 1962
INSTANTANEOUS PEAK FLOW			4010*	Sep 6	4010*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			13.41	Sep 6	13.41	Sep 6 1996
INSTANTANEOUS LOW FLOW			.01*	Jul 4	0*	Sep 2 1962
ANNUAL RUNOFF (CFSM)	1.08		1.31		.96	
ANNUAL RUNOFF (INCHES)	14.67		17.78		13.05	
10 PERCENT EXCEEDS	29		35		27	
50 PERCENT EXCEEDS	3.8		7.1		3.7	
90 PERCENT EXCEEDS	.22		.30		.19	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation and some regulation at low flow caused by small powerplants upstream from station. Minimum discharge for the current water year also occurred July 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	931	1210	589	2630	797	1840	7240	893	92	462	280
2	153	1630	941	779	3510	732	2960	3400	498	70	723	214
3	e145	6730	763	1930	8760	724	2690	1760	408	69	1010	463
4	1680	4220	670	2380	6510	664	1890	1160	334	66	1170	2200
5	16100	2230	613	1500	3100	622	1440	985	327	62	384	4850
6	15800	1510	573	1020	2100	861	1230	763	385	62	347	33600
7	e11100	4760	613	950	1840	4320	1130	657	260	65	206	20500
8	e2200	14300	1150	1290	2350	9310	1080	646	338	63	206	21400
9	e1200	13000	e1610	1210	3750	6680	1210	570	237	68	217	20300
10	e800	4900	e4000	984	3600	2950	1830	540	1400	82	3830	9230
11	e630	2620	e2000	1020	2560	1920	1780	e640	3000	70	2140	e10500
12	e460	11000	e1550	1040	1940	1560	1280	e410	1530	77	736	e8000
13	e340	10200	1150	1030	1530	1360	1060	e520	723	200	393	4350
14	401	3840	979	1270	1290	1220	1070	469	485	148	1370	1880
15	1550	2290	861	2210	1160	1120	1270	406	412	224	1140	1060
16	2910	1750	805	3440	1120	1290	1220	575	339	385	594	757
17	1360	1350	755	3570	1110	1930	1020	1160	302	214	345	1330
18	749	1140	700	3190	1080	1970	1040	927	252	117	410	2350
19	462	1000	704	7420	1000	2530	920	742	206	94	642	1640
20	567	949	778	11100	1370	7660	824	532	147	88	473	899
21	9200	860	924	7260	3360	4410	734	482	173	92	307	616
22	8730	795	e840	2770	2600	2380	880	439	191	112	217	398
23	3110	756	e750	2010	1870	1670	886	367	228	159	164	445
24	1470	680	643	1730	1490	1320	760	308	210	201	305	436
25	977	778	583	2490	1260	1140	689	369	221	282	369	292
26	682	1100	554	2530	1070	1040	631	371	178	244	466	339
27	605	1110	556	5470	948	959	773	278	151	1420	883	411
28	2480	860	521	10700	901	1710	991	601	135	911	726	301
29	6110	687	e490	6910	839	4780	881	614	235	802	358	538
30	2420	794	475	2910	---	3140	3610	1270	270	310	305	476
31	1300	---	e500	2560	---	2010	---	1040	---	518	245	---
TOTAL	95845	98770	29261	95262	66648	74779	39619	30241	14468	7367	21143	150055
MEAN	3092	3292	944	3073	2298	2412	1321	976	482	238	682	5002
MAX	16100	14300	4000	11100	8760	9310	3610	7240	3000	1420	3830	33600
MIN	145	680	475	589	839	622	631	278	135	62	164	214
CFSM	2.16	2.30	.66	2.14	1.60	1.68	.92	.68	.34	.17	.48	3.49
IN.	2.49	2.56	.76	2.47	1.73	1.94	1.03	.78	.38	.19	.55	3.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	729	858	1321	2381	2868	2860	2062	1118	808	850	849	796
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

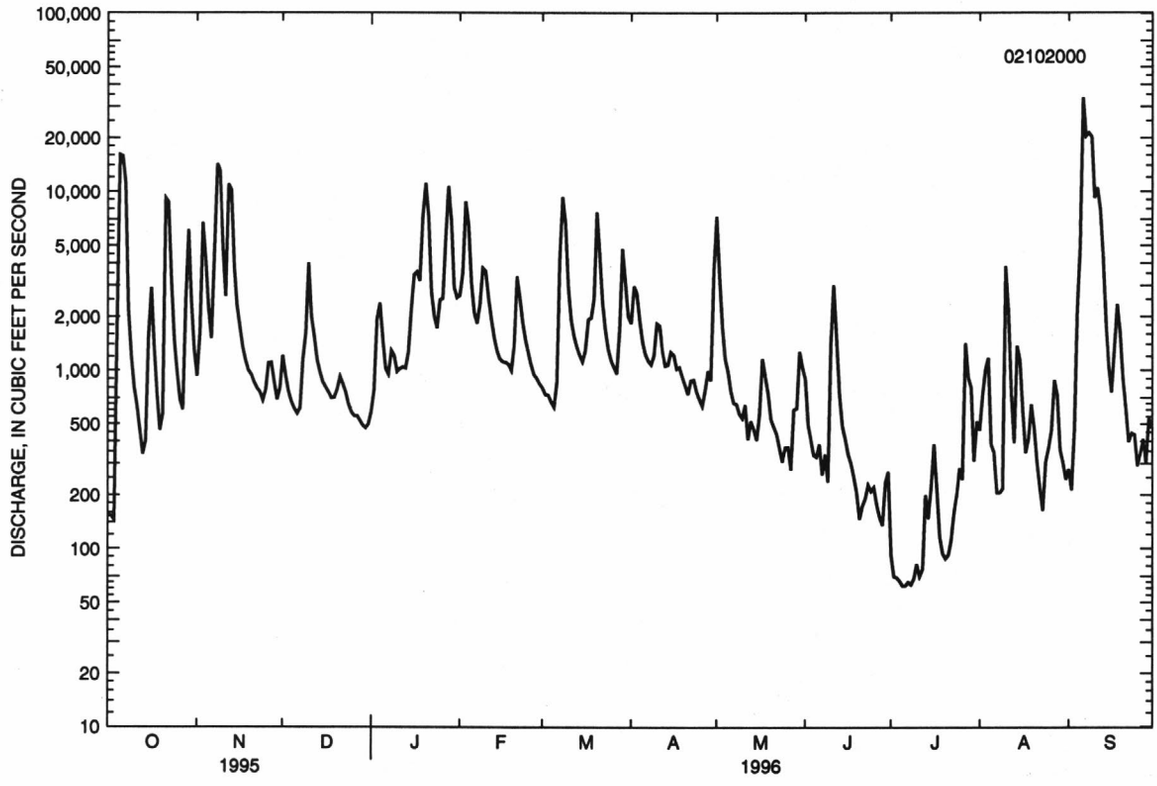
CAPE FEAR RIVER BASIN

02102000 DEEP RIVER AT MONCURE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	687622		723458			
ANNUAL MEAN	1884		1977		1453	
HIGHEST ANNUAL MEAN					2711	1984
LOWEST ANNUAL MEAN					606	1988
HIGHEST DAILY MEAN	21000	Feb 17	33600	Sep 6	66400	Sep 18 1945
LOWEST DAILY MEAN	56	Sep 19	62	Jul 5	6.0	Oct 9 1954
ANNUAL SEVEN-DAY MINIMUM	65	Aug 13	65	Jul 3	6.6	Oct 8 1954
INSTANTANEOUS PEAK FLOW			47900	Sep 6	80300	Sep 18 1945
INSTANTANEOUS PEAK STAGE			12.94	Sep 6	17.20	Sep 18 1945
INSTANTANEOUS LOW FLOW			59*	Jul 11	5.5	Oct 10 1954
ANNUAL RUNOFF (CFSM)	1.31		1.38		1.01	
ANNUAL RUNOFF (INCHES)	17.84		18.77		13.77	
10 PERCENT EXCEEDS	4730		4330		3330	
50 PERCENT EXCEEDS	719		929		539	
90 PERCENT EXCEEDS	166		214		98	

e Estimated.

* See REMARKS.



CAPE FEAR RIVER BASIN

0210215985 CAPE FEAR RIVER AT STATE HIGHWAY 42 NEAR BRICKHAVEN, NC

LOCATION.--Lat 35°32'54", long 79°01'34", Chatham County, 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. Daily mean discharge values were obtained from the U.S. Army Corps of Engineers reservoir releases from the B. Everett Jordan Lake at the 2400 hour and the daily mean discharge value from Deep River near Moncure, 02102000. The values from these two sites were added together and entered as a daily mean discharge for each date and time that a water-quality sample was collected.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT												
25...	1030	7650	100	7.1	16.5	92	758	9.2	95	24	5.9	2.3
DEC												
06...	1100	1760	144	6.8	9.5	48	755	10.9	96	31	7.5	2.9
JAN												
31...	1330	4560	77	7.0	6.5	210	758	12.8	104	21	4.9	2.1
APR												
03...	1330	6740	130	7.3	11.0	76	--	--	--	28	6.7	2.7
MAY												
30...	1000	3420	150	6.9	21.0	50	763	7.4	83	32	7.7	3.0
AUG												
15...	1000	2260	120	7.0	24.0	110	767	6.2	73	24	5.8	2.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)
OCT												
25...	8.0	38	0.7	3.6	28	23	8.2	7.2	0.20	8.6	80	0.500
DEC												
06...	14	47	1	3.0	34	28	14	12	0.10	12	88	0.870
JAN												
31...	5.7	34	0.5	2.1	25	20	6.6	7.5	<0.10	10	68	0.510
APR												
03...	11	44	0.9	2.2	30	25	11	11	<0.10	10	80	0.690
MAY												
30...	14	46	1	2.8	36	30	13	12	0.20	8.7	108	0.700
AUG												
15...	11	45	1	4.1	20	16	11	10	0.20	7.2	88	0.790

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT												
25...	0.020	0.520	0.520	0.080	0.62	0.52	0.70	0.60	1.2	1.1	0.160	0.080
DEC												
06...	<0.010	0.870	0.870	0.050	0.45	0.35	0.50	0.40	1.4	1.3	0.090	0.060
JAN												
31...	0.020	0.530	0.530	0.070	0.53	0.33	0.60	0.40	1.1	0.93	0.150	0.050
APR												
03...	0.020	0.710	0.710	0.040	0.46	0.36	0.50	0.40	1.2	1.1	0.120	0.070
MAY												
30...	0.020	0.720	0.720	0.100	0.50	0.40	0.60	0.50	1.3	1.2	0.090	0.040
AUG												
15...	0.020	0.810	0.810	0.080	0.72	0.52	0.80	0.60	1.6	1.4	0.210	0.130

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)
OCT												
25...	0.090	880	<1	<1	2	<1	4	1400	2	120	<0.10	1
DEC												
06...	0.050	--	--	--	--	--	--	--	--	--	--	--
JAN												
31...	0.050	--	--	--	--	--	--	--	--	--	--	--
APR												
03...	0.060	360	<1	<1	<1	<1	2	1000	<1	60	<0.10	<1
MAY												
30...	0.050	--	--	--	--	--	--	--	--	--	--	--
AUG												
15...	0.150	--	--	--	--	--	--	--	--	--	--	--

0210215985 CAPE FEAR RIVER AT STATE HIGHWAY 42 NEAR BRICKHAVEN, NC--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	BENZENE TOTAL (UG/L) (34030)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)
OCT 25...	2	<1	<1	10	11	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	6.6	--	--	--	--	--	--	--
JAN 31...	--	--	--	--	9.1	--	--	--	--	--	--	--
APR 03...	<1	<1	<1	<10	7.0	--	--	--	--	--	--	--
MAY 30...	--	--	--	--	8.0	--	--	--	--	--	--	--
AUG 15...	--	--	--	--	9.3	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	ETHYL-BENZENE TOTAL (UG/L) (34371)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-ENE CHLO-RIDE TOTAL (UG/L) (34423)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE TOTAL (UG/L) (34010)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)
OCT 25...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 31...	--	--	--	--	--	--	--	--	--	--	--	--
APR 03...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 15...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	1.10	<0.400	<0.400	<0.400	<0.400	<0.400

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L) (34546)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)
OCT												
25...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
31...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
15...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400

DATE	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT												
25...	--	--	--	--	--	--	--	--	--	--	72	1490
DEC												
06...	--	--	--	--	--	--	--	--	--	--	33	157
JAN												
31...	--	--	--	--	--	--	--	--	--	--	77	947
APR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
30...	--	--	--	--	--	--	--	--	--	--	51	471
AUG												
15...	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	0.059	0.050	E0.005	<0.004	33	201

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 sea level.

REMARKS.--Records poor. Estimated daily discharges are due to beaver activity. Since Dec. 1, 1980, considerable regulation by Harris Lake (station 02102190). Maximum discharge prior to regulation: 6,920 ft^3/s, Feb. 2, 1973; gage height: 20.02 ft. Minimum discharge prior to regulation: 0.01 ft^3/s, Sept. 2, 1976. Minimum discharge for the current water year not determined due to beaver activity.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.2	93	45	21	176	97	95	147	15	e8.0	10	.81
2	e3.4	107	42	23	206	89	94	133	16	e7.0	5.9	.63
3	e3.4	140	39	27	253	82	84	121	22	e6.0	15	11
4	e150	142	37	28	231	74	77	109	27	e6.0	8.3	5.8
5	244	127	34	27	207	68	73	99	33	e6.0	6.4	64
6	331	114	31	26	190	75	69	89	28	e6.0	4.7	1940
7	289	200	37	40	176	114	66	84	25	e6.0	5.9	812
8	256	296	35	40	175	184	60	74	21	e6.0	6.7	576
9	227	258	45	37	185	173	66	67	23	e6.0	5.0	394
10	200	225	49	38	175	161	63	60	22	e6.0	5.4	555
11	179	225	45	37	166	148	57	53	22	e6.0	3.6	879
12	156	288	43	38	153	132	54	53	21	23	2.9	726
13	137	255	40	38	140	117	47	44	16	20	5.6	602
14	129	233	38	39	128	106	49	40	12	15	3.1	491
15	154	208	36	46	122	100	50	34	8.9	27	1.7	399
16	129	184	36	59	119	98	55	39	6.1	9.3	1.3	340
17	111	163	33	67	109	99	50	39	5.8	7.6	1.3	370
18	95	144	31	78	103	93	45	35	8.8	8.9	.90	326
19	83	129	32	109	97	99	40	32	13	6.5	.83	272
20	80	116	32	129	107	100	39	29	19	4.9	.87	227
21	107	105	28	122	170	95	44	25	23	4.8	.76	191
22	98	95	26	114	175	87	41	24	24	18	1.7	166
23	88	85	24	103	169	81	37	19	24	8.5	4.1	140
24	81	79	22	96	160	75	42	16	e23	4.0	2.2	118
25	75	76	20	94	146	71	35	16	e21	8.3	4.5	102
26	68	68	19	88	136	69	36	14	e19	13	6.7	89
27	63	61	19	188	126	67	43	14	e17	4.9	8.9	77
28	115	57	18	225	116	86	38	31	e14	5.1	4.0	68
29	114	57	17	209	106	101	35	23	e11	6.1	2.6	63
30	104	50	17	197	---	98	125	24	e9.0	4.8	1.5	55
31	95	---	18	190	---	95	---	17	---	6.9	1.3	---
TOTAL	3968.0	4380	988	2573	4522	3134	1709	1604	549.6	275.6	133.66	10060.24
MEAN	128	146	31.9	83.0	156	101	57.0	51.7	18.3	8.89	4.31	335
MAX	331	296	49	225	253	184	125	147	33	27	15	1940
MIN	3.2	50	17	21	97	67	35	14	5.8	4.0	.76	.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996*, BY WATER YEAR (WY)

MEAN	15.2	25.1	32.9	64.2	89.3	131	93.1	39.1	27.4	22.9	20.8	25.5
MAX	128	146	143	241	223	335	312	184	138	102	199	335
(WY)	1996	1996	1984	1984	1984	1989	1993	1989	1984	1989	1986	1996
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

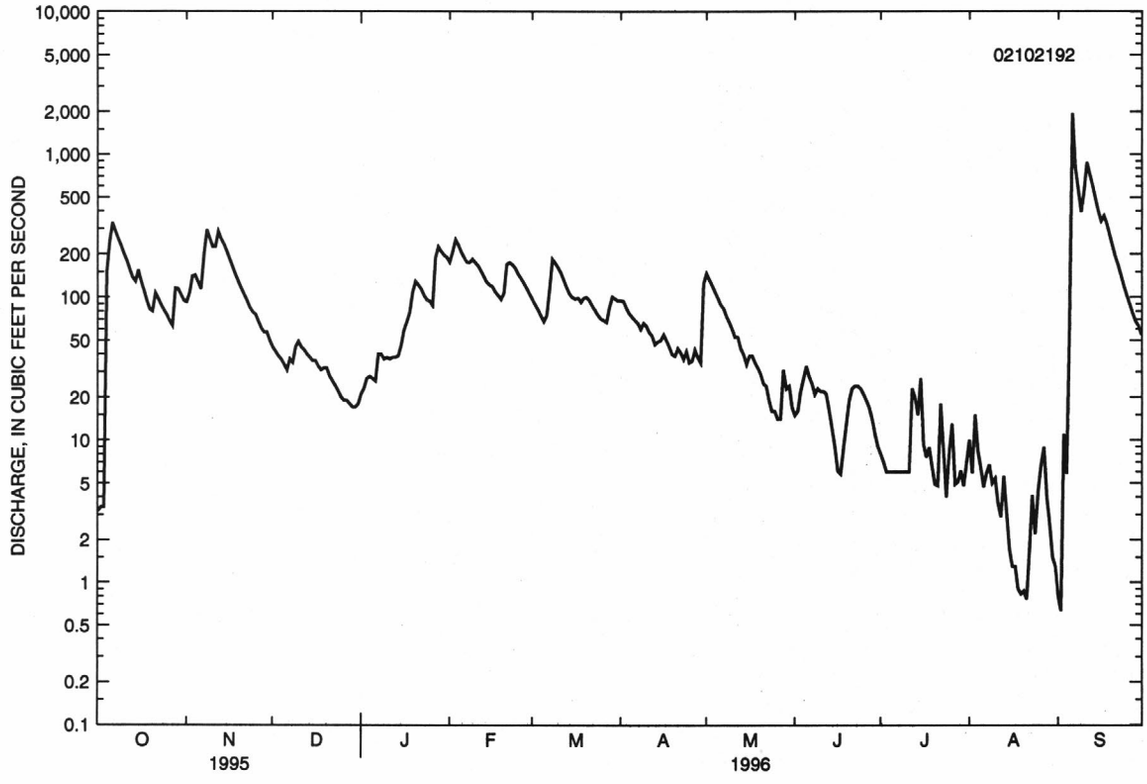
CAPE FEAR RIVER BASIN

02102192 BUCKHORN CREEK NEAR CORINTH, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1981 - 1996*	
ANNUAL TOTAL	24536.20		33897.10			
ANNUAL MEAN	67.2		92.6		48.7	
HIGHEST ANNUAL MEAN					126	1984
LOWEST ANNUAL MEAN					2.47	1981
HIGHEST DAILY MEAN	401	Feb 19	1940	Sep 6	1940	Sep 6 1996
LOWEST DAILY MEAN	.53	Aug 20	.63	Sep 2	.11	Jul 23 1981
ANNUAL SEVEN-DAY MINIMUM	.58	Aug 19	1.1	Aug 15	.12	Oct 14 1981
INSTANTANEOUS PEAK FLOW			4300*	Sep 6	4300*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			16.79*	Sep 6	16.79*	Sep 6 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		.05*	May 10 1988
10 PERCENT EXCEEDS	205		198		153	
50 PERCENT EXCEEDS	26		53		7.2	
90 PERCENT EXCEEDS	2.6		5.9		.70	

e Estimated.

* Regulated period only (1981-1996). 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:

GAGE.--Water-stage recorder. Datum of gage is 104.62 ft above sea level. 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 telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation at high flows, December 1972 to August 1981, caused by temporary storage in B. Everett Jordan Lake. Flow regulated since Sept. 1981 by B. Everett Jordan Lake (station 02098197). Diurnal fluctuation and slight regulation at low flow caused by power plants 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	743	8590	1750	1310	5250	2330	4320	9500	3590	660	1270	883
2	648	7580	2550	1460	5680	2160	5670	7570	3210	588	946	818
3	761	8950	2250	2240	12800	1690	7300	7310	2420	606	1570	1250
4	2220	7680	2470	4100	12000	1670	6490	5760	821	575	1630	2640
5	19500	6340	3070	3270	8000	1590	5440	5120	803	593	1010	3820
6	20900	5250	2010	2970	6460	1520	3590	3930	799	583	1330	e41400
7	16000	6260	2080	2960	5950	4210	3450	2460	762	528	1450	e39000
8	8550	17400	2440	3040	6170	11100	3230	2390	741	528	1540	22000
9	7120	15700	3170	3180	8610	9450	2850	2310	900	630	2480	22900
10	5590	13400	5640	2930	10900	6180	3250	2240	1070	650	4190	16600
11	1650	9020	5100	2860	11200	7500	3500	1990	3420	631	5600	17900
12	1390	14800	4160	2590	10900	6960	3150	1420	2780	748	3220	16800
13	1320	12800	3070	2550	10300	6660	3530	1270	3160	810	2070	16200
14	1290	9700	3590	2710	e8600	6420	3440	1250	2270	745	1280	16300
15	2070	12500	3610	3490	e4700	5980	3280	1270	2060	993	2170	16800
16	4020	15300	3510	4960	e4800	2680	2880	1340	1820	1200	2400	17500
17	2600	13700	3450	5600	e5000	3060	3020	2320	895	811	2110	17100
18	2190	6450	3360	6260	e4800	3360	2860	4050	851	688	1910	14700
19	1840	6020	3390	9560	e4000	4390	2620	3860	804	586	2110	16800
20	1820	5510	3450	14300	e2400	9860	1890	2930	904	606	1130	17000
21	8640	2020	3270	12600	5230	7640	1530	1070	745	598	983	16300
22	11300	1860	2310	9430	7210	7990	1490	1060	579	653	813	15800
23	5560	2660	1530	13300	6930	7740	1760	979	570	1240	807	15500
24	2530	2330	1390	13200	3440	7510	2540	843	731	708	841	14600
25	6500	1450	1320	14100	2960	7110	2330	846	672	792	1310	11400
26	9130	1690	1270	15700	2730	2600	1820	809	636	976	1370	7970
27	7820	1840	1260	14900	2750	2380	1440	808	562	1050	1940	5300
28	5280	1640	1230	15300	3360	2920	1500	1270	549	1990	1660	4000
29	9420	1470	1190	12900	3230	6750	1540	1390	608	1760	1180	4070
30	6430	1390	1180	7430	---	6470	3850	2350	777	998	929	4200
31	9040	---	1230	5230	---	4880	---	4160	---	1110	858	---
TOTAL	183872	221300	81300	216430	186360	162760	95560	85875	40509	25634	54107	417551
MEAN	5931	7377	2623	6982	6426	5250	3185	2770	1350	827	1745	13920
MAX	20900	17400	5640	15700	12800	11100	7300	9500	3590	1990	5600	41400
MIN	648	1390	1180	1310	2400	1520	1440	808	549	528	807	818

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

MEAN	1870	2211	2830	5419	6252	7814	5189	2573	2578	1812	1820	1742
MAX	6442	7919	8595	10470	11560	15710	11670	7784	12510	5694	5448	13920
(WY)	1990	1986	1984	1991	1984	1993	1993	1989	1982	1995	1985	1996
MIN	637	653	723	1373	1860	1628	969	824	702	654	634	596
(WY)	1994	1995	1995	1986	1986	1988	1985	1986	1986	1986	1983	1990

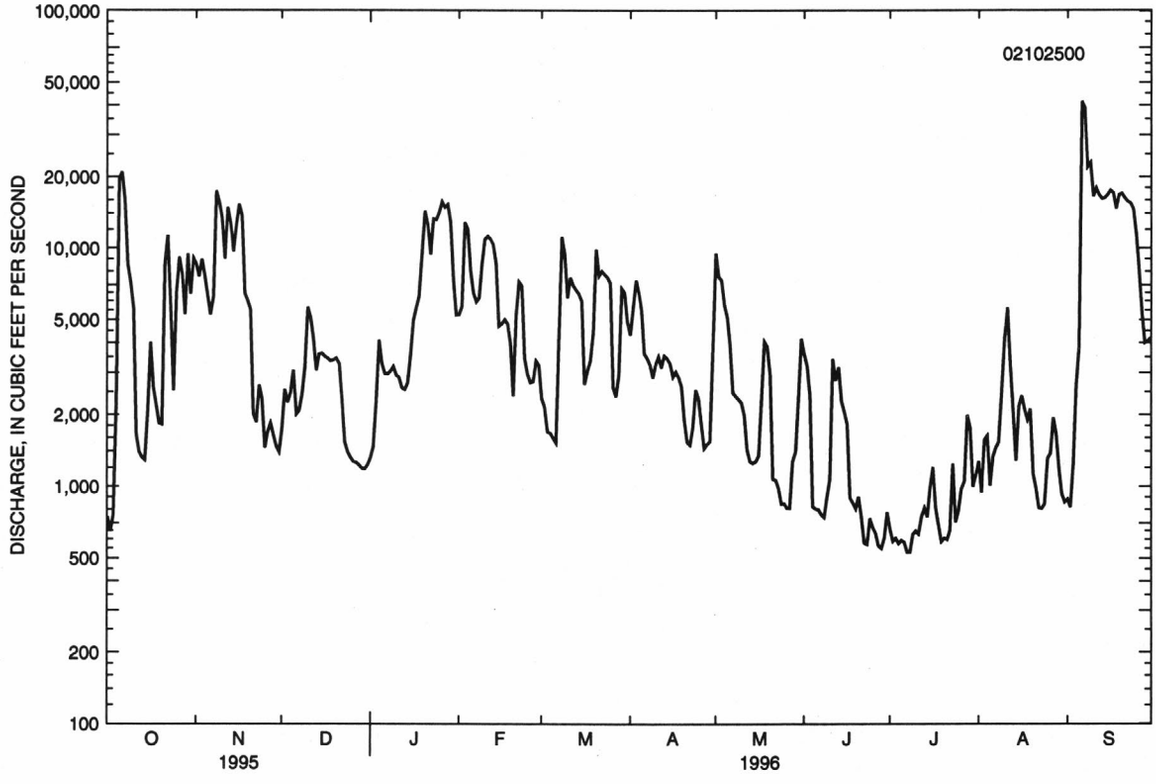
CAPE FEAR RIVER BASIN

02102500 CAPE FEAR RIVER AT LILLINGTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996*	
ANNUAL TOTAL	1559125		1771258			
ANNUAL MEAN	4272		4840		3495	
HIGHEST ANNUAL MEAN					6167	1984
LOWEST ANNUAL MEAN					1488	1988
HIGHEST DAILY MEAN	26800	Feb 17	e41400	Sep 6	e41400	Sep 6 1996
LOWEST DAILY MEAN	521	Aug 15	528	Jul 7	210	Oct 23 1981
ANNUAL SEVEN-DAY MINIMUM	597	Aug 13	572	Jul 2	223	Oct 2 1981
INSTANTANEOUS PEAK FLOW			51800	Sep 7	51800*	Sep 7 1996
INSTANTANEOUS PEAK STAGE			18.97	Sep 7	18.97*	Sep 7 1996
INSTANTANEOUS LOW FLOW			499	Jul 8	190*	Oct 23 1981
10 PERCENT EXCEEDS	12300		12800		10400	
50 PERCENT EXCEEDS	1840		2870		1270	
90 PERCENT EXCEEDS	699		802		626	

e Estimated.

* Regulated period only (1982-1996). 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 mi^2.

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

REVISED RECORDS.--WDR NC-72-1: 1968-70 (M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 191.18 ft above sea level. Satellite telemetry at station.

REMARKS.--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 discharge for the current water year also occurred July 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	15	12	16	13	9.9	17	36	6.9	5.0	18	7.3
2	8.1	22	12	14	17	10	15	16	6.7	6.2	11	7.6
3	7.7	24	12	18	22	9.7	12	13	6.7	9.7	9.2	15
4	42	15	12	14	14	9.4	11	12	6.6	5.8	28	13
5	68	13	12	12	13	9.5	10	11	6.4	5.3	11	13
6	24	13	13	12	12	14	11	10	6.3	5.5	8.5	137
7	16	22	18	16	13	35	13	10	6.1	4.9	8.4	64
8	14	33	15	15	15	35	10	11	5.9	4.7	8.5	55
9	13	16	21	13	15	16	14	10	30	4.9	7.6	16
10	12	14	17	14	12	14	11	9.1	29	5.5	8.4	14
11	12	21	13	14	12	14	9.9	9.2	10	5.9	7.2	14
12	11	35	13	13	11	13	9.3	10	8.5	17	17	14
13	11	18	13	13	11	13	9.0	8.7	7.5	18	45	13
14	11	16	12	13	11	12	12	8.7	7.0	7.5	14	11
15	28	15	12	12	11	15	14	9.0	6.7	7.5	11	10
16	14	14	12	12	13	24	18	20	6.7	11	8.7	13
17	11	13	12	12	13	20	11	21	6.4	11	8.1	64
18	10	13	12	12	12	17	9.4	11	6.2	6.7	8.1	24
19	10	13	13	19	11	19	9.1	9.0	6.2	5.6	7.8	16
20	20	13	13	14	16	17	9.1	8.1	6.5	5.0	7.5	14
21	37	13	12	13	17	13	9.8	7.6	8.5	5.6	6.9	13
22	16	12	11	12	13	13	8.6	7.3	6.1	6.5	6.5	19
23	13	12	12	11	12	12	8.2	7.2	5.4	13	6.4	15
24	12	12	12	12	11	11	8.7	7.0	5.1	31	6.7	12
25	11	16	11	13	11	11	7.9	7.6	7.5	17	15	14
26	11	13	11	11	10	11	9.4	7.5	5.9	19	20	13
27	11	13	11	26	10	11	11	8.2	5.3	9.6	25	12
28	24	12	11	21	10	26	8.1	7.9	5.1	7.6	12	11
29	14	12	11	14	10	30	8.6	8.4	5.1	7.7	9.9	12
30	11	12	11	13	---	15	62	8.6	5.1	8.6	8.4	12
31	11	---	16	14	---	14	---	7.2	---	14	7.8	---
TOTAL	522.6	485	398	438	371	493.5	377.1	337.3	241.4	292.3	377.6	667.9
MEAN	16.9	16.2	12.8	14.1	12.8	15.9	12.6	10.9	8.05	9.43	12.2	22.3
MAX	68	35	21	26	22	35	62	36	30	31	45	137
MIN	7.7	12	11	11	10	9.4	7.9	7.0	5.1	4.7	6.4	7.3
CFSM	2.21	2.12	1.68	1.85	1.68	2.09	1.65	1.43	1.05	1.24	1.60	2.92
IN.	2.55	2.36	1.94	2.14	1.81	2.41	1.84	1.64	1.18	1.43	1.84	3.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

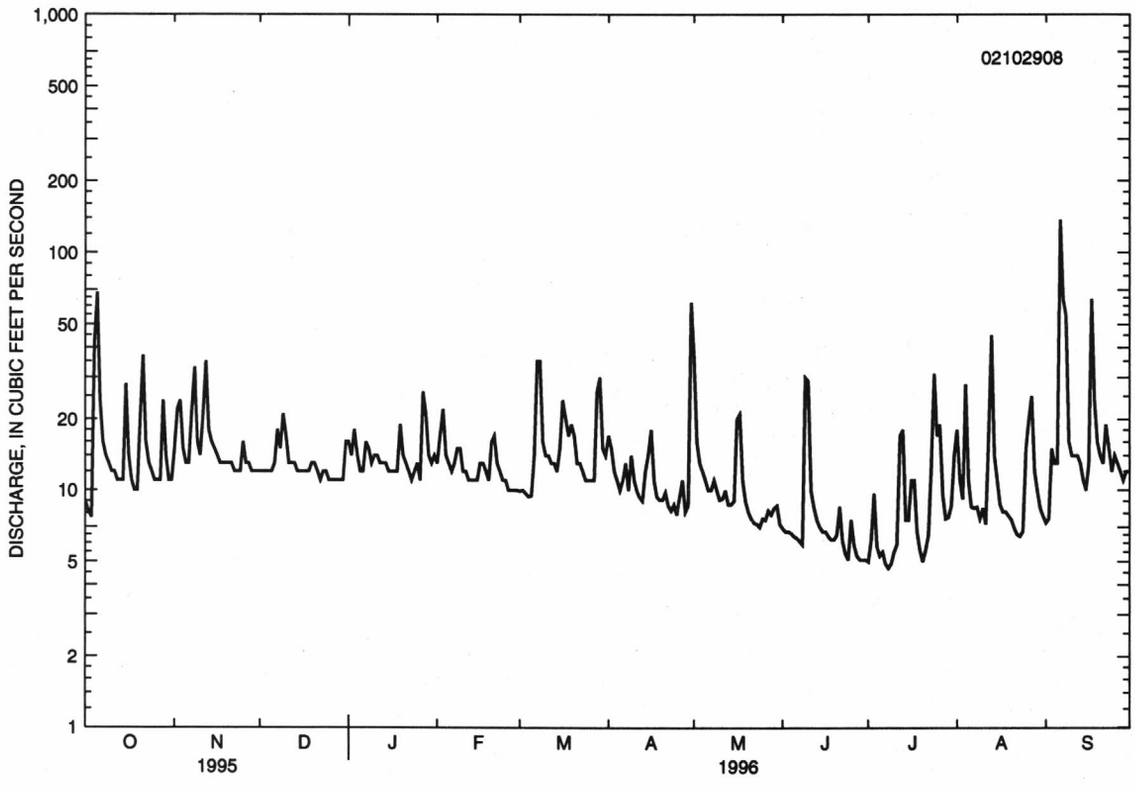
MEAN	10.5	11.3	12.1	14.2	15.2	17.5	16.9	11.3	11.2	11.0	10.1	10.2
MAX	19.9	20.5	19.5	20.2	32.0	73.6	106	18.9	25.3	24.5	16.4	22.3
(WY)	1972	1980	1973	1975	1973	1974	1974	1973	1995	1989	1974	1996
MIN	5.73	6.10	7.64	8.69	9.76	8.77	6.50	6.59	4.85	4.70	5.28	4.35
(WY)	1987	1982	1971	1969	1989	1981	1981	1988	1981	1986	1968	1968

CAPE FEAR RIVER BASIN

02102908 FLAT CREEK NEAR INVERNESS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1968 - 1996	
ANNUAL TOTAL	5630.7		5001.7			
ANNUAL MEAN	15.4		13.7		12.7	
HIGHEST ANNUAL MEAN					26.3	1974
LOWEST ANNUAL MEAN					8.12	1981
HIGHEST DAILY MEAN	74	Jun 23	137	Sep 6	314	Apr 9 1974
LOWEST DAILY MEAN	6.3	Aug 18	4.7	Jul 8	2.2	Jun 24 1988
ANNUAL SEVEN-DAY MINIMUM	6.6	Aug 17	5.2	Jul 4	3.2	Jul 6 1988
INSTANTANEOUS PEAK FLOW			235	Sep 6	394	Apr 1 1973
INSTANTANEOUS PEAK STAGE			4.86	Sep 6	7.30	Apr 1 1973
INSTANTANEOUS LOW FLOW			3.7*	Jul 7	1.9*	Jun 7 1988
ANNUAL RUNOFF (CFSM)	2.02		1.79		1.66	
ANNUAL RUNOFF (INCHES)	27.45		24.39		22.53	
10 PERCENT EXCEEDS	27		20		20	
50 PERCENT EXCEEDS	12		12		9.9	
90 PERCENT EXCEEDS	8.2		6.7		5.8	

* 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 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 178 ft above sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for the current water year also occurred July 6, 7, 8, 9, and 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	126	102	122	124	86	165	310	69	51	96	78
2	62	133	100	121	122	85	144	290	63	50	108	74
3	59	158	99	117	156	83	127	200	60	49	88	108
4	96	160	99	110	160	81	114	111	58	48	86	148
5	267	145	98	100	133	80	107	94	56	45	106	139
6	393	115	100	93	110	90	105	85	55	46	83	451
7	285	117	111	102	106	170	116	80	54	46	89	884
8	206	169	127	120	111	271	114	83	52	45	148	508
9	124	183	131	110	118	287	114	83	76	45	138	e400
10	93	174	149	107	115	237	121	77	145	47	92	284
11	88	144	138	107	104	175	111	72	119	52	75	e200
12	84	179	115	103	98	136	106	75	87	73	84	e180
13	80	199	108	100	93	128	101	72	71	123	161	155
14	85	181	104	97	92	123	103	69	64	96	275	139
15	147	152	102	94	91	121	111	70	69	71	190	122
16	151	125	100	92	95	132	125	82	94	73	99	123
17	114	117	99	90	99	156	118	116	66	75	112	615
18	91	112	96	89	96	167	102	99	59	67	126	607
19	84	110	99	104	93	171	97	79	55	58	125	366
20	110	109	107	116	107	167	96	70	58	52	95	277
21	200	108	102	102	146	150	98	64	94	51	81	190
22	201	106	96	92	144	132	97	60	125	54	73	169
23	172	104	95	90	128	123	92	58	77	69	74	187
24	114	103	93	92	105	119	94	57	60	73	90	180
25	98	115	92	106	95	116	92	59	86	89	102	149
26	91	119	93	99	90	119	91	59	90	82	123	136
27	88	111	92	152	88	115	113	62	66	77	166	133
28	147	106	90	230	87	139	106	62	58	66	172	128
29	159	105	89	210	89	197	92	67	54	89	153	133
30	130	103	88	164	---	216	178	86	e52	75	105	138
31	103	---	96	126	---	201	---	84	---	90	86	---
TOTAL	4187	3988	3210	3557	3195	4573	3350	2935	2192	2027	3601	7401
MEAN	135	133	104	115	110	148	112	94.7	73.1	65.4	116	247
MAX	393	199	149	230	160	287	178	310	145	123	275	884
MIN	59	103	88	89	87	80	91	57	52	45	73	74
CFSM	1.46	1.43	1.12	1.24	1.19	1.59	1.20	1.02	.79	.71	1.25	2.66
IN.	1.68	1.60	1.29	1.43	1.28	1.84	1.34	1.18	.88	.81	1.45	2.97

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	111	116	109	134	125	153	132	105	104	97.6	108	108
MAX	201	169	186	178	186	193	195	182	175	224	176	247
(WY)	1990	1990	1990	1993	1995	1993	1993	1989	1989	1989	1989	1996
MIN	72.0	87.7	84.0	95.7	94.7	97.0	88.3	72.5	73.1	54.4	65.2	59.9
(WY)	1993	1991	1989	1992	1992	1992	1992	1994	1991	1992	1988	1992

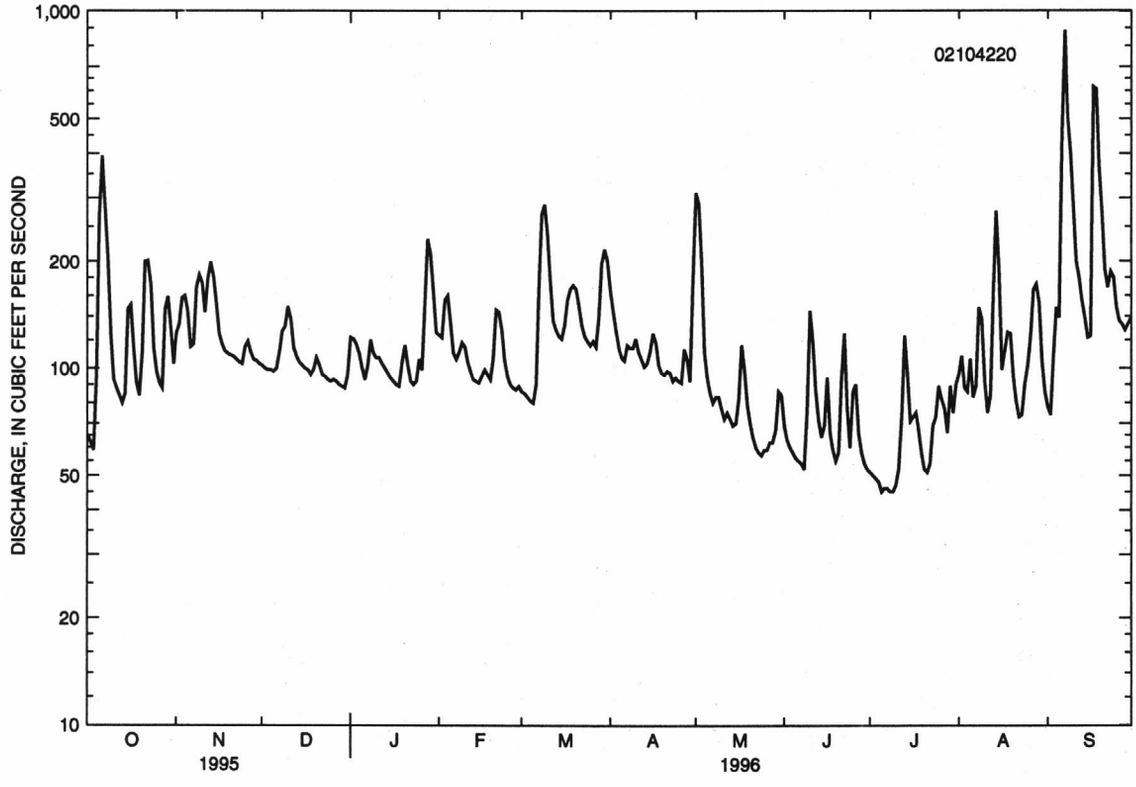
CAPE FEAR RIVER BASIN

02104220 ROCKFISH CREEK AT RAEFORD, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	43727		44216			
ANNUAL MEAN	120		121		118	
HIGHEST ANNUAL MEAN					147	1989
LOWEST ANNUAL MEAN					88.8	1992
HIGHEST DAILY MEAN	443	Jan 16	884	Sep 7	884	Sep 7 1996
LOWEST DAILY MEAN	47	Aug 15	45	Jul 5	39	Aug 2 1992
ANNUAL SEVEN-DAY MINIMUM	49	Aug 12	46	Jul 4	41	Jul 27 1992
INSTANTANEOUS PEAK FLOW			1030	Sep 7	1030	Sep 7 1996
INSTANTANEOUS PEAK STAGE			8.29	Sep 7	8.29	Sep 7 1996
INSTANTANEOUS LOW FLOW			45*	Jul 5	38	Aug 2 1992
ANNUAL RUNOFF (CFSM)	1.29		1.30		1.27	
ANNUAL RUNOFF (INCHES)	17.55		17.74		17.23	
10 PERCENT EXCEEDS	195		179		191	
50 PERCENT EXCEEDS	104		103		97	
90 PERCENT EXCEEDS	59		62		59	

e Estimated.

* See REMARKS.



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.

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 sea level. 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 telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight regulation at high flow, 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 current water year also occurred July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1680	10800	2830	2340	8070	3810	7040	10200	4190	1020	2100	1680
2	1450	10600	3250	2590	7640	3120	6620	14600	3900	963	2310	1510
3	1270	10200	3660	2860	9660	2940	7880	12000	3470	1060	2480	1480
4	1550	12200	3470	4140	18500	2580	8340	9590	2440	978	2900	2250
5	11700	10300	3840	5140	13200	2490	7430	7390	1370	897	2590	4150
6	32000	8540	3950	4510	10900	2480	5940	5920	1240	884	1880	e15000
7	23700	7560	3420	4280	8510	3860	4590	5190	1220	855	2550	e30000
8	19900	14100	3710	4440	8000	11200	4240	3930	1150	799	3580	e60000
9	11400	26700	4220	4580	8610	18900	4170	3340	1200	786	3030	e50000
10	e8000	19300	5680	4600	11200	13700	3970	2920	1880	999	3300	e40000
11	6590	14800	7470	4430	13600	10400	4400	2760	2600	1040	6030	e36000
12	3180	14300	6560	4330	14600	9810	4380	2430	4240	1210	5190	e30000
13	2570	18400	5560	4140	13700	8580	4010	1870	3660	2120	4010	e26000
14	2400	15100	4500	4010	11200	7870	4190	1690	3480	1990	2980	e22000
15	3400	12200	4850	4150	8600	7460	4310	1610	2730	1690	2710	e20000
16	5010	17000	4830	5040	5480	6350	5960	1720	2540	2050	3000	e18000
17	5740	18000	4690	6250	5240	4400	5970	2410	2140	2390	3060	e22000
18	4600	10700	4580	6770	5180	4810	5090	4040	1430	2230	2840	e26000
19	3710	9700	4660	7810	5090	5240	4290	5040	1320	1720	2880	e24000
20	3070	7770	4820	13400	4390	7340	3570	4590	1400	1330	2850	e22000
21	4350	6070	4790	18400	4650	10900	2920	2890	1300	1170	1920	e20000
22	13100	3760	4290	15600	7560	9360	2460	1670	1100	1040	1580	e18000
23	13600	3720	3350	11600	8690	9060	2310	1430	925	1690	1350	e16000
24	7150	4170	2720	16900	7480	8540	2530	1220	935	2340	1320	e14000
25	5740	3660	2540	17300	4760	8320	2970	1260	1320	2060	1470	e12000
26	9160	3180	2430	18300	4090	6350	2730	1200	1220	2080	1990	e10000
27	10300	3360	2330	20800	3750	3460	2390	1240	1030	2170	2910	9220
28	8410	3410	2300	18200	3790	3320	2170	1500	932	2260	3240	6220
29	9430	3200	2250	17200	4190	6040	2240	1930	875	3000	2960	5460
30	10900	2920	2180	12400	---	9480	3580	2310	875	2470	2400	5640
31	9270	---	2160	11500	---	8580	---	3440	---	1870	1990	---
TOTAL	254330	305720	121890	278010	240330	220750	132690	123330	58112	49161	85400	568610
MEAN	8204	10190	3932	8968	8287	7121	4423	3978	1937	1586	2755	18950
MAX	32000	26700	7470	20800	18500	18900	8340	14600	4240	3000	6030	60000
MIN	1270	2920	2160	2340	3750	2480	2170	1200	875	786	1320	1480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996*, BY WATER YEAR (WY)

MEAN	2669	3280	4178	7499	8261	10410	6969	3665	3735	3043	2873	2794
MAX	8666	10190	11360	12790	14160	19760	15410	11770	14200	9262	7358	18950
(WY)	1990	1996	1984	1993	1984	1989	1993	1989	1982	1995	1984	1996
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

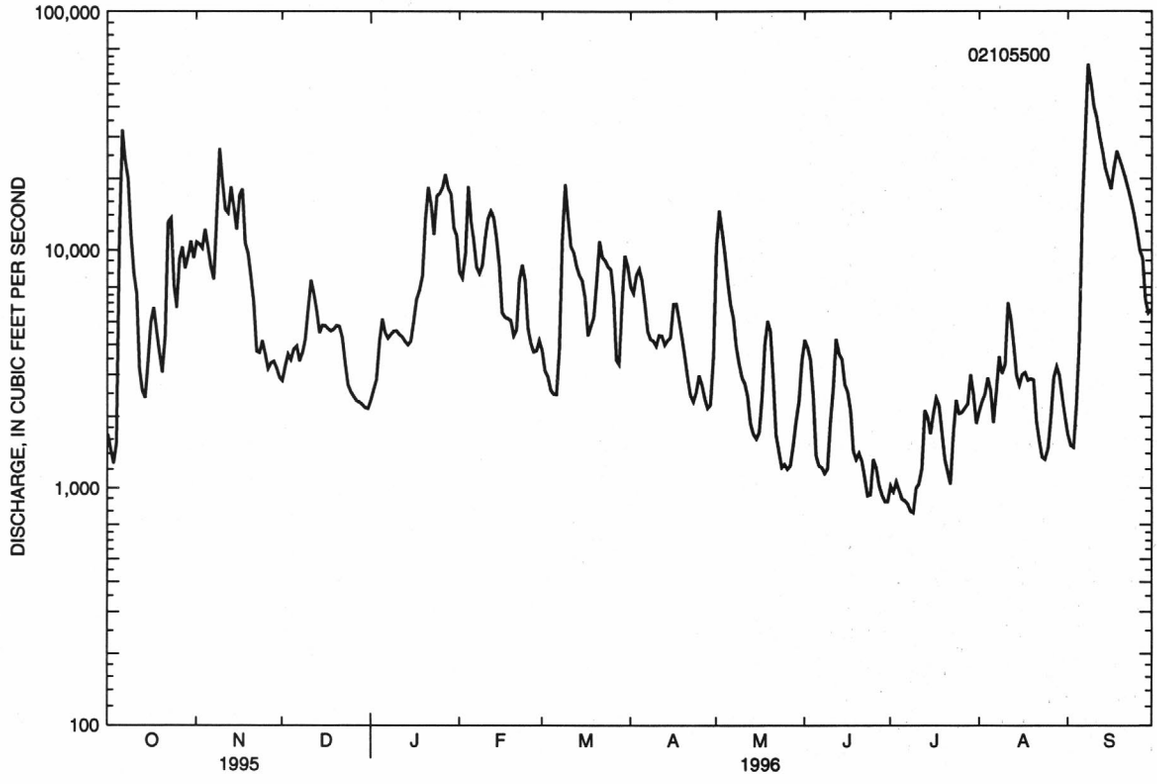
CAPE FEAR RIVER BASIN

02105500 CAPE FEAR RIVER AT WILLIAM O. HUSKE LOCK NEAR TARHEEL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996*	
ANNUAL TOTAL	2331356		2438333			
ANNUAL MEAN	6387		6662		4931	
HIGHEST ANNUAL MEAN					8328	1984
LOWEST ANNUAL MEAN					2426	1988
HIGHEST DAILY MEAN	32800	Feb 20	60000	Sep 8	60000	Sep 8 1996
LOWEST DAILY MEAN	858	Aug 16	786	Jul 9	414	Oct 8 1981
ANNUAL SEVEN-DAY MINIMUM	885	Aug 16	885	Jul 4	429	Oct 4 1981
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		NOT DETERMINED	
INSTANTANEOUS PEAK STAGE			26.75	Sep 8	26.75	Sep 8 1996
INSTANTANEOUS LOW FLOW			769*	Jul 8	408*	Oct 8 1981
10 PERCENT EXCEEDS	17000		15000		13500	
50 PERCENT EXCEEDS	3630		4170		2400	
90 PERCENT EXCEEDS	1190		1340		1040	

e Estimated.

* Regulated period only (1982-1996). See REMARKS.



CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC

LOCATION.--Lat 34°24'15", long 78°17'38", Bladen County, Hydrologic Unit 03030005, on right bank near upstream end of lock No. 1, 1.3 mi upstream from Natmore Creek, 2.0 mi upstream from bridge on State Highway 11, 4.6 mi southeast of 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 sea level (U.S. Army Corps of Engineers bench mark). Satellite telemetry at station.

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 15.9 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2070	11500	3450	2680	13800	5090	10400	7030	4710	924	2360	2150
2	1750	12100	3490	2940	11100	4510	9200	11800	4860	863	2650	1830
3	1510	12200	4110	3210	10300	3980	8880	13300	4360	1460	2790	1720
4	1490	12300	4230	3690	12600	3610	9920	12800	3690	1470	3240	1920
5	4250	12700	4170	5330	14800	3260	9920	11300	2360	1130	3390	3740
6	13200	11800	4740	5740	14800	3130	8950	9240	1630	1040	2870	14000
7	17300	10500	4360	5350	12800	3780	7240	7360	1340	1040	2470	19600
8	19200	10500	4210	5280	10700	8360	6010	5960	1180	951	3630	24100
9	20100	14100	4600	5510	10000	12900	5660	4710	1380	871	3800	35100
10	18700	16400	5600	5640	10700	15000	5170	4000	1890	930	3660	43900
11	15200	17500	7530	5490	12300	14300	5150	3490	2660	1100	4520	47600
12	9240	17400	8400	5380	13600	12900	5570	3440	4050	1370	7020	47500
13	4670	17100	7520	5230	14000	11700	5170	2840	4540	2290	6490	44500
14	3330	17400	6270	5000	13800	10700	5110	2280	4370	2780	4990	39500
15	3890	17200	5640	4940	13000	10000	5150	2130	3900	2510	3660	33900
16	5240	16500	5820	5340	9850	9360	5950	2060	3380	2440	3490	29300
17	6800	16600	5670	6540	7070	7640	7090	2440	2950	2850	3580	26100
18	6500	17100	5510	7590	6370	6590	6910	3420	2160	2920	3510	24900
19	5350	15900	5590	8280	6110	6650	5970	5350	1850	2440	3300	25400
20	4310	12700	5880	10200	5860	7290	5040	5830	2300	1810	3430	26000
21	3900	10200	5890	13000	5390	9940	4070	5060	2130	1490	2920	25600
22	7800	7020	5710	14500	7140	11400	3380	3060	1650	1290	2170	25000
23	12300	4870	4890	14200	9480	11200	2940	2080	1260	1330	1810	23800
24	12300	4850	3850	14100	10200	10800	3020	1760	1070	2200	1590	22400
25	8900	5030	3250	14700	8450	10300	3400	1560	1140	2580	1490	21100
26	8250	4320	3040	15200	6170	9840	3450	1480	1360	2470	1820	19600
27	10400	4020	2880	16000	5160	6870	3180	1460	1230	2580	2470	17000
28	11300	4140	2780	17000	4700	4830	2740	1690	1080	2520	3470	13000
29	10400	4070	2730	17700	4980	5830	2660	2240	1030	3030	3590	9280
30	11300	3760	2650	17900	---	8920	3210	2700	965	3420	3150	7730
31	11400	---	2590	16900	---	10800	---	3190	---	2720	2590	---
TOTAL	272350	341780	147050	280560	285230	261480	170510	147060	72475	58819	101920	677270
MEAN	8785	11390	4744	9050	9836	8435	5684	4744	2416	1897	3288	22580
MAX	20100	17500	8400	17900	14800	15000	10400	13300	4860	3420	7020	47600
MIN	1490	3760	2590	2680	4700	3130	2660	1460	965	863	1490	1720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996*, BY WATER YEAR (WY)

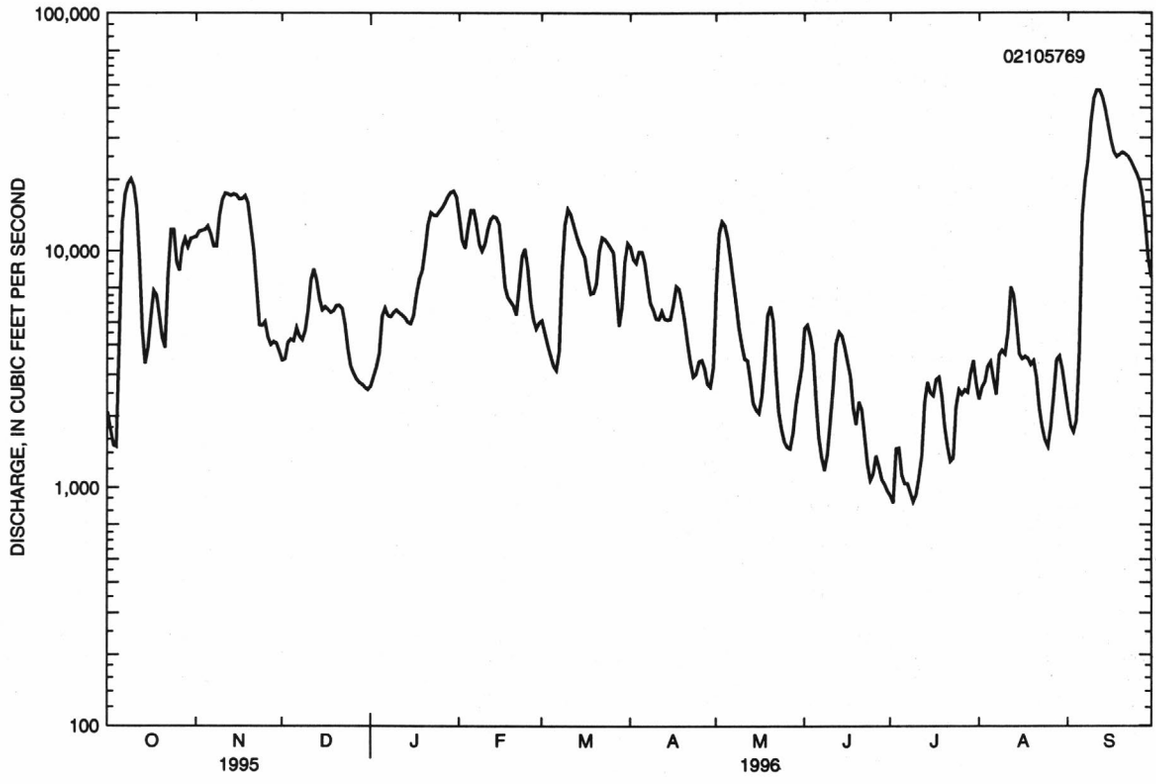
MEAN	2916	3564	4736	8346	9091	11400	8218	4000	4265	3334	3282	3397
MAX	9751	11390	11050	15190	14970	20140	17730	12110	15070	10860	7883	22580
(WY)	1990	1996	1984	1993	1983	1989	1993	1989	1982	1995	1984	1996
MIN	1068	1398	1855	2265	3025	3629	1667	1272	1147	1046	1046	985
(WY)	1988	1988	1992	1986	1986	1988	1986	1986	1986	1986	1983	1990

CAPE FEAR RIVER BASIN

02105769 CAPE FEAR RIVER AT LOCK 1 NEAR KELLY, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996*	
ANNUAL TOTAL	2722276		2816504			
ANNUAL MEAN	7458		7695		5526	
HIGHEST ANNUAL MEAN					8529	1984
LOWEST ANNUAL MEAN					2865	1988
HIGHEST DAILY MEAN	35100	Feb 22	47600	Sep 11	47600	Sep 11 1996
LOWEST DAILY MEAN	928	Aug 17	863	Jul 2	445	Oct 9 1981
ANNUAL SEVEN-DAY MINIMUM	1000	Aug 16	1010	Jul 5	463	Oct 4 1981
INSTANTANEOUS PEAK FLOW			48300	Sep 11	48300	Sep 11 1996
INSTANTANEOUS PEAK STAGE			24.29	Sep 11	24.29	Sep 11 1996
INSTANTANEOUS LOW FLOW			659	Jul 2	380	Oct 7 1981
10 PERCENT EXCEEDS	18100		16500		15000	
50 PERCENT EXCEEDS	4820		5160		2840	
90 PERCENT EXCEEDS	1400		1710		1130	

* Regulated period only (1982-1996). 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 1995. Daily records of specific conductance for period October 1956 to September 1961 are available in the files of the District office in Raleigh. 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). Samples for current year collected during flooding from Hurricane Fran.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 317 microsiemens, Oct. 19, 20, 1976; minimum, 40 microsiemens, June 26, 1973.

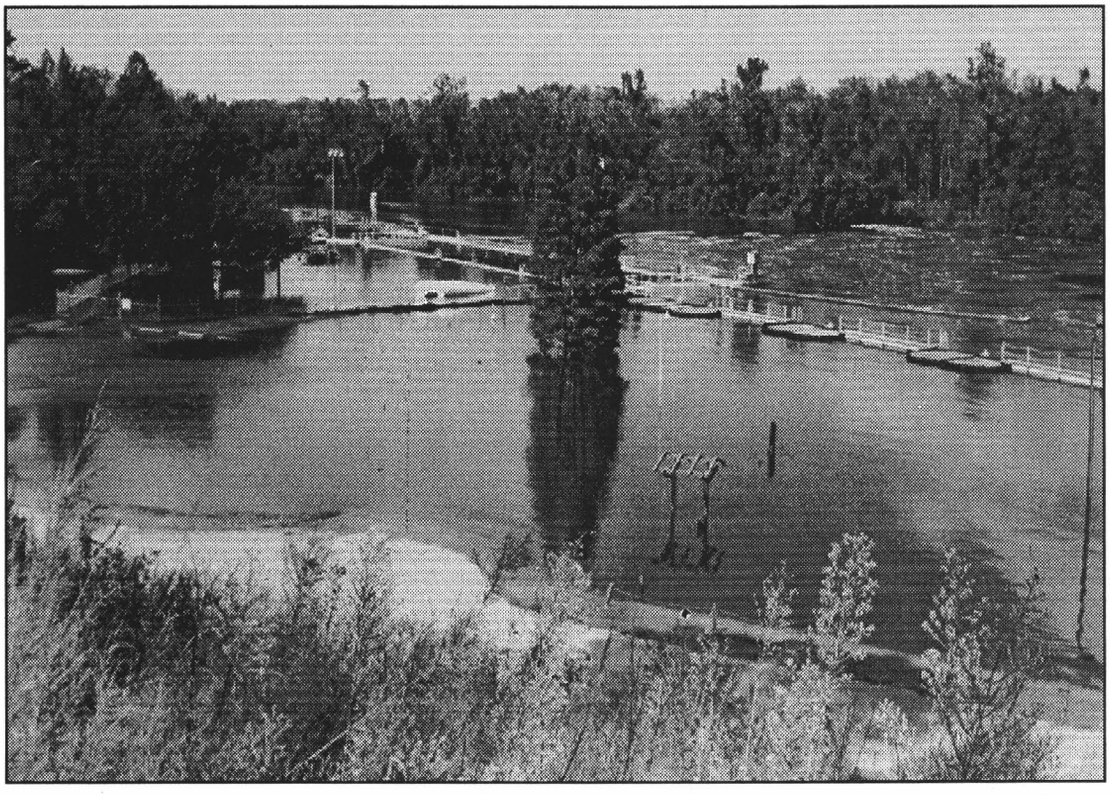
WATER TEMPERATURE: Maximum, 32.0°C, July 9, 19, 20, 21, 1977, Aug. 10, 1979; minimum, 0.5°C, Jan. 24, 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
SEP 1996												
13...	1415	44100	54	6.3	24.5	120	762	2.5	30	4.4	14	3.6

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)
SEP 1996												
13...	1.3	2.3	22	0.3	3.0	115	5.2	3.4	<0.10	5.3	72	0.100

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
SEP 1996											
13...	0.010	0.110	0.090	0.83	0.92	1.0	0.120	0.110	30	29	3450



Flooding at Cape Fear River at Lock 1 near Kelly , N.C., resulting from Hurricane Fran, which passed through North Carolina on September 5-6, 1996.

CAPE FEAR RIVER BASIN

02105900 HOOD CREEK NEAR LELAND, NC

LOCATION.--Lat 34°16'43", long 78°07'34", Hydrologic Unit 03030005, Brunswick County, on right bank 150 ft downstream from bridge on U.S. Highway 74 and 76, 0.4 mile downstream from Pasture Pond Branch, 1 mile southeast of Maco, and 4.8 miles northwest of Leland.

DRAINAGE AREA.--21.6 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements water years 1950-56, and annual maximum, water years 1953-56. October 1956 to September 1973. October 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 12.22 ft above sea level. Prior to Nov. 28, 1956, crest-stage gage at site 150 ft upstream at datum 9.60 ft lower. Nov. 29, 1956 to Apr. 24, 1969, water-stage recorder 150 ft upstream at datum 0.19 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge for period of record, from rating curve extended above 850 ft^3/s, by logarithmic plotting. Low flows possibly affected by tide.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	40	9.6	14	30	14	e120	21	14	6.7	34	6.5
2	8.6	63	9.7	16	26	28	e160	18	12	16	42	6.3
3	7.7	61	9.8	16	52	31	e90	13	10	306	86	10
4	11	49	9.7	14	62	24	62	10	10	168	100	18
5	23	35	9.3	13	42	19	44	7.8	9.8	73	132	53
6	22	26	9.1	11	34	18	36	6.5	10	40	114	1290
7	93	23	13	12	30	30	42	5.5	11	27	74	533
8	136	29	22	12	27	e100	40	6.6	11	19	48	289
9	79	29	20	13	24	e85	32	7.3	9.8	12	34	410
10	49	24	18	12	22	e50	26	7.1	11	8.8	24	298
11	145	20	18	11	20	38	22	7.3	11	9.8	19	e500
12	189	20	16	13	18	31	19	9.4	20	e100	17	e700
13	101	20	14	17	17	26	16	8.6	110	778	31	387
14	67	21	13	16	16	22	15	8.9	46	349	46	211
15	172	21	13	14	15	20	15	8.9	26	205	34	137
16	199	20	12	12	21	19	17	9.7	18	332	23	102
17	107	18	11	12	24	27	17	11	28	739	17	e110
18	69	16	10	12	20	50	15	9.9	24	292	24	158
19	47	15	26	14	18	50	12	9.1	17	147	72	118
20	36	14	55	15	28	39	11	8.2	21	93	77	87
21	37	13	38	15	52	30	9.7	7.1	19	62	43	63
22	39	12	26	13	41	24	8.6	7.2	14	45	25	47
23	30	14	21	13	31	20	7.9	9.8	11	35	18	37
24	23	13	18	12	25	17	9.5	8.0	8.1	27	13	28
25	19	11	17	12	21	16	9.7	7.8	18	23	11	23
26	16	11	15	12	18	15	e12	7.8	73	20	9.2	19
27	16	12	14	41	16	14	e18	8.0	37	22	9.4	17
28	24	11	14	101	15	e30	16	18	19	31	9.3	16
29	38	11	13	62	14	e120	12	33	12	44	9.2	17
30	30	10	13	43	---	e90	12	25	8.4	46	8.0	17
31	23	---	13	36	---	e80	---	17	---	34	7.2	---
TOTAL	1866.3	682	520.2	629	779	1177	926.4	342.5	649.1	4110.3	1210.3	5707.8
MEAN	60.2	22.7	16.8	20.3	26.9	38.0	30.9	11.0	21.6	133	39.0	190
MAX	199	63	55	101	62	120	160	33	110	778	132	1290
MIN	7.7	10	9.1	11	14	14	7.9	5.5	8.1	6.7	7.2	6.3
CFSM	2.79	1.05	.78	.94	1.24	1.76	1.43	.51	1.00	6.14	1.81	8.81
IN.	3.21	1.17	.90	1.08	1.34	2.03	1.60	.59	1.12	7.08	2.08	9.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996@, BY WATER YEAR (WY)

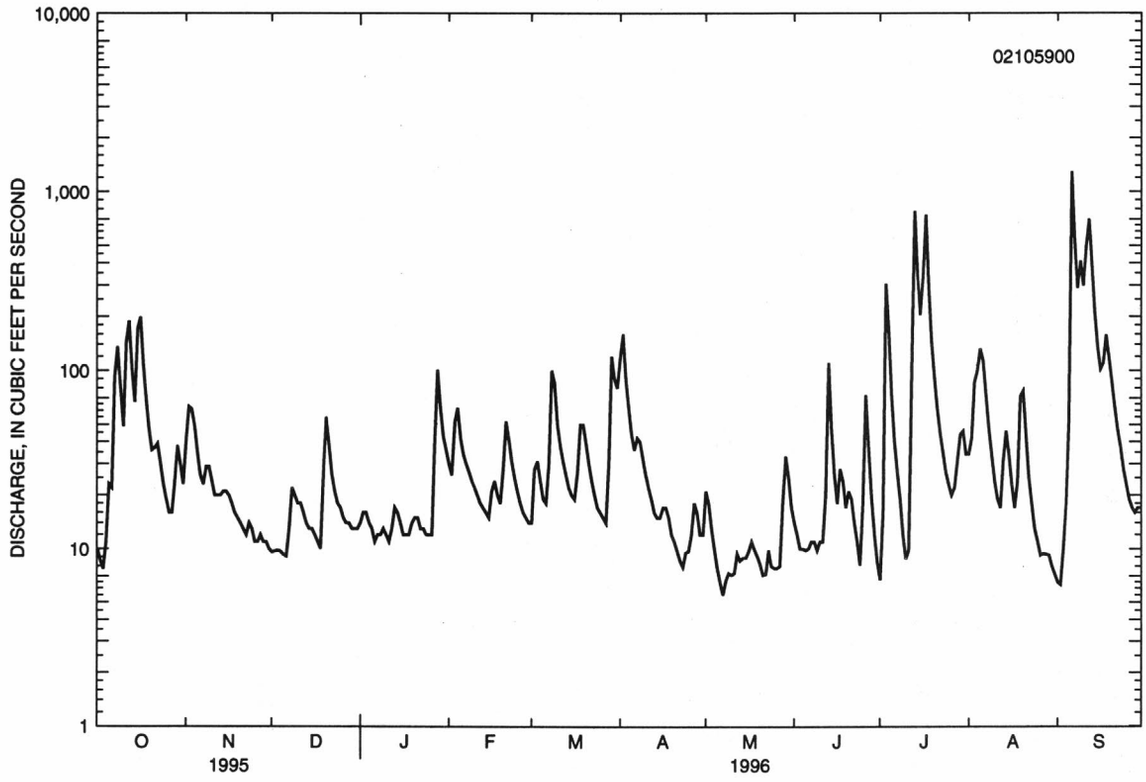
MEAN	27.8	20.4	28.0	45.7	52.7	57.2	34.6	14.1	27.0	41.4	52.0	35.4
MAX	91.8	52.6	74.5	93.8	112	111	115	81.9	143	133	153	190
(WY)	1972	1960	1973	1964	1973	1959	1961	1969	1961	1996	1969	1996
MIN	1.48	3.51	3.39	9.95	11.5	12.4	3.69	1.67	.32	.73	.15	.51
(WY)	1968	1966	1966	1957	1957	1967	1967	1995	1960	1957	1957	1963

CAPE FEAR RIVER BASIN

02105900 HOOD CREEK NEAR LELAND, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1957 - 1996@	
ANNUAL TOTAL	11172.42		18599.9			
ANNUAL MEAN	30.6		50.8		36.3	
HIGHEST ANNUAL MEAN					50.8	1996
LOWEST ANNUAL MEAN					15.6	1968
HIGHEST DAILY MEAN	253	Feb 12	1290	Sep 6	1320	Aug 18 1971
LOWEST DAILY MEAN	.07	Aug 26	5.5	May 7	.01	Jul 19 1994
ANNUAL SEVEN-DAY MINIMUM	.15	Aug 20	6.9	May 5	.05	Sep 30 1968
INSTANTANEOUS PEAK FLOW			1790	Sep 6	2050*	Sep 20 1955
INSTANTANEOUS PEAK STAGE			8.87	Sep 6	10.58	Sep 20 1955
INSTANTANEOUS LOW FLOW			NOT DETERMINED		0	Oct 5 1968
ANNUAL RUNOFF (CFSM)	1.42		2.35		1.68	
ANNUAL RUNOFF (INCHES)	19.24		32.03		22.84	
10 PERCENT EXCEEDS	90		101		85	
50 PERCENT EXCEEDS	14		19		16	
90 PERCENT EXCEEDS	1.4		9.4		1.4	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level. Nonrecording gage on downstream side of bridge Oct. 1, 1951 to June 29, 1961. Water-stage recorder was at present site at 24.26 ft June 30, 1961 to Sept. 30, 1964. Satellite telemetry at the station

REMARKS.--No estimated daily discharges. Records good. 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	553	530	476	1190	647	1330	651	327	208	1090	352
2	161	672	514	546	1210	636	1340	822	259	212	986	330
3	145	712	500	565	1310	711	1330	843	220	308	835	337
4	141	700	483	543	1470	712	1300	841	195	283	848	429
5	232	642	469	510	1590	659	1170	779	176	245	981	564
6	636	593	457	498	1640	618	1030	693	167	196	994	2890
7	894	605	452	521	1610	721	941	625	155	177	1020	4320
8	979	866	515	734	1500	1280	891	512	139	166	1140	6680
9	980	1100	597	868	1390	1650	815	517	136	151	1160	10600
10	887	1230	693	870	1300	1880	739	583	181	133	999	13500
11	772	1240	756	786	1210	2060	680	589	302	388	814	11900
12	690	1190	754	731	1130	2220	630	632	412	667	850	9270
13	604	1170	721	768	1070	2250	595	614	458	923	1360	8290
14	535	1150	689	792	1020	2120	567	487	429	1110	1570	7840
15	695	1140	671	761	946	1900	539	399	418	1320	1660	7680
16	933	1140	661	705	877	1660	525	358	368	1680	1680	7110
17	969	1100	632	662	829	1450	509	357	387	1960	1610	6040
18	900	1010	588	629	805	1280	476	369	307	1990	1380	4960
19	824	928	583	624	770	1210	442	348	262	1840	1130	4130
20	704	852	718	663	754	1200	416	320	553	1580	1090	3520
21	609	777	765	683	897	1170	406	295	681	1220	1090	3520
22	593	704	725	652	1000	1110	410	271	567	943	1000	4100
23	536	636	668	618	1050	1010	407	247	435	871	855	4320
24	466	586	626	609	1040	909	397	222	327	908	676	4070
25	406	568	589	660	959	823	403	199	271	956	564	3580
26	358	603	558	708	869	753	400	181	237	1080	488	3130
27	323	597	531	720	796	688	393	167	233	1160	443	2660
28	362	567	506	880	733	696	402	305	223	1320	418	2270
29	526	542	484	1030	690	1020	380	573	214	1330	398	1990
30	532	551	464	1110	---	1190	384	595	209	1200	407	1830
31	506	---	455	1160	---	1280	---	455	---	1120	386	---
TOTAL	18079	24724	18354	22082	31655	37513	20247	14849	9248	27645	29922	142212
MEAN	583	824	592	712	1092	1210	675	479	308	892	965	4740
MAX	980	1240	765	1160	1640	2250	1340	843	681	1990	1680	13500
MIN	141	542	452	476	690	618	380	167	136	133	386	330
CFSM	.86	1.22	.88	1.05	1.61	1.79	1.00	.71	.46	1.32	1.43	7.01
IN.	.99	1.36	1.01	1.22	1.74	2.06	1.11	.82	.51	1.52	1.65	7.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1996, BY WATER YEAR (WY)

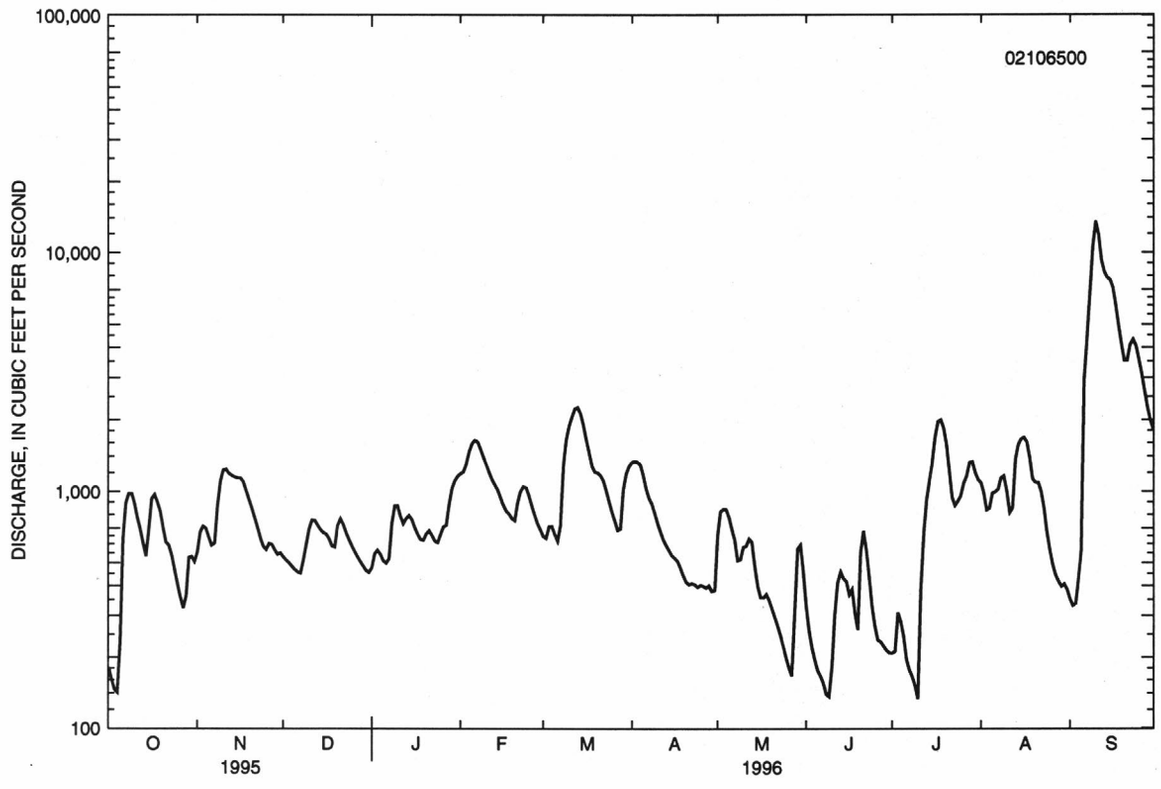
MEAN	435	479	708	1120	1283	1438	1075	538	484	511	722	629
MAX	2613	1412	2164	2903	2903	3410	3070	1687	3089	2088	2810	4740
(WY)	1965	1963	1993	1993	1973	1983	1973	1978	1995	1965	1974	1996
MIN	29.6	57.1	238	287	448	460	225	141	113	76.7	25.2	13.4
(WY)	1955	1974	1989	1986	1989	1981	1981	1986	1985	1953	1954	1954

CAPE FEAR RIVER BASIN

02106500 BLACK RIVER NEAR TOMAHAWK, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1952 - 1996	
ANNUAL TOTAL	379769		396530			
ANNUAL MEAN	1040		1083		783	
HIGHEST ANNUAL MEAN					1300	1960
LOWEST ANNUAL MEAN					327	1986
HIGHEST DAILY MEAN	7020	Jun 22	13500	Sep 10	17000	Sep 17 1984
LOWEST DAILY MEAN	52	Sep 16	133	Jul 10	8.9	Sep 13 1954
ANNUAL SEVEN-DAY MINIMUM	65	Sep 11	164	Jun 4	9.9	Oct 9 1954
INSTANTANEOUS PEAK FLOW			13700	Sep 10	17500	Sep 17 1984
INSTANTANEOUS PEAK STAGE			21.31	Sep 10	22.08	Sep 17 1984
INSTANTANEOUS LOW FLOW			127	Jul 10	8.5*	Oct 13 1954
ANNUAL RUNOFF (CFSM)	1.54		1.60		1.16	
ANNUAL RUNOFF (INCHES)	20.90		21.82		15.73	
10 PERCENT EXCEEDS	2820		1670		1770	
50 PERCENT EXCEEDS	632		695		512	
90 PERCENT EXCEEDS	114		291		107	

* 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. Elevation of gage is 102 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for current water year and period of record from rating curve extended above 40 ft^3/s by logarithmic plotting. Minimum discharge for period of record occurred several days in June 1991. Minimum discharge for current water year also occurred June 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.51	.67	1.8	1.6	.61	4.7	1.4	.15	.09	1.0	.12
2	.21	.56	.61	1.3	3.3	1.8	3.6	.63	.12	.50	1.1	.26
3	.20	.42	.56	1.1	4.5	.93	2.7	.50	.10	1.3	.83	.41
4	.61	.29	.57	.79	3.0	.64	2.2	.36	.09	.25	.82	.40
5	2.5	.30	.52	.71	2.3	.68	1.9	.32	.10	.13	.70	8.5
6	1.2	.20	.52	.69	2.3	.78	2.0	.28	.07	.11	.60	92
7	2.2	1.5	2.0	3.2	2.4	5.7	2.1	.36	.06	.09	.80	11
8	1.1	1.6	1.0	2.0	2.6	7.4	1.6	.43	1.8	.07	.76	6.3
9	.48	.46	2.0	1.3	2.4	3.5	1.6	.35	2.3	.06	.51	3.8
10	.29	.37	1.3	1.2	2.0	2.7	1.3	.27	.85	.10	.47	3.0
11	.24	.56	.99	1.0	1.8	2.5	1.3	.25	2.5	.12	.35	9.1
12	.16	1.2	.94	2.2	1.6	2.2	1.2	.59	1.0	6.2	4.8	21
13	.16	.65	.94	1.6	1.3	2.0	1.1	.27	.52	6.3	3.4	15
14	.21	1.1	.84	1.3	1.3	e1.8	1.4	.22	.37	1.5	.97	6.1
15	1.7	.85	.83	1.1	1.3	e2.0	1.3	.23	.29	1.1	.69	3.9
16	.31	.69	.84	1.0	1.5	e2.2	1.4	.48	.27	4.1	.38	3.2
17	.19	.59	.80	1.0	1.3	e3.0	.97	.43	.19	1.5	.25	7.3
18	.15	.55	.81	1.3	1.1	e4.0	.92	.27	.14	.87	.28	3.8
19	.13	.58	2.5	2.3	.96	e3.0	.82	.20	.52	.51	.75	2.9
20	.13	.60	1.7	1.4	1.9	e2.4	.83	.13	.59	.30	.33	2.6
21	.18	.64	1.2	1.2	2.2	e2.0	1.0	.11	.25	.24	.25	2.2
22	.12	.51	1.1	1.1	1.4	e1.8	.71	.09	.15	.25	.20	3.0
23	.10	.52	1.0	1.0	1.2	1.6	.64	.10	.10	.42	.18	2.3
24	.11	.58	1.0	1.7	1.1	1.5	.92	.08	.07	.95	.18	1.9
25	.12	1.1	.97	1.5	.83	1.4	.64	.08	2.2	.56	.15	1.8
26	.11	.74	.95	.98	.78	1.4	.66	.13	.76	1.1	.15	1.5
27	.09	.68	.91	3.5	.72	1.2	.84	.29	.30	.38	.32	1.5
28	.50	.65	.86	2.2	.76	4.7	.60	1.1	.18	8.0	.26	1.5
29	.15	.70	.81	1.5	.69	4.4	.55	.40	.12	6.8	.35	1.5
30	.12	.69	.83	1.4	---	3.3	1.9	.35	.10	1.9	.21	2.8
31	.14	---	1.1	2.1	---	3.6	---	.20	---	1.2	.15	---
TOTAL	14.16	20.39	31.67	46.47	50.14	76.74	43.40	10.90	16.26	47.00	22.19	220.69
MEAN	.46	.68	1.02	1.50	1.73	2.48	1.45	.35	.54	1.52	.72	7.36
MAX	2.5	1.6	2.5	3.5	4.5	7.4	4.7	1.4	2.5	8.0	4.8	92
MIN	.09	.20	.52	.69	.69	.61	.55	.08	.06	.06	.15	.12
CFSM	.20	.30	.45	.67	.77	1.10	.64	.16	.24	.67	.32	3.27
IN.	.23	.34	.52	.77	.83	1.27	.72	.18	.27	.78	.37	3.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	.78	1.39	2.08	3.78	2.52	3.21	1.88	.54	1.96	1.75	2.10	2.12
MAX	2.08	3.23	4.47	8.75	3.75	5.39	4.24	1.32	7.44	5.76	6.26	7.36
(WY)	1992	1993	1993	1993	1995	1993	1993	1992	1995	1991	1992	1996
MIN	.28	.55	1.02	1.50	1.62	1.47	.57	.20	.11	.11	.22	.26
(WY)	1994	1994	1996	1996	1992	1992	1995	1995	1994	1992	1993	1993

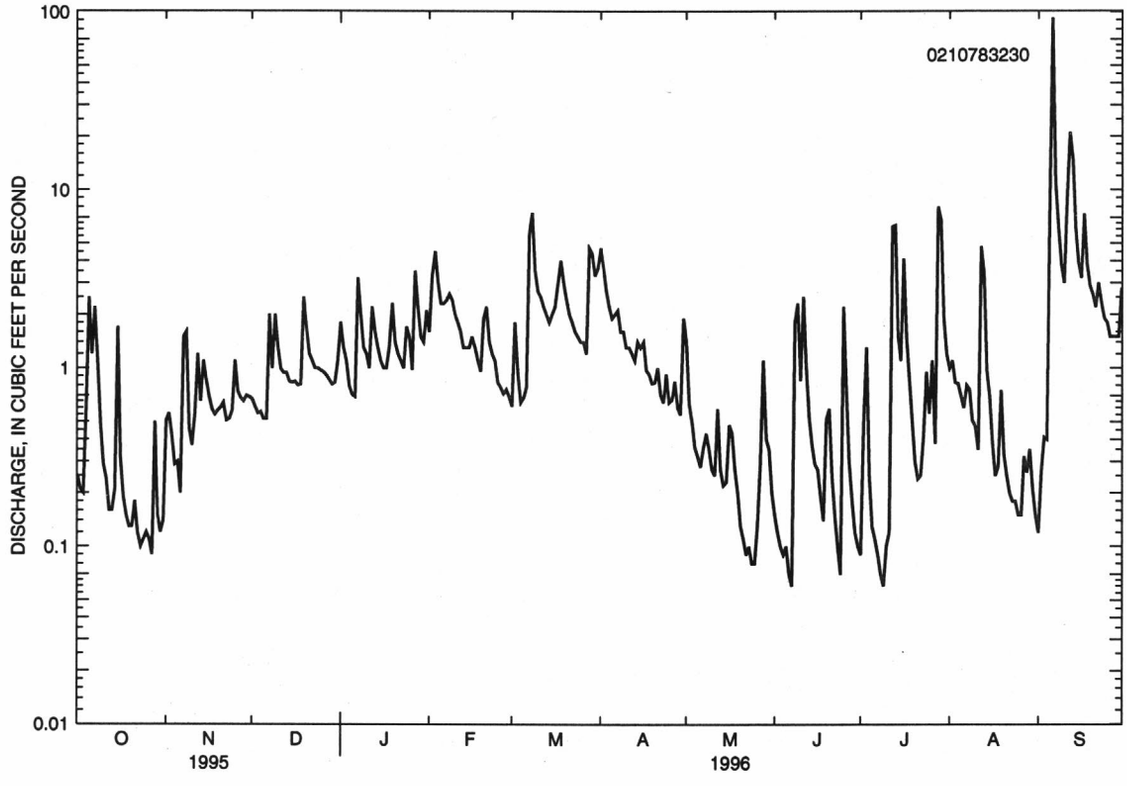
CAPE FEAR RIVER BASIN

0210783230 HERRINGS MARSH RUN NEAR SUMMERLINS CROSSROADS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	675.12		600.01			
ANNUAL MEAN	1.85		1.64		1.85	
HIGHEST ANNUAL MEAN					2.69	1993
LOWEST ANNUAL MEAN					1.13	1994
HIGHEST DAILY MEAN	27	Jun 25	92	Sep 6	92	Sep 6 1996
LOWEST DAILY MEAN	.09	May 24	.06	Jun 7	.02	Jun 10 1991
ANNUAL SEVEN-DAY MINIMUM	.12	Oct 21	.10	Jul 5	.02	Jun 10 1991
INSTANTANEOUS PEAK FLOW			375*	Sep 6	375*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			5.33	Sep 6	5.33	Sep 6 1996
INSTANTANEOUS LOW FLOW			.04*	Jun 7	.01*	Jun 12 1991
ANNUAL RUNOFF (CFSM)	.82		.73		.82	
ANNUAL RUNOFF (INCHES)	11.16		9.92		11.18	
10 PERCENT EXCEEDS	4.2		3.0		4.4	
50 PERCENT EXCEEDS	.73		.84		.92	
90 PERCENT EXCEEDS	.17		.14		.13	

e Estimated.

* 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 sea level, from topographic map.

REMARKS.--Records poor. All discharges are questionable, due to beaver activity. Maximum discharge and stage for period of record and current water year, result of beaver dam failure.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	.09	.10	1.0	1.3	1.2	1.7	.39	1.4	.98	.52	.05
2	.56	.15	.12	1.0	2.0	1.7	1.3	.18	1.2	1.4	.33	.07
3	.75	.09	.18	.86	2.3	1.3	1.6	.13	1.1	2.4	.31	.09
4	1.4	.04	.23	.81	1.7	4.0	.97	.11	1.3	1.5	.37	.08
5	3.6	.04	.33	.85	1.4	1.2	1.1	.10	1.4	1.2	.35	2.8
6	3.6	.03	.30	.88	1.4	1.1	1.2	.11	1.6	2.3	.35	59
7	1.3	.48	.98	2.2	1.5	2.9	1.2	.14	1.7	1.1	.42	8.9
8	.53	2.0	.46	1.4	2.9	3.2	3.8	.71	1.3	.50	.24	7.3
9	.05	1.8	1.0	.83	1.3	1.9	.77	.09	3.6	.58	.16	6.0
10	.06	2.7	1.1	6.8	1.2	1.7	.68	.08	3.3	.80	.14	6.7
11	.07	3.0	.25	1.4	1.4	1.5	2.6	.07	12	1.1	.12	9.7
12	.08	1.8	.47	1.0	1.4	1.5	.64	.11	16	8.7	3.1	10
13	.05	.99	.80	.53	1.4	1.4	e.60	.08	12	6.5	.66	7.9
14	.09	.26	.76	.59	1.4	1.3	e1.0	.08	14	1.7	.06	5.8
15	1.8	.44	.85	.68	3.5	1.4	e.80	.07	1.8	.36	.03	5.0
16	.09	.22	.98	.93	2.2	1.5	e.90	.09	1.2	.86	.05	6.2
17	.18	.22	.94	.87	1.5	1.6	e.80	.11	1.6	.34	.05	4.5
18	.17	.25	1.5	1.0	1.2	2.7	e.70	1.9	1.6	.69	.04	3.5
19	.11	.22	1.7	1.6	1.4	1.2	e.60	2.8	2.1	.60	.07	3.2
20	.06	.25	1.4	1.7	2.0	.94	e.60	5.6	2.1	.53	.06	3.8
21	.17	.29	.37	1.3	2.2	.91	e.80	8.5	.72	.72	.06	3.5
22	.06	.28	.70	1.1	2.8	1.0	e.50	11	.74	.39	.03	3.2
23	.07	.21	.91	1.1	1.1	1.0	e.40	7.2	.73	1.0	.06	e2.9
24	.07	.24	.94	1.4	.97	.95	e.80	.11	.77	1.6	.08	e2.3
25	.07	.46	.91	1.5	1.0	.99	e.50	.55	2.1	1.2	.05	2.6
26	.07	1.1	.71	1.4	1.3	1.1	e.60	.63	2.0	1.8	.05	3.7
27	.06	2.5	.88	2.1	1.2	1.1	e.70	1.1	3.9	1.0	.06	4.1
28	.18	3.7	.93	1.8	1.1	2.9	e.40	1.0	1.1	6.0	.05	4.9
29	.04	.08	1.1	2.7	1.3	1.8	e.30	1.3	.81	1.5	.05	5.8
30	.04	.11	1.6	1.1	---	1.4	.44	3.9	.89	1.1	.05	6.8
31	.04	---	.45	.92	---	1.1	---	2.0	---	1.4	.05	---
TOTAL	16.35	24.04	23.95	43.35	47.37	49.49	29.00	50.24	96.06	51.85	8.02	190.39
MEAN	.53	.80	.77	1.40	1.63	1.60	.97	1.62	3.20	1.67	.26	6.35
MAX	3.6	3.7	1.7	6.8	3.5	4.0	3.8	11	16	8.7	3.1	59
MIN	.04	.03	.10	.53	.97	.91	.30	.07	.72	.34	.03	.05
CFSM	.35	.54	.52	.94	1.10	1.07	.65	1.09	2.15	1.12	.17	4.26
IN.	.41	.60	.60	1.08	1.18	1.24	.72	1.25	2.40	1.29	.20	4.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	.85	1.26	1.37	2.35	2.61	2.70	1.70	.91	2.03	1.46	1.53	2.03
MAX	1.74	2.49	3.12	4.63	5.92	3.75	3.31	1.62	4.59	3.25	3.77	6.35
(WY)	1992	1993	1993	1993	1995	1993	1993	1996	1995	1991	1992	1996
MIN	.096	.66	.77	1.25	1.19	1.60	.78	.46	.23	.29	.26	.61
(WY)	1995	1995	1996	1994	1994	1996	1995	1994	1994	1993	1996	1994

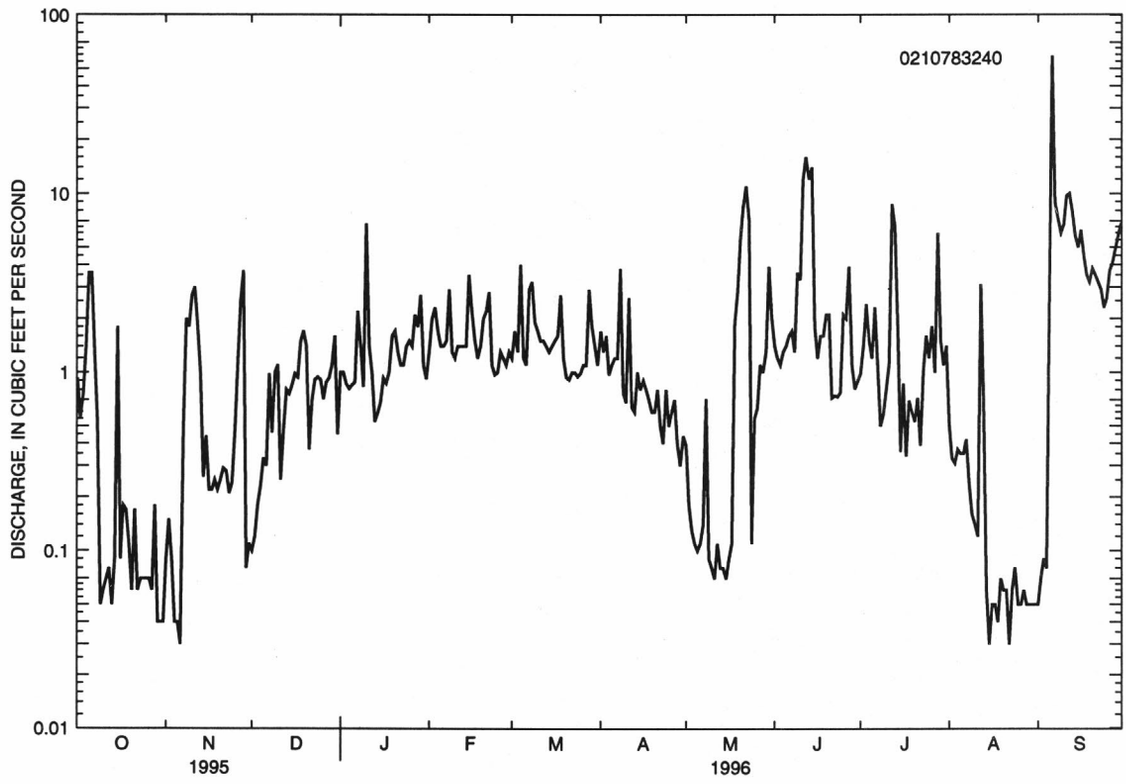
CAPE FEAR RIVER BASIN

0210783240 HERRINGS MARSH RUN TRIBUTARY NEAR SUMMERLINS CROSSROADS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	707.92		630.11			
ANNUAL MEAN	1.94		1.72		1.68	
HIGHEST ANNUAL MEAN					2.11	1993
LOWEST ANNUAL MEAN					1.07	1994
HIGHEST DAILY MEAN	48	Jun 12	59	Sep 6	59	Sep 6 1996
LOWEST DAILY MEAN	.03	Nov 6	.03	Nov 6	.02	Jun 29 1994
ANNUAL SEVEN-DAY MINIMUM	.07	Oct 31	.05	Aug 14	.02	Jun 27 1994
INSTANTANEOUS PEAK FLOW			649*	Sep 6	649*	Sep 6 1996
INSTANTANEOUS PEAK STAGE			6.69	Sep 6	6.69	Sep 6 1996
INSTANTANEOUS LOW FLOW			.01	Aug 15	.01	Aug 15 1996
ANNUAL RUNOFF (CFSM)	1.30		1.16		1.13	
ANNUAL RUNOFF (INCHES)	17.67		15.73		15.32	
10 PERCENT EXCEEDS	4.2		3.6		3.4	
50 PERCENT EXCEEDS	1.1		1.0		1.1	
90 PERCENT EXCEEDS	.22		.07		.19	

e Estimated.

* 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 sea level, from topographic map.

REMARKS.--Records poor. Minimum discharge for the current water year also occurred Oct. 2, 3, 4, and May 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.56	.14	.93	1.6	.75	3.7	1.1	.31	.15	2.3	.44
2	.05	.73	.15	.78	3.4	1.1	2.4	.81	.35	.42	2.2	.39
3	.05	1.1	.15	.72	4.4	.91	1.6	.68	.22	.98	1.9	.63
4	.11	.73	.19	.55	2.2	.78	1.3	.63	.19	.62	1.7	.70
5	.29	.47	.21	.48	1.5	.77	1.2	.58	.20	.32	1.5	6.3
6	.12	.30	.15	.69	1.3	.88	1.2	.44	.20	.28	1.3	56
7	.22	1.2	1.0	1.6	1.2	5.8	1.1	.58	.20	.26	1.2	11
8	.15	1.9	.80	1.3	1.2	7.6	1.0	.23	.32	.17	1.3	6.9
9	.13	.87	1.1	.94	1.3	3.3	.93	.29	1.6	.20	1.2	5.6
10	.13	.67	.96	.85	1.1	2.5	.83	.30	1.3	.47	1.2	4.2
11	.13	.68	.71	.80	1.1	1.7	.78	.35	2.0	.52	1.2	9.3
12	.13	1.1	.65	1.1	.99	1.3	.78	.31	1.3	9.0	4.1	11
13	.27	.77	.62	.92	.88	1.3	.72	.19	.87	15	4.7	8.8
14	2.2	.82	.61	.81	.87	1.2	.83	.24	.71	11	2.6	6.4
15	4.0	.76	.62	.81	.91	1.3	2.2	.16	.63	10	2.0	4.9
16	1.5	.60	.64	.66	1.0	1.4	2.9	.18	.60	10	1.6	4.0
17	.88	.53	.58	.61	.89	2.3	1.6	.21	.43	9.1	1.0	5.1
18	.58	.46	.49	1.1	.83	2.4	1.2	.31	.33	8.3	1.0	3.8
19	.50	.46	1.1	1.5	.79	2.0	1.1	.22	.65	7.4	1.2	3.2
20	.42	.45	.88	.97	1.4	1.4	1.0	.10	.80	6.8	.92	2.9
21	.85	.43	.67	.74	2.2	1.3	1.0	.07	.56	6.5	.73	2.8
22	.46	.42	.61	.71	1.5	1.1	.88	.11	.45	5.9	.65	3.8
23	.31	.38	.56	.67	1.2	1.0	.81	.06	.36	7.5	.58	3.0
24	.29	.47	.50	.97	1.1	.99	.84	.06	.17	9.6	.55	2.6
25	.26	.59	.46	.86	.91	.96	.66	.09	.88	10	.51	2.3
26	.22	.46	.46	.72	.86	1.0	.70	.12	.70	9.0	.37	1.9
27	.17	.38	.43	2.9	.85	1.2	.79	.11	.37	7.1	.41	1.7
28	.75	.32	.43	2.0	.85	3.3	.62	1.5	.21	11	.77	1.6
29	.34	.35	.43	1.4	.80	3.2	.63	.94	.26	8.7	1.2	1.6
30	.20	.22	.39	1.3	---	1.9	1.1	.83	.20	4.5	.81	1.7
31	.20	---	.54	1.9	---	2.1	---	.43	---	2.8	.68	---
TOTAL	15.96	19.18	17.23	32.29	39.13	58.74	36.40	12.23	17.37	173.59	43.38	174.56
MEAN	.51	.64	.56	1.04	1.35	1.89	1.21	.39	.58	5.60	1.40	5.82
MAX	4.0	1.9	1.1	2.9	4.4	7.6	3.7	1.5	2.0	15	4.7	56
MIN	.05	.22	.14	.48	.79	.75	.62	.06	.17	.15	.37	.39
CFSM	.45	.56	.49	.91	1.18	1.66	1.06	.35	.51	4.91	1.23	5.10
IN.	.52	.63	.56	1.05	1.28	1.92	1.19	.40	.57	5.66	1.42	5.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

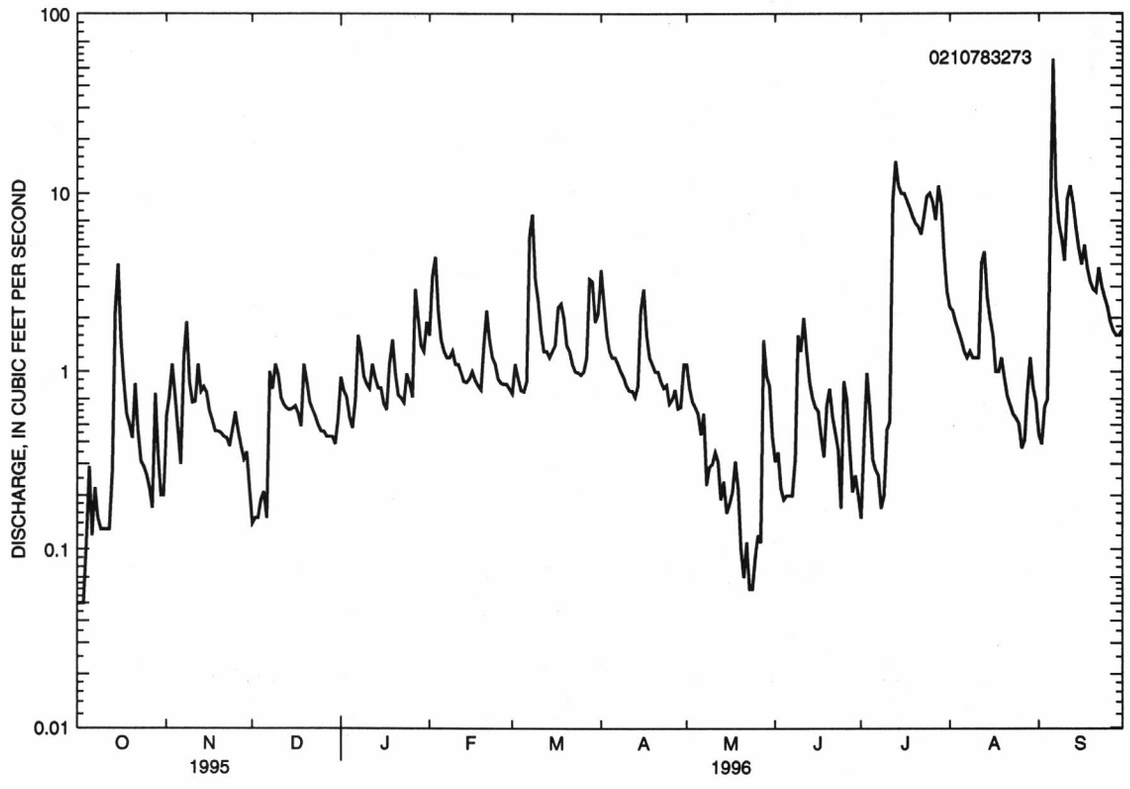
MEAN	.70	.89	1.16	2.03	1.66	2.15	1.30	.44	1.09	1.63	1.00	1.61
MAX	1.23	1.38	2.10	3.84	2.57	3.50	2.84	.79	3.41	5.60	2.38	5.82
(WY)	1992	1993	1993	1993	1995	1993	1993	1992	1995	1996	1992	1996
MIN	.51	.64	.56	1.04	.96	.93	.49	.13	.28	.12	.12	.070
(WY)	1996	1996	1996	1996	1992	1992	1995	1995	1994	1992	1995	1995

CAPE FEAR RIVER BASIN

0210783273 HERRINGS MARSH RUN TRIBUTARY AT RED HILL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	436.76		640.06			
ANNUAL MEAN	1.20		1.75		1.28	
HIGHEST ANNUAL MEAN					1.75	1996
LOWEST ANNUAL MEAN					.80	1994
HIGHEST DAILY MEAN	12	Jun 30	56	Sep 6	56	Sep 6 1996
LOWEST DAILY MEAN	.05	Sep 13	.05	Oct 1	.05	Jul 14 1994
ANNUAL SEVEN-DAY MINIMUM	.06	Sep 10	.09	May 20	.06	Sep 10 1995
INSTANTANEOUS PEAK FLOW			92	Sep 6	92	Sep 6 1996
INSTANTANEOUS PEAK STAGE			6.42	Sep 6	6.42	Sep 6 1996
INSTANTANEOUS LOW FLOW			.05*	Oct 1	0	Sep 11 1991
ANNUAL RUNOFF (CFSM)	1.05		1.53		1.12	
ANNUAL RUNOFF (INCHES)	14.25		20.89		15.22	
10 PERCENT EXCEEDS	3.1		4.0		2.8	
50 PERCENT EXCEEDS	.56		.83		.77	
90 PERCENT EXCEEDS	.08		.20		.15	

* 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 1306, 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 sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred several days in July, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	5.4	2.3	7.8	9.5	5.1	21	9.1	1.8	.61	7.8	3.3
2	1.2	6.8	2.2	7.0	15	10	14	5.1	1.4	1.7	8.7	4.7
3	.99	7.3	2.3	5.9	22	7.2	11	3.5	1.1	6.9	7.6	9.8
4	1.6	4.3	2.6	4.6	13	7.6	8.8	3.3	.91	2.5	7.0	8.3
5	9.9	2.9	2.7	4.1	9.7	6.6	8.0	2.8	.89	1.1	6.2	26
6	11	2.7	2.6	4.2	9.0	5.4	8.5	1.9	.81	.88	5.4	266
7	8.8	9.0	9.8	15	9.4	25	9.5	2.1	.82	.96	8.8	78
8	9.6	19	7.8	13	11	37	9.6	1.9	1.2	.78	7.5	45
9	4.3	6.8	9.5	7.5	10	17	8.3	3.6	9.9	.65	5.6	35
10	3.1	4.9	9.5	11	7.8	13	5.8	1.8	6.7	1.1	4.9	26
11	3.1	5.3	5.5	8.7	7.9	11	6.7	1.6	12	1.0	4.4	e50
12	3.0	8.7	4.6	9.8	7.7	9.3	7.0	1.8	7.9	34	29	e66
13	2.9	5.7	4.6	7.9	6.9	8.7	4.5	1.8	3.6	61	57	69
14	6.0	7.2	4.5	6.3	6.6	8.1	5.7	1.4	3.8	19	20	41
15	18	6.6	4.5	5.5	7.9	8.5	8.7	1.2	7.1	13	11	28
16	8.2	4.9	4.6	5.5	11	10	12	1.9	2.0	18	7.6	23
17	4.2	4.1	4.4	5.4	7.2	14	7.2	2.6	1.3	13	6.0	33
18	3.5	3.9	5.0	7.2	6.0	16	5.8	1.9	.97	8.7	6.2	28
19	3.2	3.8	11	11	6.0	12	5.2	1.6	2.0	6.1	9.7	19
20	2.9	3.6	9.2	8.3	9.6	8.6	5.2	1.3	2.8	4.2	6.5	16
21	5.5	3.8	5.5	6.6	14	7.2	6.1	e.92	1.7	3.2	4.9	14
22	3.7	3.5	4.4	5.9	10	6.6	6.8	e.90	1.2	3.3	4.2	21
23	2.6	3.2	4.5	5.5	8.7	6.1	6.1	e.80	.89	7.1	3.4	17
24	2.6	3.1	4.4	7.1	6.5	5.7	4.7	e.70	.60	18	4.2	12
25	2.5	5.5	4.3	8.1	5.6	5.6	3.6	e.70	6.6	14	3.9	11
26	2.3	4.3	4.0	6.1	5.5	6.1	3.5	e.90	4.8	16	3.3	10
27	2.2	3.7	3.9	14	5.6	6.2	4.6	1.8	1.9	8.6	3.6	10
28	7.5	5.9	3.9	13	5.4	20	3.5	9.0	1.2	33	4.8	8.6
29	3.8	6.5	3.8	9.0	5.5	22	11	5.6	.96	60	6.4	8.6
30	2.2	2.5	5.1	9.3	---	13	12	4.2	.73	17	4.9	11
31	2.4	---	4.9	9.7	---	13	---	4.3	---	9.1	4.0	---
TOTAL	143.99	164.9	157.9	250.0	260.0	351.6	234.4	82.02	89.58	384.48	274.5	998.3
MEAN	4.64	5.50	5.09	8.06	8.97	11.3	7.81	2.65	2.99	12.4	8.85	33.3
MAX	18	19	11	15	22	37	21	9.1	12	61	57	266
MIN	.99	2.5	2.2	4.1	5.4	5.1	3.5	.70	.60	.61	3.3	3.3
CFSM	.51	.60	.56	.89	.98	1.24	.86	.29	.33	1.36	.97	3.65
IN.	.59	.67	.64	1.02	1.06	1.44	.96	.33	.37	1.57	1.12	4.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	4.88	6.74	8.20	13.7	12.1	15.0	7.97	2.85	8.50	7.51	8.12	8.97
MAX	8.44	12.5	16.9	28.2	18.4	22.6	17.3	4.25	32.0	15.4	19.6	33.3
(WY)	1992	1993	1993	1993	1995	1993	1993	1992	1995	1991	1992	1996
MIN	3.67	4.25	5.09	8.06	7.13	7.85	3.59	1.57	.75	1.36	1.70	1.78
(WY)	1994	1995	1996	1996	1992	1992	1994	1994	1994	1992	1993	1995

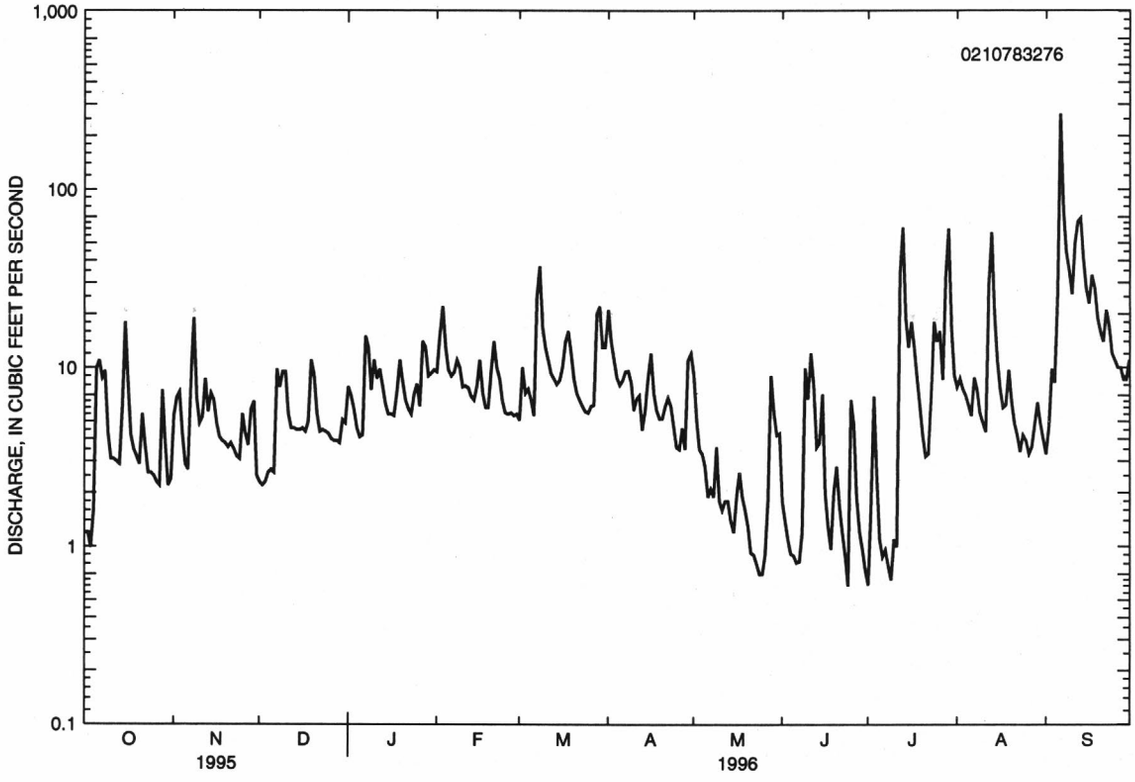
CAPE FEAR RIVER BASIN

0210783276 HERRINGS MARSH RUN BELOW SECONDARY ROAD 1306 AT RED HILL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	3368.86		3391.67			
ANNUAL MEAN	9.23		9.27		8.44	
HIGHEST ANNUAL MEAN					10.9	1993
LOWEST ANNUAL MEAN					5.56	1994
HIGHEST DAILY MEAN	96	Jun 13	266	Sep 6	266	Sep 6 1996
LOWEST DAILY MEAN	.46	May 26	.60	Jun 24	.24	Jul 3 1994
ANNUAL SEVEN-DAY MINIMUM	.53	Aug 19	.89	May 20	.28	Jul 10 1994
INSTANTANEOUS PEAK FLOW			401	Sep 6	401	Sep 6 1996
INSTANTANEOUS PEAK STAGE			8.09	Sep 6	8.09	Sep 6 1996
INSTANTANEOUS LOW FLOW			.52	Jul 9	.24*	Jul 2 1994
ANNUAL RUNOFF (CFSM)	1.01		1.02		.93	
ANNUAL RUNOFF (INCHES)	13.76		13.85		12.59	
10 PERCENT EXCEEDS	23		17		19	
50 PERCENT EXCEEDS	4.6		6.0		4.9	
90 PERCENT EXCEEDS	1.1		1.6		1.1	

e Estimated.

* 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 mi^2.

PERIOD OF RECORD.--July 1940 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 17.28 ft above sea level (levels by U.S. Army Corps of Engineers). Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for period of record also occurred Oct. 11, 1954.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	354	296	e360	1150	454	1340	267	158	297	912	448
2	72	526	291	e420	1170	481	1530	321	125	232	885	334
3	60	636	284	e380	1240	549	1530	337	99	393	819	261
4	58	630	273	378	1310	545	1420	316	81	509	922	280
5	77	560	267	368	1250	523	1240	287	69	372	984	385
6	117	486	260	354	1140	497	1010	261	59	254	991	2730
7	303	450	267	384	1070	626	874	263	60	175	1050	7170
8	670	801	304	520	1020	1390	786	272	66	136	1160	9470
9	774	975	336	583	967	e2100	711	263	88	109	1080	9550
10	634	928	386	596	896	2580	642	219	230	105	893	9040
11	554	852	427	574	818	2430	576	181	601	429	725	8800
12	523	801	451	574	774	2120	518	366	1420	674	586	8840
13	469	742	467	604	738	1860	470	453	1670	1360	556	9190
14	389	718	461	597	688	1620	431	343	1350	2090	617	8860
15	675	734	441	572	e640	1330	399	249	933	3040	813	7880
16	993	699	417	535	e600	1050	392	201	781	3530	878	6890
17	1000	632	e380	503	571	891	414	186	720	3310	792	6260
18	866	573	e360	484	540	840	508	171	459	2580	777	5540
19	693	535	e350	646	510	864	511	152	353	1910	795	4930
20	524	501	e420	874	491	895	433	130	691	1470	729	4220
21	417	470	e500	896	563	890	362	111	884	1170	581	3290
22	362	433	e550	823	654	846	320	97	737	889	490	2800
23	324	395	e500	761	703	761	289	88	488	676	408	2920
24	293	363	e480	678	706	671	266	76	307	659	339	3010
25	255	344	e460	640	680	591	250	70	210	701	289	2800
26	213	337	e440	603	641	538	239	63	351	937	267	2380
27	186	332	e420	660	597	517	232	57	343	1050	242	2010
28	260	322	e400	999	545	547	217	68	292	1040	224	1680
29	348	312	e380	1090	498	959	205	124	237	970	276	1420
30	327	303	e360	1040	---	1110	207	175	251	922	474	1270
31	292	---	e340	1040	---	1150	---	184	---	913	552	---
TOTAL	12815	16744	11968	19536	23170	32225	18322	6351	14113	32902	21106	134658
MEAN	413	558	386	630	799	1040	611	205	470	1061	681	4489
MAX	1000	975	550	1090	1310	2580	1530	453	1670	3530	1160	9550
MIN	58	303	260	354	491	454	205	57	59	105	224	261
CFSM	.69	.93	.64	1.05	1.33	1.74	1.02	.34	.79	1.77	1.14	7.49
IN.	.80	1.04	.74	1.21	1.44	2.00	1.14	.39	.88	2.04	1.31	8.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

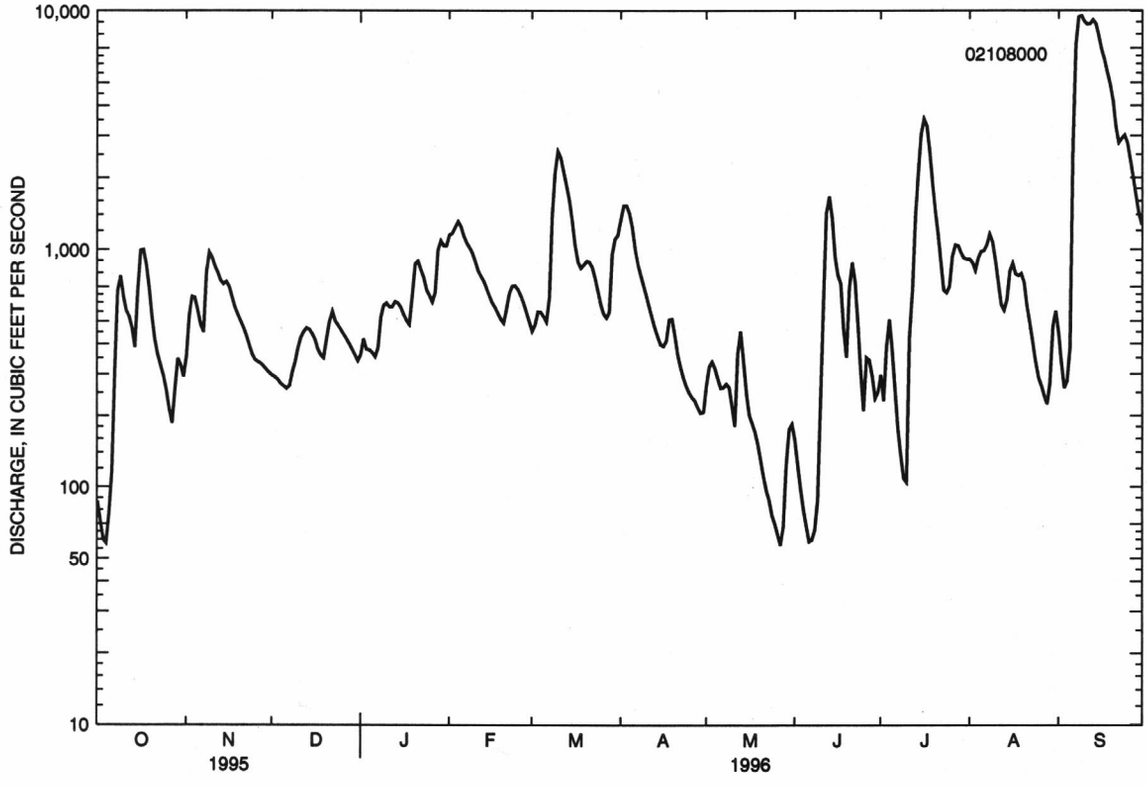
MEAN	395	414	654	1039	1169	1228	841	467	405	568	687	575
MAX	2448	1852	2225	2548	3832	3506	2958	1901	1953	3922	2681	4754
(WY)	1943	1948	1949	1993	1973	1983	1973	1969	1961	1962	1955	1955
MIN	7.59	15.6	59.6	158	249	261	145	64.9	17.3	25.9	13.8	11.0
(WY)	1955	1955	1955	1955	1955	1955	1986	1995	1994	1954	1954	1954

CAPE FEAR RIVER BASIN

02108000 NORTHEAST CAPE FEAR RIVER NEAR CHINQUAPIN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	248440		343910			
ANNUAL MEAN	681		940		703	
HIGHEST ANNUAL MEAN					1243	1973
LOWEST ANNUAL MEAN					279	1951
HIGHEST DAILY MEAN	4640	Feb 21	9550	Sep 9	19500	Jul 6 1962
LOWEST DAILY MEAN	19	Aug 25	57	May 27	5.3	Oct 10 1954
ANNUAL SEVEN-DAY MINIMUM	23	Aug 20	74	May 22	5.5	Oct 8 1954
INSTANTANEOUS PEAK FLOW			9710	Sep 8	20400	Jul 6 1962
INSTANTANEOUS PEAK STAGE			16.26	Sep 8	20.16	Jul 6 1962
INSTANTANEOUS LOW FLOW			50	Oct 4	5.3*	Oct 10 1954
ANNUAL RUNOFF (CFSM)	1.14		1.57		1.17	
ANNUAL RUNOFF (INCHES)	15.43		21.36		15.94	
10 PERCENT EXCEEDS	1820		1560		1680	
50 PERCENT EXCEEDS	389		539		395	
90 PERCENT EXCEEDS	55		196		58	

e Estimated.
* 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 sea level. 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. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	1480	e650	531	683	622	1690	302	89	857	1500	663
2	121	1580	e600	540	706	615	1960	313	80	782	1420	580
3	110	1720	e550	551	735	617	2190	307	70	710	1330	521
4	e100	1810	e500	553	782	617	2340	289	61	671	1120	e510
5	e200	1800	e480	546	838	610	2400	273	51	679	1110	e800
6	e440	1740	e460	531	882	597	2410	e250	42	694	1210	1690
7	581	1670	453	513	909	601	2430	e240	35	684	1500	2210
8	804	1600	463	493	926	684	2380	264	31	643	1770	3340
9	949	1520	453	471	931	820	2280	294	28	590	1900	6200
10	1000	1460	455	450	925	942	2130	336	32	531	1880	9300
11	1000	1410	453	417	907	1080	1980	353	55	466	1800	11200
12	1030	1370	441	397	880	1310	1810	341	107	446	1760	12200
13	1160	1330	453	403	843	1510	1670	316	179	492	1850	12100
14	1420	1180	458	416	803	1620	1540	286	213	514	1940	11300
15	1620	1150	439	427	760	1660	1410	259	217	573	2040	10400
16	1800	1140	423	429	747	1670	1210	233	217	698	2130	9480
17	1970	1130	403	422	744	1660	1060	211	225	925	2120	8720
18	2050	1120	385	418	735	1680	961	192	238	1240	2000	7950
19	2040	1100	391	426	723	1710	854	170	246	1590	1840	7030
20	2000	1070	470	437	727	1700	759	144	280	1790	1680	6000
21	2020	1040	543	447	726	1660	677	120	326	1850	1540	5080
22	1960	993	593	451	724	1580	605	99	393	1780	1440	4250
23	1880	944	623	442	723	1480	537	83	439	1700	1370	3740
24	1770	890	631	432	727	1380	480	74	457	1630	1360	3420
25	1660	848	626	476	726	1180	436	69	457	1550	1370	3100
26	1550	807	618	472	740	1090	399	71	500	1490	1350	2830
27	1440	771	602	486	770	1050	370	73	638	1470	1180	2520
28	1420	736	584	544	859	1050	341	73	e800	1570	1060	2250
29	1370	729	563	588	801	1170	315	79	881	1580	974	2050
30	1330	e700	545	633	---	1400	296	89	e900	1580	864	1900
31	1280	---	536	667	---	1510	---	92	---	1560	755	---
TOTAL	38203	36838	15844	15009	22982	36875	39920	6295	8287	33335	47163	153334
MEAN	1232	1228	511	484	792	1190	1331	203	276	1075	1521	5111
MAX	2050	1810	650	667	931	1710	2430	353	900	1850	2130	12200
MIN	100	700	385	397	683	597	296	69	28	446	755	510
CFSM	1.81	1.81	.75	.71	1.17	1.75	1.96	.30	.41	1.58	2.24	7.52
IN.	2.09	2.02	.87	.82	1.26	2.02	2.18	.34	.45	1.82	2.58	8.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

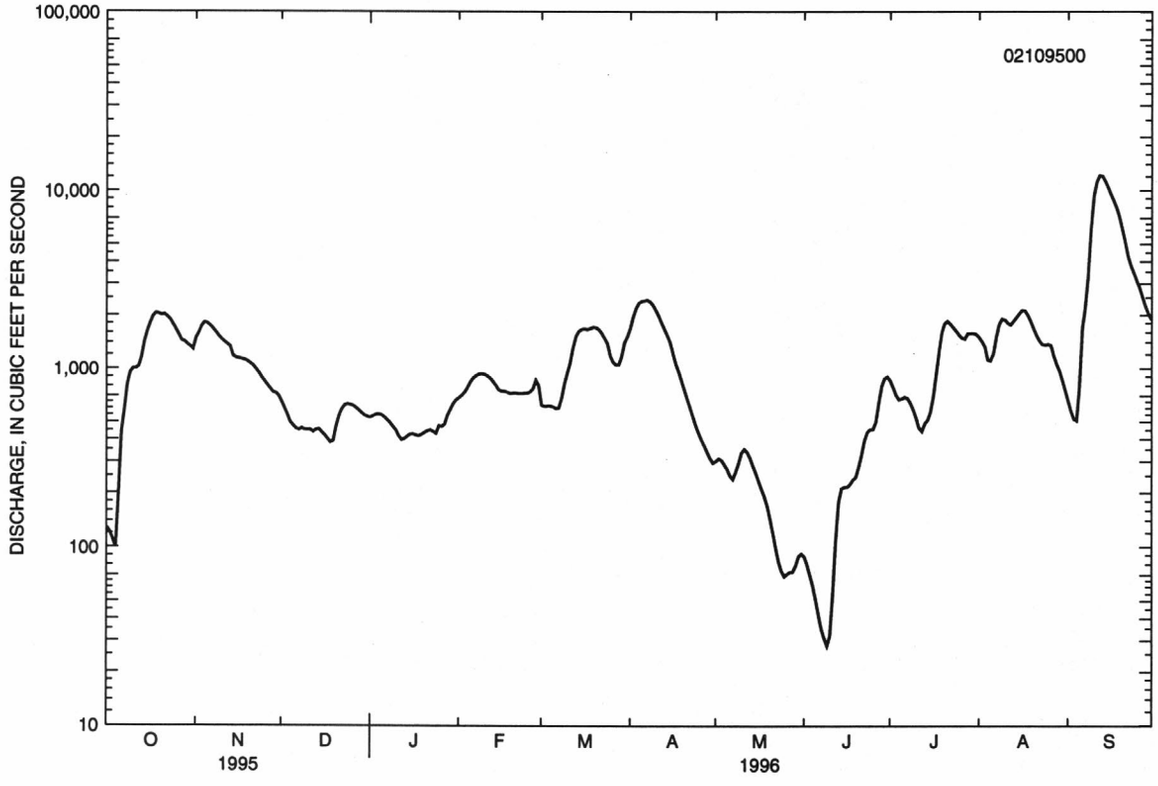
MEAN	405	338	489	1020	1305	1438	992	332	315	542	679	690
MAX	1778	2332	3080	3722	4197	5319	2895	1928	1474	3040	2740	5111
(WY)	1948	1978	1949	1993	1948	1983	1973	1978	1969	1961	1981	1996
MIN	1.14	.54	3.53	20.6	44.6	219	120	17.5	5.51	5.72	7.59	.31
(WY)	1941	1955	1955	1955	1941	1955	1967	1995	1952	1952	1954	1954

WACCAMAW RIVER BASIN

02109500 WACCAMAW RIVER AT FREELAND, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	371801.0		454085			
ANNUAL MEAN	1019		1241		710	
HIGHEST ANNUAL MEAN					1392	1948
LOWEST ANNUAL MEAN					230	1941
HIGHEST DAILY MEAN	3960	Jan 18	12200	Sep 12	12200	Sep 12 1996
LOWEST DAILY MEAN	6.2	Jun 3	28	Jun 9	.10	Sep 27 1983
ANNUAL SEVEN-DAY MINIMUM	7.1	May 28	39	Jun 5	.10	Oct 4 1954
INSTANTANEOUS PEAK FLOW			12400	Sep 12	12400	Sep 12 1996
INSTANTANEOUS PEAK STAGE			17.02	Sep 12	17.02	Sep 12 1996
INSTANTANEOUS LOW FLOW			27	Jun 9	.10*	Aug 30 1954
ANNUAL RUNOFF (CFSM)	1.50		1.82		1.04	
ANNUAL RUNOFF (INCHES)	20.34		24.84		14.18	
10 PERCENT EXCEEDS	2550		2030		1860	
50 PERCENT EXCEEDS	587		765		354	
90 PERCENT EXCEEDS	26		223		28	

e Estimated.
* 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 sea level. Prior to Feb. 9, 1940, nonrecording gage at present site, at datum 1,212.47 ft. Feb. 9, 1940, to Oct. 20, 1970, recording gage at present site, at datum 1,212.47 ft. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge, for period of record, 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	33	34	30	67	44	58	53	34	28	28	37
2	25	39	33	34	104	43	53	46	32	26	21	34
3	24	34	33	35	85	43	50	42	32	26	21	37
4	100	32	32	30	67	39	49	40	34	22	20	39
5	309	32	32	29	72	40	47	39	32	21	45	41
6	134	30	31	32	79	46	46	42	29	22	38	39
7	77	47	32	40	57	44	45	39	28	22	41	35
8	57	42	30	40	68	40	44	38	36	22	37	36
9	48	36	34	42	103	38	45	36	117	24	29	30
10	44	34	31	33	101	37	42	34	101	21	26	41
11	40	145	30	32	89	37	40	37	62	19	80	77
12	38	118	30	34	78	37	40	37	51	22	878	142
13	37	71	30	32	69	37	40	33	45	22	258	59
14	56	58	30	37	65	36	39	33	41	21	121	45
15	46	50	29	57	60	39	39	39	47	87	80	41
16	39	46	29	71	56	38	39	38	39	32	63	41
17	38	43	28	62	52	38	36	35	39	25	52	49
18	35	41	29	107	50	36	35	33	44	23	50	36
19	34	40	39	346	48	85	36	31	48	22	47	33
20	35	39	35	148	71	68	41	30	53	21	42	31
21	35	36	31	96	61	55	40	29	42	20	58	28
22	33	36	30	73	57	49	37	29	37	20	54	29
23	32	35	30	63	54	46	37	27	34	19	47	28
24	32	35	30	92	52	46	37	32	47	18	45	26
25	31	34	33	76	49	45	35	41	38	20	40	26
26	31	33	29	73	48	43	39	33	32	35	42	29
27	31	33	28	370	47	41	35	41	30	21	43	25
28	33	33	28	168	46	70	33	89	29	19	42	62
29	32	47	29	114	44	64	35	50	28	24	38	61
30	29	35	30	92	---	58	73	41	27	23	54	40
31	31	---	28	79	---	57	---	37	---	24	41	---
TOTAL	1592	1367	957	2567	1899	1439	1265	1204	1288	771	2481	1277
MEAN	51.4	45.6	30.9	82.8	65.5	46.4	42.2	38.8	42.9	24.9	80.0	42.6
MAX	309	145	39	370	104	85	73	89	117	87	878	142
MIN	24	30	28	29	44	36	33	27	27	18	20	25
CFSM	1.78	1.58	1.07	2.88	2.27	1.61	1.46	1.35	1.49	.86	2.78	1.48
IN.	2.06	1.77	1.24	3.32	2.45	1.86	1.63	1.56	1.66	1.00	3.20	1.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

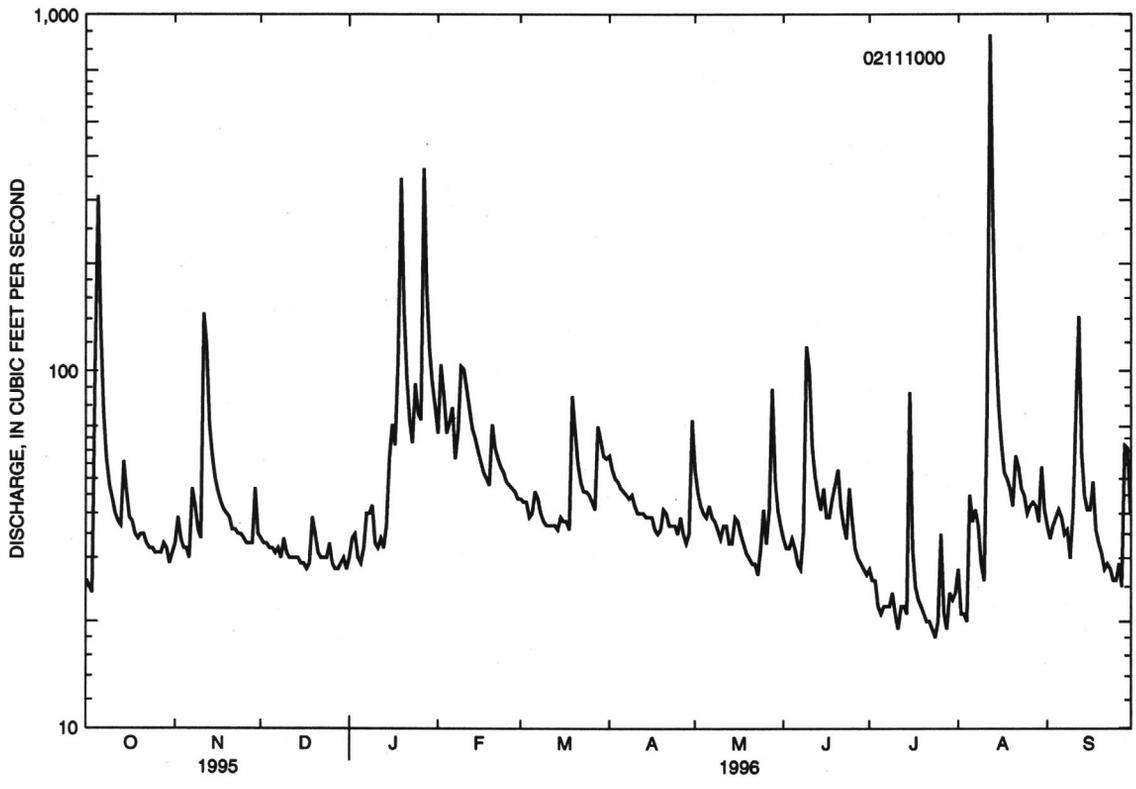
MEAN	37.6	42.2	45.8	51.8	61.9	73.5	69.7	54.8	48.9	39.7	45.8	36.8
MAX	149	140	98.8	132	143	160	164	125	122	98.9	194	136
(WY)	1991	1978	1974	1946	1960	1993	1980	1973	1992	1941	1940	1979
MIN	8.45	9.07	11.8	11.4	27.0	23.7	26.5	20.5	13.0	9.04	9.05	6.95
(WY)	1955	1982	1956	1956	1988	1988	1981	1940	1956	1988	1988	1954

PEE DEE RIVER BASIN

02111000 YADKIN RIVER AT PATTERSON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	19874		18107			
ANNUAL MEAN	54.4		49.5		50.6	
HIGHEST ANNUAL MEAN					78.3	1973
LOWEST ANNUAL MEAN					21.5	1956
HIGHEST DAILY MEAN	832	Jan 15	878	Aug 12	2130	Aug 13 1940
LOWEST DAILY MEAN	23	Sep 8	18	Jul 24	5.3	Sep 30 1954
ANNUAL SEVEN-DAY MINIMUM	25	Sep 4	20	Jul 19	5.7	Sep 25 1954
INSTANTANEOUS PEAK FLOW			2900	Aug 12	16200*	Aug 13 1940
INSTANTANEOUS PEAK STAGE			7.13	Aug 12	12.70	Aug 13 1940
INSTANTANEOUS LOW FLOW			13	Jul 4	3.0	May 15 1940
ANNUAL RUNOFF (CFSM)	1.89		1.72		1.76	
ANNUAL RUNOFF (INCHES)	25.67		23.39		23.89	
10 PERCENT EXCEEDS	86		74		88	
50 PERCENT EXCEEDS	39		38		38	
90 PERCENT EXCEEDS	29		26		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 sea level. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS --Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 3,200 ft^3/s on basis of contracted-opening computation. Minimum discharge for period of record, result of freezeup. Minimum discharge for current water year also occurred July 30, 31.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	e60	50	e49	e200	72	117	117	68	46	57	64
2	39	e72	50	e55	e160	72	106	92	60	47	38	62
3	39	e60	49	e60	e125	70	97	82	63	47	41	67
4	171	44	48	e50	e140	70	92	76	73	42	45	73
5	1050	43	47	e45	e150	70	88	74	81	41	163	127
6	423	48	47	e48	e110	73	87	75	65	42	170	102
7	198	83	48	e65	e140	74	83	75	65	42	72	e90
8	131	e70	46	e66	e200	68	80	78	111	43	56	e100
9	95	e65	49	e70	191	60	80	74	557	64	49	e80
10	85	e60	50	e60	192	60	73	67	559	46	43	e110
11	78	e300	50	e52	165	61	70	96	230	42	142	e180
12	72	e250	50	e56	140	62	71	115	152	49	3140	e350
13	90	e140	47	e50	122	61	72	79	120	49	657	e150
14	122	e120	47	e60	113	53	75	73	94	58	288	e115
15	94	e100	47	e95	105	64	71	81	90	195	191	e100
16	77	e80	47	e125	94	66	74	78	97	82	158	e110
17	69	e75	44	e110	86	67	63	76	91	62	117	e130
18	66	e70	45	e200	85	63	57	77	104	51	101	e95
19	64	e65	60	e1100	78	148	61	67	105	47	95	e75
20	65	e62	e55	e500	130	195	65	61	145	46	88	e65
21	59	e60	e50	e240	121	131	70	58	93	40	80	e60
22	58	e60	e48	e200	111	106	72	54	76	39	83	e65
23	53	e58	e48	e150	105	93	70	51	65	38	81	e60
24	54	e55	e48	e170	98	86	65	53	108	37	75	e55
25	54	52	e55	e140	90	83	61	78	88	45	76	e52
26	53	51	e50	e130	86	82	65	63	65	76	168	e50
27	56	50	e45	e1150	84	75	62	70	59	39	102	e55
28	53	50	e45	e400	79	141	59	252	53	35	86	e130
29	52	55	e48	e250	73	170	67	122	49	37	78	e120
30	e50	53	e50	e200	---	140	154	89	47	32	81	e95
31	e55	---	e45	e150	---	122	---	77	---	32	71	---
TOTAL	3664	2411	1508	6096	3573	2758	2327	2580	3633	1591	6692	2987
MEAN	118	80.4	48.6	197	123	89.0	77.6	83.2	121	51.3	216	99.6
MAX	1050	300	60	1150	200	195	154	252	559	195	3140	350
MIN	39	43	44	45	73	53	57	51	47	32	38	50
CFSM	2.46	1.67	1.01	4.09	2.56	1.85	1.61	1.73	2.52	1.07	4.49	2.07
IN.	2.83	1.86	1.17	4.71	2.76	2.13	1.80	2.00	2.81	1.23	5.18	2.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

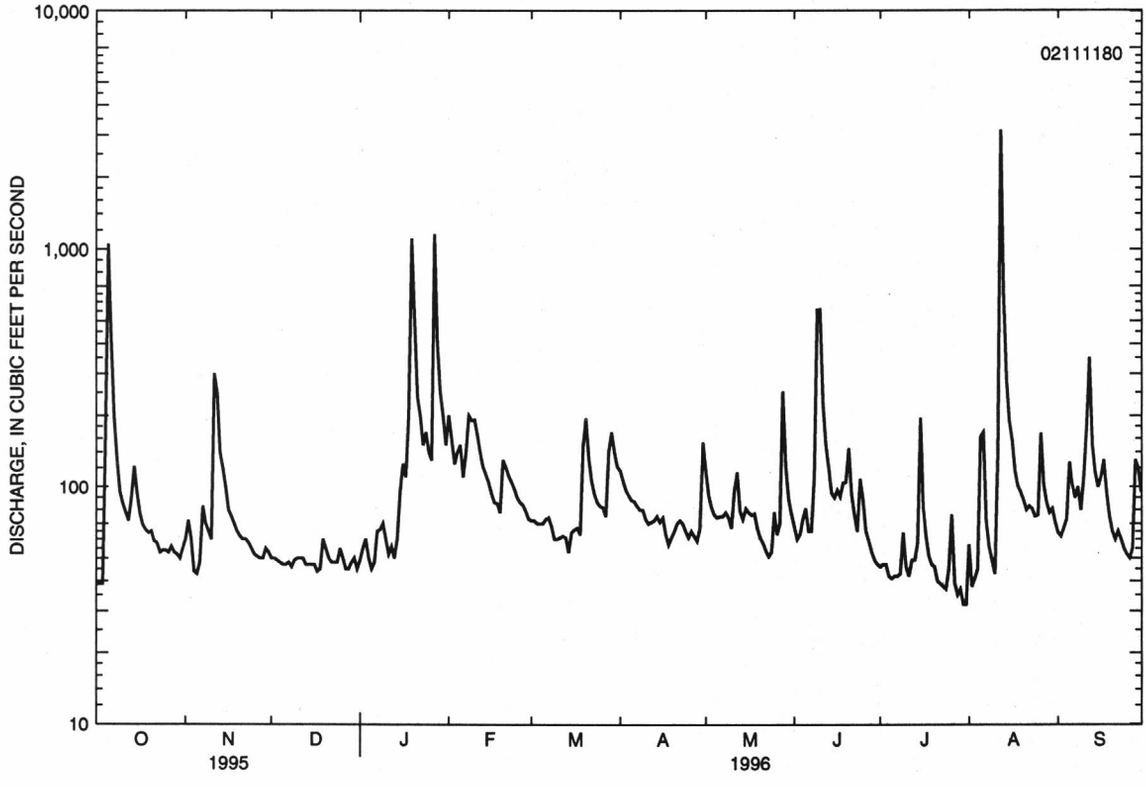
MEAN	81.4	95.5	90.0	108	122	152	145	114	105	71.5	85.9	68.0
MAX	298	365	193	323	250	317	379	291	225	185	384	257
(WY)	1991	1978	1974	1995	1966	1993	1980	1973	1992	1989	1994	1979
MIN	19.8	19.8	24.7	22.5	48.2	47.9	51.5	37.3	21.7	17.6	18.9	24.9
(WY)	1982	1982	1989	1981	1989	1988	1986	1988	1988	1988	1988	1968

PEE DEE RIVER BASIN

02111180 ELK CREEK AT ELKVILLE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	43907		39820			
ANNUAL MEAN	120		109		103	
HIGHEST ANNUAL MEAN					154	1973
LOWEST ANNUAL MEAN					43.7	1988
HIGHEST DAILY MEAN	2330	Jan 15	3140	Aug 12	5890	Aug 17 1994
LOWEST DAILY MEAN	33	Sep 8	32	Jul 30	12	Jul 18 1988
ANNUAL SEVEN-DAY MINIMUM	35	Sep 4	39	Jul 27	14	Jul 12 1988
INSTANTANEOUS PEAK FLOW			10400	Aug 12	18700*	Aug 17 1994
INSTANTANEOUS PEAK STAGE			9.10	Aug 12	12.02	Aug 17 1994
INSTANTANEOUS LOW FLOW			30*	Jul 28	11*	Jan 5 1981
ANNUAL RUNOFF (CFSM)	2.50		2.26		2.14	
ANNUAL RUNOFF (INCHES)	33.96		30.80		29.13	
10 PERCENT EXCEEDS	187		164		175	
50 PERCENT EXCEEDS	75		72		71	
90 PERCENT EXCEEDS	46		47		31	

e Estimated.
* 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 sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at low flow during growing season. Maximum discharge for period of record, from rating curve extended above 5,600 ft^3/s on basis of computation of peak flow over dam; gage height: 22.02 ft. Minimum discharge for current water year also occurred Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	109	108	95	e210	e120	201	174	125	95	e125	127
2	72	118	105	105	e250	e120	179	149	119	95	e100	92
3	72	109	102	106	e200	e120	171	140	115	101	e120	161
4	342	101	102	95	e180	e125	166	134	120	89	e100	160
5	2100	97	99	92	e170	e130	160	129	131	85	e110	231
6	516	95	98	99	e165	e150	162	146	110	85	e105	370
7	248	158	103	98	e155	151	157	136	108	84	e90	385
8	177	147	98	122	e160	139	151	138	169	83	e85	174
9	151	118	105	132	e230	129	155	128	805	98	e90	128
10	137	110	99	112	e200	129	146	121	369	84	e85	108
11	128	347	97	e105	e190	130	143	130	241	79	e80	124
12	120	330	98	e100	e180	132	141	136	201	93	e4000	112
13	116	189	96	e105	e170	131	140	117	176	86	e1000	92
14	191	163	96	e110	e165	129	142	117	157	88	256	84
15	156	143	95	e120	e160	141	139	127	145	133	164	78
16	128	132	95	e140	e155	143	144	135	147	109	225	76
17	118	125	93	e130	e150	146	134	121	145	87	171	76
18	114	120	95	e150	e145	135	131	114	130	80	118	67
19	111	116	124	e3200	e140	345	131	108	145	76	100	65
20	110	113	115	e800	e160	272	137	103	204	75	e90	66
21	122	111	102	e500	e170	201	142	100	155	72	e110	73
22	107	108	98	e250	e155	176	132	99	129	e70	e120	73
23	104	106	95	e170	e150	164	131	94	119	e70	e135	200
24	102	106	98	e220	e140	155	135	93	123	e70	e160	148
25	101	104	99	e190	e135	155	124	126	121	e100	e125	97
26	98	102	96	e170	e130	152	135	111	109	e150	e200	100
27	100	102	96	e2700	e125	144	129	181	106	e95	137	90
28	105	102	90	e500	e125	315	121	503	102	e85	73	85
29	95	144	93	e350	e125	283	124	194	98	e85	105	75
30	93	113	94	e270	---	219	226	164	96	e80	96	72
31	96	---	90	e250	---	201	---	140	---	e80	117	---
TOTAL	6303	4038	3074	11586	4790	5182	4429	4408	5020	2762	8592	3789
MEAN	203	135	99.2	374	165	167	148	142	167	89.1	277	126
MAX	2100	347	124	3200	250	345	226	503	805	150	4000	385
MIN	72	95	90	92	125	120	121	93	96	70	73	65
CFSM	2.28	1.51	1.11	4.19	1.85	1.87	1.66	1.59	1.88	1.00	3.11	1.42
IN.	2.63	1.68	1.28	4.83	2.00	2.16	1.85	1.84	2.09	1.15	3.58	1.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	113	121	131	145	166	196	197	162	149	124	127	117
MAX	309	379	273	374	386	405	536	353	412	335	587	479
(WY)	1977	1978	1974	1996	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

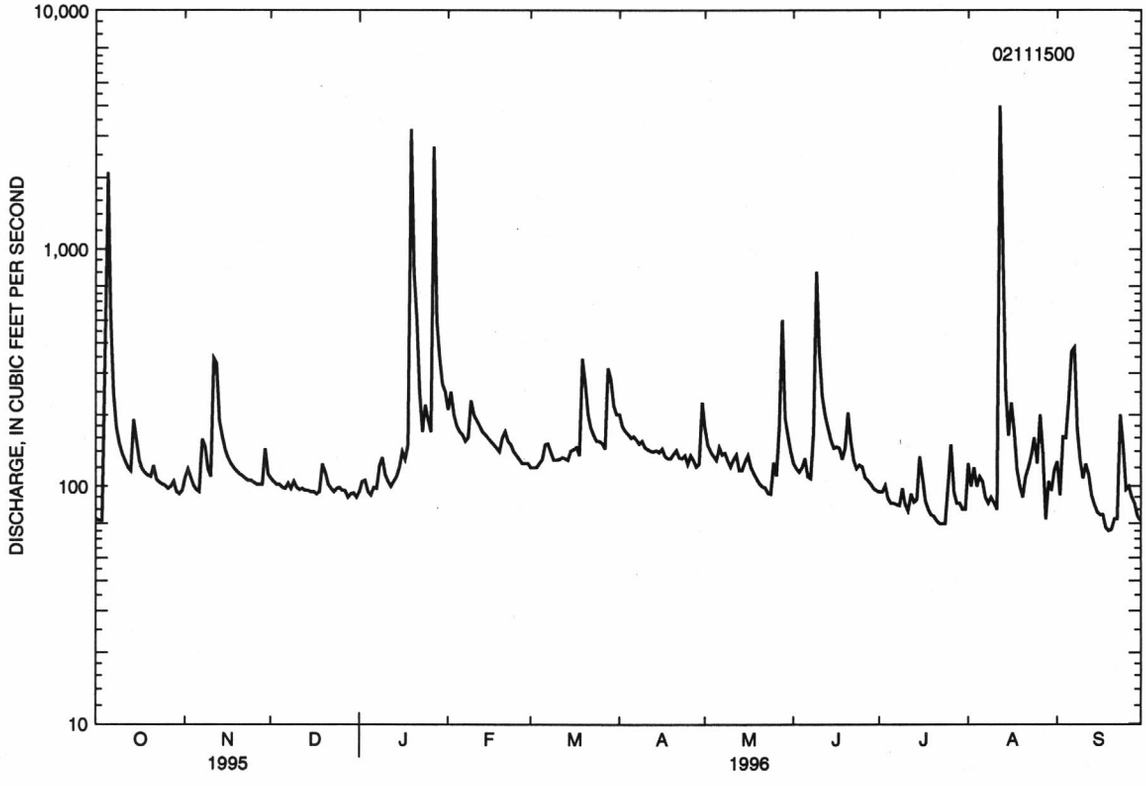
PEE DEE RIVER BASIN

02111500 REDDIES RIVER AT NORTH WILKESBORO, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	57282		63973			
ANNUAL MEAN	157		175		145	
HIGHEST ANNUAL MEAN					218	1973
LOWEST ANNUAL MEAN					67.5	1956
HIGHEST DAILY MEAN	2360	Jan 15	4000	Aug 12	7600	Aug 14 1940
LOWEST DAILY MEAN	65	Sep 8	65	Sep 19	23	Aug 17 1954
ANNUAL SEVEN-DAY MINIMUM	71	Sep 4	71	Sep 16	25	Aug 11 1954
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		27000*	Aug 14 1940
INSTANTANEOUS PEAK STAGE			NOT DETERMINED		22.02	Aug 14 1940
INSTANTANEOUS LOW FLOW			63*	Sep 18	22	Aug 17 1954
ANNUAL RUNOFF (CFSM)	1.76		1.96		1.63	
ANNUAL RUNOFF (INCHES)	23.89		26.68		22.15	
10 PERCENT EXCEEDS	220		206		233	
50 PERCENT EXCEEDS	116		124		113	
90 PERCENT EXCEEDS	90		86		61	

e Estimated.

* 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 "Yadkin River 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 sea level. 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 telephone and satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1962 by W. Kerr Scott Reservoir (station 02111391) 5.5 mi upstream. Prior to regulation maximum discharge: 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.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	447	727	615	478	1180	843	1060	1130	681	566	567	742
2	430	768	582	654	1330	763	1000	1020	674	582	608	678
3	483	796	635	690	1240	738	918	792	660	588	688	764
4	1170	806	626	633	1140	788	888	767	759	540	729	854
5	3590	667	577	567	1200	789	857	757	749	453	641	780
6	2830	644	563	578	1390	859	910	748	631	426	716	783
7	4430	796	569	689	1360	896	804	748	622	444	810	1200
8	3770	997	553	617	1270	842	794	751	802	490	652	970
9	2120	918	590	551	1510	731	814	766	1610	525	661	906
10	1230	755	600	667	1790	689	846	730	2210	552	635	1070
11	916	1090	565	661	1570	720	764	704	2740	526	570	1290
12	787	2040	507	604	1350	774	733	749	1380	480	3540	2100
13	807	1740	525	596	1140	770	760	754	1270	481	3670	2240
14	946	1190	576	641	1060	733	780	717	848	478	5120	1310
15	1150	969	605	824	1060	756	768	715	800	764	4870	878
16	1190	880	599	1100	961	796	768	738	825	1030	3720	946
17	1050	721	552	1160	931	799	747	731	834	808	2430	973
18	829	744	505	1030	876	735	720	662	819	569	1500	798
19	791	784	638	3770	894	1130	716	630	822	504	737	743
20	781	798	732	3160	1120	1600	725	618	911	478	838	713
21	856	758	657	3400	1210	1570	877	586	1020	466	867	683
22	823	674	582	2360	1000	1060	813	564	804	454	883	715
23	708	626	531	1270	1040	836	729	534	709	446	934	672
24	698	645	527	1230	943	864	681	527	655	442	913	636
25	705	676	524	1450	872	861	639	799	769	455	885	637
26	722	659	541	1480	917	846	691	906	800	694	1430	645
27	701	594	546	4050	843	796	775	724	617	706	1300	657
28	721	593	520	4150	840	1030	716	1480	591	569	871	815
29	686	764	516	3290	891	1330	677	1530	573	513	936	1130
30	669	723	520	2080	---	1560	903	960	556	478	925	1510
31	664	---	525	1350	---	1150	---	690	---	475	827	---
TOTAL	37700	25542	17703	45780	32928	28654	23873	24527	27741	16982	44473	28838
MEAN	1216	851	571	1477	1135	924	796	791	925	548	1435	961
MAX	4430	2040	732	4150	1790	1600	1060	1530	2740	1030	5120	2240
MIN	430	593	505	478	840	689	639	527	556	426	567	636
†	+6	0	0	-3	+3	0	+16	-15	-3	+3	-3	+6
‡	1222	851	571	1474	1138	924	812	776	922	551	1432	967

PEE DEE RIVER BASIN

02112000 YADKIN RIVER AT WILKESBORO, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996*, BY WATER YEAR (WY)

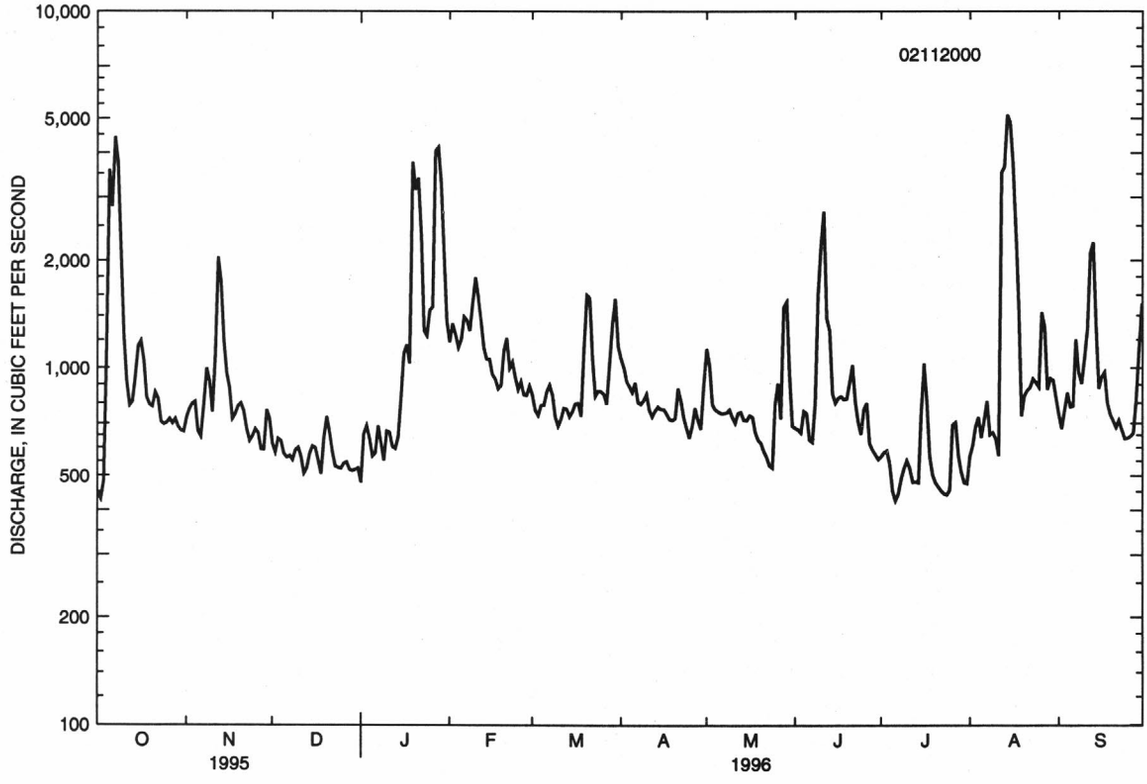
MEAN	710	752	770	901	988	1208	1156	966	899	682	748	627
MAX	1834	2571	1619	1965	1832	2346	2868	1954	1963	1191	2239	1948
(WY)	1991	1978	1974	1995	1990	1993	1980	1973	1975	1989	1994	1979
MIN	191	258	268	349	446	441	435	410	293	234	194	209
(WY)	1989	1982	1982	1989	1989	1988	1986	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996*	
ANNUAL TOTAL	354154		354741			
ANNUAL MEAN	970	‡970	969	‡969	866	‡831
HIGHEST ANNUAL MEAN					1220	1973
LOWEST ANNUAL MEAN					393	1988
HIGHEST DAILY MEAN	5500	Jan 17	5120	Aug 14	7990	Aug 10 1970
LOWEST DAILY MEAN	337	Apr 20	426	Jul 6	114*	Dec 8 1970
ANNUAL SEVEN-DAY MINIMUM	464	Sep 4	464	Jul 19	166	Aug 17 1988
INSTANTANEOUS PEAK FLOW			8840	Jan 19	12800	Apr 10 1983
INSTANTANEOUS PEAK STAGE			11.49	Jan 19	16.22	Apr 10 1983
INSTANTANEOUS LOW FLOW			299	Jan 1	86	Dec 4 1965
10 PERCENT EXCEEDS	1440		1480		1450	
50 PERCENT EXCEEDS	778		768		662	
90 PERCENT EXCEEDS	524		541		386	

† 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 only (1963-1996). 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 sea level. Prior to May 1, 1964, nonrecording gage on downstream side of bridge at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 2,400 ft^3/s on basis of slope-area measurement of peak flow at gage heights 22.54, 14.40, and 10.83 ft. Minimum discharge for current water year also occurred July 25.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	e160	144	e120	301	173	254	226	146	113	230	179
2	85	e150	141	e130	e350	173	245	181	137	125	125	167
3	84	e145	141	e150	e300	167	218	168	132	130	259	340
4	474	e140	141	e130	e270	162	206	160	142	113	147	337
5	1850	e135	144	e120	e250	162	200	152	155	109	152	245
6	638	e130	142	e125	e240	174	197	204	129	108	206	300
7	326	e260	139	e130	e230	179	195	251	122	106	128	244
8	227	e320	139	e190	e275	170	185	206	144	159	116	368
9	187	e240	139	e250	e450	151	194	180	529	193	120	248
10	169	e200	139	e200	397	153	180	162	412	119	111	423
11	152	e860	139	e180	341	153	174	158	261	108	118	e1400
12	139	e1100	136	e170	300	154	171	182	214	122	3810	e1200
13	132	e760	135	e180	262	152	168	149	210	115	1540	460
14	284	e400	135	e190	250	150	177	147	167	115	515	328
15	229	e300	135	e200	237	158	166	148	163	205	363	273
16	168	e245	e125	e250	225	175	172	170	151	164	366	276
17	147	e200	e120	e225	208	172	159	153	139	126	352	277
18	138	e180	e120	292	204	157	156	141	134	111	293	232
19	132	e170	e150	2920	195	378	153	132	156	104	251	214
20	129	e160	e180	722	238	404	158	127	331	102	210	196
21	152	e155	e150	438	254	257	180	122	242	95	264	190
22	127	e145	e140	339	223	216	158	120	166	93	265	182
23	121	e140	e130	290	215	196	154	114	146	93	313	163
24	118	e140	e135	380	207	185	174	112	139	91	354	157
25	116	e135	e140	373	194	180	151	125	153	153	280	156
26	112	e140	e135	293	191	181	155	126	129	218	419	170
27	113	e135	e130	1720	188	e170	161	137	124	107	308	179
28	120	e130	e130	663	187	e480	145	466	123	99	306	298
29	108	e200	e125	469	175	419	147	221	117	101	277	393
30	105	144	e125	389	---	289	240	198	115	98	219	215
31	e110	---	e120	346	---	254	---	167	---	102	193	---
TOTAL	7078	7719	4244	12574	7357	6544	5393	5305	5428	3797	12610	9810
MEAN	228	257	137	406	254	211	180	171	181	122	407	327
MAX	1850	1100	180	2920	450	480	254	466	529	218	3810	1400
MIN	84	130	120	120	175	150	145	112	115	91	111	156
CFSM	1.78	2.01	1.07	3.17	1.98	1.65	1.40	1.34	1.41	.96	3.18	2.55
IN.	2.06	2.24	1.23	3.65	2.14	1.90	1.57	1.54	1.58	1.10	3.66	2.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	158	164	172	203	224	265	257	217	199	161	156	147
MAX	422	426	382	406	413	610	637	430	432	349	461	446
(WY)	1977	1978	1974	1996	1990	1993	1980	1991	1975	1989	1994	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

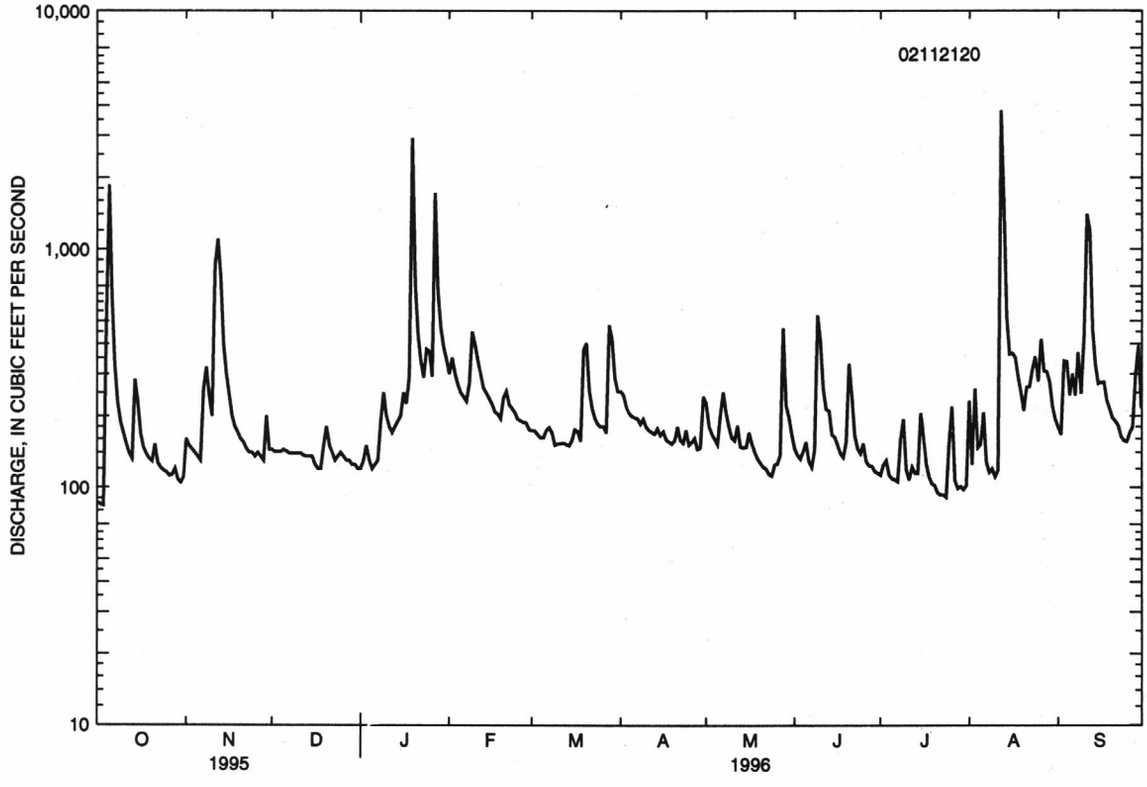
PEE DEE RIVER BASIN

02112120 ROARING RIVER NEAR ROARING RIVER, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	73045		87859			
ANNUAL MEAN	200		240		194	
HIGHEST ANNUAL MEAN					269	1993
LOWEST ANNUAL MEAN					98.5	1988
HIGHEST DAILY MEAN	3050	Jan 15	3810	Aug 12	7460	Aug 17 1994
LOWEST DAILY MEAN	78	Sep 8	84	Oct 3	32	Aug 27 1988
ANNUAL SEVEN-DAY MINIMUM	82	Sep 3	98	Jul 18	38	Aug 22 1988
INSTANTANEOUS PEAK FLOW			12300	Aug 12	26600*	Oct 17 1975
INSTANTANEOUS PEAK STAGE			15.52	Aug 12	22.54*	Oct 17 1975
INSTANTANEOUS LOW FLOW			83*	Oct 3	31	Aug 27 1988
ANNUAL RUNOFF (CFSM)	1.56		1.88		1.52	
ANNUAL RUNOFF (INCHES)	21.23		25.53		20.59	
10 PERCENT EXCEEDS	308		364		311	
50 PERCENT EXCEEDS	142		169		146	
90 PERCENT EXCEEDS	100		118		83	

e Estimated.

* 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 sea level. Prior to Aug. 28, 1964, nonrecording gage on upstream side of bridge at same datum. U.S. Army Corps of Engineers satellite telemetry 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 for period of record, from graph based on hourly gage-height readings and floodmark. Minimum discharge for current water year also occurred Oct. 3.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	668	966	996	e700	1440	1350	1630	1500	987	e840	e850	956
2	646	1030	942	e900	e2000	1260	1550	1490	957	e860	e900	908
3	642	1070	949	e1000	e1800	1170	1430	1160	942	e880	e1000	1240
4	2070	1090	1000	900	e1600	1190	1400	1060	1010	e820	e1100	1470
5	7450	881	923	898	e2000	1190	1270	1060	1130	e740	e950	1310
6	3540	872	904	e920	e2300	1250	1320	1140	934	e660	e1050	1550
7	5060	1150	916	e1050	e2050	1330	1200	1190	907	e700	e1200	1750
8	4480	1490	904	e950	e1900	1270	1150	1150	1180	e740	e1000	1760
9	2760	1280	938	e820	e2400	1110	1170	1120	e2100	e780	e1050	1530
10	1630	1030	950	e1000	2870	1040	1180	1070	e2800	e825	e900	1870
11	1200	2180	904	e980	2560	1060	1120	1030	3630	e750	e850	4520
12	984	3450	e800	978	2160	1120	1070	1040	1780	e700	e8000	3980
13	1020	2410	e850	1000	1900	1120	1070	1040	1820	656	e9000	3760
14	1420	1740	e900	1020	1770	1080	1120	1010	1240	649	e11000	2550
15	1600	1360	e1000	1210	1720	1090	1090	999	1380	949	e10000	1760
16	1460	1330	866	1790	1660	1160	1100	1040	1120	e1500	e7000	1540
17	1330	1100	848	2110	1560	1150	1060	1030	1110	e1200	e4000	1640
18	1030	1100	846	2030	1520	1110	1030	970	1080	e950	e2500	1450
19	989	1130	882	10400	1480	1850	1030	912	1080	e800	e1000	1280
20	986	1140	995	4830	1710	2290	1040	893	1370	e760	e1100	1260
21	1100	1110	967	4880	1990	2050	1230	869	1480	e720	e1200	1190
22	1090	1020	e900	4020	1670	1790	1200	824	1200	e700	e1300	e1300
23	911	967	e800	2390	1690	1200	1100	800	998	e680	e1400	e1200
24	899	975	e780	e2200	1620	1290	1050	779	946	e680	1350	e1150
25	901	1000	e750	e3000	1450	1270	953	927	e1100	e720	1000	e1200
26	926	1000	e800	e4500	1440	1260	992	1290	e1150	e1000	1830	1320
27	903	961	e820	8440	1460	1180	1090	1170	e950	e1050	1970	1540
28	939	951	e780	4760	1320	1660	1040	2730	e880	e850	1410	1630
29	897	1100	e750	3670	1380	2050	981	2070	e840	e750	1250	2790
30	887	1140	e780	2510	---	2150	1290	1530	e800	e700	1320	2440
31	872	---	e750	1600	---	1800	---	1090	---	e700	1110	---
TOTAL	51290	38023	27190	77456	52420	42890	34956	35983	38901	25309	79590	53844
MEAN	1655	1267	877	2499	1808	1384	1165	1161	1297	816	2567	1795
MAX	7450	3450	1000	10400	2870	2290	1630	2730	3630	1500	11000	4520
MIN	642	872	750	700	1320	1040	953	779	800	649	850	908

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

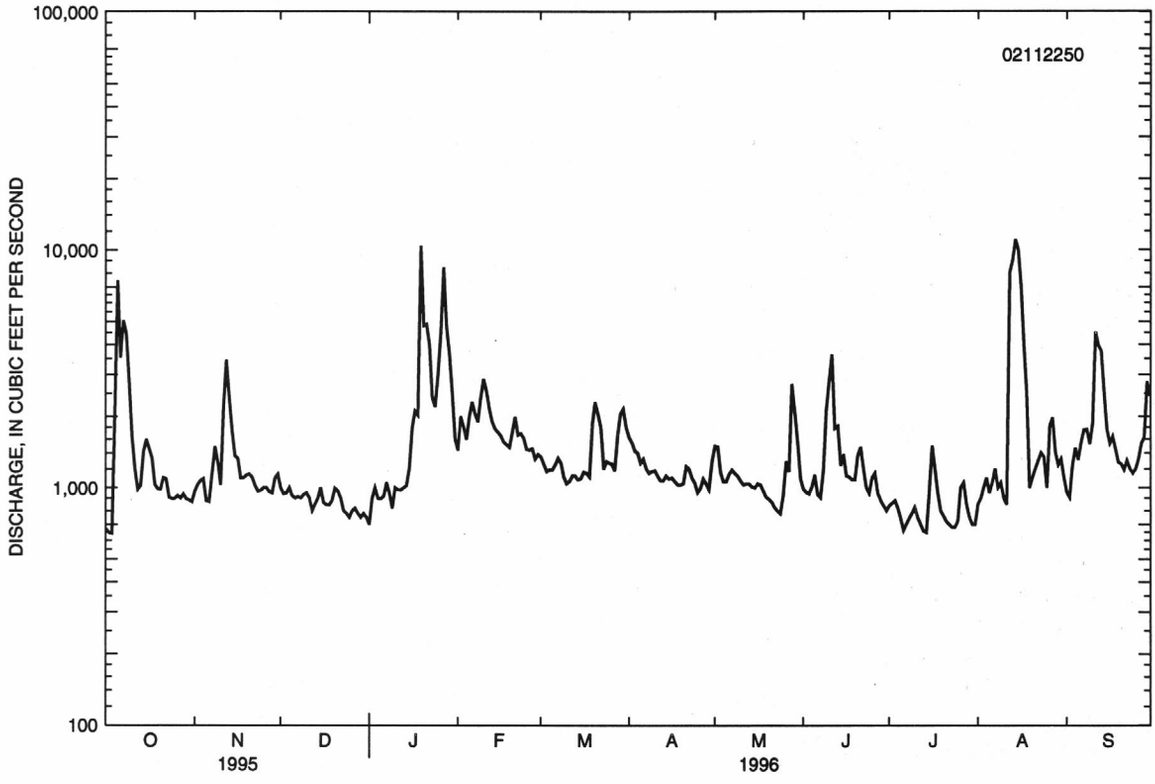
MEAN	1169	1186	1251	1475	1635	1935	1880	1559	1431	1113	1203	1043
MAX	2911	3871	2591	3129	2978	3885	4510	2887	2942	1922	3323	2910
(WY)	1991	1978	1974	1978	1990	1975	1980	1973	1975	1989	1994	1979
MIN	372	428	532	617	751	745	737	729	507	433	361	416
(WY)	1989	1982	1989	1966	1989	1988	1986	1988	1988	1988	1988	1988

PEE DEE RIVER BASIN

02112250 YADKIN RIVER AT ELKIN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	507649		557852			
ANNUAL MEAN	1391		1524		1411	
HIGHEST ANNUAL MEAN					1951	1973
LOWEST ANNUAL MEAN					698	1988
HIGHEST DAILY MEAN	12900	Jan 15	11000	Aug 14	21500	Aug 10 1970
LOWEST DAILY MEAN	623	Sep 9	642	Oct 3	246	Aug 31 1981
ANNUAL SEVEN-DAY MINIMUM	671	Sep 4	723	Jul 19	257	Aug 25 1981
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		29100	Aug 17 1994
INSTANTANEOUS PEAK STAGE			NOT DETERMINED		24.88*	Apr 10 1983
INSTANTANEOUS LOW FLOW			634*	Oct 2	239	Aug 31 1981
10 PERCENT EXCEEDS	2170		2390		2340	
50 PERCENT EXCEEDS	1090		1110		1080	
90 PERCENT EXCEEDS	750		820		633	

e Estimated.
* 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 sea level. Prior to Aug. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	104	99	84	161	116	152	133	101	81	119	107
2	71	102	97	91	191	117	148	116	99	80	87	101
3	69	102	97	96	178	116	139	111	95	83	112	278
4	252	100	96	87	152	112	134	105	103	74	89	288
5	651	93	93	84	e150	111	130	104	101	72	106	201
6	300	91	93	87	e145	117	125	146	93	71	95	285
7	184	128	92	94	141	122	125	202	90	71	81	172
8	144	131	92	127	153	116	121	152	143	85	78	175
9	126	108	95	128	230	108	121	126	737	102	83	156
10	116	102	95	99	200	107	119	114	364	79	81	156
11	110	315	91	111	182	107	116	116	212	73	75	293
12	103	268	89	92	166	107	114	122	165	77	1740	217
13	99	170	88	92	151	106	114	104	148	76	706	196
14	158	149	87	101	148	105	120	103	131	75	268	160
15	144	135	87	107	143	109	116	105	155	129	190	147
16	116	123	87	137	138	112	115	115	118	125	188	156
17	106	116	86	124	132	115	109	107	113	87	168	162
18	102	112	85	153	130	110	109	101	110	77	171	139
19	99	108	101	958	127	272	108	99	139	73	138	130
20	98	104	105	292	148	220	112	94	150	68	125	125
21	112	103	94	205	148	162	115	89	135	66	118	121
22	98	103	91	171	139	144	112	87	113	65	128	124
23	95	102	88	155	135	134	119	83	105	64	110	114
24	95	101	91	217	133	128	119	83	101	64	155	109
25	92	98	93	183	126	124	108	91	100	93	137	109
26	89	97	87	156	125	123	106	90	91	182	173	111
27	89	97	84	939	125	119	106	114	89	86	155	114
28	92	97	84	298	125	216	101	260	87	79	155	160
29	90	124	85	228	117	198	102	135	84	79	130	225
30	86	105	85	200	---	161	162	113	83	73	120	136
31	87	---	83	179	---	151	---	104	---	73	109	---
TOTAL	4144	3688	2820	6075	4339	4165	3597	3624	4355	2582	6190	4967
MEAN	134	123	91.0	196	150	134	120	117	145	83.3	200	166
MAX	651	315	105	958	230	272	162	260	737	182	1740	293
MIN	69	91	83	84	117	105	101	83	83	64	75	101
CFSM	1.70	1.56	1.15	2.49	1.90	1.71	1.52	1.48	1.84	1.06	2.53	2.10
IN.	1.96	1.74	1.33	2.87	2.05	1.97	1.70	1.71	2.06	1.22	2.92	2.34

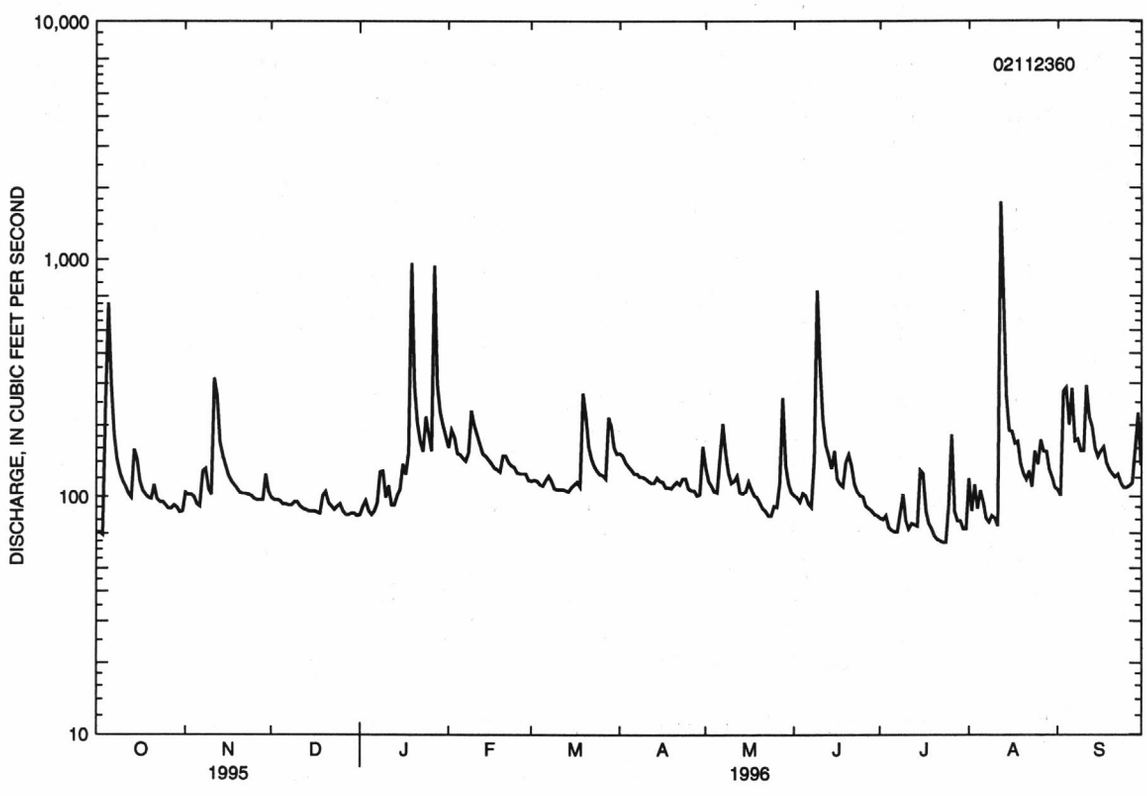
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	113	109	117	131	147	176	172	151	131	111	111	109
MAX	248	211	230	218	258	373	426	264	233	228	247	313
(WY)	1991	1980	1974	1978	1966	1993	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

02112360 MITCHELL RIVER NEAR STATE ROAD, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	44684		50546			
ANNUAL MEAN	122		138		131	
HIGHEST ANNUAL MEAN					178	1993
LOWEST ANNUAL MEAN					66.5	1981
HIGHEST DAILY MEAN	1120	Jan 15	1740	Aug 12	3260	Aug 10 1970
LOWEST DAILY MEAN	53	Aug 17	64	Jul 23	23	Aug 27 1988
ANNUAL SEVEN-DAY MINIMUM	60	Aug 11	68	Jul 18	25	Aug 25 1981
INSTANTANEOUS PEAK FLOW			4600	Aug 12	7470	Sep 22 1979
INSTANTANEOUS PEAK STAGE			9.89	Aug 12	16.42	Sep 22 1979
INSTANTANEOUS LOW FLOW			57	Jul 25	16	Jul 22 1986
ANNUAL RUNOFF (CFSM)	1.55		1.75		1.67	
ANNUAL RUNOFF (INCHES)	21.09		23.86		22.64	
10 PERCENT EXCEEDS	171		190		205	
50 PERCENT EXCEEDS	101		112		104	
90 PERCENT EXCEEDS	76		84		59	

e Estimated.



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 above sea level, by barometer. Prior to Sept. 5, 1936, twice daily readings at same site and datum. Yadkin, Inc. satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Some irrigation diversions at times in the growing season. Maximum discharge for period of record, 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	141	129	113	231	151	231	207	125	104	147	120
2	81	137	125	123	314	152	209	161	120	101	109	114
3	78	136	122	129	278	148	185	149	118	107	96	256
4	407	130	122	114	220	144	176	142	134	97	96	335
5	803	122	117	110	211	144	169	136	140	91	448	193
6	417	116	116	115	223	150	167	295	118	89	660	224
7	217	241	120	116	204	162	164	335	112	87	161	186
8	166	246	117	175	211	153	158	252	172	126	125	164
9	144	163	126	191	502	138	162	200	2120	161	135	172
10	134	145	121	165	372	139	154	175	1990	100	125	150
11	126	707	112	158	278	138	150	168	449	89	108	213
12	119	711	117	134	238	139	148	178	291	90	4400	202
13	115	275	112	141	213	137	147	150	248	90	2710	192
14	222	220	111	157	204	136	155	146	198	84	472	147
15	224	188	110	173	195	143	148	147	179	116	291	137
16	147	170	111	215	191	149	153	198	209	181	232	151
17	130	159	110	191	178	167	143	166	255	105	210	181
18	122	152	109	295	175	149	138	149	160	91	185	140
19	119	147	136	2240	168	394	138	139	192	85	163	127
20	116	140	151	515	198	329	142	131	246	83	165	121
21	181	137	126	306	210	215	146	133	228	78	144	118
22	129	132	119	247	186	188	138	129	156	76	145	127
23	119	129	114	217	180	174	136	115	143	75	132	115
24	115	128	120	358	175	166	152	112	135	76	144	110
25	112	125	126	293	166	163	134	116	130	73	151	111
26	109	123	123	227	163	162	140	121	121	194	136	110
27	110	120	130	2360	162	154	143	150	116	91	149	126
28	118	120	115	517	161	515	131	370	112	82	177	162
29	106	170	117	340	154	347	131	177	108	82	158	389
30	103	141	119	286	---	230	262	153	106	82	137	164
31	106	---	111	257	---	206	---	134	---	89	126	---
TOTAL	5277	5771	3714	10978	6361	5882	4750	5334	8931	3075	12637	5057
MEAN	170	192	120	354	219	190	158	172	298	99.2	408	169
MAX	803	711	151	2360	502	515	262	370	2120	194	4400	389
MIN	78	116	109	110	154	136	131	112	106	73	96	110
CFSM	1.33	1.50	.94	2.77	1.71	1.48	1.24	1.34	2.33	.77	3.18	1.32
IN.	1.53	1.68	1.08	3.19	1.85	1.71	1.38	1.55	2.60	.89	3.67	1.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996, BY WATER YEAR (WY)

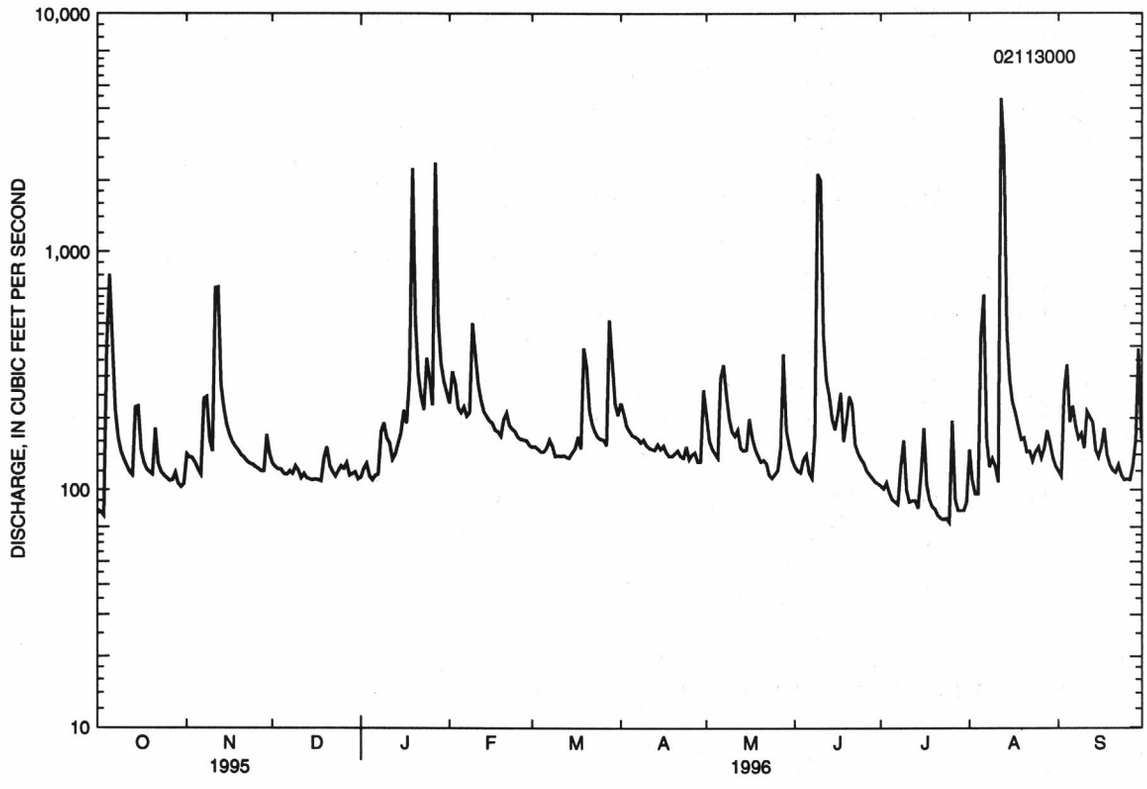
MEAN	150	151	169	201	219	252	246	198	179	151	155	145
MAX	580	344	365	526	539	667	746	387	491	397	510	735
(WY)	1938	1935	1974	1936	1960	1993	1983	1950	1947	1943	1940	1979
MIN	40.2	53.7	58.1	54.4	68.7	103	103	77.6	47.5	31.3	24.6	27.9
(WY)	1942	1932	1956	1956	1934	1981	1981	1941	1956	1986	1981	1954

PEE DEE RIVER BASIN

02113000 FISHER RIVER NEAR COPELAND, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996	
ANNUAL TOTAL	63322		77767			
ANNUAL MEAN	173		212		185	
HIGHEST ANNUAL MEAN					281	1979
LOWEST ANNUAL MEAN					87.6	1956
HIGHEST DAILY MEAN	2430	Jan 15	4400	Aug 12	12100	Sep 22 1979
LOWEST DAILY MEAN	66	Aug 17	73	Jul 25	13	Aug 28 1981
ANNUAL SEVEN-DAY MINIMUM	74	Aug 11	78	Jul 19	15	Aug 25 1981
INSTANTANEOUS PEAK FLOW			10600	Aug 12	34200*	Sep 22 1979
INSTANTANEOUS PEAK STAGE			13.52	Aug 12	19.61	Sep 22 1979
INSTANTANEOUS LOW FLOW			68	Jul 25	12	Aug 30 1981
ANNUAL RUNOFF (CFSM)	1.36		1.66		1.44	
ANNUAL RUNOFF (INCHES)	18.40		22.60		19.59	
10 PERCENT EXCEEDS	263		287		291	
50 PERCENT EXCEEDS	130		147		137	
90 PERCENT EXCEEDS	91		108		6	

* 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 sea level. Yadkin, Inc. satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record also occurred Aug. 30, 1981. Minimum discharge for current water year also occurred Oct. 2-4.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	245	217	194	400	271	459	462	279	258	385	270
2	117	247	211	215	552	274	439	356	265	293	263	250
3	114	240	208	221	476	267	388	324	259	270	222	529
4	577	246	203	198	386	256	370	308	303	235	216	505
5	1330	214	202	189	394	260	356	312	319	222	206	376
6	595	202	198	196	393	274	348	480	264	219	242	560
7	312	594	208	199	353	301	343	916	252	209	196	423
8	241	507	204	354	399	285	330	485	375	298	189	339
9	211	316	224	298	798	253	341	394	1320	430	204	314
10	195	273	207	275	645	253	321	350	3620	243	212	331
11	185	1360	181	316	489	253	312	337	934	213	180	459
12	177	1230	198	215	431	254	307	348	625	217	2970	426
13	176	487	196	214	388	252	305	300	539	217	2460	359
14	324	398	196	218	376	245	313	292	451	210	814	300
15	351	335	193	255	356	266	305	302	515	276	482	280
16	225	299	198	376	341	278	319	590	529	434	408	336
17	194	277	192	344	322	398	290	433	478	255	383	388
18	184	265	192	482	318	301	283	354	378	222	368	301
19	180	257	259	2640	304	601	285	317	396	207	310	276
20	180	244	281	819	359	596	299	292	473	211	301	261
21	348	238	230	499	367	409	305	276	405	194	387	260
22	228	229	212	410	330	363	285	262	341	179	351	279
23	196	225	204	368	324	343	290	250	317	180	353	248
24	188	218	196	580	312	326	332	253	313	179	476	242
25	184	210	203	481	296	322	282	288	303	213	357	243
26	177	208	194	373	289	323	300	292	284	464	293	241
27	180	205	191	3190	291	304	293	401	268	221	379	265
28	207	208	182	838	289	757	273	910	264	206	405	359
29	178	303	177	557	275	645	273	398	254	206	354	595
30	169	251	184	478	---	447	695	340	250	208	382	326
31	176	---	192	444	---	404	---	295	---	207	294	---
TOTAL	8216	10531	6333	16436	11253	10781	10041	11917	15573	7596	15042	10341
MEAN	265	351	204	530	388	348	335	384	519	245	485	345
MAX	1330	1360	281	3190	798	757	695	916	3620	464	2970	595
MIN	114	202	177	189	275	245	273	250	250	179	180	241
CFSM	1.15	1.52	.88	2.30	1.68	1.51	1.45	1.66	2.25	1.06	2.10	1.49
IN.	1.32	1.70	1.02	2.65	1.81	1.74	1.62	1.92	2.51	1.22	2.42	1.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

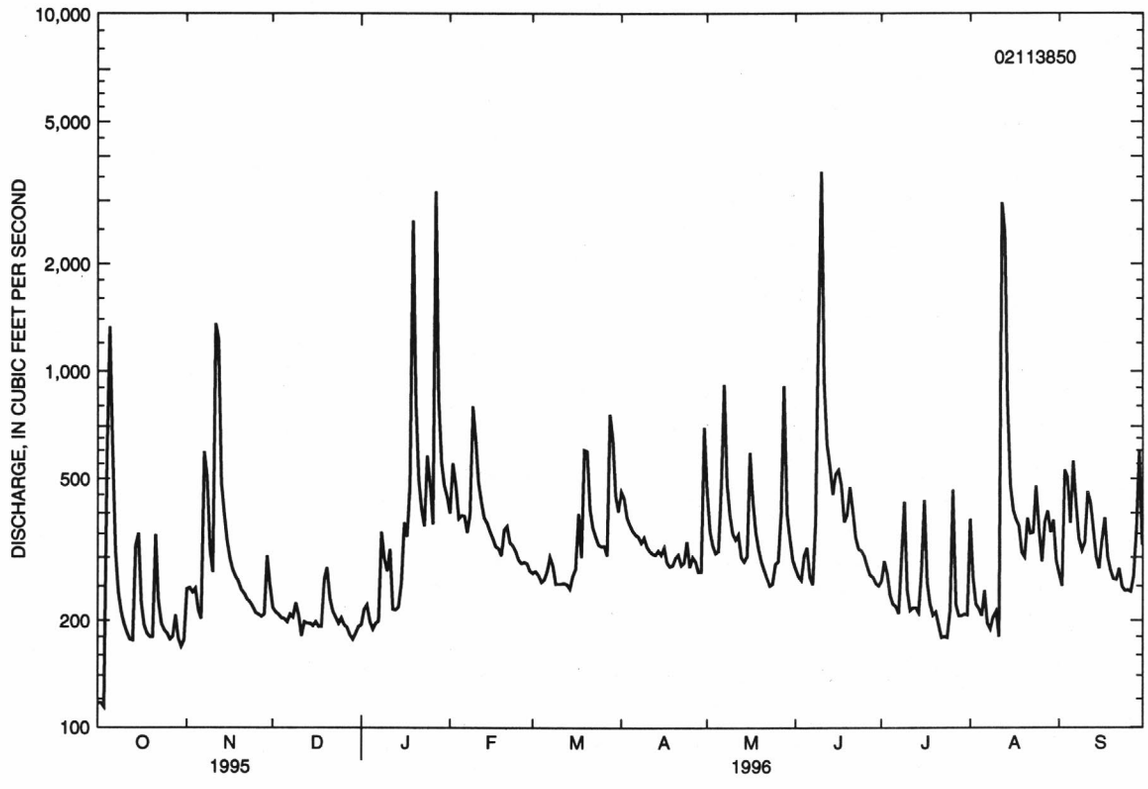
MEAN	248	255	286	340	374	447	446	369	331	263	252	237
MAX	587	537	584	743	691	992	1048	591	736	554	536	879
(WY)	1977	1993	1974	1978	1990	1993	1980	1973	1982	1989	1985	1979
MIN	104	111	124	120	187	172	170	167	110	81.9	45.4	98.2
(WY)	1987	1982	1989	1981	1989	1981	1967	1988	1988	1986	1981	1968

PEE DEE RIVER BASIN

02113850 ARARAT RIVER AT ARARAT, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	106374		134060			
ANNUAL MEAN	291		366		321	
HIGHEST ANNUAL MEAN					462	1979
LOWEST ANNUAL MEAN					150	1981
HIGHEST DAILY MEAN	1960	Jan 15	3620	Jun 10	13600	Sep 22 1979
LOWEST DAILY MEAN	90	Aug 17	114	Oct 3	21	Aug 29 1981
ANNUAL SEVEN-DAY MINIMUM	103	Aug 12	182	Oct 25	23	Aug 24 1981
INSTANTANEOUS PEAK FLOW			7470	Aug 12	35000	Sep 22 1979
INSTANTANEOUS PEAK STAGE			11.80	Aug 12	24.46	Sep 22 1979
INSTANTANEOUS LOW FLOW			111*	Oct 1	19*	Aug 29 1981
ANNUAL RUNOFF (CFSM)	1.26		1.59		1.39	
ANNUAL RUNOFF (INCHES)	17.13		21.59		18.86	
10 PERCENT EXCEEDS	473		509		516	
50 PERCENT EXCEEDS	246		293		245	
90 PERCENT EXCEEDS	138		196		132	

* 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 sea level (North Carolina State Highway Commission bench mark).

REMARKS.--No estimated daily discharges. Records good. A Natural Resources 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 for period of record, from rating curve extended above 2,700 ft^3/s on basis of slope-area measurement at gage height 17.86 ft. Minimum discharge for current water year also occurred July 22, 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	27	24	23	41	32	72	88	21	15	71	14
2	12	28	23	26	226	33	70	54	20	15	26	14
3	12	29	23	28	140	31	56	41	19	15	24	65
4	254	29	23	23	94	30	50	34	21	13	21	40
5	367	25	22	22	105	30	45	31	21	13	18	27
6	99	24	22	25	60	40	44	61	19	12	17	186
7	42	107	24	52	55	60	43	42	18	12	16	53
8	27	90	23	49	86	61	40	35	56	12	16	27
9	22	47	26	33	449	42	47	31	324	13	17	22
10	20	34	23	29	202	36	39	28	396	12	17	24
11	18	320	23	27	128	35	37	26	98	11	15	21
12	18	223	22	31	89	34	36	24	53	14	51	20
13	17	78	21	28	69	33	35	23	37	14	308	23
14	125	52	21	31	61	32	33	23	28	12	59	18
15	90	39	21	55	54	35	39	25	24	17	29	17
16	35	33	22	94	51	34	51	42	23	15	22	27
17	25	31	21	104	46	34	36	30	23	12	32	42
18	22	28	22	206	43	32	34	25	20	13	40	22
19	20	28	31	634	41	136	33	22	130	18	20	18
20	21	27	30	145	54	102	37	21	81	11	17	17
21	124	27	25	77	55	65	40	20	41	9.4	21	16
22	44	25	24	55	49	51	34	19	26	9.0	22	19
23	29	24	24	45	45	44	32	18	22	9.1	17	16
24	25	25	25	150	42	41	32	18	21	363	16	15
25	23	25	28	90	38	41	28	21	20	68	17	15
26	22	24	23	58	37	40	40	22	18	88	29	15
27	23	23	21	530	37	36	37	30	17	25	20	16
28	54	23	22	129	36	120	30	79	16	19	20	19
29	29	30	29	74	32	114	29	33	16	19	17	38
30	24	25	24	57	---	73	151	27	15	19	16	20
31	24	---	21	50	---	59	---	22	---	18	15	---
TOTAL	1679	1550	733	2980	2465	1586	1330	1015	1644	915.5	1046	886
MEAN	54.2	51.7	23.6	96.1	85.0	51.2	44.3	32.7	54.8	29.5	33.7	29.5
MAX	367	320	31	634	449	136	151	88	396	363	308	186
MIN	12	23	21	22	32	30	28	18	15	9.0	15	14
CFSM	1.27	1.21	.55	2.25	1.99	1.20	1.04	.76	1.28	.69	.79	.69
IN.	1.46	1.35	.64	2.59	2.14	1.38	1.16	.88	1.43	.80	.91	.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1996, BY WATER YEAR (WY)

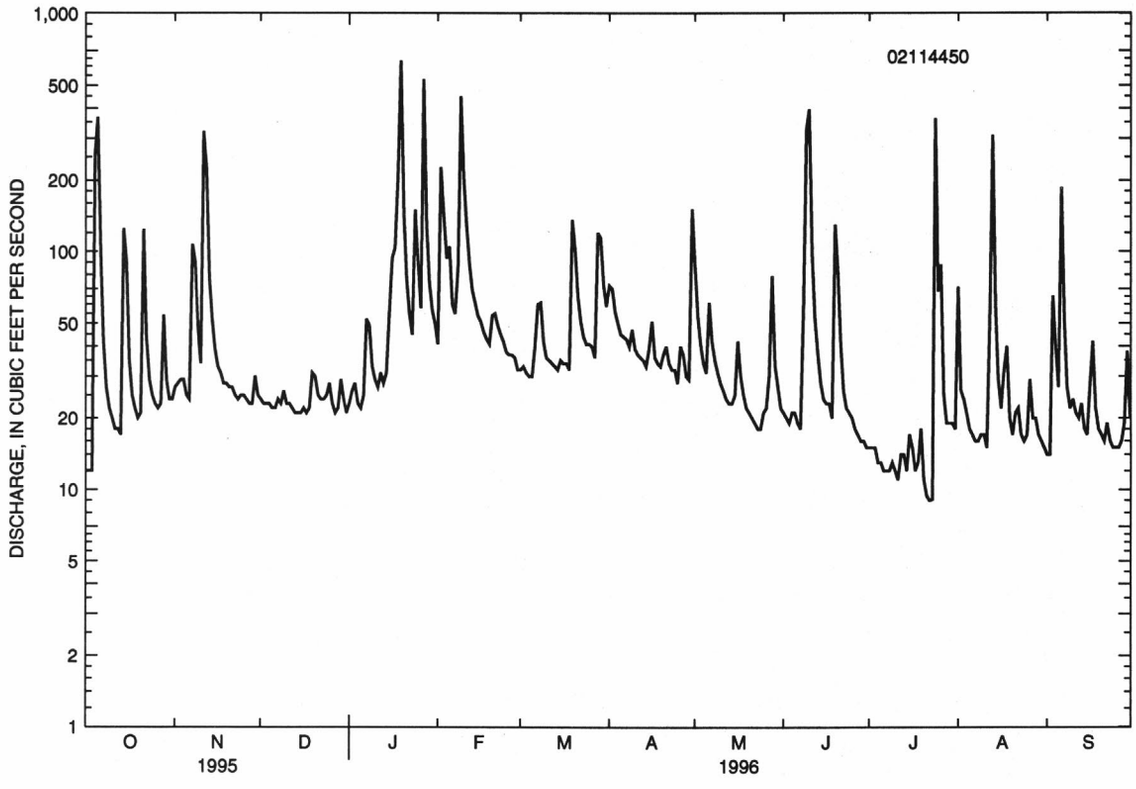
MEAN	38.7	33.7	47.1	61.0	67.3	83.1	59.7	46.3	41.5	33.8	31.8	27.9
MAX	171	102	113	136	163	250	217	154	155	128	120	172
(WY)	1991	1993	1974	1978	1990	1975	1987	1984	1962	1978	1970	1979
MIN	7.47	11.2	16.4	17.2	25.0	20.1	18.0	14.0	7.15	4.27	6.48	5.08
(WY)	1987	1968	1966	1981	1977	1967	1967	1986	1986	1986	1986	1968

PEE DEE RIVER BASIN

02114450 LITTLE YADKIN RIVER AT DALTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1960 - 1996	
ANNUAL TOTAL	14758.2		17829.5			
ANNUAL MEAN	40.4		48.7		47.5	
HIGHEST ANNUAL MEAN					75.2	1990
LOWEST ANNUAL MEAN					22.1	1967
HIGHEST DAILY MEAN	723	Jan 15	634	Jan 19	3350	Jun 21 1972
LOWEST DAILY MEAN	7.8	Aug 17	9.0	Jul 22	1.6	Aug 2 1977
ANNUAL SEVEN-DAY MINIMUM	9.3	Aug 11	12	Jul 17	2.3	Jul 28 1986
INSTANTANEOUS PEAK FLOW			1810	Jan 19	9400*	Sep 22 1979
INSTANTANEOUS PEAK STAGE			5.61	Jan 19	20.29	Sep 22 1979
INSTANTANEOUS LOW FLOW			8.8*	Jul 21	1.3	Aug 2 1977
ANNUAL RUNOFF (CFSM)	.94		1.14		1.11	
ANNUAL RUNOFF (INCHES)	12.83		15.50		15.08	
10 PERCENT EXCEEDS	75		90		75	
50 PERCENT EXCEEDS	25		28		26	
90 PERCENT EXCEEDS	12		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 mi^2.

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

REVISED RECORDS.--WDR NC-72-1: 1970 (M). WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 701.71 ft above sea level. Prior to Nov. 6, 1968, nonrecording gage on downstream side of bridge at same site and datum. U.S. Army Corps of Engineers satellite telemetry 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. Minimum discharge for current water year also occurred Oct. 4.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	1540	1720	1430	3190	2200	3040	3510	1830	1360	1430	1770
2	999	1690	1580	1440	4500	2170	3120	2800	1750	1430	1760	1620
3	966	1790	1520	1720	5190	2090	2730	2490	1700	1420	1370	2170
4	2490	1780	1540	1680	3280	2010	2560	2200	1720	1390	1680	3390
5	11700	1590	1540	1550	2730	2040	2460	2110	1870	1280	1440	2600
6	10700	1430	1480	1460	3000	2120	2370	2430	1800	1210	2160	3160
7	5350	2120	1450	1610	3160	2350	2430	3530	1600	1170	1690	3230
8	5610	3220	1490	1640	3220	2460	2260	2860	1730	1150	1500	2570
9	4230	2300	1490	1700	5410	2130	2300	2480	6280	1810	1330	2410
10	2800	1900	1550	1620	6270	1980	e2300	2300	16900	1490	1420	2210
11	2070	3830	1510	1610	4550	1930	e2200	2160	6600	1290	1280	4750
12	1720	8080	1440	1670	3780	1970	e2050	2150	4380	1220	6590	4350
13	1550	e5000	1420	1620	3270	2030	e2000	e2100	3300	1220	32500	4100
14	2390	e3500	1410	1620	2950	2010	e2000	e2000	2750	1200	8560	3400
15	3120	e2600	1430	1770	2800	2000	e2100	e2000	2760	1340	7030	2450
16	2270	e2300	1460	2490	2730	e2050	2120	e2100	2230	2030	6270	2060
17	2080	e2150	1480	2880	2550	e2200	2090	2230	2450	1900	4480	2660
18	1750	1890	1440	3530	2460	e2400	2050	1970	2070	1440	3750	2250
19	1590	1850	1480	e10000	2370	e2900	2030	1810	2340	1190	2530	1900
20	1600	1840	1840	e17000	2460	e5000	2040	1710	2440	1150	1910	1750
21	2230	1830	1820	e15000	3080	e4000	2180	1620	2570	1130	1910	1690
22	1910	1760	1660	e5000	2840	3230	2270	1620	2250	1070	2160	1690
23	1610	1650	1560	3840	2620	2540	2160	1560	1900	1050	1950	1680
24	1480	1600	1460	3790	2600	2330	2140	1480	1760	1940	2150	1570
25	1450	1600	1430	5460	2410	2300	2040	1450	1690	1200	2250	1510
26	1440	1590	1430	5370	2310	e2300	2000	1780	1730	2110	2300	1510
27	1520	1580	1440	21700	2350	e2200	2140	2080	1700	1750	3240	1540
28	1690	1520	1440	21300	2260	2780	2090	5420	1490	1370	2700	1590
29	1510	1600	1380	15900	2210	5190	2010	3420	1440	1240	2270	3480
30	1420	1910	1360	7630	---	3640	2790	2890	1400	1230	2110	2580
31	1390	---	1410	5790	---	3360	---	2230	---	1190	1940	---
TOTAL	83665	69040	46660	170820	92550	79910	68070	72490	86430	42970	115660	73640
MEAN	2699	2301	1505	5510	3191	2578	2269	2338	2881	1386	3731	2455
MAX	11700	8080	1840	21700	6270	5190	3120	5420	16900	2110	32500	4750
MIN	966	1430	1360	1430	2210	1930	2000	1450	1400	1050	1280	1510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	2131	2128	2338	2834	3020	3624	3387	2858	2567	1991	2096	1852
MAX	5371	5128	4814	5725	5645	7862	7337	4989	5435	3485	5611	5810
(WY)	1991	1978	1974	1978	1990	1993	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

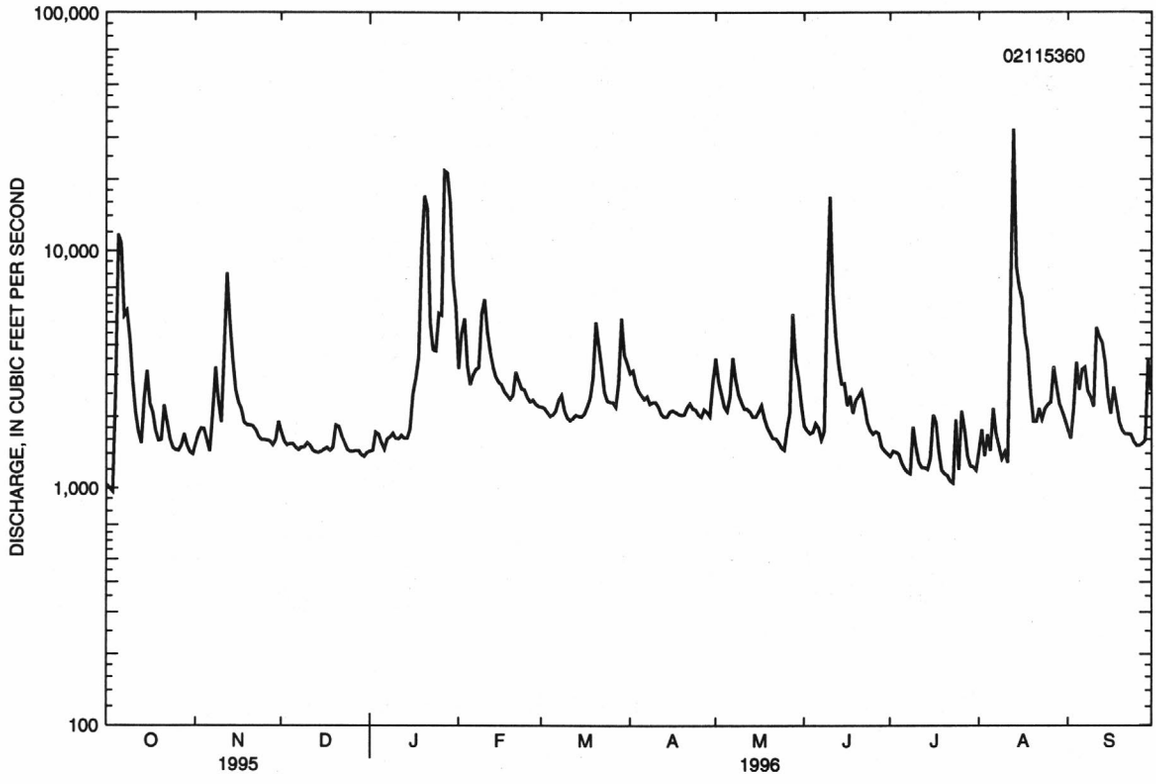
PEE DEE RIVER BASIN

02115360 YADKIN RIVER AT ENON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	850988		1001905			
ANNUAL MEAN	2331		2737		2564	
HIGHEST ANNUAL MEAN					3605	1973
LOWEST ANNUAL MEAN					1332	1988
HIGHEST DAILY MEAN	22000	Jan 15	32500	Aug 13	48400	Sep 22 1979
LOWEST DAILY MEAN	873	Aug 18	966	Oct 3	368	Sep 1 1981
ANNUAL SEVEN-DAY MINIMUM	1000	Sep 4	1250	Jul 19	384	Aug 26 1981
INSTANTANEOUS PEAK FLOW			43200	Aug 13	73300	Jun 21 1972
INSTANTANEOUS PEAK STAGE			24.78	Aug 13	29.52	Sep 22 1979
INSTANTANEOUS LOW FLOW			955*	Oct 3	363*	Aug 31 1981
10 PERCENT EXCEEDS	3790		4360		4290	
50 PERCENT EXCEEDS	1830		2050		1950	
90 PERCENT EXCEEDS	1190		1420		1110	

e Estimated.

* See REMARKS.



PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC

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 mi^2.

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 sea level. 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 telemetry and Yadkin, Inc. telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diurnal fluctuation and occasional 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). Prior to regulation, maximum discharge: 80,200 ft^3/s, Aug. 15, 1940; gage height: 33.75 ft; minimum observed discharge: 177 ft^3/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 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1460	2090	2510	1930	4380	3050	3980	5350	2410	1710	1710	2200
2	1440	2360	2260	2070	5890	3030	4010	3710	2190	1670	2540	2040
3	1290	2470	2150	2290	10100	2960	3650	3390	2100	2010	1930	2430
4	2120	2520	2130	2320	5480	2840	3360	2920	2110	1830	2100	5380
5	12500	2500	2130	2200	3900	2820	3240	2720	2240	1700	2000	4070
6	16000	2200	2100	2100	3650	2970	3050	e3200	2350	1590	2180	4900
7	6970	2880	2100	2100	4050	3700	3090	e4500	2010	1430	2420	5880
8	7030	5690	2100	2090	4380	4320	3030	e3700	2560	1420	2060	3550
9	5900	3870	2490	2100	6950	3450	3150	e3000	5270	1950	1830	3130
10	4080	3110	2450	2330	9570	3030	3150	2750	16600	2080	1770	2670
11	3010	3070	2300	2310	6670	2860	2960	2540	11600	1670	1780	4160
12	2440	13200	2140	2310	5460	2810	2860	2500	6390	1580	1730	6170
13	2130	e7500	2070	2310	4490	2860	2780	2480	4120	1500	19100	5340
14	2520	4910	2040	2310	4000	2820	2750	2390	3710	1470	21800	4500
15	5670	3810	2020	2400	3780	2710	2850	2340	3120	1530	9040	3310
16	3610	3140	2020	3220	3680	2810	3160	2390	3270	1970	7450	2590
17	3000	2990	2020	4020	3570	3070	2880	2780	2990	2430	6110	3280
18	2720	2630	2020	5070	3350	3230	2700	2510	2710	1890	4570	3190
19	2270	2560	2060	14100	3280	4100	2620	2330	2530	1510	3800	2530
20	2190	2530	2360	e21000	3290	6970	2620	2180	3730	1380	2410	2240
21	3270	2530	2500	e12000	3870	5150	2870	2050	3440	1360	2240	2210
22	3110	2450	2420	e9000	3950	4200	2860	2000	3060	1260	2470	2220
23	2580	2310	2270	5690	3560	3700	2750	1910	2580	1280	e2250	2240
24	2190	2230	2150	4810	3550	3030	2690	1880	2210	2150	e2500	2060
25	2090	2260	2040	6870	3410	3130	2650	1840	2170	1940	e2700	2000
26	2060	2220	2040	4960	3210	3060	2530	1950	2090	2750	e3000	1980
27	2240	2210	2010	13000	3190	3010	2770	2460	2120	2720	e4000	1980
28	6470	2170	1980	23600	3200	3560	e2700	6340	1910	1900	3480	2030
29	2940	2240	1980	10300	3050	6700	e2600	5700	1800	1980	2890	3330
30	2310	2500	1940	7490	---	4940	3800	3830	1770	1680	2540	3830
31	2120	---	1780	5770	---	4370	---	3040	---	1500	2540	---
TOTAL	119730	99150	66580	184070	130910	111260	90110	92680	107160	54840	128940	97440
MEAN	3862	3305	2148	5938	4514	3589	3004	2990	3572	1769	4159	3248
MAX	16000	13200	2510	23600	10100	6970	4010	6340	16600	2750	21800	6170
MIN	1290	2090	1780	1930	3050	2710	2530	1840	1770	1260	1710	1980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996*, BY WATER YEAR (WY)

MEAN	2614	2596	2910	3567	3847	4718	4091	3456	3062	2403	2424	2197
MAX	7491	5844	5784	7580	7632	10380	9419	6277	7755	4622	7191	7314
(WY)	1991	1993	1974	1978	1990	1975	1987	1984	1972	1984	1970	1979
MIN	998	1091	1338	1354	2060	1798	1691	1565	1048	749	708	931
(WY)	1987	1982	1966	1981	1981	1981	1985	1986	1988	1986	1981	1968

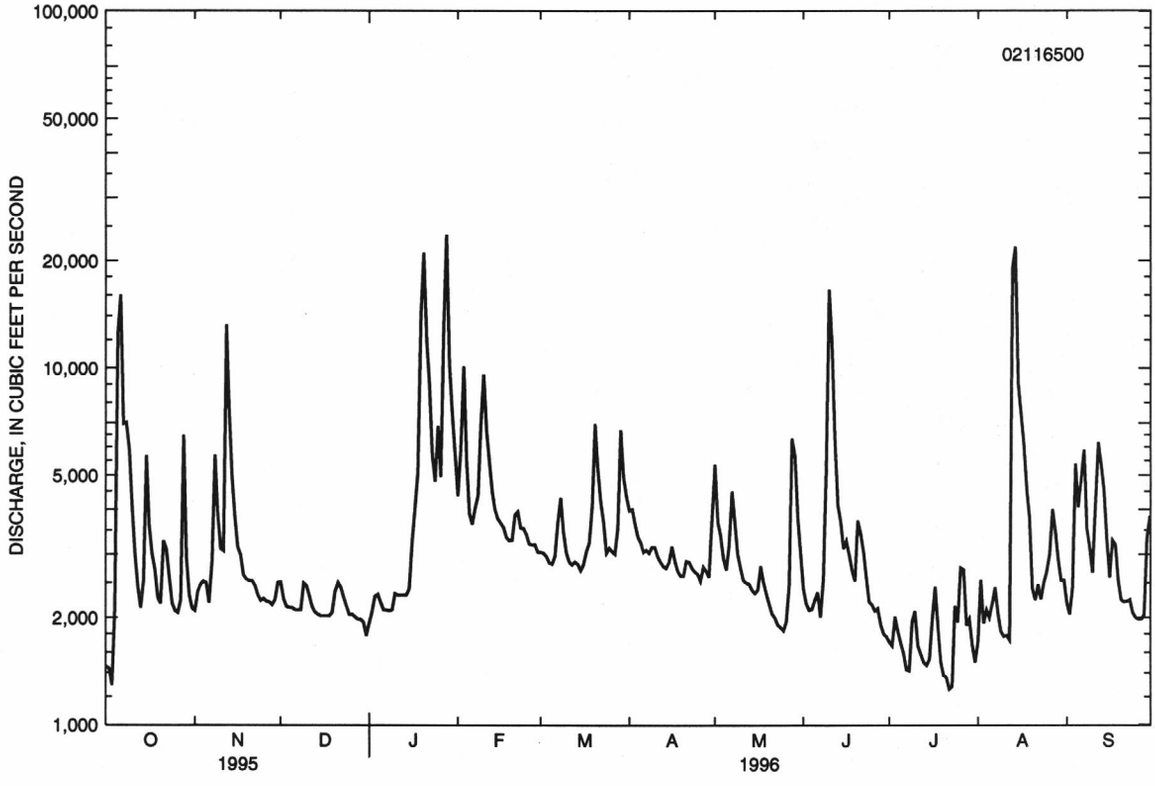
PEE DEE RIVER BASIN

02116500 YADKIN RIVER AT YADKIN COLLEGE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996*	
ANNUAL TOTAL	1166260		1282870			
ANNUAL MEAN	3195		3505		3154	
HIGHEST ANNUAL MEAN					4524	1973
LOWEST ANNUAL MEAN					1591	1981
HIGHEST DAILY MEAN	22700	Jan 16	23600	Jan 28	66000	Jun 22 1972
LOWEST DAILY MEAN	1170	Aug 18	1260	Jul 22	350	Aug 28 1988
ANNUAL SEVEN-DAY MINIMUM	1330	Aug 12	1550	Jul 18	414	Aug 25 1981
INSTANTANEOUS PEAK FLOW			28100	Aug 14	75200*	Jun 22 1972
INSTANTANEOUS PEAK STAGE			20.12	Aug 14	32.81*	Jun 22 1972
INSTANTANEOUS LOW FLOW			906	Aug 1	110*	Aug 28 1988
10 PERCENT EXCEEDS	5760		5720		5400	
50 PERCENT EXCEEDS	2500		2690		2340	
90 PERCENT EXCEEDS	1620		1920		1310	

e Estimated.

* Regulated period only (1963-1996). See REMARKS.



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 sea level. Yadkin Inc. satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. The City of Statesville diverted an average of 8.6 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 for period of record also occurred Mar. 2, 1987. Minimum discharge for period of record 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	277	262	252	571	335	456	527	210	154	154	163
2	178	314	260	269	498	342	467	393	200	172	161	153
3	175	343	258	297	2040	335	412	341	203	224	140	241
4	810	329	249	292	2190	319	389	321	298	177	159	269
5	2720	302	246	267	838	315	372	303	334	152	168	259
6	2800	278	245	245	595	351	357	298	243	145	135	380
7	1240	615	254	260	552	586	353	306	213	143	123	424
8	536	1010	254	265	564	575	345	301	210	142	118	293
9	391	544	393	320	1000	405	400	293	501	159	122	227
10	333	397	351	347	1190	363	375	277	1030	168	174	208
11	297	492	288	308	902	348	341	262	509	147	167	337
12	273	1590	259	274	708	342	333	261	332	138	293	350
13	264	979	254	274	591	336	326	258	277	135	1250	273
14	462	596	253	273	526	329	329	262	271	140	944	253
15	1290	468	251	292	479	326	347	255	261	134	329	218
16	535	394	252	384	446	339	352	260	377	175	238	199
17	368	360	252	528	437	364	328	259	246	161	203	327
18	313	341	244	661	411	353	314	257	222	139	226	356
19	288	326	286	1370	386	600	309	237	258	128	215	245
20	277	320	324	2580	376	938	322	225	245	121	179	209
21	346	299	295	1960	472	628	389	225	224	115	165	191
22	288	285	261	747	487	473	349	213	205	108	167	198
23	265	279	249	555	422	410	315	201	192	107	152	196
24	254	278	245	473	404	380	302	210	184	157	139	174
25	244	283	240	753	389	365	295	220	179	141	218	166
26	239	272	249	673	369	364	316	224	174	196	241	165
27	380	269	240	913	364	356	353	226	166	172	293	170
28	796	262	235	2760	360	528	309	312	162	144	243	177
29	325	277	229	3290	354	669	292	310	156	139	209	262
30	268	284	225	940	---	540	499	248	156	155	182	356
31	261	---	233	678	---	448	---	234	---	166	165	---
TOTAL	17398	13063	8136	23500	18921	13362	10646	8519	8238	4654	7672	7439
MEAN	561	435	262	758	652	431	355	275	275	150	247	248
MAX	2800	1590	393	3290	2190	938	499	527	1030	224	1250	424
MIN	175	262	225	245	354	315	292	201	156	107	118	153
CFSM	1.83	1.42	.86	2.48	2.13	1.41	1.16	.90	.90	.49	.81	.81
IN.	2.12	1.59	.99	2.86	2.30	1.62	1.29	1.04	1.00	.57	.93	.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

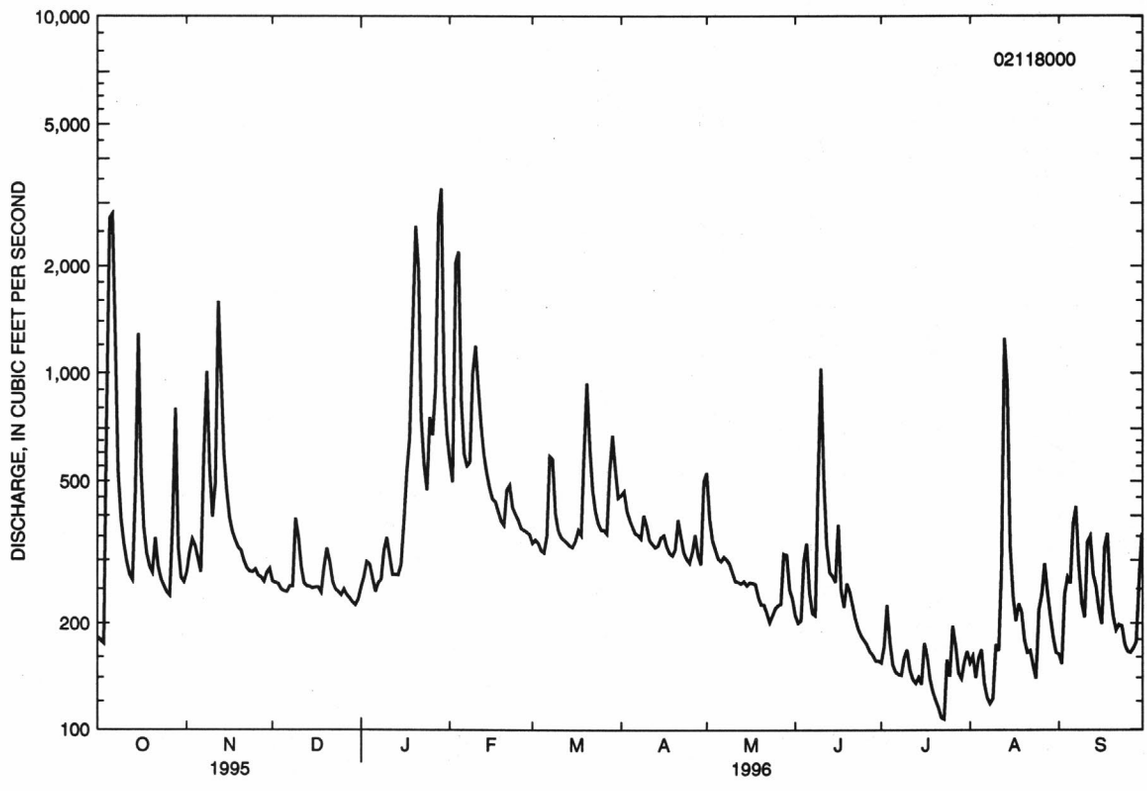
MEAN	263	268	341	425	505	552	466	366	304	237	236	239
MAX	1246	791	738	1088	1458	1485	1110	885	774	628	706	880
(WY)	1965	1958	1962	1978	1960	1975	1958	1984	1972	1941	1970	1979
MIN	70.4	99.7	102	97.7	181	220	159	127	75.0	47.3	61.2	45.7
(WY)	1955	1956	1956	1956	1941	1955	1986	1986	1986	1986	1956	1954

PEE DEE RIVER BASIN

02118000 SOUTH YADKIN RIVER NEAR MOCKSVILLE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	145004		141548			
ANNUAL MEAN	397		387		349	
HIGHEST ANNUAL MEAN					592	1960
LOWEST ANNUAL MEAN					171	1986
HIGHEST DAILY MEAN	5830	Aug 28	3290	Jan 29	9750	Mar 2 1987
LOWEST DAILY MEAN	99	Aug 25	107	Jul 23	22	Jul 22 1986
ANNUAL SEVEN-DAY MINIMUM	114	Aug 20	125	Jul 18	28	Jul 19 1986
INSTANTANEOUS PEAK FLOW			3800	Jan 29	11800*	Oct 17 1964
INSTANTANEOUS PEAK STAGE			11.87	Jan 29	18.88	Mar 2 1987
INSTANTANEOUS LOW FLOW			103	Jul 23	21*	Jul 22 1986
ANNUAL RUNOFF (CFSM)	1.30		1.26		1.14	
ANNUAL RUNOFF (INCHES)	17.63		17.21		15.51	
10 PERCENT EXCEEDS	709		597		594	
50 PERCENT EXCEEDS	265		290		242	
90 PERCENT EXCEEDS	167		162		123	

* 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 mi^2.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1723.

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

GAGE.--Water-stage recorder. Datum of gage is 734.78 ft above sea level. Prior to Apr. 5, 1951, nonrecording gage on upstream side of bridge at same datum. Yadkin, Inc. satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Maximum gage height for period of record, from high water mark in gage house.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	114	103	99	192	133	200	209	82	58	78	56
2	64	113	101	108	862	129	181	150	79	80	65	55
3	62	121	99	122	555	124	162	134	79	71	55	127
4	1380	104	99	103	296	126	156	125	99	60	61	136
5	1480	96	98	97	262	144	149	118	95	55	55	118
6	652	93	97	100	209	163	143	119	82	55	54	402
7	285	177	100	114	304	152	142	118	76	54	51	236
8	190	204	98	123	660	131	137	123	104	54	50	125
9	150	137	114	131	461	127	150	115	432	60	49	95
10	131	120	103	121	331	126	135	103	741	55	74	87
11	116	424	96	115	256	127	132	99	210	50	51	168
12	104	930	97	111	213	127	131	97	143	52	366	147
13	97	291	97	107	196	126	131	93	119	55	1490	130
14	287	203	96	115	182	124	134	95	113	49	236	102
15	261	162	95	140	173	128	132	96	154	69	132	82
16	141	141	95	213	161	132	136	103	116	73	100	94
17	115	131	93	222	154	133	127	98	95	59	89	199
18	103	124	93	336	148	146	123	92	88	53	106	108
19	98	119	111	1640	189	363	123	87	110	50	74	86
20	95	115	119	504	196	356	132	83	107	50	67	76
21	111	113	101	280	166	222	142	81	100	47	64	72
22	95	108	97	207	159	180	128	77	82	45	64	79
23	90	107	95	174	152	158	124	74	75	47	60	69
24	88	108	96	310	141	148	121	74	71	64	61	64
25	86	106	99	309	139	145	114	84	72	56	74	64
26	84	103	94	205	139	145	128	89	68	116	133	64
27	86	102	90	2530	138	135	137	96	65	63	147	70
28	115	102	92	634	132	247	115	256	63	55	87	74
29	90	123	90	346	130	320	116	130	61	66	74	303
30	85	110	93	261	---	219	245	100	60	61	65	130
31	87	---	92	222	---	190	---	89	---	57	59	---
TOTAL	6894	5001	3043	10099	7296	5226	4226	3407	3841	1839	4191	3618
MEAN	222	167	98.2	326	252	169	141	110	128	59.3	135	121
MAX	1480	930	119	2530	862	363	245	256	741	116	1490	402
MIN	62	93	90	97	130	124	114	74	60	45	49	55
CFSM	1.43	1.08	.63	2.10	1.62	1.09	.91	.71	.83	.38	.87	.78
IN.	1.65	1.20	.73	2.42	1.75	1.25	1.01	.82	.92	.44	1.01	.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

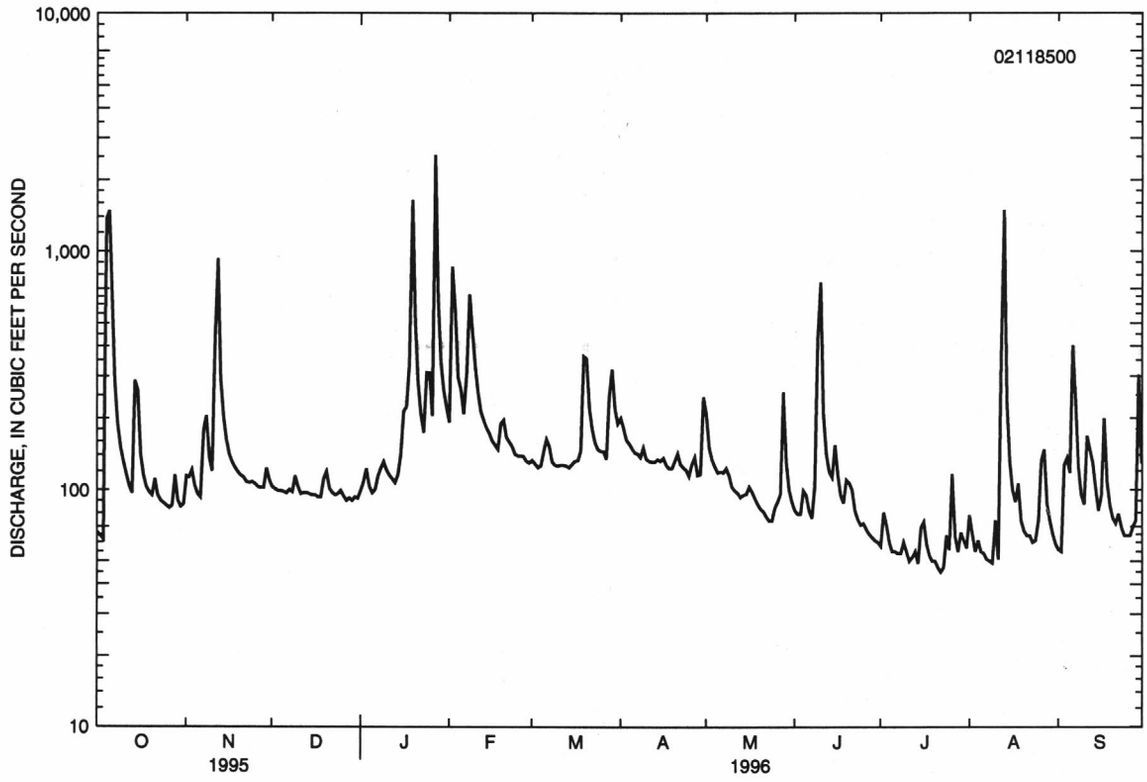
MEAN	160	161	197	233	275	326	297	225	196	146	146	146
MAX	654	508	373	585	752	959	713	527	636	355	383	615
(WY)	1965	1978	1974	1978	1960	1975	1987	1990	1972	1987	1970	1979
MIN	50.0	56.9	53.1	56.4	132	123	101	92.8	63.3	41.2	43.5	40.4
(WY)	1955	1956	1956	1956	1977	1956	1995	1981	1956	1986	1956	1954

PEE DEE RIVER BASIN

02118500 HUNTING CREEK NEAR HARMONY, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	57969		58681			
ANNUAL MEAN	159		160		210	
HIGHEST ANNUAL MEAN					346	1960
LOWEST ANNUAL MEAN					101	1956
HIGHEST DAILY MEAN	3700	Aug 27	2530	Jan 27	10400	Sep 22 1979
LOWEST DAILY MEAN	40	Aug 17	45	Jul 22	22	Sep 16 1956
ANNUAL SEVEN-DAY MINIMUM	43	Aug 11	50	Jul 17	24	Sep 16 1956
INSTANTANEOUS PEAK FLOW			4530	Jan 27	14800	Sep 22 1979
INSTANTANEOUS PEAK STAGE			15.79	Jan 27	25.05*	Sep 22 1979
INSTANTANEOUS LOW FLOW			44	Jul 22	18	Oct 8 1954
ANNUAL RUNOFF (CFSM)	1.02		1.03		1.35	
ANNUAL RUNOFF (INCHES)	13.91		14.08		18.37	
10 PERCENT EXCEEDS	229		257		340	
50 PERCENT EXCEEDS	101		113		145	
90 PERCENT EXCEEDS	63		61		73	

*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 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-57, 1961-63. April 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 642.31 ft above sea level. Yadkin, Inc. satellite telemetry at station.

REMARKS.--Records fair. Some diurnal fluctuation caused by industry 0.7 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	147	89	e87	e210	121	222	117	65	60	62	60
2	81	161	87	e88	801	121	166	92	64	60	101	60
3	81	146	86	91	1250	120	122	85	64	60	64	93
4	638	149	85	84	291	118	115	82	66	59	117	608
5	772	144	84	82	e220	119	109	80	65	58	65	142
6	196	144	84	84	e200	144	106	78	63	59	62	290
7	116	1180	90	85	e190	322	104	77	62	59	60	91
8	103	2270	88	87	e180	259	102	78	70	58	66	71
9	95	271	174	86	e175	123	114	76	143	57	62	65
10	90	201	100	83	e170	110	104	74	547	56	64	62
11	89	512	92	82	e165	105	102	74	102	55	60	64
12	87	640	90	85	e160	102	102	75	79	57	92	63
13	85	163	89	83	e160	99	101	72	75	57	89	60
14	195	138	88	87	e155	97	102	73	70	56	68	59
15	203	123	87	104	e155	97	104	74	67	56	64	58
16	99	115	86	133	e150	113	109	74	66	58	62	58
17	90	108	86	148	e150	205	101	72	65	55	61	60
18	86	102	98	233	e145	122	100	70	63	54	62	57
19	84	99	108	1060	e145	525	100	69	90	63	60	56
20	83	97	92	266	e175	232	102	67	170	54	59	55
21	202	97	88	162	139	135	106	66	72	53	59	55
22	99	91	86	155	133	118	101	65	67	53	59	55
23	91	88	85	152	131	109	99	64	65	53	58	54
24	87	97	85	191	130	105	98	70	64	54	61	53
25	84	100	85	158	126	104	96	70	63	53	66	53
26	82	91	84	154	126	103	107	66	62	75	66	63
27	282	88	85	1640	125	99	104	68	61	57	64	59
28	1250	87	84	516	126	233	98	79	60	59	64	57
29	182	103	85	215	122	168	100	70	60	62	80	61
30	151	93	85	e190	---	126	225	75	60	57	63	56
31	148	---	e86	e175	---	114	---	65	---	57	62	---
TOTAL	6013	7845	2821	6846	6405	4668	3421	2317	2690	1784	2102	2698
MEAN	194	261	91.0	221	221	151	114	74.7	89.7	57.5	67.8	89.9
MAX	1250	2270	174	1640	1250	525	225	117	547	75	117	608
MIN	81	87	84	82	122	97	96	64	60	53	58	53
CFSM	1.64	2.22	.77	1.87	1.87	1.28	.97	.63	.76	.49	.57	.76
IN.	1.90	2.47	.89	2.16	2.02	1.47	1.08	.73	.85	.56	.66	.85

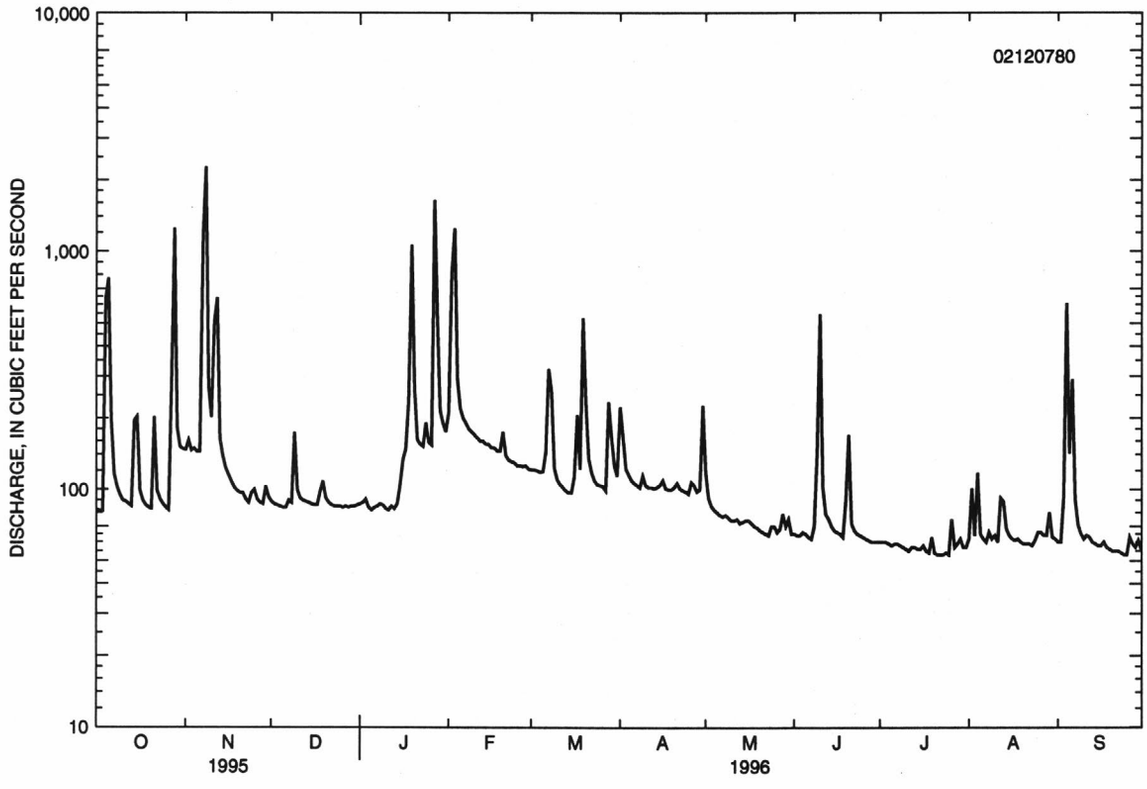
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1996, BY WATER YEAR (WY)

MEAN	102	102	103	146	181	208	142	89.5	93.2	57.6	68.3	64.0
MAX	419	261	222	292	301	476	390	178	243	98.3	304	196
(WY)	1991	1996	1984	1993	1990	1993	1987	1990	1992	1989	1995	1979
MIN	15.8	33.3	44.9	38.9	70.7	67.2	45.5	29.6	13.0	13.2	16.7	11.7
(WY)	1987	1982	1994	1981	1986	1981	1986	1986	1986	1986	1983	1986

02120780 SECOND CREEK NEAR BARBER, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1979 - 1996	
ANNUAL TOTAL	56295		49610			
ANNUAL MEAN	154		136		111	
HIGHEST ANNUAL MEAN					171	1991
LOWEST ANNUAL MEAN					62.1	1981
HIGHEST DAILY MEAN	5280	Aug 28	2270	Nov 8	5280	Aug 28 1995
LOWEST DAILY MEAN	35	Aug 17	53	Jul 21	5.0	Oct 6 1986
ANNUAL SEVEN-DAY MINIMUM	39	Aug 12	54	Sep 19	5.6	Oct 3 1986
INSTANTANEOUS PEAK FLOW			3170	Nov 8	8560	Aug 28 1995
INSTANTANEOUS PEAK STAGE			14.02	Nov 8	17.28	Aug 28 1995
INSTANTANEOUS LOW FLOW			51	Jul 19	4.4	Oct 1 1986
ANNUAL RUNOFF (CFSM)	1.31		1.15		.94	
ANNUAL RUNOFF (INCHES)	17.75		15.64		12.83	
10 PERCENT EXCEEDS	198		195		170	
50 PERCENT EXCEEDS	81		88		67	
90 PERCENT EXCEEDS	53		59		28	

e Estimated.



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 mi^2.

PERIOD OF RECORD.--March 1940 to December 1957. October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 630 ft above sea level, from topographic map. March 1940 to December 1957 at site 100 ft upstream at different datum. Yadkin, Inc. satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. The City of Lexington diverted an average of 5.9 ft^3/s for water supply. The City of High Point diverted water from the Cape Fear River basin and discharged an average of 8.1 ft^3/s of treated sewage effluent into Rich Fork Creek, upstream from station. Maximum discharge for current water year not determined and likely occurred during period of no gage-height record. Maximum discharge at former site, 14,800 ft^3/s, from floodmark; minimum discharge at former site 0.4 ft^3/s. Minimum discharge for period of record also occurred Sept. 5, 1990. Minimum discharge for current year also occurred July 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	94	123	87	249	87	226	408	48	e19	51	15
2	23	97	103	101	545	84	305	185	41	17	77	11
3	24	124	91	138	1490	82	197	126	39	16	e85	114
4	129	141	86	111	533	78	159	104	40	19	e75	e2500
5	439	104	82	90	269	76	136	93	42	17	e65	e4000
6	356	83	78	84	224	126	120	88	42	15	e55	e1500
7	191	711	105	113	213	442	113	91	42	14	e110	e2000
8	156	1460	121	107	298	897	105	94	55	13	e125	e450
9	124	411	449	99	461	383	170	82	98	11	e65	e150
10	83	214	393	95	350	202	169	72	174	12	54	e50
11	47	424	187	94	274	161	125	65	191	14	44	e65
12	41	1660	144	95	237	140	110	86	122	13	61	e70
13	38	716	123	97	200	126	102	75	84	13	207	e60
14	65	276	111	116	171	114	103	67	45	13	118	e55
15	173	213	102	186	145	109	116	67	41	9.8	108	e50
16	95	157	99	315	130	117	186	72	73	8.6	109	e45
17	62	113	93	334	123	155	144	74	78	10	94	e70
18	48	98	89	536	114	161	108	66	52	9.3	67	75
19	42	92	134	2060	107	357	101	59	56	26	36	61
20	45	89	167	2220	127	685	107	53	140	21	27	53
21	232	84	127	441	182	263	133	49	e70	9.4	26	49
22	159	79	106	280	142	183	110	45	e50	5.1	24	46
23	88	74	96	243	127	148	95	40	e45	13	23	46
24	68	84	89	311	116	128	90	36	e43	7.9	71	43
25	58	157	84	413	104	118	80	44	e40	6.0	282	41
26	53	110	83	260	99	122	90	45	e35	103	106	52
27	78	91	80	1740	98	110	132	41	e30	45	50	53
28	1210	86	81	2060	96	201	89	112	e25	21	86	52
29	812	219	77	416	95	291	83	111	e23	86	48	61
30	196	185	74	298	---	195	331	80	e20	52	30	62
31	119	---	78	299	---	158	---	62	---	32	21	---
TOTAL	5277	8446	3855	13839	7319	6499	4135	2692	1884	671.1	2400	11899
MEAN	170	282	124	446	252	210	138	86.8	62.8	21.6	77.4	397
MAX	1210	1660	449	2220	1490	897	331	408	191	103	282	4000
MIN	23	74	74	84	95	76	80	36	20	5.1	21	11
CFSM	.98	1.62	.71	2.57	1.45	1.20	.79	.50	.36	.12	.44	2.28
IN.	1.13	1.81	.82	2.96	1.56	1.39	.88	.58	.40	.14	.51	2.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996@, BY WATER YEAR (WY)

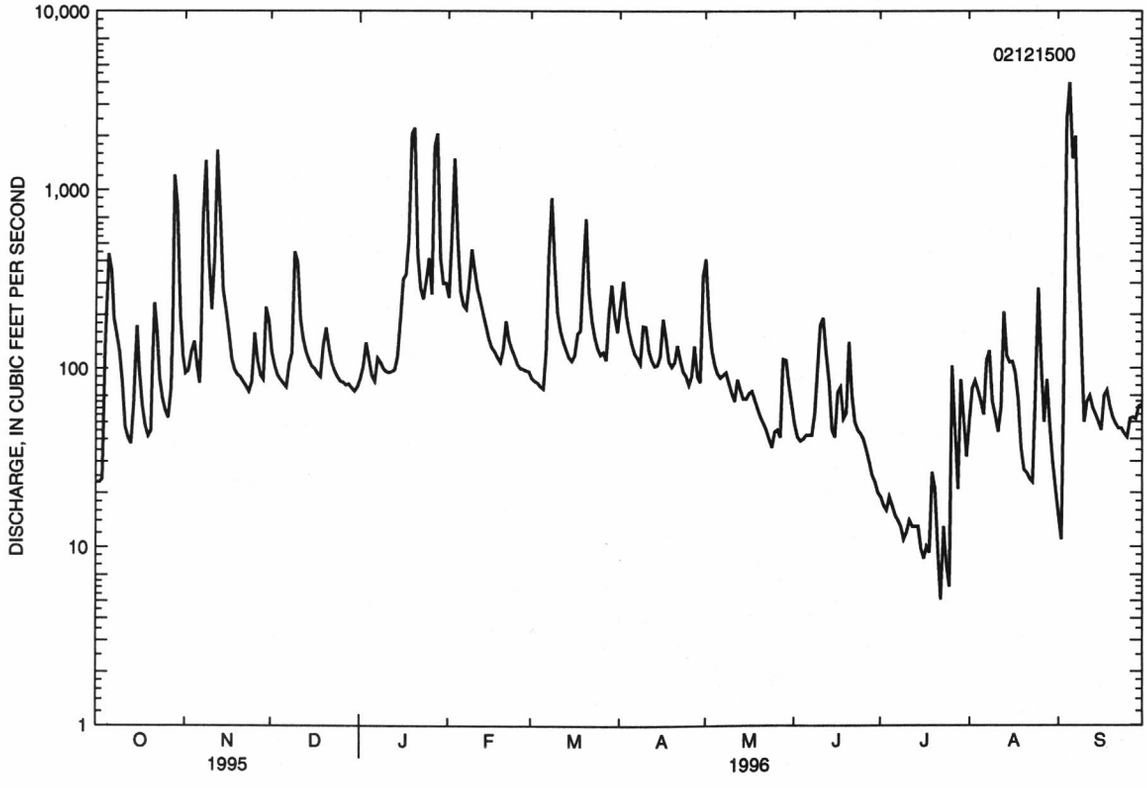
MEAN	230	145	137	295	335	439	266	192	95.6	57.1	63.0	100
MAX	731	282	319	500	753	781	506	515	182	115	102	397
(WY)	1990	1996	1990	1991	1990	1993	1993	1989	1989	1995	1989	1996
MIN	12.3	37.7	41.5	108	137	184	46.6	43.0	62.8	21.6	14.9	22.6
(WY)	1994	1994	1995	1989	1991	1992	1995	1995	1996	1996	1990	1990

PEE DEE RIVER BASIN

02121500 ABBOTTS CREEK AT LEXINGTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996@	
ANNUAL TOTAL	55397		68916.1			
ANNUAL MEAN	152		188		196	
HIGHEST ANNUAL MEAN					281	1990
LOWEST ANNUAL MEAN					113	1995
HIGHEST DAILY MEAN	2710	Feb 17	4000	Sep 5	7120	Oct 2 1989
LOWEST DAILY MEAN	22	Aug 14	5.1	Jul 22	2.7	Sep 4 1990
ANNUAL SEVEN-DAY MINIMUM	24	Aug 12	11	Jul 12	3.9	Sep 1 1990
INSTANTANEOUS PEAK FLOW			NOT DETERMINED*		5520*	Apr 22 1992
INSTANTANEOUS PEAK STAGE			NOT DETERMINED*		20.30	Apr 22 1992
INSTANTANEOUS LOW FLOW			4.3*	Jul 22	2.4*	Sep 4 1990
ANNUAL RUNOFF (CFSM)	.87		1.08		1.12	
ANNUAL RUNOFF (INCHES)	11.84		14.73		15.28	
10 PERCENT EXCEEDS	277		339		373	
50 PERCENT EXCEEDS	75		95		83	
90 PERCENT EXCEEDS	31		26		21	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level, from topographic map.

REMARKS.--Records poor. Maximum gage height for period of record, from floodmark. Minimum discharge for period of record also occurred periodically in July and Oct. 1986. Minimum discharge for current water year also occurred Aug. 7-9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.8	3.3	2.8	3.1	2.1	12	7.0	1.7	.79	1.3	1.4
2	.95	19	3.2	2.9	14	2.1	8.7	4.8	1.6	.79	.54	1.4
3	.86	7.5	2.8	4.8	12	2.1	6.1	4.2	1.6	.79	.32	4.5
4	46	4.3	2.8	3.1	4.3	2.0	5.3	3.8	1.6	.77	.23	e30
5	39	3.6	2.8	2.8	3.2	2.0	4.9	3.5	1.6	.66	.18	e8.0
6	7.8	3.2	2.8	2.7	2.9	8.9	4.7	3.3	1.5	.60	.12	e40
7	3.5	37	4.2	3.6	2.9	15	4.6	3.0	1.5	.60	.10	e17
8	2.4	14	3.5	3.0	3.1	7.6	4.3	3.0	1.3	.60	.10	e8.0
9	1.9	5.1	6.4	2.8	4.4	6.4	5.1	3.0	2.8	.55	.25	e5.0
10	1.7	3.9	4.2	2.9	3.3	5.5	4.6	2.9	2.5	.53	.64	e4.0
11	1.5	27	3.7	3.1	2.9	5.3	4.3	2.9	2.0	.42	.17	e17
12	1.4	12	3.5	3.1	2.7	5.3	4.3	2.8	1.8	.56	e80	e5.0
13	1.6	5.2	3.4	3.2	2.5	5.1	4.8	2.6	1.6	1.2	e200	e4.0
14	11	4.4	3.2	3.7	2.5	4.8	4.4	2.6	1.6	1.0	e20	e3.2
15	7.5	3.7	3.1	4.5	2.5	6.4	2.5	2.6	1.3	1.1	e10	e2.5
16	3.0	3.4	3.2	4.3	2.5	6.3	2.3	2.5	1.3	1.9	e6.0	e2.0
17	2.1	3.3	2.5	3.8	2.4	5.4	2.0	2.5	1.3	1.1	e2.0	e12
18	1.9	3.1	2.5	3.6	2.3	5.2	2.0	2.5	1.2	.96	e1.6	e35
19	1.8	3.1	3.0	26	2.3	13	2.9	2.4	1.5	.94	e1.3	e3.1
20	11	3.0	3.1	6.4	3.1	8.3	3.8	2.2	2.6	.85	e1.3	3.1
21	27	2.9	2.8	4.1	2.7	5.8	4.1	2.1	2.3	.78	e1.3	3.0
22	4.4	2.8	2.8	3.5	2.5	5.2	3.7	2.1	1.6	.87	1.3	3.0
23	3.1	2.8	2.7	3.3	2.4	4.9	3.5	2.0	1.3	2.2	1.3	2.9
24	2.5	3.2	2.7	3.5	2.3	4.6	3.4	1.9	1.2	2.6	1.3	2.8
25	2.1	4.2	2.6	3.2	2.2	4.5	3.3	1.9	1.1	3.1	1.7	2.8
26	1.9	3.4	2.5	2.9	2.1	4.5	5.4	1.9	1.0	3.5	1.6	2.7
27	10	3.2	2.5	32	2.1	4.3	4.5	2.1	.88	2.0	3.8	2.7
28	25	3.1	2.5	5.5	2.1	8.8	3.9	2.0	.86	.62	3.5	2.7
29	4.2	3.7	2.6	3.6	2.1	6.5	4.4	2.0	.85	11	2.0	2.7
30	3.2	3.6	2.5	3.6	---	5.4	20	1.9	.79	.73	1.7	2.7
31	2.8	---	2.6	3.4	---	5.1	---	1.7	---	.56	1.5	---
TOTAL	234.21	201.5	96.0	161.7	99.4	178.4	149.8	85.7	45.78	44.67	347.15	234.2
MEAN	7.56	6.72	3.10	5.22	3.43	5.75	4.99	2.76	1.53	1.44	11.2	7.81
MAX	46	37	6.4	32	14	15	20	7.0	2.8	11	200	40
MIN	.86	2.8	2.5	2.7	2.1	2.0	2.0	1.7	.79	.42	.10	1.4
CFSM	2.20	1.95	.90	1.52	1.00	1.67	1.45	.80	.44	.42	3.26	2.27
IN.	2.53	2.18	1.04	1.75	1.07	1.93	1.62	.93	.50	.48	3.75	2.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996@, BY WATER YEAR (WY)

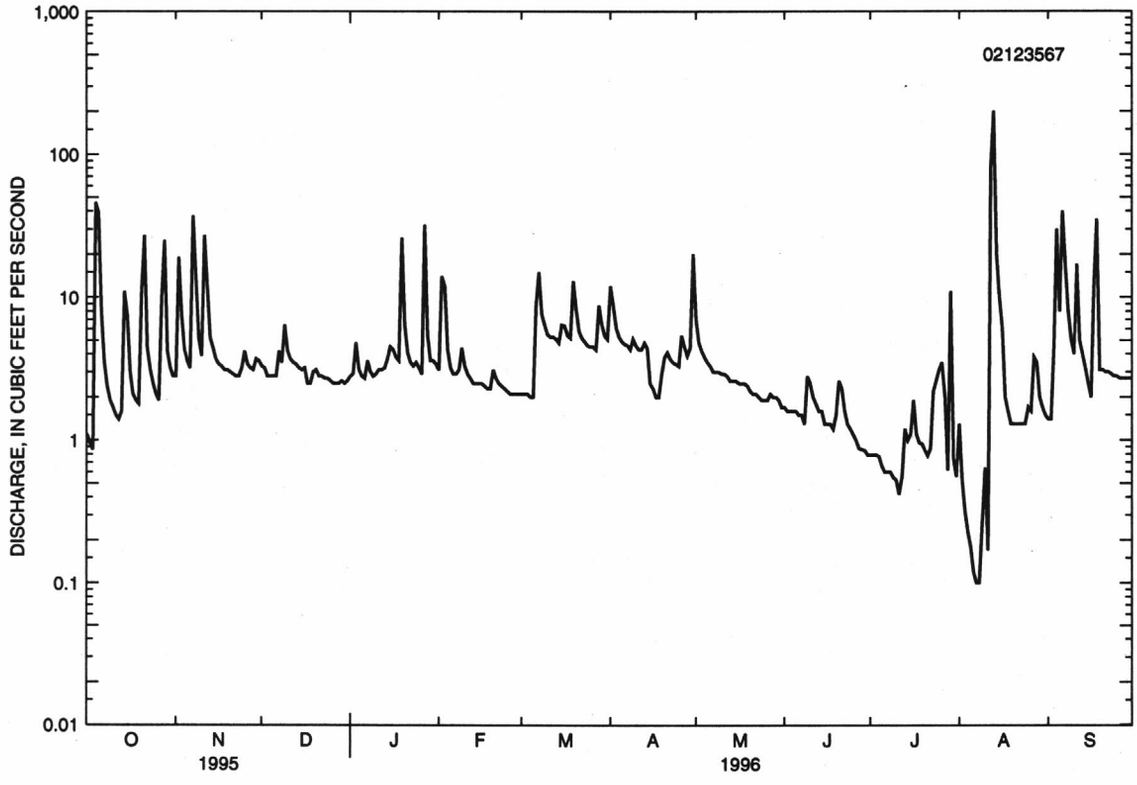
MEAN	2.98	2.77	2.71	5.09	5.78	7.39	5.19	2.96	1.97	1.21	2.16	1.51
MAX	11.9	8.69	4.81	10.3	9.62	17.8	10.2	6.49	5.28	3.56	11.2	7.81
(WY)	1991	1986	1991	1991	1990	1993	1992	1990	1994	1995	1996	1996
MIN	.19	.75	1.27	1.55	1.83	3.05	1.41	.82	.24	.26	.25	.20
(WY)	1987	1994	1992	1992	1986	1988	1986	1986	1986	1986	1993	1986

PEE DEE RIVER BASIN

02123567 DUTCHMANS CREEK NEAR UWHARRIE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996@	
ANNUAL TOTAL	1629.15		1878.51			
ANNUAL MEAN	4.46		5.13		3.47	
HIGHEST ANNUAL MEAN					5.13	1996
LOWEST ANNUAL MEAN					1.60	1988
HIGHEST DAILY MEAN	86	Feb 16	200	Aug 13	206	Apr 21 1992
LOWEST DAILY MEAN	.57	Aug 24	.10	Aug 7	.01	Jul 15 1986
ANNUAL SEVEN-DAY MINIMUM	.63	Aug 19	.19	Aug 3	.03	Jul 10 1986
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		1560	Apr 21 1992
INSTANTANEOUS PEAK STAGE			NOT DETERMINED		11.96*	Apr 21 1992
INSTANTANEOUS LOW FLOW			.10*	Aug 6	.01*	Jul 15 1986
ANNUAL RUNOFF (CFSM)	1.30		1.49		1.01	
ANNUAL RUNOFF (INCHES)	17.62		20.31		13.69	
10 PERCENT EXCEEDS	6.3		8.0		5.7	
50 PERCENT EXCEEDS	2.6		2.9		1.7	
90 PERCENT EXCEEDS	1.0		.99		.36	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



0212414900 MALLARD CREEK BELOW STONY CREEK NEAR HARRISBURG, NC

LOCATION.--Lat 35°19'57", long 80°42'58", Mecklenburg County, Hydrologic Unit 03040105, on left bank on upstream side of bridge at Blockbuster Blvd, 0.1 mi downstream of Stony Creek, and 3.8 mi northwest of Harrisburg.

DRAINAGE AREA.--34.6 mi^2.

PERIOD OF RECORD.--December 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above sea level, from topographic map. Telephone telemetry at site.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge and gage height for current water year not determined due to malfunction of equipment. Maximum discharge for period of record from contracted opening measurement of peak flow; maximum gage height for period of record from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	25	e17	17	e60	14	e250	82	10	8.0	24	6.6
2	14	e480	e16	17	e420	15	90	42	8.9	7.7	7.6	6.0
3	13	e200	e15	17	310	14	51	30	7.8	6.2	178	24
4	e600	71	e14	18	63	14	39	24	17	5.1	152	157
5	188	40	e14	18	48	15	38	21	11	4.6	102	25
6	72	31	e13	20	39	e200	e36	18	8.9	4.2	31	91
7	34	e300	e70	53	37	e330	e36	17	9.1	3.8	14	15
8	23	e120	38	41	50	e100	e33	17	28	3.5	10	9.5
9	19	e47	115	32	56	e50	45	16	43	3.5	13	9.5
10	17	e38	50	41	32	44	38	15	31	3.6	18	34
11	15	e290	38	40	27	e41	e33	46	13	4.5	105	24
12	15	e310	e17	43	26	e37	e32	23	12	4.7	368	11
13	22	76	e16	41	24	e34	e33	16	11	16	66	8.5
14	42	59	e15	59	24	e32	66	15	9.6	12	21	7.7
15	46	44	e14	e43	22	47	49	15	10	30	15	6.1
16	22	e33	e14	e39	23	48	38	14	12	15	10	12
17	18	e30	e13	e37	21	44	29	13	10	9.3	10	34
18	17	e27	e13	e34	21	e30	22	12	8.7	11	7.4	9.6
19	15	e25	e42	e150	18	e200	23	11	e14	7.3	7.5	7.8
20	30	e24	32	67	47	74	38	9.6	e150	4.5	7.0	6.4
21	86	e24	23	43	32	e43	33	8.7	e18	4.4	6.4	4.8
22	23	e23	20	37	28	e41	24	8.1	11	3.7	6.1	6.0
23	18	e23	18	37	26	e39	21	7.7	10	3.2	5.5	5.7
24	16	107	17	66	24	e38	20	7.5	8.6	6.0	5.1	7.2
25	14	84	16	40	22	e34	18	9.1	e8.5	18	7.4	5.0
26	14	e31	16	37	20	e31	53	9.3	e8.2	28	23	4.1
27	31	e28	15	e560	18	e31	26	10	e8.0	16	9.6	11
28	116	e26	15	114	17	143	20	26	e7.5	8.5	16	11
29	e55	57	15	61	15	57	e200	77	6.0	12	19	6.9
30	30	38	14	78	---	40	e450	32	5.4	13	7.9	11
31	25	---	16	e73	---	e55	---	13	---	9.0	6.8	---
TOTAL	1665	2711	761	1973	1570	1935	1884	665.0	516.2	286.3	1279.3	577.4
MEAN	53.7	90.4	24.5	63.6	54.1	62.4	62.8	21.5	17.2	9.24	41.3	19.2
MAX	600	480	115	560	420	330	450	82	150	30	368	157
MIN	13	23	13	17	15	14	18	7.5	5.4	3.2	5.1	4.1
CFSM	1.55	2.61	.71	1.84	1.56	1.80	1.82	.62	.50	.27	1.19	.56
IN.	1.79	2.91	.82	2.12	1.69	2.08	2.03	.71	.55	.31	1.38	.62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

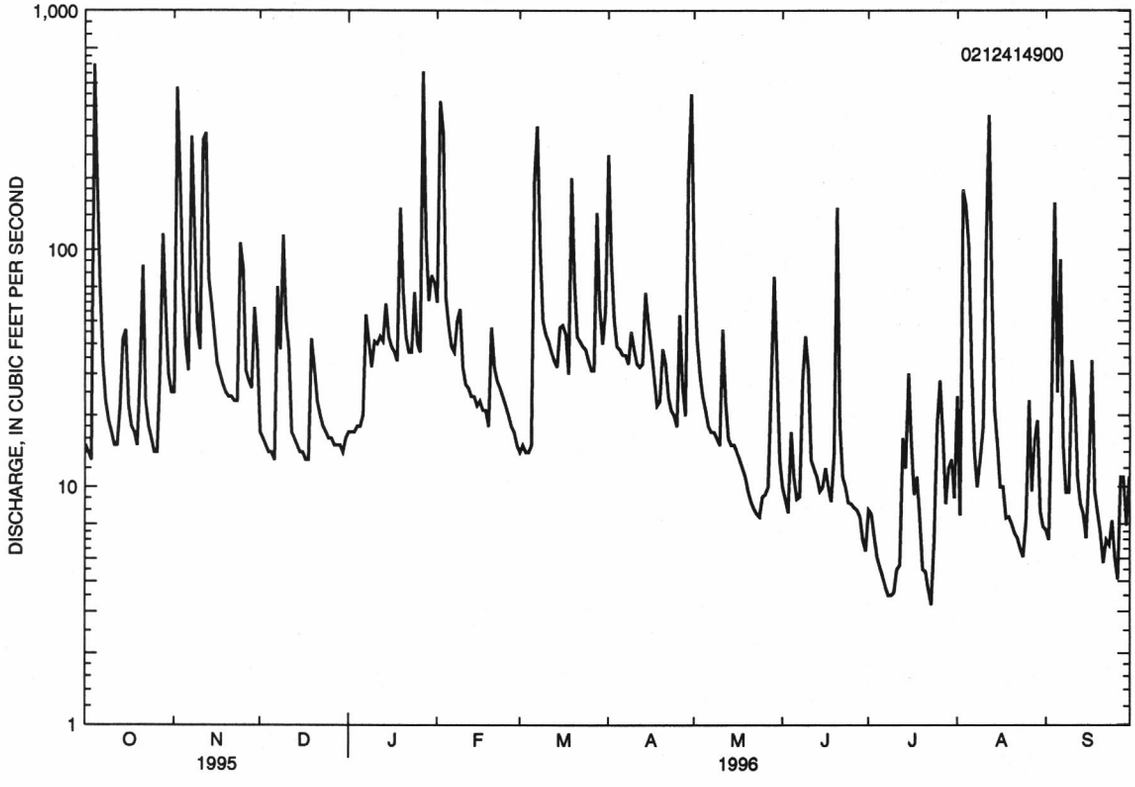
MEAN	53.7	90.4	20.4	53.9	61.0	53.4	37.0	22.6	26.6	24.0	73.0	20.3
MAX	53.7	90.4	24.5	63.6	68.0	62.4	62.8	23.8	35.9	38.7	105	21.3
(WY)	1996	1996	1996	1996	1995	1996	1996	1995	1995	1995	1995	1995
MIN	53.7	90.4	16.2	44.2	54.1	44.4	11.2	21.5	17.2	9.24	41.3	19.2
(WY)	1996	1996	1995	1995	1996	1995	1995	1996	1996	1996	1996	1996

PEE DEE RIVER BASIN

0212414900 MALLARD CREEK BELOW STONY CREEK NEAR HARRISBURG, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1995 - 1996	
ANNUAL TOTAL	17028.2		15823.2			
ANNUAL MEAN	46.7		43.2		43.2	
HIGHEST ANNUAL MEAN					43.2	1996
LOWEST ANNUAL MEAN					43.2	1996
HIGHEST DAILY MEAN	e2350	Aug 27	e600	Oct 4	e2350	Aug 27 1995
LOWEST DAILY MEAN	4.8	Aug 14	3.2	Jul 23	3.2	Jul 23 1996
ANNUAL SEVEN-DAY MINIMUM	5.4	Aug 11	4.0	Jul 5	4.0	Jul 5 1996
INSTANTANEOUS PEAK FLOW			NOT DETERMINED*		6260*	Aug 27 1995
INSTANTANEOUS PEAK STAGE			NOT DETERMINED*		17.43*	Aug 27 1995
INSTANTANEOUS LOW FLOW			2.9	Jul 23	2.9	Jul 23 1996
ANNUAL RUNOFF (CFSM)	1.35		1.25		1.25	
ANNUAL RUNOFF (INCHES)	18.31		17.01		16.98	
10 PERCENT EXCEEDS	85		79		77	
50 PERCENT EXCEEDS	17		22		17	
90 PERCENT EXCEEDS	7.5		7.4		7.4	

e Estimated.
* 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 sea level.

REMARKS.--No estimated daily discharges. Records good. No flow occurs periodically.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	40	43	27	110	20	232	148	3.6	.62	1.9	1.0
2	19	612	38	30	653	20	153	63	3.1	.91	1.5	.88
3	17	348	33	60	650	19	78	41	2.9	.73	1.3	28
4	1550	180	31	41	186	17	55	31	2.6	.50	3.3	208
5	858	93	28	30	108	17	45	24	2.3	.51	2.2	56
6	256	69	27	27	86	301	38	20	2.1	.43	1.3	298
7	107	1220	59	47	86	573	36	17	1.9	.37	.95	68
8	59	567	52	41	112	268	32	16	2.9	.23	.89	28
9	43	168	215	34	156	109	48	15	17	.24	1.2	17
10	32	99	115	47	103	67	40	12	46	.14	1.9	13
11	27	755	66	58	80	53	32	10	12	.04	1.1	51
12	23	630	52	61	60	47	29	9.4	6.6	.36	11	33
13	25	178	46	86	50	40	27	8.4	4.7	1.1	90	17
14	91	126	40	120	48	36	42	8.0	3.7	.99	16	11
15	190	88	36	151	44	38	32	8.0	3.0	1.5	7.6	8.1
16	59	62	34	139	40	46	33	8.8	2.5	1.7	4.2	7.4
17	38	53	30	104	36	41	28	8.6	2.2	.83	2.6	33
18	29	47	28	121	34	36	24	7.6	1.9	.59	2.3	19
19	25	43	38	1350	31	138	23	6.6	10	.52	1.4	11
20	25	38	44	271	37	110	22	5.6	14	.39	1.0	8.5
21	146	34	32	135	44	59	30	4.8	7.1	.31	.81	6.9
22	57	30	28	91	37	46	23	4.3	3.6	1.5	.63	6.2
23	37	28	25	71	33	37	20	3.7	2.4	3.4	.54	5.3
24	29	57	23	84	31	31	18	3.5	1.6	1.1	15	4.9
25	26	172	22	77	27	29	16	3.5	1.3	.96	14	5.0
26	22	79	21	54	25	29	21	3.6	1.0	2.7	3.4	3.9
27	44	56	20	1450	24	27	28	3.3	.89	3.0	6.2	3.8
28	607	48	19	247	24	61	19	3.7	.77	1.5	7.3	3.2
29	115	56	18	133	22	71	94	5.7	.73	17	3.4	3.1
30	60	53	17	163	---	47	544	5.1	.69	5.9	2.0	3.0
31	47	---	21	159	---	41	---	8.5	---	2.6	1.4	---
TOTAL	4686	6029	1301	5509	2977	2474	1862	517.7	165.08	52.67	208.32	962.18
MEAN	151	201	42.0	178	103	79.8	62.1	16.7	5.50	1.70	6.72	32.1
MAX	1550	1220	215	1450	653	573	544	148	46	17	90	298
MIN	17	28	17	27	22	17	16	3.3	.69	.04	.54	.88
CFSM	2.72	3.61	.75	3.20	1.85	1.44	1.12	.30	.10	.03	.12	.58
IN.	3.14	4.03	.87	3.69	1.99	1.66	1.25	.35	.11	.04	.14	.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

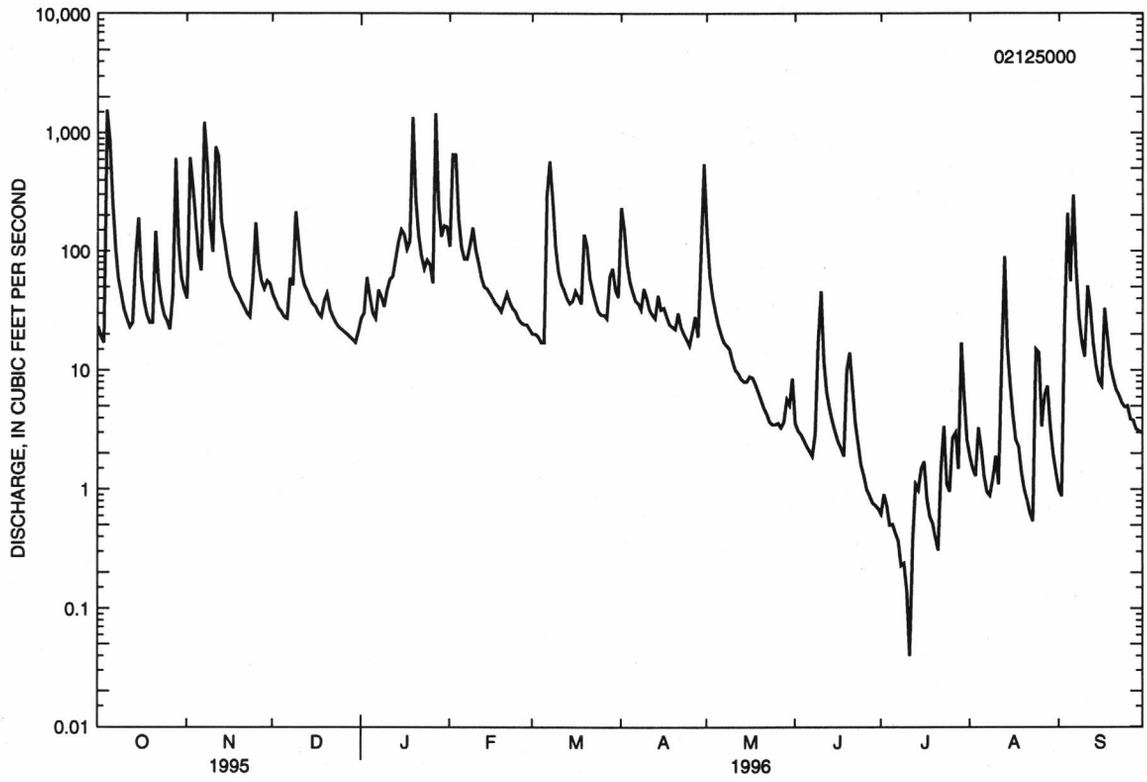
MEAN	41.0	32.1	55.5	108	136	126	72.8	38.8	30.5	29.7	25.7	19.9
MAX	355	212	186	293	284	345	247	234	140	220	223	125
(WY)	1991	1986	1977	1978	1984	1993	1958	1975	1957	1984	1967	1995
MIN	.006	.34	2.12	4.38	16.2	13.2	6.87	1.32	.24	.31	.002	0
(WY)	1962	1962	1966	1981	1986	1981	1967	1986	1986	1986	1980	1993

PEE DEE RIVER BASIN

02125000 BIG BEAR CREEK NEAR RICHFIELD, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996	
ANNUAL TOTAL	34773.60		26743.95			
ANNUAL MEAN	95.3		73.1		59.4	
HIGHEST ANNUAL MEAN					112	1984
LOWEST ANNUAL MEAN					27.3	1976
HIGHEST DAILY MEAN	2250	Feb 16	1550	Oct 4	5240	Oct 11 1990
LOWEST DAILY MEAN	.43	Aug 24	.04	Jul 11	0	Sep 12 1954
ANNUAL SEVEN-DAY MINIMUM	.57	Aug 20	.26	Jul 6	0	Sep 12 1954
INSTANTANEOUS PEAK FLOW			4900	Oct 4	11100	Aug 22 1967
INSTANTANEOUS PEAK STAGE			11.10	Oct 4	15.95	Aug 22 1967
INSTANTANEOUS LOW FLOW			0*	Jul 11	0*	Sep 12 1954
ANNUAL RUNOFF (CFSM)	1.71		1.31		1.07	
ANNUAL RUNOFF (INCHES)	23.27		17.89		14.53	
10 PERCENT EXCEEDS	182		147		120	
50 PERCENT EXCEEDS	28		28		12	
90 PERCENT EXCEEDS	3.2		1.3		.45	

* See REMARKS.



PEE DEE RIVER BASIN

02126000 ROCKY RIVER NEAR NORWOOD, NC

LOCATION.--Lat 35°08'54", long 80°10'33", Stanly County, Hydrologic Unit 03040105, on left bank 1,000 ft 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.

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 sea level (levels by U.S. Army Corps of Engineers). Satellite telemetry at station.

REMARKS.-- Records good except those for estimated daily discharges, which are poor. Maximum gage height for period of record, from floodmark. Minimum discharge for the current water year was not determined but likely occurred during period of estimated record, June 20 to July 24.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	421	1050	e1150	630	2310	558	5000	6430	274	e129	487	195
2	391	3230	e990	866	e5950	549	4990	1980	215	e130	360	174
3	360	8180	864	2710	e23400	555	2440	1250	190	e141	526	200
4	11900	3460	796	1850	e8150	529	1620	952	182	e176	1170	2070
5	24900	1980	752	1030	e3090	488	e1200	738	192	e140	708	1660
6	9170	1430	707	793	e2190	2260	e1100	618	255	e120	342	2160
7	3130	4870	887	1520	e1950	11000	e890	523	222	e105	410	1980
8	1930	15300	1290	2700	e1950	9290	e875	453	187	e103	264	740
9	1270	7640	1660	1530	e2160	3210	e790	435	522	e103	281	442
10	995	2540	2420	1500	e2110	1800	e910	409	1470	e113	443	709
11	841	4680	1470	1660	e1680	1400	e815	373	1270	e119	632	1790
12	715	15200	1130	1450	e1460	1220	778	352	632	e120	524	767
13	656	5580	981	1570	e1280	1090	730	423	394	e124	2460	458
14	1260	2710	891	1580	e1180	990	957	334	296	e125	1160	343
15	3760	2130	832	1660	1120	941	1020	314	245	e243	516	282
16	1940	1620	777	1730	1050	1150	883	320	212	e257	329	309
17	1100	1340	733	1600	1000	1390	833	337	215	e342	277	1700
18	857	1180	667	1470	943	1270	694	314	196	e212	234	1010
19	689	1070	717	12900	875	1660	597	285	179	e164	204	451
20	1030	989	1070	9930	862	3570	571	265	e2670	e158	183	291
21	3130	925	1080	3140	966	1810	623	249	e2110	e138	176	236
22	1980	860	852	1940	997	e1220	693	236	e637	e123	168	214
23	1170	757	672	1580	855	e1000	565	221	e361	e122	163	190
24	842	735	601	1440	792	877	502	221	e275	e156	161	179
25	673	2550	564	1820	717	e820	452	226	e245	223	558	176
26	630	2030	543	1500	653	784	454	221	e207	259	502	176
27	696	1340	530	15200	638	e760	745	211	e167	497	550	171
28	8620	1110	526	14800	597	2730	686	207	e155	317	825	163
29	4870	1120	535	4330	596	4340	708	300	e148	260	554	159
30	1930	1540	471	2590	---	1980	10400	490	e138	328	305	159
31	1260	---	490	2630	---	1370	---	507	---	260	239	---
TOTAL	93116	99146	27648	101649	71521	62611	43521	20194	14461	5807	15711	19554
MEAN	3004	3305	892	3279	2466	2020	1451	651	482	187	507	652
MAX	24900	15300	2420	15200	23400	11000	10400	6430	2670	497	2460	2160
MIN	360	735	471	630	596	488	452	207	138	103	161	159
CFSM	2.19	2.41	.65	2.39	1.80	1.47	1.06	.47	.35	.14	.37	.48
IN.	2.52	2.69	.75	2.76	1.94	1.70	1.18	.55	.39	.16	.43	.53

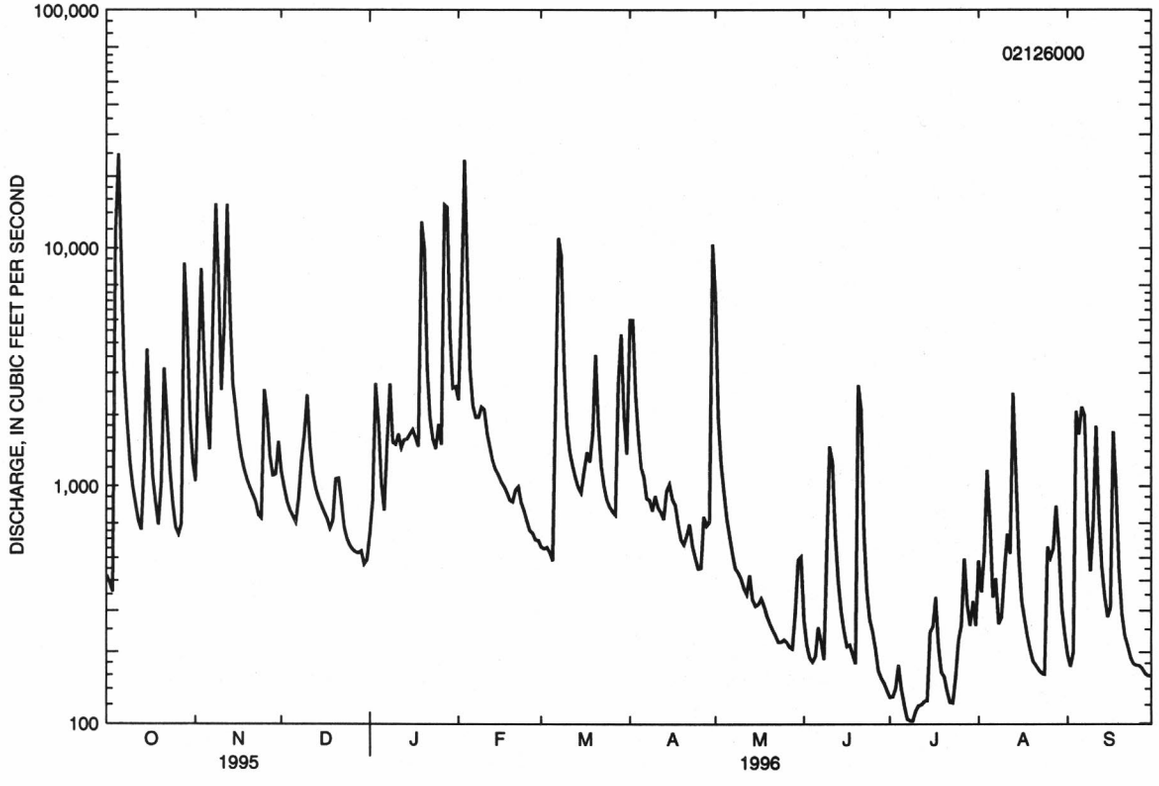
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	905	804	1301	2451	2783	2766	1744	839	699	748	771	658
MAX	6837	4763	4564	7263	7922	7674	7097	3998	3017	3443	2917	8262
(WY)	1991	1949	1933	1936	1960	1993	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

02126000 ROCKY RIVER NEAR NORWOOD, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	699188		574939			
ANNUAL MEAN	1916		1571		1366	
HIGHEST ANNUAL MEAN					2492	1975
LOWEST ANNUAL MEAN					449	1951
HIGHEST DAILY MEAN	29100	Feb 17	24900	Oct 5	85600	Sep 18 1945
LOWEST DAILY MEAN	144	Aug 17	103	Jul 8	19	Oct 28 1931
ANNUAL SEVEN-DAY MINIMUM	149	Aug 12	112	Jul 6	26	Oct 7 1954
INSTANTANEOUS PEAK FLOW			33100	Oct 4	105000	Sep 18 1945
INSTANTANEOUS PEAK STAGE			21.68	Oct 4	46.37*	Sep 18 1945
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		17	Oct 8 1954
ANNUAL RUNOFF (CFSM)	1.40		1.14		1.00	
ANNUAL RUNOFF (INCHES)	18.96		15.59		13.53	
10 PERCENT EXCEEDS	3820		2840		3000	
50 PERCENT EXCEEDS	753		763		406	
90 PERCENT EXCEEDS	244		179		105	

e Estimated.
* See REMARKS.



PEE DEE RIVER BASIN

02128000 LITTLE RIVER NEAR STAR, NC

LOCATION.--Lat 35°23'11", long 79°49'56", Montgomery County, Hydrologic Unit 03040104, on left bank 9 ft downstream 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 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54. April 1954 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 409.00 ft above sea level.

REMARKS.--Records good. Minimum discharge for period of record also occurred Oct. 5, 1968, as a result of upstream withdrawals for water supply. Minimum discharge for the current water year also occurred July 12.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	53	77	60	153	62	319	338	34	8.3	89	14
2	9.7	245	66	78	310	62	191	130	30	8.0	24	12
3	8.6	594	59	145	612	60	118	94	28	7.5	66	72
4	711	149	56	100	213	55	91	83	27	6.4	44	130
5	1960	92	54	68	145	54	78	73	30	6.2	20	98
6	484	69	53	59	138	208	71	64	32	5.9	18	4980
7	112	937	92	81	129	598	73	56	28	5.7	13	419
8	55	1360	123	77	187	550	68	55	26	5.5	15	123
9	35	216	307	72	223	183	133	54	243	5.1	70	70
10	27	125	209	60	158	106	141	49	498	4.9	308	55
11	22	525	110	63	123	82	81	45	124	4.3	48	133
12	19	1100	84	64	106	73	68	46	54	6.7	164	187
13	19	225	75	67	91	66	65	41	39	35	753	82
14	39	147	70	97	87	61	82	40	33	15	104	51
15	331	121	68	186	84	74	75	43	28	12	46	41
16	88	94	66	278	82	82	65	50	25	16	37	39
17	44	79	61	196	81	217	68	55	23	16	24	103
18	31	72	58	184	78	117	63	48	22	14	18	84
19	26	69	66	819	73	344	60	41	20	11	17	47
20	43	65	75	384	135	375	57	37	20	8.8	15	37
21	545	62	69	161	210	139	57	34	26	7.8	13	33
22	165	58	59	126	123	96	58	32	19	6.7	12	32
23	73	54	55	108	101	77	54	29	16	7.4	13	32
24	49	57	52	115	91	67	51	31	15	15	12	29
25	39	117	52	215	78	64	48	35	13	23	80	28
26	34	108	50	112	73	62	60	48	12	26	26	29
27	34	74	54	1120	72	58	113	38	11	13	145	77
28	660	66	55	440	71	156	68	94	9.7	11	40	40
29	158	73	59	187	67	214	98	92	9.3	19	39	32
30	76	100	55	157	---	110	806	56	8.8	19	22	34
31	56	---	50	158	---	86	---	49	---	20	17	---
TOTAL	5964.3	7106	2439	6037	4094	4558	3380	1980	1503.8	370.2	2312	7143
MEAN	192	237	78.7	195	141	147	113	63.9	50.1	11.9	74.6	238
MAX	1960	1360	307	1120	612	598	806	338	498	35	753	4980
MIN	8.6	53	50	59	67	54	48	29	8.8	4.3	12	12
CFSM	1.82	2.23	.74	1.84	1.33	1.39	1.06	.60	.47	.11	.70	2.25
IN.	2.09	2.49	.86	2.12	1.44	1.60	1.19	.69	.53	.13	.81	2.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

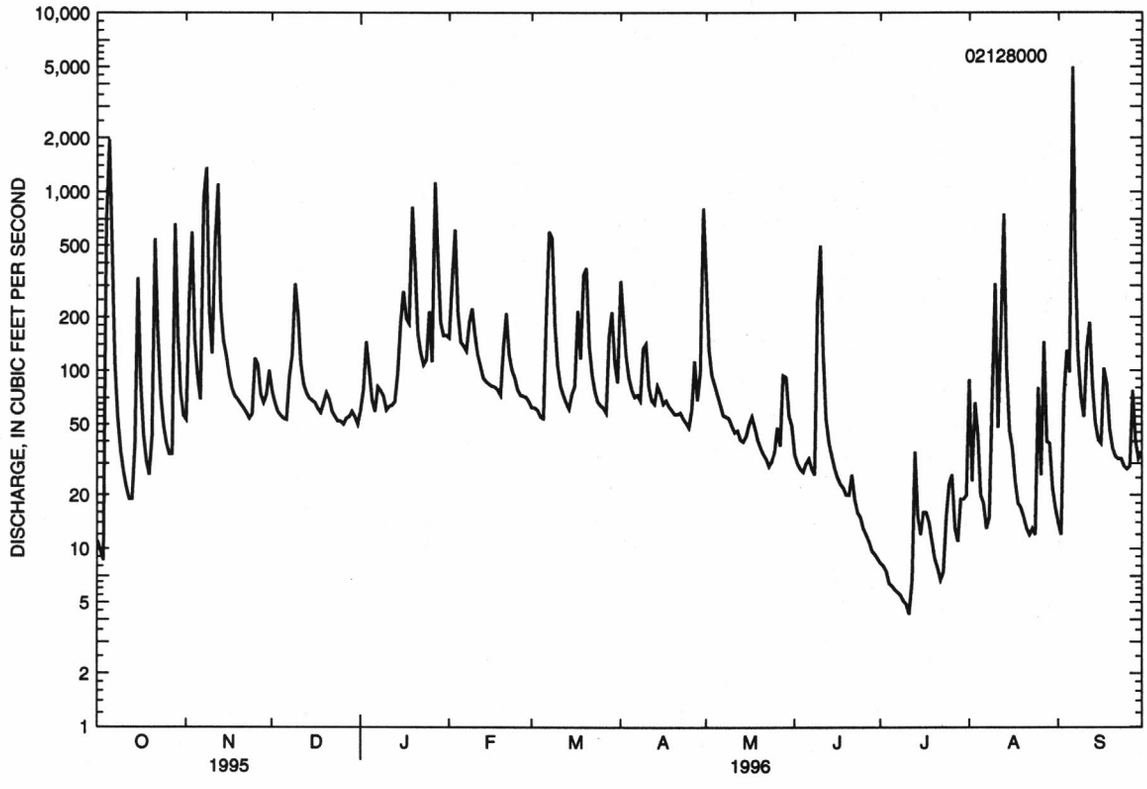
MEAN	69.6	67.8	97.6	166	214	219	170	101	74.5	59.4	54.0	46.3
MAX	337	366	361	463	467	516	429	296	273	465	249	261
(WY)	1991	1986	1973	1978	1960	1993	1958	1990	1972	1975	1985	1979
MIN	4.03	10.7	18.7	26.7	56.1	47.0	38.0	30.3	12.8	6.37	4.80	.76
(WY)	1987	1962	1966	1981	1986	1967	1967	1981	1967	1977	1983	1968

PEE DEE RIVER BASIN

02128000 LITTLE RIVER NEAR STAR, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996	
ANNUAL TOTAL	44314.6		46887.3			
ANNUAL MEAN	121		128		111	
HIGHEST ANNUAL MEAN					209	1975
LOWEST ANNUAL MEAN					42.4	1967
HIGHEST DAILY MEAN	2540	Feb 16	4980	Sep 6	5640	Mar 24 1989
LOWEST DAILY MEAN	4.6	Aug 25	4.3	Jul 11	.27	Oct 4 1968
ANNUAL SEVEN-DAY MINIMUM	5.9	Aug 20	5.4	Jul 5	.30	Sep 28 1968
INSTANTANEOUS PEAK FLOW			6840	Sep 6	10400	Oct 15 1954
INSTANTANEOUS PEAK STAGE			12.31	Sep 6	16.46	Oct 15 1954
INSTANTANEOUS LOW FLOW			4.1*	Jul 11	.24*	Oct 4 1968
ANNUAL RUNOFF (CFSM)	1.15		1.21		1.05	
ANNUAL RUNOFF (INCHES)	15.55		16.45		14.28	
10 PERCENT EXCEEDS	182		216		194	
50 PERCENT EXCEEDS	60		64		50	
90 PERCENT EXCEEDS	12		14		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. August 1906 to January 1912 published as Yadkin River near Pee Dee, NC.

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 sea level (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. Telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good except those below 300 ft^3/s, which are fair. Flow regulated since 1928 by Blewett Falls Lake and five other reservoirs upstream. Prior to regulation, maximum discharge: 276,000 ft^3/s, Aug. 27, 1908; gage height: 31.28 ft, present site and datum, from records of State Highway Commission. Prior to regulation, minimum discharge: 2,210 ft^3/s, Sept. 3, 1907. Minimum discharge for period of record also occurred Dec. 2, 3, 1951; minimum daily discharge for period of record: 58 ft^3/s, Dec 2, 1951, a result of abnormally low flow during 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 the current water year also occurred July 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAYOCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	5170	9240	10500	1940	18200	9820	10500	24900	4550	3850	4790	824
2	5410	9690	6710	6770	15200	9550	16400	13400	491	4480	5310	440
3	3830	19900	979	8030	42400	4120	13600	11500	4560	4210	2240	4210
4	8090	16100	4600	9570	44700	4280	12100	10200	6240	629	2180	10000
5	53300	10000	6560	9530	23400	5100	10700	5340	7660	2950	3730	21900
6	39000	8610	6910	4190	16300	7990	10500	4140	7730	2210	3880	25200
7	27400	10100	6820	970	15900	18800	9900	5240	4340	2670	4180	29100
8	14100	35100	6700	6790	14100	32700	9430	7830	3020	2610	5500	19700
9	8820	31700	6530	9040	14700	14700	9780	4090	605	2660	4530	9920
10	10700	18100	2500	6370	15700	10000	9790	7450	5160	2630	3710	8780
11	10800	15400	8260	5470	13600	7460	8750	7820	12100	2650	1830	11800
12	11700	38500	9390	7880	14100	8790	8170	1750	16100	2490	8880	12500
13	9620	35300	9390	4800	12700	8900	2900	4260	11400	495	12600	13200
14	8100	26100	8130	2340	11400	9540	3110	6440	10400	221	16000	10300
15	9760	13500	6880	7610	13000	9650	6380	7930	10200	1960	20100	4890
16	11500	12400	3350	9440	12200	8950	7690	5700	2940	4080	10200	7240
17	10500	13100	1110	9620	11200	4340	8110	5510	4480	3240	9710	10600
18	9070	12400	6350	10100	12300	6280	6600	4500	5050	2950	9770	11600
19	7240	12100	8360	16500	11600	9580	6020	2880	9280	2540	9730	9760
20	5010	11800	8160	39100	12000	11400	2770	3490	9120	1020	9660	5510
21	8210	11800	8090	22400	12100	13300	1080	3980	9130	823	9670	3250
22	8070	10700	8240	21200	10800	10800	4750	6420	7040	3010	8910	706
23	7750	7090	4430	15200	9820	10400	6560	5190	5120	2480	8160	4370
24	7730	8200	1600	13000	9790	6380	7130	3370	5210	2280	1320	4540
25	7720	9390	466	13800	9240	6070	6830	2170	5860	2700	1350	5650
26	7770	10700	5070	12700	10400	8000	4290	1970	5230	3320	3600	7430
27	8310	10100	8020	26800	10100	9470	4750	3100	3760	2380	8000	3700
28	10400	9850	7950	63000	10400	10200	590	4650	2650	490	6610	5010
29	18300	10700	7860	52600	9580	15000	5770	3460	404	4600	6530	629
30	12500	9770	3340	28600	---	13000	13100	5040	333	5050	7740	4600
31	9910	---	832	24800	---	10600	---	4890	---	5770	1040	---
TOTAL	375790	457440	184087	470160	436930	315170	228050	188610	180163	83448	211460	267359
MEAN	12120	15250	5938	15170	15070	10170	7602	6084	6005	2692	6821	8912
MAX	53300	38500	10500	63000	44700	32700	16400	24900	16100	5770	20100	29100
MIN	3830	7090	466	970	9240	4120	590	1750	333	221	1040	440
†	+665	-1687	-285	+2163	-1904	+1032	+465	-67	-18	-137	+53	-324

PEE DEE RIVER BASIN

02129000 PEE DEE RIVER NEAR ROCKINGHAM, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996*, BY WATER YEAR (WY)

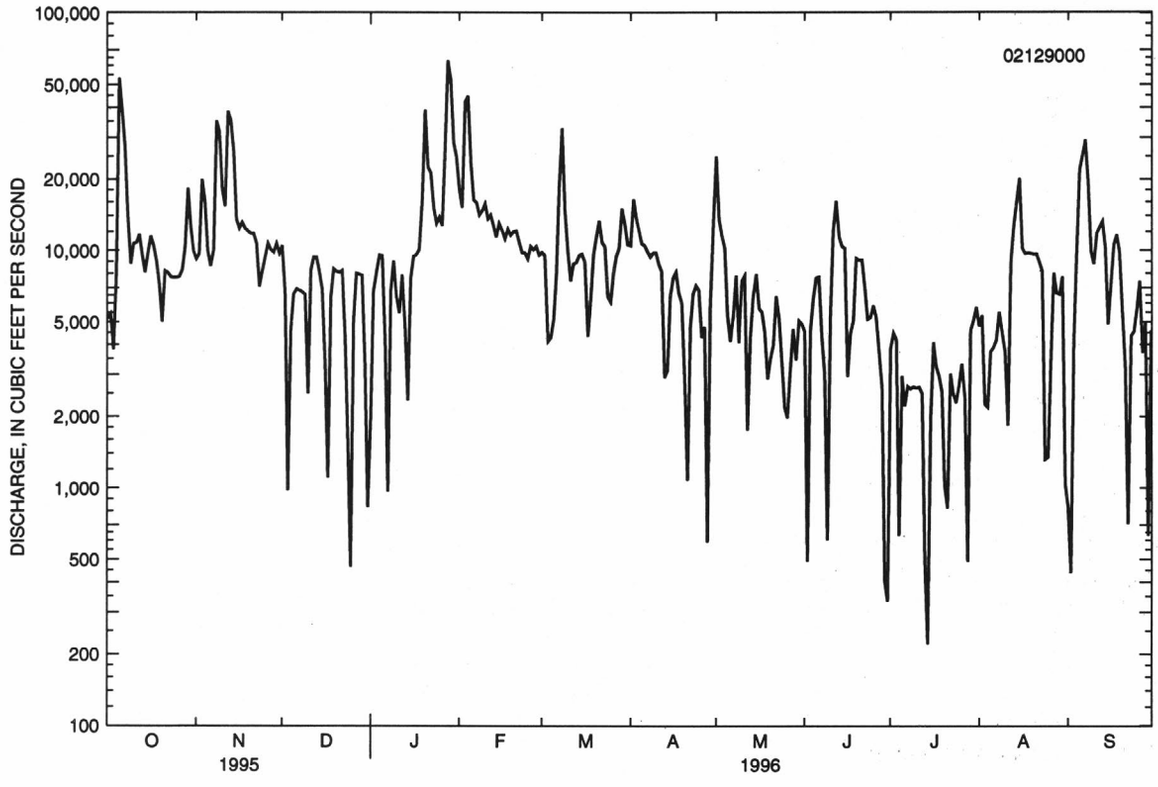
MEAN	6080	5672	7579	11040	12640	13610	10860	7287	6037	5334	5594	5503
MAX	25850	16120	20300	31270	36040	34480	31340	15630	15210	16790	19180	35690
(WY)	1991	1958	1933	1937	1960	1993	1936	1958	1972	1975	1928	1928
MIN	1293	1607	2640	2475	3704	4117	2692	2026	1853	1692	1456	1008
(WY)	1954	1954	1940	1956	1934	1981	1981	1986	1986	1986	1954	1954

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996*	
ANNUAL TOTAL	3401232		3398667			
ANNUAL MEAN	9318		9286	‡9297	8081	(UNADJUSTED)
HIGHEST ANNUAL MEAN					13000	1975
LOWEST ANNUAL MEAN					3944	1981
HIGHEST DAILY MEAN	66400	Feb 17	63000	Jan 28	242000	Sep 18 1945
LOWEST DAILY MEAN	236	Aug 20	221	Jul 14	58*	Dec 2 1951
ANNUAL SEVEN-DAY MINIMUM	2070	Aug 18	1870	Jul 9	185	Sep 28 1985
INSTANTANEOUS PEAK FLOW			66700	Jan 28	270000*	Sep 18 1945
INSTANTANEOUS PEAK STAGE			11.69	Jan 28	30.80*	Sep 18 1945
INSTANTANEOUS LOW FLOW			205*	Jul 13	50*	Dec 2 1951
10 PERCENT EXCEEDS	16600		16000		14500	
50 PERCENT EXCEEDS	7650		8010		5690	
90 PERCENT EXCEEDS	1450		2370		1800	

† 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.; Lake Tillery and Blewett Falls Lake, provided by Carolina Power and Light Co.

‡ Adjusted for change in contents.

* Regulated period only (1928-1996). See REMARKS.



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 sea level.

REMARKS.--Records fair except those for estimated daily discharges, October 17-18 and June 13 to July 11, which are poor. Minimum discharge for the current water year was not determined but likely occurred during period of estimated record, June 13 to July 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	128	96	97	233	81	252	156	77	e26	63	33
2	38	137	89	109	183	78	219	222	62	e25	67	30
3	104	144	85	115	176	77	195	246	56	e25	59	36
4	191	146	82	113	183	74	167	190	51	e25	54	50
5	265	140	81	105	207	72	112	123	48	e27	49	67
6	258	123	83	94	191	77	97	71	40	e28	45	141
7	228	118	93	92	164	168	100	93	36	e26	47	181
8	165	155	106	115	144	268	103	88	35	e24	57	213
9	85	194	119	133	141	364	101	79	38	e22	56	233
10	66	232	126	134	137	373	99	69	47	e23	51	245
11	60	228	135	126	133	328	96	63	44	e23	48	215
12	60	214	137	119	125	265	92	72	52	26	59	178
13	96	228	123	113	122	204	88	69	e58	33	86	137
14	130	235	111	106	119	159	91	64	e53	35	86	104
15	143	219	104	81	96	114	91	60	e50	30	76	77
16	131	163	99	75	80	109	90	60	e47	32	61	74
17	e100	133	95	76	77	118	84	61	e39	32	52	159
18	e90	119	91	76	74	126	79	61	e35	35	46	275
19	86	111	101	86	71	138	75	64	e36	30	49	490
20	130	105	113	101	92	143	75	51	e38	28	50	463
21	214	102	112	103	121	144	76	41	e34	27	43	327
22	246	100	102	96	145	136	73	38	e33	27	39	207
23	234	105	94	89	156	120	71	41	e39	35	50	154
24	175	89	89	92	153	107	67	40	e35	45	42	134
25	112	102	86	106	162	100	58	51	e29	43	38	126
26	95	109	83	109	144	96	56	51	e32	35	36	111
27	85	107	82	120	108	93	63	51	e34	30	42	95
28	112	102	80	142	84	126	64	54	e30	34	50	87
29	126	98	78	187	83	167	65	61	e28	40	49	88
30	139	101	77	261	---	209	116	78	e27	44	44	89
31	128	---	82	276	---	239	---	87	---	57	39	---
TOTAL	4131	4287	3034	3647	3904	4873	3015	2555	1263	972	1633	4819
MEAN	133	143	97.9	118	135	157	100	82.4	42.1	31.4	52.7	161
MAX	265	235	137	276	233	373	252	246	77	57	86	490
MIN	38	89	77	75	71	72	56	38	27	22	36	30
CFSM	1.60	1.72	1.17	1.41	1.62	1.89	1.21	.99	.51	.38	.63	1.93
IN.	1.84	1.91	1.35	1.63	1.74	2.18	1.35	1.14	.56	.43	.73	2.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

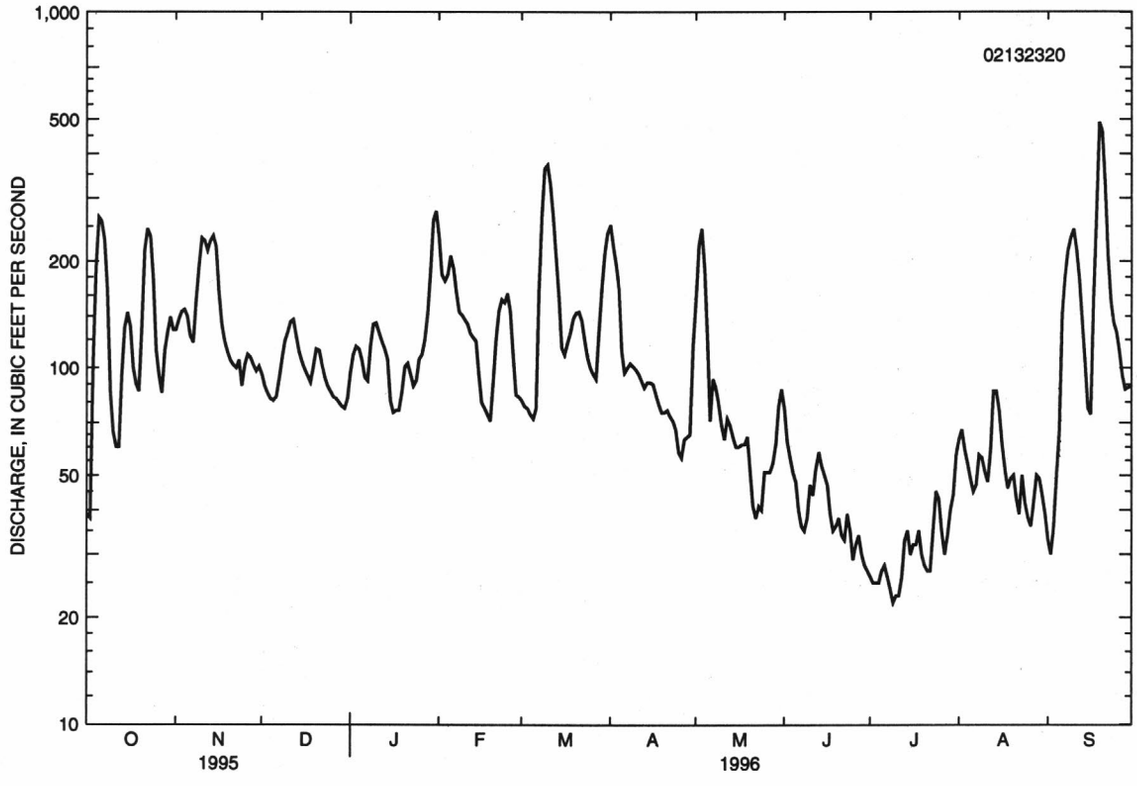
MEAN	72.2	83.9	90.9	127	113	137	101	67.4	67.8	65.5	73.0	69.5
MAX	133	143	141	223	211	204	179	157	121	175	171	161
(WY)	1996	1996	1990	1993	1995	1995	1993	1989	1995	1989	1991	1996
MIN	41.3	54.1	50.2	69.3	62.0	72.0	61.9	38.5	28.3	15.6	26.8	20.3
(WY)	1988	1995	1989	1989	1989	1988	1995	1995	1990	1990	1988	1990

02132320 BIG SHOE HEEL CREEK NEAR LAURINBURG, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	43709		38133			
ANNUAL MEAN	120		104		89.1	
HIGHEST ANNUAL MEAN					107	1995
LOWEST ANNUAL MEAN					63.6	1988
HIGHEST DAILY MEAN	495	Jun 29	490	Sep 19	508	May 4 1989
LOWEST DAILY MEAN	24	May 26	22	Jul 9	4.7	Aug 1 1990
ANNUAL SEVEN-DAY MINIMUM	27	Aug 12	25	Jul 6	5.9	Jul 30 1990
INSTANTANEOUS PEAK FLOW			511	Sep 19	606	May 3 1989
INSTANTANEOUS PEAK STAGE			4.34	Sep 19	4.63	May 3 1989
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		3.9	Aug 1 1990
ANNUAL RUNOFF (CFSM)	1.44		1.25		1.07	
ANNUAL RUNOFF (INCHES)	19.52		17.03		14.54	
10 PERCENT EXCEEDS	242		205		160	
50 PERCENT EXCEEDS	95		90		70	
90 PERCENT EXCEEDS	39		35		30	

e Estimated.

* See REMARKS.



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 sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since 1984, the town of Southern Pines has withdrawn water for public supply 0.5 mi upstream from the gage. These withdrawals cause some diurnal fluctuation at low to medium flow and may affect yearly minimums. A daily average of 3.8 ft^3/s was diverted during the year. Minimum discharge for period of record also occurred Aug. 18, 1988. Minimum discharge for the current water year also occurred July 1, 2, 3, 8 and 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	312	278	265	361	246	403	395	76	32	317	159
2	117	328	271	292	363	229	348	438	66	32	469	137
3	107	404	267	297	439	221	332	376	66	50	357	190
4	195	536	260	325	521	219	305	264	64	63	173	310
5	576	575	258	346	529	212	266	195	61	44	130	438
6	1150	467	260	315	449	226	249	171	59	34	135	878
7	1030	393	281	283	381	342	260	155	58	32	157	1690
8	656	436	303	296	354	543	271	148	50	32	195	1390
9	458	551	320	307	370	643	270	152	54	34	195	1000
10	337	619	349	298	392	560	286	145	71	36	135	710
11	268	538	354	291	385	440	299	127	88	34	138	547
12	238	494	328	291	350	343	272	128	117	58	196	514
13	218	554	285	281	316	307	236	147	91	132	287	633
14	221	669	269	275	293	286	238	126	69	119	329	620
15	321	574	259	271	281	275	259	119	57	98	264	498
16	429	464	248	265	277	302	252	132	55	155	149	425
17	445	409	247	257	279	336	224	153	55	196	117	473
18	385	372	244	248	280	407	201	141	58	112	116	517
19	274	345	247	256	273	375	195	119	53	76	172	582
20	261	334	268	323	288	359	194	103	56	53	119	549
21	412	327	276	393	347	357	214	93	89	45	95	425
22	541	316	258	371	397	345	221	83	93	48	83	358
23	547	303	236	315	377	306	206	78	65	61	93	331
24	439	295	230	276	323	270	192	74	54	161	149	305
25	325	304	223	280	283	257	189	95	56	262	123	268
26	274	329	225	287	265	246	e171	93	52	281	193	249
27	249	337	223	311	256	240	e241	87	44	194	323	247
28	289	328	219	414	248	277	e241	98	39	110	512	231
29	365	300	218	491	250	409	e220	102	32	135	503	229
30	388	286	210	471	---	495	279	104	30	168	411	229
31	358	---	227	411	---	467	---	93	---	162	222	---
TOTAL	11997	12499	8141	9802	9927	10540	7534	4734	1878	3049	6857	15132
MEAN	387	417	263	316	342	340	251	153	62.6	98.4	221	504
MAX	1150	669	354	491	529	643	403	438	117	281	512	1690
MIN	107	286	210	248	248	212	171	74	30	32	83	137
CFSM	2.11	2.28	1.44	1.73	1.87	1.86	1.37	.83	.34	.54	1.21	2.76
IN.	2.44	2.54	1.65	1.99	2.02	2.14	1.53	.96	.38	.62	1.39	3.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

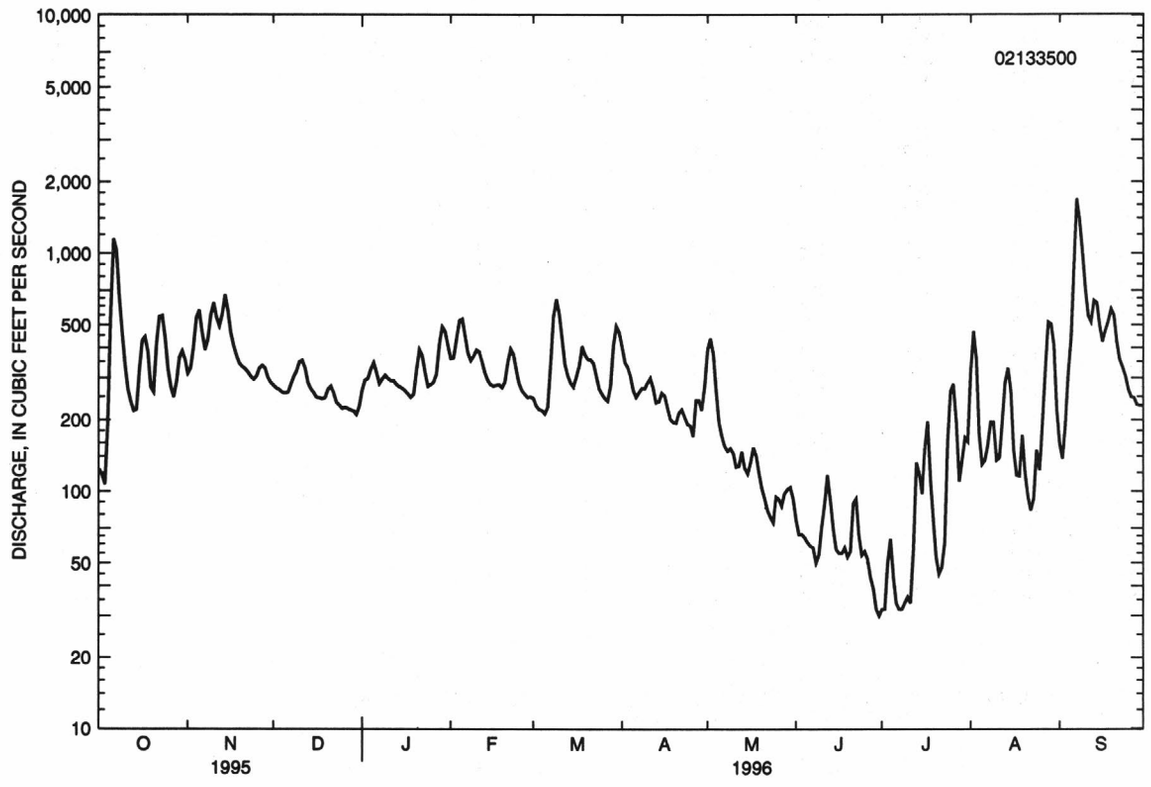
MEAN	195	231	263	323	356	379	324	228	174	197	190	182
MAX	595	499	530	501	687	619	842	465	421	624	497	932
(WY)	1965	1980	1973	1978	1960	1952	1973	1958	1976	1944	1985	1945
MIN	48.5	93.4	135	151	147	173	111	84.5	34.5	32.9	43.4	28.8
(WY)	1941	1942	1989	1942	1992	1981	1986	1988	1988	1986	1968	1968

02133500 DROWNING CREEK NEAR HOFFMAN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	109745		102090			
ANNUAL MEAN	301		279		253	
HIGHEST ANNUAL MEAN					397	1984
LOWEST ANNUAL MEAN					129	1992
HIGHEST DAILY MEAN	1320	Jan 17	1690	Sep 7	8530	Sep 18 1945
LOWEST DAILY MEAN	51	Aug 19	30	Jun 30	20	Jul 9 1988
ANNUAL SEVEN-DAY MINIMUM	59	Aug 15	35	Jul 5	24	Jul 4 1988
INSTANTANEOUS PEAK FLOW			1760	Sep 7	10900	Sep 18 1945
INSTANTANEOUS PEAK STAGE			7.05	Sep 7	10.29	Sep 18 1945
INSTANTANEOUS LOW FLOW			30*	Jun 30	19*	Aug 11 1988
ANNUAL RUNOFF (CFSM)	1.64		1.52		1.38	
ANNUAL RUNOFF (INCHES)	22.31		20.75		18.78	
10 PERCENT EXCEEDS	539		492		478	
50 PERCENT EXCEEDS	266		266		204	
90 PERCENT EXCEEDS	92		66		80	

e Estimated.

* 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 mi^2.

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 sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for the current water year also occurred July 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382	584	540	426	684	466	729	581	243	117	341	642
2	383	616	525	448	697	456	763	648	217	110	354	588
3	289	627	507	477	691	448	748	651	195	110	383	462
4	287	619	496	496	665	436	704	651	178	110	439	333
5	381	615	481	511	653	420	651	636	173	122	526	338
6	489	635	472	521	657	419	610	581	168	126	553	501
7	653	702	476	534	672	504	580	483	162	112	414	589
8	1040	792	486	550	707	616	544	386	156	104	341	923
9	1300	748	505	556	688	713	521	343	158	99	381	1940
10	1080	718	527	544	651	809	510	322	167	99	399	2650
11	828	711	553	526	616	893	513	314	178	101	411	1950
12	678	782	572	525	595	911	514	308	186	114	440	1410
13	578	855	575	519	590	845	514	284	220	147	386	1090
14	505	853	570	511	584	756	523	274	222	204	413	904
15	505	796	558	504	564	681	509	271	203	239	520	802
16	491	775	531	492	536	626	483	265	194	226	524	822
17	500	807	501	480	513	597	467	271	181	217	506	1050
18	521	781	483	474	500	591	462	290	171	252	468	1100
19	556	712	478	474	495	615	449	296	162	280	348	1270
20	625	652	474	472	505	647	423	277	162	234	310	1080
21	667	607	467	472	528	676	404	246	155	181	330	943
22	627	575	468	482	560	672	390	226	157	158	307	898
23	624	552	473	494	592	645	388	209	189	177	282	880
24	667	541	477	530	606	623	391	197	169	247	263	836
25	732	537	466	556	613	609	386	204	147	260	268	768
26	721	530	446	546	600	581	373	201	153	286	280	661
27	660	526	431	536	564	535	366	218	163	316	296	578
28	613	523	420	559	517	541	371	223	145	348	355	515
29	557	525	417	634	484	580	398	235	132	374	408	473
30	545	537	415	664	---	642	485	256	124	347	466	449
31	555	---	415	664	---	691	---	264	---	320	591	---
TOTAL	19039	19833	15205	16177	17327	19244	15169	10611	5230	6137	12303	27445
MEAN	614	661	490	522	597	621	506	342	174	198	397	915
MAX	1300	855	575	664	707	911	763	651	243	374	591	2650
MIN	287	523	415	426	484	419	366	197	124	99	263	333
CFSM	1.68	1.81	1.34	1.43	1.64	1.70	1.39	.94	.48	.54	1.09	2.51
IN.	1.94	2.02	1.55	1.65	1.77	1.96	1.55	1.08	.53	.63	1.25	2.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

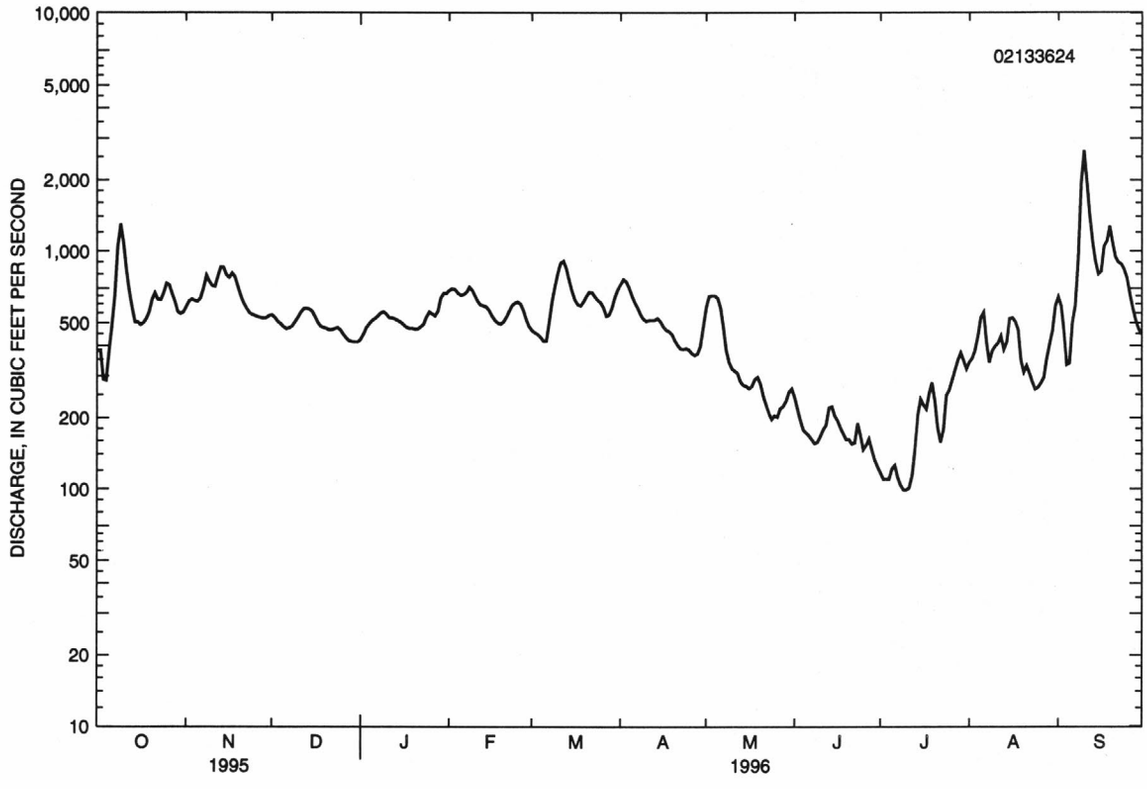
MEAN	352	421	440	574	544	645	554	355	305	311	307	345
MAX	620	661	650	801	998	905	1086	769	575	690	577	915
(WY)	1990	1996	1990	1993	1995	1995	1993	1989	1995	1995	1989	1996
MIN	184	267	282	364	300	363	303	202	135	147	154	129
(WY)	1988	1992	1992	1992	1992	1992	1992	1994	1988	1990	1988	1990

PEE DEE RIVER BASIN

02133624 LUMBER RIVER NEAR MAXTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	207984		183720			
ANNUAL MEAN	570		502		430	
HIGHEST ANNUAL MEAN					539	1989
LOWEST ANNUAL MEAN					283	1992
HIGHEST DAILY MEAN	2320	Feb 21	2650	Sep 10	2650	Sep 10 1996
LOWEST DAILY MEAN	137	Aug 22	99	Jul 9	86	Aug 6 1990
ANNUAL SEVEN-DAY MINIMUM	146	Aug 17	108	Jul 6	91	Jul 31 1990
INSTANTANEOUS PEAK FLOW			2800	Sep 10	2800	Sep 10 1996
INSTANTANEOUS PEAK STAGE			13.02	Sep 10	13.02	Sep 10 1996
INSTANTANEOUS LOW FLOW			97*	Jul 10	83	Aug 6 1990
ANNUAL RUNOFF (CFSM)	1.56		1.38		1.18	
ANNUAL RUNOFF (INCHES)	21.20		18.72		16.01	
10 PERCENT EXCEEDS	987		750		739	
50 PERCENT EXCEEDS	507		504		375	
90 PERCENT EXCEEDS	204		181		155	

* See REMARKS.



PEE DEE RIVER BASIN

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 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-54, 1957-58, 1962-68. October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except those below 4.0 ft^3/s, which are poor due to extensive beaver activity. Minimum discharge for period of record also occurred Sept. 1-4, 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	284	201	162	402	207	355	289	289	2.8	241	116
2	19	270	191	173	417	201	351	442	267	7.4	260	91
3	14	249	179	181	453	195	330	540	227	30	262	79
4	15	232	170	189	499	190	313	539	174	25	261	81
5	99	220	162	192	507	179	302	482	113	13	277	118
6	154	208	155	189	474	167	287	411	81	8.1	347	501
7	191	196	152	189	434	197	267	333	64	5.2	413	966
8	229	212	157	194	411	344	247	266	50	3.3	391	1700
9	253	232	170	200	394	541	230	211	41	2.2	346	2130
10	242	269	187	209	378	581	218	168	79	3.2	394	2010
11	198	303	204	215	361	569	205	127	196	3.9	440	1780
12	130	329	215	216	340	543	190	107	284	26	417	1600
13	92	348	221	215	315	503	174	98	327	101	379	1440
14	80	365	219	212	301	454	166	110	289	119	355	1240
15	171	372	210	209	284	414	163	113	206	106	403	1030
16	206	365	201	204	268	372	173	114	149	106	490	849
17	219	348	193	196	253	340	178	141	143	119	462	716
18	226	324	185	186	241	312	176	157	146	115	390	622
19	204	304	183	185	231	301	174	165	143	87	309	590
20	159	289	185	195	230	293	171	156	162	58	250	614
21	156	268	195	210	252	285	174	114	137	44	209	861
22	171	248	208	216	273	272	182	74	112	37	192	947
23	185	229	219	212	294	255	195	55	74	48	185	869
24	194	214	222	206	300	236	205	43	47	54	175	767
25	176	209	216	202	293	220	197	42	31	59	150	664
26	144	205	207	201	276	206	173	36	25	71	134	596
27	115	206	193	221	255	192	154	81	20	65	164	566
28	159	210	179	285	236	197	146	133	9.5	236	161	541
29	196	212	166	351	220	232	133	169	4.5	311	165	516
30	227	209	157	392	---	282	179	210	2.8	296	162	481
31	267	---	153	397	---	326	---	264	---	257	144	---
TOTAL	4913	7929	5855	6804	9592	9606	6408	6190	3892.8	2419.1	8928	25081
MEAN	158	264	189	219	331	310	214	200	130	78.0	288	836
MAX	267	372	222	397	507	581	355	540	327	311	490	2130
MIN	14	196	152	162	220	167	133	36	2.8	2.2	134	79
CFSM	.69	1.15	.82	.96	1.44	1.35	.93	.87	.57	.34	1.26	3.65
IN.	.80	1.29	.95	1.11	1.56	1.56	1.04	1.01	.63	.39	1.45	4.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

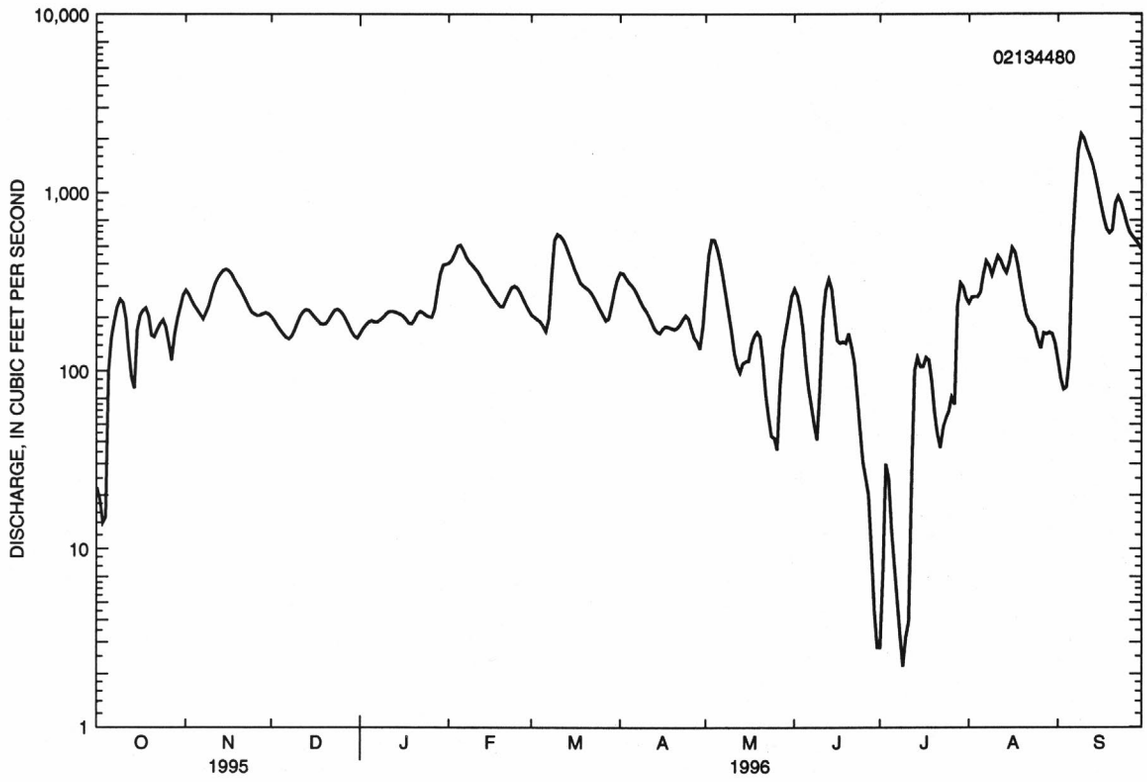
MEAN	106	155	221	412	313	399	266	106	110	111	156	195
MAX	260	382	396	1001	858	856	571	358	474	407	358	836
(WY)	1995	1993	1990	1993	1995	1987	1993	1989	1995	1995	1991	1996
MIN	5.05	33.5	68.8	92.9	127	138	66.8	17.1	15.0	18.1	17.6	30.2
(WY)	1988	1988	1988	1986	1986	1988	1986	1986	1986	1986	1987	1990

PEE DEE RIVER BASIN

02134480 BIG SWAMP NEAR TARHEEL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1986 - 1996	
ANNUAL TOTAL	118993.54		97617.9			
ANNUAL MEAN	326		267		212	
HIGHEST ANNUAL MEAN					343	1995
LOWEST ANNUAL MEAN					101	1986
HIGHEST DAILY MEAN	2300	Feb 19	2130	Sep 9	2810	Jan 10 1993
LOWEST DAILY MEAN	.53	Aug 20	2.2	Jul 9	0	Aug 31 1993
ANNUAL SEVEN-DAY MINIMUM	2.1	Aug 16	5.6	Jul 5	.01	Aug 29 1993
INSTANTANEOUS PEAK FLOW			2180	Sep 9	2840	Jan 9 1993
INSTANTANEOUS PEAK STAGE			12.84	Sep 9	13.34	Jan 9 1993
INSTANTANEOUS LOW FLOW			1.8	Jul 9	0*	Aug 31 1993
ANNUAL RUNOFF (CFSM)	1.42		1.16		.93	
ANNUAL RUNOFF (INCHES)	19.33		15.86		12.58	
10 PERCENT EXCEEDS	746		476		480	
50 PERCENT EXCEEDS	209		207		131	
90 PERCENT EXCEEDS	29		65		21	

* See REMARKS.



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 sea level (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 telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Minimum discharge for current water year also occurred July 11.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	421	1670	1410	1180	1810	1510	1870	1250	631	249	560	755
2	425	1640	1350	1170	1900	1510	1880	1570	653	236	610	743
3	424	1590	1310	1160	2150	1480	1900	1740	677	226	661	764
4	425	1540	1270	1150	2400	1400	1920	1790	693	215	750	771
5	471	1490	1250	1140	2620	1330	1930	1780	688	210	844	863
6	527	1470	1230	1140	2710	1260	1940	1750	652	205	931	1750
7	617	1480	1230	1160	2730	1320	1980	1730	604	198	1080	2730
8	730	1600	1220	1200	2640	1630	1940	1710	547	191	1180	5090
9	827	1620	1210	1240	2540	2090	1860	1660	482	191	1180	6010
10	869	1660	1210	1300	2430	2400	1750	1570	480	189	1240	6390
11	882	1710	1200	1340	2320	2640	1630	1460	477	188	1440	7290
12	917	1790	1210	1380	2210	2740	1520	1400	521	203	1600	7600
13	1130	1890	1220	1400	2110	2750	1430	1240	689	268	1650	7720
14	1400	1990	1220	1410	2030	2750	1360	1090	725	318	1660	7840
15	1560	2040	1220	1420	1920	2750	1290	943	728	341	2020	7860
16	1590	2050	1230	1410	1820	2730	1260	833	822	369	2300	7480
17	1540	2070	1260	1380	1730	2790	1220	762	891	434	2310	6820
18	1430	2120	1290	1350	1660	2760	1180	711	984	501	2110	5990
19	1300	2130	1350	1340	1590	2620	1140	672	1040	542	1880	5200
20	1200	2100	1390	1330	1560	2400	1120	637	1020	537	1700	4510
21	1180	2040	1380	1320	1560	2170	1100	612	886	503	1600	3980
22	1150	1980	1380	1300	1550	1970	1070	594	819	464	1500	3960
23	1170	1930	1380	1270	1580	1820	1030	571	789	438	1380	4030
24	1190	1870	1360	1260	1580	1710	1130	536	736	416	1240	4010
25	1200	1800	1320	1250	1560	1630	1010	e530	661	395	1130	4010
26	1220	1730	1290	1240	1540	1570	987	e520	542	407	1030	3890
27	1220	1640	1250	1310	1520	1520	969	e510	429	441	974	3690
28	1260	1560	1220	1420	1520	1550	930	e500	323	459	914	3490
29	1310	1490	1190	1540	1530	1660	892	e490	289	451	861	3330
30	1440	1440	1180	1690	---	1740	e1080	527	265	475	809	3200
31	1560	---	1170	1780	---	1820	---	579	---	516	776	---
TOTAL	32585	53130	39400	40980	56820	62020	42318	32267	19743	10776	39920	131766
MEAN	1051	1771	1271	1322	1959	2001	1411	1041	658	348	1288	4392
MAX	1590	2130	1410	1780	2730	2790	1980	1790	1040	542	2310	7860
MIN	421	1440	1170	1140	1520	1260	892	490	265	188	560	743
CFSM	.86	1.44	1.03	1.08	1.60	1.63	1.15	.85	.54	.28	1.05	3.58
IN.	.99	1.61	1.19	1.24	1.72	1.88	1.28	.98	.60	.33	1.21	3.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	796	883	1301	1844	2177	2336	1876	990	771	822	956	1024
MAX	4721	4142	3977	4575	5486	5259	5688	3430	2587	2808	3741	4787
(WY)	1965	1948	1949	1993	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

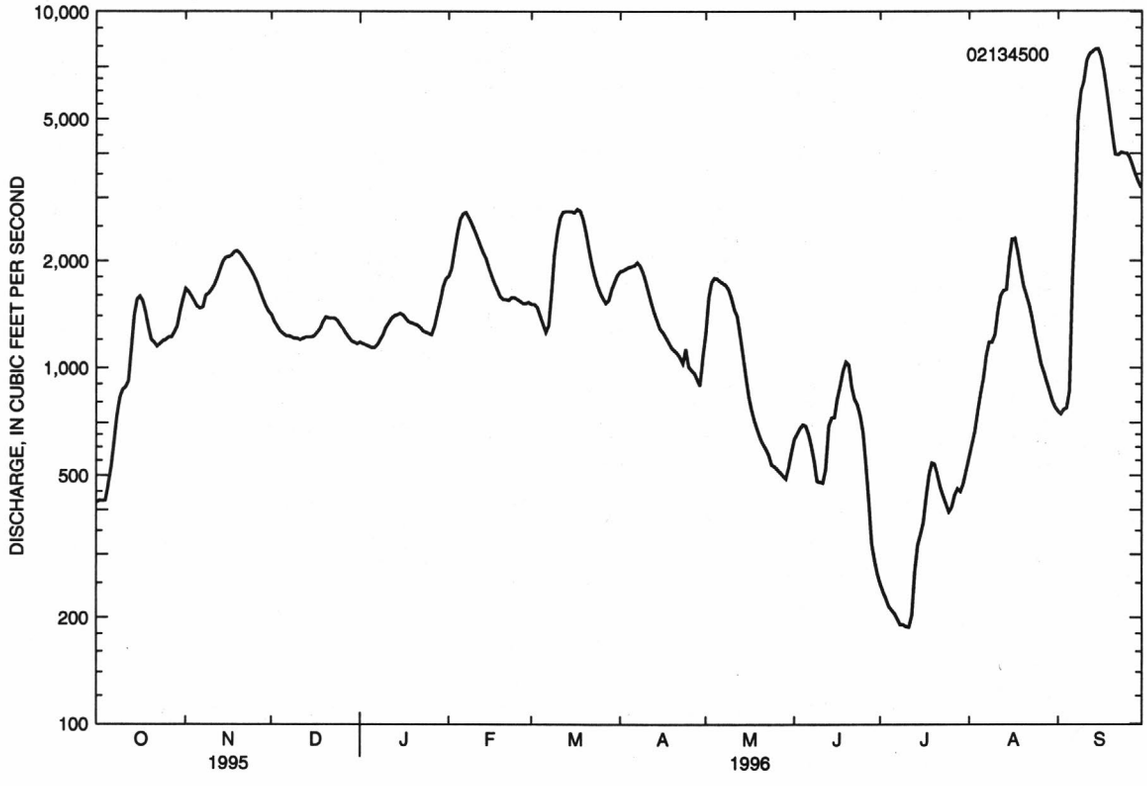
PEE DEE RIVER BASIN

02134500 LUMBER RIVER AT BOARDMAN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	635238		561725			
ANNUAL MEAN	1740		1535		1310	
HIGHEST ANNUAL MEAN					2391	1965
LOWEST ANNUAL MEAN					524	1934
HIGHEST DAILY MEAN	8910	Feb 22	7860	Sep 15	13400	Sep 24 1945
LOWEST DAILY MEAN	226	Aug 24	188	Jul 11	68	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	232	Aug 19	195	Jul 6	72	Oct 3 1968
INSTANTANEOUS PEAK FLOW			7920	Sep 15	13400	Sep 24 1945
INSTANTANEOUS PEAK STAGE			9.36	Sep 15	10.64	Sep 24 1945
INSTANTANEOUS LOW FLOW			185*	Jul 10	66	Oct 9 1968
ANNUAL RUNOFF (CFSM)	1.42		1.25		1.07	
ANNUAL RUNOFF (INCHES)	19.24		17.02		14.50	
10 PERCENT EXCEEDS	3790		2620		2800	
50 PERCENT EXCEEDS	1350		1310		962	
90 PERCENT EXCEEDS	393		479		296	

e Estimated.

* See REMARKS.



SANTEE RIVER BASIN

02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC

LOCATION.--Lat 35°41'09", long 82°03'40", McDowell County, Hydrologic Unit 03050101, on right bank 18 ft downstream 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 sea level, from topographic map. Telephone telemetry at station.

REMARKS.--Records good except those during period of ice effect, Jan. 6-8, which are poor. Maximum discharge for period of record from rating curve extended above 9,100 ft^3/s on basis of contracted-opening measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	235	208	192	380	266	383	215	148	105	107	151
2	178	287	205	218	821	264	344	207	145	104	93	143
3	177	258	200	224	681	255	322	201	146	109	87	170
4	1130	233	197	199	498	248	306	195	175	101	121	171
5	5520	224	196	191	422	248	291	189	178	98	328	705
6	1440	221	195	e187	395	327	281	194	148	100	156	306
7	782	442	202	e185	395	304	271	209	143	98	137	217
8	579	357	192	e182	488	272	265	204	162	108	150	196
9	478	291	248	181	757	254	266	225	238	113	122	173
10	416	267	209	184	649	247	250	194	217	99	107	176
11	375	503	195	182	544	246	245	205	173	93	177	189
12	346	475	193	189	458	245	241	192	163	95	1030	162
13	350	369	190	183	417	241	238	179	156	94	417	147
14	484	337	188	204	405	238	235	180	149	92	235	137
15	396	307	187	240	391	252	230	206	157	185	186	129
16	340	285	183	277	374	257	231	199	170	123	174	150
17	313	273	178	272	340	259	218	185	156	104	198	171
18	298	264	185	963	325	259	214	175	147	97	187	134
19	288	257	232	3050	318	876	215	168	166	92	186	126
20	281	250	218	792	472	537	233	163	166	90	210	122
21	270	245	198	524	400	402	247	159	152	88	171	120
22	258	237	189	415	375	351	222	155	137	90	155	123
23	252	233	184	361	368	320	217	150	130	88	153	112
24	251	230	179	419	329	300	212	150	132	85	139	110
25	246	223	177	360	300	298	206	179	126	84	183	109
26	240	219	175	447	298	284	236	191	119	95	206	115
27	241	218	174	2520	297	272	216	196	118	83	192	137
28	251	217	172	849	301	420	204	201	115	110	186	429
29	228	230	170	608	282	370	204	170	112	123	209	377
30	222	211	170	495	---	341	262	160	109	94	186	209
31	228	---	172	430	---	341	---	156	---	103	168	---
TOTAL	17038	8398	5961	15723	12480	9794	7505	5752	4553	3143	6356	5716
MEAN	550	280	192	507	430	316	250	186	152	101	205	191
MAX	5520	503	248	3050	821	876	383	225	238	185	1030	705
MIN	177	211	170	181	282	238	204	150	109	83	87	109
CFSM	4.33	2.20	1.51	3.99	3.39	2.49	1.97	1.46	1.20	.80	1.61	1.50
IN.	4.99	2.46	1.75	4.61	3.66	2.87	2.20	1.68	1.33	.92	1.86	1.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

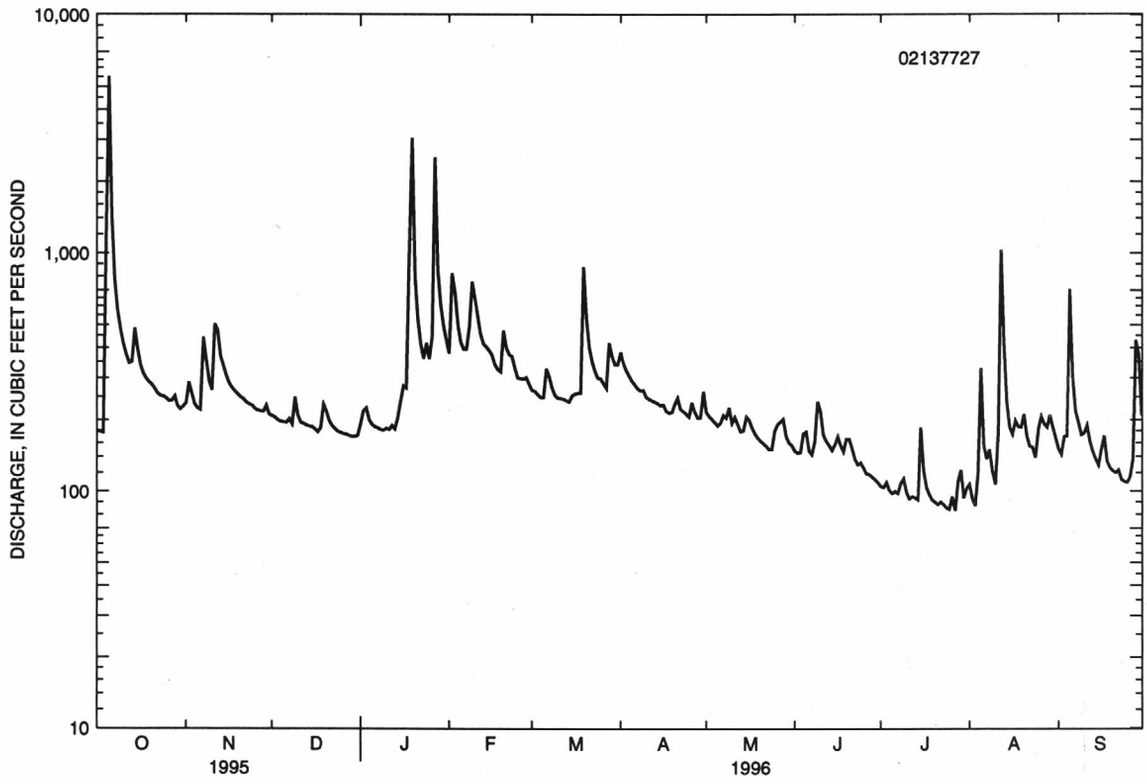
MEAN	215	234	248	291	345	361	326	256	225	173	222	185
MAX	550	606	573	620	629	622	688	444	652	339	513	435
(WY)	1996	1986	1984	1995	1990	1990	1983	1984	1992	1991	1995	1989
MIN	67.5	69.0	77.6	107	159	130	138	109	70.7	57.9	50.5	71.5
(WY)	1994	1982	1989	1981	1988	1988	1986	1988	1988	1988	1988	1988

SANTEE RIVER BASIN

02137727 CATAWBA RIVER NEAR PLEASANT GARDENS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1981 - 1996	
ANNUAL TOTAL	121556		102419			
ANNUAL MEAN	333		280		256	
HIGHEST ANNUAL MEAN					351	1984
LOWEST ANNUAL MEAN					126	1988
HIGHEST DAILY MEAN	6230	Aug 27	5520	Oct 5	7250	Aug 17 1994
LOWEST DAILY MEAN	115	Aug 18	83	Jul 27	33	Aug 19 1988
ANNUAL SEVEN-DAY MINIMUM	132	Aug 12	88	Jul 21	42	Jul 18 1986
INSTANTANEOUS PEAK FLOW			10600	Oct 5	13700*	Aug 17 1994
INSTANTANEOUS PEAK STAGE			13.30	Oct 5	15.22	Aug 17 1994
INSTANTANEOUS LOW FLOW			78	Jul 28	32	Aug 28 1988
ANNUAL RUNOFF (CFSM)	2.62		2.20		2.02	
ANNUAL RUNOFF (INCHES)	35.61		30.00		27.42	
10 PERCENT EXCEEDS	449		419		438	
50 PERCENT EXCEEDS	228		209		188	
90 PERCENT EXCEEDS	150		113		92	

e Estimated.
* 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. Prior to 1908 published as "Linville River at Fonta Flora" and as "Linville River at Branch" 1923-70. Records for October to December 1908 "Linville River 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 sea level. 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 during periods of ice effect, in Dec., Feb., and Mar., which are poor. Maximum discharge for period of record, 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 for period of record, result of freezeup.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	83	86	72	228	124	201	164	88	61	43	111
2	56	105	81	80	270	121	191	130	81	58	39	98
3	54	111	78	94	275	115	172	120	81	65	35	101
4	258	93	77	84	e214	109	161	103	88	66	38	105
5	6550	84	74	75	e194	105	152	94	119	52	40	149
6	1230	81	72	74	e180	121	148	116	99	48	65	184
7	467	123	72	100	e174	140	142	137	78	46	73	137
8	301	176	72	87	180	128	134	127	167	43	82	108
9	233	130	74	76	369	e104	131	123	305	45	72	95
10	198	105	e77	88	330	e100	115	111	349	47	66	104
11	158	323	e76	76	293	e96	108	108	218	39	106	115
12	134	474	e74	75	262	e96	103	113	180	38	1430	104
13	126	263	e72	73	227	96	100	103	156	45	494	89
14	163	219	70	78	208	95	100	96	146	45	224	78
15	171	195	69	101	198	96	98	101	151	87	161	70
16	132	160	69	133	184	109	107	122	165	84	157	73
17	118	134	69	135	165	109	102	115	146	69	129	103
18	111	124	69	795	156	105	94	102	145	56	118	90
19	106	116	96	4240	146	359	91	93	131	42	120	80
20	106	110	129	735	187	360	96	88	409	36	116	70
21	106	104	102	401	222	242	114	83	230	33	116	61
22	101	96	e84	294	189	203	104	79	174	32	178	61
23	95	90	e79	242	179	181	94	75	133	32	240	57
24	75	90	e79	260	172	165	95	70	115	30	204	51
25	59	92	e77	259	160	158	88	89	103	44	202	48
26	76	90	e77	219	151	157	91	126	93	54	169	49
27	78	87	e77	1580	145	144	104	105	86	35	195	54
28	84	85	e76	574	142	178	94	150	79	31	176	417
29	79	103	e74	376	134	256	88	152	72	31	146	601
30	71	96	e72	299	---	210	147	118	65	30	135	241
31	70	---	e71	266	---	198	---	98	---	35	133	---
TOTAL	11624	4142	2424	12041	5934	4780	3565	3411	4452	1459	5502	3704
MEAN	375	138	78.2	388	205	154	119	110	148	47.1	177	123
MAX	6550	474	129	4240	369	360	201	164	409	87	1430	601
MIN	54	81	69	72	134	95	88	70	65	30	35	48
CFSM	5.62	2.07	1.17	5.82	3.07	2.31	1.78	1.65	2.22	.71	2.66	1.85
IN.	6.48	2.31	1.35	6.72	3.31	2.67	1.99	1.90	2.48	.81	3.07	2.07

SANTEE RIVER BASIN

02138500 LINVILLE RIVER NEAR NEBO, NC--Continued

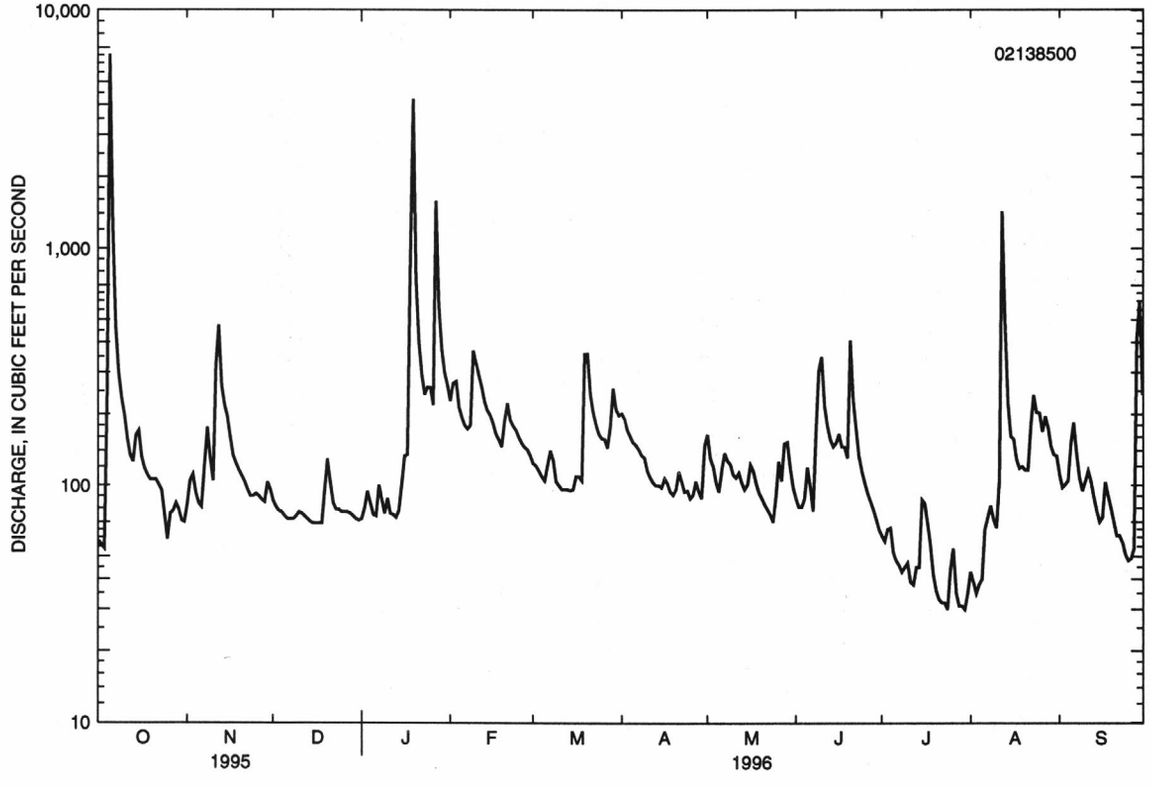
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1996, BY WATER YEAR (WY)

MEAN	128	139	139	176	190	232	201	151	131	98.7	123	115
MAX	433	678	349	664	454	632	479	369	598	449	1084	605
(WY)	1937	1978	1984	1995	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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1922 - 1996	
ANNUAL TOTAL	79428		63038			
ANNUAL MEAN	218		172		152	
HIGHEST ANNUAL MEAN					246	1979
LOWEST ANNUAL MEAN					77.6	1988
HIGHEST DAILY MEAN	7850	Jan 14	6550	Oct 5	14000	Aug 13 1940
LOWEST DAILY MEAN	45	Aug 25	30	Jul 24	8.0	Sep 7 1925
ANNUAL SEVEN-DAY MINIMUM	57	Aug 19	35	Jul 27	10	Aug 22 1925
INSTANTANEOUS PEAK FLOW			12100	Oct 5	39500*	Aug 13 1940
INSTANTANEOUS PEAK STAGE			8.48	Oct 5	11.40	Aug 13 1940
INSTANTANEOUS LOW FLOW			27	Jul 25	2.0*	Jan 9 1956
ANNUAL RUNOFF (CFSM)	3.26		2.58		2.28	
ANNUAL RUNOFF (INCHES)	44.30		35.16		30.95	
10 PERCENT EXCEEDS	305		246		268	
50 PERCENT EXCEEDS	111		105		100	
90 PERCENT EXCEEDS	71		58		38	

e Estimated.

* See REMARKS.



SANTEE RIVER BASIN

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 sea level (levels by City of Morganton).

REMARKS.--No estimated daily discharges. Records fair. City of Morganton diverted about 16.4 ft^3/s from Catawba River for municipal water supply. Considerable regulation, at times, caused by Lake James (station 02138519), 6.5 mi upstream. Minimum discharge for all water years affected by regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	580	1030	513	2770	1470	1420	854	251	313	397	284
2	798	1240	527	1070	3510	1410	1010	627	255	462	333	346
3	1620	1040	470	643	2780	1330	1130	543	247	464	378	1020
4	2990	490	494	894	2730	1810	1200	506	281	219	249	1750
5	4700	361	340	795	2820	564	1800	450	312	200	326	2110
6	3530	285	497	806	2760	651	1650	1040	268	222	492	780
7	3420	1110	1250	1170	2800	397	1580	634	315	310	653	290
8	3220	1470	911	858	1810	809	1200	343	349	499	484	273
9	2900	1250	524	394	1300	636	1400	318	566	484	477	446
10	2780	716	717	304	1670	824	1910	562	800	454	350	400
11	2750	880	349	570	753	1750	910	427	506	270	399	448
12	2700	681	500	887	1510	1440	767	306	648	378	1090	438
13	2670	988	379	732	2210	1620	605	289	956	437	1200	357
14	2880	703	518	798	2430	1410	835	369	687	353	1950	285
15	2250	1260	641	1530	2390	1410	869	284	555	579	2290	413
16	532	1660	686	1660	2410	1190	871	286	251	928	1780	374
17	762	1470	1220	648	2350	1290	743	354	707	606	1680	1160
18	793	1070	704	553	1570	1170	478	518	826	1180	1640	999
19	852	1380	697	1510	1490	777	492	311	939	625	828	1080
20	355	1600	1270	1580	1900	822	490	380	913	397	838	772
21	322	615	783	2530	1520	832	444	351	1090	256	746	403
22	693	420	600	2410	1220	1480	509	297	822	346	1020	325
23	733	574	839	1950	768	1660	399	502	284	835	1210	519
24	742	822	643	2290	619	1380	545	616	640	889	862	671
25	2170	770	457	2290	502	723	650	380	1070	433	647	542
26	2160	1060	403	1880	495	1090	666	314	543	370	867	605
27	2230	892	446	4800	1780	1050	406	558	276	426	1120	707
28	2290	778	385	3590	1110	1620	645	818	245	379	1410	518
29	2280	761	506	3230	1500	1320	801	575	323	488	1430	657
30	2140	751	633	3060	---	1080	876	325	428	484	1260	1050
31	1540	---	419	2920	---	1610	---	418	---	271	895	---
TOTAL	60231	27677	19838	48865	53477	36625	27301	14555	16353	14557	29301	20022
MEAN	1943	923	640	1576	1844	1181	910	470	545	470	945	667
MAX	4700	1660	1270	4800	3510	1810	1910	1040	1090	1180	2290	2110
MIN	322	285	340	304	495	397	399	284	245	200	249	273
†	+248	-246	-10	+454	-263	-80	-20	+181	+42	-102	-30	+10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	866	835	957	1599	1351	1373	1080	929	1029	640	1025	735
MAX	1943	1615	1700	2438	1844	2093	1855	1597	2103	785	2078	1146
(WY)	1996	1993	1993	1995	1996	1993	1993	1993	1992	1995	1994	1995
MIN	228	379	575	1010	799	1141	689	470	428	460	528	331
(WY)	1994	1994	1994	1994	1992	1992	1995	1996	1994	1993	1993	1993

SANTEE RIVER BASIN

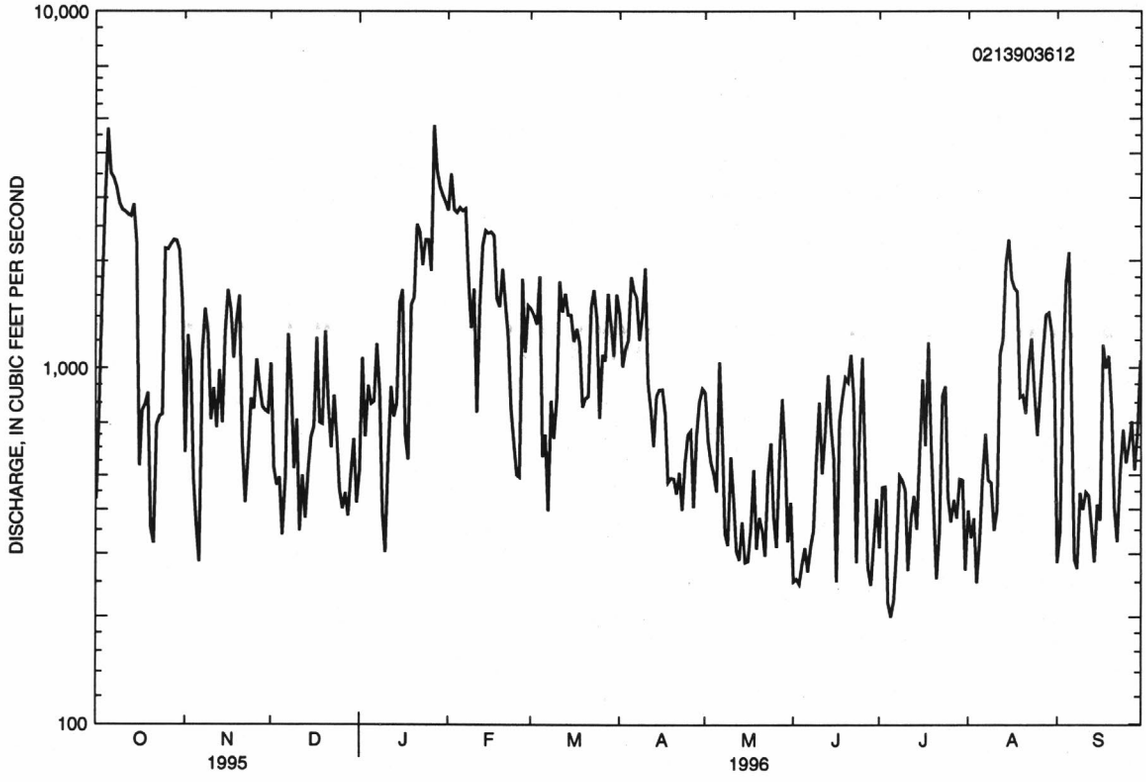
0213903612 CATAWBA RIVER AT CALVIN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	438282		368802			
ANNUAL MEAN	1201	‡1213	1008	‡1026	1036	
HIGHEST ANNUAL MEAN					1230	1993
LOWEST ANNUAL MEAN					855	1994
HIGHEST DAILY MEAN	7140	Jan 15	4800	Jan 27	12300	Aug 18 1994
LOWEST DAILY MEAN	242	Jul 20	200	Jul 5	86	Oct 12 1993
ANNUAL SEVEN-DAY MINIMUM	329	May 25	276	Jun 1	112	Oct 10 1993
INSTANTANEOUS PEAK FLOW			7000	Oct 5	12300	Aug 18 1994
INSTANTANEOUS PEAK STAGE			8.50	Oct 5	16.40	Aug 18 1994
INSTANTANEOUS LOW FLOW			144*	Jul 4	75*	Oct 6 1993
10 PERCENT EXCEEDS	2330		2220		1920	
50 PERCENT EXCEEDS	911		757		812	
90 PERCENT EXCEEDS	423		324		307	

* See REMARKS.

† Change in contents, equivalent in cubic feet per second, in Lake James, provided by Duke Power Company.

‡ Adjusted for change in contents.



SANTEE RIVER BASIN

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.--Occasional discharge measurements, water years 1974-84. 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 sea level. Telephone telemetry at station.

REMARKS.--Records good except those during periods of ice effect, Dec. 24-31, and Jan. 6-10, and those above 3,000 ft^3/s, which are poor. Maximum discharge for period of record from rating curve extended above 11,000 ft^3/s on basis of slope-area measurement; maximum gage height from high-water mark in gage house. Minimum discharge for period of record also occurred Aug. 20, 1988. Minimum discharge for current water year also occurred July 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	284	267	230	573	350	485	382	218	171	168	312
2	187	330	263	248	794	347	451	315	210	176	164	289
3	184	311	257	280	776	337	426	295	211	179	140	362
4	722	282	255	242	589	323	411	282	247	162	164	377
5	6590	264	249	226	509	321	393	273	250	149	230	452
6	2200	261	246	e224	550	369	379	308	215	145	341	411
7	934	342	251	e232	490	361	368	300	199	142	257	342
8	667	383	244	e236	530	332	352	303	282	140	397	318
9	541	310	257	e240	762	302	363	292	666	182	279	305
10	472	289	250	e244	797	289	336	275	602	155	219	639
11	425	805	226	243	714	296	325	274	415	141	2440	478
12	393	1050	235	248	643	296	319	307	346	142	8120	531
13	368	576	232	242	574	290	315	269	308	158	3200	353
14	508	474	232	256	543	288	316	265	277	145	1050	308
15	478	419	232	351	515	293	307	273	252	429	690	285
16	393	380	230	485	486	308	320	319	244	265	660	303
17	360	355	225	434	454	298	298	285	289	192	529	373
18	342	339	226	1060	435	286	288	267	285	167	510	287
19	331	329	286	4040	422	625	285	256	318	154	441	259
20	322	315	305	1430	500	683	304	246	464	144	417	246
21	317	309	256	846	537	506	330	239	367	137	423	239
22	302	298	241	676	474	440	292	229	285	135	379	243
23	293	289	232	579	453	405	284	223	249	132	422	224
24	287	285	e228	640	434	376	286	217	229	130	367	212
25	283	278	e224	615	414	365	270	358	229	141	466	213
26	275	273	e220	536	402	363	289	255	208	288	373	218
27	276	270	e212	3130	392	343	299	256	200	163	380	222
28	293	267	e208	1400	384	490	267	393	192	139	364	582
29	270	332	e201	902	365	547	270	293	185	146	335	791
30	262	284	e204	741	---	467	421	267	177	151	375	411
31	265	---	e208	657	---	454	---	236	---	145	363	---
TOTAL	19730	10983	7402	21913	15511	11750	10049	8752	8619	5245	24663	10585
MEAN	636	366	239	707	535	379	335	282	287	169	796	353
MAX	6590	1050	305	4040	797	683	485	393	666	429	8120	791
MIN	184	261	201	224	365	286	267	217	177	130	140	212
CFSM	3.17	1.82	1.19	3.52	2.66	1.89	1.67	1.40	1.43	.84	3.96	1.76
IN.	3.65	2.03	1.37	4.06	2.87	2.17	1.86	1.62	1.60	.97	4.56	1.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	328	379	328	495	423	577	474	364	360	256	353	263
MAX	890	938	517	1388	838	1151	883	595	963	570	1070	808
(WY)	1991	1993	1993	1995	1990	1993	1987	1993	1992	1989	1994	1989
MIN	85.7	148	113	180	206	179	206	166	96.9	75.5	65.5	99.5
(WY)	1989	1994	1989	1989	1988	1988	1986	1988	1988	1988	1988	1988

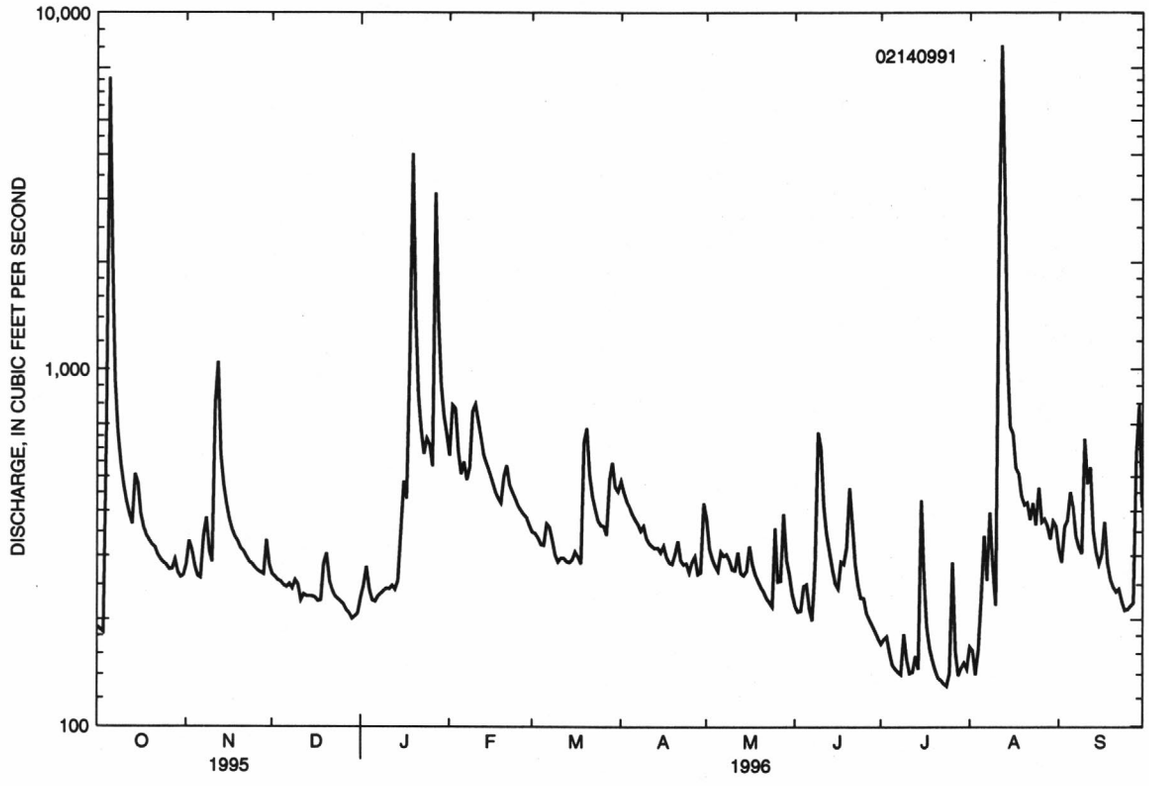
SANTEE RIVER BASIN

02140991 JOHNS RIVER AT ARNEYS STORE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1985 - 1996	
ANNUAL TOTAL	178782		155202			
ANNUAL MEAN	490		424		386	
HIGHEST ANNUAL MEAN					502	1993
LOWEST ANNUAL MEAN					169	1988
HIGHEST DAILY MEAN	16100	Jan 15	8120	Aug 12	16100	Jan 15 1995
LOWEST DAILY MEAN	176	Aug 25	130	Jul 24	35	Aug 19 1988
ANNUAL SEVEN-DAY MINIMUM	195	Sep 27	139	Jul 19	45	Aug 14 1988
INSTANTANEOUS PEAK FLOW			16500	Aug 12	42300*	Aug 17 1994
INSTANTANEOUS PEAK STAGE			19.31	Aug 12	25.23*	Aug 17 1994
INSTANTANEOUS LOW FLOW			126*	Jul 24	33*	Aug 19 1988
ANNUAL RUNOFF (CFSM)	2.44		2.11		1.92	
ANNUAL RUNOFF (INCHES)	33.09		28.72		26.07	
10 PERCENT EXCEEDS	730		606		654	
50 PERCENT EXCEEDS	309		301		266	
90 PERCENT EXCEEDS	220		191		120	

e Estimated.

* 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 sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 400 ft^3/s by logarithmic plotting. Minimum discharge for current water year also occurred July 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	6.2	6.1	5.9	9.6	8.8	9.8	9.9	5.0	8.5	4.0	3.7
2	4.8	7.3	5.9	6.0	135	8.8	9.5	9.3	5.0	6.8	3.6	3.8
3	4.8	7.0	5.9	5.6	59	8.6	9.3	8.5	5.0	5.2	16	6.2
4	75	6.8	5.8	5.4	13	8.7	8.9	8.1	5.3	4.4	10	27
5	47	6.1	5.8	5.3	11	8.5	8.7	7.7	5.0	4.2	4.3	6.6
6	12	6.0	5.8	5.5	10	9.4	8.7	7.5	4.8	4.2	3.9	12
7	9.1	117	6.6	6.8	9.8	38	8.5	7.6	4.7	3.9	3.8	6.0
8	7.6	38	6.1	6.6	10	19	8.4	7.5	5.4	3.7	3.8	4.9
9	6.6	10	9.2	6.1	10	10	9.2	7.1	8.7	3.8	3.9	4.5
10	6.1	9.1	7.5	5.4	9.9	9.7	8.6	6.7	6.3	3.6	e3.8	4.3
11	5.8	38	6.8	5.3	9.6	9.3	8.3	6.3	5.5	3.7	e3.7	7.3
12	5.6	25	6.6	5.6	9.4	8.9	8.1	6.2	5.5	3.8	e12	5.1
13	5.5	10	6.3	5.4	9.2	8.5	7.9	6.1	5.5	3.7	e9.0	4.6
14	52	9.4	6.2	5.7	9.0	8.3	7.8	6.3	5.5	3.6	e4.5	4.3
15	21	8.2	6.0	6.9	8.7	8.4	8.5	6.4	5.1	4.0	e4.0	4.2
16	9.1	7.4	5.9	8.5	8.7	8.6	8.0	6.3	4.9	3.9	e3.9	4.6
17	7.3	6.9	5.9	9.8	8.4	10	7.7	6.0	4.8	3.6	e3.8	4.7
18	6.1	6.7	6.2	20	8.3	9.5	7.6	5.8	5.5	3.6	e3.7	4.2
19	5.6	6.5	8.2	69	8.1	46	7.5	5.5	5.4	3.6	e3.6	4.1
20	5.5	6.3	7.5	13	9.3	14	8.0	5.3	7.1	3.4	e3.4	4.1
21	6.6	6.2	6.7	10	8.8	10	8.4	5.3	5.6	3.3	e3.6	4.1
22	5.4	6.2	6.5	9.6	8.4	9.6	7.8	5.3	5.0	3.2	e3.5	4.3
23	5.3	6.1	6.3	9.0	8.2	9.3	7.4	5.5	4.8	3.2	e3.4	4.0
24	5.2	6.4	6.1	10	7.8	9.0	7.2	5.4	4.7	3.2	e3.8	4.0
25	5.1	6.2	6.0	9.7	7.7	9.1	7.4	5.5	4.6	3.4	e4.1	4.0
26	5.0	6.0	5.9	9.3	7.7	8.9	8.3	5.4	4.4	3.7	e4.2	4.7
27	29	6.0	5.8	126	7.4	8.7	7.7	5.5	4.4	3.4	4.1	4.2
28	60	6.0	5.7	17	7.4	17	7.3	6.9	4.4	3.6	4.2	5.0
29	10	6.5	5.6	10	7.9	11	7.5	5.6	4.3	3.8	4.1	5.5
30	7.8	6.1	5.6	10	---	9.8	15	5.3	4.3	3.4	3.8	4.5
31	6.6	---	5.7	9.8	---	9.6	---	5.2	---	3.4	3.8	---
TOTAL	447.3	399.6	196.2	438.2	437.3	373.0	253.0	201.0	156.5	122.8	151.3	170.5
MEAN	14.4	13.3	6.33	14.1	15.1	12.0	8.43	6.48	5.22	3.96	4.88	5.68
MAX	75	117	9.2	126	135	46	15	9.9	8.7	8.5	16	27
MIN	4.8	6.0	5.6	5.3	7.4	8.3	7.2	5.2	4.3	3.2	3.4	3.7
CFSM	2.01	1.86	.88	1.97	2.10	1.68	1.17	.90	.73	.55	.68	.79
IN.	2.32	2.07	1.02	2.27	2.27	1.93	1.31	1.04	.81	.64	.78	.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	10.7	8.55	8.77	11.8	14.7	15.2	10.9	7.62	6.98	6.26	6.19	5.02
MAX	36.1	16.9	15.8	21.0	25.1	35.2	19.9	15.2	24.4	22.1	13.0	10.5
(WY)	1991	1993	1984	1993	1990	1993	1984	1990	1992	1989	1994	1989
MIN	3.01	3.88	4.23	4.97	5.14	6.23	3.60	2.86	1.61	1.90	2.62	2.43
(WY)	1987	1994	1989	1986	1986	1985	1986	1986	1986	1986	1987	1986

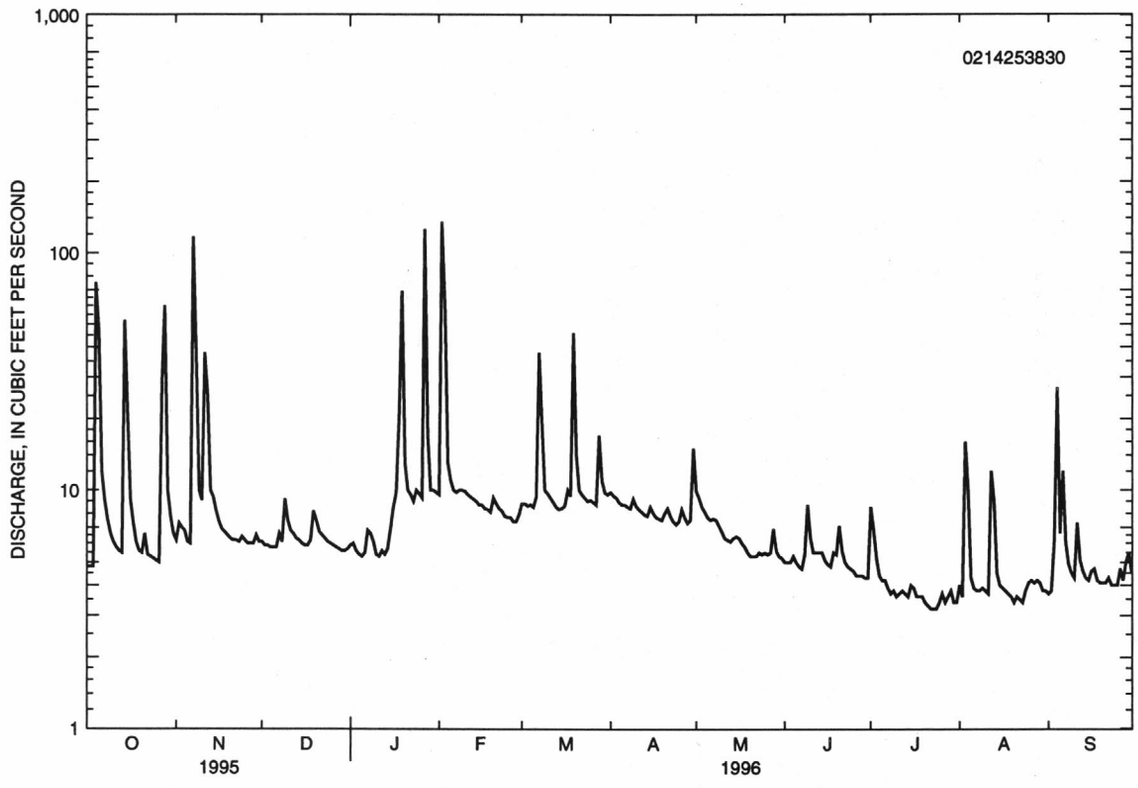
SANTEE RIVER BASIN

0214253830 NORWOOD CREEK NEAR TROUTMAN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1984 - 1996	
ANNUAL TOTAL	3539.3		3346.7			
ANNUAL MEAN	9.70		9.14		9.15	
HIGHEST ANNUAL MEAN					13.1	1991
LOWEST ANNUAL MEAN					4.73	1986
HIGHEST DAILY MEAN	193	Feb 16	135	Feb 2	387	Oct 1 1989
LOWEST DAILY MEAN	3.7	Aug 14	3.2	Jul 22	.82	Aug 2 1986
ANNUAL SEVEN-DAY MINIMUM	3.8	Aug 11	3.3	Jul 19	.99	Jul 29 1986
INSTANTANEOUS PEAK FLOW			470	Feb 2	1320*	Oct 1 1989
INSTANTANEOUS PEAK STAGE			6.68	Feb 2	8.22	Oct 1 1989
INSTANTANEOUS LOW FLOW			3.0*	Jul 23	.67	Aug 2 1986
ANNUAL RUNOFF (CFSM)	1.35		1.27		1.27	
ANNUAL RUNOFF (INCHES)	18.34		17.34		17.31	
10 PERCENT EXCEEDS	10		10		13	
50 PERCENT EXCEEDS	5.8		6.2		5.8	
90 PERCENT EXCEEDS	4.2		3.8		3.3	

e Estimated.

* See REMARKS.



PEE DEE RIVER BASIN

0214269560 KILLIAN CREEK NEAR MARIPOSA, NC

LOCATION.--Lat 35°26'03", long 80°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 June 1993, December 1994 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 643.085 ft above sea level (levels by Duke Power Co).

REMARKS.--No estimated daily discharges. Records good. 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 values table are days when the flow exceeded the rating. Minimum discharges may be affected by regulation of an unknown origin. Minimum discharge for current water year also occurred Jul. 19, 21, 22, 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

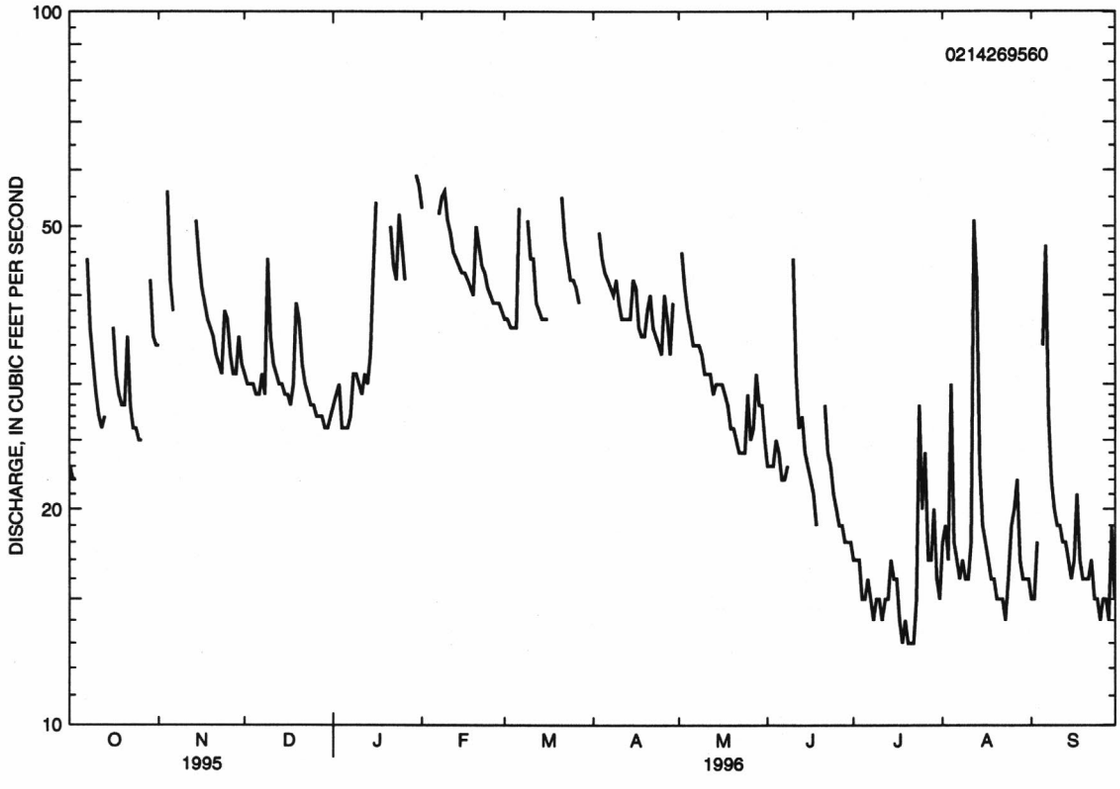
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	34	31	28	53	37	---	---	23	17	18	15
2	22	---	30	29	---	37	---	46	23	17	19	15
3	22	---	30	30	---	36	49	41	23	17	17	18
4	---	56	30	26	---	36	45	38	25	15	30	---
5	---	42	29	26	---	36	43	36	24	15	18	34
6	---	38	29	26	---	53	42	34	22	16	17	47
7	45	---	31	27	52	---	41	34	22	15	16	27
8	36	---	29	31	55	---	40	34	23	14	17	22
9	32	---	45	31	56	51	42	33	---	15	16	20
10	29	51	35	30	51	45	39	31	45	15	16	19
11	27	---	32	29	49	45	37	31	31	14	18	19
12	26	---	31	31	46	39	37	31	26	15	51	18
13	27	---	30	30	45	38	37	29	27	15	42	18
14	---	51	30	33	44	37	37	30	24	17	23	17
15	---	45	29	43	43	37	42	30	23	16	19	16
16	36	41	29	54	43	37	41	30	22	16	18	17
17	31	39	28	---	42	---	36	29	21	14	17	21
18	29	37	30	---	41	---	35	28	19	13	16	17
19	28	36	39	---	40	---	35	26	---	14	16	16
20	28	35	37	---	50	---	38	26	---	13	15	16
21	35	33	32	50	47	55	40	25	28	13	15	16
22	28	32	30	44	44	48	36	24	24	13	15	17
23	26	31	29	42	43	45	35	24	23	15	14	15
24	26	38	28	52	41	42	34	24	21	28	16	15
25	25	37	28	47	40	42	33	29	20	20	19	14
26	25	33	27	42	39	41	40	25	19	24	20	15
27	---	31	27	---	39	39	37	26	19	17	22	15
28	---	31	27	---	39	---	33	31	18	17	17	14
29	42	35	26	---	38	---	39	28	18	20	16	19
30	35	32	26	59	---	52	---	28	18	16	16	15
31	34	---	27	57	---	---	---	25	---	15	16	---

PEE DEE RIVER BASIN

0214269560 KILLIAN CREEK NEAR MARIPOSA, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996@	
LOWEST DAILY MEAN	12	Aug 16	13	Jul 18	9.4	Oct 3 1990
INSTANTANEOUS PEAK STAGE			11.56	Nov 7	13.44	Jun 11 1992
INSTANTANEOUS LOW FLOW			12*	Jul 18	8.2	Dec 20 1991

* See REMARKS.
@ See PERIOD OF RECORD.



SANTEE RIVER BASIN

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 sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	e11	12	9.5	e15	9.1	156	32	4.4	3.5	6.1	3.6
2	5.8	213	11	10	e260	9.1	37	18	4.2	5.2	4.4	3.5
3	5.5	59	9.8	14	e300	8.7	22	14	4.1	5.7	6.9	14
4	347	40	9.5	8.3	e40	8.2	17	12	20	3.4	21	64
5	92	22	9.1	7.7	e26	8.5	15	10	8.1	3.2	38	10
6	50	19	8.9	7.8	e23	157	13	9.5	4.9	3.3	16	42
7	23	443	38	16	e24	175	13	8.7	11	3.3	6.7	8.4
8	13	80	17	9.6	27	45	12	8.7	42	3.3	5.0	5.8
9	9.8	36	55	11	28	21	21	8.5	60	3.1	8.1	4.9
10	7.8	24	22	16	19	16	13	7.7	12	2.6	11	6.1
11	e6.3	289	13	13	18	14	12	13	7.8	2.5	31	7.8
12	5.4	87	12	14	15	14	11	10	6.9	2.7	349	4.5
13	8.3	40	11	18	13	13	21	8.1	6.0	7.3	51	3.8
14	43	34	10	29	13	12	27	7.9	5.7	7.4	16	3.4
15	23	26	9.8	28	12	28	18	9.6	5.3	24	10	3.3
16	9.3	20	9.4	25	12	23	15	8.5	5.0	11	11	3.7
17	7.5	18	8.9	20	11	21	11	7.7	4.6	4.8	e10	e10
18	6.7	16	9.1	19	11	15	10	7.1	17	6.2	e8.0	4.1
19	6.6	15	19	e120	10	130	9.8	6.4	25	7.7	e5.0	3.3
20	31	14	14	e34	29	34	18	6.0	140	3.7	e4.3	3.3
21	73	14	9.6	e18	17	19	16	5.5	13	3.2	e4.1	3.2
22	19	13	8.8	e13	14	15	11	5.0	8.5	3.1	e4.2	3.2
23	15	13	8.3	e11	13	13	9.8	5.4	6.8	2.7	6.5	2.9
24	15	61	8.0	e40	12	12	9.1	5.3	5.8	3.9	4.2	2.7
25	13	65	7.8	17	11	13	8.7	5.5	5.5	9.4	5.5	2.8
26	13	36	7.6	13	10	13	24	5.1	4.8	e50	4.5	3.1
27	e130	25	7.4	e410	10	11	14	6.5	4.2	e9.4	4.1	3.4
28	e90	15	7.2	e50	11	55	10	10	3.8	e8.4	9.8	4.5
29	e21	25	7.0	e28	9.5	27	175	8.5	3.7	e10	12	4.4
30	e12	18	7.1	e50	---	17	170	9.5	3.4	9.6	4.6	3.3
31	e13	---	7.6	e22	---	25	---	5.1	---	6.2	4.0	---
TOTAL	1120.6	1791	394.9	1101.9	1013.5	981.6	919.4	284.8	453.5	229.8	682.0	243.0
MEAN	36.1	59.7	12.7	35.5	34.9	31.7	30.6	9.19	15.1	7.41	22.0	8.10
MAX	347	443	55	410	300	175	175	32	140	50	349	64
MIN	5.4	11	7.0	7.7	9.5	8.2	8.7	5.0	3.4	2.5	4.0	2.7
CFSM	2.20	3.64	.78	2.17	2.13	1.93	1.87	.56	.92	.45	1.34	.49
IN.	2.54	4.06	.90	2.50	2.30	2.23	2.09	.65	1.03	.52	1.55	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

MEAN	14.5	15.3	19.3	30.1	34.0	36.1	19.3	17.1	12.3	7.08	10.1	8.08
MAX	70.8	91.3	59.5	74.4	78.4	86.8	44.3	101	66.5	24.0	59.0	66.2
(WY)	1991	1986	1984	1993	1979	1993	1987	1975	1982	1995	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

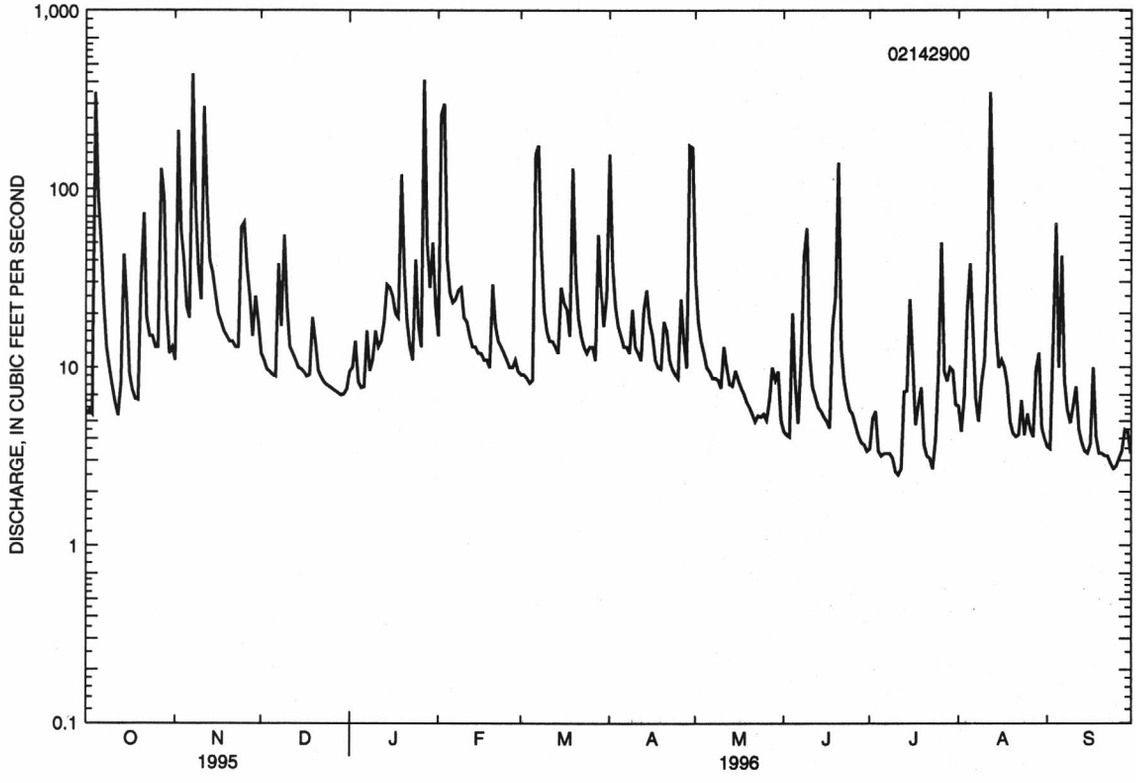
SANTEE RIVER BASIN

02142900 LONG CREEK NEAR PAW CREEK, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1965 - 1996	
ANNUAL TOTAL	9678.0		9216.0			
ANNUAL MEAN	26.5		25.2		18.7	
HIGHEST ANNUAL MEAN					36.2	1975
LOWEST ANNUAL MEAN					6.79	1981
HIGHEST DAILY MEAN	771	Aug 27	443	Nov 7	1600	Oct 9 1976
LOWEST DAILY MEAN	1.8	Aug 14	2.5	Jul 11	.43	Oct 3 1986
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 8	3.0	Jul 6	.49	Oct 2 1986
INSTANTANEOUS PEAK FLOW			1020	Oct 4	4300	Jun 18 1982
INSTANTANEOUS PEAK STAGE			10.74	Oct 4	11.70	Jun 18 1982
INSTANTANEOUS LOW FLOW			2.1	Jul 10	.35*	Sep 26 1986
ANNUAL RUNOFF (CFSM)	1.62		1.54		1.14	
ANNUAL RUNOFF (INCHES)	21.95		20.90		15.47	
10 PERCENT EXCEEDS	47		42		30	
50 PERCENT EXCEEDS	8.8		11		6.8	
90 PERCENT EXCEEDS	4.5		4.1		1.9	

e Estimated.

* See REMARKS.



SANTEE RIVER BASIN

0214295600 PAW CREEK AT WILKINSON BOULEVARD NEAR CHARLOTTE, NC

LOCATION.--Lat 35°14'24", long 80°58'29", Mecklenburg County, Hydrologic Unit 03050103, near right bank on downstream side of culvert at U.S. Highway 74, 0.7 mi downstream of Interstate Highway 85, and 2.5 mi northwest of airport in Charlotte.

DRAINAGE AREA.--10.8 mi^2.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 570 ft above sea level, from topographic map. Telephone telemetry at site.

REMARKS.--Records good except those below 20 ft^3/s, which are fair and those for estimated daily discharges, which are poor. Maximum discharge for period of record and current water year from rating curve extended above 950 ft^3/s on basis of computation of peak flow through culvert.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.9	8.6	4.8	15	5.0	100	22	4.3	7.0	2.9	2.1
2	2.6	114	8.5	4.7	210	5.0	21	13	4.0	4.1	2.7	2.2
3	2.6	25	8.4	5.9	e80	4.8	11	9.6	3.8	2.3	3.3	4.8
4	274	11	8.3	4.5	e20	4.5	8.2	7.6	7.5	1.8	3.9	33
5	63	7.1	8.3	4.3	e15	4.6	6.9	6.2	4.1	1.7	6.1	5.1
6	16	6.8	8.3	4.5	e10	116	6.4	5.5	3.4	1.7	4.3	22
7	5.6	168	22	e12	e8.0	104	5.7	5.2	13	1.6	2.9	4.8
8	4.5	35	9.2	e7.5	11	26	5.0	5.1	40	1.6	2.4	3.8
9	3.8	11	28	e5.1	11	14	8.3	4.6	34	1.6	5.6	3.6
10	3.5	9.0	10	e6.2	10	10	4.9	4.1	10	1.9	4.0	17
11	3.2	146	9.0	e4.1	9.4	8.7	4.3	13	5.8	1.4	17	6.1
12	3.1	42	8.6	e9.2	9.0	7.7	4.0	7.0	5.0	1.5	63	3.5
13	7.0	14	8.4	e8.1	8.5	6.6	11	4.6	4.6	2.1	10	3.0
14	35	12	8.0	e7.2	7.7	6.0	9.1	4.5	4.0	5.6	4.6	2.8
15	11	9.6	7.7	e6.6	7.0	12	6.2	5.6	3.5	16	3.8	2.6
16	4.4	9.3	7.5	e6.2	7.2	8.4	5.7	4.6	3.3	5.8	3.4	4.4
17	4.0	9.2	7.3	5.9	6.9	6.6	4.4	4.0	3.1	3.3	3.3	15
18	3.9	9.1	7.4	5.0	6.5	5.3	4.1	3.6	2.8	4.1	3.2	3.6
19	3.6	9.0	8.8	90	6.3	66	4.0	3.5	3.2	4.3	3.0	2.6
20	10	8.9	6.9	16	19	16	11	3.2	60	2.4	2.9	2.5
21	18	8.6	6.3	9.6	9.5	9.2	6.7	3.1	6.3	2.1	2.9	2.5
22	4.7	8.6	5.8	7.4	7.7	7.4	4.3	3.1	4.2	2.1	2.8	2.6
23	4.3	8.4	5.6	6.2	6.9	6.8	3.9	3.0	3.5	4.1	3.1	2.4
24	3.9	30	5.6	12	6.4	5.9	3.4	2.9	3.0	5.3	3.2	2.3
25	3.8	16	5.5	6.6	5.7	6.1	3.1	3.3	2.7	5.5	3.9	2.2
26	3.8	8.7	5.5	5.5	5.6	4.8	12	3.1	2.4	8.3	2.9	2.2
27	130	8.4	5.2	260	5.7	4.4	5.1	3.5	2.2	3.5	2.9	2.2
28	63	8.1	5.2	29	5.8	42	3.5	8.5	2.1	3.3	2.7	2.8
29	9.3	17	5.0	18	5.2	13	130	35	2.0	3.2	2.9	2.9
30	5.0	8.9	5.0	26	---	7.3	142	11	2.0	2.7	2.3	3.8
31	4.7	---	4.8	22	---	20	---	5.2	---	2.6	2.2	---
TOTAL	713.9	782.6	258.7	620.1	536.0	564.1	555.2	218.2	249.8	114.5	184.1	170.4
MEAN	23.0	26.1	8.35	20.0	18.5	18.2	18.5	7.04	8.33	3.69	5.94	5.68
MAX	274	168	28	260	210	116	142	35	60	16	63	33
MIN	2.6	3.9	4.8	4.1	5.2	4.4	3.1	2.9	2.0	1.4	2.2	2.1
CFSM	2.13	2.42	.77	1.85	1.71	1.68	1.71	.65	.77	.34	.55	.53
IN.	2.46	2.70	.89	2.14	1.85	1.94	1.91	.75	.86	.39	.63	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

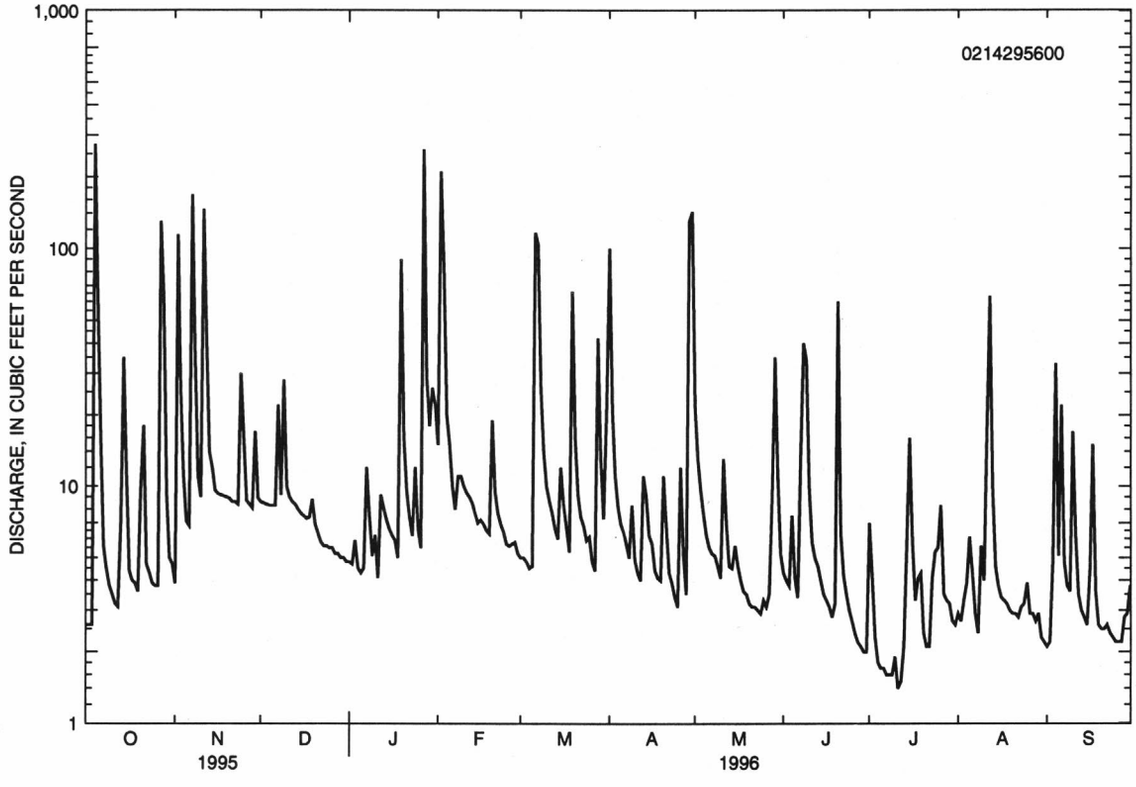
MEAN	14.3	15.5	5.99	19.5	25.8	16.2	11.8	10.1	9.97	3.76	7.93	5.35
MAX	23.0	26.1	8.35	20.0	33.4	18.2	18.5	13.2	11.6	3.83	9.92	5.68
(WY)	1996	1996	1996	1996	1995	1996	1996	1995	1995	1995	1995	1996
MIN	5.65	4.94	3.63	18.9	18.5	14.3	5.18	7.04	8.33	3.69	5.94	5.03
(WY)	1995	1995	1995	1995	1996	1995	1995	1996	1996	1996	1996	1995

SANTEE RIVER BASIN

0214295600 PAW CREEK AT WILKINSON BOULEVARD NEAR CHARLOTTE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1995 - 1996	
ANNUAL TOTAL	5211.90		4967.6			
ANNUAL MEAN	14.3		13.6		12.1	
HIGHEST ANNUAL MEAN					13.6	1996
LOWEST ANNUAL MEAN					10.7	1995
HIGHEST DAILY MEAN	408	Feb 16	274	Oct 4	408	Feb 16 1995
LOWEST DAILY MEAN	.90	Aug 16	1.4	Jul 11	.90	Aug 16 1995
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 11	1.6	Jul 6	1.0	Aug 11 1995
INSTANTANEOUS PEAK FLOW			1180*	Jan 27	1180*	Jan 27 1996
INSTANTANEOUS PEAK STAGE			7.91	Jan 27	7.91	Jan 27 1996
INSTANTANEOUS LOW FLOW			1.3	Jul 11	.85	Dec 30 1994
ANNUAL RUNOFF (CFSM)	1.32		1.26		1.12	
ANNUAL RUNOFF (INCHES)	17.95		17.11		15.25	
10 PERCENT EXCEEDS	24		22		22	
50 PERCENT EXCEEDS	5.0		5.6		4.6	
90 PERCENT EXCEEDS	1.8		2.6		1.7	

e Estimated.
* 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 mi^2.

PERIOD OF RECORD.--July 1925 to November 1931, December 1941 to current year.

REVISED RECORDS.--WSP 952: 1928, 1930. WDR NC-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 891.0 ft above sea level. July 1925 to November 1931, at site 450 ft upstream at same datum.

REMARKS.--Records good except those during period of ice effect, Jan. 8, and Feb. 5, 6, which are fair, and those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 2,300 ft^3/s on basis of computation of peak flow over dam at Henry River; gage height: 29.2 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known: 29.2 ft, Aug. 13, 1940, at former site, from floodmarks; discharge: 31,300 ft^3/s. The flood of July 16, 1916, reached a stage of about 23 ft at former site; discharge: 20,700 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	80	89	79	179	138	197	220	106	65	53	71
2	75	83	88	82	e400	142	181	163	93	64	50	60
3	73	92	86	86	e490	136	166	149	86	66	45	68
4	207	93	84	88	274	129	158	141	105	64	62	78
5	1670	92	83	88	e210	129	151	137	108	59	66	83
6	458	91	81	88	e187	e165	145	133	104	57	74	78
7	197	228	82	88	188	190	142	130	98	59	69	68
8	154	326	81	e90	242	186	138	126	96	62	64	58
9	145	173	88	112	433	159	146	122	153	80	59	56
10	131	133	91	88	374	147	140	118	193	75	63	56
11	115	584	90	88	286	141	134	113	152	64	55	e57
12	99	527	88	88	235	139	133	109	143	58	154	e79
13	87	233	88	88	204	138	133	104	131	59	e310	83
14	110	175	86	88	193	135	132	100	115	58	e153	72
15	206	147	85	92	183	135	129	98	106	66	143	57
16	150	128	84	144	174	135	126	100	98	72	117	59
17	132	120	82	170	162	133	125	100	88	68	86	79
18	125	116	81	224	158	132	123	97	83	61	103	82
19	119	112	86	1240	152	271	121	93	84	58	85	74
20	112	110	92	324	233	263	121	88	91	53	68	63
21	105	108	95	199	236	193	122	85	91	49	62	53
22	97	107	95	160	200	166	122	83	83	47	59	58
23	91	104	94	140	183	152	120	80	76	47	55	52
24	84	103	92	202	172	143	118	79	73	47	55	49
25	79	101	90	199	159	142	114	88	85	46	78	48
26	77	98	88	169	156	141	115	99	83	52	84	49
27	77	96	86	e3800	152	e133	117	97	75	51	79	51
28	81	94	85	e2100	150	e226	117	123	69	47	77	59
29	81	93	82	e840	142	270	114	135	67	49	95	92
30	78	91	80	e340	---	207	253	134	e66	48	100	97
31	77	---	80	e202	---	186	---	120	---	48	88	---
TOTAL	5368	4638	2682	11786	6507	5102	4153	3564	3001	1799	2711	1989
MEAN	173	155	86.5	380	224	165	138	115	100	58.0	87.5	66.3
MAX	1670	584	95	3800	490	271	253	220	193	80	310	97
MIN	73	80	80	79	142	129	114	79	66	46	45	48
CFSM	2.08	1.86	1.04	4.57	2.70	1.98	1.66	1.38	1.20	.70	1.05	.80
IN.	2.40	2.07	1.20	5.27	2.91	2.28	1.86	1.59	1.34	.80	1.21	.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1996@, BY WATER YEAR (WY)

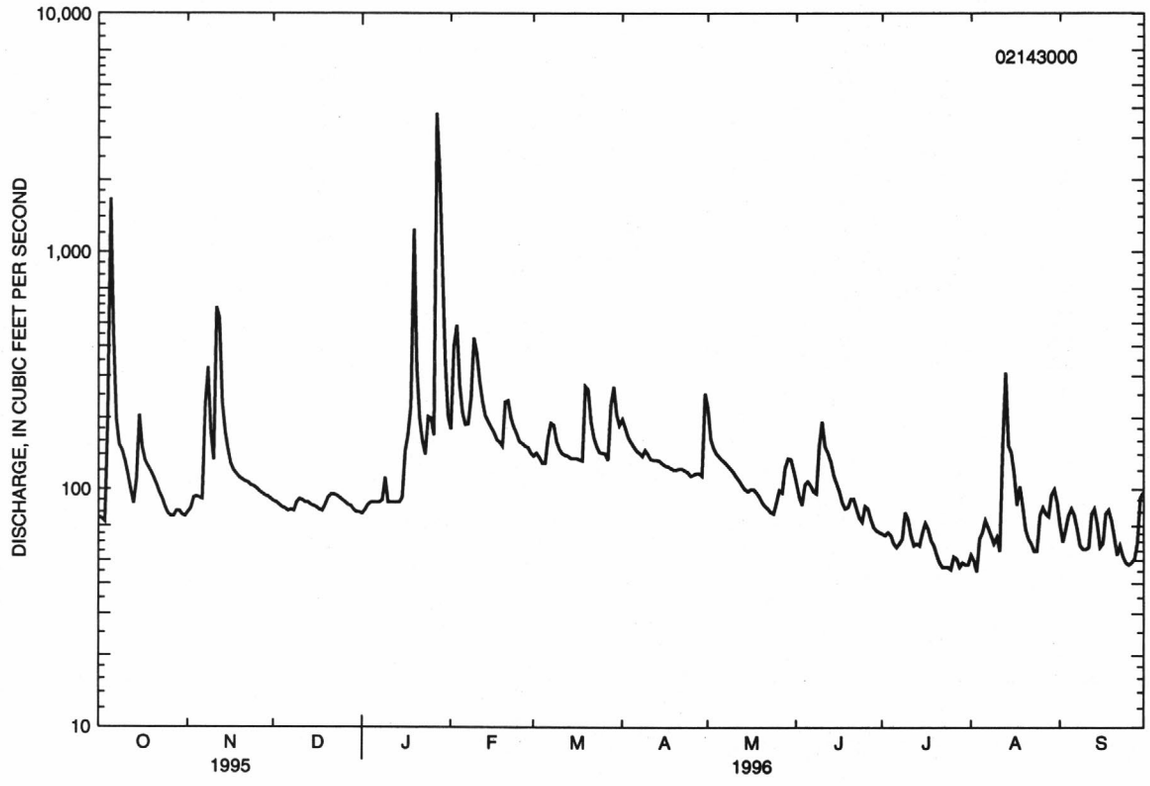
MEAN	111	106	128	155	188	207	186	139	119	90.4	101	95.5
MAX	562	392	276	380	473	583	470	322	392	203	554	594
(WY)	1930	1978	1984	1996	1960	1975	1983	1984	1947	1949	1928	1945
MIN	25.6	34.8	31.1	32.3	50.0	69.7	61.6	44.8	34.4	34.9	39.4	25.4
(WY)	1927	1932	1956	1956	1931	1985	1967	1927	1926	1986	1988	1954

SANTEE RIVER BASIN

02143000 HENRY FORK NEAR HENRY RIVER, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1926 - 1996@	
ANNUAL TOTAL	54450		53300			
ANNUAL MEAN	149		146		136	
HIGHEST ANNUAL MEAN					221	1993
LOWEST ANNUAL MEAN					59.7	1927
HIGHEST DAILY MEAN	2660	Jan 15	3800	Jan 27	10100	Oct 2 1929
LOWEST DAILY MEAN	52	Aug 24	45	Aug 3	4.0	Nov 15 1942
ANNUAL SEVEN-DAY MINIMUM	56	Aug 19	48	Jul 22	14	Jul 18 1926
INSTANTANEOUS PEAK FLOW			5350	Jan 27	15300*	Oct 2 1929
INSTANTANEOUS PEAK STAGE			11.07	Jan 27	18.71	Oct 12 1990
INSTANTANEOUS LOW FLOW			43	Aug 3	3.0	Dec 20 1942
ANNUAL RUNOFF (CFSM)	1.79		1.75		1.63	
ANNUAL RUNOFF (INCHES)	24.35		23.83		22.19	
10 PERCENT EXCEEDS	220		203		221	
50 PERCENT EXCEEDS	107		98		94	
90 PERCENT EXCEEDS	70		59		44	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level.

REMARKS.--Records good except those during period of ice effect, Jan. 6-7, which are fair. Maximum discharge for period of record, from rating curve extended above 3,400 ft^3/s on basis of contracted-opening measurement of peak flow. Minimum discharge for current water year also occurred July 24.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	35	27	25	51	36	82	56	23	15	17	16
2	16	47	26	35	111	37	73	43	23	14	12	16
3	16	54	25	37	120	34	62	41	24	14	12	23
4	150	42	25	32	78	32	57	38	30	14	12	34
5	652	37	25	29	68	32	52	35	24	13	28	30
6	175	37	25	e27	61	67	49	35	22	14	23	21
7	77	178	28	e28	58	89	47	36	21	13	14	17
8	48	149	25	30	94	89	44	36	31	21	14	15
9	37	72	40	26	210	56	51	33	92	21	14	15
10	33	51	32	28	157	45	43	32	50	15	13	14
11	30	262	28	27	117	41	41	31	34	14	13	17
12	28	220	27	29	90	41	40	31	29	14	118	17
13	34	103	26	28	69	39	40	29	28	13	76	18
14	127	78	25	31	62	37	38	30	25	13	33	14
15	137	65	25	60	55	37	38	32	59	31	22	13
16	67	53	25	98	50	42	38	32	31	21	18	25
17	46	46	24	75	45	50	35	31	25	15	16	33
18	38	41	27	118	43	68	34	29	23	14	16	19
19	32	40	40	236	40	267	34	27	36	13	15	15
20	30	39	41	126	91	171	37	27	39	12	13	14
21	34	34	34	78	93	97	38	25	27	12	13	14
22	29	34	31	60	71	72	34	24	23	12	12	15
23	27	33	28	52	58	59	33	24	21	11	12	13
24	27	33	26	83	51	52	32	24	19	12	13	12
25	25	32	26	81	44	51	31	40	19	15	16	12
26	24	31	25	69	43	47	42	27	18	18	20	13
27	27	31	24	712	42	45	36	27	17	12	27	13
28	32	29	23	176	41	102	32	72	17	12	48	36
29	27	31	23	102	38	116	32	33	16	13	47	56
30	26	27	22	77	---	83	66	27	16	13	24	27
31	29	---	23	64	---	71	---	25	---	13	18	---
TOTAL	2096	1964	851	2679	2151	2105	1311	1032	862	457	749	597
MEAN	67.6	65.5	27.5	86.4	74.2	67.9	43.7	33.3	28.7	14.7	24.2	19.9
MAX	652	262	41	712	210	267	82	72	92	31	118	56
MIN	16	27	22	25	38	32	31	24	16	11	12	12
CFSM	2.63	2.55	1.07	3.36	2.89	2.64	1.70	1.30	1.12	.57	.94	.77
IN.	3.03	2.84	1.23	3.88	3.11	3.05	1.90	1.49	1.25	.66	1.08	.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	43.9	43.8	48.8	61.0	67.5	78.5	68.5	54.3	43.1	35.5	35.1	29.9
MAX	154	130	92.6	131	134	177	157	109	82.3	72.7	152	102
(WY)	1965	1978	1984	1993	1966	1975	1983	1984	1972	1985	1970	1989
MIN	11.2	12.7	14.8	20.9	27.9	27.4	22.6	19.9	11.9	9.23	8.81	13.1
(WY)	1994	1982	1989	1981	1986	1988	1967	1988	1988	1988	1988	1993

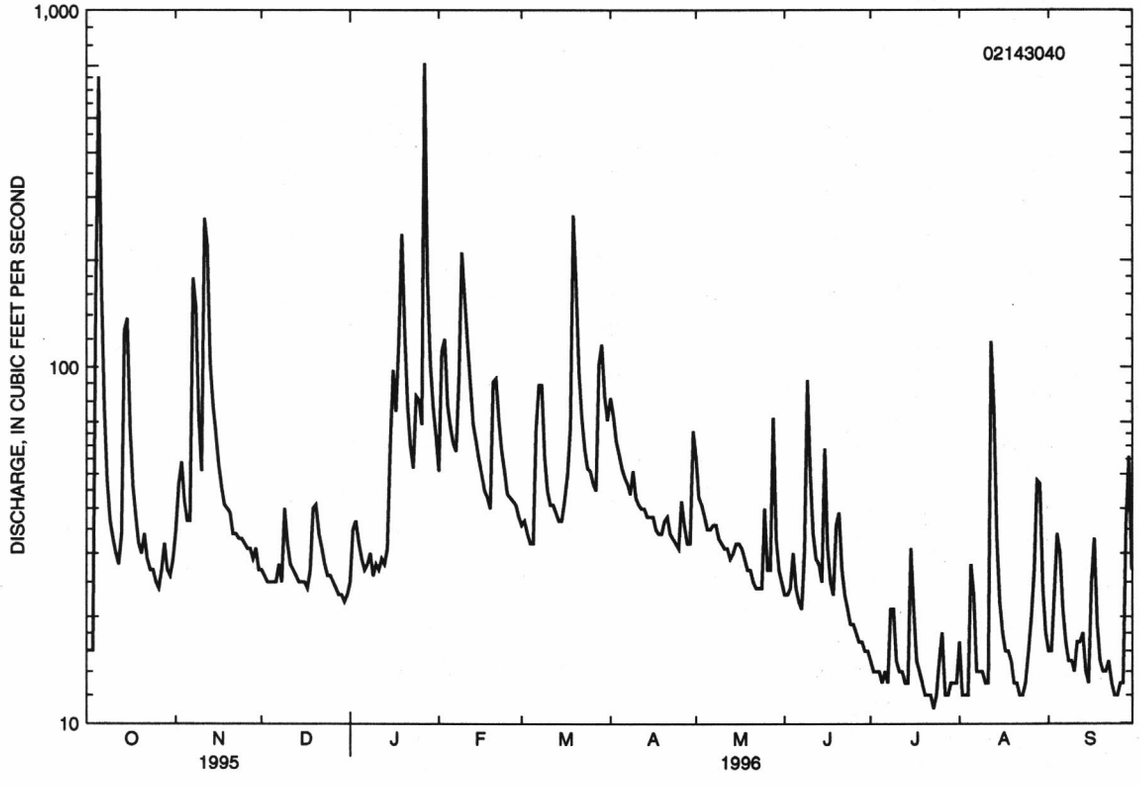
SANTEE RIVER BASIN

02143040 JACOB FORK AT RAMSEY, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	20160		16854			
ANNUAL MEAN	55.2		46.0		50.8	
HIGHEST ANNUAL MEAN					80.8	1993
LOWEST ANNUAL MEAN					23.8	1988
HIGHEST DAILY MEAN	853	Jan 14	712	Jan 27	1730	Nov 6 1977
LOWEST DAILY MEAN	13	Aug 23	11	Jul 23	4.7	Aug 27 1988
ANNUAL SEVEN-DAY MINIMUM	14	Aug 18	12	Jul 18	5.7	Aug 15 1988
INSTANTANEOUS PEAK FLOW			1580	Jan 27	7220*	Oct 17 1975
INSTANTANEOUS PEAK STAGE			8.67	Jan 27	19.74	Oct 17 1975
INSTANTANEOUS LOW FLOW			10*	Jul 23	4.4	Aug 28 1988
ANNUAL RUNOFF (CFSM)	2.15		1.79		1.97	
ANNUAL RUNOFF (INCHES)	29.18		24.40		26.83	
10 PERCENT EXCEEDS	96		83		87	
50 PERCENT EXCEEDS	34		32		34	
90 PERCENT EXCEEDS	20		14		16	

e Estimated.

* 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 sea level, by barometer. Satellite telemetry at station.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Peak discharge of flood in October 1929 was 9,920 ft^3/s; flood in July 1916, 7,840 ft^3/s; flood in August 1940, 6,000 ft^3/s. Discharge based on computation of peak flow over dam 1 mi downstream, using floodmarks and information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	81	74	75	124	87	160	91	55	35	44	33
2	44	169	74	82	617	90	131	78	51	35	62	32
3	41	158	70	85	1100	85	119	73	51	32	37	44
4	393	164	73	69	263	83	114	71	66	28	30	83
5	933	109	68	66	178	82	108	67	64	27	31	76
6	367	92	69	70	152	169	105	68	51	30	39	53
7	150	710	81	88	144	331	104	69	47	28	31	40
8	107	934	72	96	160	216	98	70	61	28	33	35
9	84	205	125	75	154	143	101	69	403	29	32	36
10	76	147	90	72	136	121	94	61	182	29	49	34
11	68	328	76	72	127	112	91	63	102	27	38	42
12	63	515	75	76	117	108	90	64	76	25	78	41
13	74	184	76	74	112	100	89	57	74	26	166	37
14	529	146	74	83	112	99	90	64	64	33	63	33
15	657	124	70	106	106	102	90	60	62	36	43	30
16	162	108	72	144	102	104	92	59	57	52	37	34
17	114	101	69	165	96	149	82	55	54	34	34	67
18	94	94	75	210	93	291	81	53	51	30	46	40
19	83	90	126	1250	93	580	85	54	49	35	42	31
20	76	87	112	655	155	272	101	50	50	30	34	31
21	86	86	86	196	138	165	114	45	48	22	33	31
22	68	79	80	150	116	138	90	42	44	22	33	34
23	64	78	77	132	110	123	83	41	40	24	31	31
24	63	96	77	160	106	111	81	41	42	27	29	29
25	62	94	75	139	95	110	75	91	40	25	44	29
26	60	79	74	112	97	110	107	61	39	49	82	31
27	84	78	70	1140	94	104	99	60	36	36	71	30
28	210	76	65	437	95	200	78	87	35	38	43	33
29	94	82	66	195	89	171	78	179	34	49	39	54
30	75	73	68	157	---	136	120	155	34	33	37	34
31	73	---	71	145	---	128	---	66	---	33	36	---
TOTAL	5098	5367	2430	6576	5081	4820	2950	2164	2062	987	1447	1188
MEAN	164	179	78.4	212	175	155	98.3	69.8	68.7	31.8	46.7	39.6
MAX	933	934	126	1250	1100	580	160	179	403	52	166	83
MIN	41	73	65	66	89	82	75	41	34	22	29	29
CFSM	2.38	2.59	1.13	3.07	2.53	2.25	1.42	1.01	.99	.46	.67	.57
IN.	2.74	2.89	1.31	3.54	2.73	2.59	1.59	1.16	1.11	.53	.78	.64

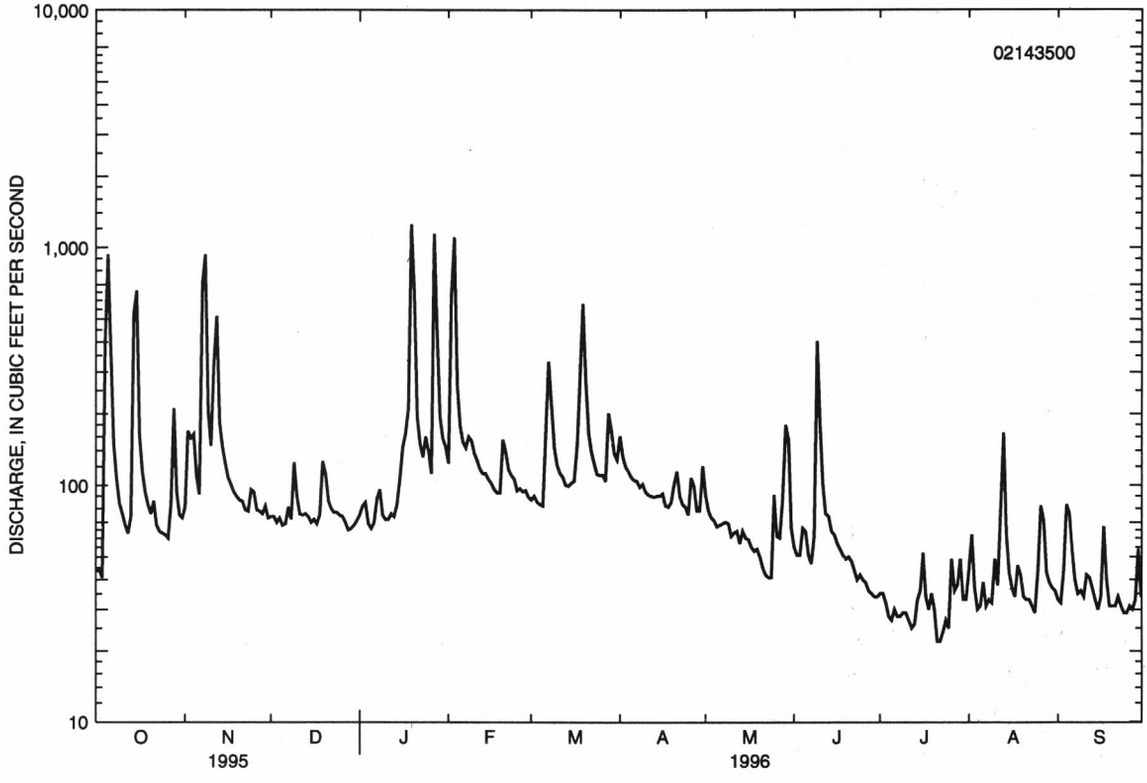
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	71.5	68.8	91.7	120	139	155	117	88.6	75.2	53.3	56.7	46.2
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

SANTEE RIVER BASIN

02143500 INDIAN CREEK NEAR LABORATORY, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	43903		40170			
ANNUAL MEAN	120		110		90.0	
HIGHEST ANNUAL MEAN					145	1993
LOWEST ANNUAL MEAN					40.4	1988
HIGHEST DAILY MEAN	2560	Feb 17	1250	Jan 19	4350	Aug 10 1970
LOWEST DAILY MEAN	21	Aug 24	22	Jul 21	2.1	Jul 20 1986
ANNUAL SEVEN-DAY MINIMUM	22	Aug 19	26	Jul 19	3.1	Jul 16 1986
INSTANTANEOUS PEAK FLOW			1810	Jan 19	8450	Aug 10 1970
INSTANTANEOUS PEAK STAGE			5.14	Jan 19	10.61	Aug 10 1970
INSTANTANEOUS LOW FLOW			20	Jul 22	1.7	Jul 21 1986
ANNUAL RUNOFF (CFSM)	1.74		1.59		1.30	
ANNUAL RUNOFF (INCHES)	23.60		21.59		17.67	
10 PERCENT EXCEEDS	169		165		149	
50 PERCENT EXCEEDS	74		76		57	
90 PERCENT EXCEEDS	35		33		25	



SANTEE RIVER BASIN

0214399575 LONG CREEK TRIBUTARY AT HEADWATERS NEAR BESSEMER CITY, NC

LOCATION.--Lat 35°18'12", long 81°16'42", Gaston County, Hydrologic Unit 03050102, on left bank at headwaters, 1.4 mi north of Bessemer City, NC.

DRAINAGE AREA.--0.16 mi^2.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 830 ft above sea level, from topographic map.

REMARKS.--Records poor. Maximum discharge for current water year not determined due to instability of stage-discharge relationship caused by high sediment loads during periods of high flow. Minimum discharge for period of record and current water year not determined and may have occurred during period of no gage-height record.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1993 reached a stage of 3.11 ft, from floodmark; discharge, 120 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.14	.08	.11	.12	e.09	.49	.10	.06	.04	.04	e.04
2	.07	2.2	.07	.14	4.7	e.09	.12	.09	.06	.04	.03	e.06
3	.07	.28	.07	.12	.38	e.09	.10	.08	.07	.04	.03	e.07
4	1.8	.18	.08	.09	.16	e.11	.10	.08	.20	.04	.04	e.60
5	.80	.13	.08	.10	.14	e.10	.10	.08	.06	.04	e.05	e.06
6	.18	.12	.08	.11	.13	e.75	.08	.07	.06	.04	e.05	e.12
7	.14	3.3	.15	.13	.13	e1.5	.08	.07	.05	.04	e.04	e.05
8	.12	.29	.08	.11	.13	.18	.07	.07	.45	.04	e.04	e.04
9	.12	.16	.38	.12	.13	.13	.08	.06	.38	.04	e.10	e.04
10	.12	.12	.10	.18	.10	.12	.07	.06	.09	.03	e.05	e.04
11	.10	3.1	.10	.13	.10	.11	.05	.06	.06	.03	e.05	e.04
12	.10	.24	.09	.14	.09	.10	.05	.06	.06	.03	e1.20	e.04
13	.28	.17	.09	.23	.09	.10	.06	.06	.05	.10	e.11	e.04
14	1.7	.14	.09	.43	.09	.09	.06	.07	.05	.04	e.06	e.04
15	.22	.12	.10	.69	.09	.13	.11	.07	.05	.04	e.05	e.04
16	.14	.10	.10	.39	.09	.09	.08	.07	.10	.04	e.05	e.06
17	.12	.10	.09	.42	.08	.07	e.08	.07	.04	.03	e.05	e.10
18	.11	.10	.11	.32	.08	.06	e.07	e.06	.04	.06	e.05	e.05
19	.11	.10	.31	1.5	.08	.75	.09	e.05	.04	.03	e.05	e.05
20	.11	.10	.11	.27	.32	.18	.14	e.05	.04	.02	e.04	e.04
21	.11	.09	.09	.23	.11	.18	.08	e.05	.04	.03	e.04	e.04
22	.10	.09	.09	.22	.11	.13	.07	e.05	.04	.04	e.04	e.04
23	.10	.09	.09	.21	.11	.08	.07	e.05	.04	.43	e.04	e.04
24	.09	.37	.08	.50	.11	.08	.06	e.08	.04	.08	e.1	e.04
25	.07	.12	.09	.21	.08	.07	.06	.07	.04	.13	e.05	e.03
26	.08	.10	.08	.18	e.11	.06	.16	.07	.04	.15	e.09	e.03
27	4.2	.10	.09	4.0	e.10	.08	.05	.09	.05	.06	e.05	e.04
28	.23	.10	.09	.22	e.09	.47	.05	.12	.05	.32	e.04	e.05
29	.13	.13	.09	.23	e.09	.10	.32	.06	.05	.04	e.04	e.05
30	.12	.08	.09	.25	---	.09	.60	.06	.05	.04	e.04	e.10
31	.21	---	.10	.20	---	1.5	---	.06	---	.03	e.04	---
TOTAL	11.92	12.46	3.34	12.18	8.14	7.68	3.60	2.14	2.45	2.16	2.75	2.08
MEAN	.38	.42	.11	.39	.28	.25	.12	.069	.082	.070	.089	.069
MAX	4.2	3.3	.38	4.0	4.7	1.5	.60	.12	.45	.43	1.2	.60
MIN	.07	.08	.07	.09	.08	.06	.05	.05	.04	.02	.03	.03
CFSM	2.40	2.60	.67	2.46	1.75	1.55	.75	.43	.51	.44	.55	.43
IN.	2.77	2.90	.78	2.83	1.89	1.79	.84	.50	.57	.50	.64	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1996, BY WATER YEAR (WY)

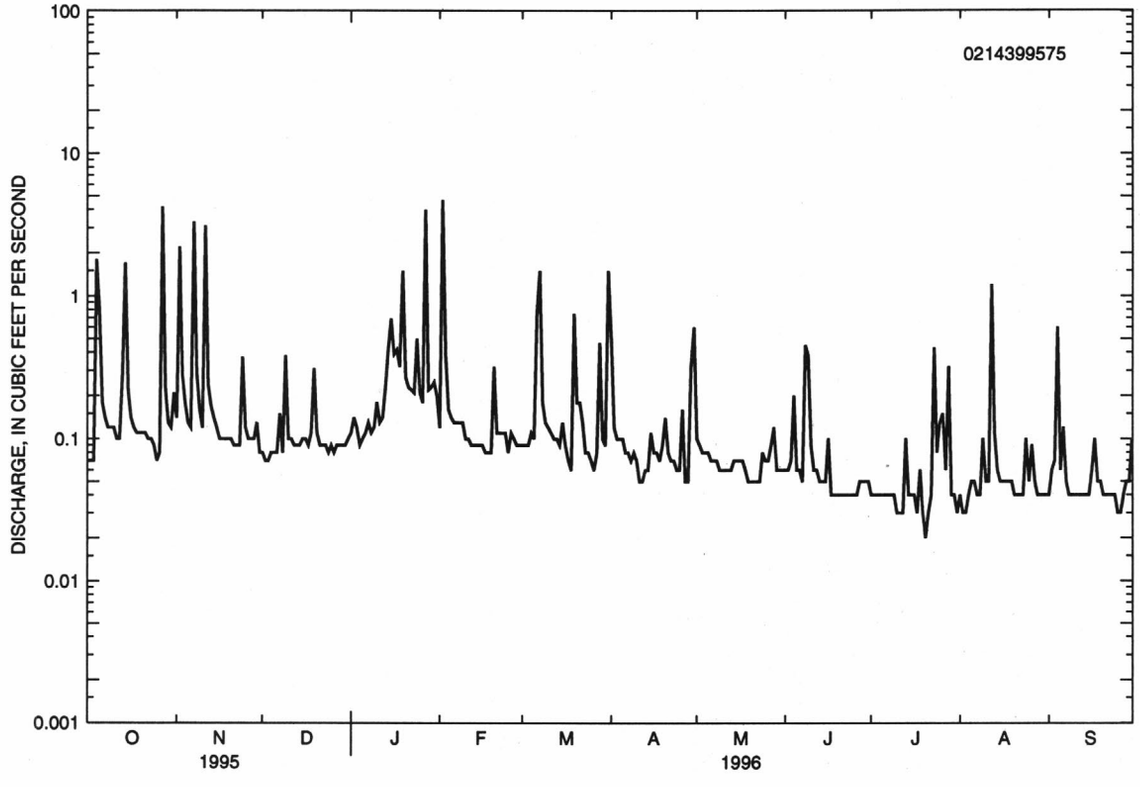
MEAN	.16	.18	.089	.34	.27	.19	.088	.077	.21	.079	.22	.064
MAX	.38	.42	.11	.48	.38	.25	.12	.12	.43	.096	.34	.087
(WY)	1996	1996	1996	1995	1995	1996	1996	1995	1995	1994	1995	1995
MIN	.025	.051	.079	.14	.15	.14	.052	.046	.082	.070	.089	.035
(WY)	1994	1995	1994	1994	1994	1995	1995	1994	1996	1996	1996	1994

SANTEE RIVER BASIN

0214399575 LONG CREEK TRIBUTARY AT HEADWATERS NEAR BESSEMER CITY, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1994 - 1996	
ANNUAL TOTAL	91.02		70.90			
ANNUAL MEAN	.25		.19		.16	
HIGHEST ANNUAL MEAN					.19	1996
LOWEST ANNUAL MEAN					.11	1994
HIGHEST DAILY MEAN	9.0	Aug 27	4.7	Feb 2	9.0	Aug 27 1995
LOWEST DAILY MEAN	.01	Aug 22	.02	Jul 20	.01	Oct 2 1993
ANNUAL SEVEN-DAY MINIMUM	.01	Aug 19	.04	Jul 6	.01	Oct 5 1993
INSTANTANEOUS PEAK FLOW			NOT DETERMINED*		48	Aug 27 1995
INSTANTANEOUS PEAK STAGE			2.55	Jan 27	2.55	Jan 27 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		NOT DETERMINED*	
ANNUAL RUNOFF (CFSM)	1.56		1.21		1.02	
ANNUAL RUNOFF (INCHES)	21.16		16.48		13.87	
10 PERCENT EXCEEDS	.27		.28		.22	
50 PERCENT EXCEEDS	.08		.09		.06	
90 PERCENT EXCEEDS	.03		.04		.02	

e Estimated.
* See REMARKS.



SANTEE RIVER BASIN

0214399580 LONG CREEK TRIBUTARY BELOW HEADWATERS NEAR BESSEMER CITY, NC

LOCATION.--Lat 35°18'20", long 81°16'32", Gaston County, Hydrologic Unit 03050102, on left bank at downstream end of culvert, 0.3 mi below headwaters and 1.6 mi north of Bessemer City, NC.

DRAINAGE AREA.--0.22 mi^2.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 805 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Minimum discharge for current water year also occurred July 22 and 23. Minimum discharge for period of record occurred several days in Oct. 1993, July 1994, and June and July 1995.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1993 reached a stage of 5.29 ft, from floodmark; discharge, 549 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.14	.09	.13	.14	.10	.90	.09	.06	.04	.05	.04
2	.17	6.0	.09	.17	7.2	.10	.15	.08	.06	.04	.04	.06
3	.17	.32	.09	.12	.53	.10	.12	.08	.08	.04	.04	.07
4	5.1	.16	.09	.09	.14	.12	.11	.08	.27	.04	.04	1.0
5	3.0	.14	.09	.09	.22	.11	.11	.08	.06	.04	.04	.06
6	.30	.14	.09	.13	.11	2.0	.10	.08	.06	.04	.04	.13
7	.26	10	.24	.16	.12	3.5	.10	.08	.06	.04	.04	.04
8	.23	.56	.10	.12	.14	.22	.10	.08	.91	.04	.04	.04
9	.22	.34	.79	.12	.14	.15	.11	.07	.66	.04	.12	.04
10	.21	.31	.10	.25	.10	.14	.10	.07	.07	.03	.04	.05
11	.20	5.8	.09	.13	.10	.14	.10	.08	.07	.03	.05	.04
12	.19	.29	.09	.18	.10	.12	.10	.07	.07	.03	2.3	.04
13	.64	.17	.09	.37	.10	.10	.11	.07	.06	.13	.10	.04
14	3.8	.15	.09	.66	.09	.09	.10	.07	.06	.04	.06	.04
15	.22	.14	.10	1.1	.10	.14	.15	.08	.06	.05	.05	.04
16	.14	.14	.10	.48	.09	.09	.11	.07	.13	.04	.05	.06
17	.12	.14	.10	.55	.09	.09	.10	.06	.06	.04	.05	.15
18	.11	.14	.13	.45	.09	.09	.09	.06	.05	.08	.05	.04
19	.11	.14	.52	3.4	.09	1.4	.08	.06	.05	.04	.04	.04
20	.11	.13	.12	.48	.56	.15	.14	.06	.05	.03	.04	.04
21	.11	.13	.10	.47	.10	.14	.08	.06	.05	.03	.04	.04
22	.11	.11	.10	.43	.10	.11	.08	.06	.05	.03	.04	.04
23	.09	.10	.10	.35	.10	.09	.08	.06	.05	.71	.04	.04
24	.09	.97	.09	1.3	.13	.09	.08	.08	.04	.05	.13	.04
25	.08	.11	.10	.32	.10	.09	.08	.07	.04	.16	.04	.04
26	.08	.10	.10	.31	.13	.09	.26	.07	.05	.63	.10	.04
27	7.7	.09	.09	4.6	.11	.12	.08	.10	.05	.05	.05	.04
28	.54	.09	.09	.18	.10	.98	.08	.15	.06	1.3	.04	.05
29	.13	.16	.09	.14	.10	.12	.68	.07	.04	.05	.04	.04
30	.10	.09	.10	.37	---	.09	.82	.06	.04	.05	.04	.09
31	.30	---	.11	.25	---	1.2	---	.06	---	.04	.04	---
TOTAL	24.80	27.30	4.27	17.90	11.22	12.07	5.30	2.31	3.42	4.00	3.88	2.52
MEAN	.80	.91	.14	.58	.39	.39	.18	.075	.11	.13	.13	.084
MAX	7.7	10	.79	4.6	7.2	3.5	.90	.15	.91	1.3	2.3	1.0
MIN	.08	.09	.09	.09	.09	.09	.08	.06	.04	.03	.04	.04
CFSM	3.64	4.14	.63	2.62	1.76	1.77	.80	.34	.52	.59	.57	.38
IN.	4.19	4.62	.72	3.03	1.90	2.04	.90	.39	.58	.68	.66	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1996, BY WATER YEAR (WY)

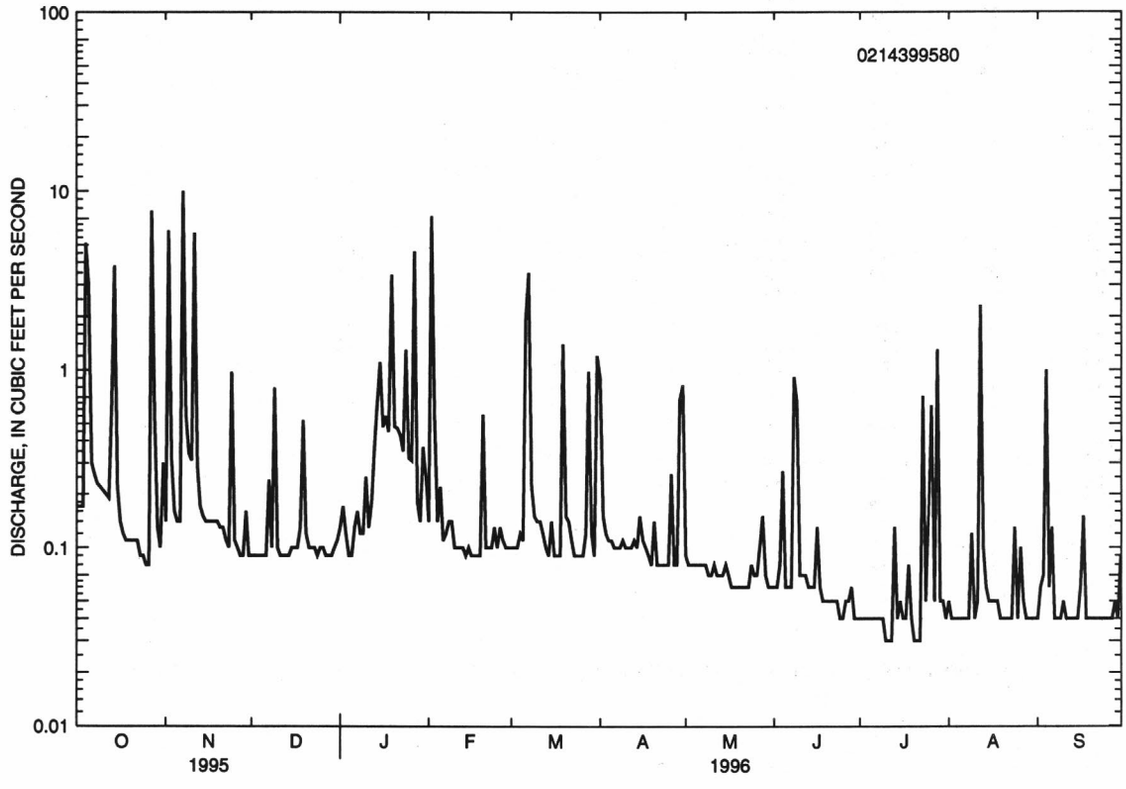
MEAN	.34	.39	.16	.58	.44	.32	.16	.16	.39	.17	.46	.14
MAX	.80	.91	.18	.77	.65	.39	.23	.29	.83	.24	.70	.25
(WY)	1996	1996	1994	1995	1995	1996	1994	1995	1995	1994	1994	1995
MIN	.070	.12	.14	.40	.29	.19	.070	.075	.11	.13	.13	.084
(WY)	1994	1995	1996	1994	1994	1995	1995	1996	1996	1996	1996	1996

SANTEE RIVER BASIN

0214399580 LONG CREEK TRIBUTARY BELOW HEADWATERS NEAR BESSEMER CITY, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1994 - 1996	
ANNUAL TOTAL	170.01		118.99			
ANNUAL MEAN	.47		.33		.31	
HIGHEST ANNUAL MEAN					.35	1995
LOWEST ANNUAL MEAN					.26	1994
HIGHEST DAILY MEAN	12	Aug 27	10	Nov 7	12	Aug 27 1995
LOWEST DAILY MEAN	.03	Jul 12	.03	Jul 10	.03	Oct 13 1993
ANNUAL SEVEN-DAY MINIMUM	.03	Jul 9	.04	Jul 6	.03	Oct 13 1993
INSTANTANEOUS PEAK FLOW			109	Nov 7	140	Jun 21 1995
INSTANTANEOUS PEAK STAGE			2.94	Nov 7	3.38	Jun 21 1995
INSTANTANEOUS LOW FLOW			.02*	Jul 21	.02*	Oct 1 1993
ANNUAL RUNOFF (CFSM)	2.12		1.48		1.41	
ANNUAL RUNOFF (INCHES)	28.75		20.12		19.10	
10 PERCENT EXCEEDS	.53		.52		.43	
50 PERCENT EXCEEDS	.12		.10		.11	
90 PERCENT EXCEEDS	.06		.04		.05	

* 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 sea level.

REMARKS.--No estimated daily discharges. Records good. 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 1.8 ft^3/s was diverted during the year.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	35	32	30	46	30	255	52	19	9.6	18	8.1
2	14	226	30	31	379	32	83	38	18	10	11	9.0
3	15	110	29	32	335	30	58	32	17	7.5	12	17
4	139	58	30	28	88	31	48	29	45	6.7	8.9	36
5	163	40	28	27	61	31	43	28	39	7.2	13	31
6	69	36	28	28	51	128	40	29	25	7.5	15	27
7	40	492	36	36	48	235	39	28	21	6.4	10	10
8	29	280	30	31	55	102	39	29	47	5.9	11	7.8
9	25	72	57	30	50	55	42	27	169	7.9	12	7.7
10	23	44	37	33	44	45	38	25	46	5.8	15	7.8
11	21	230	33	33	42	43	36	24	31	5.3	11	9.0
12	21	134	32	33	39	40	37	24	26	5.6	74	8.1
13	28	65	31	30	38	39	35	24	25	8.5	53	7.3
14	166	50	30	38	38	38	36	26	23	18	21	6.4
15	118	43	30	60	38	44	39	25	22	9.4	15	5.2
16	37	38	29	67	37	43	37	25	21	13	12	7.1
17	29	37	27	65	36	42	32	23	24	7.9	12	20
18	27	34	29	77	34	39	31	21	20	9.2	13	8.9
19	24	34	44	265	35	146	31	21	19	11	9.8	6.3
20	23	34	38	82	66	67	40	19	18	7.5	11	6.5
21	24	31	32	50	48	48	42	19	15	5.2	11	7.0
22	21	31	33	44	43	43	35	19	14	5.7	8.9	7.7
23	19	29	29	42	40	37	33	18	13	15	9.7	7.4
24	21	54	29	69	37	36	31	16	14	29	15	7.3
25	20	45	28	50	35	39	29	67	13	16	12	6.3
26	21	37	28	41	36	38	42	26	12	29	12	6.2
27	141	34	28	478	34	36	35	27	11	24	14	7.9
28	256	34	28	95	34	101	29	35	11	77	11	7.1
29	43	35	27	64	32	64	39	26	11	33	11	9.5
30	32	33	26	66	---	48	133	26	8.9	18	7.6	7.8
31	33	---	28	59	---	86	---	19	---	16	7.3	---
TOTAL	1655	2455	976	2114	1899	1836	1487	847	797.9	437.8	477.2	320.4
MEAN	53.4	81.8	31.5	68.2	65.5	59.2	49.6	27.3	26.6	14.1	15.4	10.7
MAX	256	492	57	478	379	235	255	67	169	77	74	36
MIN	13	29	26	27	32	30	29	16	8.9	5.2	7.3	5.2
CFSM	1.68	2.57	.99	2.14	2.06	1.86	1.56	.86	.84	.44	.48	.34
IN.	1.94	2.87	1.14	2.47	2.22	2.15	1.74	.99	.93	.51	.56	.37

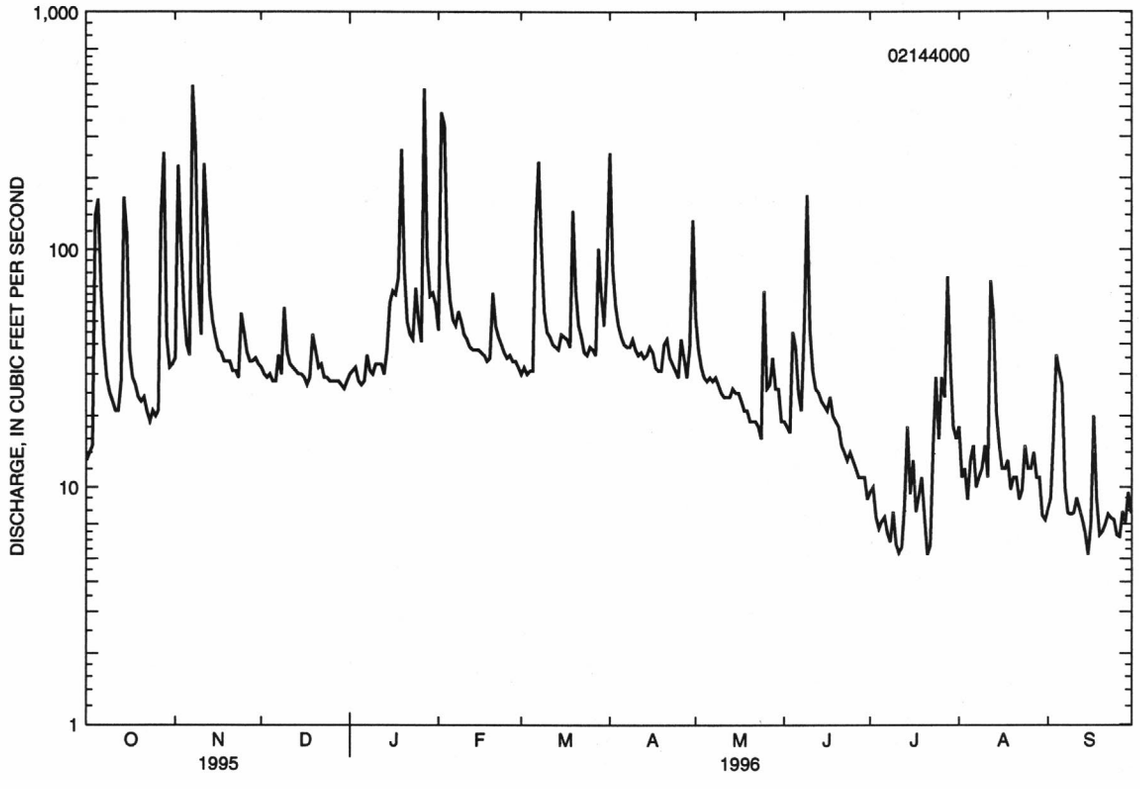
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996, BY WATER YEAR (WY)

MEAN	27.0	27.5	34.5	50.2	59.1	62.4	47.8	32.9	26.1	18.8	21.0	16.2
MAX	147	128	85.2	135	137	146	142	89.2	72.5	65.9	81.7	59.3
(WY)	1972	1958	1977	1993	1960	1993	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

SANTEE RIVER BASIN

02144000 LONG CREEK NEAR BESSEMER CITY, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1953 - 1996	
ANNUAL TOTAL	17447.2		15302.3			
ANNUAL MEAN	47.8		41.8		35.3	
HIGHEST ANNUAL MEAN					58.6	1993
LOWEST ANNUAL MEAN					16.7	1988
HIGHEST DAILY MEAN	853	Jun 22	492	Nov 7	2940	Oct 16 1971
LOWEST DAILY MEAN	4.7	Aug 24	5.2	Jul 21	.55	Jul 14 1986
ANNUAL SEVEN-DAY MINIMUM	5.6	Aug 19	6.3	Jul 6	.76	Jul 9 1986
INSTANTANEOUS PEAK FLOW			1010	Nov 7	6500	Oct 16 1971
INSTANTANEOUS PEAK STAGE			5.41	Nov 7	9.10	Oct 16 1971
INSTANTANEOUS LOW FLOW			4.4	Jul 22	.40	Oct 7 1954
ANNUAL RUNOFF (CFSM)	1.50		1.31		1.11	
ANNUAL RUNOFF (INCHES)	20.41		17.90		15.07	
10 PERCENT EXCEEDS	69		67		57	
50 PERCENT EXCEEDS	28		30		21	
90 PERCENT EXCEEDS	13		8.4		6.9	



SANTEE RIVER BASIN

02145000 SOUTH FORK CATAWBA RIVER AT LOWELL, NC

LOCATION.--Lat 35°17'10", long 81°06'00", Gaston County, Hydrologic Unit 03050102, on right bank 50 ft north of private mill road, 120 ft downstream 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 sea level. Telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation and slight regulation for short periods at low flow caused by power plant upstream from station. City of Gastonia diverted an average of 25.7 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	463	751	705	651	1240	862	1860	1180	643	412	410	412
2	444	1460	691	685	2690	861	1350	982	613	367	493	382
3	436	1370	672	766	7270	858	1150	849	583	379	396	466
4	1510	1080	667	693	3350	829	1070	801	698	401	395	737
5	4470	865	658	654	1740	819	1010	786	782	387	471	719
6	3890	788	657	651	1370	1280	967	758	610	377	444	653
7	3160	2950	709	739	1300	2020	955	736	566	374	429	552
8	1480	5990	717	730	1370	1860	931	739	617	352	412	435
9	940	2100	922	693	1480	1270	971	721	1710	354	434	400
10	819	1290	856	686	1630	1080	949	695	1610	388	450	398
11	738	1620	735	711	1490	994	894	702	995	376	434	389
12	696	3390	703	714	1280	957	870	703	777	344	1220	462
13	679	2480	694	708	1180	928	864	649	719	338	1760	454
14	1440	1490	682	746	1110	917	874	641	715	374	1130	417
15	3900	1160	670	849	1060	922	904	645	663	357	672	392
16	1540	1020	666	1070	1040	949	897	660	675	476	554	340
17	1050	928	646	1190	991	1270	807	645	705	426	508	538
18	865	875	650	1440	959	1450	785	644	567	389	476	505
19	796	837	846	4180	934	2470	784	629	539	424	521	429
20	743	808	923	5400	1110	2510	832	600	756	344	459	401
21	756	788	783	3580	1310	1620	982	553	617	332	402	385
22	717	760	733	1490	1180	1250	860	534	574	316	395	358
23	660	731	704	1170	1090	1100	800	519	529	314	366	378
24	623	826	676	1220	1050	1010	770	513	498	418	359	328
25	611	882	664	1400	986	982	748	941	470	363	395	381
26	598	765	659	1140	949	982	827	717	470	472	422	306
27	801	736	636	5100	922	952	931	689	441	496	724	349
28	2150	723	637	5870	918	1380	778	1020	412	476	475	361
29	913	743	624	4840	884	1620	824	965	441	549	430	455
30	717	737	615	1960	---	1360	1440	1000	429	397	478	528
31	682	---	623	1430	---	1230	---	693	---	329	449	---
TOTAL	39287	40943	21823	53156	43883	38592	28684	22909	20424	12101	16963	13310
MEAN	1267	1365	704	1715	1513	1245	956	739	681	390	547	444
MAX	4470	5990	923	5870	7270	2510	1860	1180	1710	549	1760	737
MIN	436	723	615	651	884	819	748	513	412	314	359	306
CFSM	2.02	2.17	1.12	2.73	2.41	1.98	1.52	1.18	1.08	.62	.87	.71
IN.	2.33	2.43	1.29	3.15	2.60	2.29	1.70	1.36	1.21	.72	1.00	.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1996@, BY WATER YEAR (WY)

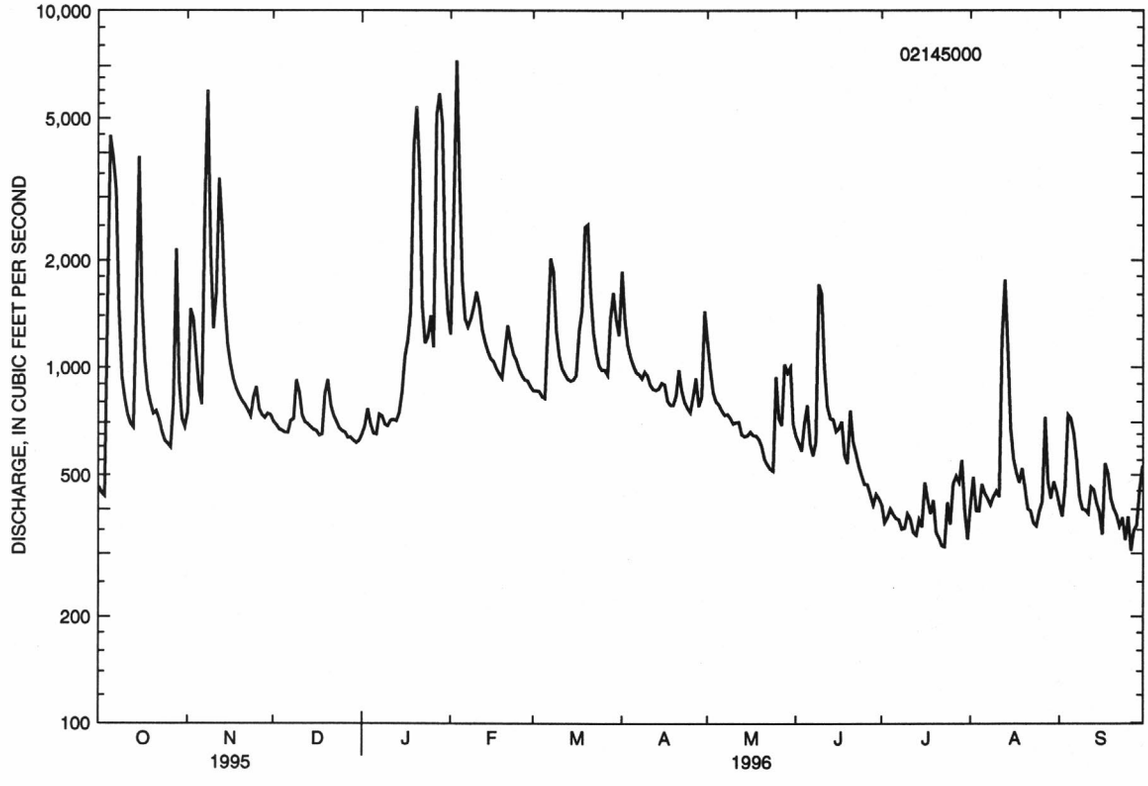
MEAN	660	647	795	1014	1237	1312	1050	749	639	545	599	511
MAX	2862	2034	1748	2468	3204	3511	2676	1759	1424	1361	2266	2460
(WY)	1965	1958	1968	1993	1960	1952	1958	1984	1962	1943	1970	1945
MIN	104	215	235	242	499	561	390	337	196	162	182	110
(WY)	1955	1955	1956	1956	1986	1955	1967	1986	1986	1986	1956	1954

SANTEE RIVER BASIN

02145000 SOUTH FORK CATAWBA RIVER AT LOWELL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1942 - 1996@	
ANNUAL TOTAL	368069		352075			
ANNUAL MEAN	1008		962		813	
HIGHEST ANNUAL MEAN					1341	1993
LOWEST ANNUAL MEAN					418	1955
HIGHEST DAILY MEAN	12100	Feb 17	7270	Feb 3	21700	Aug 11 1970
LOWEST DAILY MEAN	253	Aug 24	306	Sep 26	31	Oct 8 1954
ANNUAL SEVEN-DAY MINIMUM	314	Aug 20	352	Sep 22	73	Oct 8 1954
INSTANTANEOUS PEAK FLOW			8260	Feb 3	24800	Aug 11 1970
INSTANTANEOUS PEAK STAGE			10.28	Feb 3	17.38	Aug 11 1970
INSTANTANEOUS LOW FLOW			98*	Sep 26	13*	Aug 22 1988
ANNUAL RUNOFF (CFSM)	1.61		1.53		1.29	
ANNUAL RUNOFF (INCHES)	21.80		20.86		17.58	
10 PERCENT EXCEEDS	1550		1490		1400	
50 PERCENT EXCEEDS	707		736		572	
90 PERCENT EXCEEDS	442		395		282	

* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level (levels by City of Charlotte).

REMARKS.--Records poor. 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 29 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	17	19	29	34	19	320	53	12	21	38	10
2	14	450	17	52	846	19	65	35	12	14	12	12
3	12	85	15	40	223	20	42	28	13	13	52	46
4	876	52	17	17	53	19	36	25	23	11	19	186
5	203	26	15	14	37	21	28	22	17	16	19	27
6	49	27	15	28	40	529	28	20	15	11	18	143
7	25	648	103	85	39	326	25	19	15	14	13	17
8	20	116	25	35	40	65	24	21	93	14	11	13
9	19	39	111	37	48	39	48	22	132	22	19	12
10	e17	30	28	47	31	33	27	19	20	14	12	63
11	e15	759	22	31	28	29	26	89	15	13	153	21
12	14	147	19	52	25	25	26	28	45	13	707	13
13	42	45	20	38	22	26	61	24	15	34	52	13
14	188	51	18	36	22	27	46	26	13	35	20	9.3
15	52	33	16	35	22	79	65	32	13	70	17	11
16	16	29	17	29	23	37	28	20	12	22	17	42
17	12	26	15	26	20	28	23	17	12	14	16	87
18	10	24	24	33	21	28	21	15	13	33	16	12
19	9.6	22	60	289	20	309	21	15	15	20	e15	11
20	51	21	26	43	76	47	68	16	146	12	e14	9.9
21	105	20	16	26	28	31	32	16	15	22	e13	9.0
22	14	19	14	20	24	26	23	14	11	12	e12	8.8
23	10	18	14	21	23	24	25	17	12	25	11	7.7
24	9.6	143	14	61	22	23	24	17	11	26	56	8.6
25	11	58	13	30	21	30	22	21	12	70	18	9.5
26	9.8	26	13	27	21	27	95	15	13	54	16	8.5
27	337	22	13	1030	21	34	24	16	11	25	14	15
28	267	20	13	59	26	138	19	50	9.8	14	38	13
29	27	75	13	40	19	39	649	415	10	16	33	13
30	15	25	12	84	---	30	537	52	12	16	13	35
31	24	---	17	63	---	78	---	16	---	12	11	---
TOTAL	2487.0	3073	754	2457	1875	2205	2478	1195	767.8	708	1475	886.3
MEAN	80.2	102	24.3	79.3	64.7	71.1	82.6	38.5	25.6	22.8	47.6	29.5
MAX	876	759	111	1030	846	529	649	415	146	70	707	186
MIN	9.6	17	12	14	19	19	19	14	9.8	11	11	7.7
CFSM	2.61	3.34	.79	2.58	2.11	2.32	2.69	1.26	.83	.74	1.55	.96
IN.	3.01	3.72	.91	2.98	2.27	2.67	3.00	1.45	.93	.86	1.79	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	38.4	37.7	41.5	59.4	65.5	72.3	41.6	42.1	36.4	30.0	34.8	33.1
MAX	157	137	107	123	124	161	82.6	204	123	77.6	118	135
(WY)	1991	1986	1984	1993	1979	1993	1996	1975	1982	1975	1995	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

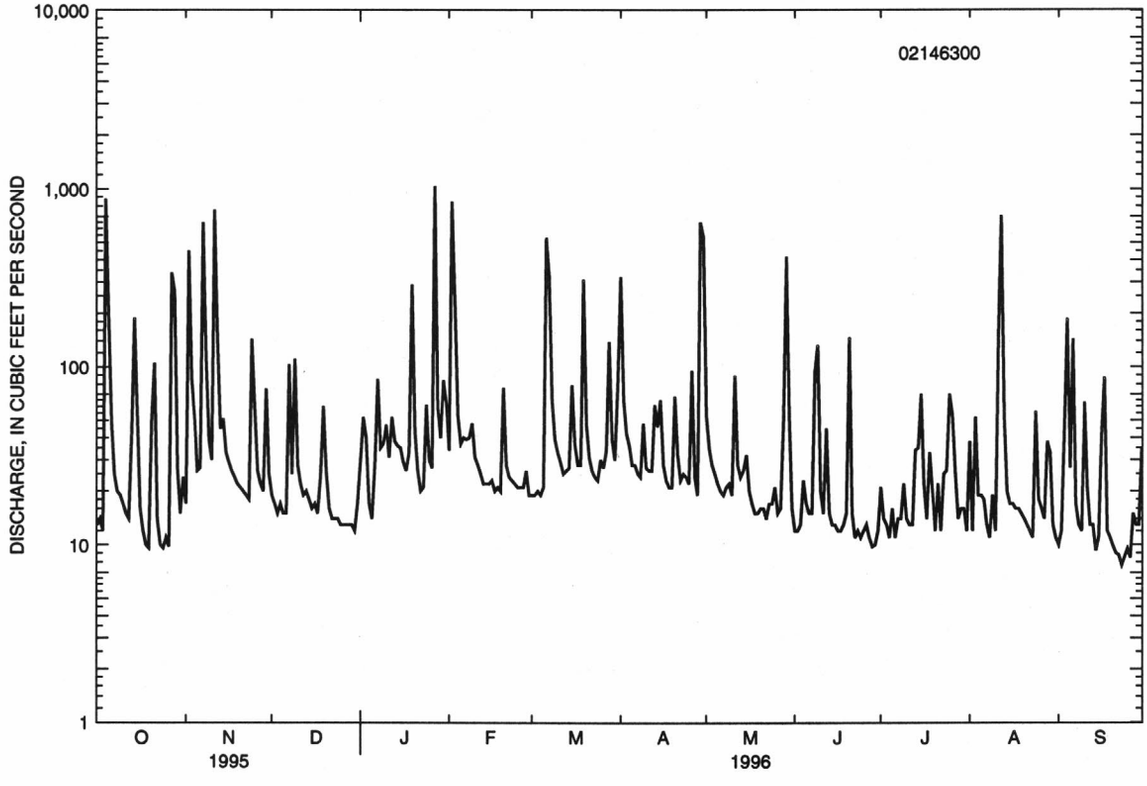
SANTEE RIVER BASIN

02146300 IRWIN CREEK NEAR CHARLOTTE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	22952.7		20361.1			
ANNUAL MEAN	62.9		55.6		44.5	
HIGHEST ANNUAL MEAN					78.6	1975
LOWEST ANNUAL MEAN					24.0	1981
HIGHEST DAILY MEAN	2960	Aug 27	1030	Jan 27	2960	Aug 27 1995
LOWEST DAILY MEAN	6.6	Aug 17	7.7	Sep 23	3.1	Sep 25 1983
ANNUAL SEVEN-DAY MINIMUM	7.4	Aug 11	8.9	Sep 20	3.5	Oct 5 1993
INSTANTANEOUS PEAK FLOW			4470	Jan 26	8880	May 30 1975
INSTANTANEOUS PEAK STAGE			13.29	Jan 26	18.04	May 30 1975
INSTANTANEOUS LOW FLOW			6.5	Jun 29	2.8*	Jul 13 1986
ANNUAL RUNOFF (CFSM)	2.05		1.81		1.45	
ANNUAL RUNOFF (INCHES)	27.81		24.67		19.70	
10 PERCENT EXCEEDS	143		86		80	
50 PERCENT EXCEEDS	19		22		18	
90 PERCENT EXCEEDS	10		12		8.5	

e Estimated.

* See REMARKS.



SANTEE RIVER BASIN

02146381 SUGAR CREEK AT NC 51 NEAR PINEVILLE, NC

LOCATION.--Lat 35°05'20", long 80°54'00", Mecklenburg County, Hydrologic Unit 03050103, on right bank on upstream side of bridge at N.C. Highway 51, 0.3 mi upstream from McCullough Branch, and 0.6 mi northwest of City Hall in Pineville.

DRAINAGE AREA.--65.3 mi^2.

PERIOD OF RECORD.-- Occasional discharge measurements, water years 1978-94. October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 525 ft above sea level, from topographic map. Telephone telemetry at site.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	49	52	53	101	42	511	181	47	40	57	24
2	46	686	48	51	860	42	187	101	44	70	33	25
3	44	216	46	104	1200	42	91	80	42	36	76	59
4	e1000	108	44	45	209	41	74	69	46	31	38	331
5	781	64	45	37	192	43	66	62	49	33	31	56
6	158	56	43	36	141	918	62	59	42	31	42	241
7	78	768	150	e120	93	765	62	56	42	31	37	44
8	59	433	65	e80	88	239	57	56	65	30	29	31
9	53	94	155	e60	103	115	90	55	342	35	29	28
10	50	72	70	e100	80	89	61	52	78	55	43	41
11	47	739	56	82	70	80	55	102	47	30	46	67
12	46	787	52	76	66	73	54	97	61	33	866	29
13	58	121	50	91	60	66	57	51	64	31	158	28
14	244	93	47	72	59	63	128	50	40	82	46	25
15	218	77	45	70	58	94	110	56	43	82	37	24
16	60	68	44	63	59	124	73	53	43	81	34	27
17	49	63	43	63	58	81	56	47	47	35	30	183
18	47	59	45	56	53	66	52	44	37	37	29	33
19	44	55	82	458	53	541	51	43	36	51	28	27
20	49	53	70	110	156	153	78	42	319	29	27	26
21	232	53	53	69	88	89	112	41	77	33	26	26
22	56	51	51	61	65	74	53	40	42	28	26	26
23	45	48	49	58	63	67	52	40	39	29	26	24
24	43	171	49	95	57	61	50	42	38	60	59	22
25	43	159	48	71	53	61	47	48	39	52	120	24
26	42	63	43	57	53	68	154	40	41	155	42	24
27	120	47	39	1590	50	61	76	38	36	52	40	26
28	841	48	39	253	51	274	41	80	34	33	33	32
29	86	105	39	136	48	115	563	231	36	32	75	28
30	54	69	39	175	---	74	1400	340	34	41	29	32
31	46	---	44	147	---	70	---	60	---	34	26	---
TOTAL	4785	5475	1745	4539	4287	4691	4523	2356	1950	1432	2218	1613
MEAN	154	182	56.3	146	148	151	151	76.0	65.0	46.2	71.5	53.8
MAX	1000	787	155	1590	1200	918	1400	340	342	155	866	331
MIN	42	47	39	36	48	41	41	38	34	28	26	22
CFSM	2.36	2.79	.86	2.24	2.26	2.32	2.31	1.16	1.00	.71	1.10	.82
IN.	2.73	3.12	.99	2.59	2.44	2.67	2.58	1.34	1.11	.82	1.26	.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

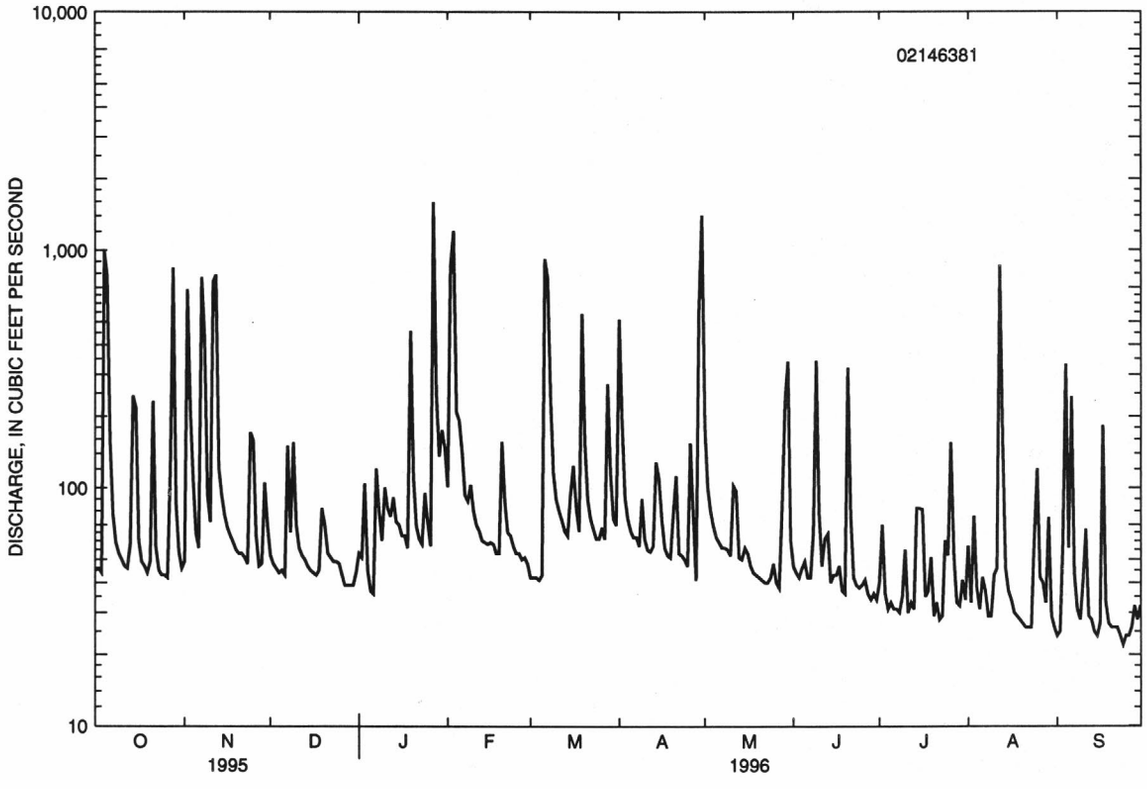
MEAN	117	121	56.6	147	189	122	97.4	87.9	84.4	61.1	121	76.5
MAX	154	182	57.0	147	232	151	151	99.9	104	76.0	171	99.2
(WY)	1996	1996	1995	1995	1995	1996	1996	1995	1995	1995	1995	1995
MIN	78.7	60.2	56.3	146	148	93.2	44.0	76.0	65.0	46.2	71.5	53.8
(WY)	1995	1995	1996	1996	1996	1995	1995	1996	1996	1996	1996	1996

SANTEE RIVER BASIN

02146381 SUGAR CREEK AT NC 51 NEAR PINEVILLE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1995 - 1996	
ANNUAL TOTAL	44114		39614			
ANNUAL MEAN	121		108		106	
HIGHEST ANNUAL MEAN					108	1996
LOWEST ANNUAL MEAN					104	1995
HIGHEST DAILY MEAN	2190	Aug 27	1590	Jan 27	2190	Aug 27 1995
LOWEST DAILY MEAN	24	Aug 14	22	Sep 24	22	Sep 24 1996
ANNUAL SEVEN-DAY MINIMUM	25	Aug 9	25	Sep 20	25	Sep 20 1996
INSTANTANEOUS PEAK FLOW			2540	Jan 27	3340	Aug 28 1995
INSTANTANEOUS PEAK STAGE			12.14	Jan 27	14.68	Aug 28 1995
INSTANTANEOUS LOW FLOW			17	Sep 24	17	Sep 24 1996
ANNUAL RUNOFF (CFSM)	1.85		1.66		1.63	
ANNUAL RUNOFF (INCHES)	25.13		22.57		22.13	
10 PERCENT EXCEEDS	225		182		183	
50 PERCENT EXCEEDS	53		54		52	
90 PERCENT EXCEEDS	34		31		31	

e Estimated.



02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC

LOCATION.--Lat 35°12'11", long 80°50'15", Mecklenburg County, Hydrologic Unit 03050103, on left bank on upstream side of bridge at Medical Center Drive, 3.3 mi upstream from Briar Creek, and 1.3 mi south of city hall in Charlotte.

DRAINAGE AREA.--11.8 mi^2, revised.

PERIOD OF RECORD.--October 1994 to current year. Fragmentary records 1964-1966, in files of Geological Survey as Little Sugar Creek at Brunswick Avenue at Charlotte.

GAGE.--Water-stage recorder. Elevation of gage is 610 ft above sea level, from topographic map. Telephone telemetry at site.

REMARKS.--No estimated discharges. Records good. Minimum discharge for current water year also occurred several days in Sept.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	7.0	7.6	12	11	6.7	80	12	7.0	6.1	25	3.6
2	6.4	144	7.3	29	306	6.5	15	9.0	5.6	5.6	18	3.7
3	6.3	19	6.9	12	52	6.3	11	8.0	5.5	5.3	32	30
4	304	15	6.3	6.2	17	6.5	9.8	7.3	5.6	5.2	12	132
5	40	8.8	6.4	5.5	13	6.3	9.2	7.0	5.8	5.1	13	19
6	11	8.2	6.5	14	12	207	10	6.8	5.1	5.0	7.6	57
7	7.9	204	41	33	11	109	8.7	6.7	6.0	4.9	6.6	5.9
8	6.6	20	7.8	15	13	17	9.2	6.9	29	5.1	5.6	4.9
9	6.2	11	40	14	18	11	21	6.4	22	5.6	11	4.5
10	5.8	9.3	8.4	17	9.4	8.9	8.6	6.2	7.6	5.4	6.1	5.6
11	5.5	206	7.3	11	8.6	8.5	7.9	20	5.4	5.0	130	4.0
12	5.5	22	7.0	20	8.4	8.3	7.5	7.1	16	6.5	78	4.1
13	20	12	6.7	13	8.1	7.9	26	6.0	6.2	16	12	3.8
14	90	17	6.5	14	8.5	7.3	12	6.1	5.4	8.8	5.5	3.1
15	12	9.9	6.4	12	8.9	43	25	11	5.4	32	4.8	2.9
16	7.5	8.7	6.3	10	8.5	15	9.7	6.4	6.6	7.1	4.4	27
17	6.4	8.2	6.1	8.7	7.7	11	7.6	5.9	5.3	5.4	4.0	43
18	6.2	8.2	12	12	7.3	8.7	7.0	5.8	5.1	11	3.7	4.0
19	6.1	7.3	24	75	7.0	121	7.4	5.5	34	7.2	3.8	3.3
20	48	7.1	8.0	11	37	16	28	5.2	63	6.0	3.6	3.0
21	20	7.0	6.4	9.8	8.7	11	9.6	5.1	6.2	6.7	3.6	2.8
22	6.7	6.9	6.2	9.1	7.5	9.4	7.4	5.0	5.9	4.7	3.6	3.0
23	6.0	6.5	5.9	8.7	7.1	8.9	7.9	5.3	5.6	12	3.8	3.2
24	5.8	63	5.7	28	7.0	8.6	7.1	5.9	5.7	10	31	3.2
25	5.9	15	5.7	9.7	6.9	12	6.8	6.8	5.5	53	6.5	3.2
26	6.0	8.6	5.7	8.5	8.5	9.3	50	5.5	5.8	26	6.3	3.2
27	183	7.8	5.7	338	7.2	14	8.8	5.6	5.9	8.2	10	12
28	32	7.2	5.7	16	9.5	60	7.0	16	5.8	5.3	18	5.7
29	8.5	26	5.4	13	6.9	13	115	186	5.7	5.9	7.9	3.3
30	7.0	8.5	5.4	35	---	10	185	12	5.6	5.3	3.8	110
31	8.1	---	8.2	23	---	33	---	6.6	---	18	3.7	---
TOTAL	897.0	909.2	294.5	843.2	641.7	821.1	725.2	415.1	309.3	313.4	484.9	514.0
MEAN	28.9	30.3	9.50	27.2	22.1	26.5	24.2	13.4	10.3	10.1	15.6	17.1
MAX	304	206	41	338	306	207	185	186	63	53	130	132
MIN	5.5	6.5	5.4	5.5	6.9	6.3	6.8	5.0	5.1	4.7	3.6	2.8
CFSM	2.37	2.48	.78	2.23	1.81	2.17	1.98	1.10	.85	.83	1.28	1.40
IN.	2.74	2.77	.90	2.57	1.96	2.50	2.21	1.27	.94	.96	1.48	1.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

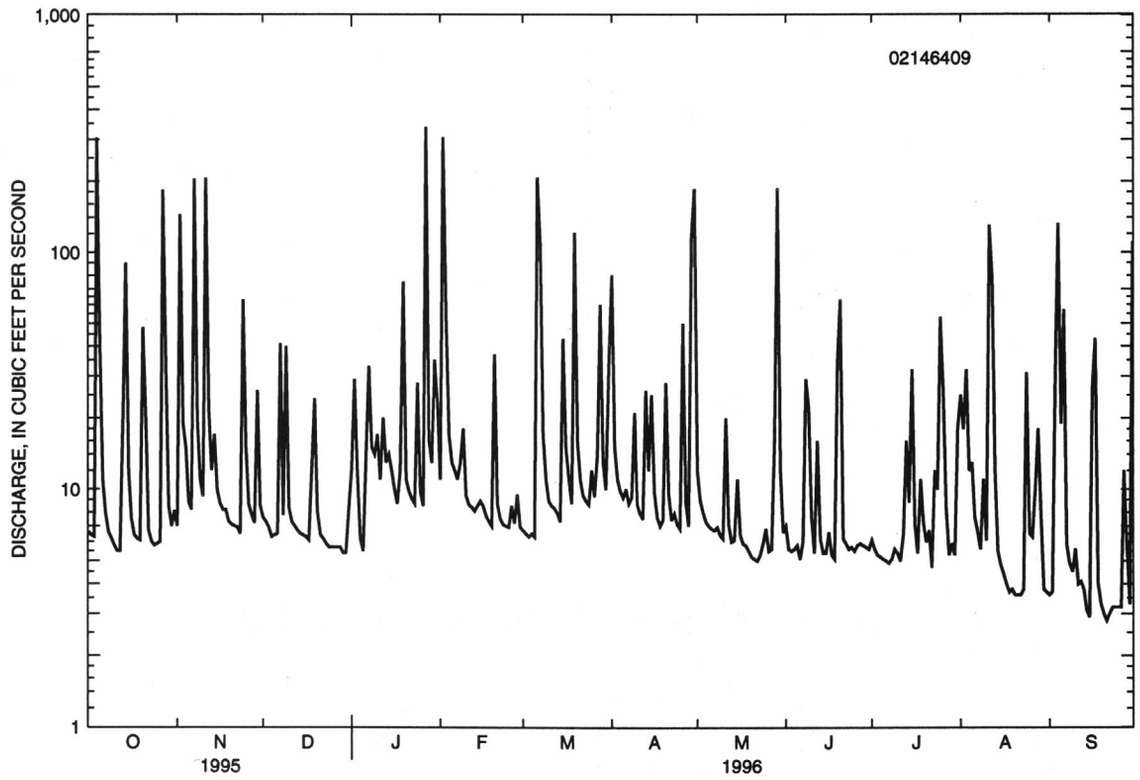
MEAN	21.3	20.0	8.82	25.7	29.4	19.5	15.6	17.4	15.3	15.4	32.8	21.3
MAX	28.9	30.3	9.50	27.2	36.9	26.5	24.2	21.5	20.3	20.7	50.0	25.4
(WY)	1996	1996	1996	1996	1995	1996	1996	1995	1995	1995	1995	1995
MIN	13.6	9.75	8.15	24.3	22.1	12.4	7.06	13.4	10.3	10.1	15.6	17.1
(WY)	1995	1995	1995	1995	1996	1995	1995	1996	1996	1996	1996	1996

SANTEE RIVER BASIN

02146409 LITTLE SUGAR CREEK AT MEDICAL CENTER DRIVE AT CHARLOTTE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1995 - 1996	
ANNUAL TOTAL	8715.5		7168.6			
ANNUAL MEAN	23.9		19.6		20.2	
HIGHEST ANNUAL MEAN					20.8	1995
LOWEST ANNUAL MEAN					19.6	1996
HIGHEST DAILY MEAN	1250	Aug 27	338	Jan 27	1250	Aug 27 1995
LOWEST DAILY MEAN	2.7	Jul 15	2.8	Sep 21	2.7	Jul 15 1995
ANNUAL SEVEN-DAY MINIMUM	2.9	Aug 11	3.1	Sep 20	2.9	Aug 11 1995
INSTANTANEOUS PEAK FLOW			2030	Sep 30	3580	Aug 27 1995
INSTANTANEOUS PEAK STAGE			10.14	Sep 30	12.79	Aug 27 1995
INSTANTANEOUS LOW FLOW			2.8*	Sep 14	2.5	Oct 13 1994
ANNUAL RUNOFF (CFSM)	1.96		1.61		1.65	
ANNUAL RUNOFF (INCHES)	26.58		21.86		22.47	
10 PERCENT EXCEEDS	62		33		41	
50 PERCENT EXCEEDS	6.5		7.8		6.7	
90 PERCENT EXCEEDS	3.6		5.1		3.5	

* See REMARKS.



SANTEE RIVER BASIN

0214645022 BRIAR CREEK ABOVE COLONY ROAD AT CHARLOTTE, NC

LOCATION.--Lat 35°10'30", long 80°49'55", Mecklenburg County, Hydrologic Unit 03050103, on right bank on downstream side of second footbridge 700 ft upstream of Colony Road at Charlotte, NC. Located within Myers Park Country Club.

DRAINAGE AREA.--19.0 mi^2.

PERIOD OF RECORD.--December 1995 to September 1996.

GAGE.--Water-stage recorder. Elevation of gage is 610 ft above sea level, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 27, 1995 reached a stage of 15.6 ft, present site and datum, from floodmarks; discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, FOR PERIOD DECEMBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			e9.3	18	17	11	99	23	8.7	4.4	24	3.8
2			9.0	26	353	11	25	16	8.1	5.3	43	3.8
3			9.4	22	93	11	18	14	8.0	3.9	69	30
4			10	11	26	11	17	13	7.8	3.5	7.4	133
5			10	10	20	11	15	11	7.2	3.6	19	15
6			10	15	18	252	16	11	6.9	3.8	7.2	68
7			51	46	18	150	15	11	12	3.5	4.6	6.0
8			13	20	20	31	14	11	30	3.6	4.0	4.3
9			50	19	24	20	27	10	21	3.5	9.9	4.1
10			15	20	16	17	14	9.7	18	3.3	5.3	3.9
11			13	16	16	16	13	11	10	3.3	69	6.1
12			12	23	15	15	13	10	13	6.6	89	3.9
13			12	18	14	14	30	9.3	8.7	10	19	3.6
14			12	18	14	14	20	9.6	6.9	8.5	5.8	3.4
15			12	17	14	45	26	14	6.3	38	5.5	3.2
16			11	15	15	22	17	10	6.1	6.8	4.6	e31
17			11	13	13	18	13	9.6	6.3	4.1	4.0	56
18			17	17	13	15	12	9.2	6.0	4.0	3.7	4.7
19			31	90	13	139	12	9.0	16	5.1	3.8	3.8
20			14	16	32	23	30	9.0	146	3.2	3.3	3.5
21			11	13	15	18	15	8.9	8.2	5.3	3.3	3.5
22			10	12	14	14	12	8.7	5.5	10	3.2	3.2
24			9.9	22	13	14	11	8.5	4.8	9.8	50	3.0
25			10	12	12	14	11	9.6	4.5	e45	11	3.2
26			11	11	12	14	50	8.1	4.3	e24	9.7	3.9
27			12	455	12	17	13	8.3	4.2	9.8	80	22
28			11	27	15	84	11	16	4.1	4.9	16	7.8
29			11	23	12	25	151	176	4.2	4.4	6.7	4.6
30			11	39	---	16	226	21	4.1	15	4.4	69
31			16	31	---	27	---	9.8	---	6.1	4.1	---
TOTAL			454.6	1108	883	1105	958	514.1	402.6	265.7	592.8	515.0
MEAN			14.7	35.7	30.4	35.6	31.9	16.6	13.4	8.57	19.1	17.2
MAX			51	455	353	252	226	176	146	45	89	133
MIN			9.0	10	12	11	11	8.1	4.1	3.2	3.2	3.0
CFSM			.77	1.88	1.61	1.88	1.68	.87	.71	.45	1.01	.90
IN.			.89	2.17	1.73	2.17	1.88	1.01	.79	.52	1.16	1.01

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD DECEMBER 1995 TO SEPTEMBER 1996

MEAN	---	---	14.7	35.7	30.4	35.6	31.9	16.6	13.4	8.57	19.1	17.2
MAX	---	---	14.7	35.7	30.4	35.6	31.9	16.6	13.4	8.57	19.1	17.2
(WY)	---	---	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	---	---	14.7	35.7	30.4	35.6	31.9	16.6	13.4	8.57	19.1	17.2
(WY)	---	---	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996

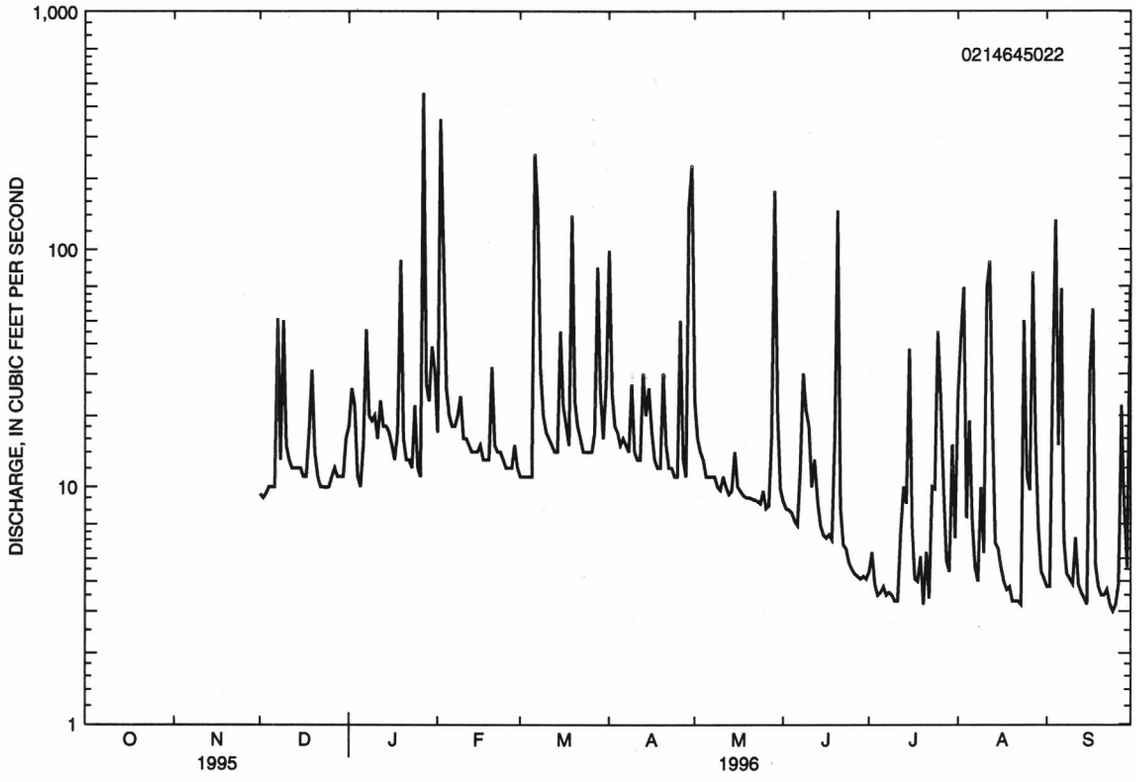
SANTEE RIVER BASIN

0214645022 BRIAR CREEK AT SECOND FOOTBRIDGE UPSTREAM OF COLONY ROAD AT CHARLOTTE, NC--Continued

SUMMARY STATISTICS FOR PERIOD DECEMBER 1995 TO SEPTEMBER 1996

ANNUAL TOTAL	6798.8	
ANNUAL MEAN	22.3	
HIGHEST DAILY MEAN	455	Jan 27
LOWEST DAILY MEAN	3.0	Sep 24
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 19
INSTANTANEOUS PEAK FLOW	1840	Jan 27
INSTANTANEOUS PEAK STAGE	9.75	Jan 27
INSTANTANEOUS LOW FLOW	2.7	Jul 23
ANNUAL RUNOFF (CFSM)	1.18	
ANNUAL RUNOFF (INCHES)	13.33	
10 PERCENT EXCEEDS	38	
50 PERCENT EXCEEDS	12	
90 PERCENT EXCEEDS	3.9	

e Estimated.



SANTEE RIVER BASIN

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC

LOCATION.--Lat 35°09'53", long 80°51'12", Mecklenburg County, Hydrologic Unit 03050103, on right bank at downstream side of bridge on Seneca Place, 0.8 mi upstream from mouth, and 4 mi south of city hall in Charlotte.

DRAINAGE AREA.--2.63 mi^2.

PERIOD OF RECORD.--Water years 1967 to 1970 (annual maximum), December 1982 to September 1990, October 1994 to current year.

REVISED RECORDS.--WDR NC-85-1: 1984 (P). WDR NC-88-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 597.77 ft above sea level (North Carolina Coast and Geodetic Survey bench mark). Telephone telemetry at site.

REMARKS.--No estimated daily discharges. Records good. The drainage area is urbanized and has an impervious area of about 25 percent. No flow occurred periodically in 1986, 1987, and 1988. Minimum discharge for current water year also occurred Sept. 24-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	1.0	1.2	1.9	1.9	1.2	15	2.7	.62	4.2	3.2	.31
2	.54	29	1.2	4.5	69	1.2	3.2	2.1	.61	1.3	1.4	.53
3	.51	2.7	1.2	1.8	8.8	1.2	2.2	1.9	.62	.95	8.7	1.8
4	57	1.8	1.2	1.2	3.1	1.2	2.0	1.8	.61	.92	.95	13
5	8.6	1.3	1.2	1.1	2.3	1.2	1.9	1.7	.59	.90	.94	2.3
6	1.3	1.2	1.2	2.2	2.0	39	2.0	1.6	.56	.87	1.2	7.4
7	.90	35	7.1	5.2	2.0	23	1.8	1.5	.83	.87	.86	.49
8	.74	2.8	1.3	2.6	2.1	3.4	1.7	1.5	6.5	1.0	.84	.43
9	.68	1.7	6.0	2.3	2.6	2.4	3.8	1.4	6.1	2.1	1.3	.39
10	.63	1.5	1.5	2.5	1.6	2.1	1.7	1.4	.80	1.8	.94	.40
11	.60	45	1.4	1.7	1.6	1.9	1.7	2.2	.68	1.6	54	.39
12	.59	3.2	1.3	3.0	1.6	2.0	1.7	1.4	1.6	2.8	19	.35
13	3.2	2.0	1.3	1.9	1.6	1.9	4.7	1.3	.65	2.6	2.8	.32
14	15	2.5	1.3	1.8	1.5	1.8	2.0	1.3	.58	2.3	1.1	.33
15	1.3	1.5	1.2	1.7	1.4	4.8	6.5	1.9	.54	6.6	.88	.31
16	.82	1.4	1.2	1.5	1.5	2.6	1.9	1.3	.55	1.1	.80	3.9
17	.70	1.3	1.1	1.5	1.3	2.4	1.6	1.3	.51	.83	.76	5.9
18	.75	1.2	2.1	1.9	1.3	1.8	1.6	1.3	.50	.87	.66	.36
19	.81	1.2	3.3	15	1.3	23	1.6	1.2	9.5	.87	.60	.34
20	8.0	1.2	1.4	1.8	5.4	2.7	4.0	1.1	13	.86	.61	.36
21	1.4	1.1	1.2	1.6	1.5	2.2	1.7	1.0	2.0	.71	.45	.38
22	.76	1.1	1.2	1.5	1.4	1.9	1.5	1.0	1.3	.67	.42	.39
23	.72	1.1	1.1	1.4	1.4	1.8	1.7	1.0	1.3	2.5	.38	.34
24	.85	10	1.1	3.3	1.3	1.8	1.5	.96	1.3	1.2	3.8	.34
25	1.0	2.0	1.2	1.4	1.3	1.9	1.5	1.3	1.3	11	.62	.31
26	1.0	1.4	1.1	1.4	1.3	1.8	10	1.0	1.1	1.7	1.9	.30
27	28	1.8	1.2	69	1.4	2.5	1.7	1.0	1.1	.78	.54	.98
28	2.9	1.2	1.0	2.7	1.9	8.4	1.5	1.5	1.5	.78	1.1	.40
29	1.2	3.9	1.1	2.3	1.3	2.1	26	9.2	2.2	.70	.59	.38
30	1.0	1.3	1.3	4.2	---	1.8	40	.94	2.3	7.3	.36	19
31	1.3	---	1.5	3.1	---	5.7	---	.66	---	3.1	.34	---
TOTAL	143.36	163.4	51.7	149.0	126.7	152.7	149.7	51.46	61.35	65.78	112.04	62.43
MEAN	4.62	5.45	1.67	4.81	4.37	4.93	4.99	1.66	2.04	2.12	3.61	2.08
MAX	57	45	7.1	69	69	39	40	9.2	13	11	54	19
MIN	.51	1.0	1.0	1.1	1.3	1.2	1.5	.66	.50	.67	.34	.30
CFSM	1.70	2.00	.61	1.77	1.61	1.81	1.83	.61	.75	.78	1.33	.77
IN.	1.96	2.23	.71	2.04	1.73	2.09	2.05	.70	.84	.90	1.53	.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996@, BY WATER YEAR (WY)

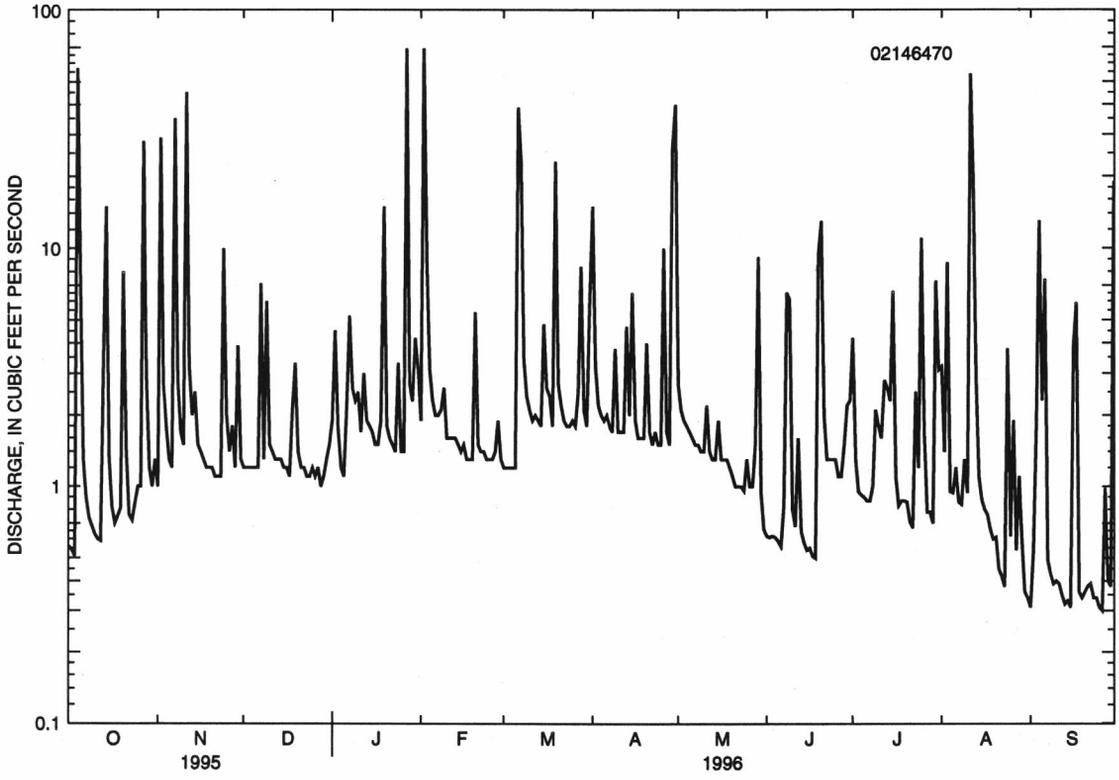
MEAN	2.48	3.51	3.27	4.20	6.02	4.90	2.72	3.20	2.40	1.95	3.14	2.48
MAX	5.05	10.5	10.5	7.58	8.96	9.04	4.99	6.65	7.18	4.13	9.12	8.17
(WY)	1990	1986	1984	1984	1990	1984	1996	1990	1985	1995	1995	1989
MIN	.57	.95	1.38	1.70	1.59	1.03	1.24	.88	.22	.31	.19	.34
(WY)	1988	1985	1989	1986	1986	1985	1985	1987	1986	1986	1987	1983

SANTEE RIVER BASIN

02146470 LITTLE HOPE CREEK AT SENECA PLACE AT CHARLOTTE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996@	
ANNUAL TOTAL	1480.43		1289.62			
ANNUAL MEAN	4.06		3.52		3.35	
HIGHEST ANNUAL MEAN					4.87	1984
LOWEST ANNUAL MEAN					2.31	1988
HIGHEST DAILY MEAN	242	Aug 27	69	Jan 27	242	Aug 27 1995
LOWEST DAILY MEAN	.37	Aug 12	.30	Sep 26	0	Jul 14 1986
ANNUAL SEVEN-DAY MINIMUM	.40	Aug 11	.35	Sep 20	0	Jul 14 1986
INSTANTANEOUS PEAK FLOW			766	Aug 11	1680	Jun 7 1985
INSTANTANEOUS PEAK STAGE			6.64	Aug 11	8.47	Jun 7 1985
INSTANTANEOUS LOW FLOW			.26*	Sep 14	0*	Jul 14 1986
ANNUAL RUNOFF (CFSM)	1.49		1.30		1.23	
ANNUAL RUNOFF (INCHES)	20.25		17.64		16.75	
10 PERCENT EXCEEDS	8.8		6.2		6.1	
50 PERCENT EXCEEDS	1.1		1.4		1.0	
90 PERCENT EXCEEDS	.48		.57		.24	

* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level (levels by City of Charlotte).

REMARKS.--No estimated daily discharges. Records good. A daily average of 5.78 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 30 percent. Minimum discharge for period of record also occurred Oct. 14, 1981.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	38	48	59	64	39	318	72	34	34	97	26
2	31	529	48	83	1070	40	82	51	32	31	67	27
3	31	84	47	77	333	38	64	46	31	27	211	97
4	1160	70	46	42	88	38	60	44	32	27	41	413
5	192	44	45	40	68	39	58	42	32	27	53	49
6	62	41	47	51	64	714	59	40	31	28	39	221
7	42	718	164	142	59	466	56	39	36	27	30	33
8	35	109	52	67	63	99	49	40	97	27	29	29
9	34	56	152	58	76	63	84	39	97	30	45	28
10	32	49	58	73	52	50	45	38	49	28	32	34
11	31	780	49	58	49	48	43	56	36	27	318	29
12	31	131	47	78	46	54	42	42	53	34	367	28
13	65	64	44	62	44	55	81	36	39	43	72	27
14	319	78	45	63	44	50	69	36	31	48	31	25
15	64	56	41	60	46	125	93	49	31	115	29	25
16	36	52	41	54	45	68	52	40	32	39	28	76
17	34	50	39	50	43	59	42	37	31	28	27	170
18	33	48	52	58	41	47	41	36	30	33	27	29
19	32	46	96	289	41	424	42	35	39	37	27	27
20	122	45	50	56	127	74	97	35	363	28	26	26
21	132	41	40	48	52	55	54	34	35	32	26	26
22	34	42	40	45	45	49	42	33	32	28	26	27
23	32	42	39	44	44	46	42	32	31	40	26	25
24	32	207	38	89	42	44	40	33	30	51	128	25
25	32	88	38	47	40	48	38	36	30	180	46	25
26	32	54	42	43	43	48	172	32	30	91	52	25
27	487	51	38	1370	42	51	47	33	29	46	108	52
28	254	48	41	106	50	211	39	55	28	30	65	42
29	44	103	37	74	41	69	437	435	29	29	43	30
30	39	53	38	135	---	50	697	68	28	68	27	172
31	39	---	52	96	---	70	---	36	---	35	27	---
TOTAL	3573	3817	1654	3617	2862	3331	3085	1680	1458	1348	2170	1868
MEAN	115	127	53.4	117	98.7	107	103	54.2	48.6	43.5	70.0	62.3
MAX	1160	780	164	1370	1070	714	697	435	363	180	367	413
MIN	30	38	37	40	40	38	38	32	28	27	26	25
CFSM	2.71	2.99	1.25	2.74	2.32	2.52	2.41	1.27	1.14	1.02	1.64	1.46
IN.	3.12	3.33	1.44	3.16	2.50	2.91	2.69	1.47	1.27	1.18	1.89	1.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

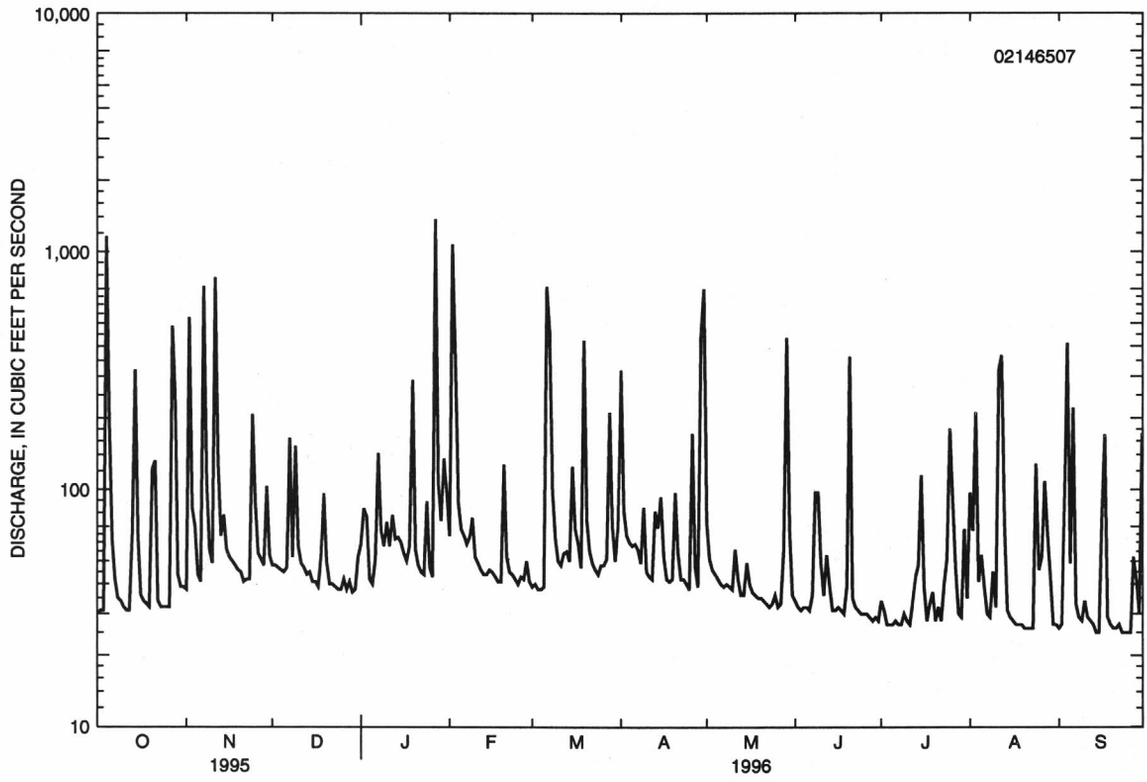
MEAN	71.7	74.8	68.6	108	115	124	77.5	72.8	71.9	57.2	78.3	62.1
MAX	258	197	164	207	194	245	127	119	152	95.7	227	147
(WY)	1991	1986	1984	1978	1979	1993	1979	1985	1992	1984	1995	1979
MIN	25.7	22.6	32.8	31.6	44.7	40.0	30.8	33.8	20.5	27.2	29.5	21.7
(WY)	1992	1982	1981	1981	1986	1985	1981	1986	1986	1986	1987	1986

SANTEE RIVER BASIN

02146507 LITTLE SUGAR CREEK AT ARCHDALE DRIVE AT CHARLOTTE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1978 - 1996	
ANNUAL TOTAL	38162		30463			
ANNUAL MEAN	105		83.2		81.7	
HIGHEST ANNUAL MEAN					110	1991
LOWEST ANNUAL MEAN					51.7	1981
HIGHEST DAILY MEAN	5570	Aug 27	1370	Jan 27	5570	Aug 27 1995
LOWEST DAILY MEAN	20	Jul 14	25	Sep 14	15	Sep 20 1981
ANNUAL SEVEN-DAY MINIMUM	25	Aug 8	26	Sep 20	15	May 28 1994
INSTANTANEOUS PEAK FLOW			5920	Jan 27	11100	Aug 27 1995
INSTANTANEOUS PEAK STAGE			10.66	Jan 27	13.14	Aug 27 1995
INSTANTANEOUS LOW FLOW			19	Aug 22	11*	Sep 24 1981
ANNUAL RUNOFF (CFSM)	2.45		1.95		1.92	
ANNUAL RUNOFF (INCHES)	33.32		26.60		26.04	
10 PERCENT EXCEEDS	202		131		146	
50 PERCENT EXCEEDS	42		44		38	
90 PERCENT EXCEEDS	28		28		25	

* 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 sea level (levels by City of Charlotte).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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. The drainage area has an impervious area of about 20 percent. No flow for part of Nov. 15, 1972, was result of upstream construction; minimum discharge for period of record not affected by construction. Minimum discharge for current water year also occurred July 12, Aug. 23, 24.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	22	26	30	17	288	58	11	7.3	38	8.8
2	10	319	19	42	609	18	70	30	10	8.4	34	8.5
3	10	55	17	51	320	17	33	23	9.4	6.9	240	26
4	1010	29	17	22	58	16	27	20	9.9	5.9	17	99
5	184	18	17	18	34	15	24	18	8.9	5.8	24	31
6	44	16	16	18	30	598	23	17	8.5	5.9	13	191
7	23	433	106	114	30	444	23	16	14	5.9	33	20
8	18	89	27	42	34	89	21	16	42	5.8	9.9	13
9	16	30	93	36	45	38	41	16	39	7.1	13	12
10	14	22	30	39	28	28	22	15	53	8.1	9.3	13
11	13	600	23	34	26	24	19	14	61	5.5	112	16
12	12	126	20	43	22	23	18	15	14	10	160	12
13	15	38	19	37	21	21	27	13	12	43	46	8.6
14	108	47	18	34	21	20	32	14	9.8	18	14	7.3
15	41	26	17	34	20	33	32	17	10	54	10	7.2
16	17	19	17	28	21	32	31	15	19	17	8.8	43
17	13	18	17	24	20	27	19	14	12	8.7	7.5	131
18	12	16	18	31	19	22	17	13	8.1	7.5	7.0	15
19	12	17	43	361	17	152	17	13	7.8	7.4	6.5	10
20	14	16	27	e58	52	40	45	12	424	5.8	6.1	9.1
21	35	17	19	32	25	26	29	11	51	8.3	5.7	8.8
22	13	15	17	25	22	23	18	9.8	16	7.1	e5.6	16
23	11	15	16	24	21	20	16	9.5	12	19	5.4	8.6
24	11	138	16	40	20	19	15	11	9.7	21	152	7.0
25	11	76	16	25	17	20	14	20	11	45	51	6.8
26	11	27	16	21	17	20	80	11	8.4	34	250	6.5
27	127	21	15	953	18	22	26	11	7.8	11	219	6.8
28	139	20	15	69	23	143	16	14	7.2	8.0	92	8.7
29	20	79	15	38	19	39	680	100	7.2	8.3	18	8.8
30	14	29	15	54	---	26	526	40	7.0	45	12	63
31	13	---	24	48	---	51	---	15	---	16	9.7	---
TOTAL	2003	2385	767	2421	1639	2083	2249	621.3	920.7	466.7	1629.5	822.5
MEAN	64.6	79.5	24.7	78.1	56.5	67.2	75.0	20.0	30.7	15.1	52.6	27.4
MAX	1010	600	106	953	609	598	680	100	424	54	250	191
MIN	10	14	15	18	17	15	14	9.5	7.0	5.5	5.4	6.5
CFSM	1.63	2.01	.62	1.97	1.43	1.70	1.89	.51	.77	.38	1.33	.69
IN.	1.88	2.24	.72	2.27	1.54	1.96	2.11	.58	.86	.44	1.53	.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	34.1	30.2	40.1	67.3	75.9	86.7	47.1	33.7	30.9	24.9	34.9	23.2
MAX	212	109	128	157	169	200	120	173	123	75.1	178	162
(WY)	1991	1986	1984	1978	1979	1977	1962	1975	1992	1995	1994	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

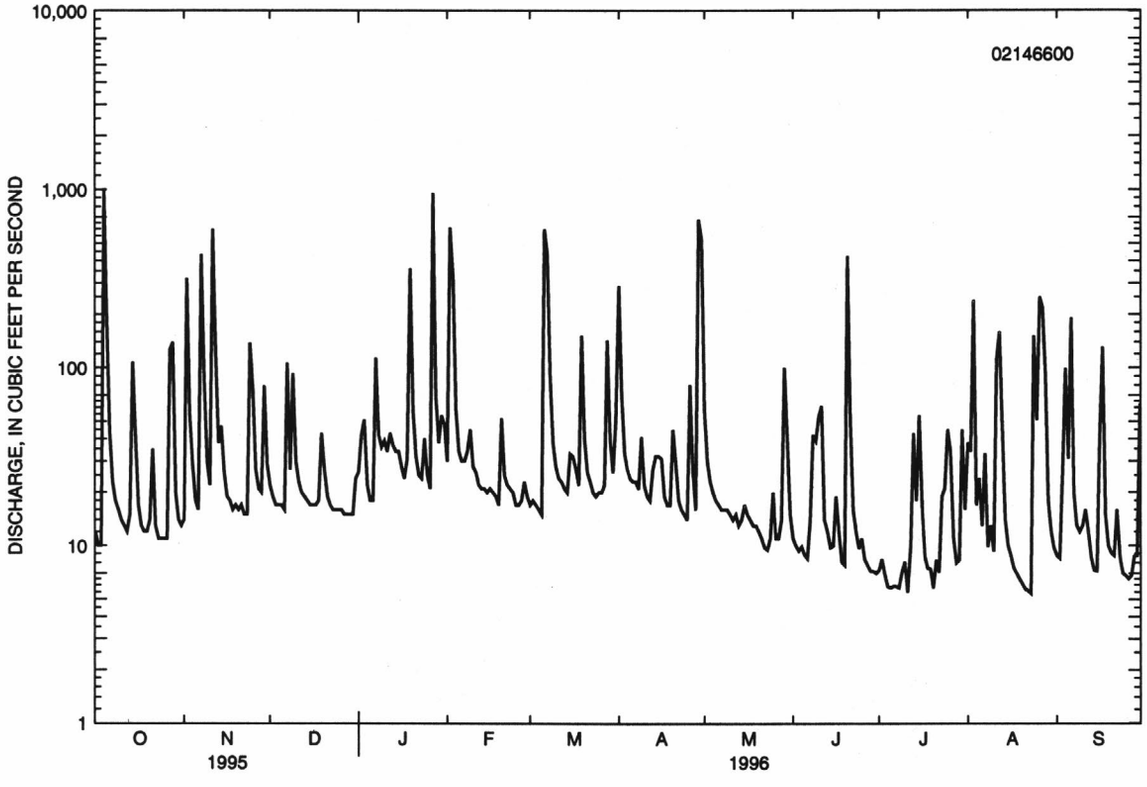
SANTEE RIVER BASIN

02146600 MCALPINE CREEK AT SARDIS ROAD NEAR CHARLOTTE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	24550.4		18007.7			
ANNUAL MEAN	67.3		49.2		44.0	
HIGHEST ANNUAL MEAN					72.4	1975
LOWEST ANNUAL MEAN					19.6	1970
HIGHEST DAILY MEAN	4490	Aug 27	1010	Oct 4	4490	Aug 27 1995
LOWEST DAILY MEAN	6.1	Aug 25	5.4	Aug 23	.26	Jul 19 1986
ANNUAL SEVEN-DAY MINIMUM	6.8	Aug 8	6.2	Jul 3	.40	Jul 14 1986
INSTANTANEOUS PEAK FLOW			2950	Jan 27	9040	Aug 27 1995
INSTANTANEOUS PEAK STAGE			10.95	Jan 27	17.79	Aug 27 1995
INSTANTANEOUS LOW FLOW			5.1*	Jul 11	.17*	Jul 19 1986
ANNUAL RUNOFF (CFSM)	1.70		1.24		1.11	
ANNUAL RUNOFF (INCHES)	23.06		16.92		15.11	
10 PERCENT EXCEEDS	119		90		74	
50 PERCENT EXCEEDS	19		19		13	
90 PERCENT EXCEEDS	9.8		8.4		3.8	

e Estimated.

* 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 sea level (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 has an impervious area of about 20 percent. Maximum discharge for period of record from rating curve extended above 2,650 ft^3/s on basis of computation of peak flow through culvert. No flow occurred periodically from 1962 to 1973. Minimum discharge for current water year also occurred July 22, 23.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.2	3.1	5.9	4.3	2.3	42	7.4	1.1	.90	14	.97
2	1.2	79	3.1	11	164	2.3	8.8	4.0	1.1	.77	10	.95
3	1.2	9.5	3.2	7.0	35	2.5	4.6	3.1	1.1	.78	52	12
4	170	6.7	2.3	2.7	8.6	2.2	3.9	2.6	1.1	.45	1.2	63
5	21	3.8	2.2	2.2	5.4	2.1	3.4	2.3	1.1	.46	21	5.5
6	5.3	2.5	2.4	4.8	4.7	112	3.6	2.2	.97	.59	2.7	36
7	2.9	96	27	25	4.6	81	3.2	2.1	8.8	.61	.98	2.0
8	2.8	13	3.7	9.2	5.9	12	2.9	2.1	12	.72	.77	1.5
9	2.7	4.2	21	7.4	8.4	5.1	9.8	2.2	5.3	3.9	4.7	1.4
10	2.3	3.1	4.0	9.6	4.0	4.0	2.8	1.8	6.0	.87	.92	8.6
11	2.5	128	3.0	5.7	3.7	3.8	2.6	1.9	1.5	.50	18	11
12	2.1	17	2.6	11	3.0	3.5	2.6	1.7	1.4	1.9	43	2.2
13	5.9	5.7	2.4	6.7	2.8	3.2	6.9	1.6	1.6	6.0	7.6	1.3
14	41	12	2.3	6.3	2.9	3.2	4.4	1.8	1.2	1.6	1.4	1.2
15	7.4	4.2	2.4	5.7	2.8	7.4	7.5	3.1	1.1	15	1.2	1.0
16	2.3	3.2	2.3	4.3	3.1	4.9	6.3	1.9	.95	1.9	.99	12
17	2.0	2.8	2.1	3.6	2.6	5.0	2.4	1.6	.93	.74	.90	15
18	1.8	2.6	4.8	6.6	3.0	3.2	2.3	1.5	.79	1.0	.82	1.4
19	2.0	2.7	12	53	2.3	50	2.7	1.4	1.3	1.0	.99	1.0
20	7.0	2.5	3.7	5.7	15	6.2	19	1.5	52	.55	.70	1.0
21	14	2.5	2.4	3.8	3.6	3.8	4.9	1.5	2.4	.36	.63	1.1
22	2.2	2.3	2.1	3.3	3.1	3.3	2.7	1.5	1.2	.45	.61	1.9
23	1.8	2.1	2.1	3.2	2.9	2.9	2.5	1.4	.93	2.3	.54	1.0
24	1.8	30	2.1	8.8	2.7	3.1	2.1	1.2	.78	2.6	50	.99
25	1.7	14	2.1	3.2	2.3	3.3	2.1	1.9	1.0	17	5.3	.84
26	1.6	4.5	2.1	2.5	2.4	3.1	22	1.3	.64	5.5	24	.82
27	55	3.3	2.1	220	2.4	7.5	3.0	1.3	.54	.75	20	11
28	31	3.1	2.1	8.8	4.7	26	2.1	3.6	.51	.88	6.6	2.7
29	2.8	19	1.9	5.8	2.5	5.2	99	21	.54	.74	1.6	1.7
30	2.2	4.4	2.1	12	---	3.8	101	3.2	.55	17	1.1	26
31	2.3	---	4.8	9.3	---	11	---	1.3	---	4.1	1.1	---
TOTAL	401.1	485.9	135.5	474.1	312.7	388.9	383.1	87.0	110.43	91.92	295.35	227.07
MEAN	12.9	16.2	4.37	15.3	10.8	12.5	12.8	2.81	3.68	2.97	9.53	7.57
MAX	170	128	27	220	164	112	101	21	52	17	52	63
MIN	1.2	2.1	1.9	2.2	2.3	2.1	2.1	1.2	.51	.36	.54	.82
CFSM	1.86	2.33	.63	2.20	1.55	1.81	1.84	.40	.53	.43	1.37	1.09
IN.	2.15	2.60	.73	2.54	1.67	2.08	2.05	.47	.59	.49	1.58	1.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

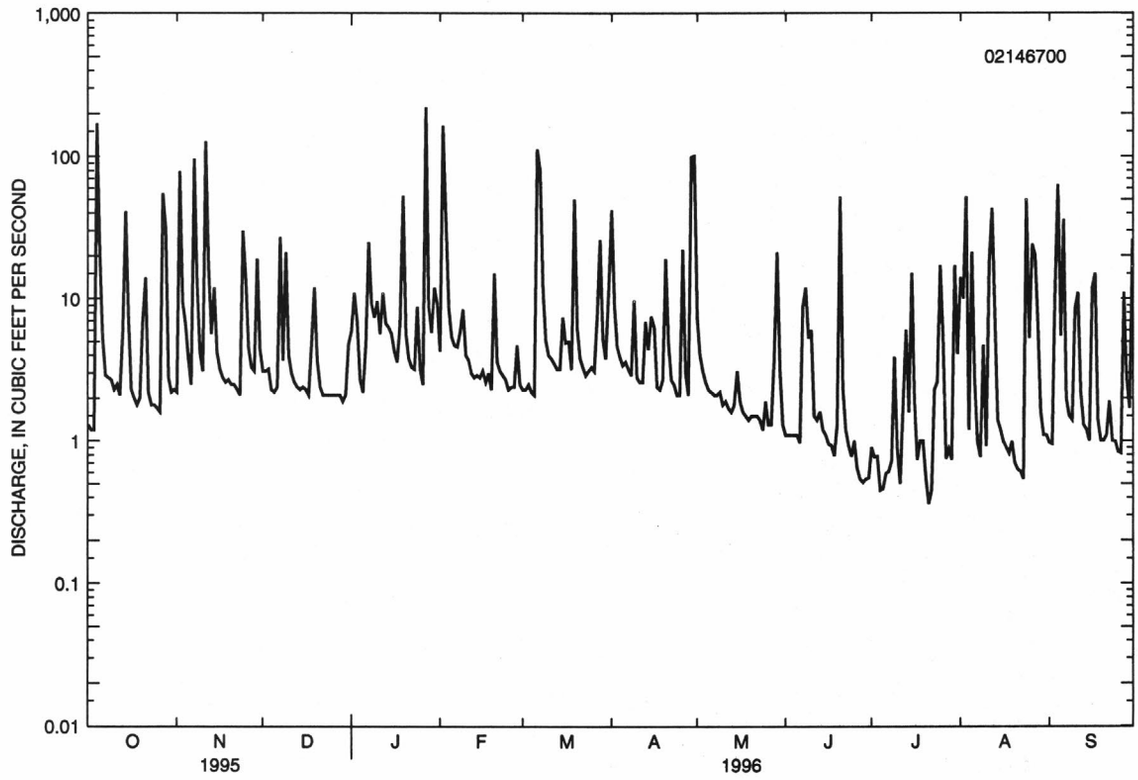
MEAN	6.20	5.91	7.83	12.5	13.6	15.7	7.32	6.73	6.72	5.48	6.14	5.37
MAX	30.4	21.3	24.3	33.5	28.1	38.8	19.0	31.3	27.3	14.4	32.1	23.8
(WY)	1991	1986	1977	1978	1979	1977	1962	1975	1992	1971	1995	1987
MIN	.21	.54	.86	1.02	1.77	1.74	1.13	1.08	.75	.61	.24	.084
(WY)	1964	1970	1966	1981	1968	1985	1981	1962	1966	1963	1968	1970

SANTEE RIVER BASIN

02146700 MCMULLEN CREEK AT SHARON VIEW ROAD NEAR CHARLOTTE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	4588.55		3393.07			
ANNUAL MEAN	12.6		9.27		8.29	
HIGHEST ANNUAL MEAN					13.8	1975
LOWEST ANNUAL MEAN					3.19	1970
HIGHEST DAILY MEAN	868	Aug 27	220	Jan 27	868	Aug 27 1995
LOWEST DAILY MEAN	.70	Aug 23	.36	Jul 21	0	Aug 31 1962
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 8	.63	Jul 2	.01	Sep 19 1968
INSTANTANEOUS PEAK FLOW			1340	Jan 27	3470*	Aug 27 1995
INSTANTANEOUS PEAK STAGE			7.75	Jan 27	11.03	Aug 27 1995
INSTANTANEOUS LOW FLOW			.31*	Jul 21	0*	Aug 31 1962
ANNUAL RUNOFF (CFSM)	1.81		1.33		1.19	
ANNUAL RUNOFF (INCHES)	24.56		18.16		16.20	
10 PERCENT EXCEEDS	24		19		15	
50 PERCENT EXCEEDS	2.6		2.8		1.5	
90 PERCENT EXCEEDS	1.2		.94		.30	

* See REMARKS.



SANTEE RIVER BASIN

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 sea level. Prior to Oct. 1, 1977, present site at 517.38 ft. Telephone telemetry at site.

REMARKS.--Records fair. Some periods of high flow may be affected by variable backwater not adequately defined. The drainage area has an impervious area of about 17 percent. Maximum gage-height for period of record, from high-water mark in gage house.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	35	53	56	89	40	698	299	26	14	35	20
2	17	598	42	55	711	41	312	85	23	15	22	18
3	17	515	36	139	1560	40	83	64	21	19	953	50
4	1130	78	33	52	236	37	61	52	21	17	95	563
5	1200	48	31	42	98	38	51	45	20	13	42	95
6	155	41	28	41	81	842	46	42	19	11	46	564
7	53	496	110	307	77	1240	48	39	27	10	30	68
8	36	724	73	98	80	451	42	39	62	9.6	54	33
9	31	83	213	85	93	99	71	40	84	9.0	27	26
10	28	54	76	85	73	72	46	35	73	11	26	48
11	26	675	52	90	65	63	40	33	76	11	19	54
12	24	1090	45	87	59	56	39	33	38	13	598	42
13	33	115	42	91	53	51	45	30	38	59	212	26
14	164	121	40	76	52	48	84	31	28	142	33	22
15	275	74	40	73	50	52	57	34	26	72	20	20
16	40	53	39	64	49	73	66	36	30	61	17	46
17	28	47	37	58	49	57	44	32	45	19	15	612
18	24	43	39	59	47	48	37	31	24	15	14	58
19	23	41	82	788	47	411	36	28	25	17	13	33
20	26	41	71	318	85	150	71	27	689	11	12	28
21	80	43	44	85	70	64	85	26	441	12	12	25
22	25	40	39	68	52	51	41	26	57	14	12	35
23	20	36	37	62	50	45	36	24	38	24	12	26
24	20	151	35	76	48	42	34	24	33	53	111	22
25	19	411	35	71	43	43	31	42	31	22	405	21
26	19	82	34	54	42	46	141	26	26	70	222	21
27	102	69	34	1730	42	e108	76	25	20	22	458	33
28	797	68	34	542	47	235	37	29	17	16	529	41
29	67	193	33	119	50	94	601	87	16	14	214	29
30	38	124	33	124	---	53	1990	190	15	19	36	78
31	34	---	49	118	---	56	---	36	---	35	24	---
TOTAL	4568	6189	1589	5713	4098	4746	5049	1590	2089	849.6	4318	2757
MEAN	147	206	51.3	184	141	153	168	51.3	69.6	27.4	139	91.9
MAX	1200	1090	213	1730	1560	1240	1990	299	689	142	953	612
MIN	17	35	28	41	42	37	31	24	15	9.0	12	18
CFSM	1.59	2.23	.55	1.99	1.53	1.66	1.82	.56	.75	.30	1.51	.99
IN.	1.84	2.49	.64	2.30	1.65	1.91	2.03	.64	.84	.34	1.74	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)

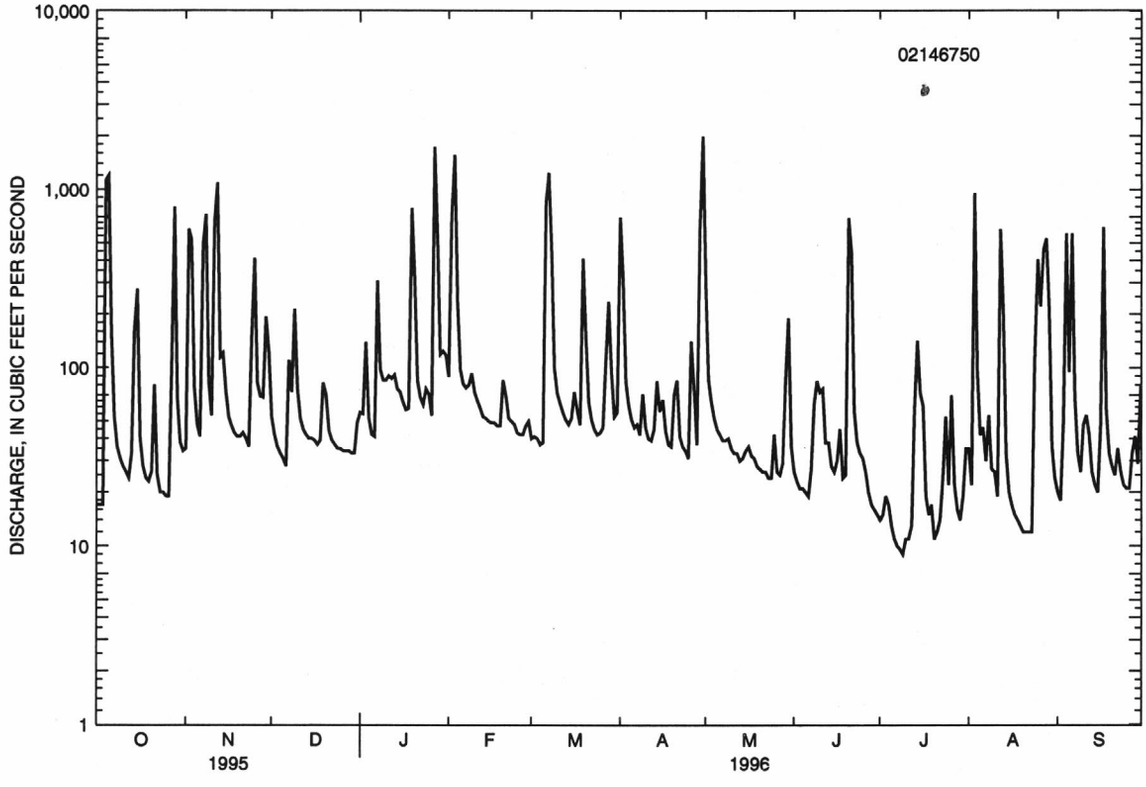
MEAN	103	114	134	239	229	272	122	102	78.3	76.4	119	85.6
MAX	540	414	497	550	506	544	302	397	258	355	597	510
(WY)	1991	1986	1984	1978	1984	1980	1979	1975	1992	1984	1994	1987
MIN	6.82	11.5	24.0	18.6	39.0	35.8	21.9	18.2	7.43	7.07	8.66	5.03
(WY)	1979	1982	1981	1981	1978	1981	1981	1981	1986	1977	1977	1983

SANTEE RIVER BASIN

02146750 MCALPINE CREEK BELOW MCMULLEN CREEK NEAR PINEVILLE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1974 - 1996	
ANNUAL TOTAL	59526		43555.6			
ANNUAL MEAN	163		119		140	
HIGHEST ANNUAL MEAN					235	1984
LOWEST ANNUAL MEAN					70.6	1976
HIGHEST DAILY MEAN	7740	Aug 27	1990	Apr 30	7740	Aug 27 1995
LOWEST DAILY MEAN	10	Aug 13	9.0	Jul 9	.46	Sep 30 1983
ANNUAL SEVEN-DAY MINIMUM	12	Aug 8	11	Jul 5	.76	Sep 28 1983
INSTANTANEOUS PEAK FLOW			2730	Apr 30	12500	Aug 27 1995
INSTANTANEOUS PEAK STAGE			10.58	Apr 30	19.40*	Aug 27 1995
INSTANTANEOUS LOW FLOW			8.5	Jul 22	.45	Sep 30 1983
ANNUAL RUNOFF (CFSM)	1.76		1.29		1.51	
ANNUAL RUNOFF (INCHES)	23.97		17.54		20.54	
10 PERCENT EXCEEDS	335		282		278	
50 PERCENT EXCEEDS	42		45		34	
90 PERCENT EXCEEDS	22		19		8.9	

e Estimated.
* See REMARKS.



SANTEE RIVER BASIN

0214677974 STEELE CREEK ABOVE SECONDARY ROAD 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 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 580.692 ft above sea level.

REMARKS.--Records poor. Minimum discharge for current water year also occurred Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.6	2.3	1.9	3.7	1.8	21	4.9	.67	.54	.71	e.40
2	1.2	67	1.9	5.6	152	1.7	5.3	2.8	.66	.59	.57	e.45
3	1.3	11	1.8	2.9	31	1.6	2.6	1.9	.64	.50	.97	e2.4
4	140	4.9	1.6	1.5	6.5	1.5	2.1	1.5	.63	.48	.53	e70
5	24	2.9	1.5	1.3	5.9	1.6	1.8	1.3	.62	.49	.68	e3.5
6	4.6	2.4	1.7	2.0	4.7	66	1.8	1.2	.61	.50	2.1	6.8
7	1.3	70	11	7.0	3.3	37	1.6	1.2	.62	.50	.66	.45
8	.79	14	2.9	3.1	3.6	3.7	1.6	1.3	8.6	.50	e.41	.42
9	.65	5.2	12	3.0	4.3	1.4	2.4	1.2	2.2	1.6	e.42	.40
10	.58	3.5	4.3	4.4	2.9	1.0	1.6	1.1	.83	.72	e.43	.40
11	.54	110	2.7	2.6	2.7	.94	1.5	1.8	.68	.52	e13	.40
12	.54	16	2.1	4.7	2.5	.88	1.5	1.0	1.1	.76	e10	.38
13	7.0	9.1	1.9	3.1	2.3	.84	4.2	.94	.76	1.6	e.90	.38
14	16	8.9	1.7	2.5	2.2	.81	2.2	1.0	.66	.86	e.50	.37
15	5.4	5.9	1.6	2.6	2.0	1.1	3.3	1.2	.69	2.8	e.45	.36
16	1.1	3.7	1.7	2.1	2.0	.93	2.1	1.0	1.0	.67	e.42	2.7
17	.77	2.9	1.6	1.9	1.8	.92	1.9	.96	.96	.53	e.42	3.6
18	.70	2.5	2.6	1.8	1.8	.85	1.8	.91	.65	.54	e.42	.39
19	.67	2.3	5.6	48	1.8	25	1.9	.90	.62	.51	e.41	.38
20	4.1	2.1	2.6	5.7	8.4	2.0	3.2	.89	9.5	.46	e.41	.39
21	2.4	2.1	1.8	3.5	3.7	1.6	2.2	.87	.82	.51	e.40	.40
22	.77	2.1	1.6	2.6	4.4	1.5	2.1	.86	.63	.52	e.40	.43
23	.71	2.0	1.5	2.0	3.8	1.4	2.0	.87	.58	2.9	e.40	.40
24	.70	16	1.4	3.8	2.8	1.4	1.9	.88	.61	.75	e12	.40
25	.70	8.2	1.4	1.9	2.4	1.8	1.8	1.4	.58	8.4	e.50	.42
26	.68	4.0	1.4	1.7	2.5	1.7	6.1	.89	.51	1.1	e1.8	.42
27	25	2.9	1.3	148	2.4	2.6	2.1	.92	.51	.59	e.50	.42
28	13	2.4	1.4	6.4	3.3	13	1.8	1.3	.52	.67	e2.0	.45
29	2.6	7.6	1.5	4.2	2.0	3.6	24	9.2	.51	.58	e.90	.47
30	1.6	3.2	1.4	5.0	---	2.3	70	1.5	.51	1.1	e.45	4.4
31	3.0	---	1.6	4.5	---	4.1	---	.73	---	.62	e.41	---
TOTAL	263.50	396.4	81.4	291.3	272.7	186.57	179.4	48.42	38.48	33.41	54.17	102.78
MEAN	8.50	13.2	2.63	9.40	9.40	6.02	5.98	1.56	1.28	1.08	1.75	3.43
MAX	140	110	12	148	152	66	70	9.2	9.5	8.4	13	70
MIN	.54	1.6	1.3	1.3	1.8	.81	1.5	.73	.51	.46	.40	.36
CFSM	2.38	3.70	.74	2.63	2.63	1.69	1.68	.44	.36	.30	.49	.96
IN.	2.75	4.13	.85	3.04	2.84	1.94	1.87	.50	.40	.35	.56	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

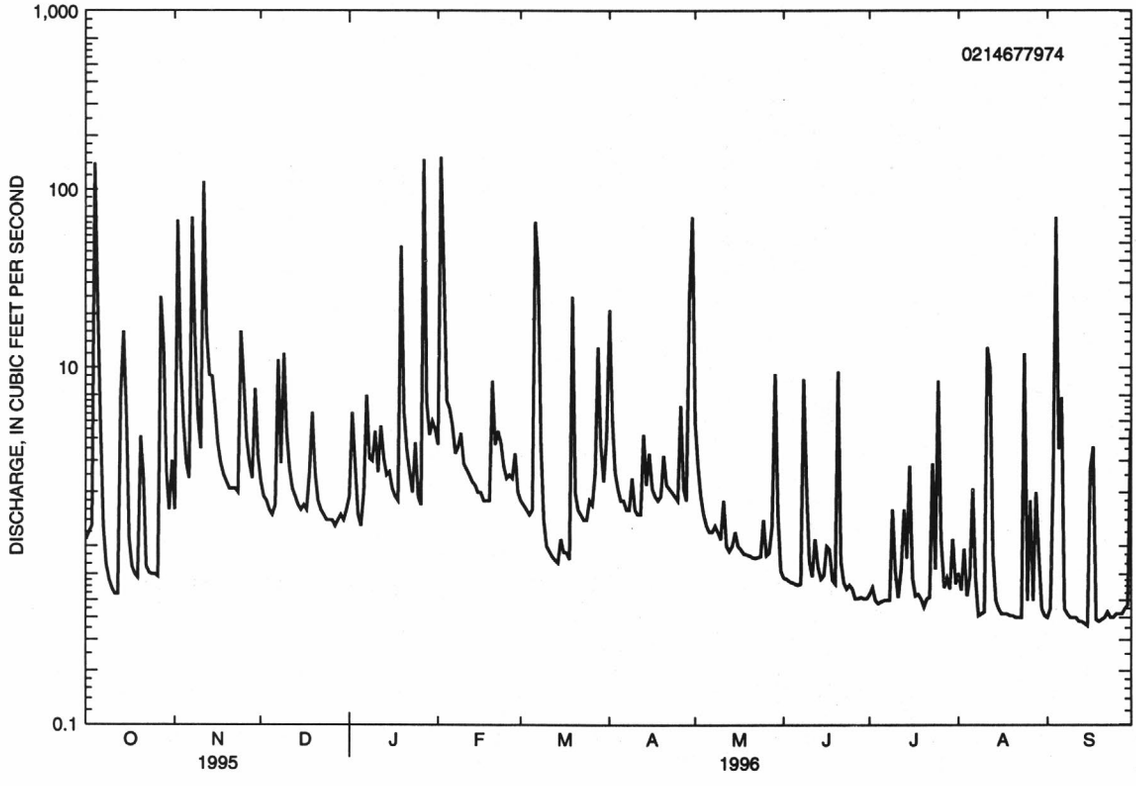
MEAN	9.09	6.14	3.75	10.0	8.13	10.1	3.73	2.94	3.14	1.41	6.65	2.70
MAX	26.3	13.2	6.14	16.9	12.8	21.3	5.98	8.85	10.7	3.28	17.4	8.33
(WY)	1991	1996	1993	1993	1995	1993	1996	1991	1992	1991	1994	1992
MIN	.57	1.01	1.94	3.56	4.96	3.30	.86	.99	.42	.44	.85	.41
(WY)	1992	1992	1994	1992	1991	1995	1995	1994	1993	1993	1993	1993

SANTEE RIVER BASIN

0214677974 STEELE CREEK ABOVE SECONDARY ROAD 1344 NEAR SHOPTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	1942.90		1948.53			
ANNUAL MEAN	5.32		5.32		5.65	
HIGHEST ANNUAL MEAN					8.53	1991
LOWEST ANNUAL MEAN					4.16	1994
HIGHEST DAILY MEAN	160	Feb 16	152	Feb 2	333	Oct 4 1992
LOWEST DAILY MEAN	.24	Aug 10	.36	Sep 15	.03	Sep 13 1993
ANNUAL SEVEN-DAY MINIMUM	.26	Aug 8	.38	Sep 9	.05	Sep 7 1993
INSTANTANEOUS PEAK FLOW			667	Jan 27	1090	Aug 19 1994
INSTANTANEOUS PEAK STAGE			8.75	Jan 27	9.71	Sep 5 1992
INSTANTANEOUS LOW FLOW			.34*	Sep 15	.01	Sep 13 1993
ANNUAL RUNOFF (CFSM)	1.49		1.49		1.58	
ANNUAL RUNOFF (INCHES)	20.25		20.30		21.50	
10 PERCENT EXCEEDS	9.5		8.3		10	
50 PERCENT EXCEEDS	.97		1.6		1.2	
90 PERCENT EXCEEDS	.45		.46		.32	

e Estimated.
* 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. Datum of gage is 489.04 ft above sea level. Prior to Mar. 13, 1962, water-stage recorder at site 70 ft downstream at same datum. Telephone telemetry at site.

REMARKS.--No estimated daily discharges. Records fair. No flow also occurred Oct. 6, 1968, Oct. 7-15, 1970, and Oct. 1-22, 1983. Minimum discharge for current water year also occurred July 11, 12.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1900 is 23.6 ft, Sept. 7, 1949, from floodmarks. No flow observed on Oct. 6, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	63	51	74	36	155	134	17	5.7	7.9	13
2	20	87	57	66	701	35	144	66	15	5.9	8.5	13
3	20	100	61	235	2090	33	70	46	15	5.9	94	16
4	969	42	60	74	176	32	55	38	14	5.5	31	93
5	905	29	58	52	103	32	47	32	14	4.7	23	28
6	93	25	56	45	83	420	43	30	14	4.3	21	94
7	44	144	59	150	77	826	44	29	12	4.1	12	27
8	30	239	53	103	79	226	39	27	13	3.9	15	16
9	24	60	68	75	80	95	41	31	15	3.8	36	14
10	22	40	71	90	72	69	39	29	16	3.6	26	13
11	22	453	49	82	64	58	35	30	17	3.6	13	13
12	19	637	43	68	58	53	34	33	16	4.0	95	14
13	19	120	40	75	53	47	33	24	18	4.5	69	15
14	25	93	38	61	51	42	65	22	44	5.8	18	17
15	59	79	37	55	50	44	42	22	135	6.3	11	16
16	26	65	38	53	48	76	42	22	30	12	9.5	18
17	18	58	37	50	47	169	36	21	20	7.9	10	53
18	16	54	35	49	45	73	32	20	15	6.2	11	24
19	15	52	43	740	43	119	30	19	27	6.1	11	16
20	15	50	62	177	50	98	33	18	117	4.9	10	14
21	21	48	45	89	57	60	48	17	203	4.8	9.9	14
22	21	48	36	69	49	49	34	16	20	4.7	9.8	15
23	16	47	34	61	46	43	30	16	12	15	11	16
24	15	53	32	65	44	39	29	15	9.2	23	12	16
25	15	138	31	73	41	38	27	16	15	9.6	53	16
26	14	75	30	56	39	37	33	16	10	15	19	16
27	18	59	29	1800	39	36	49	17	7.9	9.4	20	17
28	306	55	28	488	38	135	31	17	7.2	6.5	36	18
29	51	63	26	108	39	99	153	17	6.2	5.8	18	19
30	29	82	26	87	---	59	652	28	5.9	6.7	14	40
31	23	---	33	80	---	51	---	20	---	6.7	13	---
TOTAL	2909	3118	1378	5327	4436	3229	2145	888	880.4	215.9	747.6	714
MEAN	93.8	104	44.5	172	153	104	71.5	28.6	29.3	6.96	24.1	23.8
MAX	969	637	71	1800	2090	826	652	134	203	23	95	94
MIN	14	23	26	45	38	32	27	15	5.9	3.6	7.9	13
CFSM	1.23	1.36	.58	2.25	2.00	1.36	.93	.37	.38	.09	.32	.31
IN.	1.41	1.52	.67	2.59	2.16	1.57	1.04	.43	.43	.10	.36	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996, BY WATER YEAR (WY)

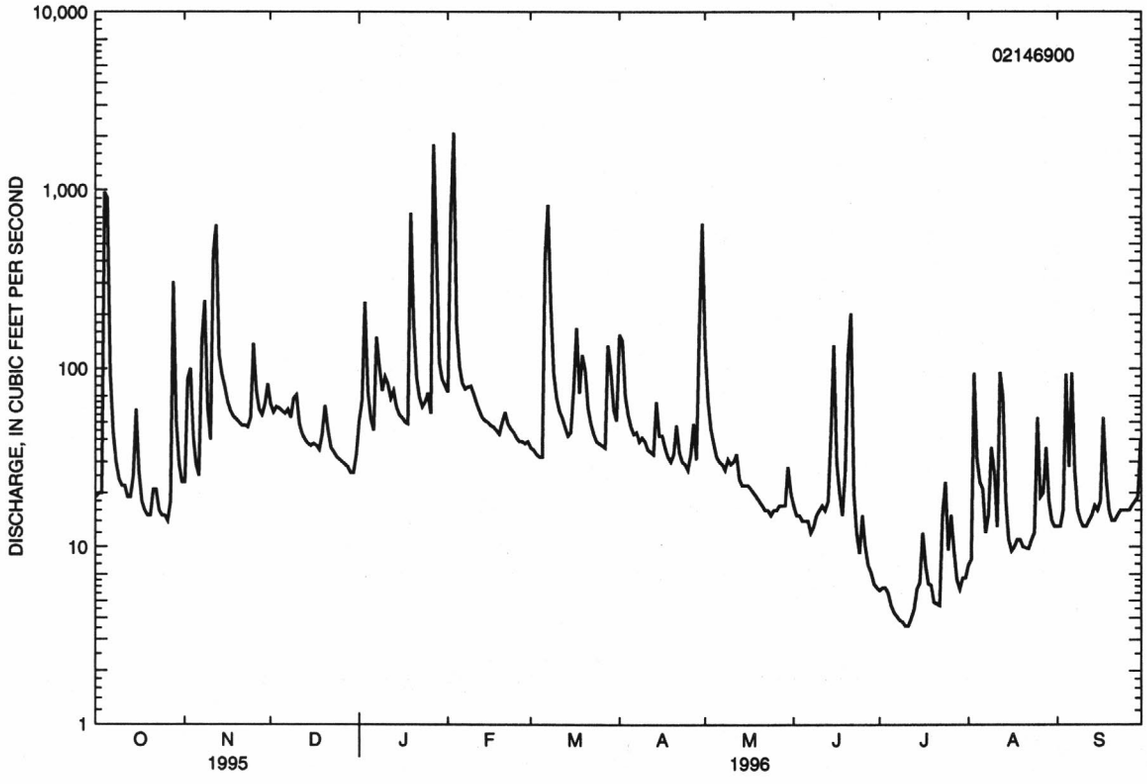
MEAN	54.3	38.2	67.4	135	165	170	91.2	46.5	34.7	35.1	45.4	30.2
MAX	372	161	261	331	351	425	289	178	111	238	318	161
(WY)	1991	1986	1984	1978	1990	1980	1973	1989	1992	1978	1995	1987
MIN	.39	2.18	5.97	11.5	22.7	25.8	14.2	6.19	1.26	2.33	.93	.15
(WY)	1984	1962	1966	1981	1986	1985	1981	1981	1986	1986	1983	1968

SANTEE RIVER BASIN

02146900 TWELVE MILE CREEK NEAR WAXHAW, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996	
ANNUAL TOTAL	32718.7		25987.9			
ANNUAL MEAN	89.6		71.0		75.8	
HIGHEST ANNUAL MEAN					150	1991
LOWEST ANNUAL MEAN					25.4	1970
HIGHEST DAILY MEAN	6700	Aug 27	2090	Feb 3	6700	Aug 27 1995
LOWEST DAILY MEAN	1.1	Aug 8	3.6	Jul 10	0	Oct 6 1968
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 5	3.9	Jul 6	0	Oct 7 1970
INSTANTANEOUS PEAK FLOW			2870	Feb 3	9970	Aug 27 1995
INSTANTANEOUS PEAK STAGE			14.69	Feb 3	21.94	Aug 27 1995
INSTANTANEOUS LOW FLOW			3.5*	Jul 10	0*	Oct 5 1968
ANNUAL RUNOFF (CFSM)	1.17		.93		.99	
ANNUAL RUNOFF (INCHES)	15.91		12.64		13.46	
10 PERCENT EXCEEDS	100		99		137	
50 PERCENT EXCEEDS	23		34		19	
90 PERCENT EXCEEDS	6.8		9.9		2.5	

* See REMARKS.



SANTEE RIVER BASIN

02149000 COVE CREEK NEAR LAKE LURE, NC

LOCATION.--Lat 35°25'24", long 82°06'42", Rutherford County, Hydrologic Unit 03050105, on left bank 40 ft upstream from bridge on U.S. Highways 64 and 74, 1.0 mi upstream from mouth, and 5.0 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 sea level. Prior to Dec. 20, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good except those during period of ice effect, Jan. 6-9, which are fair. Minimum discharge for period of record occurred several days in Sept. and Oct. 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 reached a stage of about 23 ft, from records of North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	117	112	103	203	151	208	145	89	62	72	97
2	92	157	110	118	665	151	185	135	88	61	60	88
3	91	143	109	119	604	146	176	130	91	62	58	99
4	862	123	108	104	321	143	170	126	99	59	71	96
5	1670	116	109	100	250	144	163	122	106	58	148	988
6	525	115	107	e99	228	198	160	123	88	66	79	170
7	282	349	113	e99	222	206	156	126	85	60	74	124
8	211	248	106	e101	241	185	152	123	90	59	88	106
9	179	178	147	e103	261	165	157	128	134	72	68	96
10	162	155	120	107	241	157	149	117	122	60	63	90
11	149	355	112	108	223	155	145	120	98	56	61	100
12	141	315	109	114	205	153	142	117	95	56	885	93
13	142	212	108	109	194	149	142	110	90	56	381	83
14	285	182	107	117	189	147	140	111	91	56	201	77
15	221	162	106	140	182	149	138	125	152	198	134	75
16	170	150	105	155	176	149	137	121	106	81	108	90
17	151	143	101	147	167	151	132	114	90	68	105	108
18	141	138	106	508	166	181	131	107	86	63	172	79
19	135	134	134	1390	162	547	131	103	85	60	107	75
20	132	130	124	392	268	310	140	100	101	57	89	71
21	130	127	113	256	223	228	146	98	101	56	82	71
22	123	124	109	210	201	198	134	94	82	57	81	75
23	119	123	106	187	190	181	132	90	77	55	74	69
24	117	120	103	232	179	170	130	90	74	54	70	67
25	117	118	101	198	170	169	128	115	73	78	78	67
26	113	117	101	270	167	163	150	144	70	105	121	71
27	117	116	99	1690	164	158	135	123	69	61	134	75
28	126	116	98	459	160	240	127	128	68	65	141	200
29	112	120	96	305	153	213	129	105	66	70	180	196
30	109	113	96	253	---	191	187	98	64	64	128	118
31	114	---	98	227	---	186	---	93	---	71	120	---
TOTAL	7132	4816	3373	8520	6775	5834	4452	3581	2730	2106	4233	3814
MEAN	230	161	109	275	234	188	148	116	91.0	67.9	137	127
MAX	1670	355	147	1690	665	547	208	145	152	198	885	988
MIN	91	113	96	99	153	143	127	90	64	54	58	67
CFSM	2.91	2.03	1.38	3.48	2.96	2.38	1.88	1.46	1.15	.86	1.73	1.61
IN.	3.36	2.27	1.59	4.01	3.19	2.75	2.10	1.69	1.29	.99	1.99	1.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	117	120	131	145	170	198	185	152	134	100	112	99.5
MAX	381	334	278	314	327	479	391	384	309	189	377	333
(WY)	1965	1993	1984	1993	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

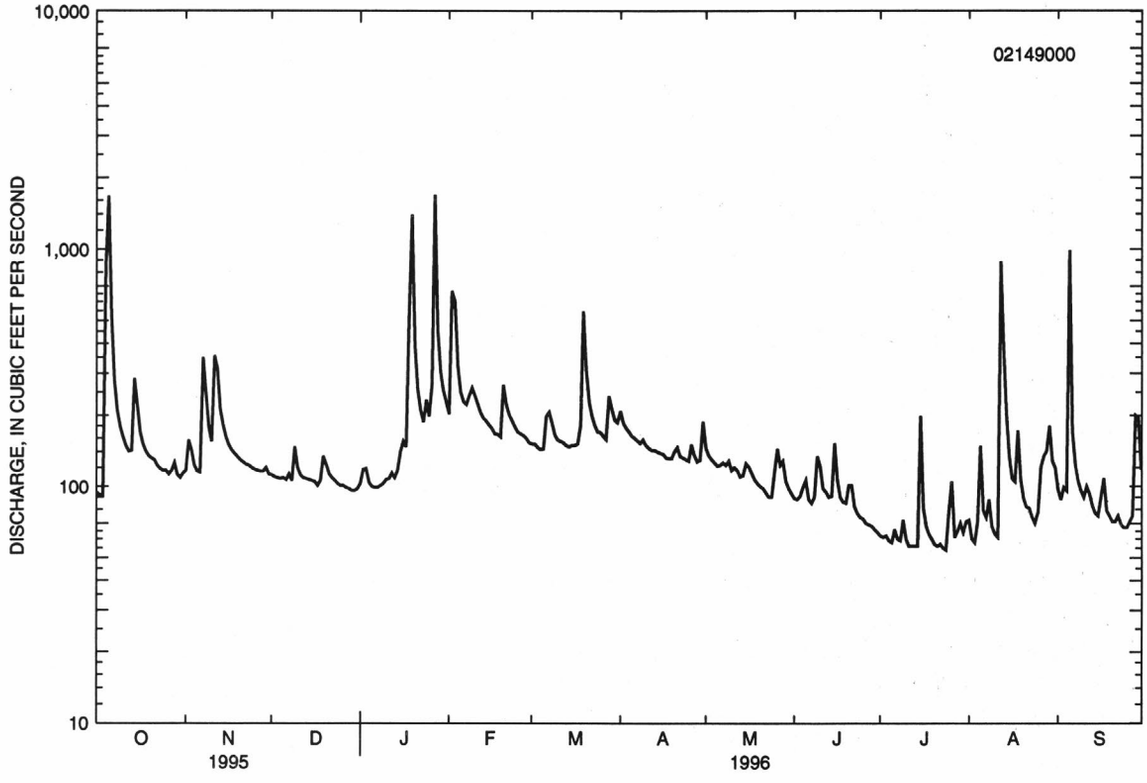
SANTEE RIVER BASIN

02149000 COVE CREEK NEAR LAKE LURE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	60609		57366			
ANNUAL MEAN	166		157		139	
HIGHEST ANNUAL MEAN					231	1993
LOWEST ANNUAL MEAN					65.3	1956
HIGHEST DAILY MEAN	2200	Aug 27	1690	Jan 27	3190	Oct 4 1964
LOWEST DAILY MEAN	58	Aug 18	54	Jul 24	21	Sep 8 1954
ANNUAL SEVEN-DAY MINIMUM	65	Aug 13	57	Jul 18	21	Sep 30 1954
INSTANTANEOUS PEAK FLOW			3400	Jan 27	7050	Jun 5 1957
INSTANTANEOUS PEAK STAGE			11.88	Jan 27	18.53	Jun 5 1957
INSTANTANEOUS LOW FLOW			50	Jul 25	21*	Sep 8 1954
ANNUAL RUNOFF (CFSM)	2.10		1.98		1.76	
ANNUAL RUNOFF (INCHES)	28.54		27.01		23.94	
10 PERCENT EXCEEDS	227		224		229	
50 PERCENT EXCEEDS	124		121		107	
90 PERCENT EXCEEDS	81		70		54	

e Estimated.

* 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 mi^2.

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

REVISED RECORDS.--WSP 892: 1928(M). WSP 1553: 1935-39(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 670.5 ft above sea level (levels by Natural Resources Conservation Service).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. 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. Minimum discharge for current water year affected by regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	270	271	249	508	e330	e535	e620	229	163	192	171
2	185	355	269	277	975	e340	e510	e460	217	146	181	160
3	191	381	264	319	3100	e330	e450	e400	213	157	144	204
4	523	327	259	286	1190	e320	e430	e360	286	152	142	207
5	2890	293	259	268	779	e330	e410	e340	259	139	152	225
6	3300	282	265	267	621	e490	e395	e320	238	144	176	207
7	886	775	280	317	543	e735	e390	e330	219	126	145	147
8	602	1180	268	292	533	e685	e370	e320	230	140	150	150
9	458	586	322	274	522	e495	e390	e310	591	171	157	152
10	392	457	313	270	498	e440	e370	e290	361	221	151	145
11	348	640	276	275	463	e405	e350	e290	283	151	145	149
12	317	1200	271	286	434	e395	e340	e280	263	151	272	210
13	338	649	267	284	414	e380	e350	e270	296	153	820	207
14	727	503	261	286	403	e370	e340	e280	302	140	563	144
15	935	440	264	328	397	e380	e330	e290	353	222	315	143
16	515	399	261	392	381	e390	e330	e290	288	281	255	162
17	420	376	255	422	366	e390	e320	e280	294	209	218	257
18	374	355	254	462	360	e405	e310	e270	256	170	248	222
19	345	339	313	1460	349	e810	e320	e260	234	167	260	148
20	326	328	342	1020	492	e845	e340	e250	221	165	216	152
21	331	311	301	658	556	e575	e350	e240	212	137	161	145
22	301	306	289	502	456	e480	e320	e230	207	147	196	150
23	282	298	269	436	429	e440	e310	212	174	150	133	157
24	276	302	266	451	403	e410	e310	210	188	126	156	140
25	268	295	260	504	380	e395	e290	221	188	148	144	136
26	263	285	256	426	370	e395	e360	264	186	180	201	134
27	263	288	254	3440	365	e375	e340	261	160	175	230	129
28	296	283	257	3790	353	e570	e310	342	185	145	232	151
29	269	281	249	984	336	e660	e480	296	149	157	292	252
30	251	281	245	763	---	e510	e1100	290	160	166	233	237
31	252	---	243	626	---	e470	---	249	---	162	223	---
TOTAL	17288	13065	8423	20614	16976	14545	11750	9325	7442	5061	7103	5193
MEAN	558	435	272	665	585	469	392	301	248	163	229	173
MAX	3300	1200	342	3790	3100	845	1100	620	591	281	820	257
MIN	164	270	243	249	336	320	290	210	149	126	133	129
CFSM	2.53	1.98	1.24	3.02	2.66	2.13	1.78	1.37	1.13	.74	1.04	.79
IN.	2.92	2.21	1.42	3.49	2.87	2.46	1.99	1.58	1.26	.86	1.20	.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996, BY WATER YEAR (WY)

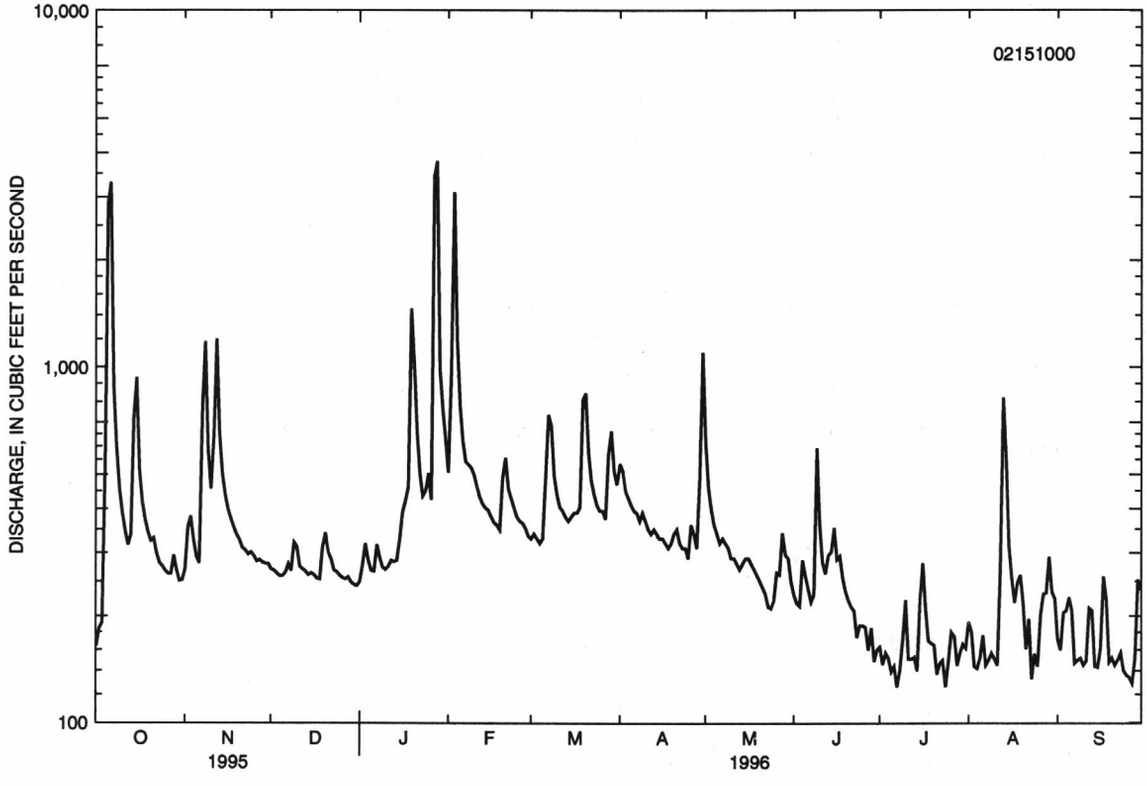
MEAN	269	248	307	383	420	460	398	306	270	230	258	209
MAX	1438	664	674	1182	999	1242	1044	950	588	641	1421	879
(WY)	1965	1993	1968	1937	1960	1975	1936	1975	1975	1941	1928	1945
MIN	57.4	91.6	90.2	91.8	152	169	166	124	91.5	71.3	59.9	55.8
(WY)	1955	1956	1956	1956	1941	1955	1986	1941	1956	1986	1956	1954

SANTEE RIVER BASIN

02151000 SECOND BROAD RIVER AT CLIFFSIDE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1925 - 1996	
ANNUAL TOTAL	149884		136785			
ANNUAL MEAN	411		374		313	
HIGHEST ANNUAL MEAN					500	1965
LOWEST ANNUAL MEAN					151	1955
HIGHEST DAILY MEAN	8800	Jan 15	3790	Jan 28	13200	Aug 16 1928
LOWEST DAILY MEAN	147	Jul 12	126	Jul 7	6.0	Jun 9 1940
ANNUAL SEVEN-DAY MINIMUM	170	Aug 12	142	Sep 21	39	Oct 28 1926
INSTANTANEOUS PEAK FLOW			6350	Jan 28	15000	Aug 14 1940
INSTANTANEOUS PEAK STAGE			8.82	Jan 28	17.93	Aug 14 1940
INSTANTANEOUS LOW FLOW			45*	Sep 7	4.0*	Sep 27 1935
ANNUAL RUNOFF (CFSM)	1.87		1.70		1.42	
ANNUAL RUNOFF (INCHES)	25.34		23.13		19.34	
10 PERCENT EXCEEDS	552		565		510	
50 PERCENT EXCEEDS	285		290		228	
90 PERCENT EXCEEDS	208		151		115	

e Estimated.
* 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 mi^2.

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 sea level (Duke Power Company bench mark). Prior to July 20, 1934, at site 500 ft upstream at 640.92 ft. Telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation and some regulation caused by powerplants upstream from station. Maximum discharge and gage height for period of record from former site, present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	1570	1390	1340	2790	1670	2730	2230	1130	610	1120	1210
2	921	1720	1600	1470	5390	1590	2220	1460	1030	1000	770	960
3	1100	2150	1430	1430	11300	1540	2300	1510	1020	894	723	1140
4	3270	1610	1080	1480	4590	1460	2100	1660	1460	751	555	1260
5	12700	1490	1420	1450	3600	1440	1830	1500	1340	602	899	4560
6	12000	1010	1510	1270	2770	2310	1920	1240	1210	725	1320	6240
7	4140	3880	1560	1570	2650	3440	1600	1650	1120	565	1240	1500
8	3280	4170	1590	1610	2740	2720	2050	1700	1140	555	928	1180
9	2290	2510	1770	1570	2400	2200	1740	1350	1940	1020	966	1240
10	2070	2070	1300	1320	2670	1920	1810	1270	1590	970	935	1160
11	1930	2680	1520	1510	2440	1830	1760	1540	1230	877	816	1240
12	1640	4860	1480	1250	2360	1730	1770	1440	1210	769	1890	1230
13	1780	3260	1430	1100	2400	1820	1720	966	1330	772	4560	1080
14	3300	2610	1260	1280	1930	1870	1820	1420	1280	554	2240	1120
15	3820	2310	1260	1320	2010	1710	1640	1440	1280	1290	1460	1010
16	2270	1780	1240	1670	2220	1820	1780	1610	1280	1560	1040	994
17	1990	1870	1170	1870	2100	2060	1660	1290	1140	983	1030	1520
18	1780	1690	1260	2320	1960	1940	1710	1280	1220	853	870	1110
19	1700	1650	1530	8530	1750	3400	1840	1000	1140	848	1000	938
20	1620	1510	1670	5680	2460	3510	1460	1250	1150	917	930	972
21	1750	1640	1540	3370	2660	2460	1480	1330	1160	558	981	885
22	1420	1680	1500	2920	2420	2100	1370	1190	1060	679	936	635
23	1200	1810	1460	2360	2240	1990	1610	1140	917	800	810	886
24	1580	1480	1430	2170	1900	2010	1590	1150	812	751	796	922
25	1610	1540	1250	2050	2040	2080	1510	1260	901	806	752	886
26	1360	1530	1060	2320	1880	2000	1580	1520	965	923	1100	901
27	1330	1220	1370	16300	2010	1810	1860	1330	837	832	1400	801
28	1640	1570	1410	12100	1870	2680	1660	1690	933	574	1280	966
29	1490	1560	1410	4350	1680	3060	1500	1390	896	734	1290	1760
30	1180	1530	1180	3610	---	2420	2540	1300	841	757	1190	1090
31	1410	---	993	3530	---	2360	---	1220	---	972	1230	---
TOTAL	80761	61960	43073	96120	81230	66950	54160	43326	34562	25501	37057	41396
MEAN	2605	2065	1389	3101	2801	2160	1805	1398	1152	823	1195	1380
MAX	12700	4860	1770	16300	11300	3510	2730	2230	1940	1560	4560	6240
MIN	921	1010	993	1100	1680	1440	1370	966	812	554	555	635
CFSM	2.98	2.36	1.59	3.54	3.20	2.47	2.06	1.60	1.32	.94	1.37	1.58
IN.	3.43	2.63	1.83	4.09	3.45	2.85	2.30	1.84	1.47	1.08	1.58	1.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996, BY WATER YEAR (WY)

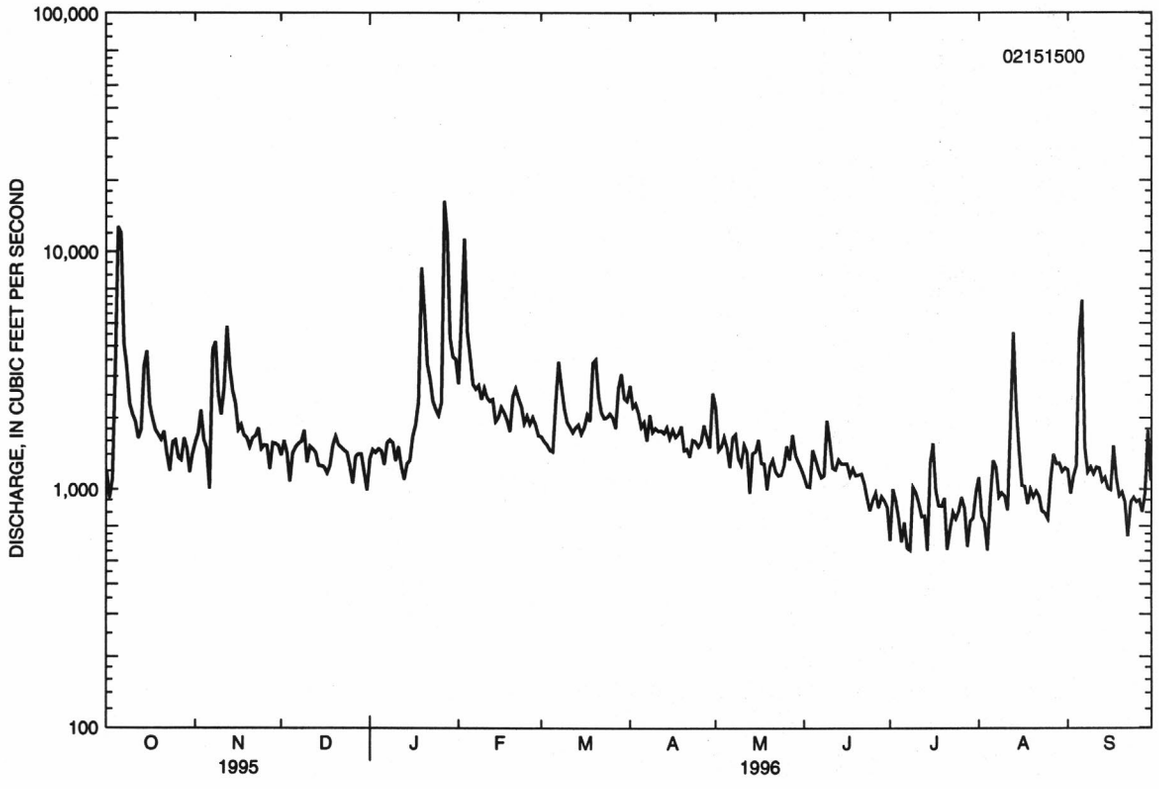
MEAN	1306	1250	1466	1776	1912	2113	1945	1560	1329	1119	1257	1090
MAX	5499	3275	2875	4750	4304	4868	4525	3441	2812	2505	6893	3100
(WY)	1965	1993	1984	1937	1960	1975	1936	1973	1973	1949	1928	1945
MIN	237	407	449	422	820	783	821	682	420	351	295	288
(WY)	1955	1955	1956	1956	1941	1988	1986	1988	1988	1986	1956	1954

SANTEE RIVER BASIN

02151500 BROAD RIVER NEAR BOILING SPRINGS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1925 - 1996	
ANNUAL TOTAL	737209		666096			
ANNUAL MEAN	2020		1820		1511	
HIGHEST ANNUAL MEAN					2328	1973
LOWEST ANNUAL MEAN					768	1988
HIGHEST DAILY MEAN	32600	Jan 15	16300	Jan 27	63900	Aug 16 1928
LOWEST DAILY MEAN	551	Aug 14	554	Jul 14	105	Oct 10 1954
ANNUAL SEVEN-DAY MINIMUM	804	Aug 11	727	Jul 2	185	Aug 27 1956
INSTANTANEOUS PEAK FLOW			21900	Jan 28	73300*	Aug 16 1928
INSTANTANEOUS PEAK STAGE			11.69	Jan 28	24.30*	Aug 16 1928
INSTANTANEOUS LOW FLOW			444	Jul 23	40	Oct 17 1954
ANNUAL RUNOFF (CFSM)	2.31		2.08		1.73	
ANNUAL RUNOFF (INCHES)	31.34		28.32		23.46	
10 PERCENT EXCEEDS	2710		2690		2510	
50 PERCENT EXCEEDS	1480		1490		1190	
90 PERCENT EXCEEDS	951		886		585	

* See REMARKS.



SANTEE RIVER BASIN

02152100 FIRST BROAD RIVER NEAR CASAR, NC

LOCATION.--Lat 35°29'35", long 81°40'56", Cleveland County, Hydrologic Unit 03050105, on right bank 570 ft upstream from bridge on Secondary Road 1530, 0.5 mi upstream from No Business Creek, and 4.0 mi southwest of Casar.

DRAINAGE AREA.--60.5 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1949-56, March 1959 to current year.

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

GAGE.--Water-stage recorder. Elevation of gage is 890 ft above sea level, from topographic map.

REMARKS.--Records good except those during period of ice effect, Jan. 6-9, which are fair, and those for estimated daily discharges, which are poor. Minimum discharge for current water year also occurred July 28.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	62	60	61	e120	89	140	168	61	46	53	59
2	40	74	60	70	e300	90	124	123	62	44	43	55
3	39	75	59	75	e260	86	116	105	63	44	40	59
4	220	65	59	66	e200	83	109	95	83	43	40	71
5	889	61	59	63	e160	84	104	91	66	42	77	61
6	235	61	59	e63	e140	134	103	87	61	44	76	54
7	117	295	63	e63	e130	165	100	88	60	43	49	48
8	88	221	59	e63	e140	160	97	86	93	42	52	46
9	75	117	78	e63	e160	125	108	83	194	55	47	45
10	69	93	67	62	e140	110	96	79	99	45	47	44
11	65	233	62	63	e130	103	93	78	78	42	43	62
12	62	243	61	66	e120	100	92	77	73	42	150	129
13	67	132	60	64	e116	96	92	74	72	43	117	64
14	132	105	59	71	e112	94	91	75	69	49	76	52
15	136	91	59	95	108	93	90	78	73	68	58	48
16	91	83	59	118	103	100	90	78	65	57	51	59
17	76	78	58	106	97	111	85	73	65	46	55	81
18	69	75	60	e300	95	172	84	71	62	46	67	59
19	66	72	79	e800	92	432	85	69	70	49	50	51
20	64	70	79	e200	162	266	90	68	74	43	46	47
21	68	69	70	e160	153	168	94	66	62	41	44	46
22	61	67	67	e120	131	137	85	64	58	41	42	47
23	61	65	64	e110	119	121	84	62	56	41	41	43
24	60	66	62	e140	110	111	81	62	54	40	43	41
25	59	64	61	e120	101	109	79	76	53	39	52	41
26	58	63	60	e160	99	105	98	69	50	51	79	41
27	58	63	60	e900	96	100	90	70	50	40	173	42
28	65	63	58	e300	95	177	82	118	50	46	123	56
29	59	64	57	e200	90	175	130	72	48	44	163	90
30	57	61	57	e160	---	143	291	67	47	45	78	55
31	57	---	58	e140	---	131	---	64	---	47	67	---
TOTAL	3303	2951	1933	5042	3879	4170	3103	2536	2071	1408	2142	1696
MEAN	107	98.4	62.4	163	134	135	103	81.8	69.0	45.4	69.1	56.5
MAX	889	295	79	900	300	432	291	168	194	68	173	129
MIN	39	61	57	61	90	83	79	62	47	39	40	41
CFSM	1.76	1.63	1.03	2.69	2.21	2.22	1.71	1.35	1.14	.75	1.14	.93
IN.	2.03	1.81	1.19	3.10	2.39	2.56	1.91	1.56	1.27	.87	1.32	1.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

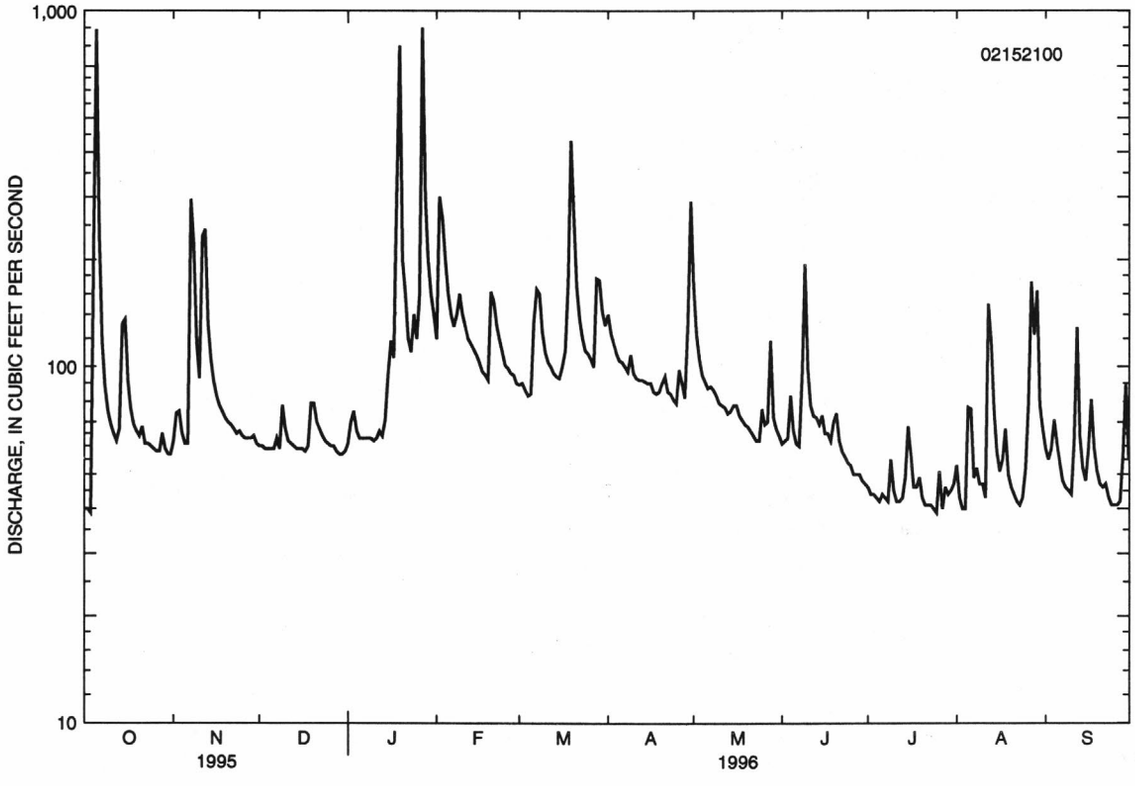
MEAN	79.0	71.1	86.1	107	125	141	126	99.2	81.2	63.2	70.6	56.9
MAX	318	191	185	273	286	386	291	254	168	138	262	132
(WY)	1965	1978	1962	1995	1960	1975	1983	1975	1975	1984	1970	1959
MIN	24.7	27.3	26.6	44.4	50.8	44.6	48.1	33.9	23.4	19.2	19.5	27.2
(WY)	1964	1982	1989	1989	1988	1988	1967	1988	1988	1988	1988	1988

SANTEE RIVER BASIN

02152100 FIRST BROAD RIVER NEAR CASAR, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1959 - 1996	
ANNUAL TOTAL	38057		34234			
ANNUAL MEAN	104		93.5		92.3	
HIGHEST ANNUAL MEAN					139	1960
LOWEST ANNUAL MEAN					43.4	1988
HIGHEST DAILY MEAN	2790	Jan 14	900	Jan 27	3130	Mar 14 1975
LOWEST DAILY MEAN	34	Aug 23	39	Oct 3	11	Aug 27 1988
ANNUAL SEVEN-DAY MINIMUM	36	Aug 18	42	Jul 21	15	Aug 21 1988
INSTANTANEOUS PEAK FLOW			NOT DETERMINED		7790	Jan 14 1995
INSTANTANEOUS PEAK STAGE			NOT DETERMINED		16.70	Oct 17 1975
INSTANTANEOUS LOW FLOW			37*	Jul 25	10	Aug 28 1988
ANNUAL RUNOFF (CFSM)	1.72		1.55		1.52	
ANNUAL RUNOFF (INCHES)	23.40		21.05		20.72	
10 PERCENT EXCEEDS	137		151		150	
50 PERCENT EXCEEDS	67		70		65	
90 PERCENT EXCEEDS	43		45		35	

e Estimated.



Lakes and Reservoirs in South Atlantic Slope Basin

02067800; 02067820 TALBOTT AND TOWNES RESERVOIRS

These two reservoirs on the Dan River are operated as a unit for storage of water for Pinnacles hydroelectric plant.

TALBOTT DAM

LOCATION.--Lat 36°40'36", long 80°23'51", Patrick County, Va, Hydrologic Unit 03010103, 4.5 mi northeast of Kibler.

DRAINAGE AREA.--20.2 mi^2.

TOWNES DAM

LOCATION.--Lat 36°41'11", long 80°25'49", Patrick County, Va, Hydrologic Unit 03010103, 4 mi north of Kibler.

DRAINAGE AREA.--32.9 mi^2.

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 ft^3 and Townes Reservoir is 60,000,000 ft^3. 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

LOCATION.--Lat 36°30'28", long 79°02'48", Person County, Hydrologic Unit 03010104, at outlet control structure 0.4 mi northwest of dam on Hyco River, 1.1 mi southwest of McGehees Mill, and 8 mi northwest of Roxboro.

DRAINAGE AREA.--189 mi^2.

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1970, published as "Roxboro Steam-Electric Generating Plant Lake."

GAGE.--Water-stage recorder and tape gage. Prior to Feb. 11, 1965, staff gage at upstream end of outlet control structure. Datum of gage is 399.79 ft above sea level (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 ft^3. Lake cannot be drawn below -0.03 ft (bottom of gated flume).

02079964 LAKE GASTON

LOCATION.--Lat 36°30'04", long 77°48'43", Halifax County, Hydrologic Unit 03010106, at Gaston Dam on Roanoke River, 0.2 mi upstream from Black Gut Creek, and 2.7 mi northwest of Thelma.

DRAINAGE AREA.--8,339 mi^2.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and staff gage. Datum of gage is sea level.

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 ft^3. Usable capacity at top of spillway gates, 20,127,000,000 ft^3, is between elevations 165 and 203 ft. Capacity reserved for flood control, 2,788,000 ft^3, is between elevations 200 and 203 ft. Storage for power generation, 10,673,000,000 ft^3, is between elevations 185 and 200 ft.

COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

02080100 ROANOKE RAPIDS LAKE

LOCATION.--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 mi^2.

PERIOD OF RECORD.--June 1955 to September 1960 (monthend contents only published in WSP 1723), October 1960 to current year.

GAGE.--Water-stage recorder and staff gage. Datum of gage is sea level.

REMARKS.--Lake, used for hydroelectric power development, was put in operation June 25, 1955, and has a total capacity of 3,360,220,000 ft^3 at elevation 132.0 ft (normal high water). Usable capacity is 3,515,290,000 ft^3 at 132.75 ft (top of gates).

COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

02087182 FALLS LAKE

LOCATION.--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 mi^2.

PERIOD OF RECORD.--February 1979 to current year.

GAGE.--Datum of gage is sea level.

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 250.1 ft was reached Dec. 7, 1983. (See station 02087183.) Total capacity of reservoir is 4,998,074,400 ft^3 at elevation of 250.1 ft.

COOPERATION.--Records furnished by Corps of Engineers. (See station 02087183.)

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

02098197 B. EVERETT JORDAN LAKE

LOCATION.--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 mi^2.

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

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is sea level.

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 ft^3 at 240.0 ft, of which 23,454,011,000 ft^3 is controlled flood storage. (See station 02098198.)

02111391 W. KERR SCOTT RESERVOIR

LOCATION.--Lat 36°08'04", long 81°13'30", Wilkes County, Hydrologic Unit 03040101, at W. Kerr Scott Dam on Yadkin River, 0.1 mi upstream from Fish Trap Creek, 2.0 mi upstream from Millers Creek, and 4.0 mi west of Wilkesboro.

DRAINAGE AREA.--350 mi^2, approximately.

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is sea level.

REMARKS.--Lake is used for flood control, low-flow augmentation, recreation, and water supply. Some storage was affected during construction in July 1962, but gates were closed Aug. 22, 1962. Reservoir reached normal pool elevation on Jan. 19, 1963. Total capacity at elevation 1075.0 ft is 6,664,680,000 ft^3 of which 4,878,720,000 ft^3 is controlled flood storage.

COOPERATION.--Records furnished by Corps of Engineers. (See station 02129000.)

02122400 HIGH ROCK LAKE

LOCATION.--Lat 35°36'02", long 80°14'06", Davidson County, Hydrologic Unit 03040103, at High Rock Dam on Yadkin River, 2 mi upstream from Lick Creek, 0.8 mi northwest of High Rock, and 256 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--4,000 mi^2, approximately.

PERIOD OF RECORD.--November 1927 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Water-stage recorder and staff gage at dam. Datum of gage is 30.9 ft below sea level.

REMARKS.--Lake, used for hydroelectric power development, was first put in operation Nov. 7, 1927. Total capacity is 11,090,000,000 ft^3. Usable capacity, 10,230,000,000 ft^3, is between 625 and 655 ft gage datum (top of gates).

COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

02122699 TUCKERTOWN RESERVOIR

LOCATION.--Lat 35°29'03", long 80°10'30", Stanly County, Hydrologic Unit 03040103, at Tuckertown Dam on Yadkin River, 2.5 mi upstream from Garr Creek, 3.8 mi northeast of New London, and 250 mi upstream from mouth of Pee Dee River in Winyah Bay.

DRAINAGE AREA.--4,120 mi^2, approximately.

PERIOD OF RECORD--April 1962 to current year.

GAGE--Remote water-stage recorder in powerhouse. Datum of gage is 30.9 ft below sea level.

REMARKS.--Lake, used for hydroelectric power development, was first filled Apr. 6, 1962. Total capacity is 1,852,400,000 ft^3. Usable capacity, 293,800,000 ft^3, is between 593 and 596 ft gage datum.

COOPERATION.--Records furnished by Yadkin, Inc. (See station 02129000.)

02122844 BADIN LAKE

LOCATION.--Lat 35°35'10", long 80°05'34", Stanly County, Hydrologic Unit 03040103, at Badin Dam on Yadkin River, 2.5 mi upstream from Falls Dam, 1.5 mi northeast of Badin, 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 sea level.

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.)

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

02123736 LAKE TILLERY

LOCATION.--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, 5 mi upstream from Rocky River, 3.5 mi southeast of Norwood, 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 sea level (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

LOCATION.--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 above sea level (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

LOCATION.--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 sea level (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

LOCATION.--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 above sea level (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

LOCATION.--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 sea level (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.

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

02142441 LOOKOUT SHOALS LAKE

LOCATION.--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 sea level (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

LOCATION.--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 sea level (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

LOCATION--Lat 35°20'03", long 80°59'12", Gaston County, Hydrologic Unit 03050101, at Mountain Island Dam on Catawba River, 1.5 mi downstream from bridge on State Highway 16, 3 mi northeast of Mount Holly, and 167 mi upstream from mouth of Wateree River.

DRAINAGE AREA.--1,860 mi^2, approximately.

PERIOD OF RECORD.--December 1923 to September 1960 (monthend contents only, published in WSP 1723), October 1960 to current year.

GAGE.--Float gage, indicator, and stage gage at dam. Datum of gage is 547.5 ft above sea level (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

LOCATION.--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

LOCATION.--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. powerplant. 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 sea level. 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.

LOCATION--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. powerplant. 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 sea level. Dam was completed and filling began Aug. 1, 1980. Water in reservoir first reached normal water-level elevation of 434 ft on April 16, 1983. (See station 02077660.)

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

02086490 LAKE MICHIE

LOCATION.--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

LOCATION.--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

LOCATION.--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

LOCATION.--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

LOCATION.--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

LOCATION.--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

LOCATION.--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

LOCATION.--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.)

02094305 LAKE TOWNSEND

LOCATION.--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

LOCATION.--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.)

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

02096432 STONY CREEK RESERVOIR

LOCATION.--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

LOCATION.--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, approximately.

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

LOCATION.--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

LOCATION.--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

LOCATION.--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. powerplant. 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 sea level. Dam was completed Dec. 23, 1981, and filling began Dec. 1, 1980. (See station 02102192.)

02121461 LEXINGTON-THOMASVILLE RESERVOIR

LOCATION.--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

LOCATION.--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 HOURS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)
		02067800 & 02067820 Talbott & Townes Reservoir			02077280 Hyco Lake	
Sept. 30		156	-	10.05	3,388	-
Oct. 31		195	+39	10.68	3,399	+99
Nov. 30		234	+39	10.62	3,389	-10
Dec. 31		200	-34	10.39	3,354	-35
CAL YR 1995		-	-111		-	+16
Jan. 31		274	+74	10.65	3,394	+40
Feb. 29		245	-29	10.48	3,367	-27
Mar. 31		281	+36	10.64	3,392	+25
Apr. 30		309	+28	10.66	3,396	+4
May 31		339	+30	10.48	3,367	-29
June 30		356	+17	9.72	3,247	-120
July 31		344	-12	10.55	3,378	+131
Aug. 31		341	-3	10.03	3,298	-80
Sept. 30		345	+4	10.30	3,340	+42
WTR YR 1996		-	+189		-	+40

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)
		02079964 Lake Gaston			02080100 Roanoke Rapids Lake	
Sept. 30	199.57	19,228	-	129.3	2,844	-
Oct. 31	199.32	19,009	-219	130.2	3,008	+164
Nov. 30	199.68	19,324	+315	130.4	3,044	+36
Dec. 31	199.47	19,140	-184	130.0	2,972	-72
CAL YR 1995		-	-114		-	0
Jan. 31	199.42	19,096	-44	130.8	3,122	+150
Feb. 29	199.68	19,324	+228	131.2	3.198	+76
Mar. 31	199.45	19,122	-202	129.6	2,898	-300
Apr. 30	199.82	19,445	+323	130.4	3,044	+146
May 31	199.65	19,298	-147	130.4	3,044	0
June 30	199.68	19,324	+26	129.0	2,790	-254
July 31	199.72	19,358	+34	129.7	2,916	+126
Aug. 31	199.53	19,192	-166	130.4	3,044	+128
Sept. 30	200.78	20,282	+1,090	131.1	3,180	+136
WTR YR 1996		-	+1,054		-	+336

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)
		02087182 Falls Lake			02098197 B. Everett Jordan Lake	
Sept. 30	249.40	4,427	-	215.2	8,899	-
Oct. 31	251.66	5,572	+1,145	217.6	10,385	+1,486
Nov. 30	250.23	4,826	-746	216.7	9,811	-574
Dec. 31	250.36	4,892	+66	216.2	9,497	-314
CAL YR 1995		-	+1,341		-	+421
Jan. 31	250.71	5,069	+177	218.9	11,251	+1754
Feb. 29	250.19	4,806	-263	216.1	9,434	-1,817
Mar. 31	250.63	5,029	+223	216.7	9,811	+377
Apr. 30	251.78	5,637	+608	217.0	9,999	+188
May 31	251.76	5,626	-11	216.5	9,685	-314
June 30	250.88	5,155	-471	215.8	9,253	-432
July 31	250.62	5,024	-131	215.9	9,312	+59
Aug. 31	251.05	5,243	+219	216.0	9,371	+59
Sept. 30	251.73	5,610	+367	216.5	9,685	+314
WTR YR 1996		-	+1,183		-	+786

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)
		02111391 W. Kerr Scott Reservoir			02122400 High Rock Lake	
Sept. 30	1,030.05	1,790.23	-	652.4	9,456	-
Oct. 31	1,030.13	1,798.70	+8	653.4	10,061	+605
Nov. 30	1,030.08	1,798.70	0	645.1	5,714	-4,347
Dec. 31	1,030.10	1,798.70	0	643.9	5,211	-503
CAL YR 1995		-	-8		-	+461
Jan. 31	1,030.03	1,790.23	-8	655.0	11,090	+5,879
Feb. 29	1,030.07	1,798.70	+8	645.6	5,934	-5,156
Mar. 31	1,030.10	1,798.70	0	651.4	8,869	+2,935
Apr. 30	1,030.60	1,841.05	+42	652.5	9,517	+648
May 31	1,030.12	1,798.70	-42	653.4	10,061	+544
June 30	1,030.04	1,790.23	-8	653.5	10,122	+61
July 31	1,030.14	1,798.70	+8	652.6	9,577	-545
Aug. 31	1,030.02	1,790.23	-8	652.6	9,577	0
Sept. 30	1,030.19	1,807.17	+17	651.7	9,038	-539
WTR YR 1996		-	+17		-	-418

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)
	02122699 Tuckertown Reservoir			02122844 Badin Lake		
Sept. 30	595.25	1,775	-	535.9	9,310	-
Oct. 31	595.38	1,788	+13	539.8	10,194	+884
Nov. 30	595.50	1,801	+13	539.8	10,194	0
Dec. 31	595.42	1,792	-9	538.8	9,961	-233
CAL YR 1995		-	-23		-	-140
Jan. 31	594.98	1,747	-45	541.1	10,498	+537
Feb. 29	595.54	1,805	+58	540.0	10,241	-257
Mar. 31	595.49	1,800	-5	539.6	10,147	-94
Apr. 30	595.18	1,767	-33	540.6	10,381	+234
May 31	595.20	1,769	+2	539.2	10,054	-327
June 30	595.03	1,752	-17	538.9	9,984	-70
July 31	594.92	1,740	-12	539.9	10,217	+233
Aug. 31	595.32	1,782	+42	539.6	10,147	-70
Sept. 30	595.16	1,765	-17	539.5	10,124	-23
WTR YR 1996		-	-10		-	+814

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)
	02123736 Lake Tillery			02128800 Blewett Falls Lake		
Sept. 30	277.4	5,750	-	176.0	1,630	-
Oct. 31	277.4	5,750	0	178.6	1,900	+270
Nov. 30	277.4	5,750	0	178.2	1,860	-40
Dec. 31	277.6	5,794	+44	177.6	1,798	-62
CAL YR 1995		-	+22		-	+248
Jan. 31	274.3	5,093	-701	178.9	1,930	+132
Feb. 29	277.4	5,750	+657	178.1	1,850	-80
Mar. 31	277.3	5,729	-21	177.6	1,798	-52
Apr. 30	277.5	5,772	+43	180.3	2,070	+272
May 31	277.5	5,772	0	176.8	1,714	-356
June 30	277.3	5,729	-43	177.1	1,745	+31
July 31	277.6	5,794	+65	176.0	1,630	-115
Aug. 31	277.7	5,815	+21	177.5	1,787	+157
Sept. 30	277.6	5,794	-21	175.0	1,530	-257
WTR YR 1996		-	+44		-	-100

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)
		02138519 Lake James			02141490 Rhodhiss Lake	
Sept. 30	94.9	11,198	-	96.9	1,270	-
Oct. 31	94.7	11,862	+664	97.3	1,325	+55
Nov. 30	95.0	11,225	-637	96.8	1,257	-68
Dec. 31	94.9	11,198	-27	96.8	1,257	0
CAL YR 1995		-	+384		-	-13
Jan. 31	99.4	12,413	+1215	96.8	1,257	0
Feb. 29	97.0	11,754	-659	97.2	1,311	+54
Mar. 31	96.2	11,540	-214	97.3	1,325	+14
Apr. 30	96.0	11,487	-53	97.1	1,298	-27
May 31	97.8	11,971	+484	97.3	1,325	+27
June 30	98.2	12,080	+109	97.5	1,353	+28
July 31	97.2	11,808	-272	97.3	1,325	-28
Aug. 31	96.9	11,727	-81	97.1	1,298	-27
Sept. 30	97.0	11,754	+27	97.2	1,311	+13
WTR YR 1996		-	+556		-	+41

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)
		02141961 Lake Hickory			02142441 Lookout Shoals Lake	
Sept. 30	96.4	1,658	-	96.7	68	-
Oct. 31	94.9	1,414	-244	96.9	76	+8
Nov. 30	94.9	1,414	0	96.4	55	-21
Dec. 31	96.8	1,724	+310	96.7	68	+13
CAL YR 1995		-	+437		-	-20
Jan. 31	99.2	2,136	+412	100.9	249	+181
Feb. 29	96.3	1,641	-495	98.0	121	-128
Mar. 31	96.9	1,741	+100	96.7	68	-53
Apr. 30	96.7	1,708	-33	97.0	80	+12
May 31	96.7	1,708	0	97.5	100	+20
June 30	97.2	1,791	+83	98.4	138	+38
July 31	97.5	1,842	+51	97.9	117	-21
Aug 31	96.9	1,741	-101	97.7	109	-8
Sept. 30	97.5	1,842	+101	98.4	138	+29
WTR YR 1996		-	+184		-	+70

Lakes and Reservoirs in South Atlantic Slope Basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)
	02142647 Lake Norman			02142676 Mountain Island Lake		
Sept. 30	97.0	43,470	-	96.3	366	-
Oct. 31	96.9	43.340	-130	97.1	462	+96
Nov. 30	96.9	43,340	0	97.0	450	-12
Dec. 31	96.1	42,290	-1,050	96.6	402	-48
CAL YR 1995		-	+130		-	-48
Jan. 31	98.9	46,050	+3,760	97.0	450	+48
Feb. 29	96.5	42,820	-3,230	97.0	450	0
Mar. 31	95.1	41,010	-1,810	96.8	426	-24
Apr. 30	96.8	43,210	+2,200	96.5	390	-36
May 31	97.7	44,420	+1,210	96.2	354	-36
June 30	98.2	45,090	+670	96.2	354	0
July 31	97.2	43,740	-1,350	97.0	450	+96
Aug. 31	97.0	43,470	-270	97.1	462	+12
Sept. 30	97.2	43,470	0	96.2	354	-108
WTR YR 1996		-	0		-	-12

Road conditions near Flat River at Bahama, North Carolina resulting from Hurricane Fran.

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 mi^2.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1925-26(M), 1928-30(M), 1931-32, 1933-35(M), 1941-42(m), 1944(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft above sea level. Prior to Oct. 14, 1934, nonrecording gage on bridge 400 ft downstream at same datum. Oct. 14, 1934, to Mar. 25, 1935, nonrecording gage at present site and datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those during periods of ice effect, Dec., Jan., Feb., and March, which are poor. Maximum discharge for period of record, from rating curve extended above 14,000 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record and 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 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	332	355	320	710	472	647	719	402	272	403	374
2	219	372	338	331	713	464	606	521	376	276	461	348
3	216	394	328	355	762	454	551	469	365	309	280	360
4	417	332	323	e320	e638	435	525	438	380	296	298	405
5	3830	311	315	e312	e592	433	507	421	442	266	271	526
6	2800	300	330	e308	e567	449	495	458	374	259	433	584
7	1030	406	336	e304	e552	463	486	437	353	257	366	467
8	728	643	335	e300	596	452	463	462	430	260	291	605
9	597	446	338	345	1330	408	484	423	1170	305	307	455
10	527	384	e337	430	978	e399	454	394	1510	343	274	446
11	479	577	e333	410	802	e399	428	412	764	259	493	443
12	445	1190	e333	385	733	e394	417	461	610	257	5560	697
13	431	668	e329	372	663	396	410	405	526	269	4300	496
14	512	566	e325	387	634	393	405	381	469	286	1200	409
15	552	520	317	416	617	413	400	393	471	593	796	376
16	448	467	311	519	604	468	454	489	489	565	685	378
17	407	439	309	478	e562	425	446	421	499	346	565	454
18	377	425	307	1020	e532	417	393	389	483	286	513	388
19	367	418	412	5620	e513	652	385	361	554	263	488	346
20	362	411	437	1890	623	900	396	346	575	259	515	327
21	367	398	381	1040	781	609	438	330	447	247	473	316
22	354	378	e342	796	630	534	405	332	400	239	508	317
23	335	362	e342	679	600	498	388	321	370	227	489	302
24	328	358	e342	718	573	478	412	310	333	217	512	287
25	323	351	e337	774	540	479	385	545	326	265	412	284
26	318	333	e337	630	525	497	384	521	317	285	430	285
27	315	325	e333	2660	514	474	457	504	305	249	548	292
28	329	330	e329	1420	506	643	392	723	298	216	405	457
29	319	477	e325	985	495	969	382	573	298	317	423	1200
30	300	431	e325	835	---	707	674	529	282	282	511	558
31	304	---	e325	781	---	628	---	444	---	239	422	---
TOTAL	18558	13344	10466	26140	18885	15802	13669	13932	14618	9009	23632	13182
MEAN	599	445	338	843	651	510	456	449	487	291	762	439
MAX	3830	1190	437	5620	1330	969	674	723	1510	593	5560	1200
MIN	216	300	307	300	495	393	382	310	282	216	271	284
CFSM	2.92	2.17	1.65	4.11	3.18	2.49	2.22	2.19	2.38	1.42	3.72	2.14
IN.	3.37	2.42	1.90	4.74	3.43	2.87	2.48	2.53	2.65	1.63	4.29	2.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996, BY WATER YEAR (WY)

MEAN	367	410	410	475	516	589	566	461	392	334	361	331
MAX	901	1889	797	1346	973	1316	1350	1052	1036	904	2613	1212
(WY)	1991	1978	1958	1995	1983	1979	1983	1973	1992	1941	1940	1979
MIN	117	124	146	140	197	222	236	220	158	111	93.7	99.5
(WY)	1955	1932	1934	1940	1934	1988	1986	1941	1988	1930	1925	1954

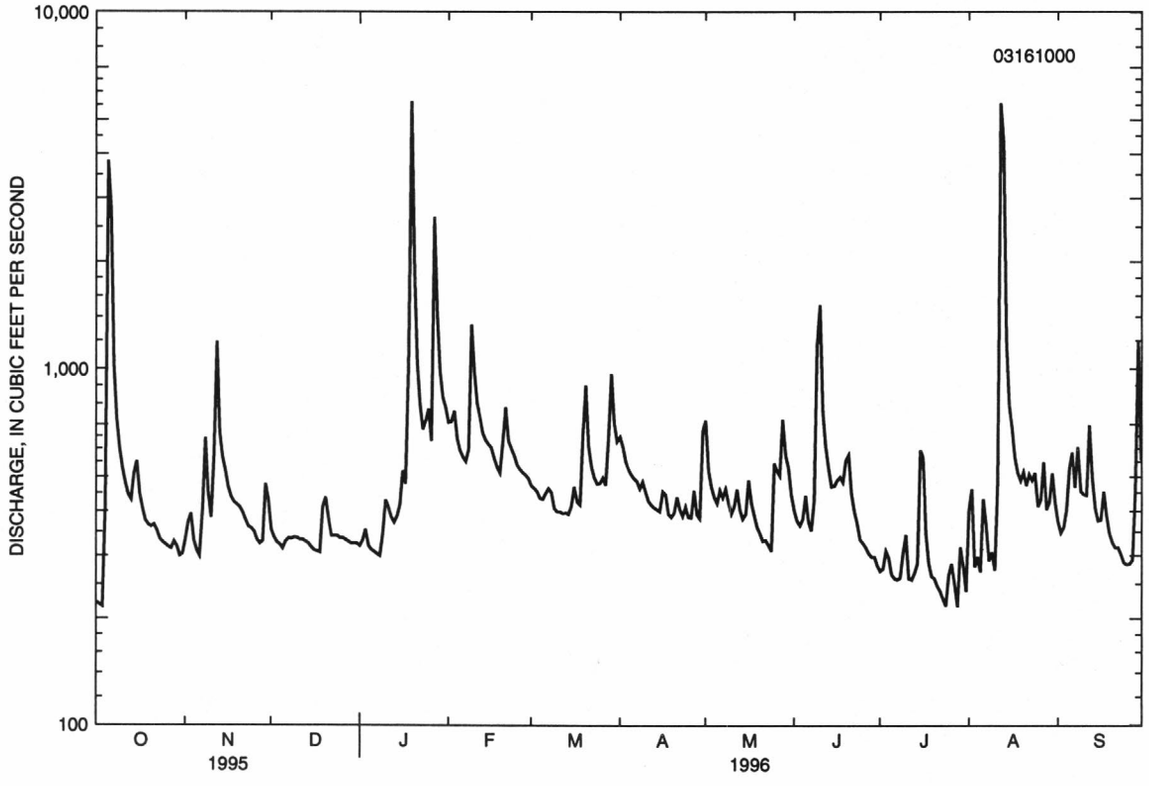
KANAWHA RIVER BASIN

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1925 - 1996	
ANNUAL TOTAL	186549		191237			
ANNUAL MEAN	511		523		434	
HIGHEST ANNUAL MEAN					669	1949
LOWEST ANNUAL MEAN					233	1988
HIGHEST DAILY MEAN	15400	Jan 15	5620	Jan 19	27700	Aug 14 1940
LOWEST DAILY MEAN	206	Aug 17	216	Oct 3	65	Sep 9 1925
ANNUAL SEVEN-DAY MINIMUM	218	Sep 4	243	Jul 22	72	Aug 21 1925
INSTANTANEOUS PEAK FLOW			10800	Aug 12	52800*	Aug 14 1940
INSTANTANEOUS PEAK STAGE			10.02	Aug 12	22.50	Aug 14 1940
INSTANTANEOUS LOW FLOW			125*	Jan 8	52*	Dec 24 1943
ANNUAL RUNOFF (CFSM)	2.49		2.55		2.12	
ANNUAL RUNOFF (INCHES)	33.85		34.70		28.74	
10 PERCENT EXCEEDS	669		711		714	
50 PERCENT EXCEEDS	368		417		350	
90 PERCENT EXCEEDS	253		297		173	

e Estimated.

* 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 sea level. 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 telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Minimum discharge for period of record result of freezeup. Minimum daily discharge occurred several days in Sept. and Oct. 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1916 reached a stage of 13.9 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	196	187	176	503	260	348	260	147	142	162	167
2	157	292	190	224	925	258	317	230	144	138	140	174
3	175	256	186	204	882	241	294	215	154	139	139	190
4	1210	220	183	181	643	237	277	201	156	129	133	725
5	2970	213	185	172	547	237	268	193	144	128	185	353
6	1020	203	182	177	507	471	257	202	137	131	163	274
7	619	484	219	186	480	476	245	212	138	127	161	224
8	478	379	189	186	456	382	241	194	220	150	165	207
9	406	302	253	188	459	334	255	189	839	128	150	198
10	365	266	211	164	425	310	237	182	392	122	139	185
11	337	1060	195	161	409	300	228	181	368	120	188	180
12	319	631	191	170	379	286	217	174	269	119	560	178
13	325	446	188	161	363	271	219	169	222	142	354	168
14	506	378	190	164	360	268	211	167	198	143	270	162
15	387	336	184	178	345	300	207	182	213	350	256	158
16	341	308	179	187	335	287	212	172	198	169	241	254
17	317	289	177	193	323	268	202	164	206	147	208	219
18	302	267	213	1110	313	253	195	157	199	144	187	171
19	292	258	358	2030	303	407	217	154	235	133	176	163
20	276	246	279	697	587	337	289	150	298	126	175	158
21	267	231	232	513	405	309	310	147	233	124	165	162
22	256	222	217	430	361	283	248	144	192	139	160	179
23	236	217	196	388	344	271	229	141	180	125	167	157
24	230	212	189	587	328	258	213	169	172	122	170	153
25	229	206	186	444	321	280	204	223	169	171	235	150
26	229	203	181	1070	314	262	260	220	160	163	222	150
27	210	193	176	2450	298	256	219	207	156	130	209	174
28	213	193	172	937	281	451	204	192	153	146	193	1500
29	192	214	168	720	263	366	207	166	149	139	180	682
30	186	192	166	624	---	331	351	156	145	142	183	430
31	195	---	167	567	---	331	---	152	---	159	179	---
TOTAL	13401	9113	6189	15639	12459	9581	7381	5665	6586	4487	6215	8245
MEAN	432	304	200	504	430	309	246	183	220	145	200	275
MAX	2970	1060	358	2450	925	476	351	260	839	350	560	1500
MIN	156	192	166	161	263	237	195	141	137	119	133	150
CFSM	6.37	4.47	2.94	7.43	6.33	4.55	3.62	2.69	3.23	2.13	2.95	4.05
IN.	7.34	4.99	3.39	8.57	6.83	5.25	4.04	3.10	3.61	2.46	3.40	4.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1996@, BY WATER YEAR (WY)

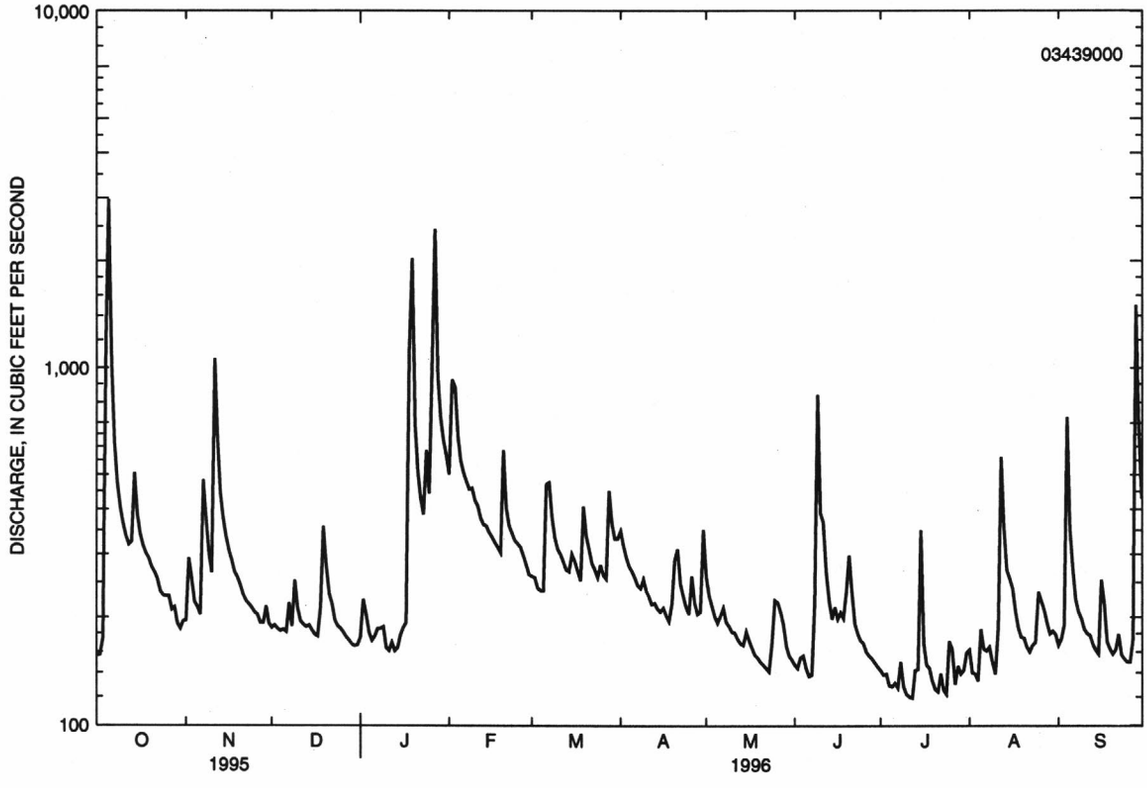
MEAN	180	205	248	283	319	337	325	266	223	178	193	168
MAX	734	635	489	672	648	787	582	551	882	624	543	447
(WY)	1965	1993	1993	1937	1939	1979	1983	1909	1909	1989	1994	1950
MIN	42.2	56.7	72.6	72.0	130	135	108	114	79.8	75.8	65.3	43.6
(WY)	1955	1955	1940	1981	1963	1988	1986	1941	1988	1986	1954	1954

TENNESSEE RIVER BASIN

03439000 FRENCH BROAD RIVER AT ROSMAN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1908 - 1996@	
ANNUAL TOTAL	105236		104961			
ANNUAL MEAN	288		287		241	
HIGHEST ANNUAL MEAN					370	1949
LOWEST ANNUAL MEAN					136	1981
HIGHEST DAILY MEAN	2970	Oct 5	2970	Oct 5	5630	Oct 4 1964
LOWEST DAILY MEAN	121	Jul 25	119	Jul 12	37*	Sep 25 1954
ANNUAL SEVEN-DAY MINIMUM	130	Jul 20	128	Jul 6	38	Sep 23 1954
INSTANTANEOUS PEAK FLOW			5410	Oct 5	13500	Oct 4 1964
INSTANTANEOUS PEAK STAGE			10.10	Oct 5	14.95	Oct 4 1964
INSTANTANEOUS LOW FLOW			114	Jul 13	23*	Jan 3 1940
ANNUAL RUNOFF (CFSM)	4.25		4.22		3.56	
ANNUAL RUNOFF (INCHES)	57.66		57.50		48.32	
10 PERCENT EXCEEDS	441		457		423	
50 PERCENT EXCEEDS	210		212		194	
90 PERCENT EXCEEDS	155		147		90	

* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level, 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.--No estimated daily discharges. Records good. Maximum discharge for period of record and current water year, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow. City of Brevard diverted about 1.7 ft^3/s from Catheys Creek for municipal water supply.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	34	31	26	88	47	57	43	29	24	26	19
2	21	49	30	36	148	46	51	40	28	24	23	22
3	26	41	30	30	137	44	48	37	27	24	27	25
4	203	35	28	26	108	43	46	36	27	22	25	45
5	492	34	29	25	94	43	44	34	25	22	25	46
6	160	33	29	27	87	84	43	38	31	23	24	30
7	100	79	36	28	84	83	41	36	29	29	23	25
8	78	57	30	25	81	66	40	34	45	32	21	23
9	67	45	39	23	82	58	41	32	128	22	21	22
10	60	40	33	23	75	54	38	31	78	21	19	21
11	56	166	30	23	72	51	36	32	69	21	25	20
12	51	102	29	24	68	50	36	30	53	20	73	19
13	54	72	29	23	66	48	36	29	44	20	46	18
14	79	62	28	24	65	47	34	29	40	29	36	17
15	60	54	27	26	63	50	34	34	38	56	30	17
16	53	50	26	28	60	47	33	30	36	28	27	30
17	49	47	25	32	57	44	31	28	35	24	26	22
18	46	45	33	141	56	42	31	27	39	22	25	18
19	44	44	52	221	55	65	35	27	68	20	23	17
20	44	42	37	87	95	50	43	26	65	20	22	17
21	41	40	33	64	69	47	41	25	48	26	20	20
22	40	38	31	54	64	44	36	24	41	27	20	19
23	38	37	29	49	61	42	34	23	36	22	19	16
24	38	37	27	84	57	41	33	36	33	20	20	16
25	36	35	28	62	55	45	33	37	32	35	30	15
26	36	34	26	161	53	41	45	57	30	28	33	15
27	38	34	25	356	52	42	37	55	30	22	27	18
28	37	34	24	161	50	69	35	52	28	26	23	140
29	34	36	24	126	48	56	36	38	27	23	22	68
30	33	32	24	109	---	51	60	34	26	24	20	44
31	34	---	25	99	---	54	---	31	---	25	20	---
TOTAL	2170	1488	927	2223	2150	1594	1188	1065	1265	781	821	844
MEAN	70.0	49.6	29.9	71.7	74.1	51.4	39.6	34.4	42.2	25.2	26.5	28.1
MAX	492	166	52	356	148	84	60	57	128	56	73	140
MIN	21	32	24	23	48	41	31	23	25	20	19	15
CFSM	5.98	4.24	2.56	6.13	6.34	4.39	3.38	2.94	3.60	2.15	2.26	2.40
IN.	6.90	4.73	2.95	7.07	6.84	5.07	3.78	3.39	4.02	2.48	2.61	2.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996@, BY WATER YEAR (WY)

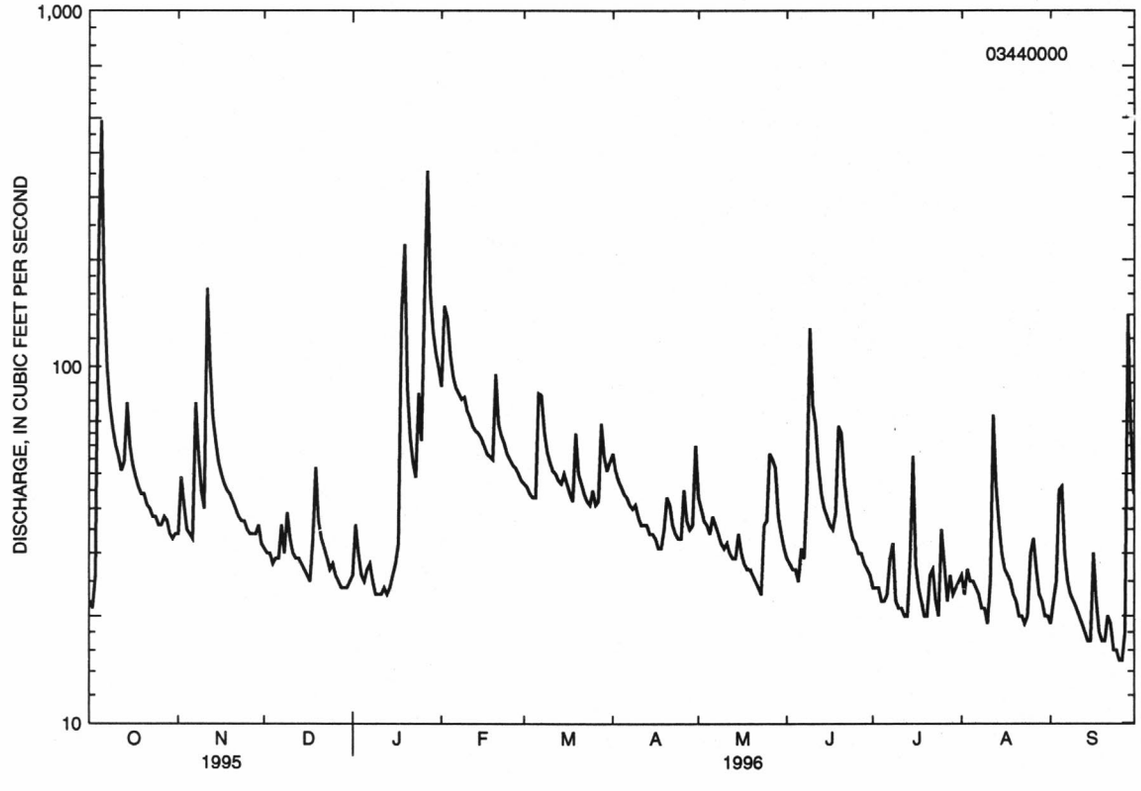
MEAN	26.1	32.3	36.1	44.6	47.0	55.0	48.6	38.6	33.8	30.1	31.0	26.8
MAX	70.0	77.9	63.3	81.4	84.9	110	69.3	57.3	78.2	94.9	91.2	67.8
(WY)	1996	1949	1993	1946	1990	1952	1991	1949	1989	1949	1994	1950
MIN	7.30	8.69	14.1	14.5	24.7	20.7	27.2	17.2	11.6	10.9	9.64	8.21
(WY)	1955	1955	1994	1955	1989	1988	1988	1988	1988	1988	1988	1954

TENNESSEE RIVER BASIN

03440000 CATHEYS CREEK NEAR BREVARD, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996@	
ANNUAL TOTAL	17009		16516			
ANNUAL MEAN	46.6		45.1		37.5	
HIGHEST ANNUAL MEAN					59.7	1949
LOWEST ANNUAL MEAN					18.3	1988
HIGHEST DAILY MEAN	492	Oct 5	492	Oct 5	814	Aug 17 1994
LOWEST DAILY MEAN	16	May 24	15	Sep 25	6.6	Sep 28 1954
ANNUAL SEVEN-DAY MINIMUM	17	May 20	17	Sep 20	6.6	Oct 20 1954
INSTANTANEOUS PEAK FLOW			1130*	Oct 5	2410*	Aug 17 1994
INSTANTANEOUS PEAK STAGE			5.03	Oct 5	7.28	Aug 17 1994
INSTANTANEOUS LOW FLOW			11	Sep 25	3.6	Sep 28 1988
ANNUAL RUNOFF (CFSM)	3.98		3.86		3.20	
ANNUAL RUNOFF (INCHES)	54.08		52.51		43.50	
10 PERCENT EXCEEDS	74		72		64	
50 PERCENT EXCEEDS	34		35		31	
90 PERCENT EXCEEDS	21		22		13	

* See REMARKS.
@ SeePERIOD OF RECORD.



TENNESSEE RIVER BASIN

03441000 DAVIDSON RIVER NEAR BREVARD, NC

LOCATION.--Lat 35°16'23", long 83°42'21", Transylvania County, Hydrologic Unit 06010105, on right bank 150 ft upstream of bridge on State Highway 280, 2.1 mi downstream of Avery Creek, 3.3 mi northeast of Brevard, and at mile 2.2.

DRAINAGE AREA.--40.4 mi^2.

PERIOD OF RECORD.--October 1920 to September 1990. October 1993 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 823: Drainage Area. WSP 1336: 1921, 1922 (M), 1923, 1924-25(M), 1926, 1927(M), 1929-32(M).

GAGE.--Water-stage recorder. Datum of gage is 2,115.13 ft above sea level (levels by Tennesse Valley Authority). Prior to May 17, 1934, nonrecording gage at site 50 ft downstream at same datum.

REMARKS.-- Records good except those during period of ice effect, Jan. 8-9, which are poor. Minimum discharge for current water year also occurred July 14.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1869, 11.9 ft June 1876 (from studies by Tennesse Valley Authority).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	122	119	119	271	133	200	133	68	61	70	78
2	80	178	116	149	606	130	173	123	67	59	56	83
3	101	149	113	133	532	125	161	116	66	58	53	148
4	918	129	112	116	373	121	152	111	70	54	50	503
5	2630	121	112	110	322	122	144	106	64	53	62	373
6	954	120	111	116	285	262	141	113	61	56	88	227
7	566	361	144	124	267	258	134	120	64	56	87	163
8	412	248	118	e113	263	202	134	112	101	102	63	139
9	330	183	172	e111	269	169	140	104	449	59	63	121
10	267	160	140	109	238	156	128	100	206	53	53	110
11	209	576	126	103	224	149	124	101	181	50	107	101
12	193	393	121	107	206	145	121	95	134	50	432	92
13	215	274	119	101	194	139	119	91	115	49	206	85
14	299	234	116	106	187	134	115	90	105	55	132	79
15	220	202	113	122	179	152	113	101	98	207	104	75
16	189	184	110	135	170	145	112	94	102	85	90	109
17	173	173	106	148	161	141	106	88	93	92	135	100
18	163	165	128	642	157	132	105	84	99	164	120	76
19	155	157	214	1000	152	274	108	81	138	79	94	70
20	152	151	162	384	309	197	128	78	154	66	91	67
21	145	145	140	276	214	169	133	76	114	62	75	69
22	137	139	130	225	190	155	116	73	98	85	68	77
23	131	137	122	197	178	146	114	71	88	80	65	62
24	129	134	116	319	166	140	108	85	82	67	83	59
25	127	130	124	238	157	152	104	106	83	82	109	57
26	124	127	111	465	152	140	140	100	75	82	149	56
27	128	124	115	1280	147	137	117	102	73	60	118	70
28	132	123	103	551	143	242	110	95	70	61	114	737
29	117	140	107	411	137	196	110	80	66	57	101	379
30	113	122	101	345	---	173	179	75	64	62	96	235
31	120	---	103	310	---	179	---	73	---	66	91	---
TOTAL	9712	5601	3844	8665	6849	5115	3889	2977	3248	2272	3225	4600
MEAN	313	187	124	280	236	165	130	96.0	108	73.3	104	153
MAX	2630	576	214	1280	606	274	200	133	449	207	432	737
MIN	80	120	101	101	137	121	104	71	61	49	50	56
CFSM	7.75	4.62	3.07	6.92	5.85	4.08	3.21	2.38	2.68	1.81	2.58	3.80
IN.	8.94	5.16	3.54	7.98	6.31	4.71	3.58	2.74	2.99	2.09	2.97	4.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996@, BY WATER YEAR (WY)

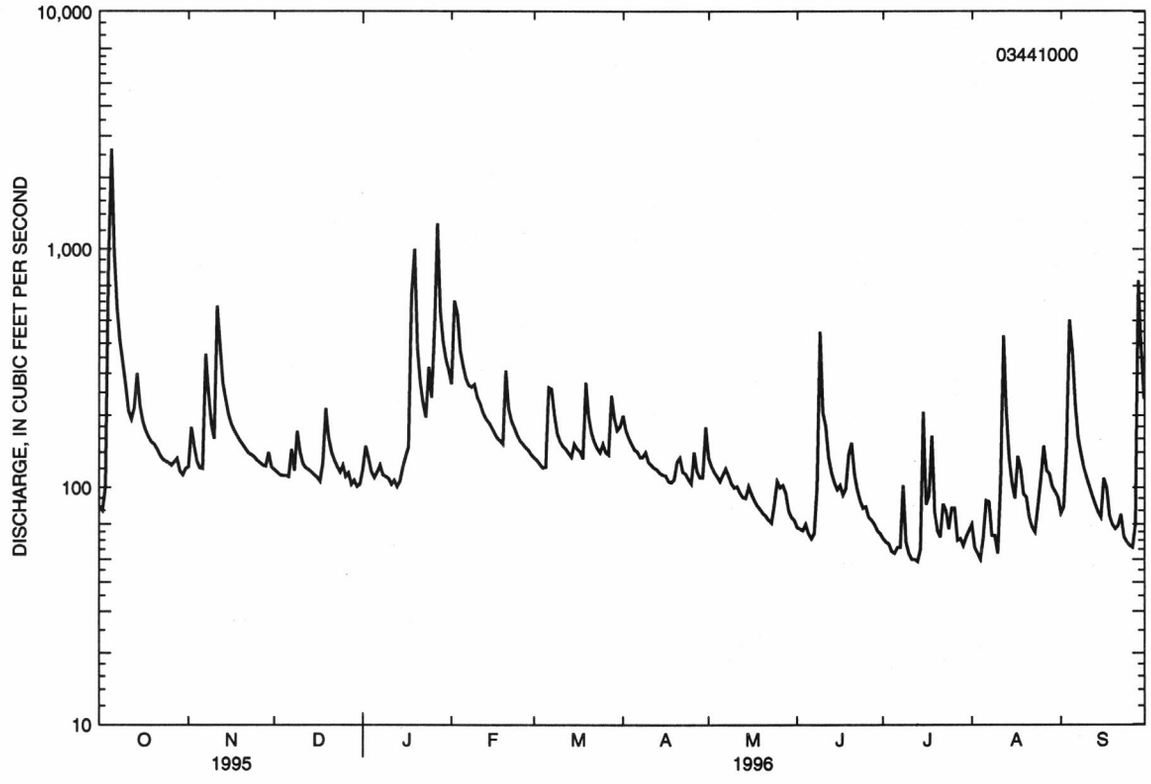
MEAN	97.5	106	131	155	168	184	173	143	114	93.6	102	91.1
MAX	379	362	323	374	363	466	349	293	254	285	404	297
(WY)	1965	1980	1933	1937	1939	1929	1957	1923	1967	1989	1928	1928
MIN	18.2	24.5	31.7	37.8	66.5	74.1	57.7	54.6	37.9	37.2	24.0	17.5
(WY)	1955	1955	1940	1956	1941	1988	1986	1941	1988	1986	1925	1954

TENNESSEE RIVER BASIN

03441000 DAVIDSON RIVER NEAR BREVARD, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1921 - 1996@	
ANNUAL TOTAL	66191		59997			
ANNUAL MEAN	181		164		130	
HIGHEST ANNUAL MEAN					208	1949
LOWEST ANNUAL MEAN					70.6	1988
HIGHEST DAILY MEAN	2630	Oct 5	2630	Oct 5	2940	Aug 17 1994
LOWEST DAILY MEAN	53	Jul 26	49	Jul 13	14	Sep 28 1954
ANNUAL SEVEN-DAY MINIMUM	58	Jul 21	57	Jul 1	15	Sep 25 1954
INSTANTANEOUS PEAK FLOW			4920	Oct 5	8400	Aug 15 1928
INSTANTANEOUS PEAK STAGE			8.71	Oct 5	12.08	Aug 17 1994
INSTANTANEOUS LOW FLOW			47*	Jul 13	13	Oct 11 1954
ANNUAL RUNOFF (CFSM)	4.49		4.06		3.21	
ANNUAL RUNOFF (INCHES)	60.95		55.24		43.65	
10 PERCENT EXCEEDS	293		270		230	
50 PERCENT EXCEEDS	127		121		101	
90 PERCENT EXCEEDS	80		66		43	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



TENNESSEE RIVER BASIN

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC

LOCATION.--Lat 35°17'56", long 82°37'26", Transylvania County, Hydrologic Unit 06010105, on left bank 40 ft upstream from bridge on Secondary Road 1503, 700 ft east of railroad at Blantyre, 3.5 mi downstream 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 sea level (levels by Tennessee Valley Authority). Prior to July 5, 1930, nonrecording gage at same site and datum. National Weather Service telephone telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair and those above 2,600 ft^3/s, which are fair. Considerable diurnal fluctuation at low flow caused by power plant about 8 mi upstream from station. Maximum gage height for period of record, 25.50 ft, from floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since at least 1791, maximum stage 27.1 ft, July 16, 1916, from floodmarks (from studies by Tennessee Valley Authority).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	933	919	823	2200	1130	1610	1240	624	556	764	641
2	612	1180	906	977	3050	1120	1450	1060	613	534	626	614
3	601	1420	858	1170	4080	1080	1320	989	603	522	570	786
4	2710	1130	873	961	e3300	1040	1250	929	641	511	559	2960
5	5290	1030	852	872	e2800	1040	1190	910	621	482	705	2740
6	6250	972	848	859	e2400	1680	1140	881	584	502	924	1470
7	5300	1600	1000	964	e2100	2220	1110	948	593	504	837	1050
8	3160	2100	942	875	1990	1980	1070	885	712	589	700	901
9	1790	1480	1070	825	1940	1530	1100	859	1880	545	634	835
10	1540	1270	1060	833	1820	1370	1040	833	2010	482	580	800
11	1400	2270	942	808	1730	1280	982	801	1320	447	586	741
12	1300	3830	878	802	1640	1240	974	813	1040	441	1440	696
13	1240	3160	884	774	1550	1190	946	762	909	437	1450	656
14	1860	1930	857	799	1500	1150	946	746	841	495	1040	618
15	2070	1630	850	839	1460	1150	916	770	841	1120	932	588
16	1540	1450	844	869	1400	1240	927	823	831	965	806	643
17	1350	1340	803	962	1340	1150	880	745	848	630	886	1090
18	1240	1270	859	2090	1300	1110	865	723	879	726	843	749
19	1180	1210	1540	5240	1260	1610	866	681	813	581	721	645
20	1140	1170	1430	5330	1990	1580	973	680	1190	531	673	603
21	1110	1130	1120	3700	2010	1320	1240	657	969	519	626	584
22	1040	1090	1010	2080	1620	1230	1060	664	838	667	595	688
23	1010	1060	957	1690	1500	1150	959	574	752	540	572	602
24	1010	1020	882	2190	1410	1110	924	593	707	516	649	555
25	980	1020	880	2130	1320	1120	887	855	718	532	715	533
26	940	985	843	2170	1270	1180	1020	847	664	897	997	522
27	914	957	829	5770	1240	1090	1120	980	634	586	e932	548
28	1080	945	802	6080	1210	1800	949	887	616	533	e888	1690
29	959	983	778	4530	1170	1880	905	756	592	614	830	3130
30	874	955	765	3300	---	1510	1320	686	575	543	719	1920
31	919	---	762	2600	---	1420	---	658	---	657	691	---
TOTAL	53039	42520	28843	63912	53600	41700	31939	25235	25458	18204	24490	30598
MEAN	1711	1417	930	2062	1848	1345	1065	814	849	587	790	1020
MAX	6250	3830	1540	6080	4080	2220	1610	1240	2010	1120	1450	3130
MIN	601	933	762	774	1170	1040	865	574	575	437	559	522
CFSM	5.78	4.79	3.14	6.97	6.24	4.54	3.60	2.75	2.87	1.98	2.67	3.45
IN.	6.67	5.34	3.62	8.03	6.74	5.24	4.01	3.17	3.20	2.29	3.08	3.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996, BY WATER YEAR (WY)

MEAN	777	851	1036	1204	1272	1394	1307	1071	885	736	795	703
MAX	3504	2486	2142	2783	2582	3169	2509	2339	1872	2214	2363	1828
(WY)	1965	1980	1962	1937	1990	1979	1936	1973	1989	1949	1994	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

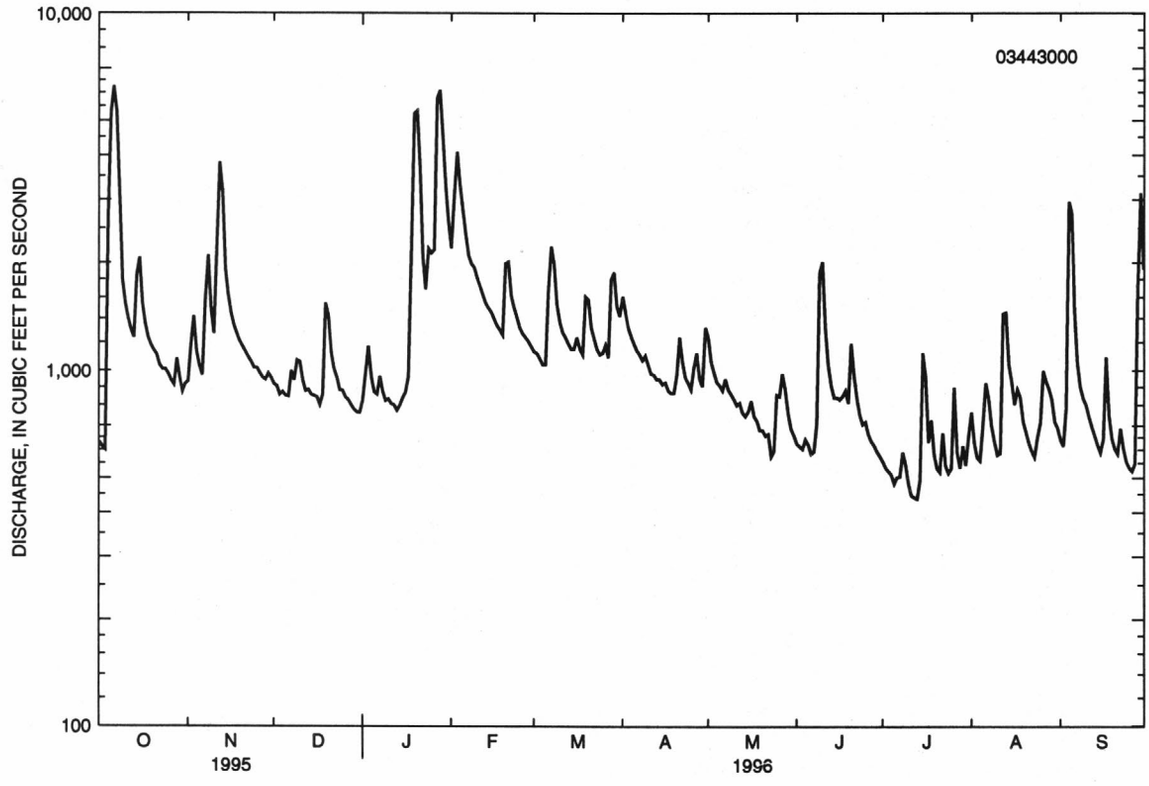
TENNESSEE RIVER BASIN

03443000 FRENCH BROAD RIVER AT BLANTYRE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1921 - 1996	
ANNUAL TOTAL	449519		439538			
ANNUAL MEAN	1232		1201		1001	
HIGHEST ANNUAL MEAN					1564	1949
LOWEST ANNUAL MEAN					534	1988
HIGHEST DAILY MEAN	6490	Aug 28	6250	Oct 6	22700	Oct 5 1964
LOWEST DAILY MEAN	475	Jul 26	437	Jul 13	123	Oct 10 1954
ANNUAL SEVEN-DAY MINIMUM	545	May 21	491	Jul 8	133	Oct 8 1954
INSTANTANEOUS PEAK FLOW			6730	Jan 28	30000	Oct 5 1964
INSTANTANEOUS PEAK STAGE			19.40	Jan 28	25.50*	Oct 5 1964
INSTANTANEOUS LOW FLOW			413	Jul 13	119	Oct 1 1954
ANNUAL RUNOFF (CFSM)	4.16		4.06		3.38	
ANNUAL RUNOFF (INCHES)	56.49		55.24		45.96	
10 PERCENT EXCEEDS	1970		2000		1730	
50 PERCENT EXCEEDS	954		948		812	
90 PERCENT EXCEEDS	637		589		364	

e Estimated.

* 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 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 sea level (levels by Tennessee Valley Authority). Prior to Oct. 1, 1926, nonrecording gage at site 500 ft upstream at 2,091.44 ft. Satellite telemetry at station.

REMARKS.--Records good except those during period of ice effect, Dec. 24-26, Jan. 8-9, and Feb. 5, and those for estimated daily discharges, which are fair. City of Hendersonville diverted about 6.1 ft^3/s from North Fork and Bradley Creek for municipal water supply. Maximum discharge for period of record, from rating curve extended above 6,200 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record result of freezeup. Minimum discharge for current water year also occurred July 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	154	148	134	361	201	241	168	87	74	91	139
2	99	194	144	159	545	198	222	156	85	74	79	135
3	108	182	141	153	551	190	211	149	103	72	71	182
4	707	160	139	135	438	185	202	143	99	68	71	1180
5	2010	153	137	129	e400	184	194	139	89	66	80	727
6	726	150	137	135	361	252	190	146	82	67	93	483
7	452	253	159	141	342	247	183	161	84	69	104	356
8	361	235	e140	e140	334	221	179	146	120	103	80	323
9	313	195	e188	e140	347	201	182	138	397	82	81	269
10	285	181	168	137	322	194	170	134	272	69	73	236
11	259	533	154	128	308	190	165	138	199	65	70	e218
12	238	447	147	133	290	187	162	131	156	65	286	e194
13	237	315	144	124	278	182	158	125	136	71	199	176
14	307	275	141	128	270	177	154	123	124	69	131	163
15	262	241	138	141	260	190	150	133	113	198	108	154
16	232	221	136	158	251	193	147	129	117	104	94	177
17	216	208	131	176	241	189	141	121	112	85	97	192
18	206	199	146	480	236	178	140	115	110	77	101	150
19	199	191	218	1390	229	303	141	111	123	68	108	140
20	192	183	190	531	349	253	153	108	159	64	224	132
21	186	176	167	384	292	225	163	105	125	64	125	130
22	178	170	157	318	269	211	145	101	106	108	104	138
23	172	166	149	286	256	199	142	98	97	106	92	121
24	169	163	e145	360	244	191	138	98	127	159	126	116
25	166	158	e140	305	232	197	135	119	104	98	201	111
26	161	155	e135	427	227	190	171	106	90	108	471	110
27	163	151	140	1570	219	e190	152	111	87	81	258	117
28	173	151	129	709	214	e280	139	105	83	78	250	631
29	156	178	127	536	205	249	140	97	79	76	214	476
30	151	152	132	455	---	229	210	92	76	81	178	292
31	152	---	136	406	---	230	---	90	---	84	155	---
TOTAL	9337	6290	4603	10548	8871	6506	5020	3836	3741	2653	4415	7968
MEAN	301	210	148	340	306	210	167	124	125	85.6	142	266
MAX	2010	533	218	1570	551	303	241	168	397	198	471	1180
MIN	99	150	127	124	205	177	135	90	76	64	70	110
CFSM	4.52	3.14	2.23	5.10	4.59	3.15	2.51	1.86	1.87	1.28	2.14	3.98
IN.	5.21	3.51	2.57	5.88	4.95	3.63	2.80	2.14	2.09	1.48	2.46	4.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1996@, BY WATER YEAR (WY)

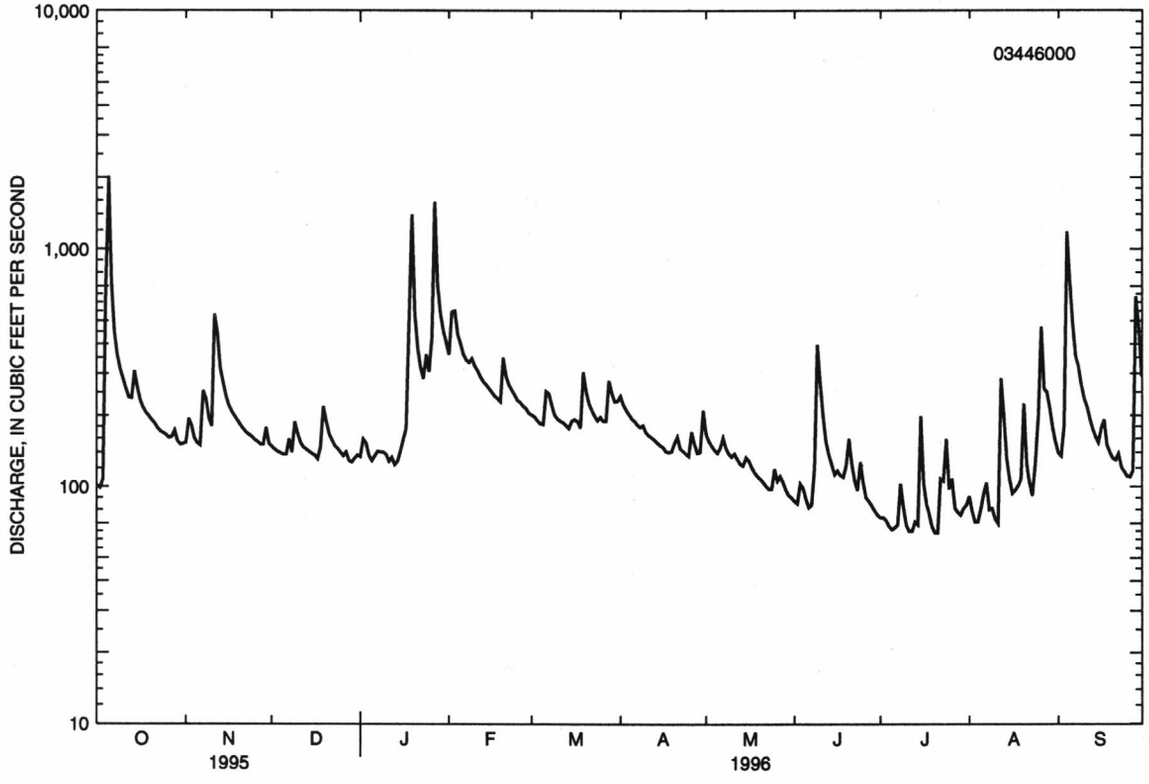
MEAN	129	145	165	199	219	245	236	189	153	121	132	118
MAX	465	510	338	534	448	520	468	412	359	356	506	354
(WY)	1965	1980	1962	1937	1939	1979	1957	1973	1992	1989	1940	1979
MIN	24.8	35.2	40.7	43.5	88.9	87.5	79.7	76.2	41.7	38.6	25.4	22.8
(WY)	1955	1955	1940	1956	1941	1988	1986	1988	1988	1988	1925	1925

TENNESSEE RIVER BASIN

03446000 MILLS RIVER NEAR MILLS RIVER, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1925 - 1996@	
ANNUAL TOTAL	78316		73788			
ANNUAL MEAN	215		202		171	
HIGHEST ANNUAL MEAN					272	1949
LOWEST ANNUAL MEAN					86.8	1988
HIGHEST DAILY MEAN	2270	Aug 27	2010	Oct 5	4470	Aug 13 1940
LOWEST DAILY MEAN	73	Aug 18	64	Jul 20	18	Sep 30 1954
ANNUAL SEVEN-DAY MINIMUM	85	Aug 12	70	Jul 1	19	Sep 24 1954
INSTANTANEOUS PEAK FLOW			2700	Oct 5	13400*	Aug 30 1940
INSTANTANEOUS PEAK STAGE			6.96	Oct 5	13.62	Aug 30 1940
INSTANTANEOUS LOW FLOW			62*	Jul 20	16*	Dec 24 1943
ANNUAL RUNOFF (CFSM)	3.22		3.02		2.56	
ANNUAL RUNOFF (INCHES)	43.68		41.15		34.76	
10 PERCENT EXCEEDS	319		326		301	
50 PERCENT EXCEEDS	166		156		138	
90 PERCENT EXCEEDS	105		85		56	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



TENNESSEE RIVER BASIN

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 sea level, from topographic map.

REMARKS.--Records good except those during period of ice effect, Feb. 5-6, and those above 1,000 ft^3/s, which are fair. Maximum discharge for period of record, from rating curve extended above 1,000 ft^3/s by logarithmic plotting. Minimum discharge for period of record also occurred Oct. 6 and 8-10, 1993. Minimum discharge for current water year also occurred July 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	18	18	60	35	66	51	30	11	17	14
2	13	44	17	45	155	32	56	45	27	11	11	13
3	14	36	16	45	117	29	50	40	24	14	8.7	20
4	225	29	16	30	90	27	45	37	23	10	7.8	25
5	1050	25	15	26	e75	26	42	34	21	9.4	9.4	83
6	201	24	15	26	e63	47	39	39	19	9.2	16	48
7	115	80	16	24	61	55	35	46	20	8.8	13	34
8	85	67	14	22	63	46	34	40	39	8.6	13	27
9	69	49	18	21	143	39	31	36	60	8.8	14	22
10	58	41	14	19	97	36	28	33	68	7.9	11	18
11	49	143	13	18	92	34	28	33	58	7.3	9.8	16
12	43	97	14	17	76	31	27	32	46	7.5	117	14
13	40	70	14	17	67	29	27	29	40	7.3	47	12
14	49	59	14	19	61	28	27	27	34	7.0	29	10
15	45	48	13	26	56	38	26	34	32	27	30	9.1
16	38	42	14	30	51	42	31	34	31	16	36	21
17	35	38	13	37	46	42	26	31	30	10	25	26
18	32	36	17	248	42	37	25	28	27	8.3	21	17
19	29	35	67	434	40	92	25	26	25	7.6	20	14
20	28	33	53	120	62	69	31	24	24	7.2	21	12
21	26	30	35	86	64	56	38	21	21	7.0	21	11
22	24	27	29	68	67	49	33	20	20	7.1	30	11
23	22	26	25	58	68	45	32	18	18	6.6	33	8.9
24	21	24	22	87	59	43	30	17	17	5.8	25	7.7
25	20	22	21	69	49	55	27	43	16	11	26	7.2
26	19	21	19	96	45	55	51	53	15	13	26	7.0
27	19	20	18	330	44	48	45	48	15	7.4	21	6.9
28	19	20	16	126	45	84	40	70	14	8.6	20	97
29	17	24	16	97	39	72	37	47	13	8.4	18	64
30	16	19	16	80	---	61	64	39	12	8.3	16	35
31	18	---	16	70	---	60	---	34	---	12	17	---
TOTAL	2453	1248	624	2409	2016	1442	1096	1109	839	299.1	729.7	710.8
MEAN	79.1	41.6	20.1	77.7	69.5	46.5	36.5	35.8	28.0	9.65	23.5	23.7
MAX	1050	143	67	434	155	92	66	70	68	27	117	97
MIN	13	19	13	17	39	26	25	17	12	5.8	7.8	6.9
CFSM	5.46	2.87	1.39	5.36	4.80	3.21	2.52	2.47	1.93	.67	1.62	1.64
IN.	6.30	3.20	1.60	6.18	5.18	3.70	2.81	2.85	2.15	.77	1.87	1.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

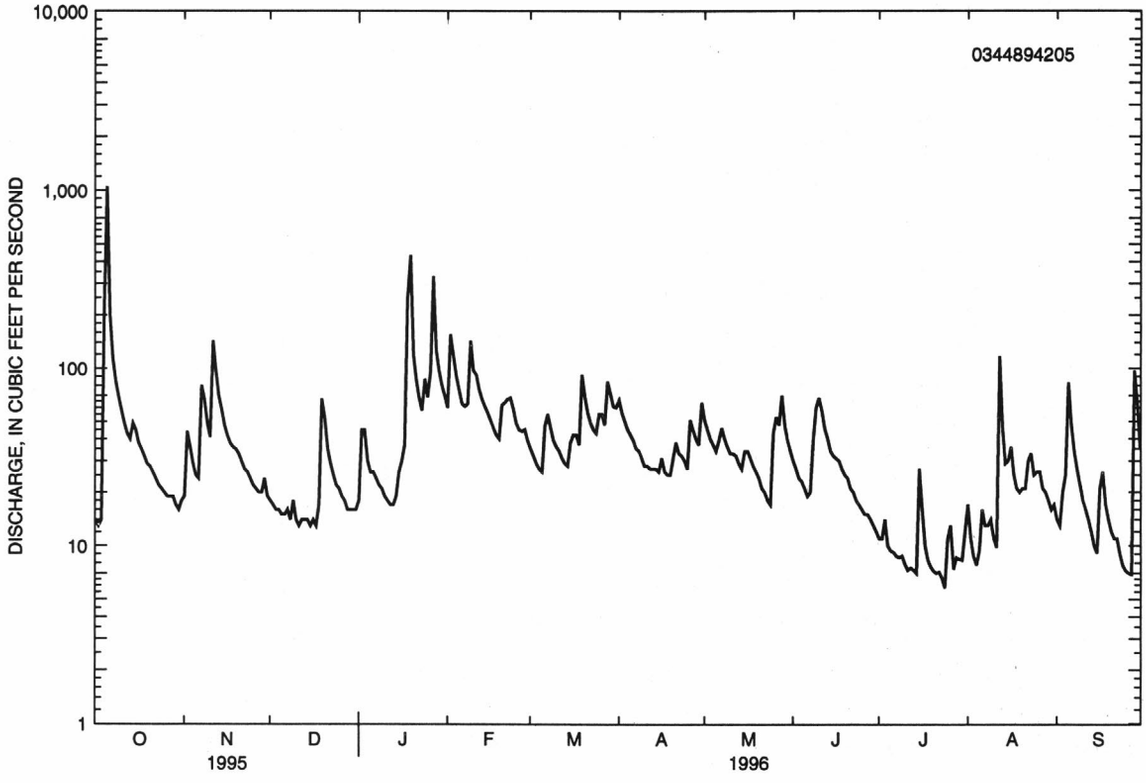
MEAN	40.5	37.2	47.2	74.6	63.3	81.2	52.9	49.4	41.7	20.5	41.0	23.8
MAX	79.1	84.6	79.8	134	120	111	78.9	74.4	78.0	43.0	123	64.3
(WY)	1996	1993	1993	1995	1990	1993	1994	1992	1995	1989	1994	1989
MIN	3.60	10.7	20.1	49.0	35.0	46.5	18.6	19.6	13.6	6.20	5.33	4.50
(WY)	1994	1994	1996	1992	1993	1996	1995	1994	1993	1993	1993	1993

TENNESSEE RIVER BASIN

0344894205 NORTH FORK SWANNANOA RIVER NEAR WALKERTOWN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1989 - 1996	
ANNUAL TOTAL	19803		14975.6			
ANNUAL MEAN	54.3		40.9		47.3	
HIGHEST ANNUAL MEAN					51.9	1995
LOWEST ANNUAL MEAN					40.9	1996
HIGHEST DAILY MEAN	1740	Jan 14	1050	Oct 5	1740	Jan 14 1995
LOWEST DAILY MEAN	10	Jul 25	5.8	Jul 24	2.2	Oct 9 1993
ANNUAL SEVEN-DAY MINIMUM	12	Jul 22	7.1	Jul 18	2.4	Oct 4 1993
INSTANTANEOUS PEAK FLOW			2810	Oct 5	4600*	Jan 14 1995
INSTANTANEOUS PEAK STAGE			7.23	Oct 5	8.19	Jan 14 1995
INSTANTANEOUS LOW FLOW			5.2*	Jul 24	2.2*	Oct 5 1993
ANNUAL RUNOFF (CFSM)	3.74		2.82		3.27	
ANNUAL RUNOFF (INCHES)	50.84		38.45		44.37	
10 PERCENT EXCEEDS	84		69		89	
50 PERCENT EXCEEDS	30		28		32	
90 PERCENT EXCEEDS	15		11		8.7	

e Estimated.
* 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 mi^2.

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 sea level.

REMARKS.--Records good except those for periods of ice effect, Jan. 20-23, and Feb. 3-7, which are poor. Maximum discharge for period of record, from rating curve extended above 240 ft^3/s on basis of computation of peak flow over weir. Minimum discharge for period of record and current water year also occurred July 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	5.3	5.2	5.8	23	12	16	19	6.0	2.4	6.1	5.3
2	2.9	9.4	5.0	11	41	11	14	17	5.8	1.8	3.3	5.3
3	3.1	8.3	4.6	9.5	e27	10	13	15	5.5	2.4	1.4	6.1
4	50	7.0	5.1	7.5	e22	9.8	12	13	5.5	1.2	.78	6.5
5	210	6.5	5.1	6.8	e21	9.5	12	12	4.9	.87	.73	25
6	60	6.4	5.2	7.0	e20	16	11	18	4.3	.84	2.7	16
7	34	19	5.5	7.1	e19	17	10	23	5.2	.74	4.7	14
8	24	19	4.9	7.1	23	17	10	21	8.4	1.4	3.1	14
9	20	16	6.0	7.2	33	17	9.7	18	12	1.3	3.9	11
10	15	14	5.1	6.5	28	15	9.1	16	16	.70	1.9	9.2
11	12	30	4.8	5.9	26	13	9.0	15	15	.46	1.1	8.1
12	11	35	4.7	5.6	23	12	8.5	13	12	.56	10	6.9
13	10	23	4.9	5.8	22	11	8.4	12	11	.62	9.3	6.2
14	13	21	4.7	6.5	20	11	8.2	11	9.3	.55	7.4	5.4
15	12	19	4.5	9.1	19	13	7.9	13	13	6.5	13	4.7
16	10	16	4.4	11	18	13	8.0	12	24	2.6	15	8.1
17	9.0	14	4.3	12	17	13	7.4	11	22	.77	10	8.3
18	8.5	14	4.5	34	15	12	7.1	10	17	.55	8.4	6.7
19	8.0	14	8.2	104	15	20	7.2	9.2	15	.44	6.8	5.6
20	7.6	13	8.7	e38	20	20	8.8	8.6	12	.40	5.8	4.8
21	7.3	11	6.7	e25	20	18	9.7	7.9	10	.39	6.3	4.5
22	6.6	11	6.1	e20	20	17	8.9	7.3	8.5	.41	10	4.4
23	6.2	10	5.8	e20	19	15	9.2	6.8	7.2	.38	10	2.7
24	6.2	7.0	5.6	26	17	15	8.9	6.4	6.7	.32	8.5	1.8
25	5.9	6.3	5.6	24	16	16	8.5	8.8	6.1	3.8	11	1.4
26	5.5	5.9	5.2	34	15	15	15	9.2	5.7	1.9	9.0	1.2
27	5.7	6.1	4.6	112	14	14	13	8.5	5.2	.40	7.5	1.2
28	5.8	5.9	4.4	58	14	18	13	9.2	4.6	4.6	7.5	15
29	4.9	6.2	4.2	37	12	17	12	7.6	3.7	3.5	8.2	14
30	4.7	5.5	4.4	31	---	16	22	7.1	3.1	2.8	7.5	11
31	5.2	---	4.7	26	---	16	---	6.5	---	4.6	6.3	---
TOTAL	587.2	384.8	162.7	720.4	599	449.3	317.5	372.1	284.7	50.20	207.21	234.4
MEAN	18.9	12.8	5.25	23.2	20.7	14.5	10.6	12.0	9.49	1.62	6.68	7.81
MAX	210	35	8.7	112	41	20	22	23	24	6.5	15	25
MIN	2.9	5.3	4.2	5.6	12	9.5	7.1	6.4	3.1	.32	.73	1.2
CFSM	3.47	2.35	.96	4.26	3.78	2.65	1.94	2.20	1.74	.30	1.22	1.43
IN.	4.00	2.62	1.11	4.91	4.08	3.06	2.16	2.54	1.94	.34	1.41	1.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1996@, BY WATER YEAR (WY)

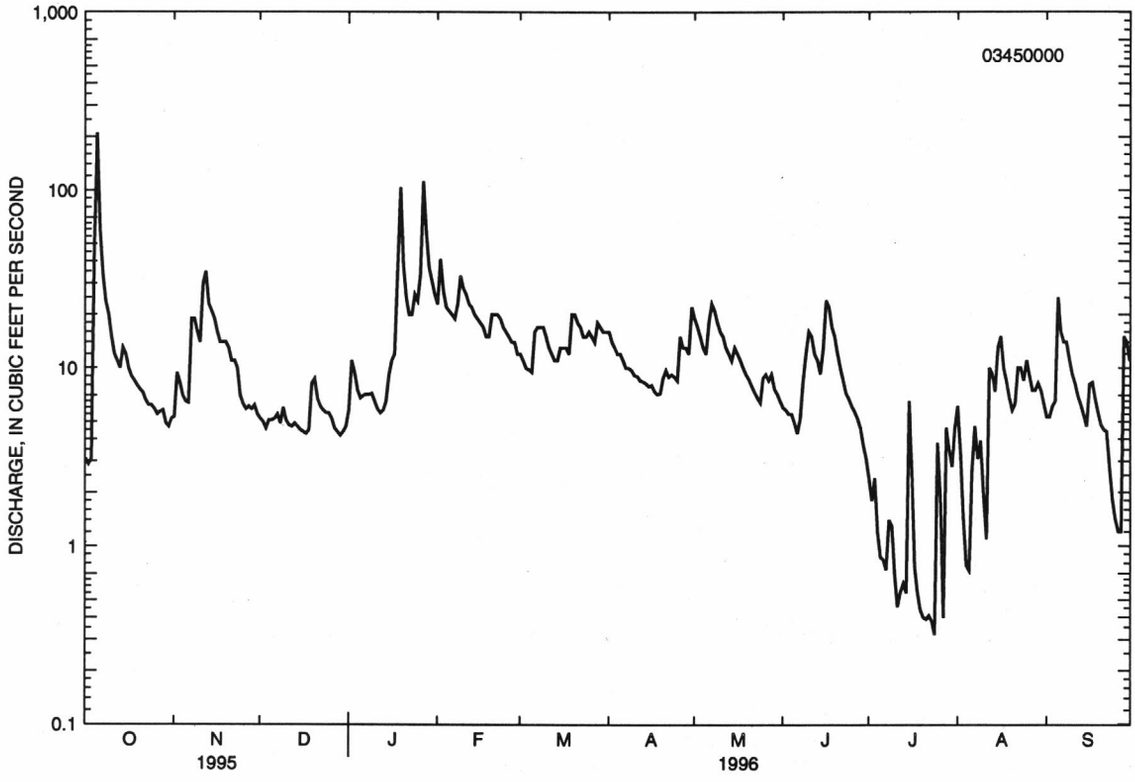
MEAN	6.49	8.48	10.6	13.5	15.5	19.1	16.6	11.9	8.58	6.12	6.83	5.12
MAX	33.8	45.3	25.4	38.5	43.0	43.1	34.1	28.5	27.0	37.9	61.8	21.2
(WY)	1930	1980	1933	1937	1990	1975	1936	1973	1949	1949	1940	1928
MIN	.65	1.23	1.58	1.99	4.46	5.25	5.21	4.68	1.82	1.34	1.15	.51
(WY)	1955	1955	1940	1940	1941	1988	1986	1948	1988	1930	1956	1954

TENNESSEE RIVER BASIN

03450000 BEETREE CREEK NEAR SWANNANOA, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1926 - 1996@	
ANNUAL TOTAL	4497.8		4369.51			
ANNUAL MEAN	12.3		11.9		10.8	
HIGHEST ANNUAL MEAN					17.8	1949
LOWEST ANNUAL MEAN					6.18	1981
HIGHEST DAILY MEAN	242	Jan 14	210	Oct 5	528	Aug 13 1940
LOWEST DAILY MEAN	1.6	Aug 25	.32	Jul 24	.30	Sep 30 1954
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 19	.41	Jul 18	.40	Sep 24 1954
INSTANTANEOUS PEAK FLOW			534	Oct 5	1370*	Aug 13 1940
INSTANTANEOUS PEAK STAGE			4.70	Oct 5	6.20	Aug 13 1940
INSTANTANEOUS LOW FLOW			.28*	Jul 24	.28*	Jul 24 1996
ANNUAL RUNOFF (CFSM)	2.26		2.19		1.97	
ANNUAL RUNOFF (INCHES)	30.64		29.77		26.75	
10 PERCENT EXCEEDS	21		21		22	
50 PERCENT EXCEEDS	7.5		8.8		7.4	
90 PERCENT EXCEEDS	3.1		2.8		1.7	

e Estimated.
* See REMARK.
@ See PERIOD OF RECORD.



TENNESSEE RIVER BASIN

03451000 SWANNANOA RIVER AT BILTMORE, NC

LOCATION.--Lat 35°34'06", long 82°32'42", Buncombe County, Hydrologic Unit 06010105, on left bank at Biltmore, 100 ft downstream 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 sea level (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 telephone 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 33.6 ft^3/s from Burnett Lake (station 03448959) on North Fork Swannanoa River, 20 mi upstream from station and Bee Tree Lake on Beetree Creek (station 03450000), 13 mi upstream from station for water supply. An average of 35.2 ft^3/s was discharged downstream of station into the French Broad River as treated sewage effluent. Maximum discharge for period of record, 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 for period of record occurred several days in Oct. 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	96	108	94	343	188	258	226	112	57	106	56
2	60	146	102	131	1010	182	236	207	101	56	61	55
3	63	132	101	138	820	173	218	191	98	53	61	61
4	1160	117	99	127	574	162	201	175	106	50	51	94
5	3560	109	96	117	455	159	197	161	101	48	83	890
6	979	107	94	129	395	285	188	236	85	48	64	209
7	621	314	98	138	364	277	177	278	90	48	86	197
8	429	276	98	119	392	244	170	208	197	52	73	166
9	324	221	138	124	560	214	172	191	209	52	67	106
10	263	186	104	111	503	201	155	204	234	46	53	96
11	223	422	95	100	444	192	150	193	234	42	51	94
12	194	452	89	98	396	186	141	179	192	42	273	79
13	173	342	89	102	351	178	141	156	181	43	115	72
14	245	298	87	106	322	170	143	148	134	50	181	66
15	208	248	91	124	296	195	137	184	291	129	125	63
16	171	209	85	153	276	253	140	167	193	68	67	97
17	151	189	84	158	255	206	129	152	148	52	86	104
18	141	174	85	350	241	190	123	138	182	47	62	73
19	133	165	107	1940	229	355	122	128	162	43	56	65
20	126	158	129	857	322	321	179	119	124	41	60	61
21	122	149	130	512	280	283	201	109	106	41	66	63
22	114	139	115	375	270	254	161	101	96	42	94	68
23	110	132	107	306	266	228	152	94	84	41	80	57
24	106	133	102	407	256	214	149	90	91	39	80	56
25	102	128	98	330	239	223	137	128	82	96	110	54
26	97	122	94	605	226	223	218	166	73	72	65	68
27	101	119	90	2310	218	212	201	206	68	44	66	58
28	112	122	86	970	217	292	179	268	63	185	154	295
29	94	154	81	643	198	275	174	180	62	130	112	196
30	92	119	80	495	---	254	289	146	60	69	74	107
31	94	---	82	412	---	248	---	129	---	71	69	---
TOTAL	10428	5678	3044	12581	10718	7037	5238	5258	3959	1897	2751	3726
MEAN	336	189	98.2	406	370	227	175	170	132	61.2	88.7	124
MAX	3560	452	138	2310	1010	355	289	278	291	185	273	890
MIN	60	96	80	94	198	159	122	90	60	39	51	54
CFSM	2.59	1.46	.76	3.12	2.84	1.75	1.34	1.30	1.02	.47	.68	.96
IN.	2.98	1.62	.87	3.60	3.07	2.01	1.50	1.50	1.13	.54	.79	1.07

TENNESSEE RIVER BASIN

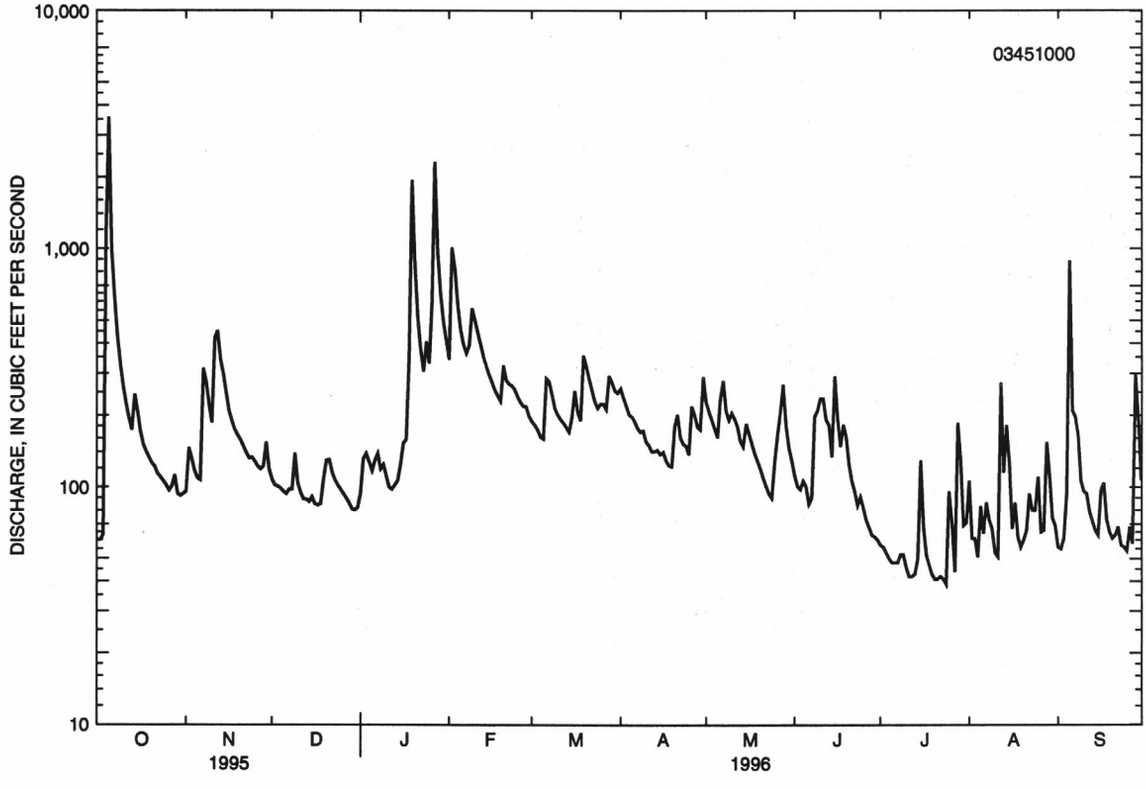
03451000 SWANNANOA RIVER AT BILTMORE, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996@, BY WATER YEAR (WY)

MEAN	102	121	141	196	228	280	249	188	138	101	104	88.4
MAX	569	604	385	610	598	740	560	480	387	503	828	421
(WY)	1965	1980	1962	1995	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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1921 - 1996@	
ANNUAL TOTAL	86432		72315			
ANNUAL MEAN	237		198		161	
HIGHEST ANNUAL MEAN					277	1949
LOWEST ANNUAL MEAN					55.9	1988
HIGHEST DAILY MEAN	6120	Jan 15	3560	Oct 5	7560	Aug 13 1940
LOWEST DAILY MEAN	42	Aug 19	39	Jul 24	1.2	Oct 14 1941
ANNUAL SEVEN-DAY MINIMUM	53	Aug 14	42	Jul 18	7.3	Sep 13 1953
INSTANTANEOUS PEAK FLOW			6070	Oct 5	18400*	Aug 13 1940
INSTANTANEOUS PEAK STAGE			12.56	Oct 5	19.00	Aug 13 1940
INSTANTANEOUS LOW FLOW			37	Jul 25	1.1*	Oct 9 1941
ANNUAL RUNOFF (CFSM)	1.82		1.52		1.24	
ANNUAL RUNOFF (INCHES)	24.73		20.69		16.82	
10 PERCENT EXCEEDS	372		326		310	
50 PERCENT EXCEEDS	132		135		107	
90 PERCENT EXCEEDS	75		60		38	

* See REMARKS.
@ See PERIOD OF RECORD.



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),

GAGE.--Water-stage recorder. Datum of gage is 1,950.28 ft above sea level. 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 telephone telemetry (gage-height) and Tennessee Valley Authority telephone telemetry (rainfall and gage-height) at station.

REMARKS.--Records good except those during period of ice effect, Feb. 3-6, and those for estimated daily discharges, which are fair. 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 33.6 ft^3/s and 35.2 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 power plant 46 mi upstream and small reservoirs upstream from station. Maximum discharge for period of record, from rating curve extended above 43,000 ft^3/s, by logarithmic plotting; maximum gage height, 23.10, from floodmarks. Minimum discharge for period of record occurred several days in Aug. and Sept. 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791, that of July 16, 1916, and flood of June 17, 1876, reached a stage of 18 ft, from studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

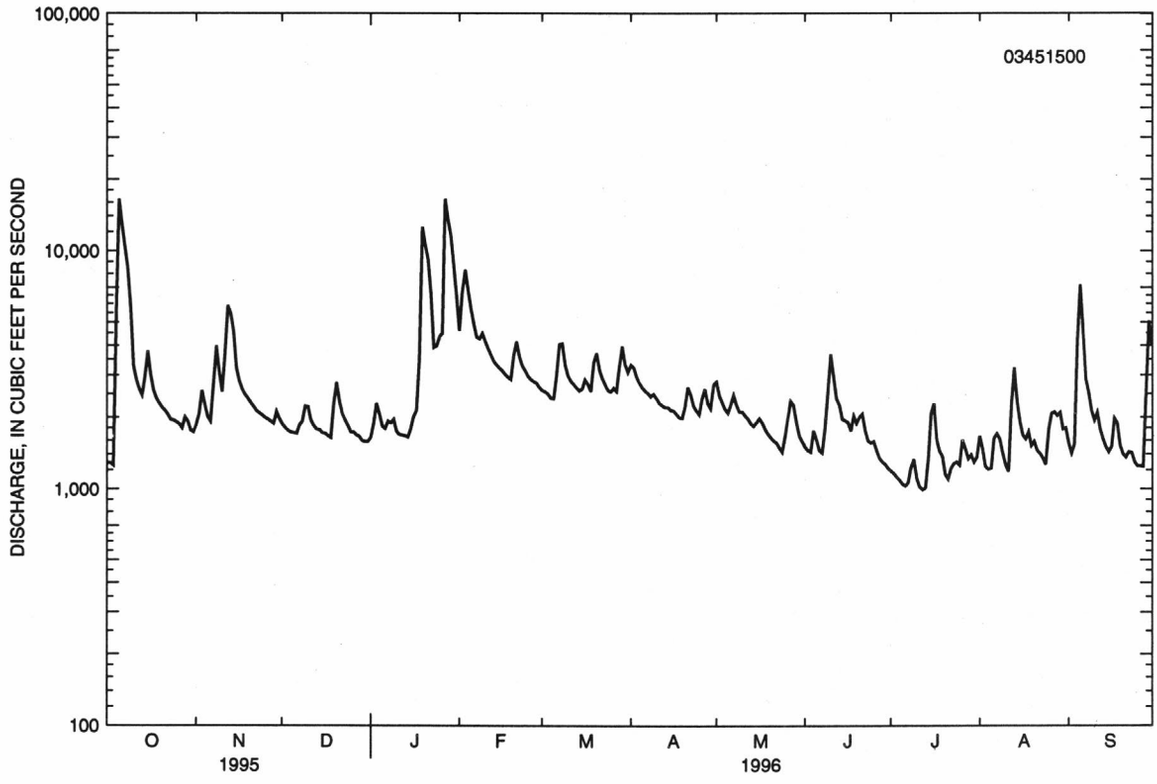
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	1860	1870	1640	4610	2590	3320	2810	1500	1190	1660	1550
2	1290	2060	1810	1870	6720	2560	3220	2460	1450	1160	1470	1410
3	1260	2580	1760	2280	e8300	2500	2940	2300	1430	1120	1240	1540
4	5500	2260	1730	2060	e6800	2400	2780	2160	1750	1090	1210	4130
5	16500	2010	1720	1830	e5700	2390	2670	2080	1610	1050	1220	7170
6	13000	1920	1710	1790	e4900	2990	2580	2250	1450	1030	1630	4630
7	10500	2790	1850	1920	4330	4040	2520	2470	1420	1060	1700	2900
8	8530	3980	1920	1890	4270	4080	2440	2250	1790	1230	1620	2550
9	5780	3090	2220	1950	4490	3310	2500	2110	2530	1330	1420	2130
10	3290	2560	2210	1740	4160	2980	2400	2110	3660	1110	1260	1940
11	2870	3720	1940	1690	3880	2830	2290	2030	2960	1020	1180	e2090
12	2630	5870	1840	1680	3650	2750	2240	1970	2390	991	2230	e1780
13	2470	5450	1780	1670	3440	2660	2200	1880	2240	1010	3220	1620
14	2950	4570	1770	1650	3320	2580	2200	1830	1960	1340	2330	1500
15	3790	3220	1720	1790	3220	2630	2140	1900	1930	2080	1910	1430
16	3020	2840	1710	2010	3140	2870	2130	1970	1900	2270	1680	1500
17	2600	2630	1670	2130	3020	2740	2060	1890	1750	1600	1620	1970
18	2400	2490	1640	3490	2940	2570	1990	1780	2020	1440	1730	1880
19	2290	2400	2270	12600	2880	3400	1980	1700	1880	1370	1520	1520
20	2200	2300	2790	10600	3640	3710	2210	1640	2000	1150	1580	1400
21	2140	2220	2310	9190	e4150	3160	2670	1590	2060	1100	1450	1360
22	2060	2130	2060	6610	3590	2910	2480	1560	1760	1220	1410	1430
23	1950	2080	1940	3920	3290	2740	2230	1490	1590	1280	1350	1420
24	1940	2040	1840	3980	3140	2590	2130	1430	1560	1300	1270	1300
25	1910	1990	1730	4360	2970	2560	2050	1660	1580	1260	1770	1250
26	1870	1960	1730	4490	2880	2650	2390	1970	1450	1600	2070	1250
27	1800	1920	1680	16500	2820	e2570	2620	2330	1350	1470	2100	1240
28	2000	1880	1660	13500	2780	3270	2280	2250	e1300	1340	2030	2510
29	1920	2110	1590	11600	2670	3960	2170	1900	1270	1390	2090	5050
30	1760	1970	1580	8700	---	3330	2740	1670	e1220	1300	1780	4020
31	1730	---	1580	6440	---	3090	---	1580	---	1360	1800	---
TOTAL	115240	80900	57630	147570	115700	91410	72570	61020	54760	40261	52550	67470
MEAN	3717	2697	1859	4760	3990	2949	2419	1968	1825	1299	1695	2249
MAX	16500	5870	2790	16500	8300	4080	3320	2810	3660	2270	3220	7170
MIN	1260	1860	1580	1640	2670	2390	1980	1430	1220	991	1180	1240
CFSM	3.93	2.85	1.97	5.04	4.22	3.12	2.56	2.08	1.93	1.37	1.79	2.38
IN.	4.54	3.18	2.27	5.81	4.55	3.60	2.86	2.40	2.16	1.58	2.07	2.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1996, BY WATER YEAR (WY)

MEAN	1610	1637	2111	2425	2658	3018	2755	2196	1895	1716	1723	1485
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1896 - 1996	
ANNUAL TOTAL	1006650		957081			
ANNUAL MEAN	2758		2615		2100	
HIGHEST ANNUAL MEAN					3671	1901
LOWEST ANNUAL MEAN					1004	1988
HIGHEST DAILY MEAN	24700	Jan 15	16500	Oct 5	66000	Jul 16 1916
LOWEST DAILY MEAN	1040	Aug 19	991	Jul 12	239	Sep 21 1925
ANNUAL SEVEN-DAY MINIMUM	1240	Aug 13	1100	Jul 1	258	Aug 24 1925
INSTANTANEOUS PEAK FLOW			21000	Oct 5	110000*	Jul 16 1916
INSTANTANEOUS PEAK STAGE			9.50	Oct 5	23.10*	Jul 16 1916
INSTANTANEOUS LOW FLOW			962	Jul 13	239*	Aug 28 1925
ANNUAL RUNOFF (CFSM)	2.92		2.77		2.22	
ANNUAL RUNOFF (INCHES)	39.63		37.68		30.19	
10 PERCENT EXCEEDS	4270		4050		3660	
50 PERCENT EXCEEDS	2070		2060		1640	
90 PERCENT EXCEEDS	1430		1340		785	

e Estimated.
* See REMARKS.



TENNESSEE RIVER BASIN

03453000 IVY RIVER NEAR MARSHALL, NC

LOCATION.--Lat 35°46'10", long 82°37'16", Madison County, Hydrologic Unit 06010105, on right bank 0.2 mi downstream from bridge on U.S. Highway 25-70, 1.9 mi upstream from mouth, and 4.0 mi southeast of Marshall.

DRAINAGE AREA.--158 mi^2.

PERIOD OF RECORD.--October 1933 to September 1973. July 1, 1994 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1700.41 ft above sea level (levels by Tennessee Valley Authority).

REVISED RECORDS.--WSP 803: 1934(M), 1935. WSP 1910: 1936(P), 1937(M), 1940(M), 1946(M), 1957(P).

REMARKS.--No estimated daily discharges. Records good. Considerable low flow regulation, at times, caused by small powerplant at Ivy Dam, 0.4 mi upstream. Minimum discharge for period of record, result of freeze-up. Minimum discharge for current water year affected by regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June, 1876, reached a stage of 16.0 ft, from studies by Tennessee Valley Authority (discharge 14,000 ft^3/s). An outstanding but lesser flood occurred in July, 1916 (stage and discharge unknown).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	75	88	111	299	175	299	382	117	67	152	50
2	49	133	86	142	779	169	274	327	110	69	76	47
3	49	125	81	172	617	159	248	281	107	112	62	51
4	391	104	87	133	419	148	232	244	108	75	61	65
5	1570	92	76	117	317	148	215	215	108	67	50	112
6	586	89	77	119	334	245	204	325	94	63	79	79
7	322	260	85	123	322	305	192	439	90	61	57	63
8	222	274	75	90	380	309	181	429	140	63	52	62
9	177	182	109	125	1130	262	191	350	155	67	148	55
10	149	152	84	122	684	233	167	289	212	62	69	52
11	128	277	96	116	513	215	160	309	157	57	56	63
12	116	377	90	106	406	204	154	295	154	56	124	51
13	106	263	86	103	347	192	152	241	149	61	122	46
14	131	233	81	119	320	181	154	220	126	58	77	43
15	133	200	79	173	297	231	146	266	112	74	63	41
16	106	170	83	250	280	261	182	240	133	79	63	47
17	98	155	80	301	252	250	153	219	168	60	60	79
18	91	144	77	426	238	231	142	195	156	55	55	58
19	87	138	107	1610	219	344	140	171	136	52	58	51
20	84	130	141	644	276	370	171	160	107	51	80	47
21	81	124	118	417	287	342	216	144	102	50	52	46
22	78	114	106	314	279	310	189	158	91	55	74	51
23	75	108	97	258	267	297	186	129	84	52	75	44
24	72	105	86	390	245	288	181	119	81	47	68	41
25	73	99	92	331	221	297	166	182	97	45	78	42
26	70	94	83	642	207	292	313	194	81	75	68	43
27	74	91	82	3070	198	262	304	207	76	50	59	39
28	99	91	74	898	213	333	260	207	73	49	58	307
29	73	114	86	563	187	338	235	164	70	53	78	287
30	69	97	89	430	---	317	425	147	68	55	74	120
31	71	---	84	358	---	308	---	130	---	95	60	---
TOTAL	5480	4610	2765	12773	10533	8016	6232	7378	3462	1935	2308	2182
MEAN	177	154	89.2	412	363	259	208	238	115	62.4	74.5	72.7
MAX	1570	377	141	3070	1130	370	425	439	212	112	152	307
MIN	49	75	74	90	187	148	140	119	68	45	50	39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996@, BY WATER YEAR (WY)

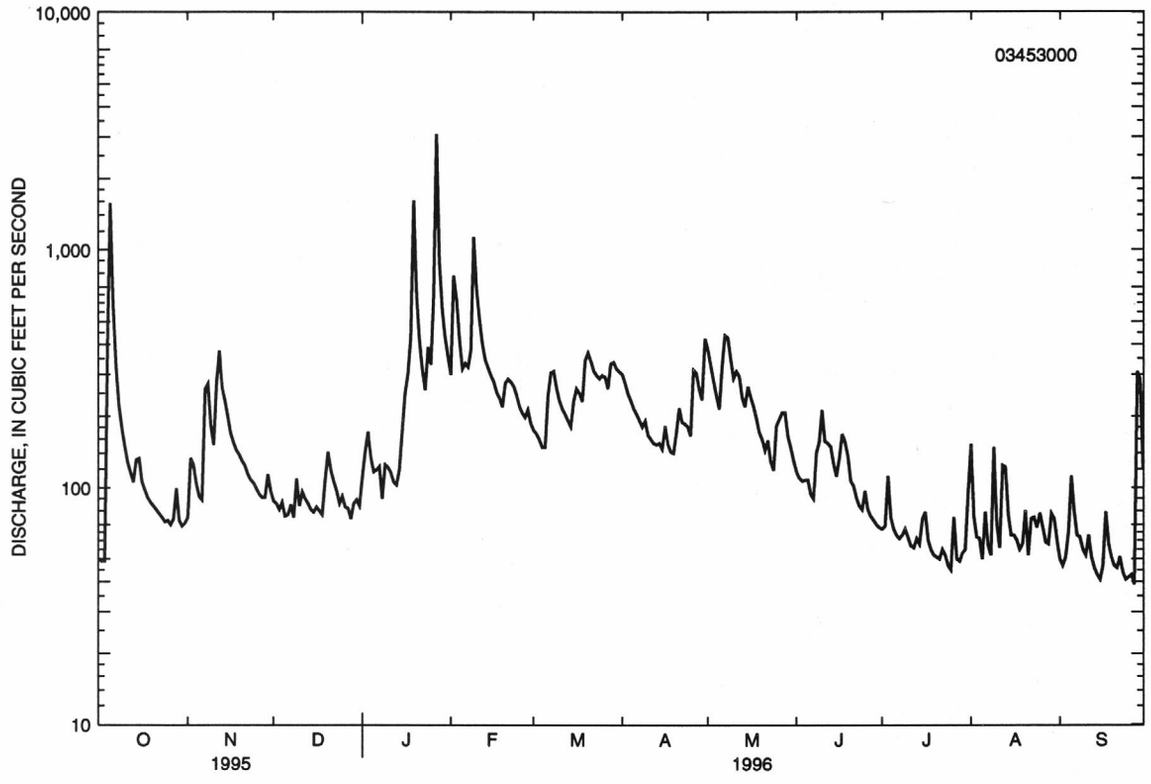
MEAN	80.7	94.3	137	216	270	316	237	154	112	95.6	91.2	62.5
MAX	367	229	407	636	563	848	574	328	272	280	444	141
(WY)	1965	1950	1962	1937	1957	1963	1936	1946	1950	1949	1940	1949
MIN	19.3	28.9	39.8	46.4	60.9	129	76.1	58.6	43.3	29.8	22.8	21.7
(WY)	1953	1940	1940	1940	1941	1970	1942	1941	1953	1952	1956	1954

TENNESSEE RIVER BASIN

03453000 IVY RIVER NEAR MARSHALL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1934 - 1996@	
ANNUAL TOTAL	67200		67674			
ANNUAL MEAN	184		185		155	
HIGHEST ANNUAL MEAN					232	1936
LOWEST ANNUAL MEAN					92.1	1941
HIGHEST DAILY MEAN	3620	Jan 15	3070	Jan 27	8010	Mar 12 1963
LOWEST DAILY MEAN	44	Aug 24	39	Sep 27	8.5	Sep 2 1953
ANNUAL SEVEN-DAY MINIMUM	51	Jul 23	44	Sep 21	9.8	Aug 28 1953
INSTANTANEOUS PEAK FLOW			5970	Jan 27	14400	Mar 26 1965
INSTANTANEOUS PEAK STAGE			15.25	Jan 27	17.21	Jan 14 1995
INSTANTANEOUS LOW FLOW			17*	Aug 29	3.0*	Jan 20 1940
10 PERCENT EXCEEDS	297		328		300	
50 PERCENT EXCEEDS	108		124		97	
90 PERCENT EXCEEDS	58		55		35	

* See REMARKS.
@ See PERIOD OF RECORD.



TENNESSEE RIVER BASIN

03453500 FRENCH BROAD RIVER AT MARSHALL, NC

LOCATION.--Lat 35°47'10", long 82°39'39", Madison County, Hydrologic Unit 06010105, on right bank 0.7 mi 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 mi^2.

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 sea level (levels by Tennessee Valley Authority). National Weather Service telephone telemetry at station.

REMARKS.--Records good except those during period of ice effect, Feb. 4-6, which are fair. 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 power plant was operated by the Metropolitan Sewage Treatment Plant. Minimum discharge for period of record also occurred Sept. 14, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed since at least 1791: 22.0 ft, July 16, 1916; discharge: 115,000 ft^3/s. Flood of Aug. 30, 1940, reached a stage of 16.6 ft; discharge, 70,000 ft^3/s, from high water marks, flood profiles, and studies by Tennessee Valley Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	1930	2050	1810	5610	2690	3880	3630	1630	1240	1920	1590
2	1350	2280	1980	2070	8190	2620	3880	3080	1550	1210	1650	1400
3	1330	2820	1940	2590	9670	2540	3450	2760	1520	1240	1330	1440
4	5190	2570	1890	2410	e7990	2430	3210	2570	1790	1140	1270	3770
5	18300	2190	1880	2100	e6770	2380	3040	2400	1760	1090	1260	7630
6	13700	2080	1870	2010	e5870	2720	2910	3050	1550	1060	1670	5840
7	10900	2940	1970	2130	5190	3890	2810	3730	1480	1060	1790	3230
8	9070	4790	2130	2060	5320	4550	2710	3110	1920	1260	1730	2980
9	6750	3800	2380	2110	6700	4360	2740	2740	2590	1430	1610	2230
10	3980	2970	2430	2070	5760	3830	2660	2560	4460	1220	1360	2020
11	3280	3620	2140	1950	5160	3400	2510	2510	3630	1070	1230	2170
12	2970	6680	2060	1920	4830	3120	2410	2430	2790	1020	1970	1840
13	2750	6130	1960	1890	4450	2910	2390	2240	2390	1060	3690	1650
14	3050	5650	1940	1890	4130	2670	2380	2120	2380	1350	2530	1500
15	4270	4270	1890	2090	3910	2630	2320	2220	1940	1790	2190	1410
16	3530	3480	1870	2500	3710	2970	2340	2320	2240	2540	1760	1410
17	2910	3120	1830	2690	3560	3020	2250	2220	1980	1780	1590	1930
18	2640	2890	1770	3710	3370	2800	2150	2030	2130	1540	1780	2010
19	2500	2730	2260	14500	3210	3180	2130	1920	2110	1440	1680	1550
20	2390	2620	3170	11600	3430	4460	2340	1810	2080	1220	1750	1390
21	2310	2520	2660	9910	4930	4080	2970	1770	2280	1140	1520	1320
22	2220	2410	2300	7690	4390	3550	2830	1720	1900	1250	1530	1380
23	2120	2320	2140	5120	3800	3290	2500	1660	1700	1340	1500	1400
24	2070	2260	2020	4850	3530	3080	2370	1530	1600	1310	1320	1290
25	2060	2200	1850	5330	3280	3020	2250	1770	1780	1230	1690	1240
26	2010	2160	1900	5830	3110	3120	2790	2470	1550	1640	1930	1220
27	1970	2110	1830	23300	2990	3000	3210	2790	1440	1620	2260	1170
28	2130	2090	1800	14900	2970	3580	2730	2650	1370	1310	2000	2840
29	2090	2300	1690	12600	2830	4880	2490	2220	1320	1590	2360	5890
30	1910	2200	1690	9530	---	4170	3570	1910	1270	1380	1980	4680
31	1820	---	1730	7260	---	3700	---	1730	---	1500	1830	---
TOTAL	124920	92130	63020	172420	138660	102640	82220	73670	60130	42070	55680	71420
MEAN	4030	3071	2033	5562	4781	3311	2741	2376	2004	1357	1796	2381
MAX	18300	6680	3170	23300	9670	4880	3880	3730	4460	2540	3690	7630
MIN	1330	1930	1690	1810	2830	2380	2130	1530	1270	1020	1230	1170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	1823	2059	2461	2913	3327	3766	3407	2684	2210	1779	1825	1580
MAX	8172	5640	5465	5774	6978	7170	6149	5478	4191	5071	4905	3857
(WY)	1965	1980	1962	1995	1990	1975	1983	1973	1989	1949	1994	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

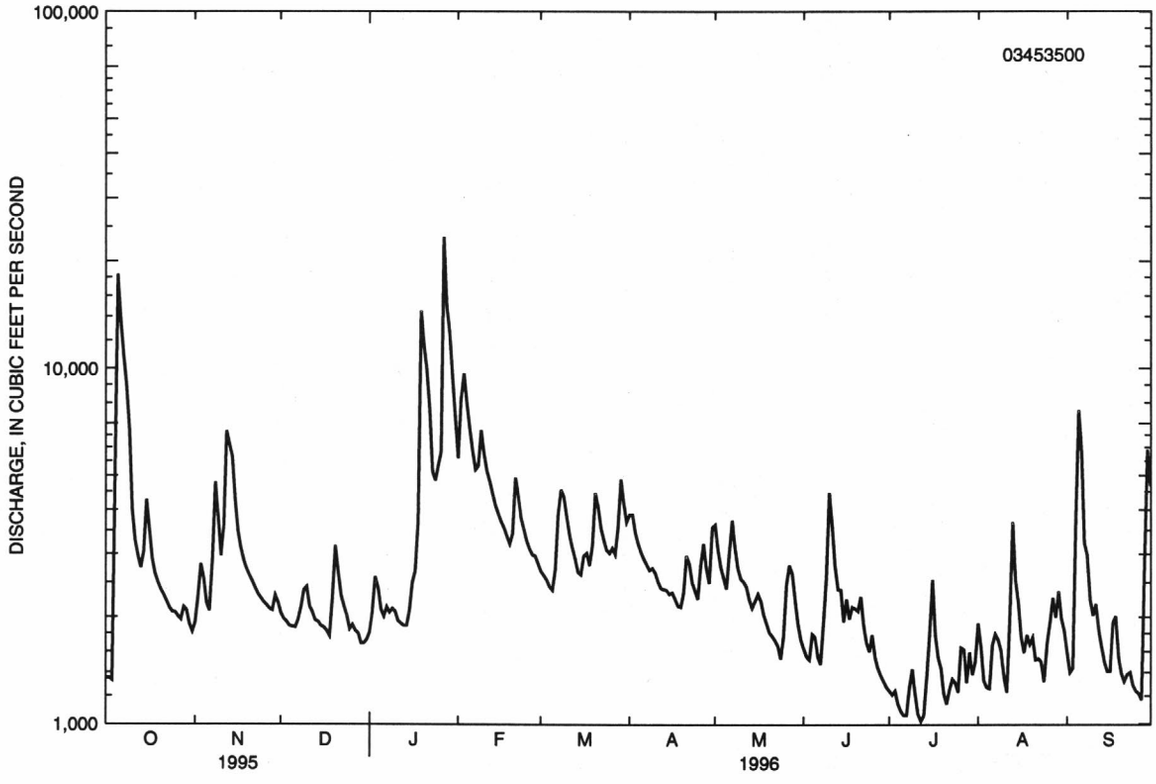
TENNESSEE RIVER BASIN

03453500 FRENCH BROAD RIVER AT MARSHALL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1943 - 1996	
ANNUAL TOTAL	1142180		1078980			
ANNUAL MEAN	3129		2948		2482	
HIGHEST ANNUAL MEAN					3573	1949
LOWEST ANNUAL MEAN					1229	1988
HIGHEST DAILY MEAN	29300	Jan 15	23300	Jan 27	30800	Oct 5 1964
LOWEST DAILY MEAN	1130	Aug 19	1020	Jul 12	292	Sep 27 1954
ANNUAL SEVEN-DAY MINIMUM	1350	Jul 20	1150	Jul 1	313	Sep 24 1954
INSTANTANEOUS PEAK FLOW			34000	Jan 27	54000	Nov 6 1977
INSTANTANEOUS PEAK STAGE			10.48	Jan 27	13.64	Nov 6 1977
INSTANTANEOUS LOW FLOW			817	Jul 13	193*	Sep 13 1954
10 PERCENT EXCEEDS	5240		4890		4400	
50 PERCENT EXCEEDS	2280		2270		1990	
90 PERCENT EXCEEDS	1530		1370		920	

e Estimated.

* See REMARKS.



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 mi^2.

PERIOD OF RECORD.--February 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,976.00 ft above sea level. Telephone telemetry at station.

REMARKS.--Records good except those during periods of ice effect, Dec. 10-11, 24-27, and 29-30, and those for estimated daily discharges, which are fair. Maximum gage height for period of record, from floodmarks. Minimum discharge for period of record also occurred Sept. 30, 1954. Minimum discharge for current water year also occurred July 29, 30, and Aug. 11.

REVISIONS.--The maximum discharge for the 1994 water year has been revised to 5,780 ft^3/s, gage height 8.25 ft., superseding figures published in the 1994 water year report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	68	64	104	226	91	146	139	55	47	83	48
2	38	160	62	124	800	87	120	117	53	46	42	52
3	54	104	59	103	493	82	111	106	52	52	37	89
4	673	81	59	76	326	80	104	98	50	43	36	189
5	2190	74	58	71	307	82	99	91	48	41	36	162
6	439	70	58	75	265	382	97	134	e44	41	35	86
7	271	506	73	76	220	332	91	125	e48	40	37	84
8	205	198	58	78	215	177	92	109	176	39	38	89
9	170	136	145	120	322	169	91	96	846	38	40	65
10	146	118	e89	71	212	144	85	93	223	36	32	58
11	130	446	e80	63	202	121	85	101	223	35	57	53
12	118	217	69	62	170	109	85	89	138	35	360	48
13	120	165	67	61	154	104	81	82	114	34	95	44
14	180	145	65	62	145	101	77	80	100	34	64	41
15	122	127	65	67	134	182	76	94	95	167	54	38
16	104	116	64	72	123	148	88	87	95	54	54	125
17	96	108	59	96	118	136	72	80	86	56	57	79
18	90	103	79	1170	109	114	70	74	90	53	56	51
19	85	97	231	1090	105	344	74	71	89	39	46	46
20	85	91	124	336	308	174	124	67	96	37	56	41
21	81	86	90	246	152	146	130	64	76	36	43	45
22	76	80	81	198	136	133	93	61	68	42	63	52
23	71	78	76	171	130	123	93	e59	65	35	105	38
24	70	80	e78	306	121	120	86	e80	65	32	75	36
25	67	74	e75	181	110	155	78	e104	75	45	70	35
26	64	70	e68	558	106	127	139	e84	59	48	64	33
27	72	67	e61	1060	102	118	94	e91	56	33	70	157
28	81	67	57	416	107	275	86	e94	53	33	53	999
29	64	88	e55	330	96	163	99	68	50	32	52	265
30	61	68	e56	300	---	138	309	63	48	43	121	156
31	65	---	60	285	---	144	---	59	---	54	56	---
TOTAL	6127	3888	2385	8028	6014	4801	3075	2760	3336	1400	2087	3304
MEAN	198	130	76.9	259	207	155	102	89.0	111	45.2	67.3	110
MAX	2190	506	231	1170	800	382	309	139	846	167	360	999
MIN	38	67	55	61	96	80	70	59	44	32	32	33
CFSM	7.16	4.70	2.79	9.38	7.51	5.61	3.71	3.23	4.03	1.64	2.44	3.99
IN.	8.26	5.24	3.21	10.82	8.11	6.47	4.14	3.72	4.50	1.89	2.81	4.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

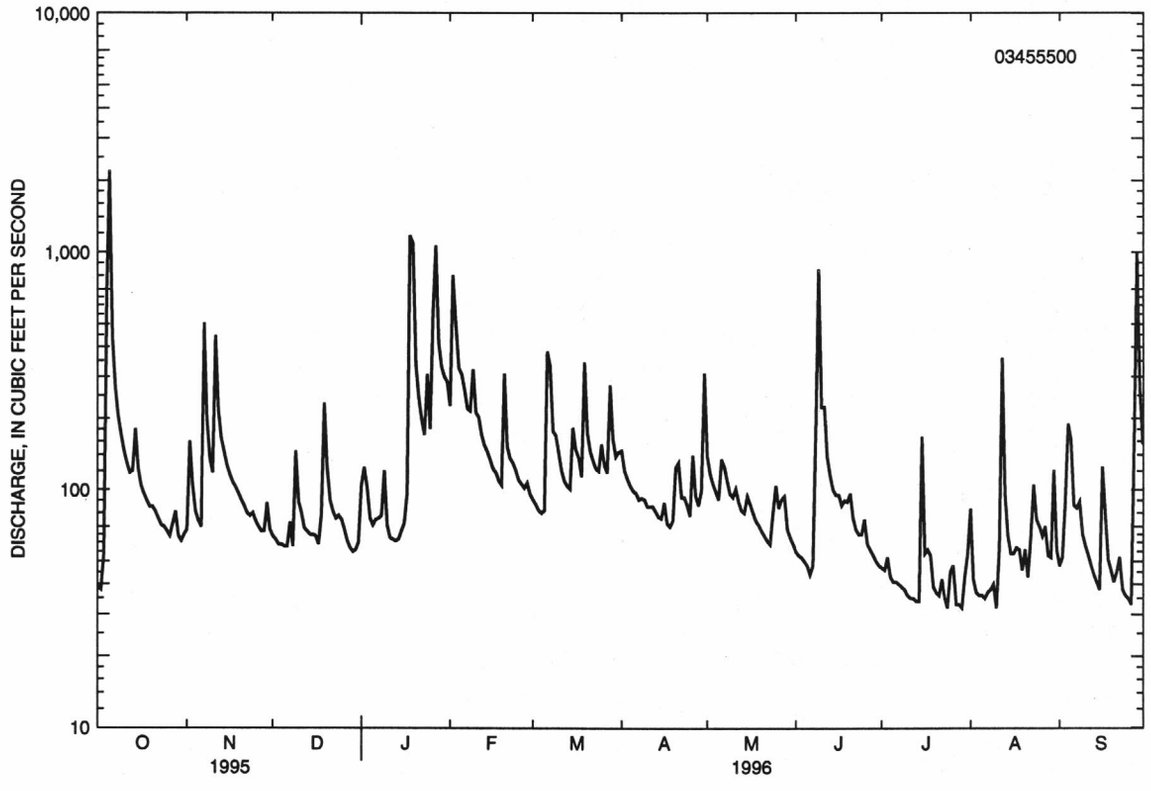
MEAN	75.8	90.8	112	126	155	165	144	110	84.9	60.0	61.2	58.3
MAX	229	301	234	259	355	312	291	289	213	207	187	260
(WY)	1965	1980	1962	1996	1966	1975	1983	1976	1967	1967	1994	1979
MIN	13.5	26.8	29.7	34.0	68.7	53.8	47.8	51.6	30.8	23.3	16.8	13.0
(WY)	1955	1979	1966	1981	1968	1988	1986	1988	1988	1993	1993	1954

TENNESSEE RIVER BASIN

03455500 WEST FORK PIGEON RIVER ABOVE LAKE LOGAN NEAR HAZELWOOD, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996	
ANNUAL TOTAL	45654		47205			
ANNUAL MEAN	125		129		104	
HIGHEST ANNUAL MEAN					143	1979
LOWEST ANNUAL MEAN					59.6	1986
HIGHEST DAILY MEAN	2190	Oct 5	2190	Oct 5	4500	Feb 13 1966
LOWEST DAILY MEAN	28	Jul 26	32	Jul 24	10	Sep 28 1954
ANNUAL SEVEN-DAY MINIMUM	30	Jul 21	36	Jul 8	11	Sep 24 1954
INSTANTANEOUS PEAK FLOW			5220	Oct 5	9740	Feb 13 1966
INSTANTANEOUS PEAK STAGE			7.81	Oct 5	9.50*	Feb 13 1966
INSTANTANEOUS LOW FLOW			30*	Jul 25	9.4*	Sep 29 1954
ANNUAL RUNOFF (CFSM)	4.53		4.67		3.76	
ANNUAL RUNOFF (INCHES)	61.53		63.62		51.13	
10 PERCENT EXCEEDS	199		223		189	
50 PERCENT EXCEEDS	73		85		72	
90 PERCENT EXCEEDS	45		42		27	

e Estimated.
* 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 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gages. Elevation of gage is 2,839 ft above sea level, from topographic map. Telephone telemetry at station.

REMARKS.--Records fair except those during period of ice effect, Feb. 3-8, and those for estimated daily discharges, and those above 4,000 ft^3/s, which are poor. Some low flow regulation, at times, caused by Lake Logan (station 03455773). Maximum discharge for period of record from rating curve extended above 4,000 ft^3/s by logarithmic plotting. Maximum gage height for current water year from floodmark. Minimum discharge for current water year not determined and may have occurred during period of no gage-height record.

REVISIONS.--The maximum discharge for the 1994 water year has been revised to 7,960 ft^3/s, gage height 8.97 ft., superseding figures published in the report for 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e44	92	81	131	275	105	169	205	69	e58	e98	53
2	e42	203	77	170	886	98	140	175	66	e56	e53	53
3	e52	143	75	137	e694	90	133	160	64	e62	e46	87
4	e798	108	75	101	e468	88	128	147	60	e54	e46	207
5	e2940	93	73	98	e410	92	117	138	55	e51	e46	186
6	e665	91	73	104	e352	397	116	172	54	e50	e45	108
7	e394	542	91	113	e310	351	111	186	69	e49	e44	92
8	e290	268	74	84	e301	204	109	160	184	e48	e45	116
9	e235	184	180	96	371	158	109	141	928	e48	e48	74
10	e199	159	97	93	261	144	100	131	284	e45	e40	65
11	e176	505	84	88	246	134	99	144	239	e43	e63	60
12	e158	305	84	90	211	127	100	128	168	e44	e374	53
13	e154	236	83	85	189	120	94	114	145	e42	e123	48
14	e220	208	80	88	179	116	92	113	105	e42	e77	45
15	e159	179	79	95	166	193	90	127	97	e172	e64	42
16	e136	161	79	103	153	166	102	118	e126	e70	e62	122
17	e125	149	72	133	139	157	84	109	e105	e63	e63	107
18	e117	143	99	1230	131	136	81	100	e111	e71	e66	61
19	e110	132	269	1390	129	376	83	97	e107	e48	e54	53
20	e108	121	144	411	327	211	135	89	e124	e46	e65	49
21	e104	112	110	306	179	180	168	87	e96	e45	e51	50
22	e97	105	100	249	159	160	119	83	e85	e50	e60	67
23	e92	101	92	223	151	148	113	77	e79	e44	e112	47
24	e90	102	82	353	143	144	108	121	e78	e40	95	42
25	e86	95	81	224	129	184	92	129	e90	e49	83	41
26	83	90	76	591	124	157	163	113	e72	e62	70	41
27	93	89	81	1340	121	140	119	116	e68	e42	75	166
28	111	85	74	508	122	296	106	126	e65	e42	60	906
29	84	111	71	401	112	198	112	87	e62	e41	56	257
30	80	85	73	360	---	162	371	79	e60	e50	124	160
31	82	---	82	340	---	159	---	74	---	e62	63	---
TOTAL	8124	4997	2891	9735	7438	5391	3663	3846	3915	1689	2371	3458
MEAN	262	167	93.3	314	256	174	122	124	130	54.5	76.5	115
MAX	2940	542	269	1390	886	397	371	205	928	172	374	906
MIN	42	85	71	84	112	88	81	74	54	40	40	41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

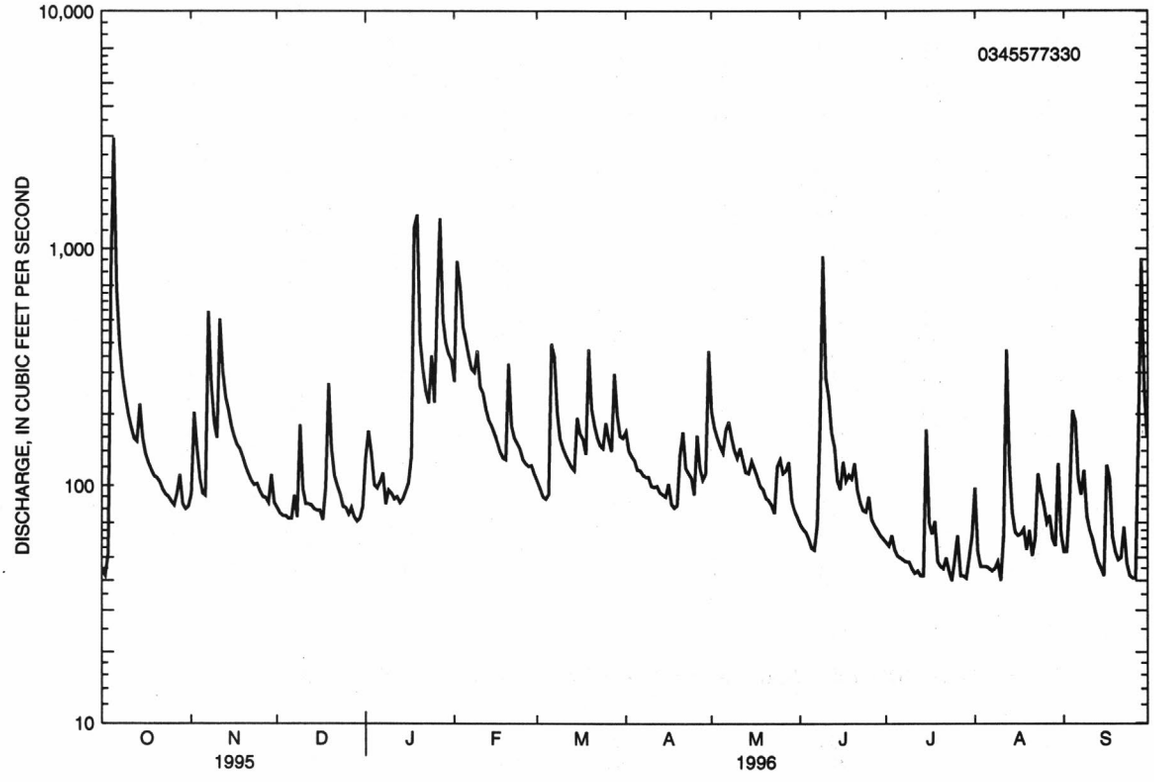
MEAN	111	113	128	192	205	208	157	127	112	73.6	99.1	71.2
MAX	262	265	239	314	360	309	268	193	210	209	220	136
(WY)	1996	1993	1993	1996	1990	1990	1994	1990	1989	1989	1994	1989
MIN	26.5	52.0	52.1	115	116	62.6	72.2	62.9	40.0	31.3	26.2	27.8
(WY)	1994	1994	1989	1992	1992	1988	1995	1988	1988	1993	1993	1993

TENNESSEE RIVER BASIN

0345577330 WEST FORK PIGEON RIVER NEAR RETREAT, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	56170		57518			
ANNUAL MEAN	154		157		138	
HIGHEST ANNUAL MEAN					157	1996
LOWEST ANNUAL MEAN					118	1992
HIGHEST DAILY MEAN	2940	Oct 5	2940	Oct 5	2940	Oct 5 1995
LOWEST DAILY MEAN	23	Jul 26	40	Jul 24	19	Jul 14 1993
ANNUAL SEVEN-DAY MINIMUM	27	Jul 21	45	Jul 8	22	Sep 20 1993
INSTANTANEOUS PEAK FLOW			7410	Oct 5	7960[a]	Aug 17 1994
INSTANTANEOUS PEAK STAGE			8.58*	Oct 5	8.97	Aug 17 1994
INSTANTANEOUS LOW FLOW			NOT DETERMINED*		17	Oct 8 1993
10 PERCENT EXCEEDS	266		286		242	
50 PERCENT EXCEEDS	89		105		91	
90 PERCENT EXCEEDS	47		50		36	

e Estimated.
[a] See REVISIONS.
* See REMARKS.



TENNESSEE RIVER BASIN

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 mi^2.

PERIOD OF RECORD.--January 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,667.78 ft above sea level (levels by Tennessee Valley Authority). Telephone telemetry at station.

REMARKS.--Records good except those above 4000 ft^3/s, which are fair. Considerable regulation, at times, caused by Lake Logan (station 03455773).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	113	114	157	409	172	254	254	94	79	125	74
2	58	206	110	190	1110	167	223	220	100	78	75	75
3	62	171	114	172	905	157	210	200	92	84	66	108
4	933	132	121	130	621	152	196	182	89	75	68	239
5	3700	122	104	123	523	154	185	170	84	72	66	242
6	902	117	104	130	451	483	182	201	76	70	66	144
7	528	600	122	149	412	446	173	234	81	69	63	115
8	385	318	105	116	398	314	171	197	153	68	63	148
9	311	221	220	139	507	251	172	176	955	68	68	103
10	263	194	137	117	389	235	158	167	328	65	59	92
11	232	627	118	113	366	220	157	179	294	62	80	90
12	208	411	120	115	325	209	156	163	214	63	400	83
13	199	300	117	109	299	197	147	148	180	62	162	76
14	270	262	114	112	281	189	140	144	158	62	101	74
15	207	226	113	121	264	265	140	160	148	188	85	70
16	178	204	111	130	249	249	153	149	167	96	81	135
17	165	191	105	160	230	243	131	136	135	81	80	148
18	155	181	125	1130	221	212	127	127	140	100	86	86
19	147	171	307	1940	213	487	128	124	136	69	73	79
20	143	161	188	611	422	316	169	118	163	65	85	75
21	139	152	149	447	273	272	219	112	127	65	70	74
22	129	143	137	359	249	252	161	106	113	70	67	92
23	123	139	129	317	239	235	152	102	104	63	131	71
24	120	139	117	452	225	226	148	135	103	60	125	68
25	116	131	116	323	209	264	134	176	116	64	101	66
26	113	126	110	624	201	236	220	141	97	88	93	65
27	120	123	111	2140	194	219	173	155	92	61	96	167
28	140	119	104	842	197	379	156	158	88	61	81	1110
29	111	144	102	648	179	284	156	118	84	61	79	379
30	106	120	102	550	---	252	425	106	82	69	134	214
31	108	---	109	496	---	251	---	94	---	81	83	---
TOTAL	10430	6264	3955	13162	10561	7988	5316	4852	4793	2319	3012	4562
MEAN	336	209	128	425	364	258	177	157	160	74.8	97.2	152
MAX	3700	627	307	2140	1110	487	425	254	955	188	400	1110
MIN	58	113	102	109	179	152	127	94	76	60	59	65
CFSM	5.76	3.58	2.18	7.27	6.24	4.41	3.03	2.68	2.74	1.28	1.66	2.60
IN.	6.64	3.99	2.52	8.38	6.73	5.09	3.39	3.09	3.05	1.48	1.92	2.91

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

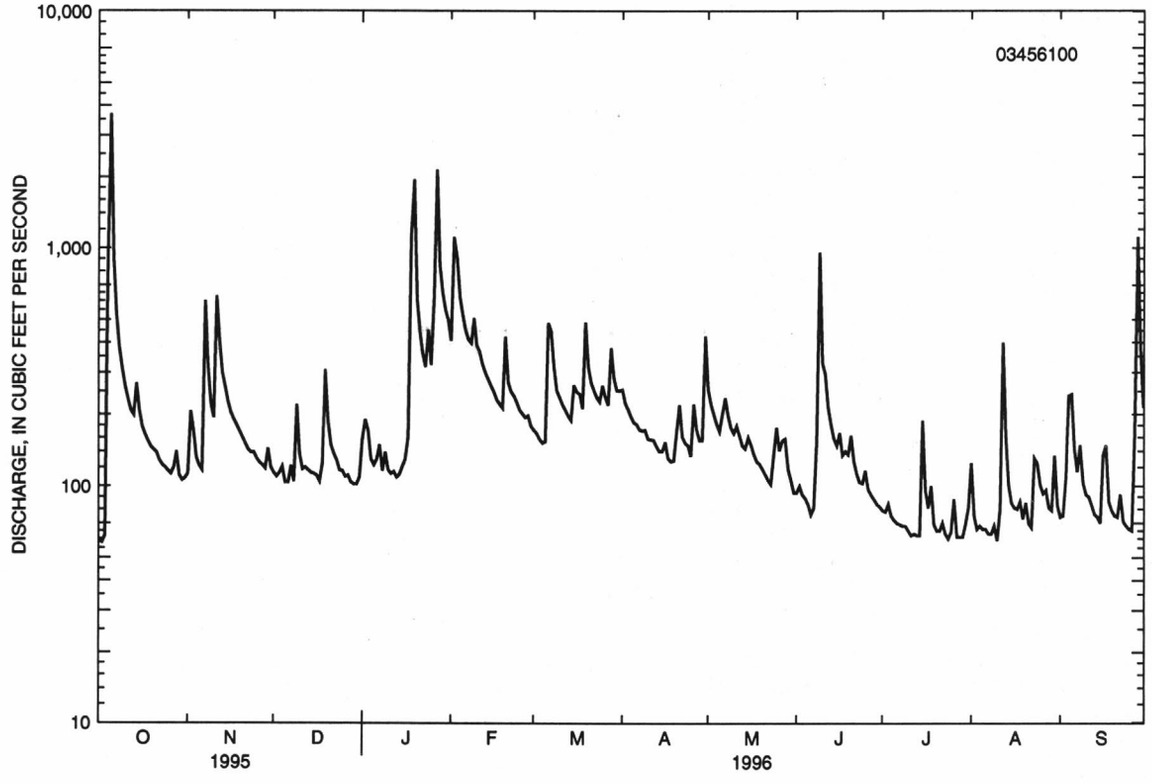
MEAN	105	135	179	204	258	267	223	171	121	88.3	103	77.4
MAX	336	341	334	425	511	443	481	368	287	281	317	207
(WY)	1996	1993	1984	1996	1990	1990	1983	1984	1992	1989	1994	1989
MIN	33.2	43.0	83.5	53.5	102	83.6	83.5	81.7	53.0	45.8	29.3	33.1
(WY)	1994	1982	1989	1981	1986	1988	1986	1986	1988	1993	1993	1986

TENNESSEE RIVER BASIN

03456100 WEST FORK PIGEON RIVER AT BETHEL, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1981 - 1996	
ANNUAL TOTAL	76207		77214			
ANNUAL MEAN	209		211		164	
HIGHEST ANNUAL MEAN					211	1996
LOWEST ANNUAL MEAN					87.5	1988
HIGHEST DAILY MEAN	3700	Oct 5	3700	Oct 5	3810	Feb 2 1983
LOWEST DAILY MEAN	45	Jul 26	58	Oct 2	9.2	Sep 2 1986
ANNUAL SEVEN-DAY MINIMUM	49	Jul 21	64	Jul 8	16	Sep 2 1986
INSTANTANEOUS PEAK FLOW			8420	Oct 5	8900	Aug 17 1994
INSTANTANEOUS PEAK STAGE			12.02	Oct 5	12.63	Aug 17 1994
INSTANTANEOUS LOW FLOW			55	Aug 11	4.2	Sep 5 1986
ANNUAL RUNOFF (CFSM)	3.58		3.61		2.80	
ANNUAL RUNOFF (INCHES)	48.54		49.18		38.08	
10 PERCENT EXCEEDS	356		386		309	
50 PERCENT EXCEEDS	123		143		111	
90 PERCENT EXCEEDS	69		70		47	

[a] See REVISIONS.



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 sea level (Tennessee Valley Authority bench mark). Telephone telemetry at station.

REMARKS.--Records good except those during period of ice effect, Dec. 25-30, Jan. 8-10, and Feb. 5-7, which are fair. Maximum discharge for period of record, from rating curve extended above 5,470 ft^3/s, on basis of contracted-opening measurement of peak flow. Minimum discharge for period of record also occurred Dec. 11, 1981, result of freezeup, and Oct. 9, 1994. Minimum discharge for current water year also occurred July 29-30, Aug. 4-5 and 10-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	91	88	87	323	134	191	124	60	54	58	57
2	61	126	85	104	744	131	171	115	59	52	44	58
3	72	114	84	99	635	127	162	108	58	53	40	157
4	752	96	82	82	469	122	153	103	56	49	38	411
5	3840	90	80	79	e396	121	146	95	55	48	45	386
6	1110	88	79	82	e339	241	141	110	53	47	46	223
7	642	228	91	93	e304	231	134	126	52	47	42	172
8	466	172	81	e95	286	188	131	111	82	48	40	153
9	368	135	142	e89	323	167	131	104	494	46	43	124
10	306	123	98	e84	271	155	122	99	206	43	38	110
11	264	556	94	83	252	147	118	100	189	42	93	105
12	234	395	89	80	228	141	113	96	145	43	383	93
13	228	269	87	77	212	135	109	89	126	42	124	85
14	287	223	85	76	201	131	105	87	113	41	85	79
15	230	188	83	84	187	148	102	92	103	92	72	75
16	203	168	82	94	176	148	104	88	107	58	68	104
17	187	154	78	115	165	148	96	83	95	46	60	111
18	175	144	87	920	158	133	92	78	90	56	58	78
19	164	135	165	1810	152	369	92	75	92	42	57	73
20	159	127	122	601	322	254	103	72	97	40	75	69
21	152	121	104	405	223	215	117	70	81	40	55	68
22	144	114	99	312	202	192	97	67	74	45	52	74
23	138	111	94	258	188	175	93	64	70	40	54	63
24	134	107	89	336	177	165	91	106	68	41	65	60
25	114	103	e84	251	166	173	88	118	69	44	56	58
26	98	99	e80	546	159	160	129	81	64	51	90	57
27	101	95	e78	1990	152	151	107	87	62	40	69	79
28	109	93	e74	796	148	274	97	84	59	39	77	980
29	93	106	e72	578	139	215	96	69	57	38	64	458
30	90	92	e72	462	---	192	162	66	55	44	85	264
31	89	---	77	389	---	190	---	63	---	46	62	---
TOTAL	11072	4663	2805	11157	7697	5473	3593	2830	2991	1457	2238	4884
MEAN	357	155	90.5	360	265	177	120	91.3	99.7	47.0	72.2	163
MAX	3840	556	165	1990	744	369	191	126	494	92	383	980
MIN	61	88	72	76	139	121	88	63	52	38	38	57
CFSM	6.94	3.02	1.76	6.99	5.15	3.43	2.33	1.77	1.94	.91	1.40	3.16
IN.	8.00	3.37	2.03	8.06	5.56	3.95	2.60	2.04	2.16	1.05	1.62	3.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

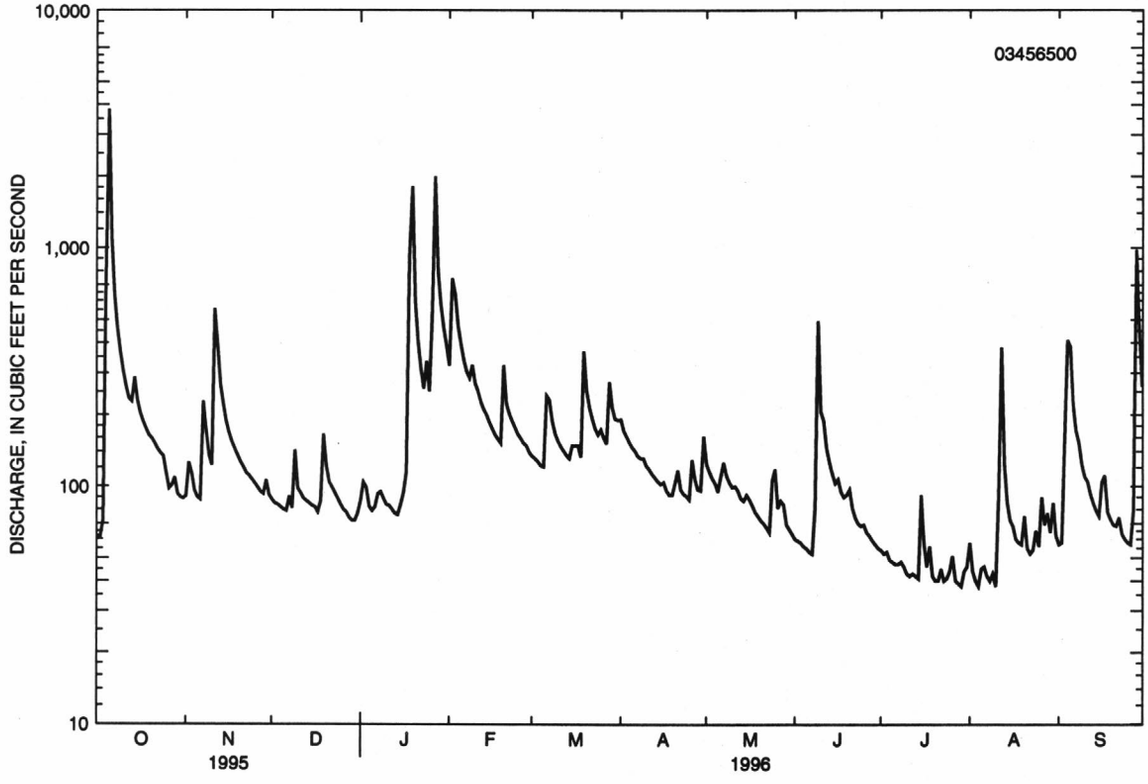
MEAN	115	135	148	165	203	234	211	158	119	74.2	81.2	84.0
MAX	363	484	337	381	411	541	480	453	339	268	263	436
(WY)	1965	1980	1962	1995	1966	1979	1957	1976	1967	1989	1994	1979
MIN	17.1	27.9	42.4	33.8	71.9	60.9	63.2	59.8	35.7	25.3	26.5	16.0
(WY)	1955	1955	1956	1956	1986	1988	1986	1986	1988	1986	1954	1954

03456500 EAST FORK PIGEON RIVER NEAR CANTON, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996	
ANNUAL TOTAL	65126		60860			
ANNUAL MEAN	178		166		144	
HIGHEST ANNUAL MEAN					204	1979
LOWEST ANNUAL MEAN					71.9	1988
HIGHEST DAILY MEAN	3840	Oct 5	3840	Oct 5	4390	Feb 13 1966
LOWEST DAILY MEAN	38	Jul 26	38	Jul 29	14	Sep 16 1954
ANNUAL SEVEN-DAY MINIMUM	42	Jul 21	42	Jul 19	14	Sep 24 1954
INSTANTANEOUS PEAK FLOW			9220	Oct 5	12000*	May 28 1973
INSTANTANEOUS PEAK STAGE			9.70	Oct 5	11.19	May 28 1973
INSTANTANEOUS LOW FLOW			36*	Jul 25	12*	Jan 9 1956
ANNUAL RUNOFF (CFSM)	3.46		3.23		2.80	
ANNUAL RUNOFF (INCHES)	47.04		43.96		38.08	
10 PERCENT EXCEEDS	288		305		267	
50 PERCENT EXCEEDS	104		99		101	
90 PERCENT EXCEEDS	60		52		36	

e Estimated.

* See REMARKS.



TENNESSEE RIVER BASIN

03456991 PIGEON RIVER NEAR CANTON, NC

LOCATION.--Lat 35°31'19", long 82°50'53", Haywood County, Hydrologic Unit 06010106, on right bank 600 ft upstream from State Highway 215 bridge, 1.3 mi 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 sea level (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 mi downstream at different datum. Telephone telemetry at station.

REMARKS.--Records good except those during periods of ice effect, Dec 11-12 and 22-30, Jan. 8-10, and Feb. 4-7 and 17-18, and those for period of no gage-height record, Apr. 8-12, which are poor. Occasional diurnal fluctuation and considerable regulation at low flow, since 1932, caused by Lake Logan (station 03455773) on West Fork Pigeon River 11.2 mi upstream. Prior to regulation, maximum discharge: 21,500 ft^3/s, Aug. 16, 1928; gage height: 16.40 ft; minimum discharge: 39 ft^3/s, Sept. 3, 1930. Maximum discharge and gage height for period of record, at former site from high water mark in gage well; minimum discharge for period of record, at former site, result of freezeup. Minimum discharge for current water year also occurred July 29-30 and Aug. 10-11.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	200	201	238	749	315	462	426	158	167	216	147
2	124	313	191	287	1930	305	408	370	165	160	141	142
3	126	307	190	286	1610	287	384	341	156	170	112	258
4	1560	230	204	212	e1060	277	361	318	148	153	112	663
5	9220	209	180	199	e820	276	343	297	142	144	119	674
6	2010	201	179	206	e726	698	332	341	129	140	126	432
7	1100	761	209	237	e718	677	318	424	132	139	112	327
8	809	539	181	e200	719	527	e319	353	229	142	108	354
9	644	371	355	e191	850	423	e318	322	1460	135	124	268
10	545	325	240	e179	684	397	e292	305	654	126	106	239
11	477	1120	e204	176	641	374	e284	316	567	120	145	244
12	426	835	e200	189	578	357	e277	303	442	121	787	204
13	404	585	202	177	533	339	267	273	389	119	356	186
14	519	502	198	183	504	326	259	269	347	115	228	174
15	423	431	192	205	474	406	256	289	316	291	186	162
16	360	385	188	228	445	415	268	278	347	209	170	218
17	329	354	178	280	e402	408	239	257	294	135	159	341
18	308	334	192	1590	e379	353	235	241	293	188	161	194
19	288	313	459	4760	377	830	231	232	284	124	151	174
20	277	294	327	1220	719	596	272	224	333	111	187	161
21	267	277	254	861	522	507	373	216	269	113	143	159
22	247	259	e230	681	468	459	282	204	242	127	130	193
23	237	252	e217	583	445	424	262	199	226	113	183	150
24	227	246	e200	796	416	402	258	213	222	108	241	140
25	219	235	e195	593	388	441	241	366	238	115	178	135
26	210	225	e187	1110	371	412	374	228	210	161	212	133
27	214	216	e179	5160	359	375	312	282	200	108	187	233
28	255	210	e171	1660	357	637	278	269	190	102	193	2020
29	202	249	e167	1210	331	523	276	203	179	107	164	942
30	191	211	e164	1000	---	462	632	182	173	119	237	552
31	188	---	174	894	---	454	---	166	---	142	167	---
TOTAL	22534	10989	6608	25791	18575	13682	9413	8707	9134	4324	5841	10219
MEAN	727	366	213	832	641	441	314	281	304	139	188	341
MAX	9220	1120	459	5160	1930	830	632	426	1460	291	787	2020
MIN	124	200	164	176	331	276	231	166	129	102	106	133
CFSM	5.59	2.82	1.64	6.40	4.93	3.40	2.41	2.16	2.34	1.07	1.45	2.62
IN.	6.45	3.14	1.89	7.38	5.32	3.92	2.69	2.49	2.61	1.24	1.67	2.92

03456991 PIGEON RIVER NEAR CANTON, NC--Continued

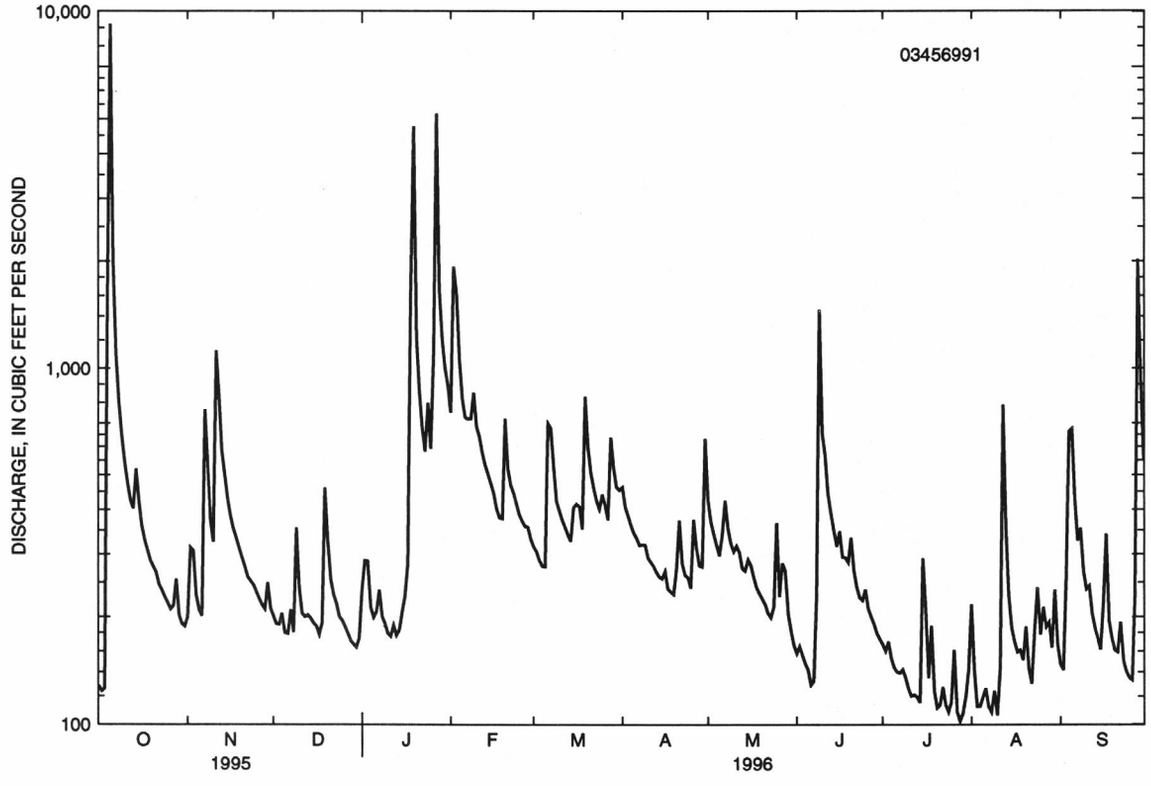
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996*, BY WATER YEAR (WY)

MEAN	230	268	327	422	477	536	470	337	266	193	208	194
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	89.7	65.9	50.2
(WY)	1955	1955	1940	1956	1941	1988	1986	1941	1941	1993	1954	1954

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996*	
ANNUAL TOTAL	146858		145817			
ANNUAL MEAN	402		398		326	
HIGHEST ANNUAL MEAN					503	1949
LOWEST ANNUAL MEAN					170	1988
HIGHEST DAILY MEAN	9220	Oct 5	9220	Oct 5	12800	Aug 13 1940
LOWEST DAILY MEAN	84	Jul 26	102	Jul 28	27	Sep 7 1954
ANNUAL SEVEN-DAY MINIMUM	95	Jul 21	115	Aug 4	43	Oct 22 1954
INSTANTANEOUS PEAK FLOW			19500	Oct 5	31600*	Aug 30 1940
INSTANTANEOUS PEAK STAGE			14.12	Oct 5	20.75*	Aug 30 1940
INSTANTANEOUS LOW FLOW			98*	Jul 28	15*	Jan 8 1956
ANNUAL RUNOFF (CFSM)	3.10		3.06		2.51	
ANNUAL RUNOFF (INCHES)	42.02		41.73		34.12	
10 PERCENT EXCEEDS	648		682		615	
50 PERCENT EXCEEDS	237		260		232	
90 PERCENT EXCEEDS	137		140		88	

e Estimated.

* Regulated period only (1932-1996). 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 sea level (levels by Tennessee Valley Authority). Tennessee Valley Authority satellite telemetry at station.

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. Maximum discharge for period of record, from rating curve extended above 12,000 ft^3/s on basis of slope-area measurements at gage heights 14.94 and 15.82 ft. Maximum gage height for period of record from high-water mark in gage house. Minimum discharge for current water year also occurred Oct. 3.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	404	471	541	1810	747	1100	1170	477	335	635	298
2	228	716	449	673	3150	728	985	974	468	340	442	283
3	229	730	438	771	3250	695	914	883	461	383	339	360
4	2710	541	450	565	2570	667	866	817	456	334	316	1090
5	12300	477	425	517	2220	667	826	760	437	309	415	980
6	3550	452	419	537	2020	1530	939	923	412	301	390	695
7	2080	1420	477	612	1700	1630	1080	1080	399	296	334	528
8	1490	1390	450	508	1660	1400	1030	860	474	301	299	577
9	1150	863	743	472	2230	1050	941	785	2010	297	377	454
10	942	737	586	577	1640	969	597	746	1300	278	302	404
11	831	1790	484	697	1540	906	569	748	981	263	273	478
12	747	1870	489	400	1280	872	549	743	829	264	993	375
13	691	1240	478	381	1030	826	562	670	758	269	723	333
14	800	1040	466	433	964	797	619	645	668	277	466	309
15	779	894	453	557	1020	968	654	712	607	470	383	295
16	639	801	448	634	1080	1110	622	684	592	500	355	336
17	585	738	432	801	993	981	513	630	541	349	357	641
18	555	701	446	1770	960	880	545	593	532	356	324	384
19	531	660	823	7470	911	1520	602	564	511	316	325	331
20	511	624	783	2610	1270	1360	798	542	555	271	392	309
21	492	592	603	1900	1140	1140	958	526	496	265	318	300
22	465	555	549	1580	1010	1030	777	504	448	303	280	362
23	446	542	517	1650	967	953	725	479	423	284	324	301
24	431	536	479	2170	916	907	695	569	440	297	400	272
25	423	519	453	1700	860	999	625	833	478	288	365	266
26	409	501	456	2330	831	1020	1050	692	425	377	404	253
27	441	486	440	9580	808	904	861	765	393	286	371	271
28	537	482	432	3730	851	1320	742	775	375	257	373	2550
29	421	588	396	2900	786	1300	719	625	356	291	380	2000
30	392	504	412	2520	---	1100	1650	566	343	325	388	967
31	387	---	426	2260	---	1060	---	515	---	496	363	---
TOTAL	36425	23393	15373	53846	41467	32036	24113	22378	17645	9978	12406	17002
MEAN	1175	780	496	1737	1430	1033	804	722	588	322	400	567
MAX	12300	1870	823	9580	3250	1630	1650	1170	2010	500	993	2550
MIN	228	404	396	381	786	667	513	479	343	257	273	253

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1996, BY WATER YEAR (WY)

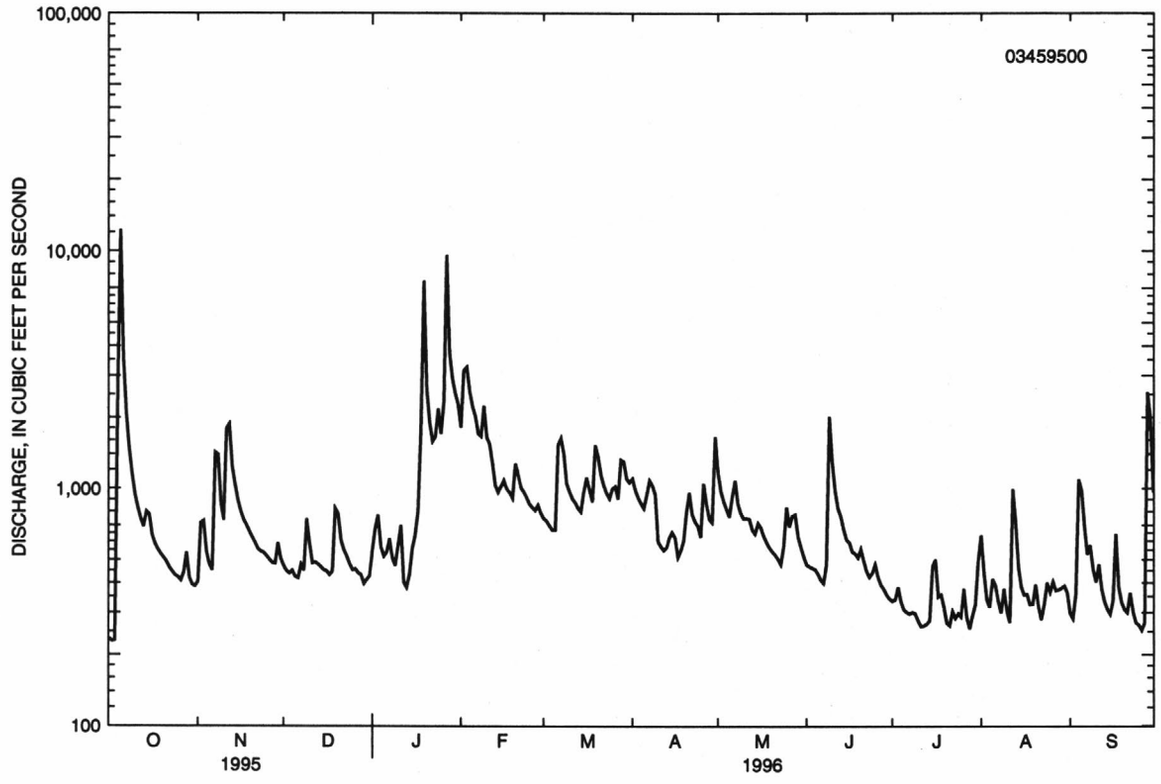
MEAN	423	505	676	883	1028	1157	991	724	543	425	437	385
MAX	1353	1627	2125	2275	2227	2455	2009	1630	1502	1141	2246	1214
(WY)	1965	1980	1933	1937	1990	1929	1936	1984	1967	1989	1940	1928
MIN	122	133	193	194	319	346	359	283	200	183	163	129
(WY)	1955	1954	1940	1940	1941	1988	1986	1941	1988	1986	1953	1954

TENNESSEE RIVER BASIN

03459500 PIGEON RIVER NEAR HEPCO, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1927 - 1996	
ANNUAL TOTAL	282339		306062			
ANNUAL MEAN	774		836		680	
HIGHEST ANNUAL MEAN					943	1949
LOWEST ANNUAL MEAN					341	1988
HIGHEST DAILY MEAN	12300	Oct 5	12300	Oct 5	17100	Aug 13 1940
LOWEST DAILY MEAN	179	Aug 18	228	Oct 2	95	Sep 30 1941
ANNUAL SEVEN-DAY MINIMUM	214	Aug 13	278	Jul 8	109	Oct 12 1941
INSTANTANEOUS PEAK FLOW			19900	Oct 5	32700*	Aug 30 1940
INSTANTANEOUS PEAK STAGE			12.34	Oct 5	15.82*	Aug 30 1940
INSTANTANEOUS LOW FLOW			227*	Oct 2	81	Sep 30 1941
10 PERCENT EXCEEDS	1350		1530		1250	
50 PERCENT EXCEEDS	501		581		507	
90 PERCENT EXCEEDS	278		309		209	

* See REMARKS.



TENNESSEE RIVER BASIN

03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC

(Hydrologic Benchmark Network 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 sea level (levels by Tennessee Valley Authority). Satellite telemetry at station.

REMARKS.--Records good except those during period of ice effect, Dec. 24 - Jan. 1, Jan. 9-11, and Feb. 3-8, and those for period of no gage-height record, Mar. 6-12, which are poor. Minimum discharge for period of record also occurred Jan. 2, 1940, and Dec. 17, 24, 1943, result of freezeup. Minimum discharge for current water year also occurred Oct. 2, 3, and Dec. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	55	114	e72	264	146	198	182	132	77	268	63
2	36	138	106	121	e570	139	179	170	122	81	143	60
3	40	114	100	131	e394	129	168	156	116	107	111	64
4	235	97	98	109	e304	122	160	144	112	75	99	65
5	810	88	93	104	e246	128	151	133	107	71	93	70
6	364	84	88	110	e201	e390	146	193	101	68	83	58
7	213	275	96	124	e178	e457	136	212	98	66	76	53
8	157	229	86	104	e172	e345	134	199	110	67	71	52
9	129	171	124	e127	452	e267	130	181	266	65	90	50
10	111	143	99	e84	390	e230	119	164	163	61	68	49
11	99	304	147	e68	382	e206	116	162	138	59	69	50
12	90	283	117	68	338	e190	112	144	169	59	122	46
13	84	218	90	65	286	164	111	132	160	64	102	44
14	99	182	87	66	256	154	110	125	139	64	87	42
15	81	154	85	82	229	212	108	163	128	135	78	41
16	73	135	89	108	207	193	125	137	127	84	76	65
17	69	122	82	139	186	181	103	129	125	74	72	69
18	65	114	93	275	171	171	100	122	131	67	70	46
19	63	106	157	1260	162	215	101	116	131	61	67	43
20	61	100	132	498	185	193	144	112	134	60	66	42
21	59	95	118	328	165	184	145	108	120	59	60	43
22	57	90	111	253	168	171	127	104	109	61	57	48
23	55	87	103	211	181	161	127	98	102	57	55	39
24	53	86	e96	300	185	158	118	146	115	53	66	39
25	53	81	e94	240	168	196	114	167	111	61	59	38
26	51	78	e92	615	160	189	176	366	95	59	77	38
27	73	75	e91	1910	156	182	140	369	91	51	60	41
28	71	113	e90	749	185	220	133	253	86	72	62	202
29	55	176	e88	497	156	210	130	193	82	78	62	121
30	52	125	e84	387	---	198	227	166	80	107	74	78
31	53	---	e74	319	---	199	---	146	---	170	83	---
TOTAL	3548	4118	3124	9524	7097	6300	4088	5192	3700	2293	2626	1759
MEAN	114	137	101	307	245	203	136	167	123	74.0	84.7	58.6
MAX	810	304	157	1910	570	457	227	369	266	170	268	202
MIN	36	55	74	65	156	122	100	98	80	51	55	38
CFSM	2.33	2.79	2.05	6.24	4.97	4.13	2.77	3.40	2.51	1.50	1.72	1.19
IN.	2.68	3.11	2.36	7.20	5.37	4.76	3.09	3.93	2.80	1.73	1.99	1.33

TENNESSEE RIVER BASIN

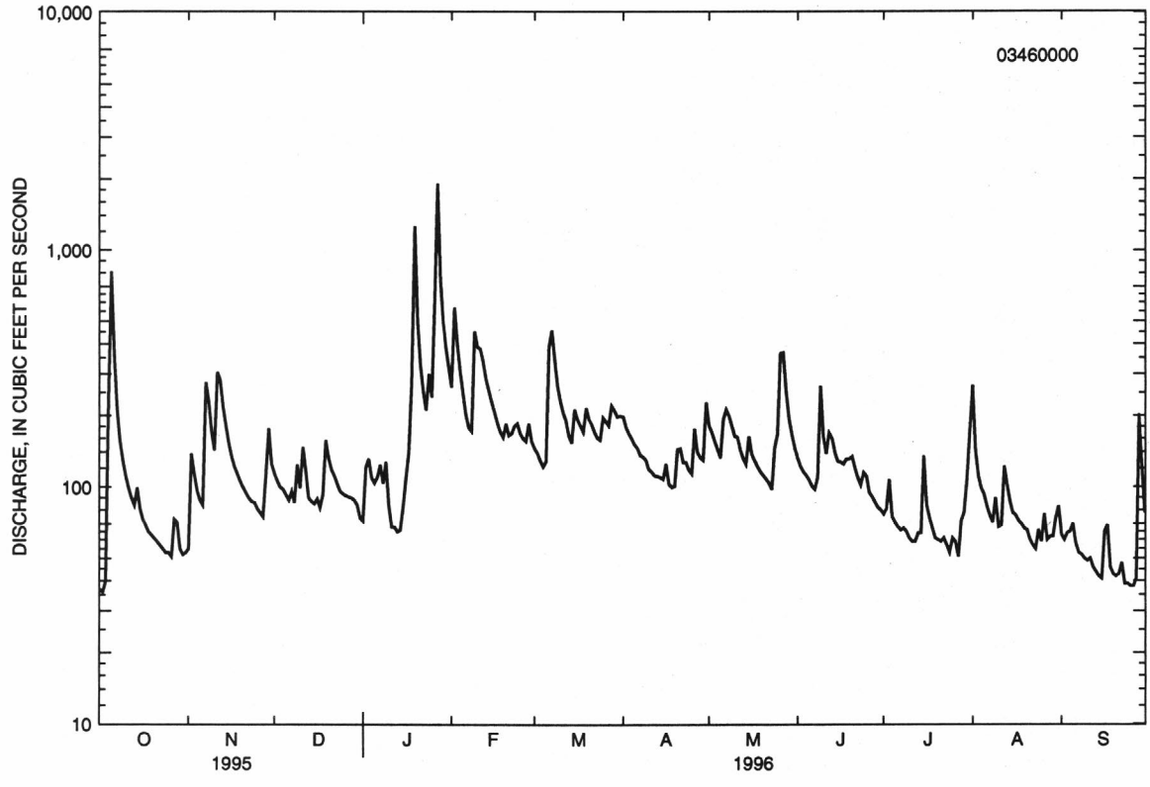
03460000 CATALOOCHEE CREEK NEAR CATALOOCHEE, NC

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1996@, BY WATER YEAR (WY)

MEAN	54.8	71.9	113	167	180	205	154	110	84.4	72.7	73.5	54.3
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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1934 - 1996@	
ANNUAL TOTAL	41160		53369			
ANNUAL MEAN	113		146		112	
HIGHEST ANNUAL MEAN					171	1994
LOWEST ANNUAL MEAN					51.5	1986
HIGHEST DAILY MEAN	1240	Feb 16	1910	Jan 27	2690	Mar 16 1973
LOWEST DAILY MEAN	28	Aug 17	36	Oct 2	12	Jan 2 1940
ANNUAL SEVEN-DAY MINIMUM	30	Aug 12	41	Sep 21	19	Dec 31 1939
INSTANTANEOUS PEAK FLOW			3150	Jan 27	5080	Mar 6 1963
INSTANTANEOUS PEAK STAGE			6.74	Jan 27	8.08	Mar 6 1963
INSTANTANEOUS LOW FLOW			35*	Oct 1	9.4*	Jan 2 1940
ANNUAL RUNOFF (CFSM)	2.29		2.96		2.27	
ANNUAL RUNOFF (INCHES)	31.12		40.35		30.83	
10 PERCENT EXCEEDS	195		248		205	
50 PERCENT EXCEEDS	84		112		81	
90 PERCENT EXCEEDS	39		58		34	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



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 1995 TO SEPTEMBER 1996

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)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC											
06...	1300	88	14	6.9	8.0	0.20	700	10.7	98	K4	K3
FEB											
22...	1210	164	13	6.8	6.0	0.20	695	11.1	98	<1	<1

DATE	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)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
DEC											
06...	0.83	0.27	1.0	36	0.2	0.50	6	5	0.70	0.40	<0.10
FEB											
22...	0.86	0.26	1.0	36	0.2	0.50	4	4	0.90	0.50	<0.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
DEC											
06...	7.3	11	15	0.150	--	<0.010	0.150	0.150	<0.015	--	<0.20
FEB											
22...	7.1	24	14	0.130	0.130	0.010	0.140	0.140	0.020	0.03	<0.20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
DEC											
06...	<0.010	<0.010	<0.010	20	6.0	<3.0	10	<4	<1.0	<10	<1.0
FEB											
22...	<0.010	0.010	<0.010	<10	6.0	<3.0	9.0	<4	<1.0	<10	<1.0

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC											
06...	<1	<1.0	8.0	<6	0.06	<0.01	0	0.020	5	1.2	100
FEB											
22...	<1	<1.0	7.0	<6	--	--	--	--	3	1.3	100

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 sea level, from topographic map. Satellite telemetry at station.

REMARKS.--Records good except those during periods of ice effect and those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 5,000 ft^3/s on basis of slope-area measurement of peak flow; gage height from outside floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	97	87	84	240	143	209	121	50	35	38	57
2	51	134	84	133	e236	136	179	104	50	37	28	54
3	53	119	83	132	e232	127	162	97	48	47	23	161
4	793	101	82	92	e227	121	151	92	46	35	22	470
5	4730	93	82	87	e227	121	143	87	45	31	44	724
6	831	91	83	89	223	211	136	100	43	31	62	262
7	507	230	85	e85	212	205	127	114	70	30	55	170
8	379	178	85	e88	273	157	124	114	147	35	69	133
9	309	130	101	e89	658	141	120	96	302	33	59	109
10	266	118	e85	92	386	135	112	86	202	29	43	95
11	236	504	e80	86	360	123	109	84	144	27	44	e85
12	211	310	78	87	292	117	108	82	109	29	663	e75
13	216	215	78	e88	258	113	107	78	92	30	203	66
14	266	186	79	88	240	112	106	76	77	27	120	60
15	220	159	80	e91	224	159	100	82	71	75	140	55
16	187	143	80	e102	205	159	119	82	81	45	158	83
17	169	134	82	123	186	149	97	77	71	32	104	97
18	157	128	97	1070	176	130	93	70	74	28	85	64
19	147	124	183	2160	167	422	91	63	107	25	74	57
20	140	118	147	477	260	264	108	60	106	24	69	52
21	132	112	106	336	225	207	133	57	73	24	69	51
22	124	106	96	270	216	179	106	56	62	24	68	51
23	118	102	e91	233	233	161	97	52	55	23	82	44
24	114	101	e88	353	216	153	93	48	53	22	78	42
25	109	96	e87	260	178	176	86	68	50	25	76	41
26	104	93	e85	363	171	169	151	62	46	43	86	42
27	104	90	e84	1100	177	152	115	69	45	25	75	44
28	107	89	e84	454	190	359	100	107	42	24	66	318
29	95	104	e83	360	157	262	96	67	39	25	59	198
30	93	90	e83	307	---	216	176	58	e38	23	60	102
31	93	---	81	274	---	201	---	54	---	27	70	---
TOTAL	11115	4295	2809	9653	7045	5480	3654	2463	2438	970	2892	3862
MEAN	359	143	90.6	311	243	177	122	79.5	81.3	31.3	93.3	129
MAX	4730	504	183	2160	658	422	209	121	302	75	663	724
MIN	51	89	78	84	157	112	86	48	38	22	22	41
CFSM	8.28	3.31	2.09	7.19	5.61	4.08	2.81	1.83	1.88	.72	2.15	2.97
IN.	9.55	3.69	2.41	8.29	6.05	4.71	3.14	2.12	2.09	.83	2.48	3.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996, BY WATER YEAR (WY)

MEAN	135	153	141	163	180	228	190	158	129	81.9	98.3	109
MAX	359	714	277	428	360	596	361	373	415	199	323	517
(WY)	1996	1978	1984	1995	1966	1979	1983	1976	1972	1967	1994	1979
MIN	15.8	25.9	41.5	62.2	76.6	69.1	59.7	53.1	34.8	23.3	27.3	19.7
(WY)	1994	1982	1966	1966	1963	1988	1986	1986	1988	1986	1993	1993

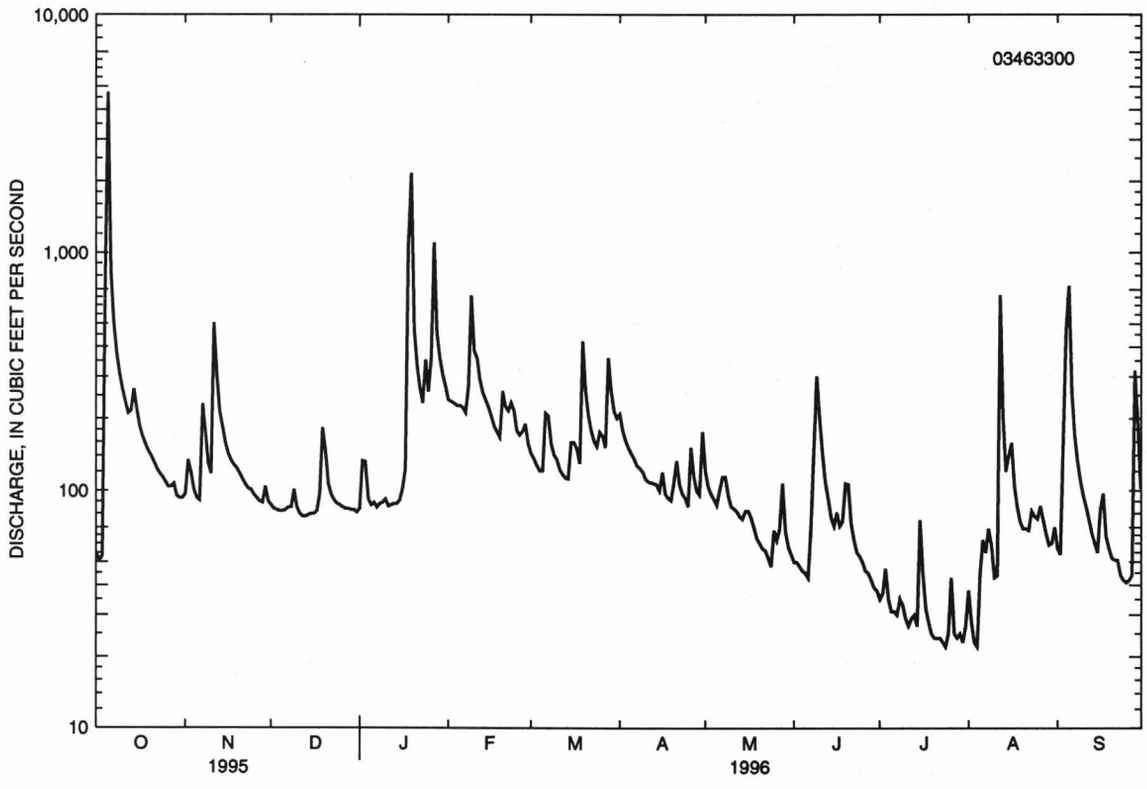
TENNESSEE RIVER BASIN

03463300 SOUTH TOE RIVER NEAR CELO, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1957 - 1996	
ANNUAL TOTAL	66106		56676			
ANNUAL MEAN	181		155		147	
HIGHEST ANNUAL MEAN					227	1979
LOWEST ANNUAL MEAN					79.4	1988
HIGHEST DAILY MEAN	4730	Oct 5	4730	Oct 5	9960	Nov 6 1977
LOWEST DAILY MEAN	41	Aug 19	22	Jul 24	12	Jul 21 1986
ANNUAL SEVEN-DAY MINIMUM	50	Aug 13	24	Jul 19	12	Oct 4 1993
INSTANTANEOUS PEAK FLOW			14000	Oct 5	32900*	Nov 6 1977
INSTANTANEOUS PEAK STAGE			9.90	Oct 5	17.41*	Nov 6 1977
INSTANTANEOUS LOW FLOW			20	Jul 25	11*	Jul 22 1986
ANNUAL RUNOFF (CFSM)	4.18		3.58		3.40	
ANNUAL RUNOFF (INCHES)	56.79		48.69		46.15	
10 PERCENT EXCEEDS	266		262		263	
50 PERCENT EXCEEDS	101		97		101	
90 PERCENT EXCEEDS	59		42		39	

e Estimated.

* See REMARKS.



TENNESSEE RIVER BASIN

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 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1306.

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

GAGE.--Water-stage recorder. Datum of gage is 2,607.84 ft above sea level. Tennessee Valley Authority satellite telemetry at station.

REMARKS.--Records good except those during periods of ice effect, Dec., Jan., Feb., and March, which are poor. Slight diurnal fluctuation at low flow caused by small mills above station. Maximum discharge for period of record from rating curve extended above 4,900 ft^3/s on basis of slope-area measurement of peak flow, from profile based on floodmarks. Minimum discharge for period of record, result of freezeup. Minimum discharge for current water also occurred Oct. 3. Minimum daily discharge also occurred Sept. 30, 1954.

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 ft^3/s, from rating curve extended above 4,900 ft^3/s, on basis of slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	84	111	91	305	174	304	256	151	71	182	83
2	45	112	105	101	e285	167	265	214	133	94	88	77
3	44	100	102	104	e282	155	238	189	123	91	74	110
4	285	90	101	88	e273	141	221	167	141	72	71	111
5	5460	82	96	e86	e267	141	207	151	149	65	125	118
6	1230	81	95	e84	e258	155	196	150	115	63	130	108
7	540	247	100	e82	e250	160	183	147	109	61	121	91
8	366	239	91	e81	308	e152	173	145	180	63	188	83
9	269	166	111	e104	972	e139	175	129	463	115	114	78
10	215	138	e106	e130	604	e134	156	119	382	70	85	80
11	184	406	e100	e125	472	e129	146	128	244	61	391	90
12	160	468	e94	e115	389	e122	139	134	188	61	2290	77
13	148	305	97	e110	328	118	136	113	156	62	741	71
14	213	255	93	e115	302	116	132	108	134	64	365	68
15	175	218	92	e125	305	142	130	134	128	183	246	65
16	143	188	101	e155	278	151	159	132	176	112	192	73
17	128	174	92	e145	258	152	129	118	169	75	159	85
18	121	167	96	e310	230	138	120	107	138	66	138	71
19	117	164	140	4730	213	415	121	100	130	61	129	66
20	113	155	158	943	329	389	140	96	140	59	119	63
21	115	146	e126	555	318	299	152	90	115	56	106	61
22	103	134	e111	404	289	257	130	98	102	53	122	62
23	96	127	e104	319	271	237	134	84	96	52	125	57
24	94	123	e98	387	251	236	129	81	92	50	103	54
25	90	116	e96	313	225	244	119	222	98	50	92	55
26	87	112	e94	354	214	231	181	173	85	65	131	56
27	88	108	e94	2260	208	212	168	190	81	50	114	60
28	97	110	e92	793	209	372	146	307	77	54	95	704
29	84	154	e90	532	186	437	140	295	74	125	109	482
30	79	119	e90	418	---	365	301	231	71	65	116	208
31	81	---	e88	378	---	322	---	183	---	66	93	---
TOTAL	11016	5088	3164	14537	9079	6602	5070	4791	4440	2255	7154	3467
MEAN	355	170	102	469	313	213	169	155	148	72.7	231	116
MAX	5460	468	158	4730	972	437	304	307	463	183	2290	704
MIN	44	81	88	81	186	116	119	81	71	50	71	54
CFSM	3.86	1.84	1.11	5.09	3.40	2.31	1.83	1.68	1.61	.79	2.51	1.25
IN.	4.45	2.06	1.28	5.87	3.67	2.67	2.05	1.94	1.79	.91	2.89	1.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	116	154	176	212	265	309	259	184	146	111	123	113
MAX	380	662	434	817	599	858	689	411	583	461	1169	691
(WY)	1965	1978	1951	1995	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

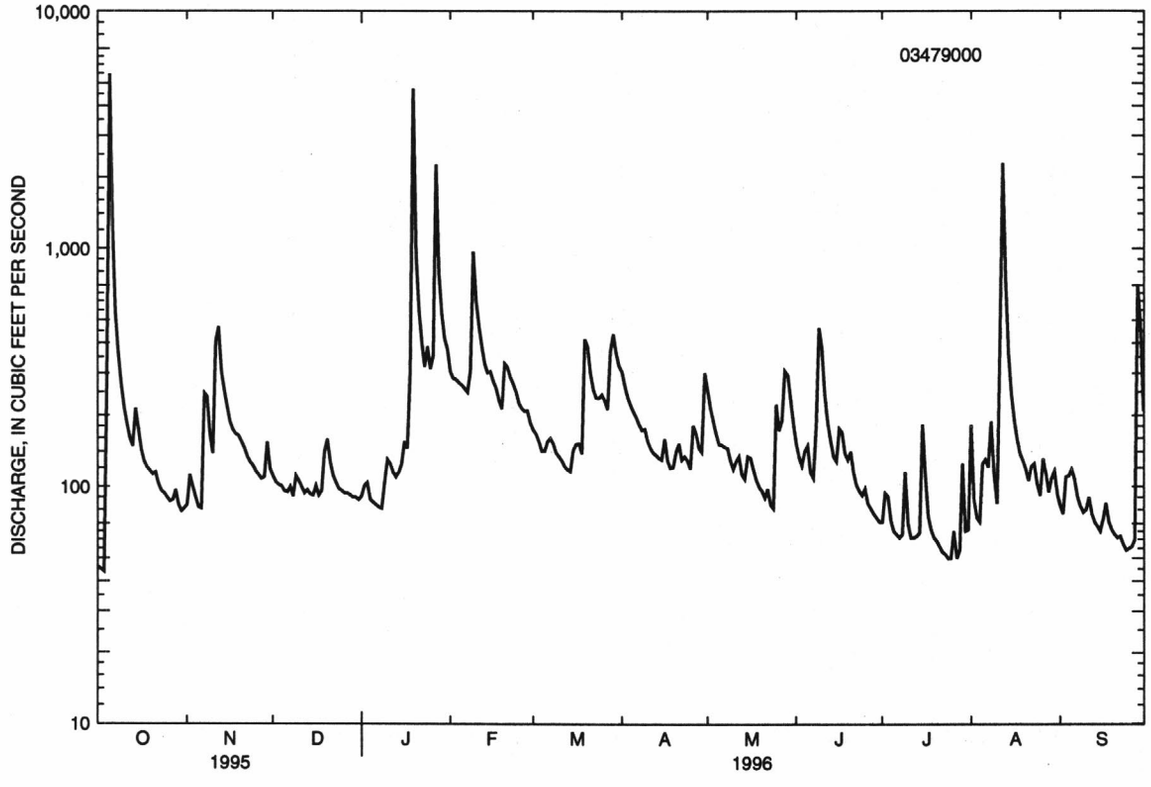
TENNESSEE RIVER BASIN

03479000 WATAUGA RIVER NEAR SUGAR GROVE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	85838		76663			
ANNUAL MEAN	235		209		178	
HIGHEST ANNUAL MEAN					297	1979
LOWEST ANNUAL MEAN					84.7	1988
HIGHEST DAILY MEAN	10300	Jan 14	5460	Oct 5	15900	Aug 13 1940
LOWEST DAILY MEAN	44	Oct 3	44	Oct 3	13*	Sep 19 1954
ANNUAL SEVEN-DAY MINIMUM	48	Sep 27	53	Jul 22	15	Sep 13 1954
INSTANTANEOUS PEAK FLOW			13700	Oct 5	50800*	Aug 13 1940
INSTANTANEOUS PEAK STAGE			16.86	Oct 5	29.60	Aug 13 1940
INSTANTANEOUS LOW FLOW			44*	Oct 2	6.5*	Jan 1 1954
ANNUAL RUNOFF (CFSM)	2.55		2.27		1.94	
ANNUAL RUNOFF (INCHES)	34.67		30.96		26.33	
10 PERCENT EXCEEDS	305		324		329	
50 PERCENT EXCEEDS	116		129		117	
90 PERCENT EXCEEDS	64		71		40	

e Estimated.

* See REMARKS.



TENNESSEE RIVER BASIN

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC

LOCATION.--Lat 35°08'59", long 83°22'47", Macon County, Hydrologic Unit 06010202, on left bank 600 ft upstream from Owenby Branch, 0.5 mi upstream from Cartoogechaye Creek, 2 mi north of Prentiss, and at mile 119.5.

DRAINAGE AREA.--140 mi^2.

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1306.

REVISED RECORDS.--WSP 1236: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 2,008.39 ft above sea level (levels by Tennessee Valley Authority). Since Oct. 1, 1954, auxiliary water-stage recorder 0.5 mi downstream of base gage at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for current water year also occurred Sept. 16.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	290	325	330	858	408	606	618	307	262	342	166
2	179	418	319	391	1470	401	545	538	295	255	215	164
3	179	508	313	440	1850	387	511	487	288	249	188	188
4	1300	385	311	358	1250	375	490	451	282	239	183	240
5	3260	333	304	334	e1000	373	467	426	281	234	174	216
6	2420	315	306	361	e920	992	454	451	264	232	203	196
7	895	972	364	452	e800	1370	440	476	255	229	184	174
8	647	1090	324	371	e760	1050	431	414	409	227	175	176
9	582	634	483	344	e810	742	438	401	1820	225	169	167
10	492	523	391	338	e720	645	411	378	1350	206	155	182
11	438	1190	345	326	e660	610	400	374	1060	199	158	167
12	403	1250	329	337	e620	579	390	370	725	198	647	179
13	381	778	321	319	e580	545	386	346	613	205	434	156
14	527	647	313	325	e560	522	387	339	546	209	277	145
15	491	585	308	337	e540	531	374	374	494	441	235	141
16	402	532	307	365	e510	534	407	377	551	327	215	224
17	366	497	298	397	e490	499	366	341	572	236	195	422
18	345	469	316	642	e470	472	357	323	471	223	217	219
19	331	447	624	2580	e460	728	374	313	470	201	187	186
20	322	430	503	1330	e720	626	459	303	427	192	198	172
21	315	413	414	838	e610	566	619	293	412	189	191	171
22	298	397	377	688	e570	523	483	284	375	189	227	247
23	290	385	355	617	536	495	442	278	350	182	206	180
24	285	379	336	916	504	476	422	272	332	174	186	165
25	281	367	322	756	474	499	396	461	337	222	201	159
26	272	361	313	930	461	497	520	337	310	255	183	153
27	273	350	306	4030	447	463	474	526	298	186	209	527
28	326	344	300	2060	442	662	423	575	289	179	212	1530
29	277	350	291	1260	419	623	423	421	281	175	209	1490
30	265	333	287	1060	---	567	834	355	271	220	192	678
31	268	---	292	996	---	556	---	329	---	229	181	---
TOTAL	17290	15972	10697	24828	20511	18316	13729	12231	14735	6989	6948	9180
MEAN	558	532	345	801	707	591	458	395	491	225	224	306
MAX	3260	1250	624	4030	1850	1370	834	618	1820	441	647	1530
MIN	179	290	287	319	419	373	357	272	255	174	155	141
CFSM	3.98	3.80	2.46	5.72	5.05	4.22	3.27	2.82	3.51	1.61	1.60	2.19
IN.	4.59	4.24	2.84	6.60	5.45	4.87	3.65	3.25	3.92	1.86	1.85	2.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

MEAN	254	307	399	492	568	613	566	429	345	260	248	226
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

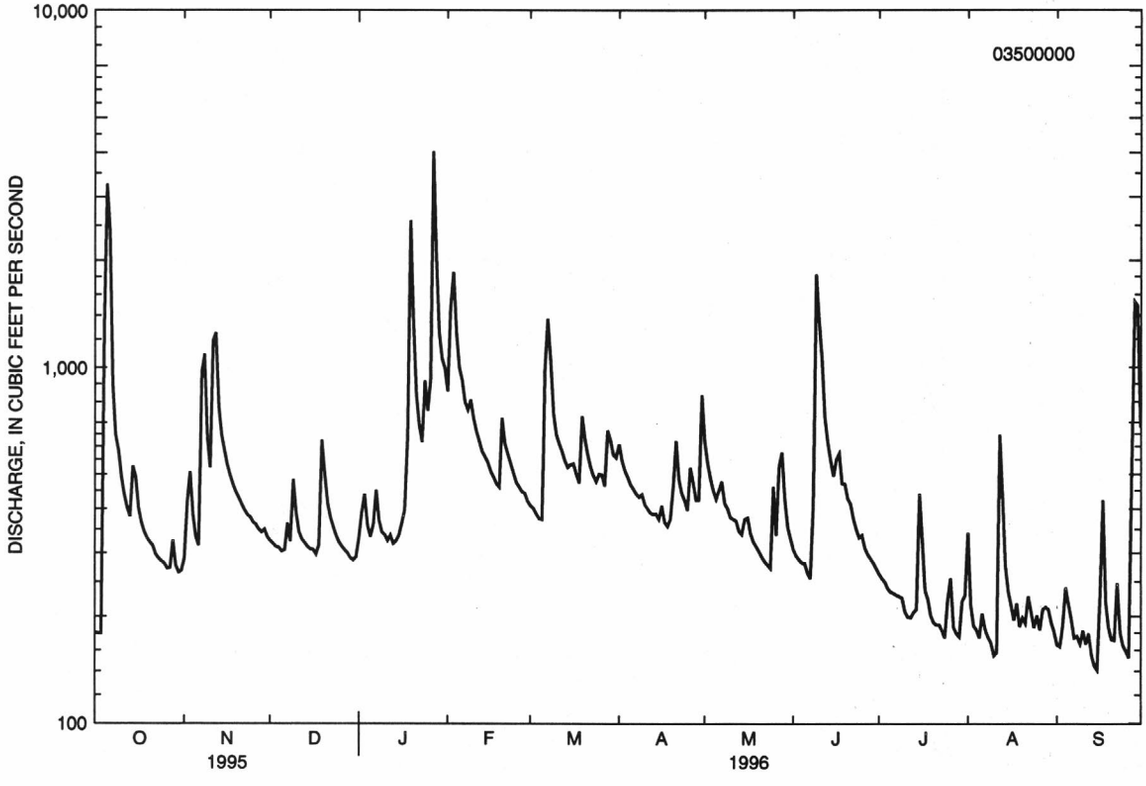
TENNESSEE RIVER BASIN

03500000 LITTLE TENNESSEE RIVER NEAR PRENTISS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	160862		171426			
ANNUAL MEAN	441		468		392	
HIGHEST ANNUAL MEAN					588	1949
LOWEST ANNUAL MEAN					173	1986
HIGHEST DAILY MEAN	3260	Oct 5	4030	Jan 27	7280	Oct 5 1964
LOWEST DAILY MEAN	130	Jul 26	141	Sep 15	56	Oct 7 1986
ANNUAL SEVEN-DAY MINIMUM	147	Jul 21	162	Sep 9	62	Oct 2 1986
INSTANTANEOUS PEAK FLOW			5420	Jan 27	12200	Oct 4 1964
INSTANTANEOUS PEAK STAGE			11.02	Jan 27	17.30	Oct 4 1964
INSTANTANEOUS LOW FLOW			139*	Sep 15	55	Oct 7 1986
ANNUAL RUNOFF (CFSM)	3.15		3.35		2.80	
ANNUAL RUNOFF (INCHES)	42.74		45.55		38.03	
10 PERCENT EXCEEDS	779		765		702	
50 PERCENT EXCEEDS	330		374		310	
90 PERCENT EXCEEDS	199		187		131	

e Estimated.

* See REMARKS.



TENNESSEE RIVER BASIN

03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC

LOCATION.--Lat 35°09'31", long 83°23'40", Macon County, Hydrologic Unit 06010202, on downstream side of center pier of bridge on Secondary Road 1152, 0.1 mi downstream 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, 1958, 1960. June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,017.18 ft above sea level.

REMARKS.--Records good except those during period of ice effect, Jan. 8-10, and 14, which are fair. Minimum discharge for period of record also occurred Oct. 8, 1986. Minimum discharge for current water year also occurred Oct. 3.

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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	82	98	150	339	160	269	268	114	85	154	73
2	53	146	96	166	797	158	239	232	111	80	102	74
3	59	145	94	174	822	151	224	208	110	81	88	81
4	595	117	95	145	564	147	211	193	107	77	86	138
5	1920	103	94	132	429	150	200	180	102	76	81	104
6	667	98	94	154	368	519	193	226	100	75	92	88
7	316	625	112	178	330	646	184	256	99	74	79	87
8	215	435	101	e136	310	449	187	254	148	74	75	89
9	174	237	209	e126	345	311	198	219	486	74	79	84
10	149	183	138	e122	288	259	174	198	248	70	70	80
11	132	507	120	121	270	234	168	209	195	69	71	76
12	119	407	113	125	249	218	164	191	171	68	238	72
13	116	275	108	117	234	205	161	178	154	69	158	68
14	129	222	104	e115	226	195	158	168	145	72	111	66
15	111	189	101	130	217	247	159	200	132	143	94	64
16	99	169	105	147	204	230	168	178	125	86	86	107
17	93	156	100	166	195	213	150	166	118	93	84	127
18	90	146	147	364	189	198	147	156	113	101	78	82
19	88	140	347	1250	184	344	158	148	115	76	76	75
20	87	133	227	512	309	277	256	143	118	71	76	71
21	85	126	176	340	231	243	319	137	116	70	72	82
22	82	120	151	269	215	222	246	132	104	72	70	101
23	79	118	136	232	204	207	220	127	99	69	68	75
24	79	117	126	344	190	199	196	131	97	66	69	71
25	78	111	119	261	183	225	182	174	120	107	82	69
26	72	109	114	555	178	213	234	133	97	98	83	67
27	89	106	110	1770	174	202	199	135	94	75	102	154
28	107	105	106	747	178	385	184	163	91	71	124	487
29	83	108	102	530	165	344	192	132	87	71	99	340
30	78	100	101	439	---	282	372	125	86	131	94	187
31	80	---	108	406	---	272	---	118	---	145	79	---
TOTAL	6178	5635	3952	10423	8587	8105	6112	5478	4002	2589	2920	3339
MEAN	199	188	127	336	296	261	204	177	133	83.5	94.2	111
MAX	1920	625	347	1770	822	646	372	268	486	145	238	487
MIN	53	82	94	115	165	147	147	118	86	66	68	64
CFSM	3.49	3.29	2.23	5.89	5.19	4.58	3.57	3.09	2.34	1.46	1.65	1.95
IN.	4.02	3.67	2.57	6.79	5.59	5.28	3.98	3.57	2.61	1.69	1.90	2.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1996, BY WATER YEAR (WY)

MEAN	87.7	111	153	194	225	247	206	157	120	88.2	86.1	74.5
MAX	295	266	317	336	460	440	375	339	259	195	185	161
(WY)	1965	1993	1962	1996	1990	1980	1964	1976	1989	1989	1994	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

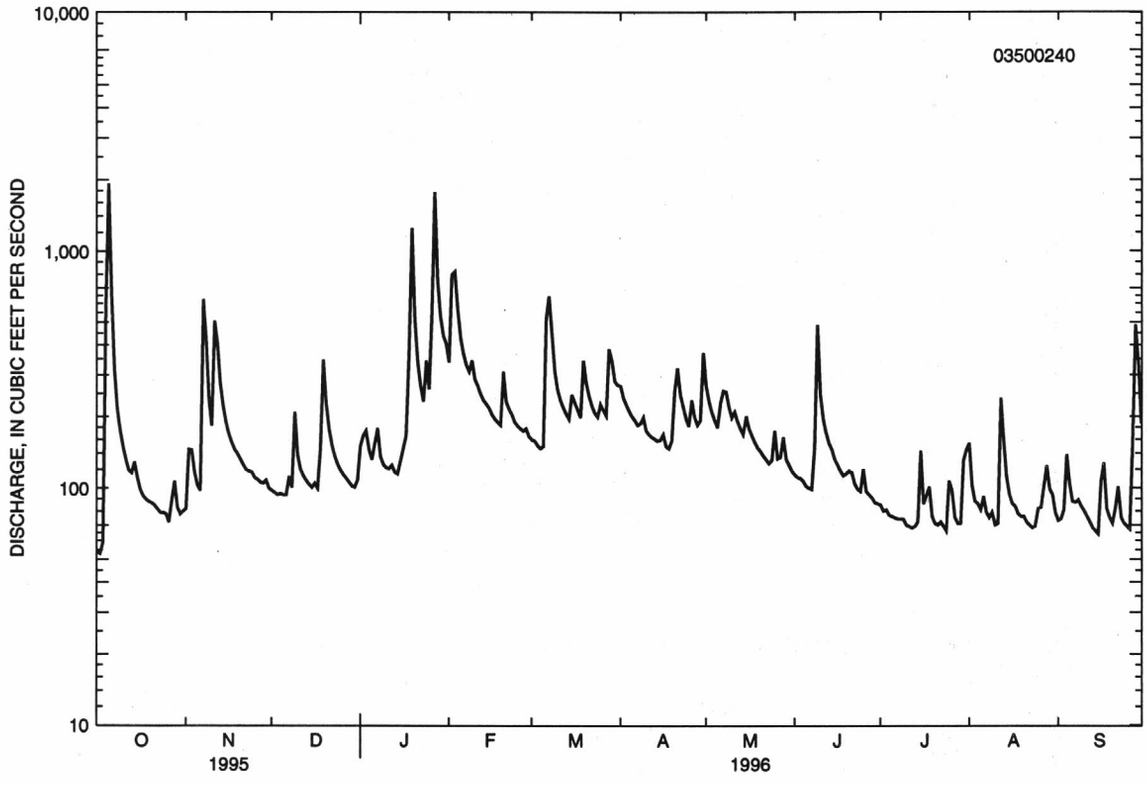
TENNESSEE RIVER BASIN

03500240 CARTOOGECHAYE CREEK NEAR FRANKLIN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1961 - 1996	
ANNUAL TOTAL	58845		67320			
ANNUAL MEAN	161		184		145	
HIGHEST ANNUAL MEAN					204	1990
LOWEST ANNUAL MEAN					69.9	1986
HIGHEST DAILY MEAN	2240	Feb 16	1920	Oct 5	2710	Oct 4 1964
LOWEST DAILY MEAN	50	Jul 26	53	Oct 2	18	Oct 7 1986
ANNUAL SEVEN-DAY MINIMUM	54	Jul 20	71	Jul 8	22	Oct 2 1986
INSTANTANEOUS PEAK FLOW			2970	Oct 5	4720	Oct 4 1964
INSTANTANEOUS PEAK STAGE			11.72	Oct 5	12.96	Oct 4 1964
INSTANTANEOUS LOW FLOW			52*	Oct 2	16*	Oct 7 1986
ANNUAL RUNOFF (CFSM)	2.82		3.22		2.54	
ANNUAL RUNOFF (INCHES)	38.34		43.86		34.58	
10 PERCENT EXCEEDS	288		333		262	
50 PERCENT EXCEEDS	109		135		108	
90 PERCENT EXCEEDS	60		75		51	

e Estimated.

* 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 sea level (levels by Tennessee Valley Authority). Tennessee Valley Authority satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Considerable diurnal fluctuation caused by Porters Bend power plant at Lake Emory, 20 mi upstream. Minimum discharge for period of record 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	683	712	843	2550	1110	1770	2740	833	733	1030	565
2	336	909	733	987	4390	1080	1700	1900	802	705	772	576
3	355	1290	705	1300	5840	1070	1510	1600	791	703	630	600
4	2980	978	713	982	3780	1010	1430	1430	772	671	597	1070
5	9990	822	684	897	3010	1000	1350	1320	765	650	598	804
6	7720	770	703	913	2650	2340	1290	1230	722	640	671	750
7	2440	2750	772	1210	2420	4030	1270	1770	716	634	644	625
8	1670	3500	766	963	2230	3920	1190	1850	861	631	568	758
9	1350	1790	1180	885	2320	2410	1270	1560	3980	627	618	607
10	1150	1350	982	864	2080	1940	1210	1390	3620	605	561	626
11	1010	2670	833	829	1940	1720	1120	1270	2500	586	532	573
12	944	3800	794	839	1790	1590	1090	1270	1880	573	1540	555
13	908	2180	759	819	1650	1490	1060	1230	1560	584	1420	588
14	1050	1700	734	801	1600	1400	1080	1110	1360	590	868	492
15	1210	1450	721	841	1550	1390	1050	1050	1210	974	721	499
16	929	1280	709	972	1470	1730	1050	1220	1230	984	674	511
17	844	1180	715	1120	1390	1510	1080	1180	1300	720	611	1300
18	825	1090	748	1820	1340	1380	986	1070	1200	865	724	726
19	744	1040	1790	9470	1290	1670	978	1010	1120	639	631	596
20	990	982	1500	4550	2020	2170	1060	943	1210	592	667	551
21	543	942	1140	2670	1820	1720	1680	930	1080	576	636	545
22	693	889	984	2050	1540	1560	1780	892	977	599	598	747
23	671	869	902	1770	1460	1440	1410	863	917	553	721	588
24	659	862	851	2380	1370	1370	1310	819	890	556	701	556
25	654	834	799	2210	1280	1350	1170	821	986	635	729	529
26	626	794	781	2780	1260	1540	1110	1340	860	884	676	506
27	661	787	749	13800	1220	1370	1660	1120	811	626	699	695
28	830	778	733	7030	1240	1540	1370	1230	792	570	707	3890
29	670	801	701	3970	1170	2400	1210	1060	776	564	747	4520
30	631	761	690	3260	---	1890	1370	960	744	618	672	1960
31	617	---	706	2980	---	1690	---	891	---	861	660	---
TOTAL	45050	40531	26289	76805	59670	53830	38614	39069	37265	20748	22623	27908
MEAN	1453	1351	848	2478	2058	1736	1287	1260	1242	669	730	930
MAX	9990	3800	1790	13800	5840	4030	1780	2740	3980	984	1540	4520
MIN	336	683	684	801	1170	1000	978	819	716	553	532	492
CFSM	3.33	3.10	1.95	5.68	4.72	3.98	2.95	2.89	2.85	1.54	1.67	2.13
IN.	3.84	3.46	2.24	6.55	5.09	4.59	3.29	3.33	3.18	1.77	1.93	2.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996@, BY WATER YEAR (WY)

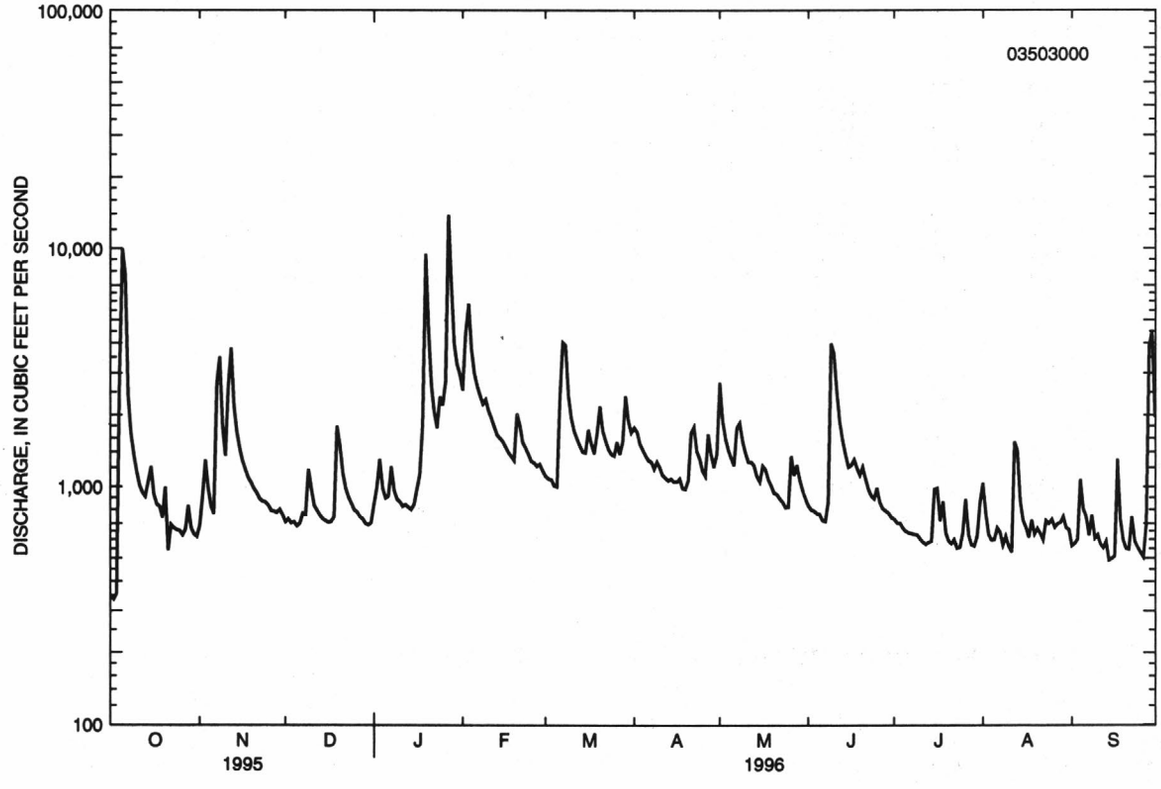
MEAN	661	816	1059	1372	1595	1755	1549	1180	930	704	662	594
MAX	2557	2169	2231	2570	3718	3372	2746	2573	2061	2136	1670	1605
(WY)	1965	1980	1962	1946	1990	1990	1964	1976	1949	1989	1967	1950
MIN	192	282	368	349	660	596	553	489	351	238	213	208
(WY)	1955	1955	1966	1981	1986	1988	1986	1986	1988	1986	1986	1954

TENNESSEE RIVER BASIN

03503000 LITTLE TENNESSEE RIVER AT NEEDMORE, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996@	
ANNUAL TOTAL	407161		488402			
ANNUAL MEAN	1116		1334		1074	
HIGHEST ANNUAL MEAN					1565	1973
LOWEST ANNUAL MEAN					495	1986
HIGHEST DAILY MEAN	10400	Feb 17	13800	Jan 27	17200	Oct 5 1964
LOWEST DAILY MEAN	336	Oct 2	336	Oct 2	71	Nov 7 1954
ANNUAL SEVEN-DAY MINIMUM	369	Sep 27	549	Sep 10	142	Oct 2 1986
INSTANTANEOUS PEAK FLOW			14700	Jan 27	22100	Oct 5 1964
INSTANTANEOUS PEAK STAGE			9.77	Jan 27	12.87	Oct 5 1964
INSTANTANEOUS LOW FLOW			287	Oct 21	52*	Nov 7 1954
ANNUAL RUNOFF (CFSM)	2.56		3.06		2.46	
ANNUAL RUNOFF (INCHES)	34.74		41.67		33.47	
10 PERCENT EXCEEDS	1880		2330		1930	
50 PERCENT EXCEEDS	804		983		820	
90 PERCENT EXCEEDS	456		600		369	

* See REMARKS.
@ See PERIOD OF RECORD.



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 sea level.

REMARKS.--Records good except those during periods of ice effect, Dec. 25-26 and 29-30, and Jan. 8-9, and those for estimated daily discharges, which are poor. Occasional slight diurnal fluctuation at low flow caused by small ponds on tributaries upstream from station. Maximum discharge for period of record from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record occurred several days in Oct. 1987. Minimum discharge for current water year also occurred Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	138	151	245	517	202	346	372	163	119	374	123
2	63	256	146	264	953	195	306	326	158	118	234	127
3	90	241	143	243	885	187	288	299	153	117	191	204
4	678	198	144	203	693	182	273	277	147	108	e186	357
5	2130	176	142	188	588	184	260	259	142	105	e176	251
6	823	169	140	216	520	553	251	314	137	103	e200	195
7	500	844	186	215	470	710	236	296	138	101	e172	198
8	377	547	160	e188	454	487	245	272	241	100	e163	213
9	311	373	323	e179	577	380	244	256	605	98	e172	181
10	270	307	201	168	444	333	219	242	372	93	e152	169
11	240	673	176	162	409	307	209	274	323	91	e154	157
12	219	521	166	164	374	288	203	242	303	91	e517	147
13	211	423	159	156	350	270	200	227	266	103	e343	138
14	244	369	153	154	332	256	194	218	240	130	e241	131
15	199	324	148	160	313	299	227	284	224	319	e204	126
16	182	292	162	168	295	271	230	240	212	140	e187	271
17	172	271	145	194	278	249	195	224	197	199	e182	233
18	163	253	199	597	266	235	188	211	189	249	e169	169
19	157	237	384	1290	254	373	208	201	182	136	e165	154
20	157	223	264	597	402	298	286	193	181	121	e157	144
21	149	213	223	451	291	275	334	185	172	139	141	172
22	141	201	204	379	274	260	275	178	158	127	148	170
23	135	197	189	335	261	253	283	170	150	113	169	140
24	133	194	178	482	246	259	254	165	144	103	197	132
25	128	182	e168	357	235	325	235	244	235	243	175	127
26	124	174	e162	705	228	298	309	175	150	189	159	123
27	159	168	157	1470	220	281	257	201	140	138	150	392
28	164	170	151	846	230	411	240	279	134	127	168	1050
29	130	170	e144	677	208	359	279	196	128	119	153	728
30	124	156	e141	623	---	326	536	182	123	190	150	494
31	138	---	163	613	---	337	---	172	---	301	133	---
TOTAL	8775	8660	5572	12689	11567	9643	7810	7374	6107	4430	6082	7216
MEAN	283	289	180	409	399	311	260	238	204	143	196	241
MAX	2130	844	384	1470	953	710	536	372	605	319	517	1050
MIN	63	138	140	154	208	182	188	165	123	91	133	123
CFSM	5.45	5.56	3.46	7.89	7.69	5.99	5.02	4.58	3.92	2.75	3.78	4.63
IN.	6.29	6.21	3.99	9.10	8.29	6.91	5.60	5.29	4.38	3.18	4.36	5.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1996, BY WATER YEAR (WY)

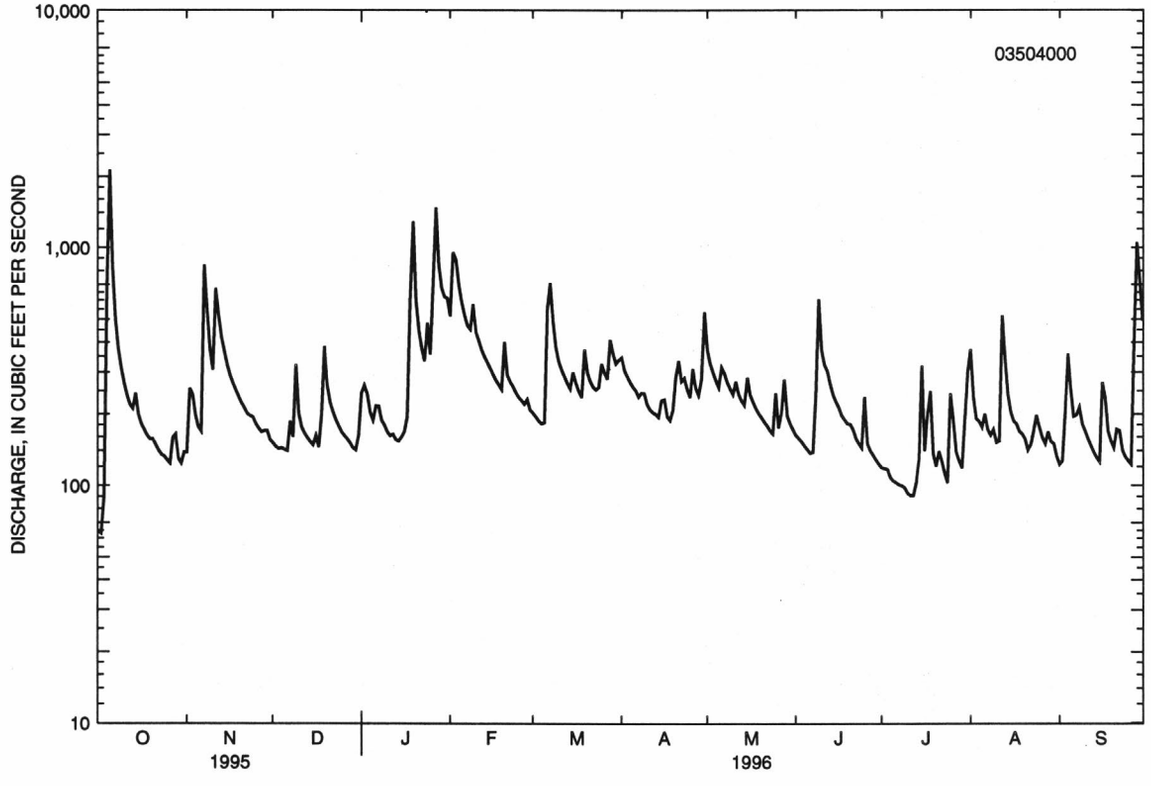
MEAN	118	155	227	281	326	324	280	215	172	140	126	109
MAX	415	376	474	568	657	572	493	491	485	335	327	374
(WY)	1965	1978	1993	1974	1957	1979	1979	1976	1989	1989	1994	1950
MIN	42.2	56.6	77.2	84.4	115	138	118	96.8	67.1	59.0	49.5	41.8
(WY)	1955	1955	1959	1981	1941	1988	1986	1986	1986	1986	1986	1986

TENNESSEE RIVER BASIN

03504000 NANTAHALA RIVER NEAR RAINBOW SPRINGS, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1941 - 1996	
ANNUAL TOTAL	80699		95925			
ANNUAL MEAN	221		262		206	
HIGHEST ANNUAL MEAN					280	1949
LOWEST ANNUAL MEAN					109	1986
HIGHEST DAILY MEAN	2550	Feb 16	2130	Oct 5	3060	Jun 16 1949
LOWEST DAILY MEAN	62	Jul 26	63	Oct 2	30	Oct 6 1986
ANNUAL SEVEN-DAY MINIMUM	69	Sep 26	97	Jul 6	31	Oct 2 1986
INSTANTANEOUS PEAK FLOW			3280	Oct 5	6300*	Jun 16 1949
INSTANTANEOUS PEAK STAGE			6.35	Oct 5	9.70	Jun 16 1949
INSTANTANEOUS LOW FLOW			61*	Oct 2	30*	Oct 4 1987
ANNUAL RUNOFF (CFSM)	4.26		5.05		3.96	
ANNUAL RUNOFF (INCHES)	57.84		68.76		53.82	
10 PERCENT EXCEEDS	402		452		374	
50 PERCENT EXCEEDS	155		203		163	
90 PERCENT EXCEEDS	79		133		69	

e Estimated.
* 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 mi^2.

PERIOD OF RECORD.--July 1945 to September 1946, July 1948 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,843.30 ft above sea level. Prior to Oct. 1, 1946, nonrecording gage at same site and datum. Tennessee Valley Authority satellite telemetry at station.

REMARKS.--Records fair except those during periods of ice effect, Dec. 23-29, Jan. 8-15 and 21-23, and Feb. 3-8, which are poor. Maximum gage height, 12.46 ft, from floodmarks. Minimum discharge for period of record 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 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	247	450	466	1070	641	990	1020	470	343	1650	313
2	198	962	419	742	2140	597	886	879	449	354	797	301
3	218	781	394	884	e2030	551	819	783	434	596	593	310
4	1300	581	422	576	e1380	517	763	711	421	384	505	445
5	3630	476	394	514	e1120	529	712	653	398	353	470	403
6	1600	430	373	540	e1010	1460	676	970	379	339	456	327
7	885	2220	432	529	e926	1710	626	1120	370	328	427	302
8	653	1470	369	e412	e896	1290	621	837	468	327	405	329
9	529	922	460	e396	1800	997	597	751	2030	343	710	293
10	449	723	371	e391	1270	861	548	691	1110	307	449	281
11	395	2570	350	e386	1300	771	529	721	835	293	404	272
12	356	1790	352	e381	1200	710	513	684	1110	294	761	251
13	329	1160	346	e376	1080	656	507	612	972	294	668	242
14	377	922	340	e371	992	618	520	577	747	297	578	231
15	329	758	344	e401	916	932	507	872	652	678	496	224
16	293	648	389	493	842	886	607	748	658	509	455	379
17	274	575	370	630	737	761	506	670	678	398	431	507
18	261	531	454	1600	705	699	480	616	653	381	428	314
19	250	501	1150	5080	645	883	489	574	602	334	401	277
20	247	474	855	1910	778	797	682	539	632	314	404	259
21	245	452	649	e1270	719	730	859	509	549	311	357	262
22	229	418	563	e990	730	685	694	488	494	321	340	289
23	221	399	e482	e911	816	654	651	459	457	307	344	239
24	216	391	e433	1520	877	652	599	467	485	278	369	231
25	215	365	e396	1030	736	853	556	613	541	303	328	226
26	206	349	e371	2030	685	872	855	679	440	318	388	217
27	287	337	e361	6100	687	780	708	736	411	275	319	357
28	370	444	e351	2790	910	1070	645	742	390	298	315	1820
29	248	805	e342	1910	741	1020	629	599	370	526	316	1110
30	227	504	340	1500	---	912	1410	543	359	550	366	631
31	228	---	365	1280	---	938	---	500	---	978	384	---
TOTAL	15470	23205	13687	38409	29738	26032	20184	21363	18564	11931	15314	11642
MEAN	499	773	442	1239	1025	840	673	689	619	385	494	388
MAX	3630	2570	1150	6100	2140	1710	1410	1120	2030	978	1650	1820
MIN	198	247	340	371	645	517	480	459	359	275	315	217
CFSM	2.71	4.20	2.40	6.73	5.57	4.56	3.66	3.75	3.36	2.09	2.68	2.11
IN.	3.13	4.69	2.77	7.77	6.01	5.26	4.08	4.32	3.75	2.41	3.10	2.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996@, BY WATER YEAR (WY)

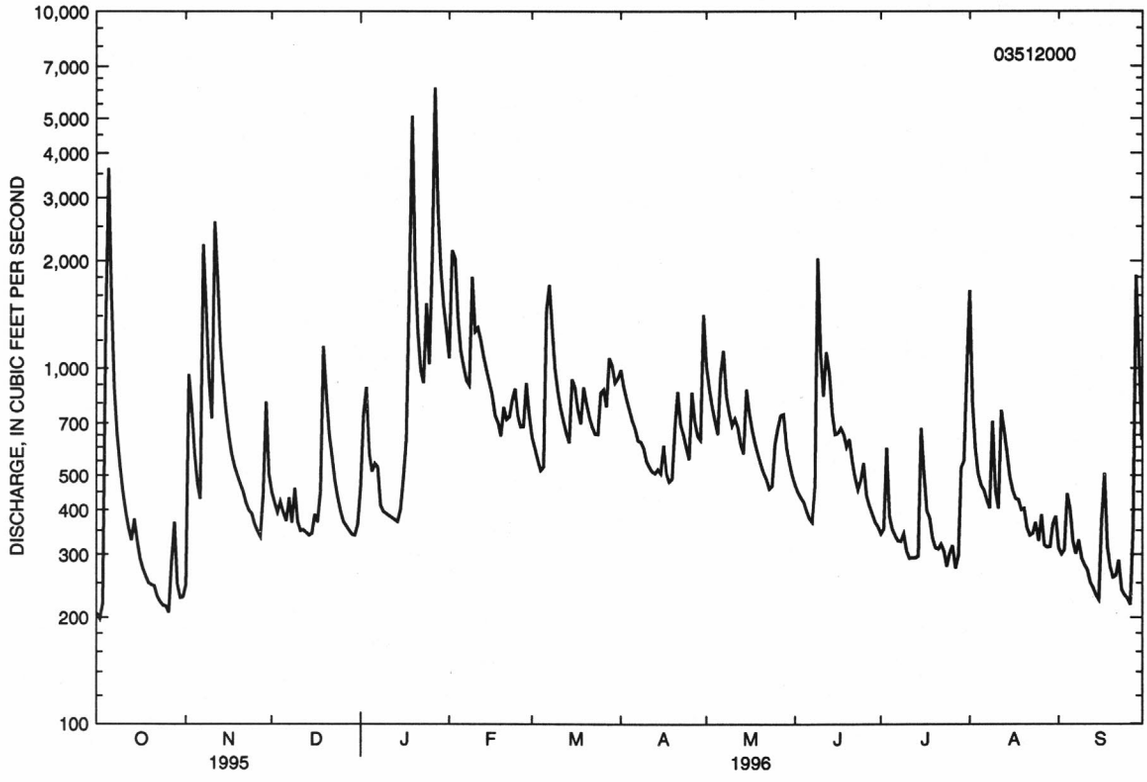
MEAN	267	386	581	720	817	886	717	529	420	380	336	261
MAX	645	777	1266	1428	1700	1714	1315	1202	1136	938	733	584
(WY)	1990	1958	1962	1974	1990	1963	1994	1984	1989	1989	1994	1989
MIN	94.5	125	162	170	392	330	277	239	175	169	161	121
(WY)	1955	1988	1966	1981	1978	1988	1986	1986	1988	1952	1987	1954

TENNESSEE RIVER BASIN

03512000 OCONALUFTEE RIVER AT BIRDTOWN, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996@	
ANNUAL TOTAL	189642		245539			
ANNUAL MEAN	520		671		523	
HIGHEST ANNUAL MEAN					771	1994
LOWEST ANNUAL MEAN					274	1986
HIGHEST DAILY MEAN	5430	Feb 16	6100	Jan 27	8470	Mar 12 1963
LOWEST DAILY MEAN	165	Aug 25	198	Oct 2	80	Nov 8 1987
ANNUAL SEVEN-DAY MINIMUM	181	Sep 4	226	Oct 20	82	Oct 16 1954
INSTANTANEOUS PEAK FLOW			9930	Jan 19	15900	Dec 30 1969
INSTANTANEOUS PEAK STAGE			8.96	Jan 19	12.46*	Dec 30 1969
INSTANTANEOUS LOW FLOW			192	Oct 3	79*	Nov 8 1987
ANNUAL RUNOFF (CFSM)	2.82		3.65		2.85	
ANNUAL RUNOFF (INCHES)	38.34		49.64		38.66	
10 PERCENT EXCEEDS	871		1110		949	
50 PERCENT EXCEEDS	376		523		393	
90 PERCENT EXCEEDS	208		293		170	

e Estimated.
* See REMARKS.
@ See PERIOD OF RECORD.



TENNESSEE RIVER BASIN

03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC

LOCATION.--Lat 35°25'40", long 83°26'51", Swain County, Hydrologic Unit 06010203, on left bank 400 ft downstream 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 January 1995, April 1996 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 sea level (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 satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. 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 for period of record, from rating curve extended above 28,000 ft^3/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record and minimum daily discharge for period of record also occurred Sept. 10, 1925, caused by filling reservoir on Oconaluftee River. Minimum daily discharge during normal regulation: 186 ft^3/s, Oct. 13, 1925. Minimum discharge for period April 1 to Sept. 30 also occurred July 28.

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, FOR PERIOD APRIL 1996 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							3270	3130	1490	949	3390	1020
2							2900	2740	1190	1090	2050	975
3							2500	2650	1170	1740	1660	1040
4							2260	2050	1340	1350	1280	2010
5							2670	1790	1170	915	1180	2000
6							2170	2530	1140	1100	1570	1690
7							1850	3570	1120	860	1330	1160
8							2000	2630	1410	863	1270	1300
9							2180	2460	4790	1190	1920	1060
10							1840	2480	3480	892	1430	1260
11							1710	2290	2850	862	1120	1220
12							1580	1910	2900	1040	2350	937
13							1740	1830	2670	1030	2170	1010
14							1460	2050	2270	834	1740	1180
15							1500	2480	1740	1480	1470	851
16							2000	2220	1530	1780	1360	1130
17							1510	2150	1800	1230	1490	2220
18							1430	1980	1830	1210	1210	1210
19							1440	1570	1870	989	1130	1040
20							2400	1550	2110	1040	1450	1030
21							2460	1820	1590	807	1390	998
22							2100	1480	1490	898	1190	1060
23							2350	1420	1170	1080	1260	969
24							1920	1490	1370	933	1250	1180
25							1660	2140	1740	1090	1190	942
26							2460	1650	1480	1230	1180	914
27							2270	2070	1350	1120	1670	1180
28							2280	2460	1290	876	1310	4530
29							2020	1890	1200	1190	1610	3830
30							3790	1460	1060	1540	1470	2440
31							---	1390	---	2110	1270	---
TOTAL							63720	65330	53610	35318	47360	43386
MEAN							2124	2107	1787	1139	1528	1446
MAX							3790	3570	4790	2110	3390	4530
MIN							1430	1390	1060	807	1120	851

TENNESSEE RIVER BASIN

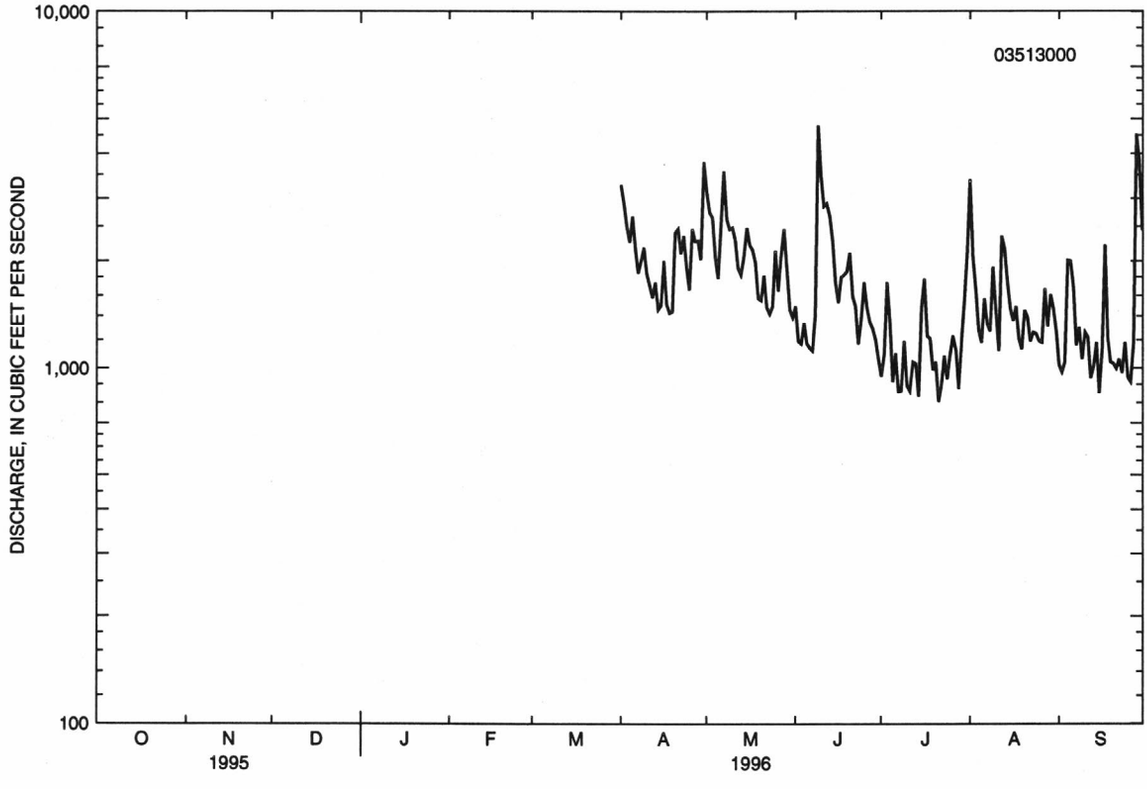
03513000 TUCKASEGEE RIVER AT BRYSON CITY, NC--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1996@, BY WATER YEAR (WY)

MEAN	928	1058	1590	2009	2286	2587	2233	1739	1399	1246	1172	964
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 PERIOD APR 1996 TO SEPT 1996		WATER YEARS 1898 - 1996@	
ANNUAL MEAN			1596	
HIGHEST ANNUAL MEAN			2576	1899
LOWEST ANNUAL MEAN			879	1986
HIGHEST DAILY MEAN			28000	Mar 4 1917
LOWEST DAILY MEAN			31*	Sep 9 1925
ANNUAL SEVEN-DAY MINIMUM			97	Sep 4 1925
INSTANTANEOUS PEAK FLOW	10100	Sep 28	61600*	Aug 30 1940
INSTANTANEOUS PEAK STAGE	7.14	Sep 28	15.96	Aug 30 1940
INSTANTANEOUS LOW FLOW	713*	Jul 27	27*	Sep 10 1925
10 PERCENT EXCEEDS			2820	
50 PERCENT EXCEEDS			1270	
90 PERCENT EXCEEDS			609	

* See REMARKS.
@ See PERIOD OF RECORD.



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 "Hiwassee River 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 sea level (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.--Records fair except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation since 1924 caused by Mission power plant 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. Prior to regulation, maximum discharge: 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: 10 ft^3/s, Dec. 3, 1924, result of freezeup and filling of Lake Andrews, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage observed is that of Mar. 19, 1899.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	994	1290	1360	707	e1900	e1050	1190	1230	822	1090	1320	503
2	1110	1390	970	854	e3400	e1000	1150	1020	839	924	1210	489
3	1260	1590	582	1390	e2300	e980	964	896	1200	962	734	807
4	2030	1160	1110	1310	e1900	e940	917	808	1170	778	491	1080
5	4220	776	1410	1110	e1500	e900	919	736	1210	706	709	1250
6	1450	1020	1430	1040	e1300	e4100	893	1430	1090	703	1170	1200
7	809	3680	1530	1280	e1100	e2400	738	1640	1180	689	1020	755
8	586	2620	1570	1240	e1100	e1400	855	1180	1250	685	1150	529
9	497	1790	1400	1420	e1400	e1200	885	1360	1750	696	1150	915
10	679	1600	1060	1280	e1200	e1100	799	1240	1250	542	790	1110
11	629	1800	1250	1210	e1100	e1000	791	1250	704	451	546	1150
12	905	2030	1570	1280	e1200	e900	700	877	693	688	1150	1150
13	1040	1520	1280	1120	e1200	e810	701	1030	662	546	1270	959
14	737	1600	1240	1100	e1300	e820	618	1290	547	374	1200	648
15	608	1570	875	1120	e1300	e830	604	1690	500	925	1140	462
16	1040	1410	648	1170	e1400	855	623	1510	478	1470	1130	1030
17	1120	1440	464	908	e1400	773	584	1440	470	684	771	1420
18	1140	1010	860	759	e1500	908	578	1020	450	1090	497	1210
19	994	740	1670	2950	e1400	1570	622	719	437	1110	768	1190
20	1150	1230	1510	2660	e1600	1610	902	1090	435	961	1100	1170
21	771	1740	1380	1820	e1500	1480	1280	1040	399	569	1050	707
22	587	1850	1480	2030	e1400	1500	1020	1240	377	991	1050	416
23	726	1480	1050	2160	e1400	1210	933	1200	721	963	1120	673
24	1060	1260	774	2080	e1300	795	827	1190	1160	948	896	1150
25	1260	1450	691	2170	e1100	887	771	1620	1180	1190	619	1090
26	1110	1340	584	3670	e1050	1360	1050	1150	1150	1110	818	1130
27	935	1470	746	7430	e1100	1450	938	813	1130	590	1070	1210
28	881	1860	692	3460	e1200	1850	842	1170	1120	496	1110	1550
29	672	1900	558	e2400	e1100	1480	800	1310	1170	755	1080	1210
30	844	1860	428	e2000	---	1120	1460	1310	684	1100	1060	1160
31	1060	---	452	e1900	---	1080	---	1260	---	990	707	---
TOTAL	32904	47476	32624	57028	41650	39358	25954	36759	26228	25776	29896	29323
MEAN	1061	1583	1052	1840	1436	1270	865	1186	874	831	964	977
MAX	4220	3680	1670	7430	3400	4100	1460	1690	1750	1470	1320	1550
MIN	497	740	428	707	1050	773	578	719	377	374	491	416

TENNESSEE RIVER BASIN

03548500 HIWASSEE RIVER ABOVE MURPHY, NC--Continued

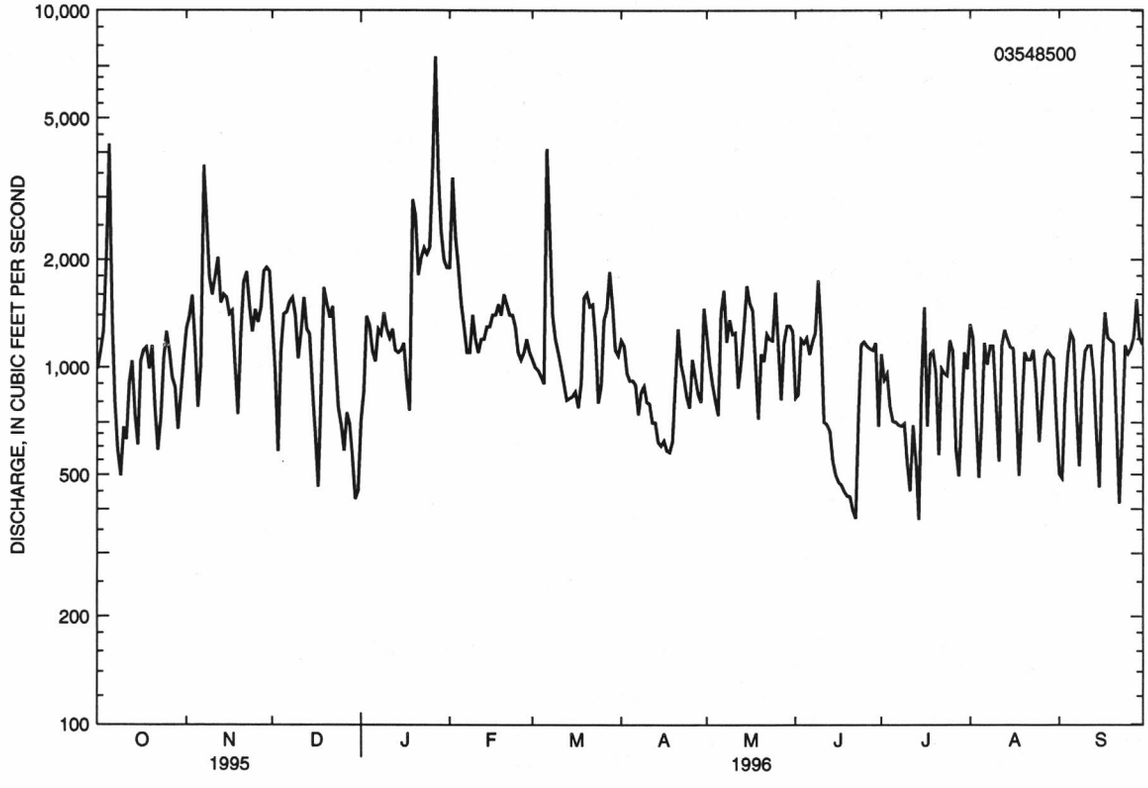
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1996*, BY WATER YEAR (WY)

MEAN	516	585	945	1126	1225	1111	1048	932	903	892	877	725
MAX	1530	1654	2532	2462	3076	2784	2155	2033	1852	1517	1674	1628
(WY)	1990	1990	1993	1974	1990	1990	1953	1953	1989	1989	1994	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 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1942 - 1996*	
ANNUAL TOTAL	383572		424976			
ANNUAL MEAN	1051		1161		906	
HIGHEST ANNUAL MEAN					1414	1990
LOWEST ANNUAL MEAN					397	1988
HIGHEST DAILY MEAN	9690	Feb 16	7430	Jan 27	11600	Feb 16 1990
LOWEST DAILY MEAN	364	Aug 13	374	Jul 14	62	Oct 19 1952
ANNUAL SEVEN-DAY MINIMUM	404	May 26	435	Jun 16	80	Oct 18 1952
INSTANTANEOUS PEAK FLOW			11500	Jan 27	18600	May 28 1973
INSTANTANEOUS PEAK STAGE			10.90	Jan 27	13.88	May 28 1973
INSTANTANEOUS LOW FLOW			220	Sep 15	NOT DETERMINED	
10 PERCENT EXCEEDS	1790		1630		1620	
50 PERCENT EXCEEDS	855		1100		802	
90 PERCENT EXCEEDS	459		607		218	

e Estimated.

* Regulated period only (1942-1996). See REMARKS.



TENNESSEE RIVER BASIN

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 sea level (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. Records good. Maximum discharge for period of record, from rating curve extended above 5,800 ft^3/s on basis of slope-conveyance study, from flood profile by Tennessee Valley Authority. Minimum discharge for period of record occurred several days in Aug. and Sept. 1925.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1898 reached a stage of 21.2 ft, from floodmark by Tennessee Valley Authority; discharge, about 20,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	106	148	347	617	265	593	614	216	128	401	136
2	57	331	143	424	1640	258	520	509	203	125	203	117
3	72	350	140	476	1530	247	469	443	198	132	149	115
4	467	272	156	370	1000	240	431	395	194	119	129	121
5	1270	210	145	311	747	251	400	358	185	115	119	132
6	545	185	145	435	631	1340	378	433	176	111	120	111
7	287	1490	169	696	573	1990	352	495	171	108	114	100
8	207	916	159	509	554	1160	354	414	272	108	185	96
9	167	473	353	409	743	715	364	370	588	109	252	112
10	146	342	258	354	606	557	323	346	405	101	149	111
11	133	853	220	316	555	477	306	375	316	97	130	100
12	121	791	202	318	495	429	295	333	342	96	238	92
13	114	501	190	286	454	392	290	304	315	100	199	87
14	122	384	180	279	432	365	285	288	275	109	159	83
15	115	315	173	294	408	463	277	463	247	169	136	80
16	104	272	189	333	381	445	276	383	246	126	131	128
17	98	244	173	360	358	408	259	336	245	109	121	239
18	94	226	195	399	345	377	250	306	223	112	114	127
19	92	210	544	1160	329	577	298	283	208	100	120	108
20	92	195	434	678	364	514	473	267	198	96	125	99
21	91	184	336	497	332	469	673	251	189	98	126	107
22	86	174	285	412	320	437	510	241	176	139	111	129
23	84	168	251	363	310	423	473	226	166	105	151	100
24	82	166	228	504	296	426	421	217	161	94	132	93
25	81	158	210	418	285	550	382	388	182	140	114	90
26	78	151	197	1150	279	565	698	276	156	148	110	85
27	117	148	188	3680	273	495	623	279	147	104	150	145
28	144	152	178	1300	305	714	497	321	141	95	123	644
29	100	176	170	847	275	745	436	272	136	95	128	513
30	93	153	166	723	---	629	727	248	131	163	136	287
31	96	---	190	728	---	595	---	231	---	262	165	---
TOTAL	5414	10296	6715	19376	15437	17518	12633	10665	6808	3713	4740	4487
MEAN	175	343	217	625	532	565	421	344	227	120	153	150
MAX	1270	1490	544	3680	1640	1990	727	614	588	262	401	644
MIN	57	106	140	279	273	240	250	217	131	94	110	80
CFSM	1.68	3.30	2.08	6.01	5.12	5.43	4.05	3.31	2.18	1.15	1.47	1.44
IN.	1.94	3.68	2.40	6.93	5.52	6.27	4.52	3.81	2.44	1.33	1.70	1.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1996@, BY WATER YEAR (WY)

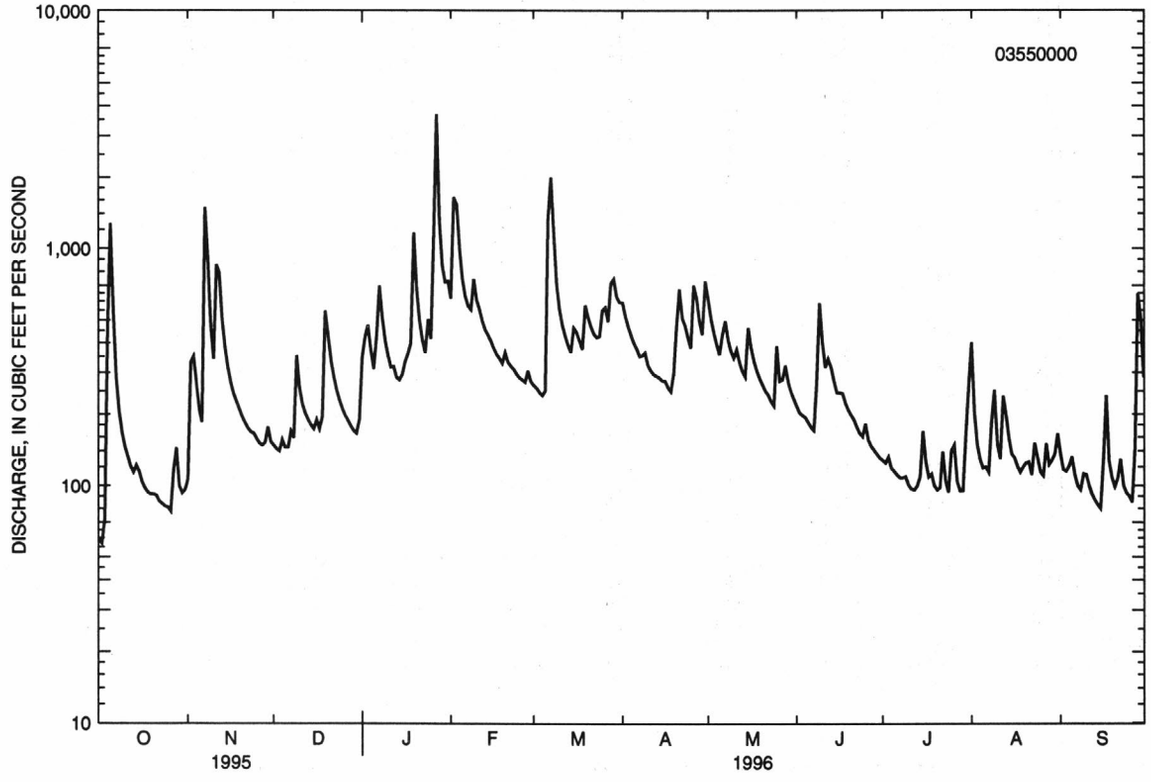
MEAN	99.1	159	293	400	460	464	369	259	188	168	138	103
MAX	442	685	1045	936	1022	1379	835	755	607	443	563	434
(WY)	1907	1930	1933	1974	1957	1917	1936	1929	1989	1949	1920	1928
MIN	25.2	38.6	57.4	69.9	92.7	155	135	88.9	44.8	42.4	24.6	21.3
(WY)	1955	1934	1934	1981	1941	1988	1986	1941	1988	1988	1925	1925

TENNESSEE RIVER BASIN

03550000 VALLEY RIVER AT TOMOTLA, NC--Continued

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1904 - 1996@	
ANNUAL TOTAL	100996		117802			
ANNUAL MEAN	277		322		257	
HIGHEST ANNUAL MEAN					379	1922
LOWEST ANNUAL MEAN					111	1988
HIGHEST DAILY MEAN	8190	Feb 16	3680	Jan 27	8190	Feb 16 1995
LOWEST DAILY MEAN	50	Sep 11	57	Oct 2	12	Aug 27 1925
ANNUAL SEVEN-DAY MINIMUM	53	Sep 7	85	Oct 20	13	Aug 24 1925
INSTANTANEOUS PEAK FLOW			5930	Jan 27	18000*	Nov 19 1906
INSTANTANEOUS PEAK STAGE			12.98	Jan 27	20.50	Nov 19 1906
INSTANTANEOUS LOW FLOW			55	Oct 2	12*	Aug 27 1925
ANNUAL RUNOFF (CFSM)	2.66		3.09		2.47	
ANNUAL RUNOFF (INCHES)	36.13		42.14		33.62	
10 PERCENT EXCEEDS	484		594		504	
50 PERCENT EXCEEDS	177		247		177	
90 PERCENT EXCEEDS	66		100		60	

* See REMARKS.
@ See PERIOD OF RECORD.



Lakes and Reservoirs in Ohio River Basin

03460242 WATERVILLE LAKE

LOCATION.--Lat 35°41'41", long 83°03'02", Haywood County, Hydrologic Unit 06010206, at Waterville Dam on Pigeon River, 0.1 mi downstream from Cataloochee Creek, 5.5 mi southeast of Mount Sterling, and at river mile 38.0.

DRAINAGE AREA.--455 mi^2.

PERIOD OF RECORD.--October 1961 to current year. Prior to October 1979, published as Lake Walters.

GAGE.--Nonrecording gage read once daily. Datum of gage is sea level.

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 ft^3/s-day at 2,258.60 ft (top of gate), of which 10,400 ft^3/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: 12,950 ft^3/s-day, Mar. 27, 1994; elevation, 2,259.20 ft. Minimum content observed: 1,030 ft^3/s-day, Sept. 16, 1980; elevation, 2,141.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum content observed: 12,860 ft^3/s-day, Oct. 5, Jan. 20, 21, 27, 28, Feb. 2, 3; elevation, 2,258.70 ft. Minimum content observed: 8,330 ft^3/s-day, Mar. 3; elevation, 2,229.40 ft.

03514500 FONTANA LAKE

LOCATION.--Lat 35°27'07", long 83°48'18", Graham County, Hydrologic Unit 06010202, at Fontana Dam on Little Tennessee River, 9.6 mi upstream from Cheoah Dam, 5.7 mi upstream from Twenty Mile Creek, 9.0 mi north of Robbinsville, and at river mile 61.0.

DRAINAGE AREA.--1,571 mi^2.

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 sea level.

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 ft^3/s-day, at 1,710.0 ft (top of gate) of which 476,900 ft^3/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 ft^3/s-day, May 28, 1973; elevation, 1,710.20 ft. Minimum content observed (after first filling): 78,300 ft^3/s-day, Jan. 29, 1955; elevation, 1,472.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum content observed: 700,500 ft^3/s-day, June 16; elevation, 1,704.91 ft. Minimum content observed: 241,200 ft^3/s-day, Nov. 27; elevation, 1,575.72 ft.

03546500 CHATUGE LAKE

LOCATION.--Lat 35°01'01", long 83°47'28", Clay County, Hydrologic Unit 06020002, at Chatuge Dam on Hiwassee River, 2.0 mi upstream from Hyatt Mill Creek, 2.5 mi downstream from Georgia-North Carolina Stateline, 2.4 mi southeast of Hayesville, 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 sea level. 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: 117,800 ft^3/s-day, June 23; elevation, 1,927.04 ft. Minimum content observed: 73,000 ft^3/s-day, Dec. 22; elevation, 1,911.40 ft.

03554500 HIWASSEE LAKE

LOCATION.--Lat 35°09'01", long 84°10'40", Cherokee County, Hydrologic Unit 06020002, at Hiwassee Dam on Hiwassee River, 3.9 mi upstream from Shoal Creek, 0.3 mi northwest of village of Hiwassee Dam, 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 sea level.

Lakes Reservoirs in Ohio River Basin--Continued

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 and 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, floodcontrol, 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: 214,000 ft^3/s-day, May 30; elevation, 1,525.03 ft. Minimum content observed: 90,000 ft^3/s-day, Jan. 18; elevation, 1,470.19 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

LOCATION.--Lat 35°28'37", long 82°32'51", Buncombe County, Hydrologic Unit 06010105, on Pollees 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

LOCATION.--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

LOCATION.--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

LOCATION.--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 0345577330.)

03458319 LAKE JUNALUSKA

LOCATION.--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.

03500466 SEQUOYAH LAKE

LOCATION.--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.

Lakes and Reservoirs in Ohio River Basin--Continued

03504500 NANTAHALA LAKE

LOCATION.--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 mi^2.

PERIOD OF RECORD.--January 1942 to September 1995. Prior to October 1944 monthend content only, published in WSP 1306.

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 ft^3/s-day at 2,890.0 ft (top of gates), of which 63,500 ft^3/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.

03507111; 03507131 EAST FORK LAKE AND WOLF CREEK LAKE

These two reservoirs are operated as a unit for storage of water for the Tennessee Creek Project.

EAST FORK DAM

LOCATION.--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 April 18, 1955.

WOLF CREEK DAM

LOCATION.--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

LOCATION.--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

LOCATION.--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.

03507500 THORPE RESERVOIR

LOCATION.--Lat 35°11'46", long 83°09'09", Jackson County, Hydrologic Unit 06010203, at Thorpe Dam on West Fork Tuckasegee River, 3.0 mi upstream from Shoal Creek, and 2.3 mi northwest of Glenville, and at river mile 9.7.

DRAINAGE AREA.--36.7 mi^2.

PERIOD OF RECORD.--February 1941 to September 1995. Prior to October 1944 monthend content only, published in WSP 1306. Prior to October 1948, published as Glenville Reservoir.

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 ft^3/s-day, at 3,100.0 ft (top of gate), of which 33,700 ft^3/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.

03515152 CHEOAH LAKE

LOCATION.--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.

03516500 SANTEETLAH LAKE

LOCATION.--Lat 35°22'38", long 83°52'33", Graham County, Hydrologic Unit 06010204, at Santeetlah Dam on Cheoah River, 1.0 mi downstream from Santeetlah Creek, 5.5 mi northwest of Robbinsville, and at river mile 9.3.

DRAINAGE AREA.--176 mi^2.

PERIOD OF RECORD.--December 1927 to September 1995. Prior to October 1946 monthend content only, published in WSP 1306.

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) is 78,800 ft^3/s-day (top of gate) at elevation 1,817.0 ft, of which 66,600 ft^3/s-day is controlled storage above 1,740.08 ft, normal minimum pool elevation. Reservoir is used for power.

Lakes and Reservoirs in Ohio River Basin--Continued

03555500 APPALACHIA LAKE

LOCATION.--Lat 35°10'04", long 84°17'49", Cherokee County, Hydrologic Unit 06020002, at Appalachia Dam on Hiwassee River, 9.8 mi downstream from Hiwassee Dam, 0.1 mi upstream from North Carolina-Tennessee State line, 1.5 mi northeast of Farner, Tennessee, and at river mile 66.0.

DRAINAGE AREA.--1,018 mi^2.

PERIOD OF RECORD.--February 1943 to September 1995.

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 1,280.0 ft (top of gate), of which 4,400 ft^3/s-day is controlled storage above 1,272.0 ft, normal minimum pool elevation. Reservoir is used for navigation, flood control, and power. New capacity table put into use Jan. 1, 1971.

Lakes and Reservoirs in Ohio River Basin--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Gage height (feet)	Contents (cfs-days)	Change in contents (cfs-days)
		03460242 Waterville Lake			03524500 Fontana Lake	
Sept. 30	2,250.20	11,490	---	1,621.41	360,200	---
Oct. 31	2,251.80	11,740	+250	1,595.39	287,100	-73,100
Nov. 30	2,254.70	12,210	+470	1,576.18	242,200	-44,900
Dec. 31	2,255.70	12,370	+160	1,597.82	293,300	+51,100
CAL YR 1995		---	+340		---	-101,400
Jan. 31	2,258.60	12,850	+480	1,652.10	465,000	+171,700
Feb. 29	2,241.10	10,080	-2,770	1,648.28	450,700	-14,300
Mar. 31	2,251.30	11,670	+1,590	1,660.58	497,900	+47,200
Apr. 30	2,253.90	12,080	+410	1,686.80	610,800	+112,900
May 31	2,254.10	12,110	+30	1,703.19	691,500	+80,700
June 30	2,249.80	11,430	-680	1,702.18	686,200	-5,300
July 31	2,254.40	12,160	+730	1,698.00	665,000	-21,200
Aug. 31	2,255.40	12,320	+160	1,689.70	624,800	-40,200
Sept. 30	2,255.40	12,320	0	1,681.67	587,300	-37,500
WTR YR 1996		---	+830		---	+227,100

Date	Gage height (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
		03546500 Chatuge Lake			03554500 Hiwasee Lake	
Sept. 30	1,915.70	83,500	---	1,494.60	134,000	---
Oct. 31	1,916.48	85,600	+2,100	1,486.90	118,600	-15,400
Nov. 30	1,913.97	79,100	-6,500	1,488.40	121,400	+2,800
Dec. 31	1,911.66	73,600	-5,500	1,471.04	91,400	-30,000
CAL YR 1995		---	+100		---	+9,400
Jan. 31	1,915.52	83,100	+9,500	1,486.31	117,500	+26,100
Feb. 28	1,914.12	79,500	-3,600	1,478.96	104,600	-12,900
Mar. 31	1,918.95	92,300	+12,800	1,503.05	153,500	+48,900
Apr. 30	1,923.60	106,300	+14,000	1,515.88	186,400	+32,900
May 31	1,925.66	113,100	+6,800	1,524.40	211,900	+25,500
June 30	1,926.18	114,800	+1,700	1,519.37	196,300	-15,600
July 31	1,924.38	108,800	-6,000	1,517.05	189,600	-6,700
Aug. 31	1,921.95	101,200	-7,600	1,510.84	173,100	-16,500
Sept. 30	1,919.41	93,600	-7,600	1,502.10	151,200	-21,900
WTR YR 1996		---	+10,100		---	+17,200

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 U.S. 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.

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 1996

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
02084540	Durham Creek at Edward	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.	26	1950-54, 1956-65, 1966-92†, 1993-95	7-13-96	8.35	230
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† 1994† 1995	9-6-96	23.48	20,900

†Operated as a continuous-record gaging station.

MEASUREMENTS AT 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.

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996, IN ATLANTIC SLOPE BASINS						
ROANOKE RIVER BASIN						
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, 1980-95	10-18-95 1-23-96 5-8-96 7-25-96	8.70 34.0 24.2 4.32
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	1981-92, 1995	10-17-95 1-22-95 5-8-96 7-26-96	5.98 64.9 92.3 50.7
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, 1978-95	10-17-95 1-23-96 5-8-96 7-25-96	4.27 9.36 11.1 7.39
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 0.1 mi west of Paschall.	52.9	1954, 1961-63, 1966, 1976, 1979-95	10-17-95 1-23-96 5-8-96 7-26-96	15.8 56.5 76.8 111
NEUSE RIVER BASIN						
02086624 Knap of Reeds Creek	Neuse River	Lat 36°07'40", long 78°48'55", Granville County, Hydrologic Unit 03020201, SEO, 2.3 mi west of Butner, and 2.5 mi upstream from mouth.	43.0	1982-95	10-2-95 1-26-96 5-9-96 9-26-96	6.52 51.5 28.4 10.6
02086849 Ellerbee Creek	Neuse River	Lat 36°03'33", long 78°49'58", Durham County, Hydrologic Unit 03020201, bridge on Secondary Road 1636, 1.6 mi northwest of Gorman, and 3 mi upstream of mouth.	21.9	1982-89, 1991-95	10-2-95 1-25-96 5-9-96 9-25-96	10.8 51.2 21.1 11.2
0208700780 Little Lick Creek	Neuse River	Lat 35°59'11", long 78°47'58", Durham County, Hydrologic Unit 03020201, at bridge on Secondary Road 1814, 1.3 mi northeast of Oak Grove.	10.1	1982-95	1-25-96 5-9-96 7-24-96	21.3 2.50 0.65
02087251 Crabtree Creek	Neuse River	Lat 35°50'15", long 78°46'52", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 1795, 0.3 mi downstream from Hayleys Branch, and 3.5 mi north of Cary.	52.2	1983-91, 1995	1-22-96 4-4-96 5-6-96 9-26-96	148 61.0 37.4 74.9

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		NEUSE RIVER BASIN--Continued				
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	1984-92, 1995	10-12-95 1-18-96 5-6-96 9-26-96	0.63 1.90 0.65 1.00
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	1984-95	10-20-95 1-24-96 5-1-96 9-26-96	38.1 99.4 803 34.1
02091814 Neuse River	Atlantic Ocean	Lat 35°18'40", long 77°18'20", Craven County Hydrologic Unit 03020202 at bridge on Secondary Road 1470, 1.5 mi upstream from Core Creek, and 2 mi east of Fort Barnwell.	3,900.0[a]	1970, 1972-73, 1976, 1978, 1980-82, 1985-91, 1995	3-12-96 4-16-96 5-8-96 9-19-96 9-23-96 9-30-96	6,330 3,910 5,130 20,700 34,200 14,200
		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, 1986-95	2-13-96 5-24-96 7-18-96	17.2 5.66 2.19
02093423 Little Troublesome Creek	Haw River	Lat 36°16'53", long 79°36'37", Rockingham County, Hydrologic Unit 03030002, at bridge on Secondary Road 2600, 0.8 mi west of Thompsonville, and 1 mi upstream from mouth.	13.0[a]	1970-73, 1976-77, 1995	2-13-96 6-13-96 8-28-96	16.8 9.82 9.08
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, 1991-95	11-22-95 3-25-96 5-24-96 8-28-96	36.4 50.0 35.8 85.7
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, 1976-95	10-16-95 1-22-96 6-11-96 7-26-96	129 915 193 2,760
02096879 Haw River	Cape Fear River	Lat 35°53'43", long 79°15'31", Alamance County, Hydrologic Unit 03030002, at bridge on Secondary Road 1005, 0.7 mi upstream from Cane Creek, and 5.8 mi north of Terrells.	1082	1974-75, 1979-86, 1989-91, 1993, 1995	5-13-96 7-30-96 9-26-96	534 488 523

[a] Approximately.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		CAPE FEAR RIVER BASIN--Continued				
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, 1980-95	11-20-95 3-25-96 5-13-96	33.1 32.4 13.2
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, 1978-95	3-25-96 5-17-96 7-19-96	27.7 32.8 26.8
02101001 Bear Creek	Deep River	Lat 35°26'26", long 79°35'20", Moore County, Hydrologic Unit 03030003, at bridge on State Highway 705, 0.5 mi north of Robbins, and 1 mi downstream of Cabin Creek.	139	1973-74, 1985-95	3-21-96 5-9-96 7-25-96 9-26-96	242 54.2 18.2 22.4
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, 1985-95	10-13-95 1-24-96 5-2-96 9-26-96	257 204 789 183
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, 1980-95	10-17-95 11-22-95 5-10-96 9-26-96	971 670 203 364
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, 1979-92, 1995	10-18-95	339
		PEE DEE RIVER BASIN				
02115860 Muddy Creek	Yadkin River	Lat 36°00'01", long 80°20'25", Forsyth County, Hydrologic Unit 03040101, 100 ft upstream from bridge on Secondary Road 2995, 0.2 mi downstream of Salem Creek and 1.8 mi east of Muddy Creek.	186	1964-87, 1988-93, 1995	3-12-96 6-4-96 8-22-96	156 100 114

† Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		PEE DEE RIVER BASIN--Continued				
02120521 Third Creek	South Yadkin River	Lat 35°46'13", long 80°37'34", Rowan County, Hydrologic Unit 03040102, at bridge on Secondary Road 1970, and 2.2 mi west of Woodleaf.	96.6	1985-95	3-8-96 6-3-96 8-20-96	320 64.2 51.4
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, 1993-95	11-21-95 5-17-96 7-19-96	14.1 12.4 4.89
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†, 1981-95	11-21-95 4-16-96 6-6-96 8-20-96	194 247 98.0 65.0
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	1970-95	10-11-95 1-2-96 6-3-96	12.5 17.7 14.4
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, 1986-95	10-13-95 3-5-96 6-6-96 9-19-96	18.7 20.6 13.5 11.2
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, 1973-95	4-19-96	240
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	1986-95	10-13-95	37.6
02125126 Long Creek	Rocky River	Lat 35°13'05", long 80°15'28", Stanly County, Hydrologic Unit 03040105, at bridge on Secondary Road 1917, 1 mi upstream from mouth, and 4 mi east of Oakboro.	198	1970-71, 1973-95	1-4-96 8-21-96	189 22.7

† Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		PEE DEE RIVER BASIN--Continued				
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, 1986-95	12-6-95 3-20-96 5-8-96 7-24-96	28.1 219 22.7 10.9
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, 1986-95	10-19-95 12-4-96 5-8-96 7-25-96	140 50.0 70.2 44.4
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	1985-95	10-19-95 12-4-95 5-8-96 7-24-96	74.5 64.7 50.1 12.9
02129558 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, 1986-95	10-19-95 12-4-95 4-29-96 9-26-96	12.5 12.3 11.9 14.6
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, 1979-92, 1995	10-19-95 12-5-95 4-29-96 9-26-96	10.7 11.2 7.47 10.7
		SANTEE RIVER BASIN				
0214031250 Wilson Creek	Johns River	Lat 35°00'07", long 81°46'29", Caldwell County, Hydrologic Unit 03050101, at Secondary Road 1358 and 0.1 mi east of Edgemont.	15.1	1992-95	5-28-96 9-3-96 9-3-96 9-27-96	22.7 51.5 51.3 42.3
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,[b] 1964-69,[b] 1972-73, 1975-84, 1986-92, 1993-94,[†] 1995	2-27-96 5-16-96 9-4-96	89.7 69.0 150

[b] Baseflow.
[†] Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SANTEE RIVER BASIN--Continued				
0214272204 Dutchmans 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	1986-95	10-11-95 1-24-96 7-9-96	84.0 155 52.5
02143027 Henry Fork	South Fork Catabwa River	Lat 35°39'27", long 81°18'33", Catawba County, Hydrologic Unit 03050102, at bridge on Secondary Road 1143, 1.7 mi upstream from mouth and 2.5 mi northwest of Startown.	110	1970-71, 1973-74, 1978-80	5-16-96 8-28-96	115 100
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, 1978-95	3-5-96 7-8-96 11-18-96	98.0 48.0 68.1
02145640 Crowders Creek	Catawba River	Lat 35°08'15", long 81°08'15", York County, South Carolina, Hydrologic Unit 03050101, at bridge on Ridge Road, 3.4 mi upstream from Beaver Dam Creek, and 3.2 mi east-southeast of Bowling Green, South Carolina.	89	1970-77 1979-91	6-6-96 6-27-96	56.9 43.5
0214676115 McAlpine Creek	Sugar Creek	Lat 35°03'12", long 80°53'06", Lancaster County, South Carolina, Hydrologic Unit 03050103, at bridge on Secondary Road 2964, 0.5 mi north of Camp Cox, South Carolina, 0.6 mi above Sugar Creek, and 1.0 mi below North Carolina-South Carolina state line.	95.4		6-13-96 6-27-96	85.3 54.7
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†, 1982-95	3-8-96 6-6-96	1,770 152
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, 1980-95	11-27-95 3-13-96 5-17-96	292 413 242
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, 1979-95	11-27-95 3-13-96 5-17-96	158 223 131

† Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SAVANNAH RIVER BASIN				
02184242 Horse-pasture 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	1985-95	5-23-96 8-19-96	41.2 135
		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, 1974-95	2-26-96 5-28-96	104 70.3
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, 1981-95	2-26-96 5-30-96	616 950
		TENNESSEE RIVER BASIN				
03441440 Little River	French Broad River	Lat 35°11'32", long 82°36'49", Transylvania County, Hydrologic Unit 06010105, above High Falls, 0.2 mi upstream from Grassy Creek, 1.0 mi downstream from Reasonover Creek, 3.8 mi northeast of Cedar Mountain.	26.8	1963-1990,† 1995	5-23-96 8-19-96	44.2 49.4
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, 1992-95	5-24-96 8-20-96	116 103
0344776625 French Broad River	Tennessee River	Lat 35°27'11", long 82°33'00", Buncombe County, Hydrologic Unit 06010105, at Secondary Road 3495 and 2.1 mi southwest of Arden.	652	1993-95	5-24-96	972
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, 1980-95	4-25-96 7-11-96 8-16-96	288 117 159

† Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1996--Continued

Station Number and Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		TENNESSEE RIVER BASIN--Continued				
03458121 Richland Creek	Pigeon River	Lat 35°30'30", long 82°58'19", Haywood County, Hydrologic Unit 06010106, at bridge on Secondary Road 1184, 0.8 mi upstream from Raccoon Creek, and 1.5 mi northeast of Waynesville.	48.0	1981-95	4-22-96 8-1-96 8-16-96	139 119 55.5
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, 1980-95	8-19-96	93.9
03461976 North Toe River	Nolichucky River	Lat 35°58'51", long 82°00'59", Avery County, Hydrologic Unit 06010108, at bridge on U.S. Highway19E, 0.1 mi downstream of Jones Creek, 0.7 mi north of Ingalls, and at mile 50.9.	74.1	1969-71, 1973-74, 1976-95	10-26-95 2-23-96 8-29-96	84.4 217 105
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, 1982-95	10-26-95 3-6-96 8-29-96	180 284 179
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	1985-95	6-21-96 9-3-96 9-27-96	2.95 5.95 4.17
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, 1980-95	3-6-96 6-20-96 9-3-96	318 280 85.3
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, 1986-95	2-23-96 5-28-96	76.0 59.1
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, 1982-95	11-28-95 7-12-96 8-23-96	718 442 702
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, 1973-95	11-23-95 4-24-96 7-17-96	75.4 164 38.0

† Operated as a continuous-record gaging station.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SAMPLING SITES

Miscellaneous sites sampled as part of the NAWQA Program from August 1994 to present. Water-quality miscellaneous sampling sites are particular locations where chemical-quality, biological and/or sediment data are collected once or more frequently, but not on a regular basis, to provide better areal coverage in a river basin.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
0209089050 CONTENTNEA CREEK AT SR 1225 NR LINDELL, NC (LAT 35 33 17N LONG 077 45 06W)										
AUG 1996 27...	1700	107	6.9	24.5	763	6.0	72	18	4.2	1.9
0209110000 CONTENTNEA CR AT SR1222 NR HERRINGS X-ROADS, NC (LAT 35 30 22N LONG 077 43 35W)										
AUG 1996 27...	1500	104	6.6	24.0	764	5.2	62	19	4.2	2.0
0209160450 LITTLE CONTENTNEA CR AT U.S. 258 NR FARMVILLE, N(LAT 35 36 53N LONG 077 35 49W)										
AUG 1996 27...	1115	122	6.9	22.0	764	4.8	55	32	9.3	2.2
0209169250 UNNAMED TRIB TO LTL CONTENTNEA CR NR BELL ARTHUR (LAT 35 34 18N LONG 077 31 07W)										
AUG 1996 27...	0845	113	6.6	23.0	765	1.8	21	29	8.7	1.8
02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, N. C. (LAT 35 32 40N LONG 077 30 41W)										
AUG 1996 26...	1730	142	7.0	24.5	765	3.4	41	32	9.2	2.2
0209171600 MIDDLE SWAMP NEAR LIZZIE, NC (LAT 35 32 36N LONG 077 34 01W)										
AUG 1996 26...	1500	110	6.5	23.5	762	1.0	12	33	9.4	2.4
0209173200 SANDY RUN NEAR LIZZIE, NC (LAT 35 31 53N LONG 077 33 32W)										
AUG 1996 26...	1300	132	6.7	23.5	765	1.6	19	39	11	2.8

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SAMPLING SITES--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
0209089050 CONTENTNEA CREEK AT SR 1225 NR LINDELL, NC (LAT 35 33 17N LONG 077 45 06W)									
AUG 1996 27...	11	51	1	4.0	7.0	13	0.20	6.4	62
0209110000 CONTENTNEA CR AT SR1222 NR HERRINGS X-ROADS, NC (LAT 35 30 22N LONG 077 43 35W)									
AUG 1996 27...	9.7	47	1	4.2	6.8	13	0.20	7.3	66
0209160450 LITTLE CONTENTNEA CR AT U.S. 258 NR FARMVILLE, N(LAT 35 36 53N LONG 077 35 49W)									
AUG 1996 27...	7.6	30	0.6	4.6	5.4	15	0.20	13	90
0209169250 UNNAMED TRIB TO LTL CONTENTNEA CR NR BELL ARTHUR (LAT 35 34 18N LONG 077 31 07W)									
AUG 1996 27...	5.1	26	0.4	1.5	1.8	9.0	0.20	7.2	92
02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, N. C. (LAT 35 32 40N LONG 077 30 41W)									
AUG 1996 26...	14	45	1	3.6	3.7	15	0.20	4.7	104
0209171600 MIDDLE SWAMP NEAR LIZZIE, NC (LAT 35 32 36N LONG 077 34 01W)									
AUG 1996 26...	6.3	27	0.5	3.5	1.1	11	0.20	2.0	72
0209173200 SANDY RUN NEAR LIZZIE, NC (LAT 35 31 53N LONG 077 33 32W)									
AUG 1996 26...	5.9	22	0.4	5.3	1.7	16	0.20	5.6	112

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
0209089050 CONTENTNEA CREEK AT SR 1225 NR LINDELL, NC (LAT 35 33 17N LONG 077 45 06W)									
AUG 1996 27...	0.700	0.010	0.710	0.710	0.050	0.65	0.55	0.70	0.60
0209110000 CONTENTNEA CR AT SR1222 NR HERRINGS X-ROADS, NC (LAT 35 30 22N LONG 077 43 35W)									
AUG 1996 27...	0.810	0.020	0.830	0.830	0.060	0.64	0.44	0.70	0.50
0209160450 LITTLE CONTENTNEA CR AT U.S. 258 NR FARMVILLE, N(LAT 35 36 53N LONG 077 35 49W)									
AUG 1996 27...	0.780	0.090	0.870	0.870	0.260	0.74	0.74	1.0	1.0
0209169250 UNNAMED TRIB TO LTL CONTENTNEA CR NR BELL ARTHUR (LAT 35 34 18N LONG 077 31 07W)									
AUG 1996 27...	--	<0.010	--	<0.050	0.460	0.94	0.74	1.4	1.2
02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, N. C. (LAT 35 32 40N LONG 077 30 41W)									
AUG 1996 26...	0.120	0.010	0.130	0.130	0.050	0.85	0.95	0.90	1.0
0209171600 MIDDLE SWAMP NEAR LIZZIE, NC (LAT 35 32 36N LONG 077 34 01W)									
AUG 1996 26...	--	<0.010	--	<0.050	0.180	1.2	0.92	1.4	1.1
0209173200 SANDY RUN NEAR LIZZIE, NC (LAT 35 31 53N LONG 077 33 32W)									
AUG 1996 26...	--	<0.010	--	<0.050	0.130	1.2	0.97	1.3	1.1

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY MISCELLANEOUS SAMPLING SITES--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
0209089050 CONTENTNEA CREEK AT SR 1225 NR LINDELL, NC (LAT 35 33 17N LONG 077 45 06W)									
AUG 1996 27...	1.4	1.3	0.110	0.080	0.090	1300	49	9.6	1.5
0209110000 CONTENTNEA CR AT SR1222 NR HERRINGS X-ROADS, NC (LAT 35 30 22N LONG 077 43 35W)									
AUG 1996 27...	1.5	1.3	0.140	0.090	0.100	1400	55	9.9	0.70
0209160450 LITTLE CONTENTNEA CR AT U.S. 258 NR FARMVILLE, N(LAT 35 36 53N LONG 077 35 49W)									
AUG 1996 27...	1.9	1.9	0.310	0.290	0.280	2100	26	14	1.4
0209169250 UNNAMED TRIB TO LTL CONTENTNEA CR NR BELL ARTHUR (LAT 35 34 18N LONG 077 31 07W)									
AUG 1996 27...	1.4	--	0.390	0.210	0.220	12000	130	12	>5.0
02091700 LITTLE CONTENTNEA CREEK NEAR FARMVILLE, N. C. (LAT 35 32 40N LONG 077 30 41W)									
AUG 1996 26...	1.0	1.1	0.340	0.290	0.280	1700	83	18	0.50
0209171600 MIDDLE SWAMP NEAR LIZZIE, NC (LAT 35 32 36N LONG 077 34 01W)									
AUG 1996 26...	1.4	--	0.720	0.350	0.340	2500	190	17	4.6
0209173200 SANDY RUN NEAR LIZZIE, NC (LAT 35 31 53N LONG 077 33 32W)									
AUG 1996 26...	1.3	--	0.670	0.460	0.480	3400	420	20	2.4

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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