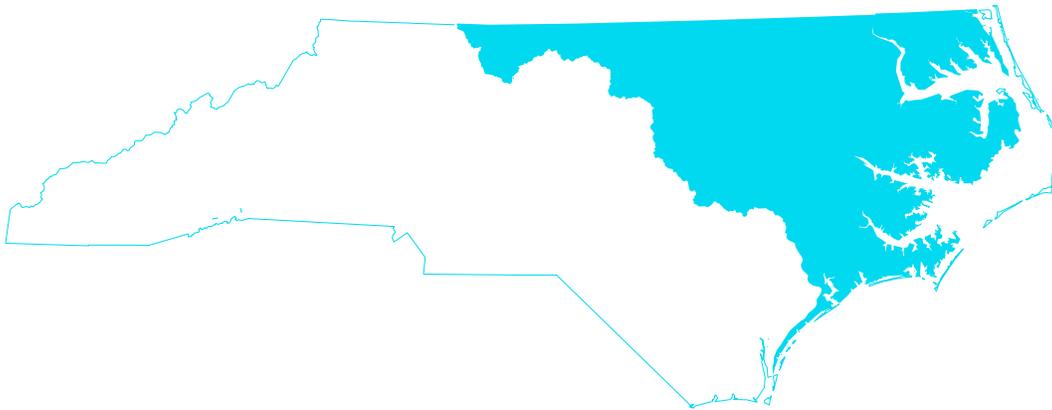


Prepared in cooperation with the North Carolina Department of Environment and Natural Resources, and with other State, municipal, and Federal agencies

Water Resources Data North Carolina Water Year 2003

Volume 1A
Surface-Water Records



Water-Data Report NC-03-1A

Water Resources Data North Carolina Water Year 2003

Volume 1A. Surface-Water Records

By B.C. Ragland, D.A. Walters, G.D. Cartano, and J.E. Taylor

Water-Data Report NC-03-1A



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and with other State, municipal, and Federal agencies

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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 two volumes.

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, Kay E. Hedrick, and Ramona J. Traynor 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 Jess D. Weaver, Regional Hydrologist, Southeastern Region.

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13. ABSTRACT (Maximum 200 words) Water-resources data for the 2003 water year for North Carolina consist of discharge records for 214 gaging stations; stage only records for 50 gaging stations; stage and contents for 62 lakes and reservoirs; water quality for 72 gaging stations and 12 miscellaneous sites; continuous water quality for 58 sites; and continuous precipitation at 121 sites. Additional water data were collected at 53 sites not involved in the systematic data-collection program and are published as miscellaneous measurements. Data contained in this volume include discharge records for 62 gaging stations; stage and contents for 17 lakes and reservoirs; stage only for 26 gaging stations; water quality for 36 gaging stations and continuous water quality for 32 sites; continuous precipitation at 8 sites; and miscellaneous measurements for 6 stations not involved in the systematic data-collection program. 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.
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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
			1986-91
02071500	Dan River at Leaksville, NC	1,150	1929-49
02074218	Dan River near Mayfield, NC	1,778	1976-84
02075160	Moon Creek near Yanceyville, NC	29.90	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	1966-80
02077300	Hyco River at McGehees 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
02082610	Tar River near Rocky Mount, NC	930	1971-73
0208273070	Devils Cradle Creek at NC 39 near Kearney, NC	2.89	1984-85
02082731	Devils Cradle Creek nr Alert, NC	13.4	1993-97
02083800	Conetoe Creek near Bethel, NC	78.1	1956-02
02083833	Pete Mitchell Swamp at Sr1409 nr Penny Hill, NC	11.0	1993-97
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	4.76	1925-71
			1989-91
0208650112	Flat River tributary near Willardsville, NC	1.14	1988-90
02086624	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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Neuse River Basin--Continued			
0208705200	Smith Creek at Grissom, NC	6.2	1984-85
0208721055	Perry Creek at SR 2012 near Millbrook, NC	2.43	1986-89
0208732810	Marsh Creek at SR 2030 at Millbrook, NC	1.44	1986-89
02087570	Neuse River at Smithfield, NC	1,206	1959-90
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	8.20	1978-85
0209096970	Moccasin Run near Patetown, NC	1.89	1988-98
02090625	Turner Swamp near Eureka, NC	2.1	1968-87
02091700	Little Contentnea Creek near Farmville, NC	93.3	1956-87
0209173192	Drainage Ditch to Tributary to Sandy Run near Lizzie, NC	0.02	1999-02
0209173200	Sandy Run near Lizzie, NC	29.0	1999-00
02091737	Little Contentnea Creek near Willow Green, NC	145	1999-02
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
02094412	Reedy Fork near Browns Summit, NC	125	1999-01
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	1.68	1968-73
0209736050	Battle Branch near Chapel Hill, NC	0.42	1996-01
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
0210106600	Deep River nr Glendon, NC	859	1993-96
0210108450	Suck Creek tributary near Zion Grove, NC	.67	1986-88
02103000	Little River at Manchester, NC	348	1938-50

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Cape Fear River Basin--Continued			
02103500	Little River at Linden, NC	459	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	292	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
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	8.30	1983-90
0210783230	Herrings Marsh Run near Summerlins Crossroads, NC	2.25	1991-99
0210783240	Herrings Marsh Run Tributary near Summerlins Crossroads, NC	1.49	1991-00
0210783273	Herrings Marsh Run Tributary at Red Hill, NC	1.14	1991-97
0210783276	Herrings Marsh Run below SR 1306 at Red Hill, NC	9.11	1991-99
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	22.1	1940-71
02115750	Muddy Creek near Lewisville, NC	82.8	1964-70
02115800	Silas Creek near Clemmons, NC	11.8	1964-70
02115842	Tar Branch tributary at First Street at Winston-Salem, NC	.04	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	186	1964-79 1988-91
02115900	South Fork Muddy Creek near Clemmons, NC	42.9	1964-79 1988-91
02117030	Humpy Creek near Fork, NC	1.05	1968-83
02117500	Rocky Creek at Turnersburg, NC	101	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	3,450	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	342	1938-71
0212429930	Wiberly Branch near Wilgrove, NC	0.35	1984-93
0212429960	Reedy Creek Tributary No. 2 below Wiberly Branch near Mint Hill, NC	1.00	1988-93
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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

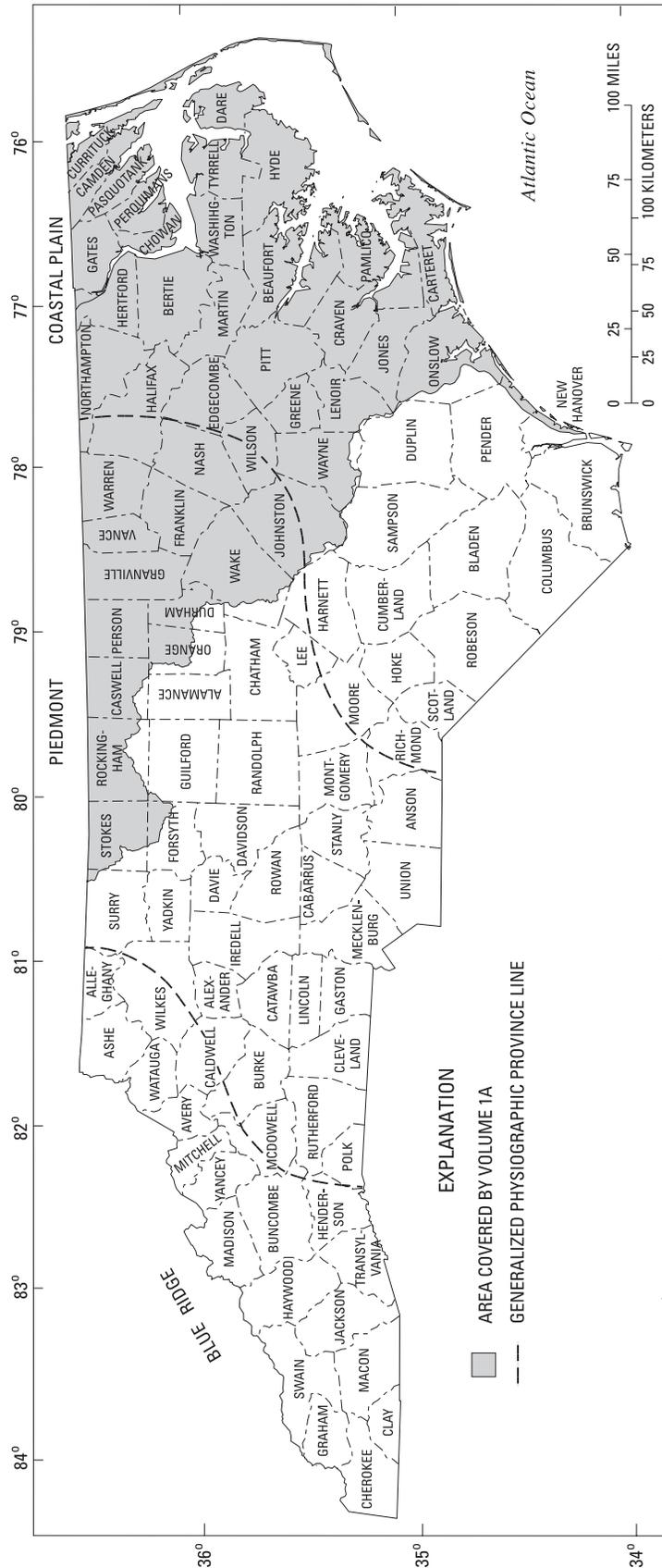
Station number	Station name	Drainage area (mi ²)	Period of record
Pee Dee River Basin--Continued			
02127500	Pee Dee River near Ansonville, NC	6,330	1938-42
02129500	North Fork Jones Creek near Wadesboro, NC	9.43	1935-41
0213228795	Jordan Creek near Silver Hill, NC	0.36	1983-93
Santee River Basin			
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	31.8	1966-78
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
02142651	McDowell Creek at Westmoreland Road near Cornelius, NC	2.35	1994-97
0214266075	Gar Creek at Secondary Road 2120 near Oakdale, NC	2.67	1994-97
0214399575	Long Creek Tributary at Headwaters near Bessemer City, NC	0.16	1993-01
0214399580	Long Creek Tributary below Headwaters near Bessemer City, NC	0.22	1993-01
0214620760	Irwin Creek at Starita Road at Charlotte, NC	4.40	1989-94
0214620805	Irwin Creek Tributary below Starita Road at Charlotte, NC	0.02	1994-98
0214635212	Unnamed Tributary to Sugar Creek at Crompton Street near Charlotte, NC	0.06	1995-98
0214643840	Edwards Branch Tributary Storm Drain at Charlotte, NC	0.02	1994-98
02146450	Briar Creek at Sharon Road, Charlotte, NC	18.5	1962-73
02146500	Little Sugar Creek near Charlotte, NC	41.0	1924-78
0214650690	Little Sugar Creek Tributary at Rose Valley Drive near Charlotte, NC	0.12	1993-98
02146579	Irvin's Creek at Lebanon Road near Mint Hill, NC	5.27	1983-90
0214666925	Four Mile Creek Tributary near Providence, NC	0.27	1994-98
0214669980	McMullen Creek Tributary near Charlotte, NC	0.13	1993-98
0214677974	Steele Creek above Secondary Road 1344 near Shopton, NC	3.57	1990-98
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
02151000	Second Broad River at Cliffside, NC	220	1925-97
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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Tennessee River Basin--Continued			
03444000	Boylston Creek near Horseshoe, NC	14.8	1942-55
03444500	South Fork Mills River at the Pink Beds, NC	9.99	1926-49
03445000	South Fork Mills River near Sitton, NC	40.0	1965-73 1904-09
03445500	North Fork Mills River at Pinkbed, NC	23.1	1925-26 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	79.5	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
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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station number	Station name	Drainage area (mi ²)	Period of record
Tennessee River Basin--Continued			
03514000	Hazel Creek at Proctor, NC	44.4	1942-52
03515000	Little Tennessee River at Fontana Dam, NC	1,571	1938-55
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	190	1942-74
03548000	Hiwassee River below Hayesville, NC	252	1934-
4503554000	Nottely River near Ranger, NC	272	1901-05 1914-17 1919-29 1932-45
03555000	Hiwassee River at Hiwassee Dam, NC	968	1934-43



INTRODUCTION

Water-resources data for the 2003 water year for North Carolina consist of records of stage, discharge, water quality for streams; stage and contents for lakes and reservoirs; precipitation; and ground-water levels and water quality of ground water. This volume contains discharge records for 62 gaging stations; stage and contents for 17 lakes and reservoirs; stage for 26 gaging stations; water quality for 36 gaging stations and continuous water quality for 32 sites; and continuous precipitation at 8 sites. Additional water data were collected at 6 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, Branch of Information Services, Denver Federal Center, Box 25286, Denver, Colorado 80225-0425.

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-03-1A." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161. Beginning with the 2001 water year, water-data reports are available online at <http://nc.water.usgs.gov/reports/WDR/>.

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 Department of Environment and Natural Resources	City of Charlotte
North Carolina Department of Transportation	City of Danville, Virginia
Water and Sewer Authority of Cabarrus County	Town of Bethel
Buncombe County Soil & Water Conservation District	Macon County
Triangle Area Water Supply Monitoring Steering Committee	Mecklenburg County
Winston-Salem/Forsyth County Utility Commission	Hiwassee River Watershed Coalition
City of Brevard	Middle Cape Fear River Basin Association
City of Morganton	Lower Neuse River Basin Association
City of Greensboro	Pender County Emergency Management
City of Raleigh	Upper Cape Fear River Basin Association
City of Rocky Mount	Asheville-Buncombe Water Authority
City of Durham	

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

Corps of Engineers, U.S. Army	U.S. Environmental Protection Agency
Tennessee Valley Authority	National Park Service
National Weather Service, NOAA, U.S. Department of Commerce	U.S. Fish & Wildlife Service

The following organizations aided in collecting records:

Progress Energy	Duke Power Company
Yadkin, Inc.	Dominion Power
Blue Ridge Paper Products	Tapoco, Inc.
Weyerhaeuser Corporation	Cook Industries

SUMMARY OF WATER-RESOURCES CONDITIONS

Precipitation

Precipitation during water year 2003 was considered above average throughout most of North Carolina, in contrast to the drought conditions that occurred during water years 1998 through 2002. Precipitation amounts at the six index stations for the first quarter of water year 2003 (October through December) were well above average across the State except at the Wilmington station. Precipitation amounts were 3.39 (Asheville) and 4.57 (Charlotte) inches above average in the western part of the State, 5.68 (Greensboro) and 8.78 (Raleigh) inches above average in the central part of the State, and 7.47 (Elizabeth City) inches above average and 2.32 (Wilmington) inches below average in the eastern part of the State. Average precipitation amounts are mean monthly values based on data from 1971 through 2000, the 30-year base period used by the National Weather Service. Data collected at the six key National Weather Service stations (figs. 1 and 2) indicate that above-average precipitation was recorded for all months during the first quarter at Charlotte, Greensboro, Raleigh, and Elizabeth City.

Precipitation totals for the second quarter of the 2003 water year (January through March) were generally lower than those reported in the first quarter. However, above-average monthly mean precipitation occurred at Charlotte, Greensboro, Raleigh, and Elizabeth City during the second quarter. Precipitation was below average at all index sites in January and above average at all index sites in February. The most precipitation during the quarter was reported in Greensboro at 3.46 inches above average. Above-average conditions also were reported at Charlotte (0.69 inch above average), Raleigh (0.18 inch above average), and Elizabeth City (1.27 inches above average) during this period. Asheville had the least amount of recorded precipitation at 2.48 inches below average followed by Wilmington at 1.35 inches below average for the second quarter.

Precipitation amounts were above average across the State also during the third quarter (April through June). Charlotte had the greatest amount of precipitation during this period with a total of 24.00 inches for the quarter or 13.97 inches above average. Asheville reported a total of 19.81 inches or 7.52 inches above average. Precipitation amounts were 6.66 (Greensboro) and 2.78 (Raleigh) inches above average in the central part of the State, and 6.64 (Wilmington) and 6.37 (Elizabeth City) inches above average in the eastern part of the State. All six key National Weather Service stations indicate that above-average precipitation amounts were recorded for all months during the third quarter in all three provinces of North Carolina.

Precipitation conditions were above average in the western and central parts of the State during the fourth quarter (July through September). Although most of the index sites recorded above-average monthly precipitation, Wilmington (4.95 inches) reported below-average precipitation for the entire quarter. The remaining index sites reported above average for the quarter, Asheville (8.83 inches), Charlotte (10.00 inches), Greensboro (12.25 inches), Raleigh (5.09 inches), and Elizabeth City (1.38 inches).

In summary, from October 2002 to September 2003, above-average annual precipitation occurred across the State except in Wilmington. The National Weather Service reported the following annual precipitation amounts for the 2003 water year at these selected stations: Asheville, 64.30 inches (17.26 inches above average); Charlotte, 72.74 inches (29.23 inches above average); Greensboro, 71.19 inches (28.05 inches above average); Raleigh, 59.88 inches (16.83 inches above average); Elizabeth City, 63.47 inches (16.49 inches above average); and Wilmington, 55.09 inches (1.98 inches below average).

Surface Water

Streamflow conditions in North Carolina are influenced greatly by precipitation. Precipitation can produce rapid responses in streamflow. Streamflow also declines following periods of low precipitation. The rate and magnitude of decline depend on basin size, the season, evapotranspiration, and the amount of ground water in storage at the onset of the dry period. The effects of variable precipitation on streamflow in North Carolina during the 2003 water year are illustrated in figures 3-8. Monthly conditions are depicted in maps (figs. 3 and 4) that show the areas of above-normal, normal, and below-normal streamflow. Daily mean streamflow hydrographs for a representative basin in each physiographic province of the State are shown in figures 5-8.

Data for the period of record from 35 index streamgaging stations across the State were used to compute monthly flow statistics (figs. 3 and 4). These stations are located on streams that are free of significant regulations or diversions and range in size from about 30 to 1,400 square miles. The descriptors, "above normal," "normal," and "below normal," refer to flow in the upper quartile, the middle two quartiles, and the lower quartile, respectively.

Despite above-normal precipitation at most of the six precipitation index sites during the first six months (October through March) of the 2003 water year (fig. 3); only 42 percent of the 35 index streamgaging stations experienced above normal streamflow, 48 percent were normal, and 10 percent had below-normal conditions. During the period from April through September, the soils became more saturated from sustained, above-normal precipitation across the State. As a result, 87 percent of the index sites had above-normal streamflow, and 13 percent had normal streamflow conditions. No sites had below-normal conditions during this period (fig. 4). The excess precipitation eased the hydrologic drought conditions that were persistent across much of North Carolina during the previous 4 years. Many streamgages, particularly those in the Piedmont and Coastal Plain, recorded the highest annual mean streamflow for the period of record. While individual period-of-record peak streamflows were not prevalent, the total amount of water flowing past 13 of 35 streamgages was greater than had previously been recorded at these sites.

Near the close of the 2003 water year, on September 18, Hurricane Isabel made landfall as a category-2 hurricane near Drum Inlet, North Carolina. Isabel brought tropical-storm conditions to a large area of eastern North Carolina and produced storm surges of 6-8 ft above normal tide levels near the point of landfall along the Atlantic coast of North Carolina and 4-6 ft above normal tide levels over the eastern portions of the Pamlico Sound and most of the Albemarle Sound. Precipitation from Hurricane Isabel averaged 4-7 inches across large portions of eastern North Carolina.

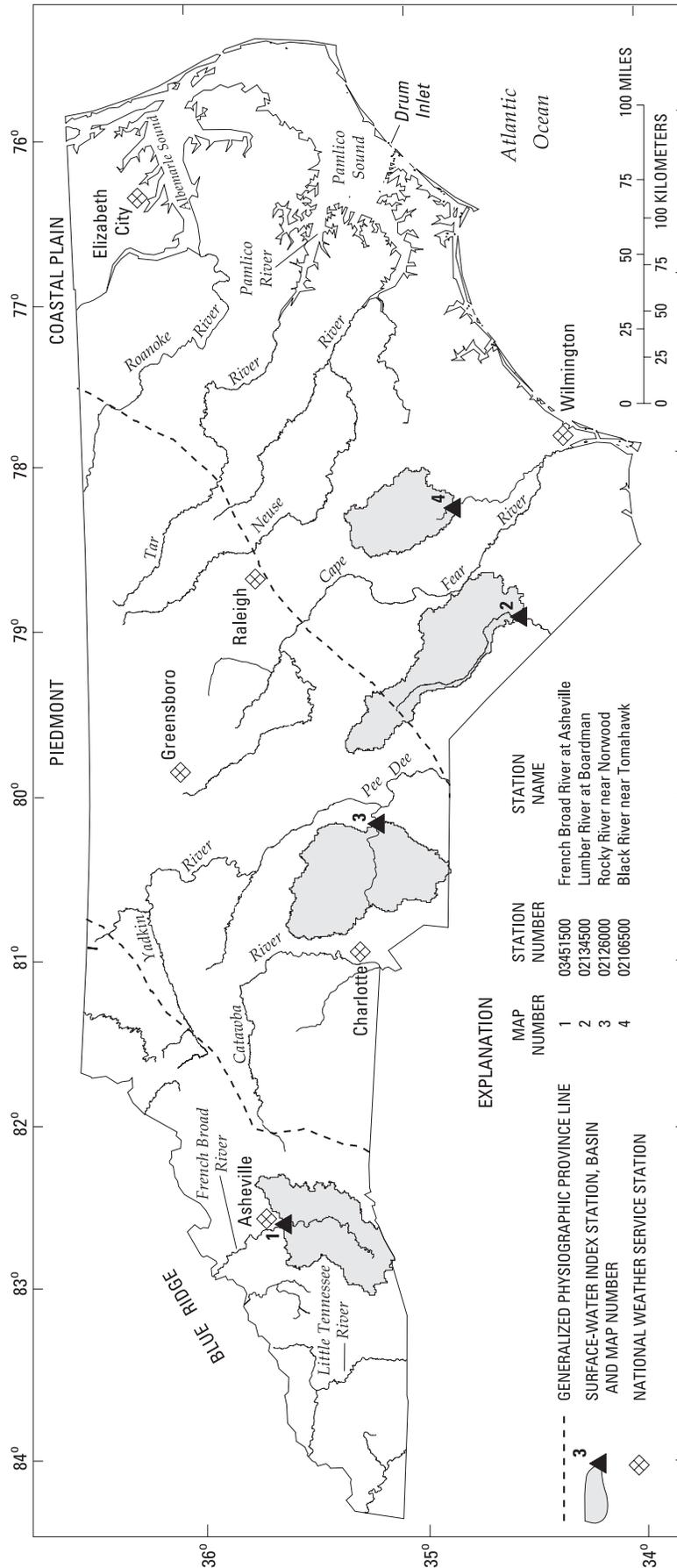


Figure 1.--Locations of selected long-term index stations for collecting precipitation and discharge in North Carolina.

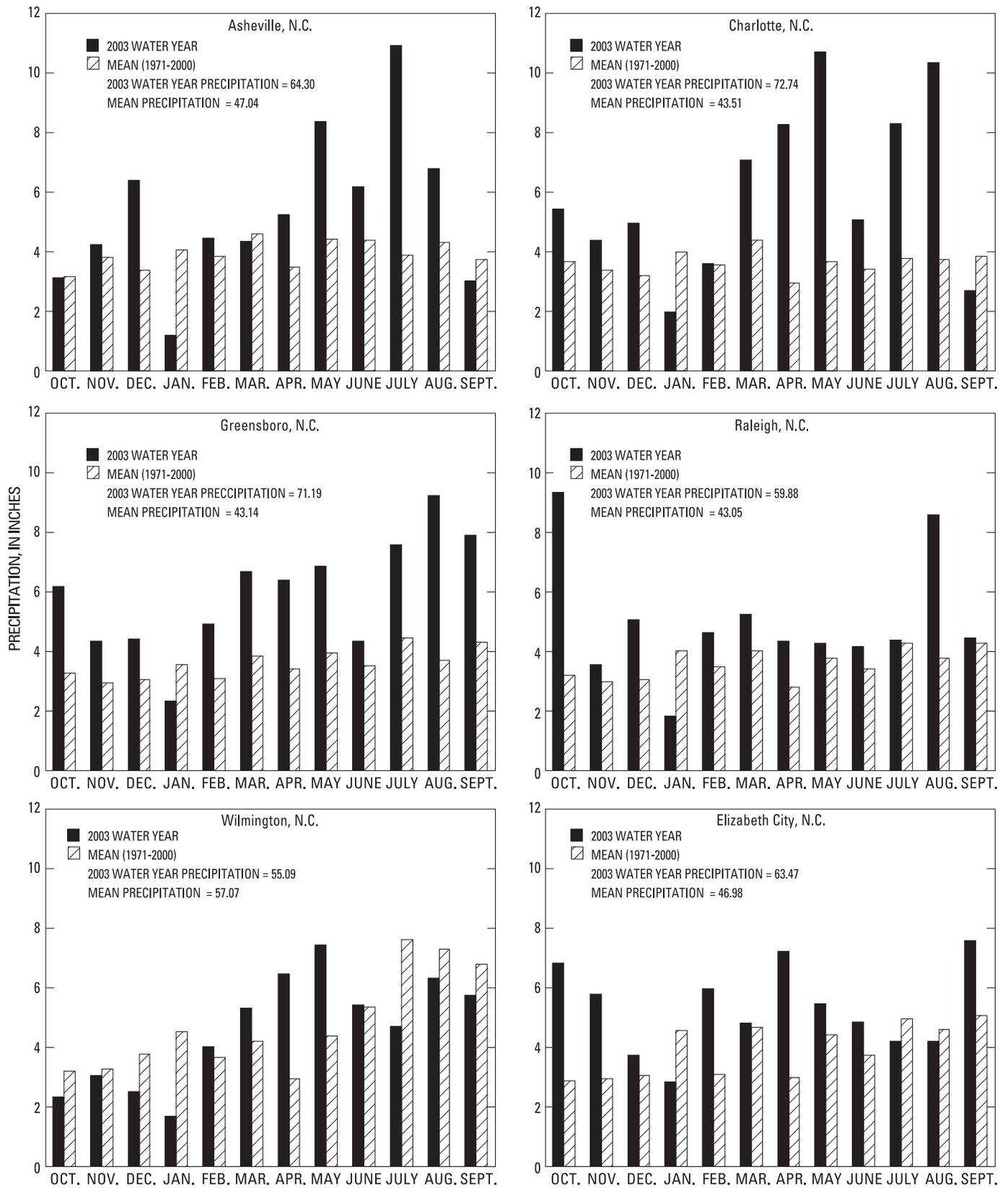
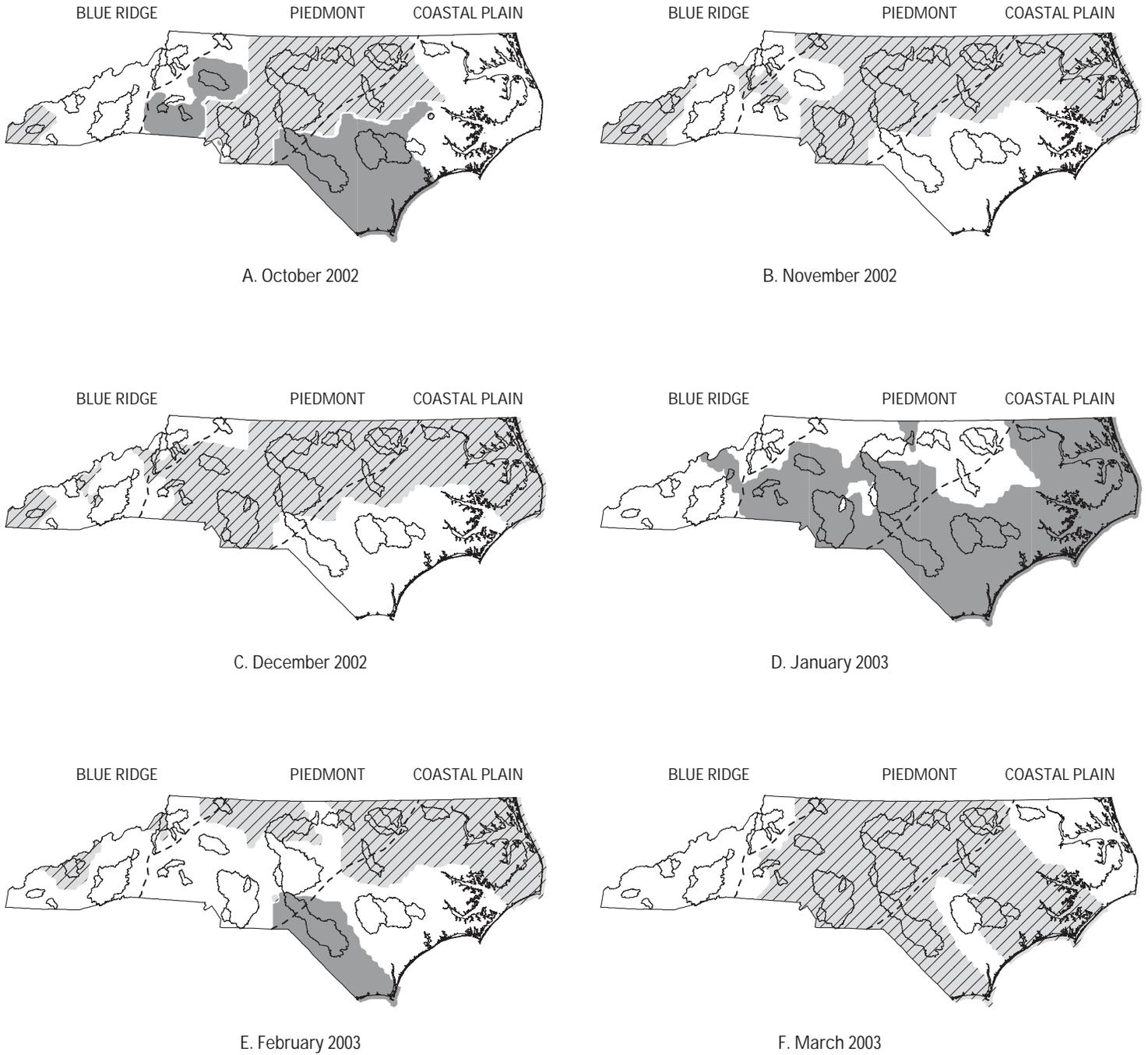


Figure 2.--Monthly precipitation for the 2003 water year and mean monthly precipitation for the period 1971-2000 at index stations (data from National Oceanic and Atmospheric Administration reports).



EXPLANATION

-  ABOVE NORMAL (EXCESSIVE--Flow in the upper quartile)
-  NORMAL (Flow in the middle two quartiles)
-  BELOW NORMAL (DEFICIENT--Flow in the lower quartile)
-  GENERALIZED PHYSIOGRAPHIC PROVINCE LINE
-  WATERSHED BOUNDARIES OF INDEX SITES

Figure 3.--Monthly streamflow in North Carolina during October 2002 - March 2003.

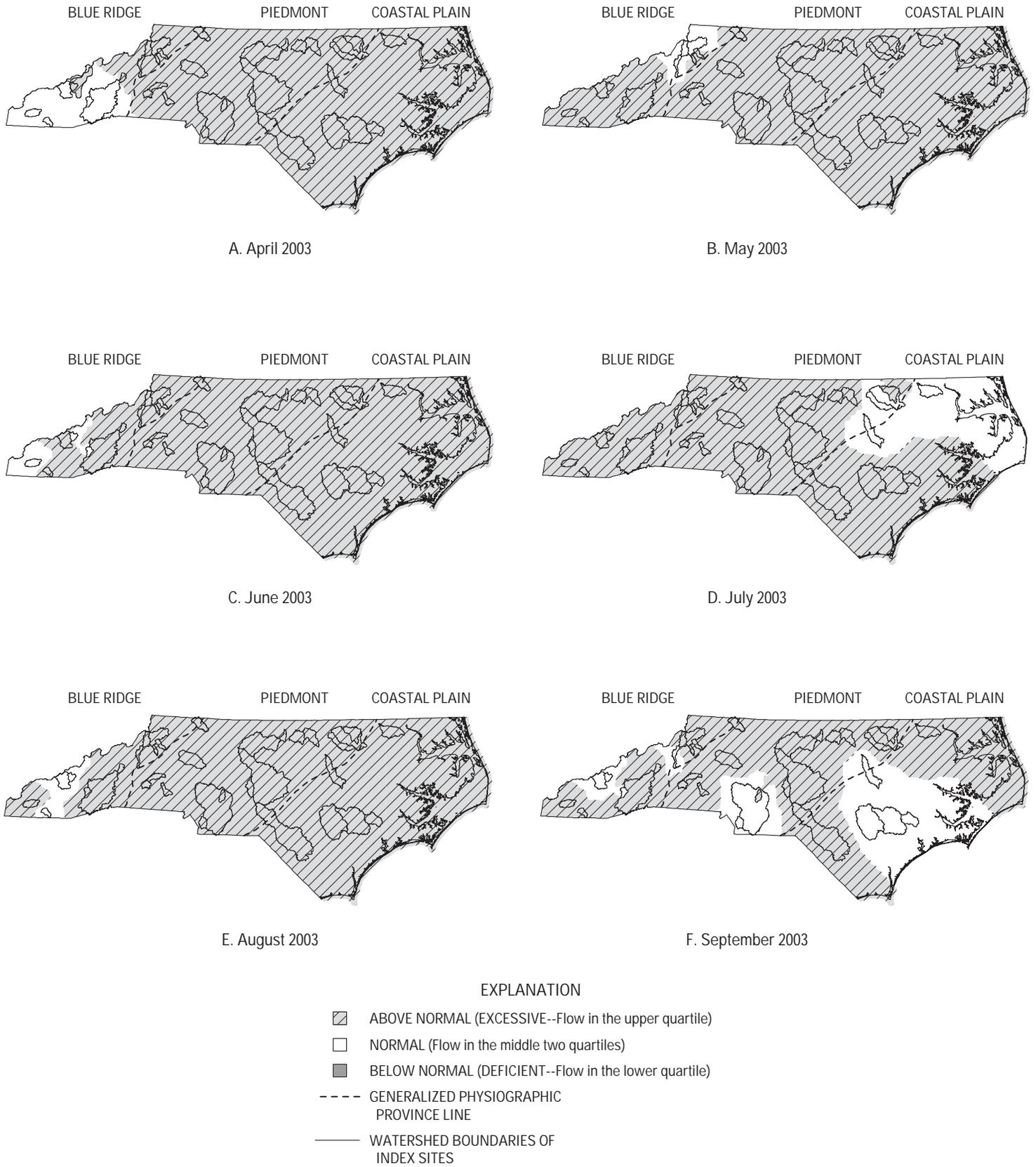
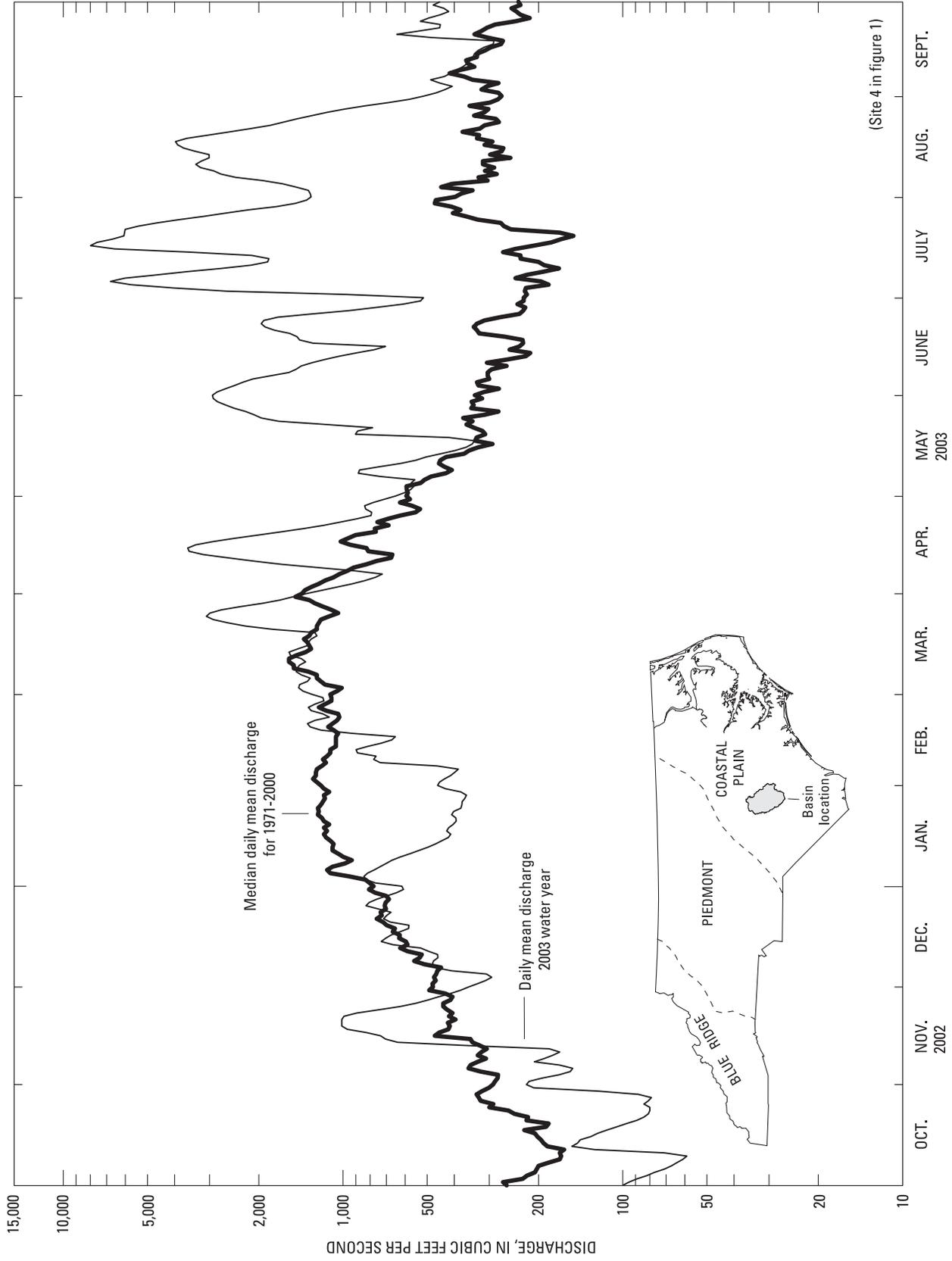
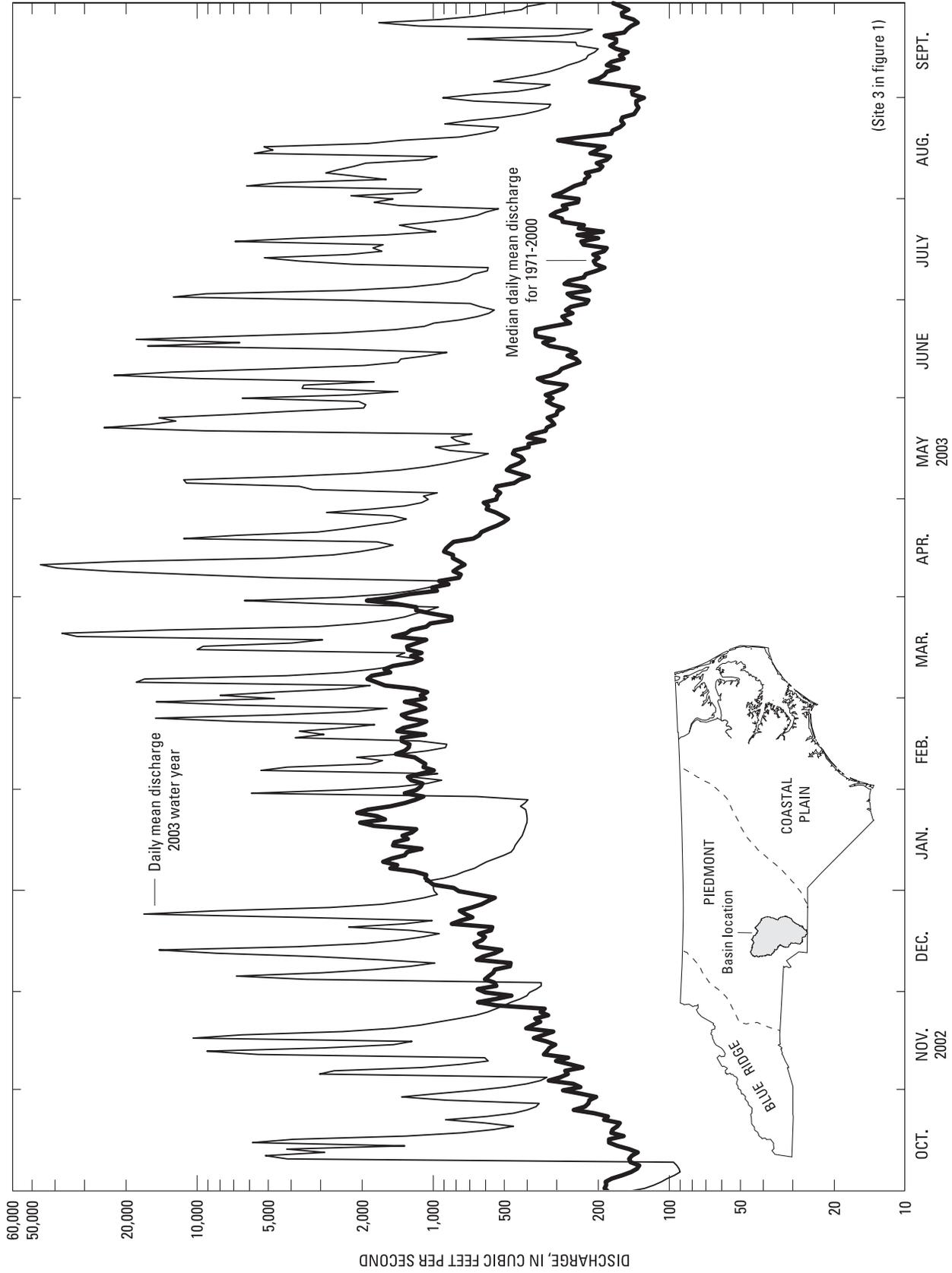


Figure 4.--Monthly streamflow in North Carolina during April - September 2003.



(Site 4 in figure 1)

Figure 5.--Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Black River near Tomahawk (02106500).



(Site 3 in figure 1)

Figure 6.--Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Rocky River near Norwood (02126000).

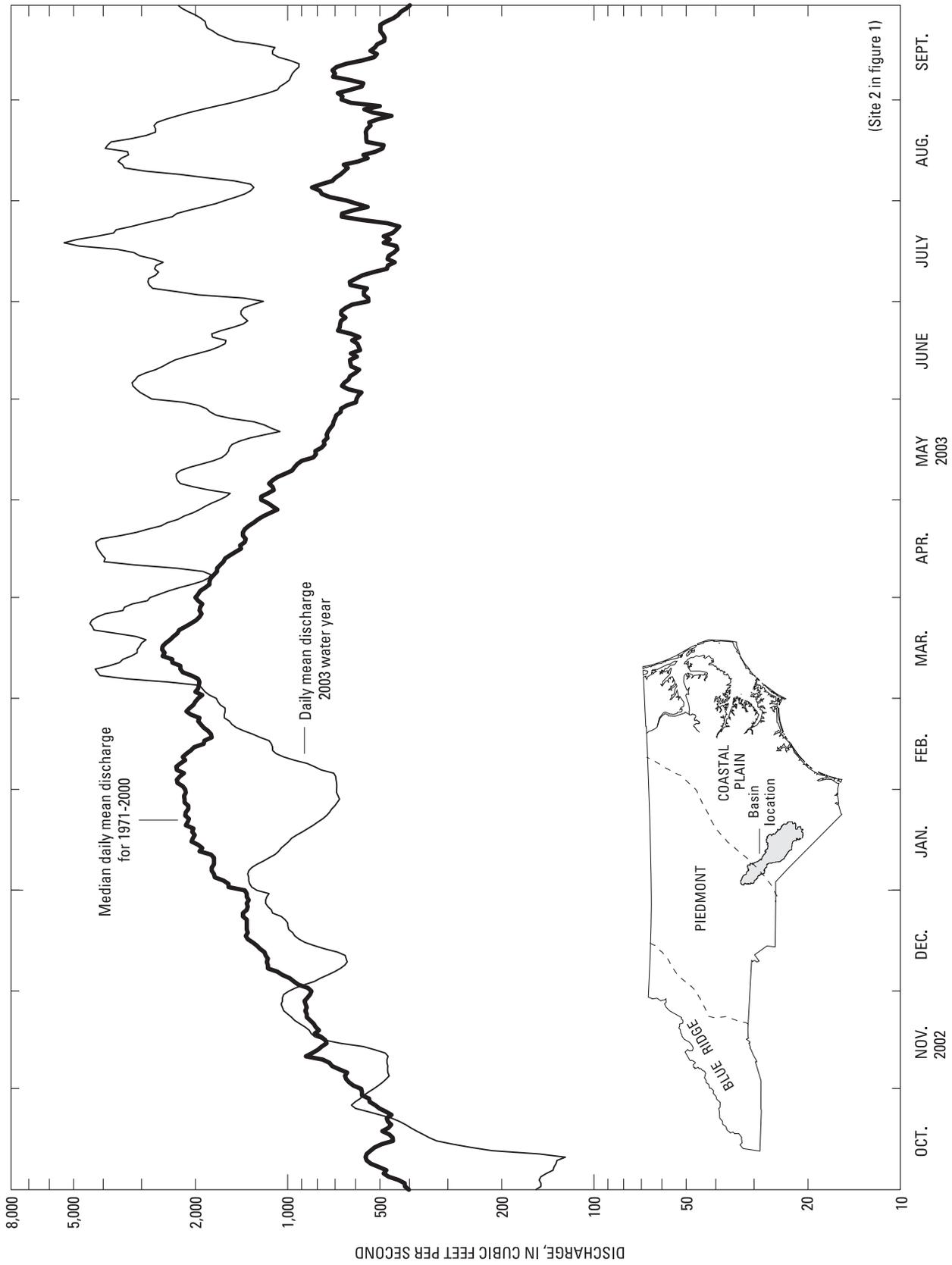


Figure 7.--Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for Lumber River at Boardman (02134500).

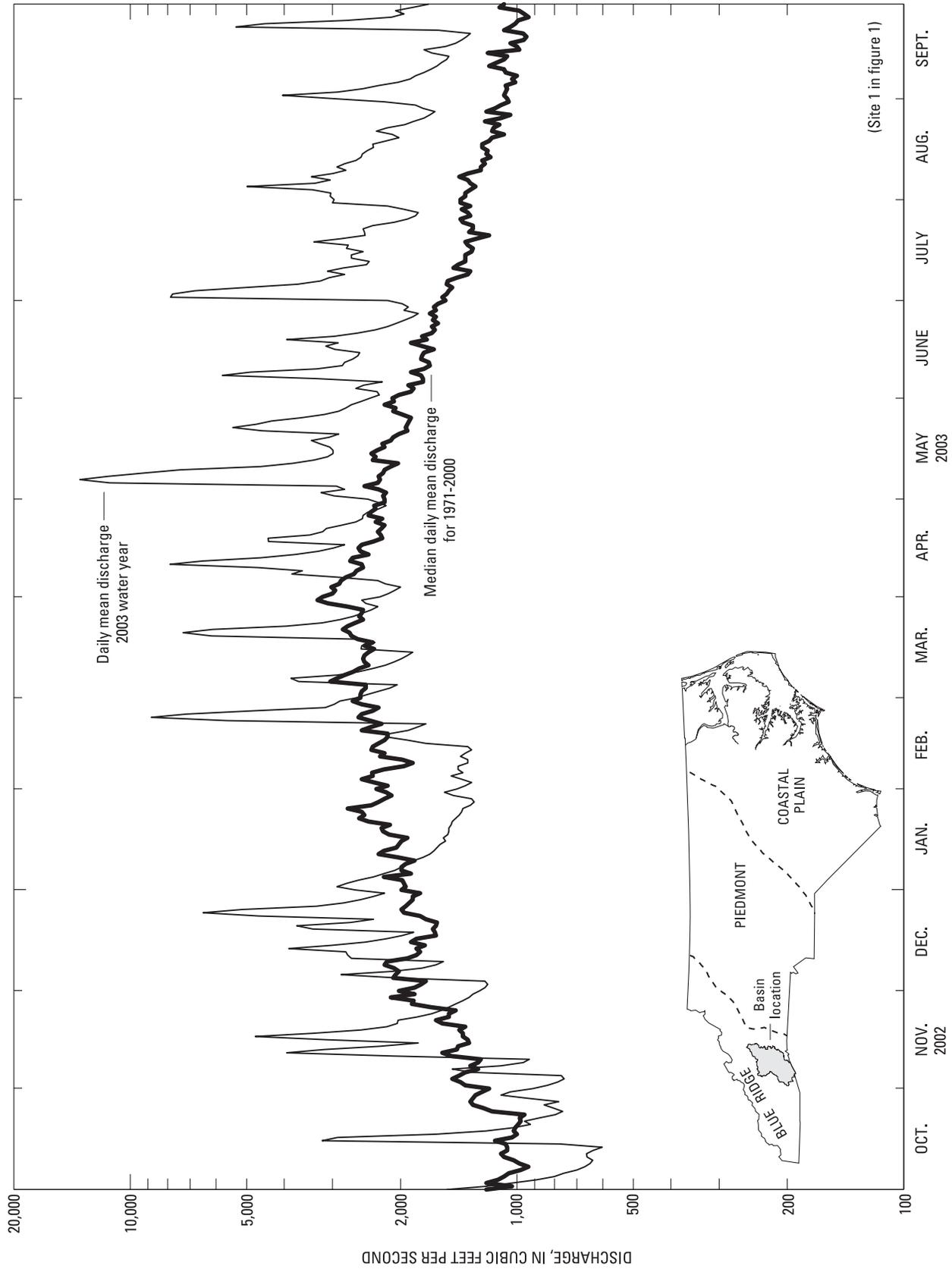


Figure 8.--Daily mean discharge for the 2003 water year and median daily mean discharge for 1971-2000 water years for French Broad River at Asheville (03451500).

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of 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 entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indentation in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, 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 composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 9). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

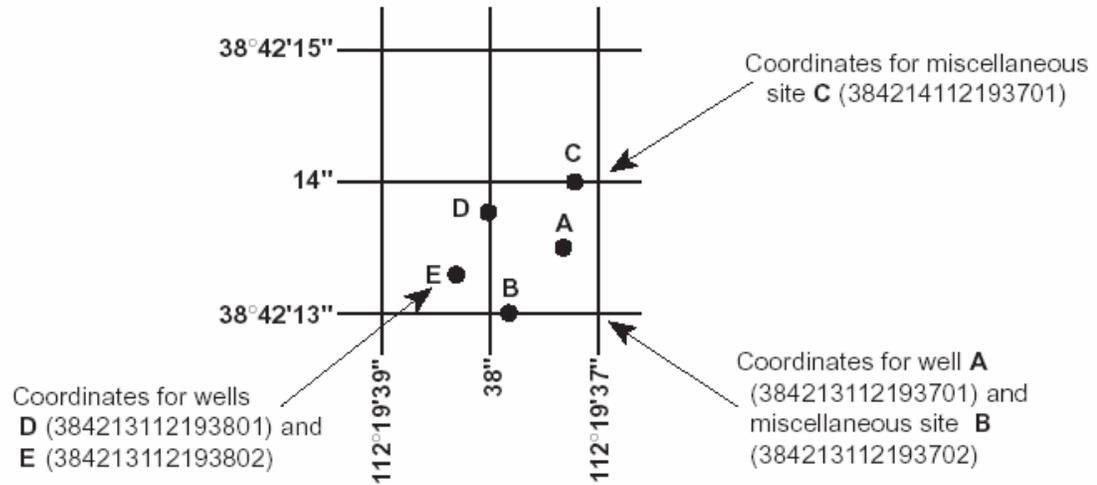


Figure 9. System for numbering wells and miscellaneous sites (latitude and longitude).

Local well numbers in this report generally fall within two numbering systems. All wells are indicated by a two-letter county prefix followed by a sequential number, such as ME-301 for a well in Mecklenburg County and RB-185 for a well in Robeson County. In addition, wells that belong in the statewide North Carolina observation-well program are indicated by the prefix NC- followed by a sequential number, for example NC-160.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://water.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. 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 (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and remobilization 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. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provide continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

The USGS National Water-Quality Assessment (NAWQA) Program 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; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions 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 may be accessed from <http://water.usgs.gov/nawqa/>.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

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

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

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

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

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

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or 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 flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) 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 follow that clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in “River Mileage Measurement,” Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers. Latitudes and longitudes used in this report are referenced to the North American Datum of 1983 (NAD83).

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 term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types, locations, and datums of previous gages are given under this heading. The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD 29) unless otherwise noted; it is reported with a precision depending on the method of determination.

REMARKS.—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the 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.—Information here documents major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

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

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

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 arithmetic 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 is 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). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect 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 volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (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 values. 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. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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, WATER YEARS ___-___, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data 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.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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 for the year or 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.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, 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.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

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

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

Inches (INCHES) indicate 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.

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 lists annual maximum stage and discharge at crest-stage stations, and the second table lists 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 often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a 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. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

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

The degree of accuracy of the records is stated in the REMARKS in the station description. "Excellent" indicates that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair," within 15 percent. "Poor" indicates that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to the nearest tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

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

Other Data Records Available

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

Information on the availability of unpublished data or statistical analyses may be obtained from the District office (see address that is shown on the back of the title page of this report).

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol "---" in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

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

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs. A list of TWRIs is provided in this report.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross-section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

SURFACE-WATER-QUALITY RECORDS

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data is useful in the interpretation of surface-water quality. Records of surface-water quality in this report 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 *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer 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, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating classifications for continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Water temperature	≤±0.2 °C	>±0.2 to 0.5 °C	>±0.5 to 0.8 °C	>±0.8 °C

Rating classifications for continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured physical property	Rating			
	Excellent	Good	Fair	Poor
Specific conductance	≤ ±3%	> ±3 to 10%	> ±10 to 15%	> ±15%
Dissolved oxygen	≤ ±0.3 mg/L	> ±0.3 to 0.5 mg/L	> ±0.5 to 0.8 mg/L	> ±0.8 mg/L
pH	≤ ±0.2 unit	> ±0.2 to 0.5 unit	> ±0.5 to 0.8 unit	> ±0.8 unit
Turbidity	≤ ±5%	> ±5 to 10%	> ±10 to 15%	> ±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 ensure 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, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. These TWRI's are listed in this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

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 section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be 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 are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These methods are consistent with ASTM standards and generally follow ISO standards.

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 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 information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. 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.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

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

Remark Codes

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

Printed Output	Remark
E or e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
V	Analyte was detected in both the environmental sample and the associated blanks.
&	Biological organism estimated as dominant.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District office are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the District office.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank

sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Field blank—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank—A blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Site Identification Numbers

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs. (See NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES, p. 17, for a detailed explanation).

Data Collection and Computation

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

Most methods for collecting and analyzing water samples are described in the TWRI's referred to in the On-site Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown in figures 8 and 9; each well is identified on the map by its local well number.

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

LOCATION.—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are referenced to the North American Datum of 1983 (NAD83).

AQUIFER.—This entry designates by name and geologic age the aquifer that the well taps.

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

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

DATUM.—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD 29) unless otherwise noted; it is reported with a precision depending on the method of determination.

REMARKS.—This entry describes factors that may influence the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

GROUND-WATER-QUALITY DATA

Data Collection and Computation

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide.

Most methods for collecting and analyzing water samples are described in the TWRI's. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS District office (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed on site. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. (See Remark Codes, Water-Quality Control Data, Blank Samples, Reference Samples, Replicate Samples, and Spike Samples, p. 32-34 for a detailed explanation.)

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

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DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also “Biomass” and “Dry weight”)

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most

low-flow frequency analyses use a climatic year (April 1–March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

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

Aspect is the direction toward which a slope faces with respect to the compass.

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

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also "Peak flow")

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "Bedload," "Dry weight," "Sediment," and "Suspended-sediment discharge")

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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

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

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also "Phytoplankton" and "Periphyton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada's first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } \frac{4}{3} \pi r^3 \quad \text{cone } \frac{1}{3} \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that 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 volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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 BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

Clostridium perfringens (*C. perfringens*) is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

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

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft³/s)/d]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, (ft³/s)/mi²] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Verti-

cal Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alterna-

tively, alkalinity concentration (as mg/L CaCO_3) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, 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. (See also “Ash mass,” “Biomass,” and “Wet mass”)

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus faecalis*, *Streptococcus*

faecium, *Streptococcus avium*, and their variants. (See also “Bacteria”)

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

***Escherichia coli* (*E. coli*)** are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (*Euglenophyta*) are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also “Phytoplankton”)

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that 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. (See also “Bacteria”)

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening tech-

nique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO₃).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site:
<http://www.co-ops.nos.noaa.gov/tideglos.html>

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \sum \frac{(n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

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

Inch (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-

sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L},$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_o}.$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. See *NOAA Web site*:
<http://www.co-ops.nos.noaa.gov/tideglos.html>

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

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

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass

(kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, $\mu\text{S/cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent 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.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for

elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. See NOAA Web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88> (See "North American Vertical Datum of 1988")

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m²), acre, or hectare. 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 milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation 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	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechani-

cal and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or percent of total 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, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of

the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

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

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples.

Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable from bed (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 readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. (See also "Bed material")

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms "return period" and "recurrence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average

and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment 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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it

may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

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

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.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment, and, thus, the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are 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 directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also “Suspended”)

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also “Sediment”)

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 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

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

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the 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.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

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

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Bedload,” “Bedload discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is the reduction in the transparency of a solution because of the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to USEPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS reports dealing with surface-water supply 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, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are 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. (See also “Plankton”)

Techniques of Water-Resources Investigations of the U.S. Geological Survey

The USGS publishes a series of manuals, the Techniques of Water-Resources Investigations, 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.

Reports in the Techniques of Water-Resources Investigations series, which are listed below, are online at <http://water.usgs.gov/pubs/twri/>. Printed copies are for sale by the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office), telephone 1-888-ASK-USGS. Please telephone 1-888-ASK-USGS for current prices, and refer to the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Products can then be ordered by telephone, or online at <http://www.usgs.gov/sales.html>, or by FAX to (303)236-469 of an order form available online at <http://mac.usgs.gov/isb/pubs/forms/>. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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Book 2. Collection of Environmental Data

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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, chap. D1. 1974. 116 p.

2–D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

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2–E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 p.

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- 3–A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.
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- 3–A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.
- 3–A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.
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3–C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.

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4–A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.

4–A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.

4–A3. *Statistical methods in water resources*, by D.R. Helsel and R.M. Hirsch: USGS–TWRI book 4, chap. A3. 1991. Available only online at <http://water.usgs.gov/pubs/twri/twri4a3/>. (Accessed August 30, 2002.)

Section B. Surface Water

4–B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.

4–B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.

4–B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

4–D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

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, chap. A1. 1989. 545 p.

5–A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 p.

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, chap. A3. 1987. 80 p.

52 Publications on Techniques of Water Resources Investigations—Continued

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, chap. A4. 1989. 363 p.

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, chap. A5. 1977. 95 p.

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, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

5–C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

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

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, chap. A2. 1991. 68 p.

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, chap. A3. 1993. 136 p.

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, chap. A4. 1992. 108 p.

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, chap. A5. 1993. 243 p.

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: USGS–TWRI book 6, chap. A6. 1996. 125 p.

6–A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7. 2002. 77 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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, chap. C1. 1976. 116 p.

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, chap. C2. 1978. 90 p.

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, chap. C3. 1981. 110 p.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8–A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.

8–A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

8–B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9–A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

9–A2. *National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

9–A3. *National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

9–A4. *National field manual for the collection of water-quality data: Collection of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.

9–A5. *National field manual for the collection of water-quality data: Processing of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999. 149 p.

9–A6. *National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.

9–A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

9–A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.

9–A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.

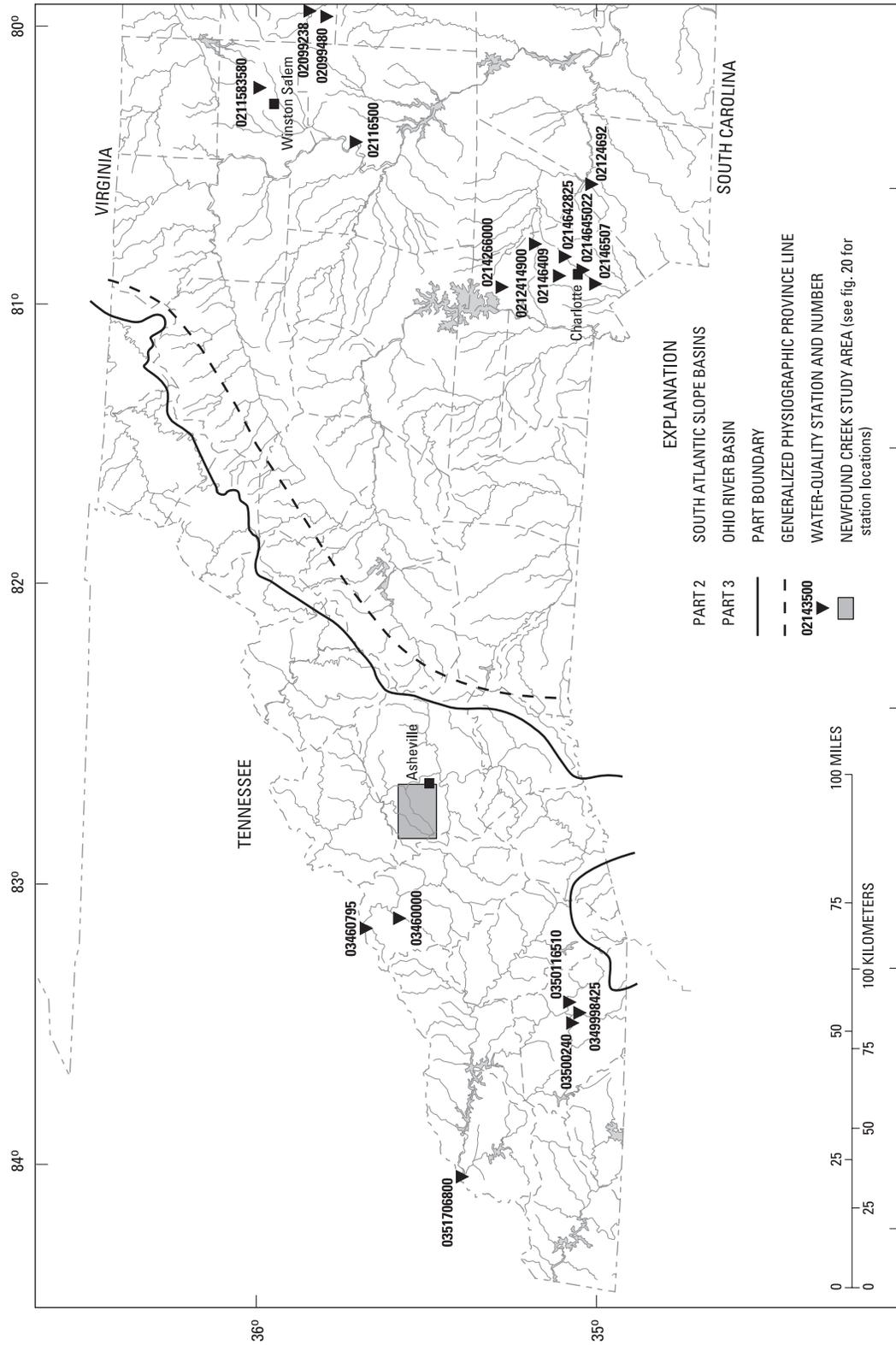


Figure 12.--Locations of water-quality stations in western North Carolina.

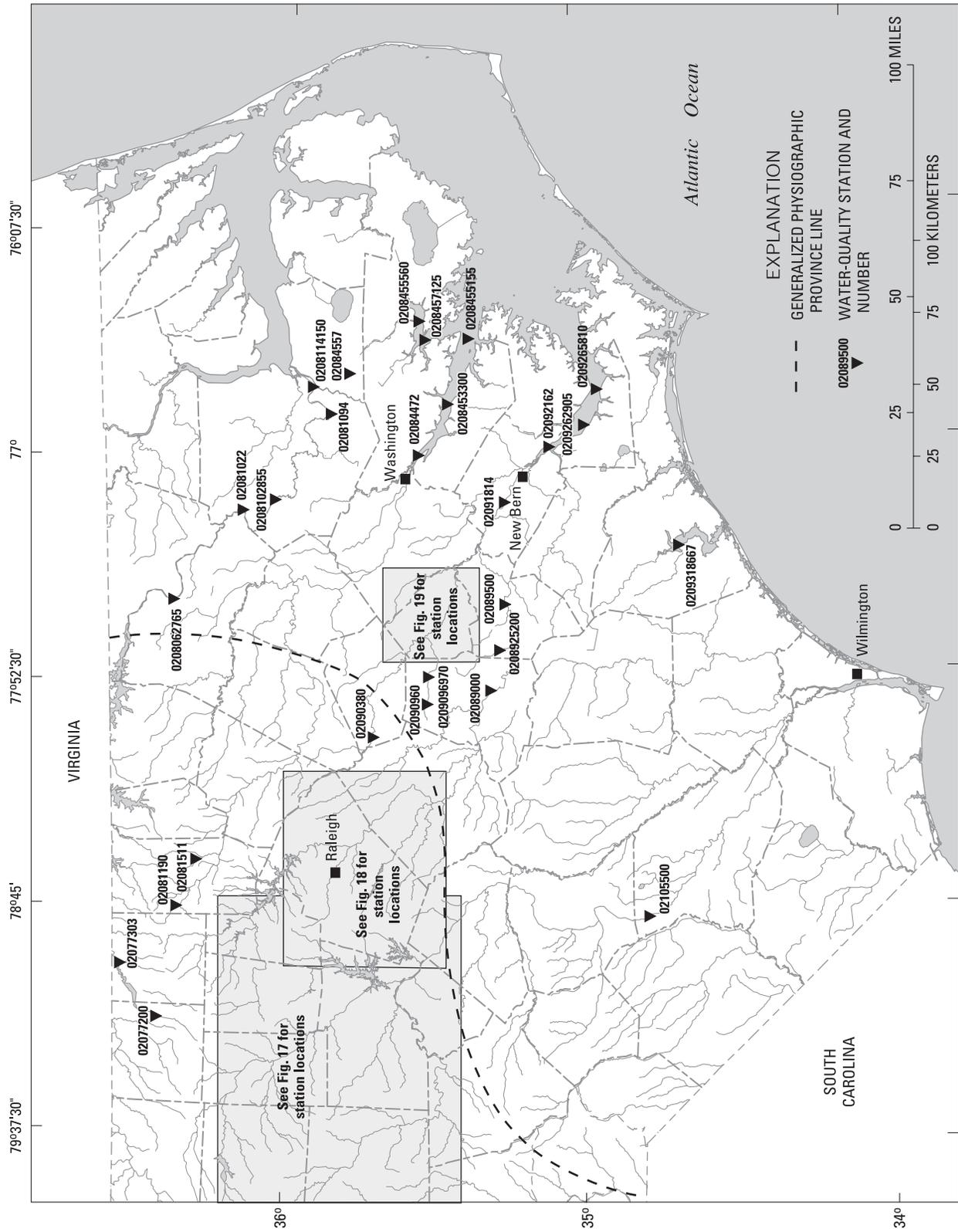
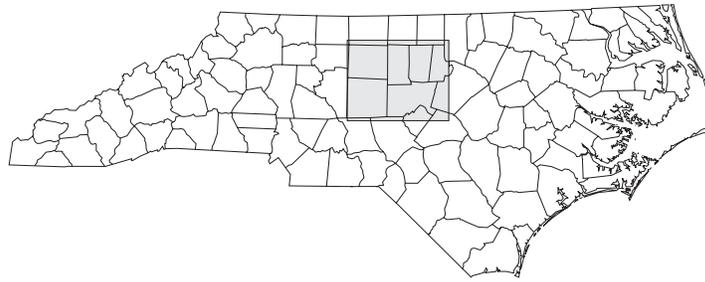


Figure 13.--Locations of water-quality stations in eastern North Carolina.



LOCATION OF SITES IN ALAMANCE, CHATHAM, DURHAM, GUILFORD, ORANGE AND RANDOLPH COUNTIES, NORTH CAROLINA

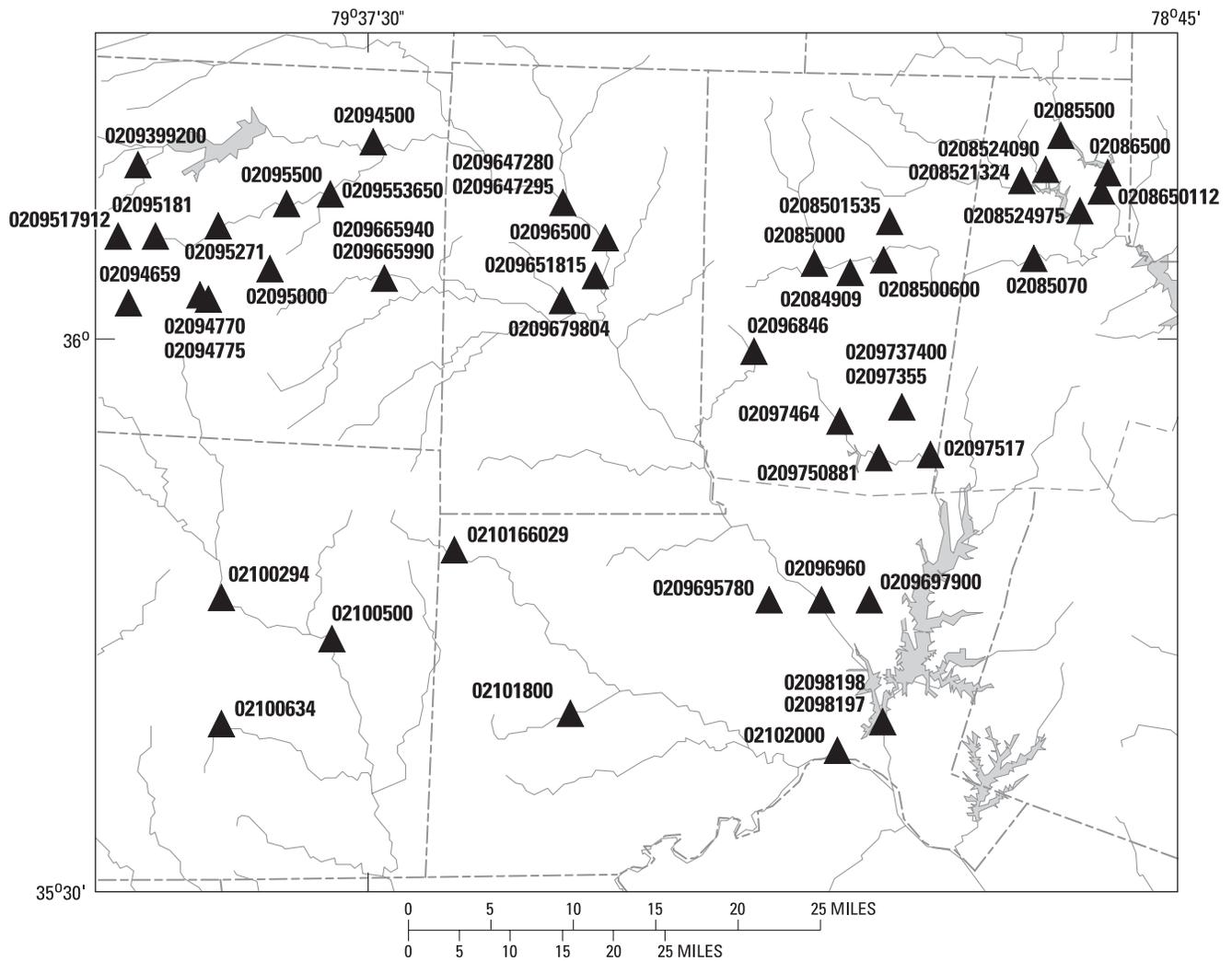


Figure 15.--Locations of gaging stations in Alamance, Chatham, Durham, Guilford, Orange, and Randolph Counties in North Carolina.



LOCATION OF SITES IN AND AROUND WAKE COUNTY, NORTH CAROLINA

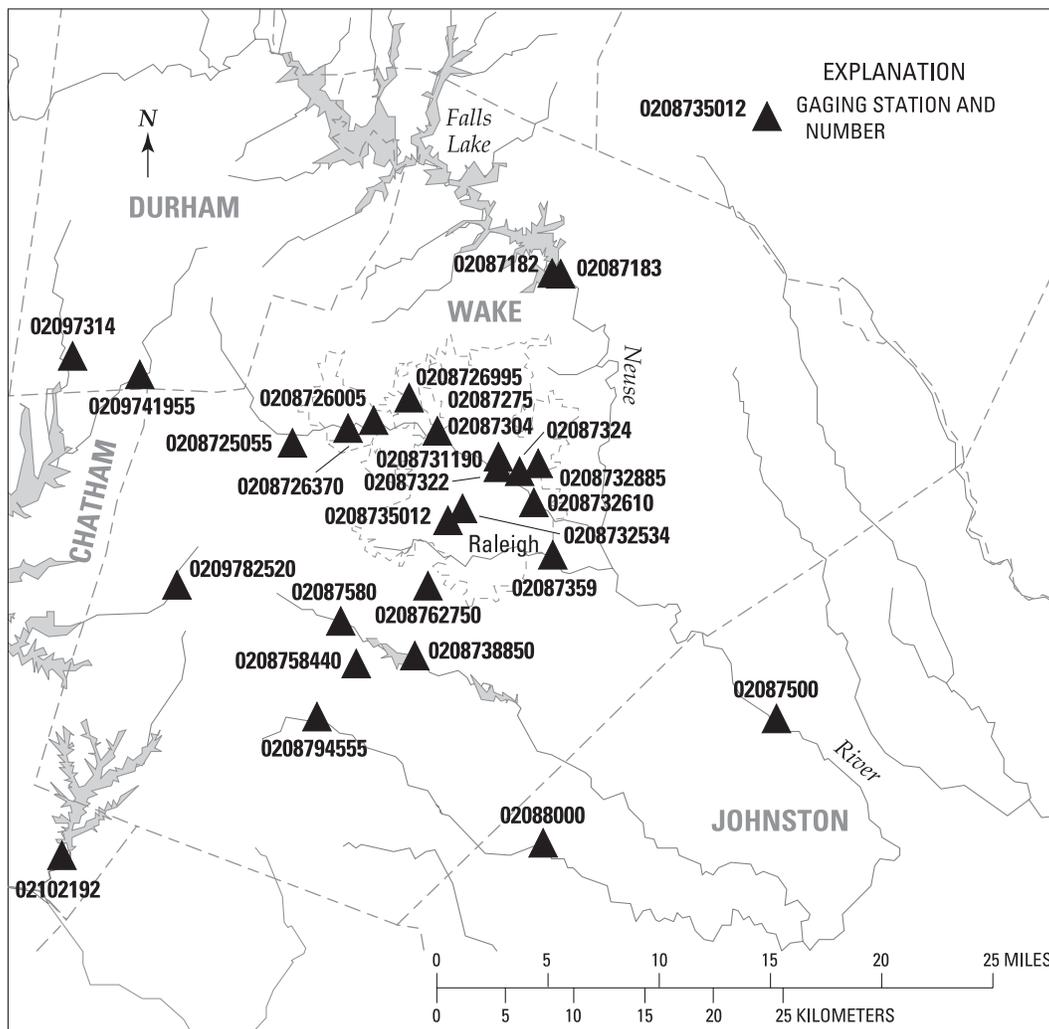
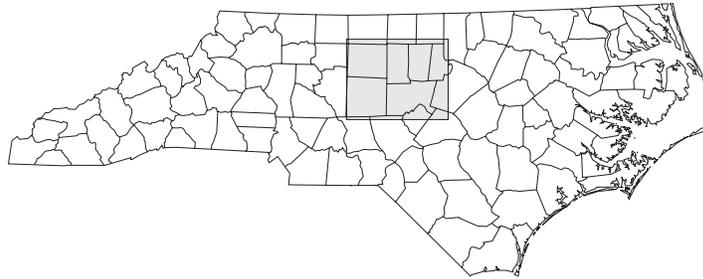


Figure 16.--Locations of gaging stations in and around Wake County, North Carolina.



LOCATION OF SITES IN ALAMANCE, CHATHAM, DURHAM, GUILFORD, ORANGE AND RANDOLPH COUNTIES, NORTH CAROLINA

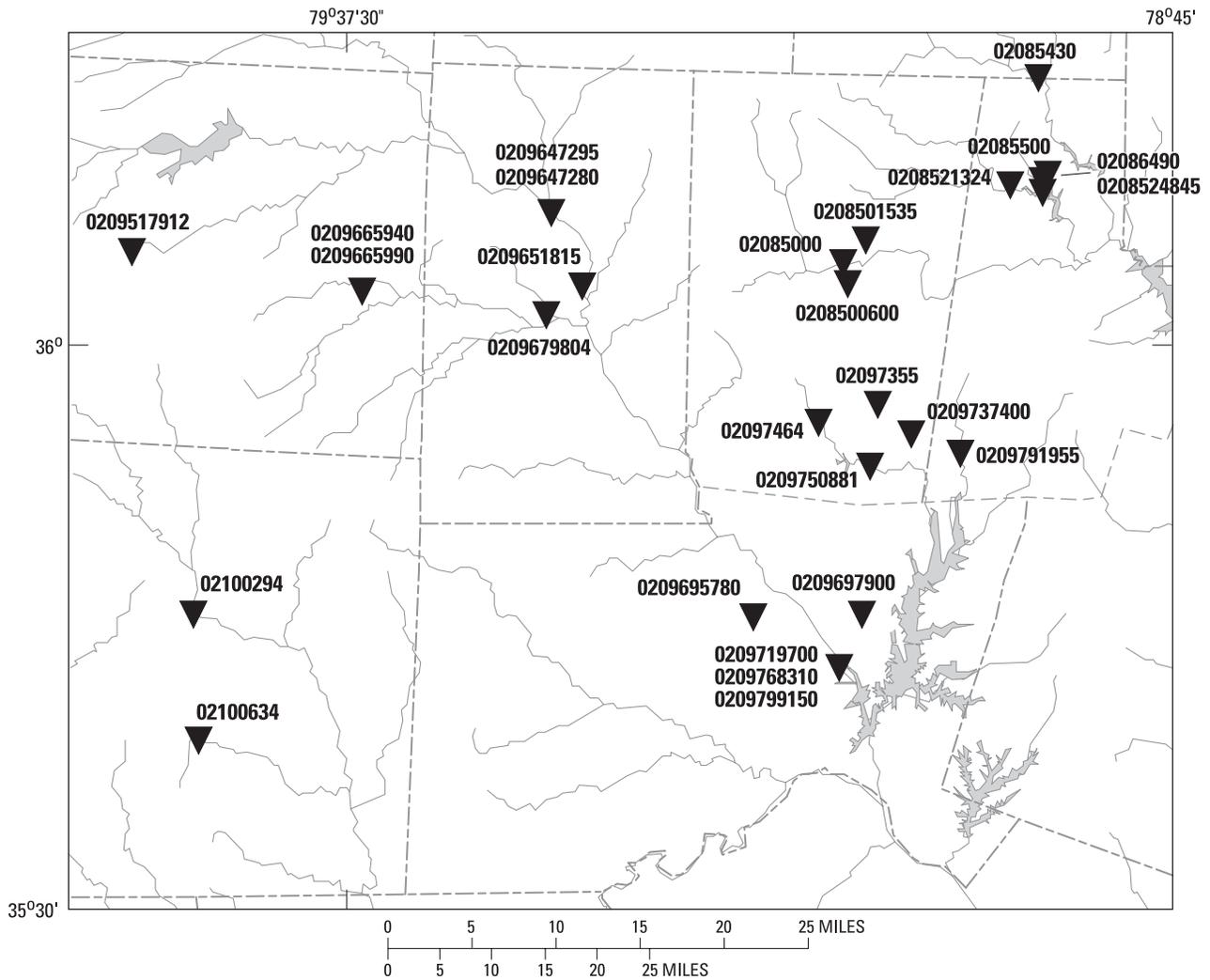
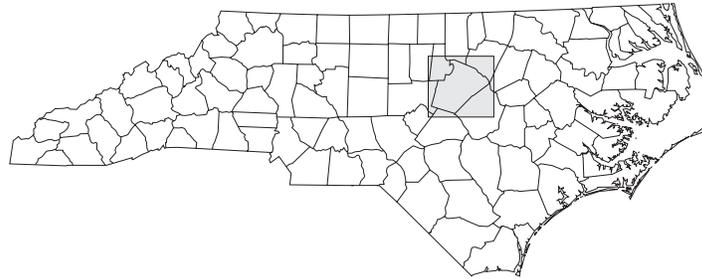


Figure 17.--Locations of water-quality sites in Alamance, Chatham, Durham, Guilford, Orange, and Randolph Counties in North Carolina.



LOCATION OF SITES IN AND AROUND WAKE COUNTY, NORTH CAROLINA

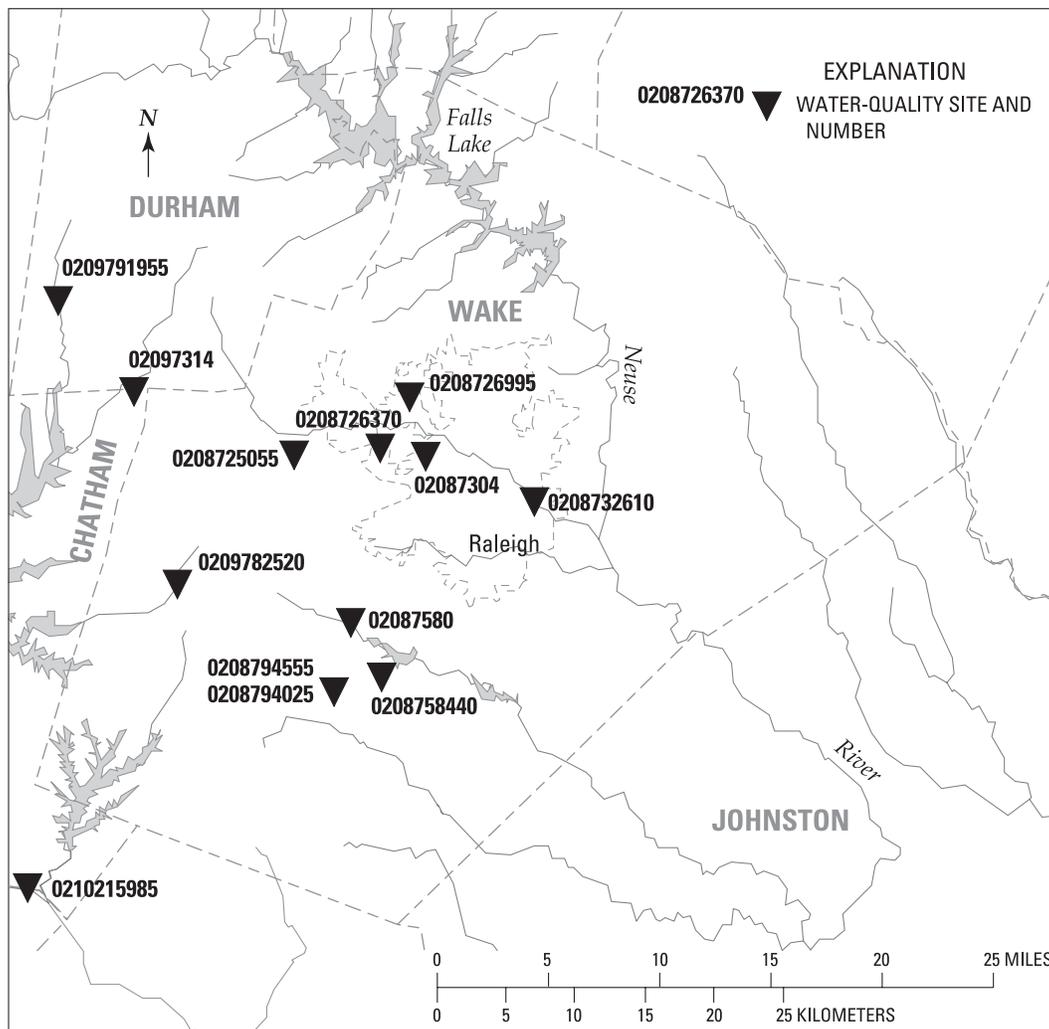


Figure 18.--Locations of water-quality sites in and around Wake County, North Carolina.



LOCATION OF SITES IN GREENE COUNTY, NORTH CAROLINA

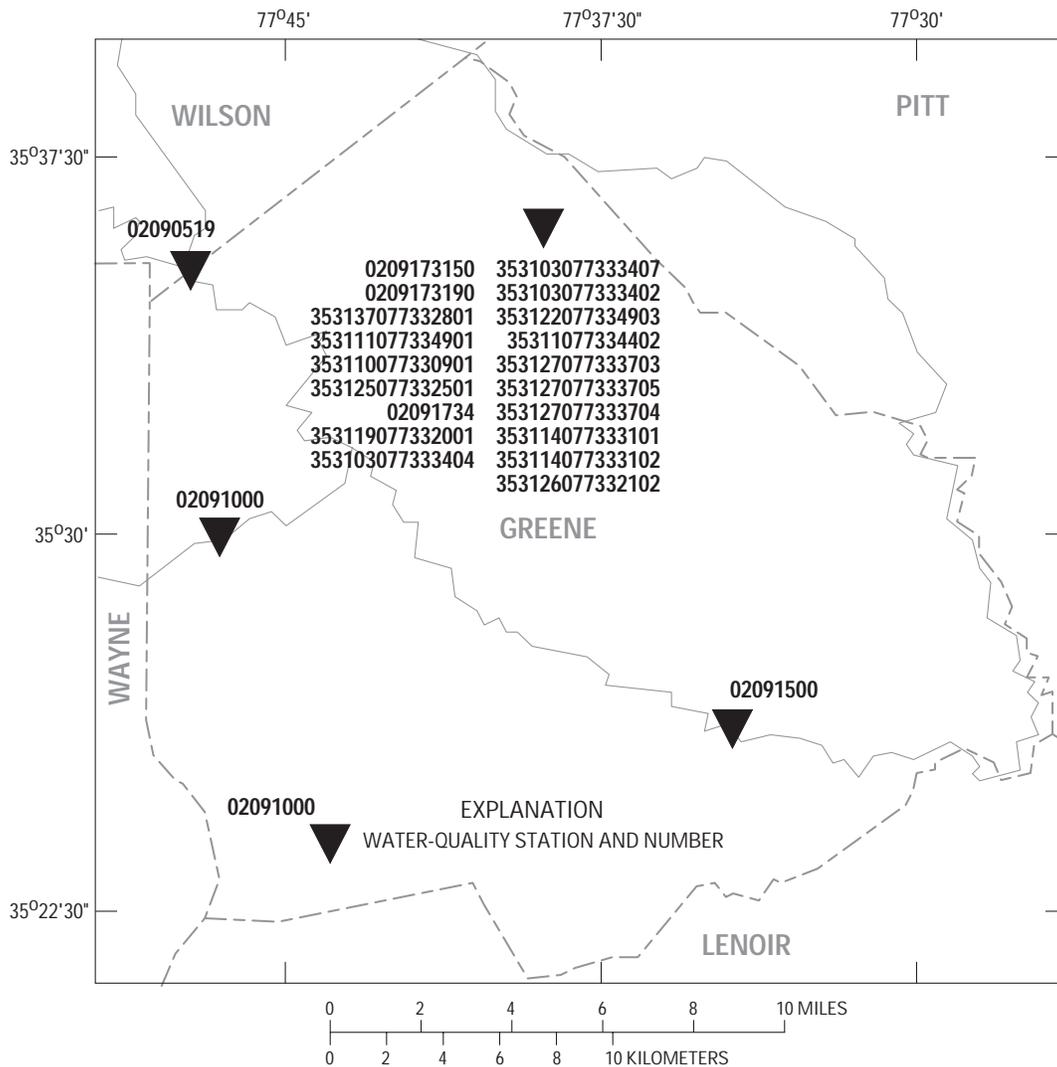


Figure 19.--Locations of water-quality stations in Greene County, North Carolina.



LOCATION OF NEWFOUND CREEK STUDY AREA BUNCOMBE COUNTY, NORTH CAROLINA

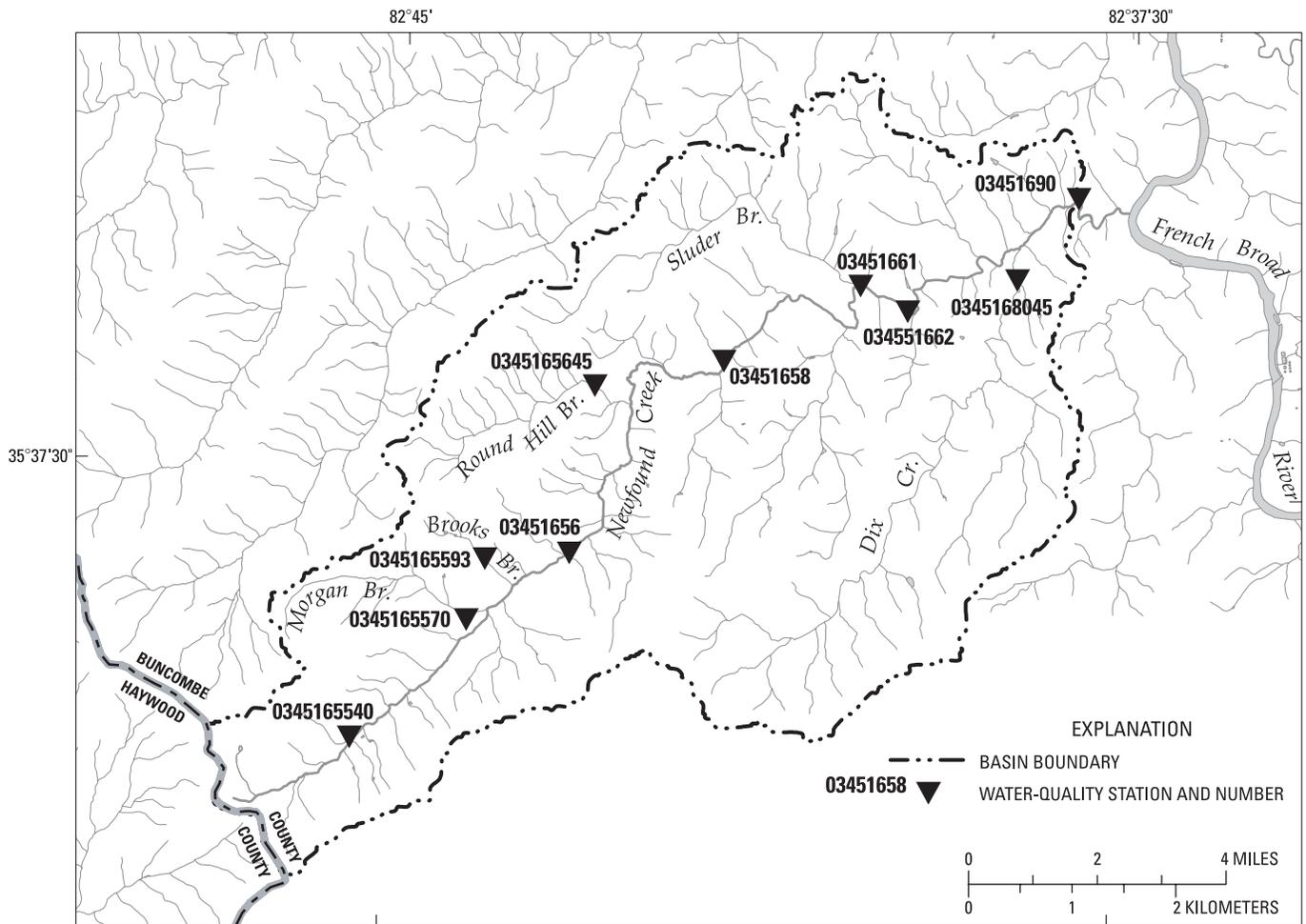


Figure 20. Locations of water-quality stations in the Newfound Creek watershed, Buncombe County, North Carolina.

0204382800 PASQUOTANK RIVER NEAR SOUTH MILLS, NC

LOCATION.--Lat 36°25'19", long 76°20'33", Camden County, Hydrologic Unit 03010205, at bridge on US Highway 17, 1 mi below Newland Canal and 2 mi southwest of South Mills.

DRAINAGE AREA.--Approximately 64.0 mi².

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

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 4.52 ft below NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for period Sept. 8-12, which are poor. This site is strongly affected by astronomical and wind tides. The astronomical tides occur at primary harmonic periods of 12.42 hours and 24.8 hours. Mean daily discharge data for this site may be affected by aliasing due to tides and can contain fluctuations that are not representative of net downstream discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 ft³/s, Sept. 19, 1999, maximum gage height, 9.85 ft, Sept. 6, 1996; minimum discharge, -240 ft³/s, Sept. 6, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 706 ft³/s, June 6, maximum gage height 8.07 ft, Sept. 20; minimum discharge, -111 ft³/s, Oct. 11, minimum gage height, 4.04, Sept. 18.

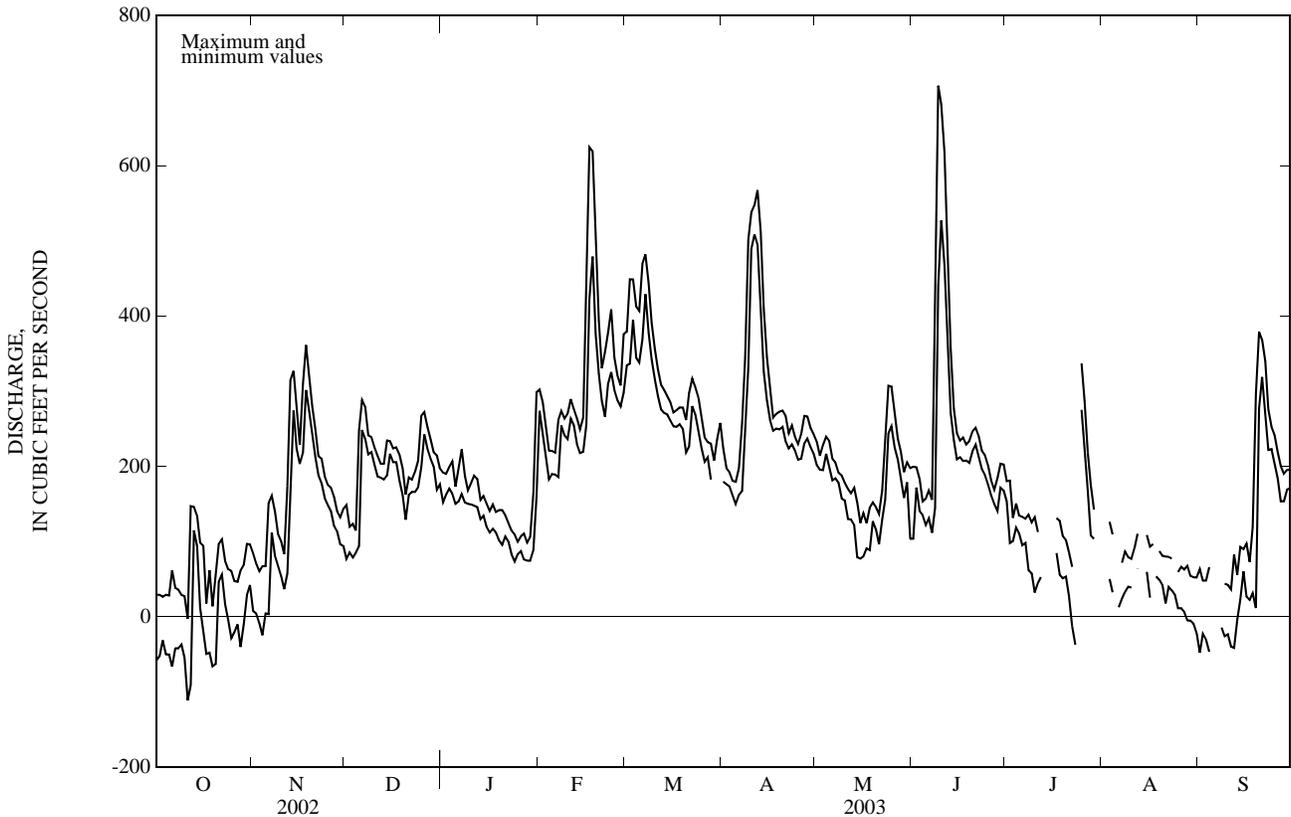
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH						
1	30	-58	85	8.0	149	77	192	152	303	274	379	335
2	29	-52	71	4.8	120	86	190	163	286	242	449	337
3	27	-31	61	-8.0	124	79	200	171	254	215	449	395
4	29	-50	68	-24	115	85	207	164	221	183	413	345
5	29	-50	68	4.7	249	94	173	151	221	190	407	338
6	62	-66	151	3.9	289	249	199	154	219	190	470	369
7	39	-42	161	112	279	237	223	164	262	186	482	429
8	36	-42	140	82	242	216	188	153	274	255	444	378
9	29	-37	111	68	239	219	168	150	264	241	391	342
10	28	-54	101	54	226	203	178	150	270	237	356	316
11	-2.5	-111	84	37	214	187	188	148	290	264	330	294
12	147	-90	174	58	204	185	184	146	277	255	309	276
13	146	115	315	171	204	183	156	130	264	230	302	271
14	135	94	327	275	235	188	161	135	250	218	294	269
15	99	12	283	224	234	217	150	119	265	220	286	261
16	95	-18	229	204	224	206	141	112	431	256	272	254
17	18	-49	310	218	226	206	150	117	625	423	275	253
18	62	-48	362	302	216	181	140	113	619	479	279	256
19	14	-66	320	274	198	162	142	102	494	377	279	250
20	56	-62	280	242	163	129	142	96	394	324	262	219
21	97	47	249	212	186	163	135	107	331	287	298	226
22	103	56	214	189	183	166	125	100	352	266	317	280
23	74	17	210	178	193	166	115	83	378	310	306	270
24	64	-3.8	187	158	208	172	110	74	409	326	292	246
25	61	-28	176	149	268	199	100	84	345	302	267	225
26	48	-20	172	141	272	243	107	88	321	288	239	207
27	47	-9.8	160	121	252	224	111	76	308	280	233	213
28	62	-40	140	113	236	210	99	75	376	298	231	183
29	69	-9.7	132	97	219	200	106	75	---	---	208	---
30	97	29	144	95	215	169	165	88	---	---	236	---
31	97	42	---	---	198	177	299	161	---	---	258	---
MONTH	147	-111	362	-24	289	77	299	74	625	183	482	183

0204382800 PASQUOTANK RIVER NEAR SOUTH MILLS, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	224	180	233	202	200	104	181	154	---	---	64	-48
2	198	177	214	196	199	172	181	99	---	---	48	-22
3	192	174	228	195	184	141	132	101	127	51	49	-30
4	181	162	240	217	154	136	151	119	110	33	66	-46
5	180	150	234	200	157	122	135	111	---	---	---	---
6	198	162	211	182	168	131	133	95	---	13	---	---
7	258	168	206	184	156	112	131	99	72	24	---	---
8	344	255	192	179	442	145	136	62	87	33	---	-14
9	502	332	188	157	706	441	126	58	80	40	44	-26
10	538	490	179	155	681	527	133	32	77	39	43	-23
11	548	509	170	130	618	468	113	45	91	---	37	-39
12	568	495	164	130	486	348	---	53	111	64	83	-41
13	512	402	172	122	357	271	---	---	---	---	56	-3.8
14	410	326	152	79	277	235	---	---	---	---	93	23
15	345	288	125	78	245	210	---	---	109	60	90	61
16	303	262	138	80	235	212	---	---	93	26	98	27
17	265	248	125	91	239	207	131	85	97	---	73	23
18	270	251	145	89	229	208	128	56	---	54	120	32
19	273	249	152	127	234	205	108	51	88	49	296	12
20	274	253	146	116	247	220	102	54	81	42	379	278
21	268	234	137	97	252	229	86	28	81	18	369	319
22	244	224	168	130	241	213	67	-12	80	40	340	269
23	255	229	245	156	221	197	---	-37	78	35	276	222
24	240	222	307	244	215	189	---	---	---	30	253	223
25	230	209	306	254	201	176	337	276	60	12	242	204
26	243	210	272	226	182	162	287	217	67	12	219	184
27	268	231	237	209	169	151	219	168	63	6.9	201	154
28	267	238	220	183	185	141	176	108	68	-4.6	190	154
29	252	226	193	158	204	172	143	104	55	-4.8	196	169
30	243	218	206	179	203	168	---	---	53	-8.9	196	172
31	---	---	198	104	---	---	---	---	52	-22	---	---
MONTH	568	150	307	78	706	104	337	-37	127	-22	379	-48



CHOWAN RIVER BASIN

02053200 POTECASTI CREEK NEAR UNION, NC

LOCATION.--Lat 36°22'15", long 77°01'35", 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 mi².

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 NGVD of 1929. Prior to Dec. 1, 1958, nonrecording gage at same site and datum. 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 5,800 ft³/s on basis of discharge-conveyance ratios of peak flow; gage height from outside floodmarks.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1929 reached a stage of 19.1 ft; discharge, 4,050 ft³/s; and flood of August 1940 reached a stage of 24.1 ft; discharge, 7,000 ft³/s, from information furnished by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	113	92	396	676	1,050	463	51	691	31	26	49
2	2.0	81	74	403	685	1,140	551	45	507	43	48	34
3	2.0	85	62	419	739	1,360	597	40	353	48	122	44
4	2.0	84	52	429	744	1,300	552	36	254	54	134	75
5	2.0	74	120	417	697	1,160	467	32	243	50	145	94
6	2.0	108	430	372	607	1,140	389	31	192	45	181	81
7	2.1	213	476	325	590	e1,200	362	30	154	46	220	60
8	2.3	186	402	285	780	1,240	697	28	632	51	297	46
9	2.2	129	421	255	765	1,170	1,040	30	1,340	46	471	37
10	2.5	117	425	229	753	1,050	1,740	62	1,670	e41	703	31
11	6.7	119	401	204	821	897	2,330	77	1,610	28	879	26
12	110	118	365	182	800	732	2,570	63	1,300	24	860	32
13	227	222	334	162	703	580	2,380	46	1,020	21	726	91
14	121	381	433	146	599	452	1,960	34	823	97	558	90
15	71	338	524	131	516	355	1,500	e27	655	241	372	63
16	83	270	479	113	526	291	1,100	e25	560	137	218	47
17	87	450	468	108	816	251	780	e24	551	166	139	41
18	88	714	461	100	1,150	223	549	e28	429	286	215	233
19	72	740	428	85	1,150	200	390	48	369	243	230	1,420
20	47	656	391	90	1,090	189	295	82	434	333	146	1,810
21	44	598	516	82	960	256	236	70	486	363	262	2,490
22	77	551	586	77	810	305	197	115	458	290	457	2,850
23	58	484	528	69	806	289	170	397	396	184	412	2,650
24	35	405	476	75	861	302	144	909	316	110	282	2,260
25	25	329	628	66	806	313	120	1,300	232	73	163	1,820
26	20	265	795	62	780	315	105	1,500	155	71	92	1,400
27	16	215	745	61	744	287	99	1,470	95	38	57	1,050
28	15	175	678	53	876	241	86	1,360	60	26	38	807
29	17	144	616	63	---	204	71	1,290	46	21	28	607
30	41	116	543	93	---	234	59	1,130	36	21	21	447
31	130	---	463	399	---	416	---	902	---	22	21	---
TOTAL	1,411.5	8,480	13,412	5,951	21,850	19,142	21,999	11,282	16,067	3,250	8,523	20,785
MEAN	45.5	283	433	192	780	617	733	364	536	105	275	693
MAX	227	740	795	429	1,150	1,360	2,570	1,500	1,670	363	879	2,850
MIN	1.7	74	52	53	516	189	59	24	36	21	21	26
CFSM	0.20	1.26	1.92	0.85	3.47	2.74	3.26	1.62	2.38	0.47	1.22	3.08
IN.	0.23	1.40	2.22	0.98	3.61	3.16	3.64	1.87	2.66	0.54	1.41	3.44

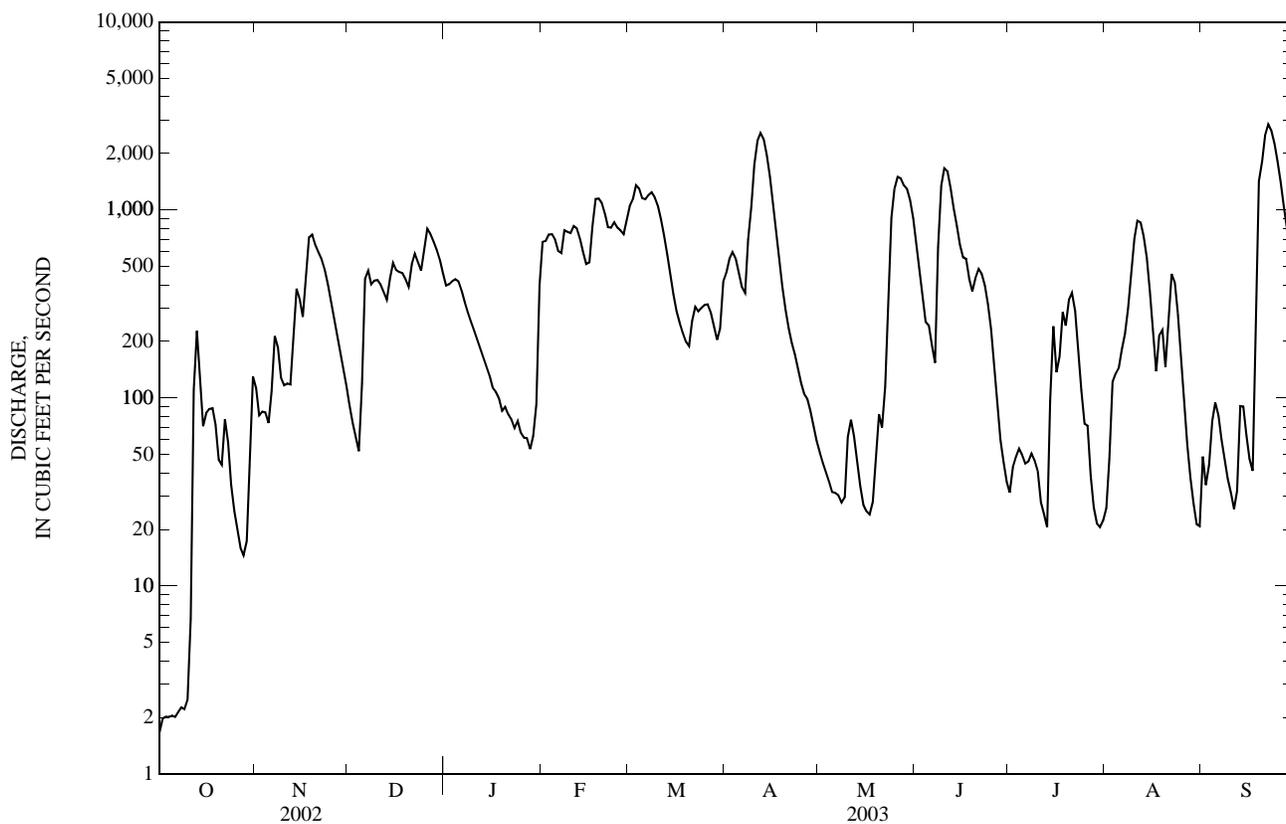
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2003, BY WATER YEAR (WY)

	126	100	199	396	490	457	309	148	124	103	153	150
MEAN	126	100	199	396	490	457	309	148	124	103	153	150
MAX	1,108	619	619	957	1,135	1,439	994	925	700	531	1,131	2,515
(WY)	(1960)	(1986)	(1990)	(1987)	(1960)	(1989)	(1983)	(1979)	(1979)	(1975)	(1992)	(1999)
MIN	2.12	4.71	11.3	51.3	54.9	46.7	27.7	5.36	3.98	2.32	2.50	1.65
(WY)	(1995)	(2002)	(2002)	(1981)	(1991)	(1988)	(1995)	(1994)	(2002)	(1983)	(1987)	(1995)

02053200 POTECASTI CREEK NEAR UNION, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1959 - 2003	
ANNUAL TOTAL	43,172.31		152,152.5		228	
ANNUAL MEAN	118		417		458	
HIGHEST ANNUAL MEAN					56.1	1979
LOWEST ANNUAL MEAN					15,200	2002
HIGHEST DAILY MEAN	795	Dec 26	2,850	Sep 22	15,200	Sep 17, 1999
LOWEST DAILY MEAN	0.49	Sep 25	1.7	Oct 1	0.30	Jun 30, 1959
ANNUAL SEVEN-DAY MINIMUM	0.83	Sep 23	2.0	Oct 1	0.51	Jun 25, 1959
MAXIMUM PEAK FLOW			2,890	Sep 22	1,7000*	Sep 17, 1999
MAXIMUM PEAK STAGE			18.50	Sep 22	28.90*	Sep 17, 1999
INSTANTANEOUS LOW FLOW			1.4	Oct 1	0.20	Jul 1, 1959
ANNUAL RUNOFF (CFSM)	0.53		1.85		1.01	
ANNUAL RUNOFF (INCHES)	7.14		25.16		13.79	
10 PERCENT EXCEEDS	429		1,070		645	
50 PERCENT EXCEEDS	25		241		75	
90 PERCENT EXCEEDS	2.0		31		5.2	

e Estimated.
 * See REMARKS.



CHOWAN RIVER BASIN

02053500 AHOSKIE CREEK AT AHOSKIE, NC

LOCATION.--Lat 36°16'49", long 76°59'59", 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 mi².

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 NGVD of 1929 (Soil Conservation Service bench mark). Prior to Jan. 4, 1963, present site at 21.46 ft. Jan. 20, 1950, to May 24, 1951, nonrecording gage. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Entire basin above station canalized since July 1964. 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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	14	15	39	279	366	61	14	25	13	8.4	30
2	3.3	10	14	47	165	702	45	13	20	13	8.7	10
3	3.3	8.1	14	41	110	495	37	12	18	16	12	9.6
4	3.1	7.1	13	38	91	233	31	12	18	13	10	23
5	2.9	7.5	281	33	90	268	31	11	18	11	41	32
6	2.6	68	291	30	67	615	40	13	16	9.7	18	12
7	2.5	42	122	30	420	558	220	12	127	9.1	36	9.5
8	3.4	19	75	30	316	271	605	11	1,180	8.6	61	8.2
9	3.1	13	52	28	173	166	999	13	1,500	9.1	438	7.7
10	3.1	11	42	26	204	110	1,340	14	1,480	8.5	130	7.2
11	42	9.0	39	24	244	78	1,370	12	706	11	58	7.1
12	242	45	46	22	146	63	863	11	160	15	35	11
13	37	220	77	20	99	53	311	9.9	81	10	26	12
14	19	107	232	20	73	46	148	9.4	47	49	20	9.7
15	12	39	109	19	85	40	82	9.3	151	37	16	8.4
16	9.9	51	70	18	223	37	57	9.3	850	16	14	7.8
17	7.9	417	50	20	912	35	42	8.0	347	101	20	7.5
18	6.5	367	40	19	584	33	34	12	166	32	24	605
19	5.7	126	34	18	267	31	32	23	79	18	13	1,210
20	5.3	64	60	17	163	38	31	18	57	14	11	1,300
21	13	42	122	17	114	93	27	13	41	12	10	1,280
22	20	35	66	17	152	73	25	33	31	10	9.7	693
23	15	30	48	17	422	53	22	359	25	9.8	9.4	246
24	11	25	105	17	201	42	19	582	21	13	9.1	166
25	8.4	22	407	15	125	36	18	227	18	12	8.9	100
26	7.4	20	207	16	89	32	19	148	16	11	8.6	68
27	6.1	19	111	16	127	29	20	93	14	9.7	8.0	48
28	7.0	17	73	15	715	27	18	62	13	8.7	7.7	40
29	9.9	16	54	16	---	26	16	42	12	7.9	8.0	36
30	26	16	44	50	---	62	15	32	11	7.8	7.6	29
31	25	---	38	542	---	98	---	27	---	7.6	22	---
TOTAL	566.5	1,886.7	2,951	1,277	6,656	4,809	6,578	1,864.9	7,248	523.5	1,109.1	6,033.7
MEAN	18.3	62.9	95.2	41.2	238	155	219	60.2	242	16.9	35.8	201
MAX	242	417	407	542	912	702	1,370	582	1,500	101	438	1,300
MIN	2.5	7.1	13	15	67	26	15	8.0	11	7.6	7.6	7.1
CFSM	0.29	0.99	1.50	0.65	3.76	2.45	3.46	0.95	3.82	0.27	0.57	3.18
IN.	0.33	1.11	1.73	0.75	3.91	2.83	3.87	1.10	4.26	0.31	0.65	3.55

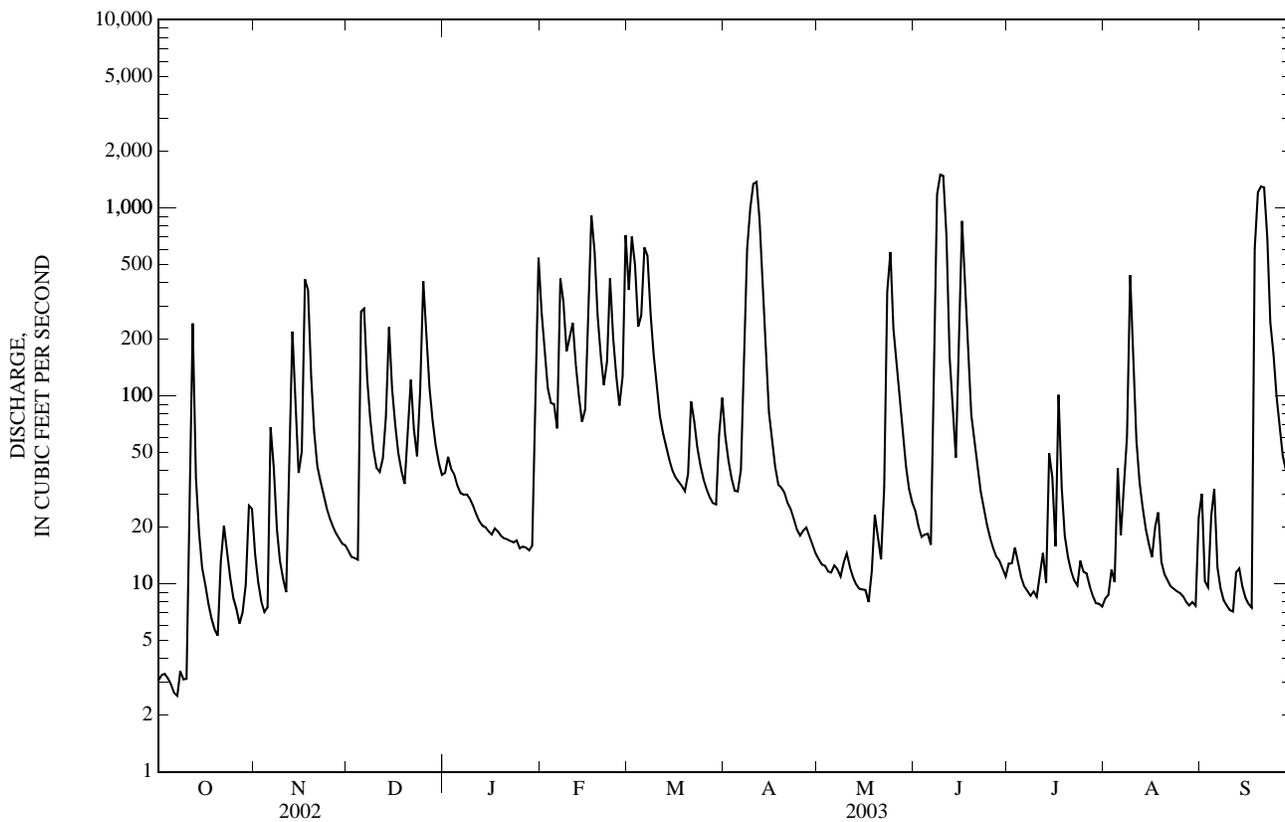
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003,* BY WATER YEAR (WY)

MEAN	39.6	23.3	46.1	99.3	124	123	75.9	43.6	43.4	30.7	44.0	49.6
MAX	297	120	177	260	343	303	243	238	322	126	381	894
(WY)	(1972)	(1986)	(1990)	(1979)	(1998)	(1989)	(1983)	(1979)	(2001)	(1975)	(1992)	(1999)
MIN	2.84	3.21	3.10	7.66	18.9	17.3	8.73	4.21	5.43	3.55	3.59	3.41
(WY)	(2002)	(1982)	(1995)	(1981)	(1968)	(1988)	(1985)	(1986)	(1986)	(1987)	(1983)	(1980)

02053500 AHOSKIE CREEK AT AHOSKIE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003*	
ANNUAL TOTAL	10,844.0		41,503.4		61.6	
ANNUAL MEAN	29.7		114		114	
HIGHEST ANNUAL MEAN					14.7	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	417	Nov 17	1,500	Jun 9	7,710	Sep 17, 1999
LOWEST DAILY MEAN	1.8	May 31	2.5	Oct 7	0.61	Oct 8, 1988
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 7	3.0	Oct 4	0.85	Sep 27, 1988
MAXIMUM PEAK FLOW			1,560	Jun 10	8,570	Sep 17, 1999
MAXIMUM PEAK STAGE			11.19	Sep 18	17.32	Sep 17, 1999
INSTANTANEOUS LOW FLOW			2.4	Oct 6	0.45*	Oct 8, 1988
ANNUAL RUNOFF (CFSM)	0.47		1.80		0.97	
ANNUAL RUNOFF (INCHES)	6.37		24.39		13.22	
10 PERCENT EXCEEDS	70		285		133	
50 PERCENT EXCEEDS	11		28		17	
90 PERCENT EXCEEDS	2.7		8.4		4.2	

* Canalized period only (1954-2003). See REMARKS.



ROANOKE RIVER BASIN

02068500 DAN RIVER NEAR FRANCISCO, NC

LOCATION.--Lat 36°30'53", long 80°18'10", 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 mi².

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 NGVD of 1929. Prior to Nov. 15, 1929, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges and those for discharges above 1,000 ft³/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.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	100	91	179	110	205	291	307	320	457	446	292
2	60	92	92	198	120	210	238	276	276	717	365	241
3	62	88	110	237	117	199	187	267	183	665	519	268
4	61	87	112	230	145	169	189	422	338	570	482	529
5	60	94	125	213	141	170	246	372	485	527	458	289
6	59	148	101	202	127	223	298	381	358	496	471	253
7	60	118	114	200	127	227	357	362	1,130	461	e2,000	247
8	60	106	119	192	126	187	383	343	1,210	417	e1,000	232
9	59	101	120	186	120	187	e640	327	1,480	450	663	225
10	60	92	115	184	131	188	e1,400	258	694	501	791	222
11	87	349	200	177	130	173	e1,000	260	501	384	905	218
12	82	503	184	e174	133	161	724	277	814	377	567	216
13	66	330	269	e170	171	135	598	179	1,030	395	540	228
14	64	180	351	e168	172	129	540	172	1,520	366	619	230
15	65	154	185	e164	206	130	511	175	898	398	454	217
16	166	219	156	e160	291	313	491	197	1,060	336	410	236
17	116	428	143	e158	263	300	479	209	951	323	377	234
18	97	304	134	e156	181	246	559	271	826	314	351	232
19	74	219	129	e152	193	277	665	286	1,280	431	331	208
20	70	161	247	e148	203	1,610	556	167	973	443	335	160
21	73	149	271	e146	204	684	509	290	731	357	364	157
22	73	143	203	e144	1,540	452	505	281	669	372	412	160
23	78	118	156	e142	788	384	483	256	626	496	361	478
24	78	111	221	e138	365	342	473	242	557	455	311	200
25	79	108	312	e136	239	317	475	376	467	336	274	226
26	92	105	185	e134	211	298	595	365	414	335	257	219
27	84	99	169	e132	228	283	467	231	440	356	247	224
28	95	96	171	e126	223	273	295	193	487	330	239	267
29	125	96	193	125	---	234	251	188	440	314	243	215
30	142	95	172	124	---	305	248	188	423	342	250	202
31	120	---	153	114	---	313	---	193	---	447	270	---
TOTAL	2,529	4,993	5,303	5,109	7,005	9,324	14,653	8,311	21,581	13,168	15,312	7,325
MEAN	81.6	166	171	165	250	301	488	268	719	425	494	244
MAX	166	503	351	237	1,540	1,610	1,400	422	1,520	717	2,000	529
MIN	59	87	91	114	110	129	187	167	183	314	239	157
†	+3	+27	+10	-3	+11	-5	0	+1	+9	-15	-10	+1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2003,*@ BY WATER YEAR (WY)

MEAN	147	154	175	197	220	259	268	218	202	168	169	148
MAX	543	327	479	424	463	571	677	405	719	425	514	630
(WY)	(1938)	(1980)	(1997)	(1978)	(1960)	(1993)	(1980)	(1949)	(2003)	(2003)	(1940)	(1979)
MIN	49.7	61.3	77.5	76.2	94.9	94.2	119	95.3	77.9	54.8	52.5	50.4
(WY)	(1964)	(1954)	(1998)	(1956)	(1956)	(1981)	(2002)	(2000)	(2002)	(1986)	(1981)	(1968)

02068500 DAN RIVER NEAR FRANCISCO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1938 - 2003* [@]	
ANNUAL TOTAL	39,453		114,613		(UNADJUSTED)	
ANNUAL MEAN	108		314		194	
HIGHEST ANNUAL MEAN					314 2003	
LOWEST ANNUAL MEAN					93.6 2002	
HIGHEST DAILY MEAN	503	Nov 12	2,000	Aug 7	6,830	Sep 22, 1979
LOWEST DAILY MEAN	45	Sep 12	59	Oct 6	21	Sep 4, 1999
ANNUAL SEVEN-DAY MINIMUM	47	Sep 7	60	Oct 4	28	Aug 24, 1981
MAXIMUM PEAK FLOW			6,830	Aug 7	21,200	Aug 17, 1985
MAXIMUM PEAK STAGE			9.22	Aug 7	19.50	Aug 17, 1985
INSTANTANEOUS LOW FLOW			57	Oct 4	7.1	Sep 8, 1932
10 PERCENT EXCEEDS	164		568		320	
50 PERCENT EXCEEDS	99		234		154	
90 PERCENT EXCEEDS	58		98		80	

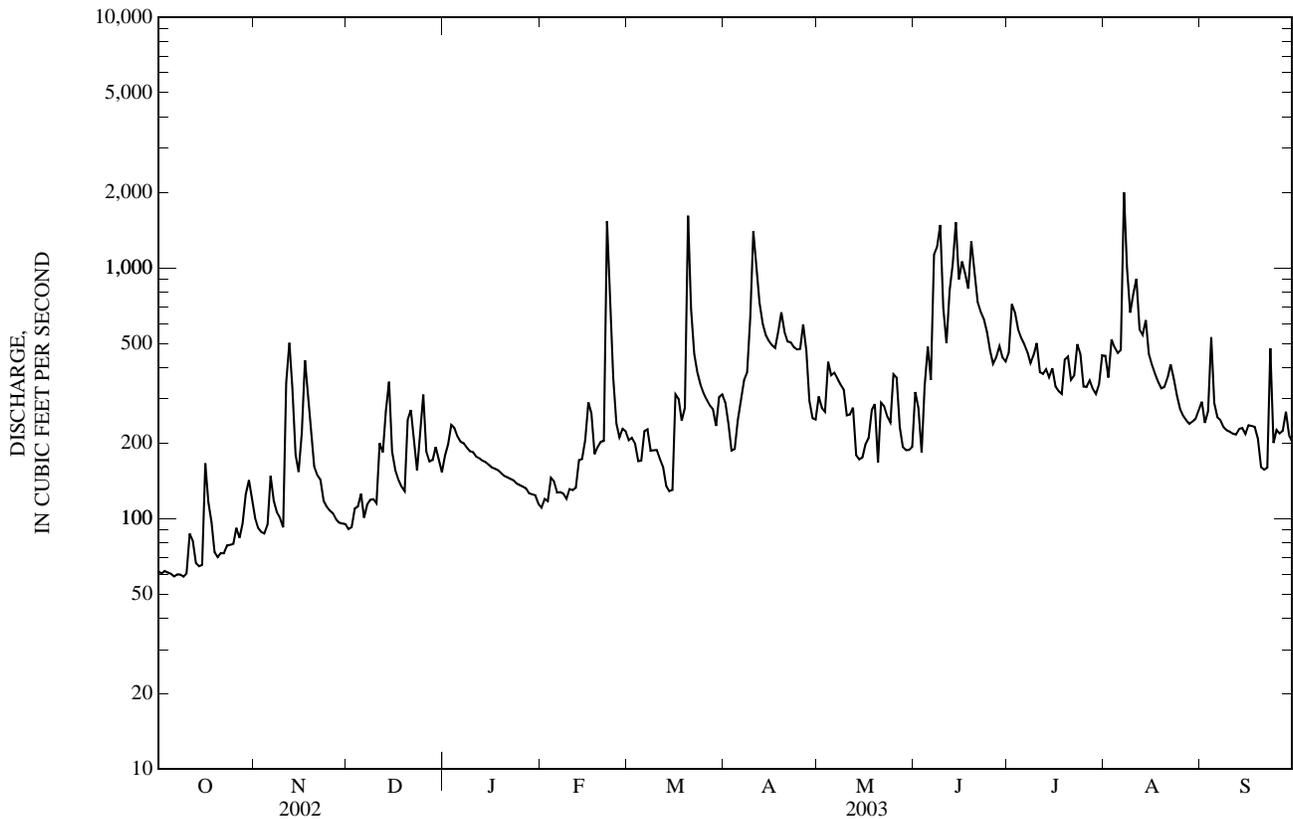
e Estimated.

† Change in contents, equivalent in cubic feet per second, in Talbott and Townes Reservoirs provided by city of Danville, Virginia.

* Regulated period only (1938-2003). See REMARKS.

[@] See PERIOD OF RECORD.

‡ Adjusted for change in contents.



ROANOKE RIVER BASIN

02070500 MAYO RIVER NEAR PRICE, NC

LOCATION.--Lat 36°32'05", long 79°59'29", 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 mi².

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 NGVD of 1929. Prior to Oct. 29, 1929, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for current water year also occurred Oct. 8, 9, 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	249	142	307	189	602	478	507	369	471	620	468
2	95	203	139	394	185	556	429	410	320	1,020	462	401
3	99	179	139	440	176	464	397	382	328	1,460	617	381
4	90	172	139	437	206	399	376	551	543	716	873	719
5	85	173	e138	347	251	371	368	459	1,590	669	680	652
6	79	356	e136	305	201	414	355	476	683	1,280	613	442
7	74	266	e135	273	216	379	803	423	1,340	1,440	1,720	410
8	73	215	e134	258	205	339	696	390	1,990	631	1,300	397
9	73	193	e133	246	187	322	1,610	371	3,120	539	865	384
10	74	181	e132	232	198	305	3,770	350	1,090	574	1,680	382
11	164	334	e160	217	212	289	2,860	336	758	497	3,190	375
12	211	831	467	206	208	282	1,110	324	1,300	460	1,010	367
13	127	727	805	200	199	280	781	303	1,020	603	725	365
14	106	414	1,040	e192	195	285	650	294	1,670	3,590	602	371
15	98	319	484	e188	244	265	581	295	981	910	552	365
16	425	486	349	e182	689	564	535	328	2,020	922	705	357
17	417	1,120	289	e178	450	543	499	305	1,740	1,430	850	334
18	223	514	253	e172	348	408	534	330	1,300	629	636	372
19	171	349	233	e170	357	361	799	360	1,420	638	499	606
20	148	285	444	e168	499	8,250	629	320	1,090	708	474	375
21	149	252	406	e166	561	2,040	557	297	842	524	455	345
22	161	229	305	e164	3,430	932	523	392	725	500	598	338
23	143	204	264	e162	2,460	628	475	473	652	520	476	2,870
24	128	188	383	e160	833	527	447	399	602	913	441	655
25	123	181	890	e156	568	467	437	643	573	512	414	468
26	149	172	498	e154	465	430	477	1,090	521	454	399	417
27	160	166	358	e154	453	401	508	655	502	427	390	391
28	147	158	306	e152	598	376	433	589	498	412	381	399
29	296	152	275	e150	---	386	406	451	485	401	375	362
30	418	150	253	195	---	671	390	417	464	446	404	345
31	360	---	237	200	---	667	---	379	---	469	492	---
TOTAL	5,170	9,418	10,066	6,925	14,783	23,203	22,913	13,299	30,536	24,765	23,498	15,113
MEAN	167	314	325	223	528	748	764	429	1,018	799	758	504
MAX	425	1,120	1,040	440	3,430	8,250	3,770	1,090	3,120	3,590	3,190	2,870
MIN	73	150	132	150	176	265	355	294	320	401	375	334
CFSM	0.69	1.30	1.34	0.92	2.18	3.09	3.16	1.77	4.21	3.30	3.13	2.08
IN.	0.79	1.45	1.55	1.06	2.27	3.57	3.52	2.04	4.69	3.81	3.61	2.32

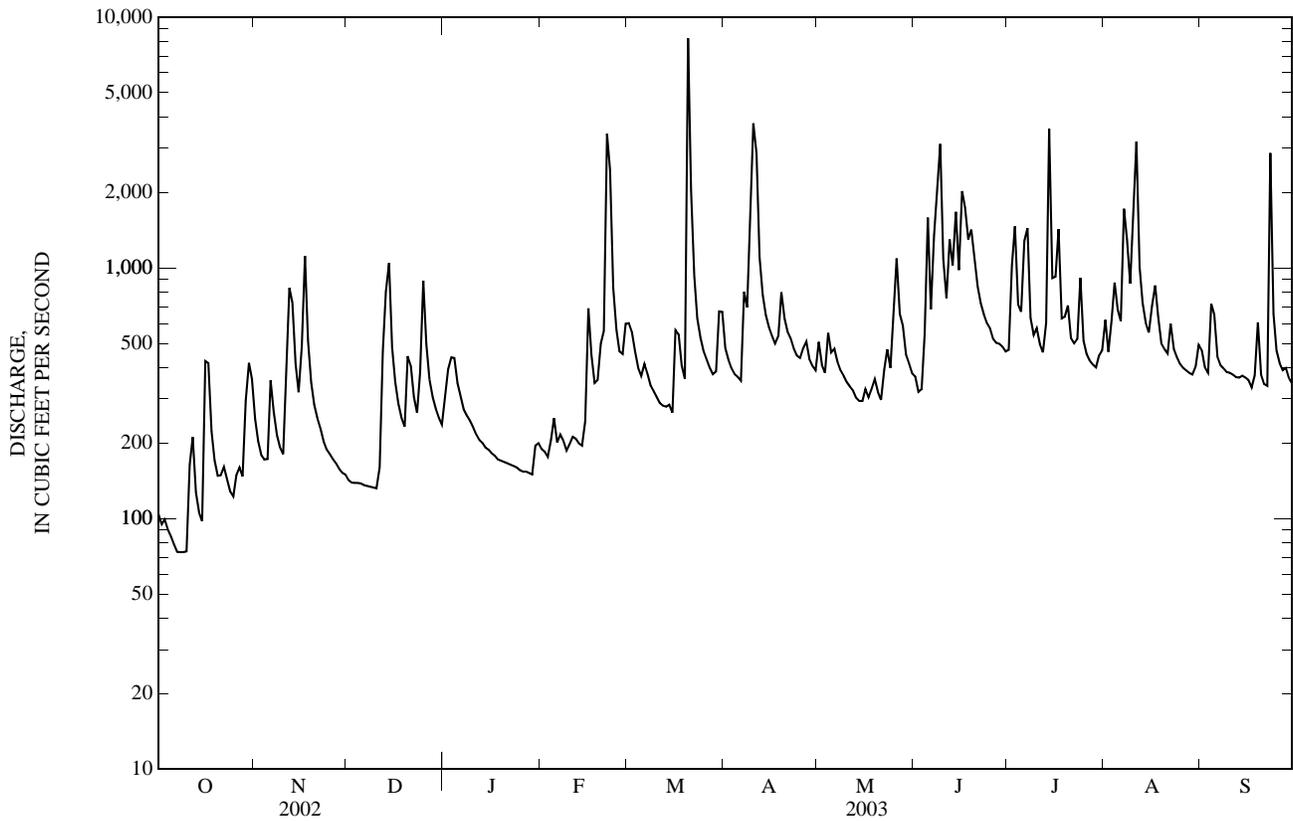
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003,[®] BY WATER YEAR (WY)

MEAN	265	241	287	353	390	428	397	324	296	258	258	245
MAX	1,250	578	661	1,022	900	982	764	659	1,018	799	943	1,002
(WY)	(1938)	(1958)	(1997)	(1936)	(1960)	(1994)	(2003)	(1949)	(2003)	(2003)	(1940)	(1945)
MIN	84.5	95.9	118	112	139	221	164	157	78.6	77.3	47.5	62.0
(WY)	(1932)	(1932)	(1956)	(1956)	(1931)	(1940)	(2002)	(1956)	(2002)	(2002)	(2002)	(1954)

02070500 MAYO RIVER NEAR PRICE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003 [@]	
ANNUAL TOTAL	63,574		199,689		312	
ANNUAL MEAN	174		547		547	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					136	
HIGHEST DAILY MEAN	1,560	Mar 18	8,250	Mar 20	11,400	Sep 18, 1945
LOWEST DAILY MEAN	33	Aug 11	73	Oct 8	33	Aug 11, 2002
ANNUAL SEVEN-DAY MINIMUM	33	Aug 10	78	Oct 4	33	Aug 10, 2002
MAXIMUM PEAK FLOW			13,000	Mar 20	30,000	Oct 19, 1937
MAXIMUM PEAK STAGE			9.81	Mar 20	14.00	Oct 19, 1937
INSTANTANEOUS LOW FLOW			73*	Oct 7	32	Oct 8, 1954
ANNUAL RUNOFF (CFSM)	0.72		2.26		1.29	
ANNUAL RUNOFF (INCHES)	9.77		30.70		17.49	
10 PERCENT EXCEEDS	312		993		500	
50 PERCENT EXCEEDS	143		399		231	
90 PERCENT EXCEEDS	48		155		123	

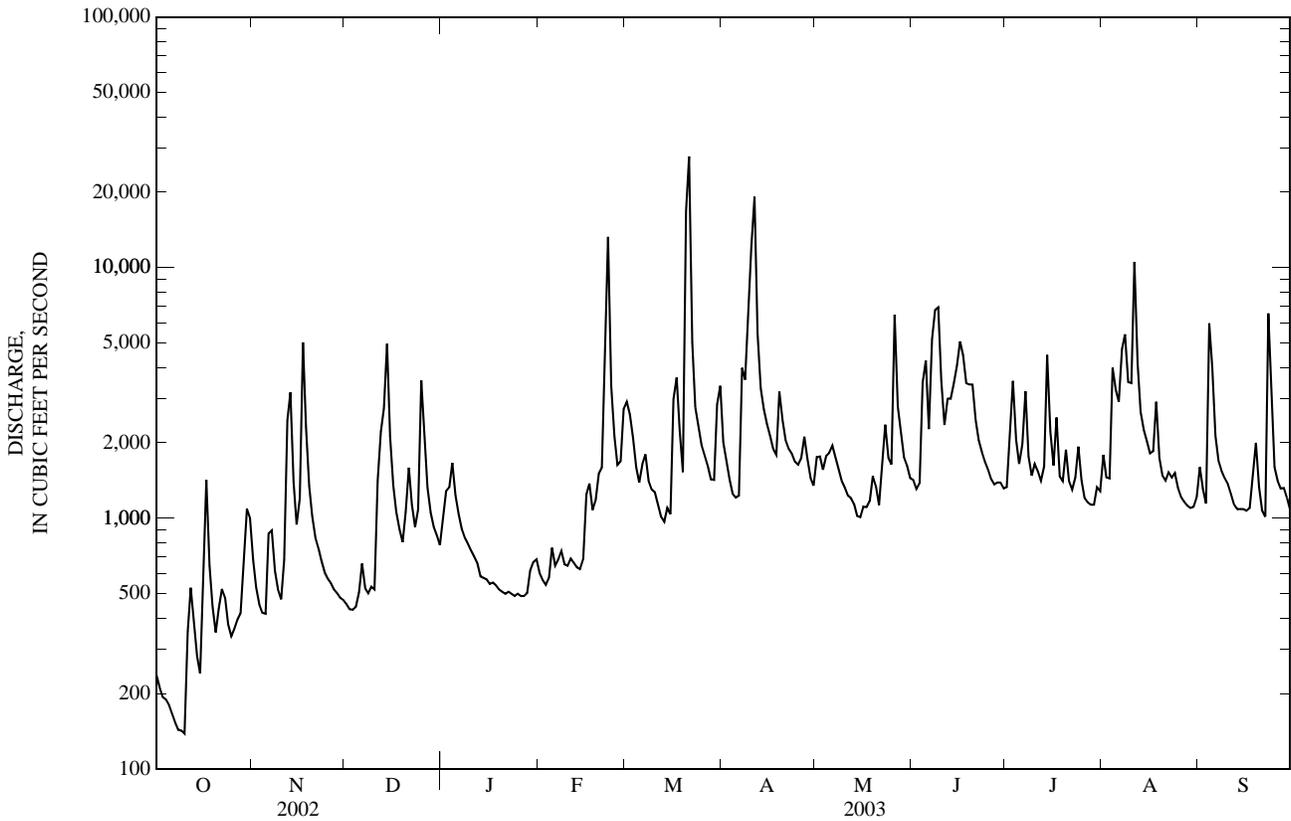
e Estimated.
[@] See PERIOD OF RECORD.
 * See REMARKS.



02071000 DAN RIVER NEAR WENTWORTH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	193,660		684,243			
ANNUAL MEAN	531		1,875		1,197	
HIGHEST ANNUAL MEAN					1,985	1960
LOWEST ANNUAL MEAN					373	2002
HIGHEST DAILY MEAN	5,030	Nov 17	27,800	Mar 21	47,800	Jun 22, 1972
LOWEST DAILY MEAN	63	Aug 12	138	Oct 10	63	Aug 12, 2002
ANNUAL SEVEN-DAY MINIMUM	65	Aug 9	159	Oct 4	65	Aug 9, 2002
MAXIMUM PEAK FLOW			35,200	Mar 21	54,200	Jun 22, 1972
MAXIMUM PEAK STAGE			26.91	Mar 21	31.60*	Jun 22, 1972
INSTANTANEOUS LOW FLOW			112	Oct 10	62	Aug 12, 2002
ANNUAL RUNOFF (CFSM)	0.50		1.78		1.14	
ANNUAL RUNOFF (INCHES)	6.84		24.17		15.45	
10 PERCENT EXCEEDS	933		3,460		2,020	
50 PERCENT EXCEEDS	417		1,370		818	
90 PERCENT EXCEEDS	111		496		394	

e Estimated.
 * See REMARKS.



ROANOKE RIVER BASIN

02074000 SMITH RIVER AT EDEN, NC

LOCATION.--Lat 36°31'31", long 79°45'56", 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 mi².

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 NGVD of 1929. Satellite telemetry at station.

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 ft³). Additional regulation by hydroelectric plant at Martinsville, Virginia, 18 mi upstream. Maximum discharge prior to regulation: 45,600 ft³/s, Aug. 15, 1940, from rating curve extended above 12,000 ft³/s on the basis of computation of peak flow over dam 1.5 mi downstream; gage height: 19.28 ft. Minimum discharge for current water year also occurred Oct. 11.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	292	150	890	321	1,630	819	1,400	507	803	1,060	e900
2	151	177	247	1,020	236	788	770	1,130	579	1,280	924	e700
3	166	166	188	987	352	795	581	980	1,190	1,990	568	e600
4	154	230	280	843	419	1,010	948	738	1,410	1,870	947	e1,400
5	124	229	242	463	375	949	870	695	3,840	1,780	1,140	1,300
6	84	455	232	508	386	996	419	1,010	1,590	1,760	1,370	889
7	100	346	222	481	626	940	1,590	1,340	2,670	1,780	1,450	576
8	127	274	210	456	400	731	1,640	1,310	2,170	968	1,100	551
9	167	176	309	530	222	394	2,770	1,310	3,110	866	1,240	946
10	150	163	240	509	402	528	4,150	1,150	2,110	922	771	949
11	305	490	511	422	424	819	4,130	446	1,970	892	2,140	911
12	372	1,300	701	249	441	838	2,290	499	2,550	850	2,160	865
13	134	1,200	945	357	502	836	2,010	825	3,070	549	1,870	975
14	140	508	1,590	462	412	896	1,840	825	1,700	2,580	1,780	519
15	262	385	628	449	379	709	1,760	834	921	1,190	1,730	537
16	421	429	593	449	1,210	906	1,700	901	2,080	996	1,300	826
17	447	1,540	424	459	703	881	1,660	851	3,270	1,050	529	805
18	322	784	316	362	573	855	1,700	532	2,640	935	719	872
19	212	478	342	185	554	779	1,430	686	2,800	897	1,110	1,540
20	133	395	522	348	683	11,400	507	697	2,260	530	1,060	992
21	166	338	448	444	922	3,750	557	649	1,950	508	1,060	501
22	213	302	381	442	4,460	2,360	863	1,490	1,840	901	1,060	530
23	288	196	426	432	3,480	2,050	1,310	1,480	1,770	944	1,030	4,160
24	180	196	544	402	1,860	1,900	1,550	1,170	1,250	1,300	631	1,550
25	167	318	1,370	379	1,910	1,770	1,550	1,060	1,610	922	503	1,130
26	201	256	850	226	1,760	819	1,210	1,520	1,650	880	950	1,050
27	145	240	527	267	1,860	810	453	1,300	1,670	435	992	995
28	169	202	325	408	2,000	782	514	1,490	1,170	456	916	667
29	377	256	353	381	---	606	922	1,310	488	888	e800	785
30	531	178	460	399	---	762	1,050	1,400	518	915	e600	1,300
31	513	---	682	431	---	1,060	---	1,260	---	899	e800	---
TOTAL	7,166	12,499	15,258	14,640	27,872	44,349	43,563	32,288	56,353	33,536	34,310	30,321
MEAN	231	417	492	472	995	1,431	1,452	1,042	1,878	1,082	1,107	1,011
MAX	531	1,540	1,590	1,020	4,460	11,400	4,150	1,520	3,840	2,580	2,160	4,160
MIN	84	163	150	185	222	394	419	446	488	435	503	501
†	+29	+200	+157	-36	+164	+25	-33	+1	-12	-4	-42	-44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2003,* BY WATER YEAR (WY)

MEAN	496	491	576	678	728	892	883	707	649	510	495	528
MAX	1,572	1,530	1,376	1,453	1,633	2,519	3,016	1,567	2,026	1,374	1,454	2,030
(WY)	(1990)	(1986)	(1997)	(1979)	(1998)	(1993)	(1987)	(1978)	(1972)	(1989)	(1985)	(1996)
MIN	201	211	267	291	249	331	248	266	146	151	126	165
(WY)	(1952)	(1982)	(2001)	(1989)	(2002)	(1967)	(2002)	(1964)	(2002)	(2002)	(2002)	(2002)

02074000 SMITH RIVER AT EDEN, NC—Continued

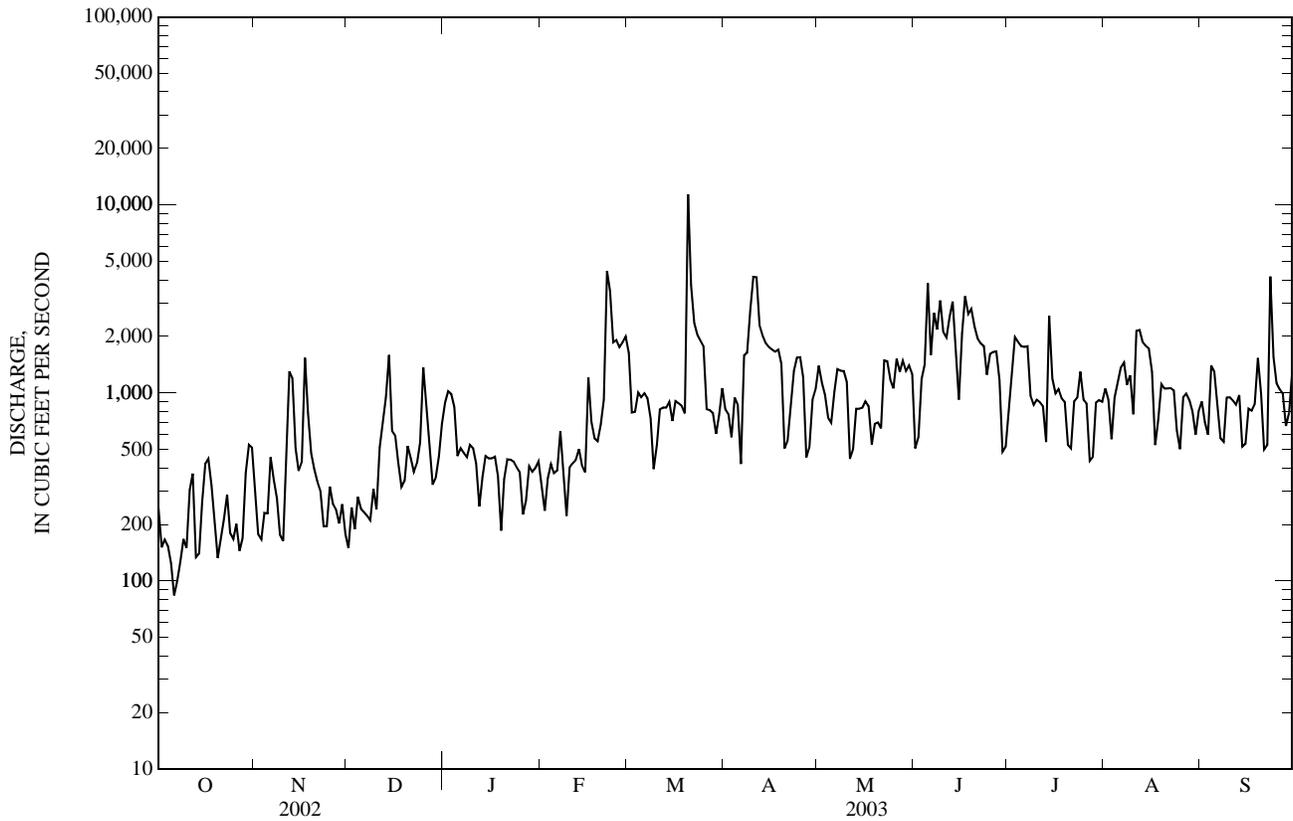
SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 2003*	
ANNUAL TOTAL	102,288		352,155		(UNADJUSTED)	
ANNUAL MEAN	280		965		635	
HIGHEST ANNUAL MEAN					1,010	1987
LOWEST ANNUAL MEAN					254	2002
HIGHEST DAILY MEAN	2,560	May 9	11,400	Mar 20	16,700	Jun 21, 1972
LOWEST DAILY MEAN	73	Jul 21	84	Oct 6	46	Aug 14, 1967
ANNUAL SEVEN-DAY MINIMUM	100	Aug 10	129	Oct 2	100	Aug 10, 2002
MAXIMUM PEAK FLOW			16,800	Mar 20	24,800	Jun 21, 1972
MAXIMUM PEAK STAGE			13.06	Mar 20	16.24	Jun 21, 1972
INSTANTANEOUS LOW FLOW			76*	Oct 10	38	Aug 7, 1967
10 PERCENT EXCEEDS	451		1,860		1,170	
50 PERCENT EXCEEDS	228		800		445	
90 PERCENT EXCEEDS	113		230		219	

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.

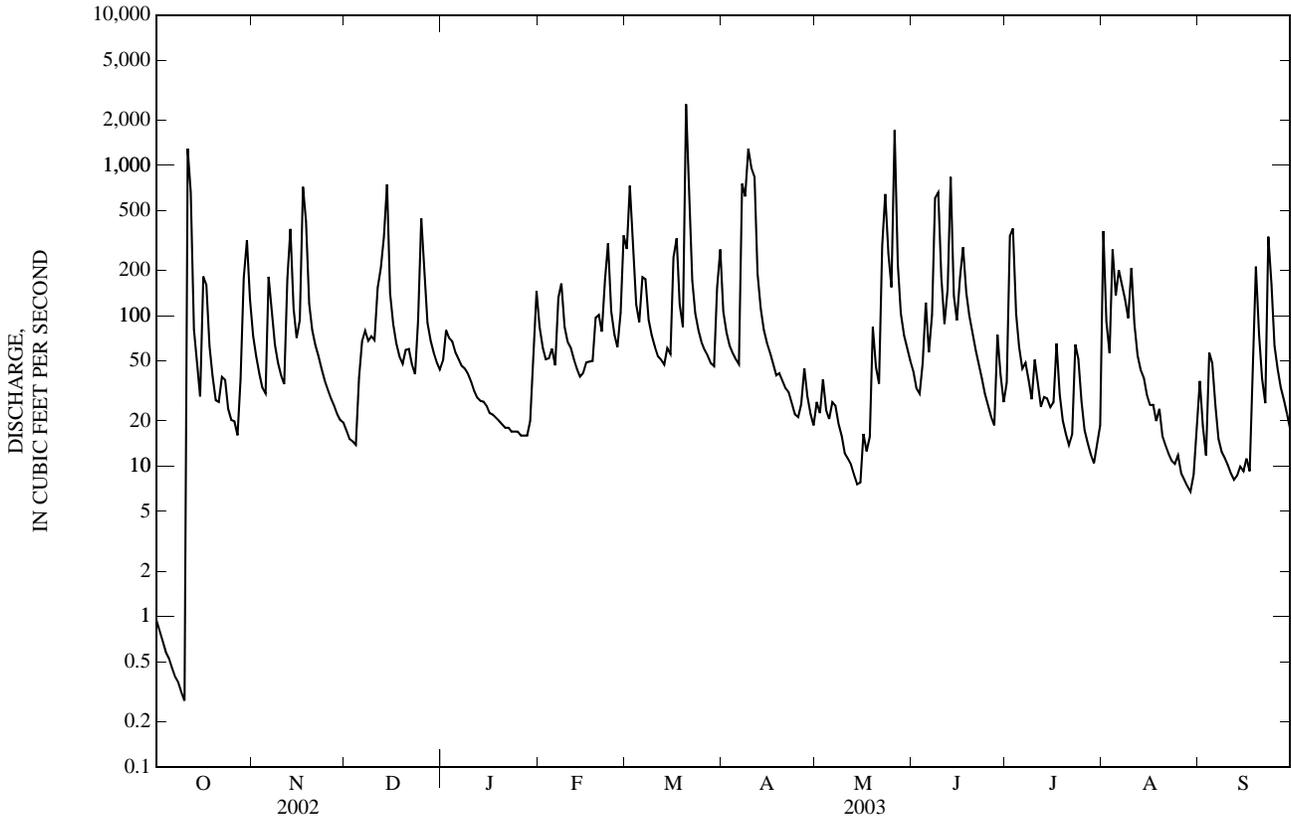
* Regulated period only (1951-2003). See REMARKS.



02077200 HYCO CREEK NEAR LEASBURG, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	13,310.81		41,194.86		46.6	
ANNUAL MEAN	36.5		113		113	
HIGHEST ANNUAL MEAN					8.68	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,290	Oct 11	2,540	Mar 20	7,400	Aug 28, 1995
LOWEST DAILY MEAN	0.00	Jun 13	0.28	Oct 10	0.00	Jul 9, 1966
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 17	0.42	Oct 4	0.00	Jul 9, 1966
MAXIMUM PEAK FLOW			5,080	Mar 20	NOT DETERMINED	
MAXIMUM PEAK STAGE			37.80	Mar 20	48.53*	Aug 27, 1995
INSTANTANEOUS LOW FLOW			0.24*	Oct 9	0.00*	Jul 8, 1966
ANNUAL RUNOFF (CFSM)	0.79		2.46		1.01	
ANNUAL RUNOFF (INCHES)	10.79		33.39		13.79	
10 PERCENT EXCEEDS	73		250		89	
50 PERCENT EXCEEDS	5.7		48		15	
90 PERCENT EXCEEDS	0.00		12		0.73	

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, many days during winter months in most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 28.0°C, Aug. 29; minimum recorded, 0.0°C, several days during the year.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.7	19.5	20.4	10.8	9.4	10	6.2	4.1	4.8	10.1	7.0	9.0
2	22.2	20.1	21.1	9.8	8.5	9.2	4.6	2.6	3.6	9.9	8.6	8.9
3	22.7	20.6	21.7	9.9	8.4	9.2	4.8	3.6	4.2	8.9	8.1	8.7
4	22.9	21.0	22.0	11.4	9.5	10.4	3.9	0.1	2.5	8.1	5.4	6.7
5	23.2	21.6	22.4	11.2	10.7	10.9	0.1	0.0	0.1	5.4	4.1	4.6
6	22.3	19.9	20.8	11.8	10.6	11.2	2.1	0.0	1.0	4.7	3.7	4.2
7	21.1	19.4	20.1	11.4	10.1	10.6	2.0	0.6	1.4	3.9	2.3	3.0
8	20.1	17.8	18.7	10.3	8.5	9.6	2.9	1.2	2.1	5.0	2.9	3.9
9	17.8	16.9	17.4	11.6	9.4	10.5	3.6	2.7	3.1	6.8	4.5	5.5
10	17.7	16.3	17.1	14.2	11.1	12.6	3.7	2.8	3.2	6.9	5.7	6.3
11	18.9	17.5	18.2	16.1	14.2	15.4	4.3	3.2	3.8	5.7	3.6	4.4
12	20.3	18.9	19.4	15.5	14.1	14.9	6.0	4.1	5.0	3.6	1.9	2.6
13	20.2	19.6	19.8	14.1	12.3	13.3	5.8	4.8	5.2	2.8	0.7	1.9
14	19.7	17.0	18.3	12.3	10.1	10.9	6.7	4.9	5.8	3.5	1.4	2.5
15	17.0	14.9	15.8	11.4	9.6	10.5	6.3	4.9	5.6	3.4	1.9	2.6
16	15.8	14.6	15.2	12.0	11.4	11.7	6.4	4.8	5.7	2.2	0.5	1.4
17	15.8	14.6	15.0	12.0	11.2	11.8	6.3	5.0	5.5	2.5	1.1	1.8
18	14.7	12.8	13.6	11.2	9.6	10.1	6.3	5.1	5.7	1.4	0.0	0.3
19	14.1	12.5	13.4	9.7	8.1	8.8	7.0	6.1	6.5	0.4	0.0	0.1
20	15.1	13.7	14.4	9.2	7.8	8.6	10.3	7.0	9.1	2.8	0.0	1.2
21	15.0	14.3	14.8	10.1	8.7	9.4	9.2	6.4	7.5	2.7	1.8	2.2
22	14.3	13.6	14.0	9.9	8.5	9.5	6.8	5.4	6.2	2.1	0.5	1.4
23	14.2	12.7	13.5	8.5	7.0	7.7	6.4	5.1	5.9	2.0	0.0	0.6
24	13.9	13.2	13.6	8.3	6.2	7.3	6.4	5.5	5.9	0.2	0.0	0.1
25	13.5	12.7	13.0	9.0	6.8	7.9	6.5	5.8	6.2	0.4	0.0	0.1
26	14.3	12.3	13.2	8.6	7.0	7.9	5.8	4.5	5.0	0.4	0.0	0.2
27	14.4	13.2	13.9	8.0	6.6	7.4	4.8	3.3	3.9	0.5	0.0	0.1
28	14.4	13.6	14.1	6.6	4.2	5.1	3.9	2.3	3.2	0.4	0.0	0.1
29	13.6	12.2	12.9	4.9	2.5	3.9	4.5	2.9	3.8	2.8	0.2	1.4
30	12.2	11.5	11.7	6.8	4.7	5.7	5.3	3.7	4.5	3.0	2.2	2.6
31	11.5	10.5	11.0	---	---	---	7.0	4.8	5.8	2.8	1.8	2.3
MONTH	23.2	10.5	16.5	16.1	2.5	9.7	10.3	0.0	4.6	10.1	0.0	2.9

ROANOKE RIVER BASIN

02077280 HYCO LAKE AT DAM NEAR ROXBORO, NC

LOCATION.--Lat 36°30'43", long 79°02'49", Person County, Hydrologic Unit 03010104, at spillway, off dam on Hyco River, 4.5 mi above Ghents Creek and 8 mi northwest of Roxboro.

DRAINAGE AREA.--189 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 399.79 ft above NGVD of 1929. Satellite telemetry at station.

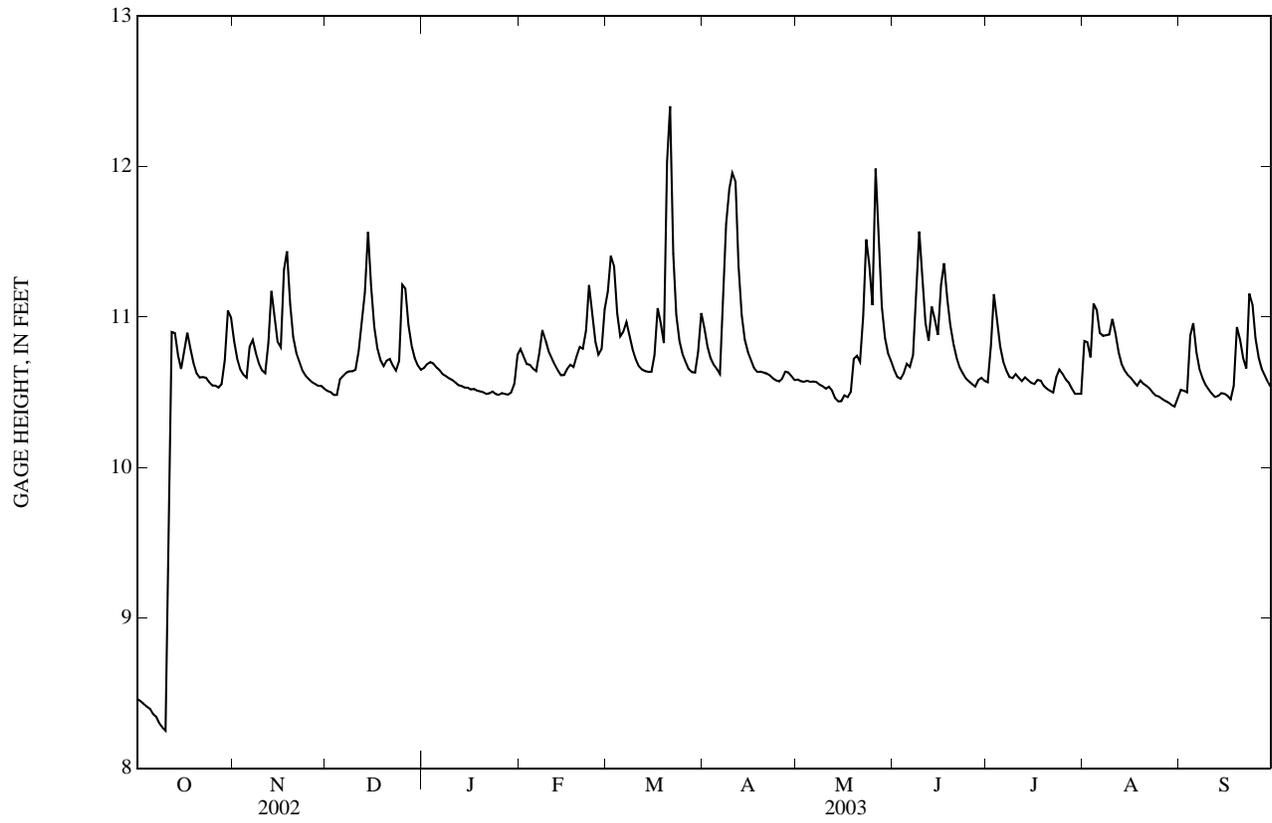
EXTREMES FOR PERIOD OF RECORD.--Maximum, 13.68 ft, Sept. 6, 1996; minimum, 7.54, Jan. 2,6, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum, 12.93 ft, Mar. 20; minimum, 8.24 ft, Oct. 10.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.46	10.84	10.51	10.66	10.79	11.17	10.93	10.58	10.65	10.57	10.84	10.52
2	8.45	10.72	10.50	10.69	10.74	11.41	10.80	10.57	10.60	10.81	10.83	10.51
3	8.43	10.65	10.48	10.70	10.69	11.34	10.73	10.57	10.59	11.15	10.73	10.50
4	8.41	10.62	10.48	10.69	10.68	11.02	10.68	10.58	10.62	10.97	11.09	10.88
5	8.39	10.60	10.59	10.66	10.66	10.87	10.66	10.57	10.69	10.81	11.05	10.96
6	8.36	10.80	10.61	10.65	10.64	10.90	10.62	10.57	10.67	10.70	10.89	10.76
7	8.34	10.85	10.63	10.62	10.76	10.97	11.19	10.57	10.75	10.64	10.88	10.66
8	8.30	10.76	10.64	10.61	10.91	10.87	11.62	10.55	11.18	10.60	10.88	10.59
9	8.27	10.69	10.64	10.59	10.84	10.78	11.85	10.54	11.57	10.59	10.88	10.55
10	8.25	10.64	10.65	10.58	10.77	10.72	11.96	10.52	11.29	10.62	10.99	10.52
11	9.35	10.63	10.77	10.57	10.73	10.67	11.90	10.54	10.96	10.60	10.89	10.49
12	10.90	10.83	10.98	10.55	10.68	10.65	11.34	10.51	10.84	10.57	10.77	10.47
13	10.89	11.17	11.16	10.54	10.64	10.64	11.01	10.46	11.07	10.60	10.69	10.48
14	10.74	11.01	11.57	10.53	10.61	10.64	10.85	10.44	10.98	10.58	10.64	10.49
15	10.66	10.83	11.21	10.53	10.61	10.64	10.77	10.44	10.88	10.56	10.62	10.49
16	10.78	10.80	10.94	10.52	10.66	10.75	10.71	10.48	11.22	10.55	10.59	10.48
17	10.90	11.31	10.79	10.52	10.68	11.06	10.66	10.47	11.36	10.58	10.57	10.45
18	10.79	11.44	10.71	10.51	10.67	10.96	10.63	10.50	11.12	10.58	10.54	10.54
19	10.69	11.08	10.67	10.51	10.74	10.83	10.64	10.72	10.95	10.54	10.58	10.93
20	10.62	10.87	10.71	10.50	10.80	12.03	10.63	10.74	10.82	10.52	10.56	10.85
21	10.60	10.76	10.72	10.49	10.79	12.40	10.63	10.70	10.73	10.51	10.54	10.73
22	10.60	10.70	10.68	10.49	10.91	11.42	10.61	11.01	10.67	10.50	10.53	10.66
23	10.60	10.64	10.64	10.51	11.21	11.01	10.59	11.52	10.63	10.60	10.50	11.16
24	10.57	10.61	10.71	10.49	11.01	10.84	10.58	11.34	10.59	10.65	10.48	11.08
25	10.55	10.59	11.22	10.48	10.84	10.76	10.57	11.08	10.57	10.62	10.47	10.86
26	10.54	10.57	11.19	10.49	10.75	10.70	10.59	11.99	10.55	10.59	10.45	10.73
27	10.53	10.56	10.94	10.49	10.79	10.65	10.64	11.54	10.54	10.56	10.44	10.66
28	10.55	10.54	10.81	10.48	11.05	10.63	10.63	11.07	10.58	10.52	10.43	10.61
29	10.71	10.54	10.73	10.50	---	10.63	10.61	10.86	10.60	10.49	10.42	10.57
30	11.04	10.52	10.68	10.56	---	10.77	10.58	10.76	10.58	10.49	10.40	10.53
31	11.00	---	10.65	10.75	---	11.03	---	10.71	---	10.49	10.46	---
MEAN	9.91	10.77	10.78	10.56	10.77	10.96	10.87	10.76	10.83	10.62	10.67	10.66
MAX	11.04	11.44	11.57	10.75	11.21	12.40	11.96	11.99	11.57	11.15	11.09	11.16
MIN	8.25	10.52	10.48	10.48	10.61	10.63	10.57	10.44	10.54	10.49	10.40	10.45

02077280 HYCO LAKE AT DAM NEAR ROXBORO, NC—Continued



0207730290 AFTERBAY RESERVIOR AT DAM NEAR McGEHEES MILL, NC

LOCATION.--Lat 36°31'25", long 78°59'48", Person County, Hydrologic Unit 03010104, on Afterbay Reservoir dam on Hyco River, 1.2 mi upstream from Ghent Creek, and 1.8 mi northeast of McGehees Mill.

DRAINAGE AREA.--202 mi².

PERIOD OF RECORD.--January 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is at NGVD of 1929. Satellite telemetry at station.

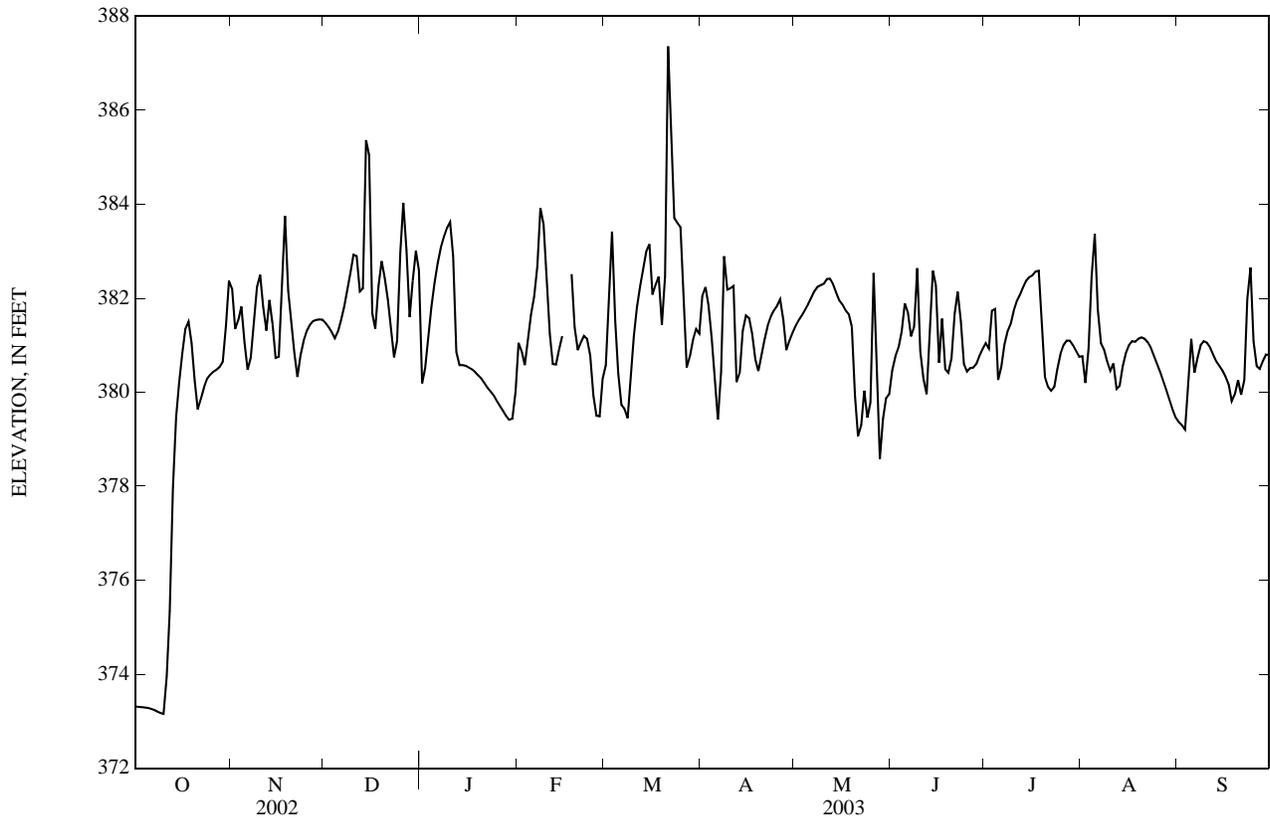
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 391.11 ft, Sept. 7, 1996; minimum elevation not determined.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 388.04 ft, Mar. 21; minimum elevation, 373.14, Oct. 10.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	373.31	382.20	381.48	380.19	381.05	380.58	382.04	381.42	380.47	381.04	380.77	379.36
2	373.31	381.35	381.38	380.51	380.87	381.76	382.24	381.54	380.76	380.93	380.20	379.30
3	373.30	381.54	381.28	381.16	380.58	383.42	381.84	381.64	380.96	381.74	380.93	379.21
4	373.29	381.82	381.15	381.80	381.16	381.52	381.15	381.76	381.28	381.77	382.45	380.13
5	373.28	381.05	381.29	382.32	381.65	380.40	380.29	381.87	381.89	380.26	383.37	381.13
6	373.26	380.48	381.53	382.75	382.04	379.73	379.42	382.01	381.71	380.54	381.76	380.42
7	373.24	380.74	381.82	383.06	382.69	379.65	380.43	382.15	381.19	381.02	381.04	380.73
8	373.21	381.48	382.18	383.30	383.92	379.45	382.89	382.24	381.38	381.29	380.91	381.00
9	373.18	382.24	382.54	383.49	383.57	380.27	382.18	382.28	382.64	381.45	380.66	381.09
10	373.15	382.50	382.92	383.62	382.36	381.20	382.21	382.31	380.87	381.73	380.45	381.06
11	373.95	381.81	382.90	382.90	381.25	381.80	382.26	382.41	380.29	381.94	380.61	380.96
12	375.34	381.31	382.14	380.86	380.60	382.25	380.22	382.42	379.96	382.07	380.07	380.81
13	377.96	381.96	382.21	380.58	380.59	382.63	380.41	382.29	381.09	382.23	380.13	380.66
14	379.47	381.44	385.36	380.58	380.91	382.99	381.31	382.12	382.59	382.37	380.56	380.56
15	380.21	380.73	385.05	380.56	381.19	383.15	381.63	381.95	382.27	382.45	380.83	380.46
16	380.83	380.75	381.68	380.53	---	382.08	381.57	381.87	380.63	382.49	381.00	380.34
17	381.34	382.15	381.35	380.49	---	382.28	381.24	381.74	381.56	382.57	381.09	380.17
18	381.50	383.75	382.25	380.43	382.51	382.46	380.70	381.66	380.49	382.58	381.07	379.81
19	381.05	382.16	382.79	380.36	381.38	381.43	380.45	381.40	380.42	381.54	381.14	379.96
20	380.24	381.51	382.44	380.30	380.90	382.46	380.80	379.92	380.72	380.33	381.17	380.26
21	379.63	380.83	381.97	380.20	381.06	387.36	381.12	379.06	381.67	380.12	381.14	379.95
22	379.86	380.32	381.35	380.09	381.20	385.41	381.42	379.29	382.14	380.03	381.07	380.26
23	380.11	380.80	380.74	380.02	381.13	383.70	381.61	380.03	381.50	380.11	380.95	381.99
24	380.29	381.10	381.09	379.93	380.78	383.60	381.74	379.46	380.60	380.50	380.79	382.65
25	380.37	381.30	382.96	379.81	379.92	383.51	381.84	379.79	380.44	380.82	380.62	381.08
26	380.44	381.43	384.03	379.71	379.50	381.97	381.98	382.53	380.51	381.00	380.43	380.55
27	380.48	381.51	383.02	379.61	379.49	380.52	381.53	380.77	380.52	381.10	380.24	380.50
28	380.54	381.54	381.60	379.49	380.29	380.76	380.89	378.58	380.60	381.10	380.04	380.66
29	380.65	381.55	382.37	379.41	---	381.12	381.10	379.43	380.77	381.00	379.84	380.80
30	381.41	381.54	383.01	379.44	---	381.34	381.26	379.87	380.92	380.88	379.63	380.79
31	382.37	---	382.59	380.01	---	381.25	---	379.96	---	380.76	379.46	---
MEAN	377.76	381.50	382.27	380.89	---	382.00	381.33	381.15	381.09	381.28	380.79	380.56
MAX	382.37	383.75	385.36	383.62	---	387.36	382.89	382.53	382.64	382.58	383.37	382.65
MIN	373.15	380.32	380.74	379.41	---	379.45	379.42	378.58	379.96	380.03	379.46	379.21

0207730290 AFTERBAY RESERVIOR AT DAM NEAR McGEHEES MILL, NC—Continued



02077303 HYCO RIVER BELOW AFTERBAY DAM NEAR MCGEHEES MILL, NC

LOCATION.--Lat 36°31'25", long 78°59'47", 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 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 342.98 ft above NGVD of 1929 (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. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Roxboro Steam-Electric Generating Plant Afterbay Reservoir. Minimum discharge for current water year also occurred Oct. 5.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	560	55	416	152	1,230	385	52	51	58	545	72
2	1.9	360	55	55	349	1,350	369	53	52	672	369	72
3	1.8	57	54	57	111	1,720	359	52	52	746	61	72
4	1.8	148	53	58	54	1,580	349	52	52	1,140	551	82
5	1.7	338	54	58	55	717	339	53	89	567	930	891
6	2.8	376	54	58	56	676	222	53	297	58	1,010	334
7	3.5	303	55	58	57	670	867	55	462	59	510	74
8	3.7	55	55	59	296	487	2,300	55	1,090	60	489	73
9	3.7	58	56	59	617	54	3,500	56	2,370	60	612	73
10	3.6	209	56	59	595	55	3,760	55	1,920	61	1,030	74
11	497	299	557	548	369	56	3,740	55	980	61	522	73
12	118	488	804	285	269	57	2,180	55	342	61	432	73
13	4.0	998	894	54	54	57	704	55	294	61	75	73
14	11	1,080	1,490	54	54	57	244	54	543	61	75	74
15	15	392	1,930	53	55	232	241	53	762	61	76	73
16	212	288	1,550	53	56	507	239	53	1,460	62	76	73
17	357	969	62	53	57	575	237	51	1,620	61	77	72
18	345	1,820	57	53	251	789	234	51	1,500	159	75	310
19	337	1,560	143	53	545	771	88	664	609	345	75	748
20	328	518	319	52	263	2,920	51	640	176	185	75	446
21	117	471	314	52	256	5,410	52	315	58	56	75	263
22	50	144	306	52	555	2,690	52	631	169	55	75	73
23	50	54	172	52	1,300	1,450	53	2,450	309	58	74	526
24	50	55	59	51	843	300	54	1,750	235	56	74	1,190
25	49	55	731	51	601	493	53	1,060	56	58	74	961
26	50	55	1,170	51	246	707	77	3,150	56	58	73	193
27	49	56	1,090	50	272	292	363	3,600	56	58	74	152
28	49	56	418	51	730	52	152	1,160	55	57	73	71
29	206	56	56	50	---	52	52	225	57	56	72	72
30	513	56	58	50	---	471	52	219	57	56	72	72
31	579	---	652	51	---	786	---	130	---	56	71	---
TOTAL	4,012.5	11,934	13,379	2,756	9,118	27,263	21,368	16,957	15,829	5,222	8,472	7,405
MEAN	129	398	432	88.9	326	879	712	547	528	168	273	247
MAX	579	1,820	1,930	548	1,300	5,410	3,760	3,600	2,370	1,140	1,030	1,190
MIN	1.7	54	53	50	54	52	51	51	51	55	61	71

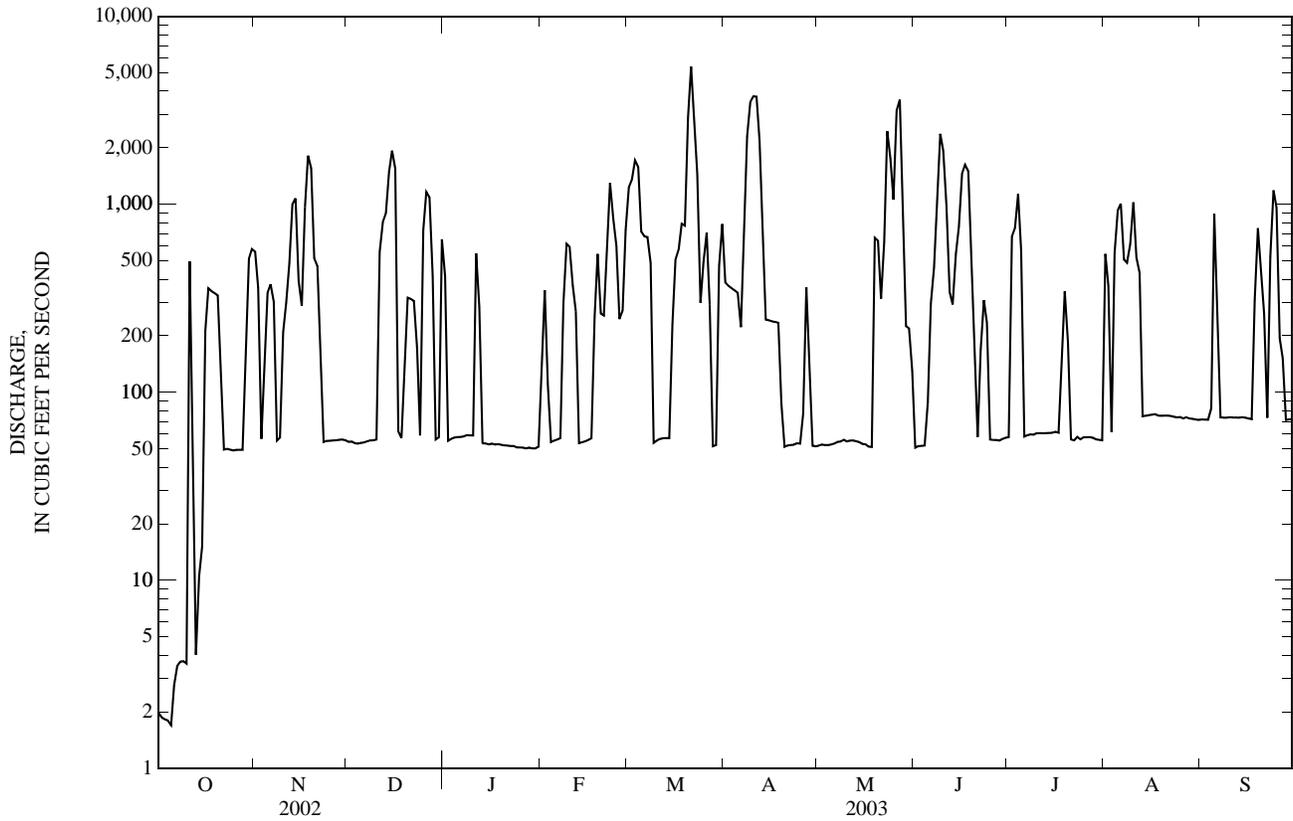
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

MEAN	56.8	66.3	117	343	314	419	252	127	90.3	95.2	70.9	124
MAX	351	398	432	1,201	926	1,165	712	864	528	1,058	294	675
(WY)	(1996)	(2003)	(2003)	(1978)	(1979)	(1993)	(2003)	(1978)	(2003)	(1975)	(1982)	(1974)
MIN	3.47	2.40	2.19	2.76	4.38	6.02	5.21	4.22	3.96	6.14	1.08	1.55
(WY)	(1999)	(1998)	(1998)	(2001)	(2002)	(2002)	(2002)	(2002)	(1974)	(2002)	(1999)	(1977)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1974 - 2003	
ANNUAL TOTAL	30,616.3		143,715.5		172	
ANNUAL MEAN	83.9		394		394	
HIGHEST ANNUAL MEAN					5.11	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,930	Dec 15	5,410	Mar 21	9,280	Jul 14, 1975
LOWEST DAILY MEAN	1.6	Sep 4	1.7	Oct 5	0.27	Nov 2, 1997
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 2	2.2	Oct 1	0.45	Aug 3, 1999
MAXIMUM PEAK FLOW			6,140	Mar 21	11,300	Jul 14, 1975
MAXIMUM PEAK STAGE			19.49	Mar 21	24.40	Jul 14, 1975
INSTANTANEOUS LOW FLOW			1.5*	Oct 3	0.00	Jun 26, 1980
10 PERCENT EXCEEDS	292		1,040		393	
50 PERCENT EXCEEDS	5.6		75		32	
90 PERCENT EXCEEDS	2.0		52		9.0	

* See REMARKS.



WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to September 1983.

WATER TEMPERATURE: June 1974 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 197 microsiemens, Dec. 6, 1981; minimum, 89 microsiemens, May 16, 1983.

WATER TEMPERATURE: Maximum recorded, 33.5°C, July 20, 21, 22, 1977; minimum recorded, 1.0°C, Jan. 6, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 28.6°C, Aug. 11; minimum recorded, 3.4°C, Jan. 27, 28.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	26.0	20.9	22.7	16.0	15.7	15.8	11.4	10.5	10.9	10.4	9.7	10.1
2	26.8	21.2	23.3	15.7	14.9	15.3	10.7	10.3	10.5	10.3	10.0	10.2
3	27.1	21.5	23.6	14.9	14.7	14.8	10.5	9.8	10.2	10.0	9.8	9.9
4	26.4	21.8	23.7	15.5	14.7	15.1	9.8	9.1	9.5	9.8	9.1	9.4
5	27.6	21.8	24.0	15.5	15.0	15.3	9.1	8.6	8.8	9.1	8.8	9.0
6	25.7	21.2	22.7	15.2	14.7	15.0	8.6	8.2	8.4	9.1	8.4	8.8
7	24.9	22.1	23.0	14.8	14.1	14.6	8.5	7.8	8.2	8.4	7.8	8.1
8	22.8	21.3	21.8	14.5	13.8	14.1	8.3	7.8	8.1	8.5	7.9	8.2
9	22.3	20.7	21.4	14.8	14.1	14.4	8.1	7.6	7.8	8.8	8.0	8.4
10	22.2	20.6	21.3	15.3	14.5	14.8	7.7	7.5	7.6	8.5	8.1	8.3
11	21.3	18.8	20.5	16.0	15.3	15.7	7.6	7.1	7.5	8.3	7.7	8.1
12	23.0	20.7	21.4	16.0	15.6	15.9	7.7	7.4	7.5	8.0	7.3	7.7
13	22.4	20.7	21.2	15.6	15.4	15.5	7.7	7.5	7.6	7.7	7.1	7.4
14	21.1	19.9	20.6	15.9	15.2	15.6	9.2	7.5	8.4	7.4	7.2	7.3
15	20.5	18.6	20.1	16.0	15.6	15.8	10.4	9.2	9.9	7.3	6.6	7.0
16	20.8	16.1	18.9	16.0	15.7	15.9	10.9	10.4	10.6	6.6	6.4	6.5
17	20.6	20.2	20.4	15.7	15.3	15.5	10.5	10.0	10.2	6.5	5.9	6.3
18	20.3	19.8	20.1	15.9	15.2	15.5	10.0	9.7	9.8	5.9	5.5	5.8
19	20.1	19.7	19.9	15.9	15.6	15.8	10.1	9.7	9.9	5.7	5.3	5.5
20	19.9	19.7	19.8	15.8	15.5	15.7	10.7	10.1	10.4	6.0	5.3	5.6
21	19.8	18.9	19.3	15.7	15.6	15.7	10.4	10.2	10.3	5.6	5.3	5.5
22	18.9	18.5	18.7	15.6	14.3	15.1	10.3	10.0	10.1	5.4	5.0	5.2
23	18.7	18.3	18.5	14.3	13.8	14.0	10.1	9.9	10	5.3	4.1	4.8
24	18.5	18.3	18.4	14.1	13.5	13.8	9.9	8.5	9.5	4.1	3.6	3.9
25	18.3	17.8	18.0	14.1	13.5	13.8	9.5	9.1	9.4	4.0	3.6	3.9
26	18.2	17.7	17.9	13.7	13.3	13.5	9.4	9.0	9.2	4.3	3.7	4.0
27	17.9	17.5	17.7	13.3	12.7	13.1	9.8	9.3	9.5	4.1	3.4	3.7
28	17.7	17.3	17.5	12.7	12.2	12.4	9.6	9.3	9.4	3.9	3.4	3.7
29	17.5	16.9	17.2	12.3	11.9	12.2	9.5	9.0	9.3	4.4	3.9	4.1
30	16.9	16.5	16.7	12.2	11.4	11.9	9.5	8.9	9.2	4.4	4.0	4.1
31	16.6	16.0	16.3	---	---	---	9.8	9.1	9.5	4.1	4.0	4.1
MONTH	27.6	16.0	20.2	16.0	11.4	14.7	11.4	7.1	9.3	10.4	3.4	6.6

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

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	4.4	3.9	4.1	9.3	9.0	9.1	15.5	15.1	15.3	17.1	16.5	16.9
2	4.4	3.9	4.1	10.0	9.3	9.6	16.2	15.0	15.6	17.2	16.5	16.8
3	5.0	4.2	4.5	10.8	9.7	10.2	17.0	16.1	16.6	16.9	16.4	16.5
4	6.4	5.0	5.9	11.5	10.5	10.8	17.9	16.7	17.4	16.6	16.4	16.5
5	5.9	5.6	5.8	12.8	11.5	12.2	18.1	17.2	17.7	16.7	16.4	16.5
6	5.9	5.6	5.8	13.2	12.6	12.9	18.0	15.6	16.8	17.8	16.5	17.2
7	6.1	5.4	5.8	12.8	11.7	11.9	16.2	12.6	15.0	18.6	17.1	17.8
8	6.2	5.5	5.9	12.3	11.4	11.8	16.1	15.8	15.9	18.3	17.4	17.8
9	7.1	5.9	6.4	13.0	11.7	12.4	16.0	15.8	15.9	18.3	17.0	17.7
10	7.5	7.0	7.2	12.4	11.7	12.1	15.8	14.3	15.1	18.1	17.3	17.7
11	7.7	7.0	7.3	11.8	11.3	11.6	14.3	13.8	13.9	19.8	17.6	18.5
12	---	---	---	12.3	11.2	11.7	15.3	13.9	14.5	21.6	18.8	20.3
13	---	---	---	12.6	11.8	12.3	14.9	14.7	14.8	20.9	19.0	20.1
14	7.6	7.2	7.4	12.5	11.6	11.9	15.4	14.7	15.0	19.3	18.2	18.8
15	7.6	7.0	7.4	12.3	11.6	11.9	16.6	15.1	15.9	19.1	18.3	18.6
16	7.0	6.2	6.6	12.4	12.2	12.3	16.9	16.2	16.5	18.8	18.4	18.6
17	6.2	5.9	6.1	12.7	12.4	12.5	16.2	15.0	15.9	18.6	17.9	18.1
18	6.4	5.9	6.1	13.3	12.7	13.0	15.8	15.1	15.6	18.1	16.8	17.7
19	6.5	6.1	6.4	13.3	12.7	13.0	15.9	15.3	15.5	19.1	16.9	18.7
20	7.0	6.5	6.8	13.4	12.6	13.1	15.6	15.2	15.4	19.6	19.0	19.2
21	7.5	6.9	7.2	13.9	13.2	13.5	16.2	15.4	15.7	19.9	19.2	19.6
22	7.9	7.3	7.6	15.1	13.9	14.5	17.1	16.2	16.6	19.6	18.9	19.3
23	9.1	7.7	8.9	15.2	14.6	14.9	17.1	15.7	16.3	20.3	19.4	19.8
24	10.1	8.9	9.6	15.2	14.7	14.9	16.1	15.7	15.9	21.3	20.3	20.8
25	10.7	10.1	10.3	16.3	14.8	15.6	16.2	15.7	16.0	21.2	20.8	21.1
26	10.2	9.4	9.7	17.2	16.1	16.6	17.0	15.8	16.2	21.9	21.1	21.5
27	9.4	8.6	8.9	16.7	14.7	15.6	17.5	16.8	17.1	21.7	21.5	21.6
28	9.0	8.6	8.8	15.4	14.6	15.0	17.3	16.6	17.0	22.1	21.3	21.6
29	---	---	---	16.4	13.5	15.6	17.3	16.3	16.8	21.6	21.2	21.3
30	---	---	---	16.6	13.5	15.9	16.8	16.1	16.5	21.7	21.0	21.4
31	---	---	---	15.9	15.5	15.7	---	---	---	21.4	20.8	21.2
MONTH	10.7	3.9	6.9	17.2	9.0	13.0	18.1	12.6	15.9	22.1	16.4	19.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.6	20.7	21.3	24.6	23.3	24.3	27.3	24.9	26.6	27.7	27.1	27.4
2	21.1	20.3	20.7	26.0	23.7	25.3	27.2	26.1	26.7	27.8	27.2	27.5
3	20.7	20.3	20.6	26.3	26.0	26.2	26.4	25.6	26.0	27.6	25.3	27.3
4	21.3	20.6	20.9	27.3	26.2	26.7	27.7	25.5	26.9	28.0	25.5	26.5
5	21.7	20.5	21.0	28.1	26.0	27.2	28.5	27.5	28.0	28.0	26.9	27.7
6	21.8	21.4	21.6	26.5	25.5	26.0	28.4	28.0	28.2	27.3	25.7	26.6
7	22.9	21.4	22.1	26.5	25.6	26.1	28.3	27.5	28.1	25.8	25.4	25.5
8	23.0	22.4	22.6	26.3	25.8	26.1	28.1	28.0	28.1	25.5	25.1	25.4
9	24.8	23.0	23.9	26.4	25.6	25.9	28.3	26.6	28.0	25.2	24.8	25.1
10	25.1	24.2	24.6	26.4	25.5	26.0	28.3	28.0	28.1	24.8	24.2	24.6
11	26.1	25.0	25.6	27.1	25.8	26.5	28.6	28.0	28.3	24.5	23.9	24.1
12	25.8	25.0	25.4	26.3	25.7	26.1	28.5	27.0	28.1	24.0	23.7	23.9
13	26.3	25.3	25.7	26.1	25.6	25.8	27.4	26.9	27.1	23.7	23.6	23.7
14	27.1	25.7	26.6	26.0	25.7	25.9	27.5	26.7	27.1	23.8	23.5	23.6
15	27.5	26.5	27.0	26.2	25.7	25.9	27.6	26.8	27.1	24.0	23.5	23.7
16	27.4	26.9	27.1	26.9	25.9	26.4	27.4	26.8	27.1	23.8	23.1	23.5
17	27.0	26.3	26.6	26.2	25.9	26.1	27.7	26.8	27.2	23.5	22.9	23.2
18	26.3	26.0	26.1	28.2	25.7	26.7	27.2	26.5	26.9	23.5	22.5	23.0
19	26.5	25.9	26.1	28.3	27.7	28.0	27.2	26.7	26.9	23.1	22.4	22.8
20	25.9	24.1	25.0	28.0	26.4	27.4	27.3	26.7	27.0	23.0	22.8	22.9
21	24.7	23.9	24.3	27.3	26.3	26.8	27.4	26.7	27.1	23.1	22.4	22.9
22	26.0	23.9	24.9	27.5	26.5	27.0	27.8	26.8	27.2	24.5	22.4	23.2
23	26.1	25.5	25.7	26.8	26.1	26.5	27.5	26.8	27.1	24.6	24.1	24.4
24	25.8	24.5	25.4	26.7	26.0	26.3	27.2	26.6	26.8	24.3	23.8	24.0
25	25.0	24.1	24.5	26.4	25.8	26.1	27.7	26.4	27.1	25.1	24.1	24.5
26	25.0	24.1	24.6	26.5	25.7	26.2	27.6	27.0	27.3	24.1	23.8	24.0
27	24.9	24.2	24.5	27.1	26.1	26.7	27.8	27.0	27.4	24.3	23.5	23.9
28	24.3	24.1	24.2	27.1	26.4	26.8	27.7	27.1	27.4	23.9	23.2	23.5
29	25.0	24.1	24.6	26.4	26.0	26.2	27.9	27.1	27.5	23.4	22.5	23.1
30	25.0	24.2	24.6	26.0	25.8	26.0	28.2	27.4	27.8	22.6	22.1	22.3
31	---	---	---	26.0	24.9	25.8	27.6	27.1	27.3	---	---	---
MONTH	27.5	20.3	24.3	28.3	23.3	26.3	28.6	24.9	27.3	28.0	22.1	24.5

02077670 MAYO CREEK NEAR BETHEL HILL, NC

LOCATION.--Lat 36°32'27", long 78°52'20" 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 mi².

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

REVISED RECORDS.--WDR NC-81-1: Drainage area. WDR NC-02-1A: 2001.

GAGE.--Water-stage recorder. Datum of gage is 338.84 ft above NGVD of 1929 (levels by Carolina Power & Light Company). Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records 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 current water year also occurred Oct. 19, 24.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 4, 1974, reached a stage of 11.11 ft, from floodmarks; discharge, 4,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.4	29	84	44	234	229	93	216	51	32	23
2	3.4	3.3	26	83	44	317	188	84	175	108	30	21
3	3.8	3.3	21	81	43	315	156	82	146	253	65	19
4	3.7	3.5	19	76	45	265	132	80	133	238	142	43
5	3.3	3.8	34	71	42	225	115	75	122	202	117	59
6	3.5	6.7	36	67	40	222	100	72	105	166	98	55
7	3.2	4.4	37	62	61	213	275	69	147	138	96	48
8	3.5	4.9	36	58	70	184	398	64	258	114	80	42
9	3.8	5.5	36	54	70	156	689	60	462	98	92	36
10	3.4	6.5	35	49	69	131	839	60	404	89	188	30
11	22	11	54	44	69	114	945	69	322	79	165	26
12	3.5	41	73	39	65	101	717	64	266	70	139	21
13	3.2	75	118	36	61	91	544	55	241	66	118	20
14	3.2	74	194	31	58	86	419	48	199	64	105	20
15	3.1	69	174	29	58	79	331	47	163	60	89	18
16	4.8	68	149	26	64	76	266	56	154	57	76	15
17	3.5	114	126	25	68	76	213	52	180	55	66	12
18	3.2	141	109	23	68	73	172	61	170	50	58	35
19	3.2	130	96	21	73	70	149	135	155	42	56	144
20	3.2	114	92	19	76	507	129	136	132	36	51	133
21	3.3	102	85	17	76	783	113	132	111	32	44	115
22	3.4	91	77	16	92	599	98	229	95	42	38	101
23	3.3	79	70	16	129	462	85	412	84	83	32	221
24	3.2	70	82	15	124	360	76	407	75	75	27	226
25	3.2	64	158	14	110	288	71	384	69	68	24	188
26	3.2	58	165	14	100	233	73	776	63	62	20	156
27	3.3	54	143	12	120	187	134	654	57	57	17	131
28	4.2	47	125	12	200	154	132	511	52	49	14	110
29	5.7	42	110	12	---	139	116	397	48	40	12	90
30	6.1	35	97	20	---	193	101	320	43	38	11	76
31	3.7	---	86	38	---	255	---	264	---	34	18	---
TOTAL	130.7	1,524.3	2,692	1,164	2,139	7,188	8,005	5,948	4,847	2,616	2,120	2,234
MEAN	4.22	50.8	86.8	37.5	76.4	232	267	192	162	84.4	68.4	74.5
MAX	22	141	194	84	200	783	945	776	462	253	188	226
MIN	3.1	3.3	19	12	40	70	71	47	43	32	11	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2003, BY WATER YEAR (WY)

MEAN	11.3	15.9	23.0	61.5	69.6	102	77.5	42.7	25.3	19.3	13.0	27.4
MAX	62.2	76.0	86.8	254	301	260	267	210	162	118	68.4	350
(WY)	(1990)	(1980)	(2003)	(1978)	(1998)	(1998)	(2003)	(1978)	(2003)	(1995)	(2003)	(1996)
MIN	0.011	0.011	0.016	0.003	0.28	0.14	0.20	0.12	0.075	0.24	0.038	0.000
(WY)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1980)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

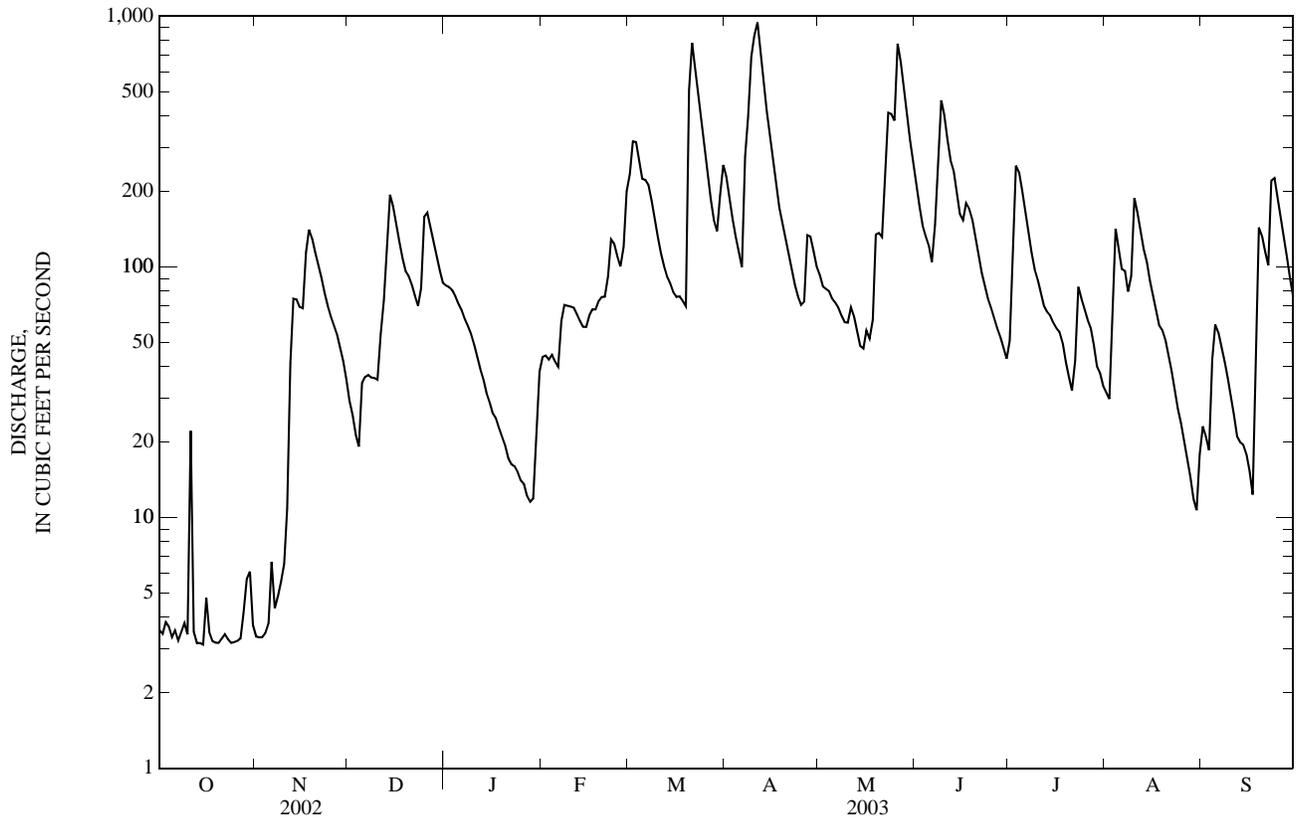
FOR 2003 WATER YEAR

WATER YEARS 1977 - 2003

ANNUAL TOTAL	5,327.5	40,608.0	
ANNUAL MEAN	14.6	111	40.6
HIGHEST ANNUAL MEAN			111
LOWEST ANNUAL MEAN			0.11
HIGHEST DAILY MEAN	194	Dec 14	945
LOWEST DAILY MEAN	2.8	May 20	3.1
ANNUAL SEVEN-DAY MINIMUM	2.9	May 20	3.3
MAXIMUM PEAK FLOW			1,020
MAXIMUM PEAK STAGE			8.05
INSTANTANEOUS LOW FLOW			2.9*
10 PERCENT EXCEEDS	50		239
50 PERCENT EXCEEDS	3.5		71
90 PERCENT EXCEEDS	3.1		5.6

* See REMARKS.

02077670 MAYO CREEK NEAR BETHEL HILL, NC—Continued



02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC

LOCATION.--Lat 36°27'37.80", long 77°38'04.03", 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 mi².

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 NGVD of 1929. Dec. 7, 1911, to Nov. 21, 1921, and Apr. 7 to Dec. 31, 1932, nonrecording gage and Nov. 21, 1921, to Apr. 7, 1932, water-stage recorder, both at site 9 mi upstream at different datum. Aug. 6, 1941, to Mar. 1, 1973, auxiliary water-stage recorder, 3.6 mi downstream of base gage. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since August 1950 by Philpott Lake on Smith River, usable capacity, 6,325,000,000 ft³; since September 1950 by John H. Kerr Reservoir, usable capacity, 101,247,000,000 ft³; 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 ft³/s, Aug. 18, 1940; gage height: 39.0 ft, from floodmarks; minimum discharge: about 250 ft³/s, Dec. 16, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877, discharge, 212,000 ft³/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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,400	2,350	8,450	19,700	3,070	22,000	28,300	28,000	20,200	24,400	14,500	11,400
2	2,440	2,780	e9,400	19,200	2,830	21,500	26,600	24,700	20,300	24,500	13,100	11,000
3	2,440	2,690	8,980	e19,500	4,190	21,400	24,300	24,600	20,300	24,500	11,500	9,550
4	2,440	2,360	e7,700	13,000	5,960	21,400	24,200	24,200	20,000	24,300	11,400	9,570
5	2,440	3,120	9,330	13,200	3,820	21,300	24,100	20,900	20,300	24,300	11,500	9,480
6	2,430	3,560	4,940	8,680	5,130	21,300	24,100	20,200	20,200	24,300	11,400	9,520
7	2,310	3,920	2,630	8,650	2,230	21,300	24,300	19,100	20,300	24,300	11,500	7,720
8	2,300	3,980	2,320	8,460	2,190	21,200	24,500	16,700	20,400	24,300	12,100	7,430
9	2,300	2,870	2,130	8,390	2,170	20,200	24,700	14,600	20,300	24,300	14,400	7,420
10	2,300	2,220	2,030	8,480	2,170	21,100	24,700	14,900	21,500	24,300	14,400	7,470
11	2,420	3,110	6,880	8,550	2,520	21,100	24,500	14,900	24,100	24,200	16,900	7,470
12	2,320	2,980	5,150	8,470	4,390	21,100	27,600	14,700	24,300	24,300	19,700	7,560
13	2,290	5,310	5,720	8,310	4,180	20,200	34,200	14,900	24,300	24,200	19,700	7,570
14	2,260	7,760	8,740	9,210	e2,480	19,700	34,400	14,600	24,300	24,300	19,500	7,560
15	2,250	8,070	8,010	8,310	2,170	15,400	33,800	13,500	24,400	24,300	18,600	6,770
16	2,260	2,220	14,700	8,770	2,150	14,900	33,800	11,700	24,500	24,400	19,000	7,870
17	2,240	2,260	19,600	8,490	7,520	14,900	33,800	11,800	24,500	24,200	19,000	9,530
18	2,560	8,830	19,600	8,660	8,710	15,100	33,800	11,900	24,500	24,200	19,200	9,940
19	3,190	14,600	19,700	8,740	14,800	14,900	33,900	11,900	24,500	24,200	19,300	9,760
20	2,420	19,700	19,400	8,880	15,700	16,100	34,000	16,200	24,500	24,300	19,200	8,840
21	2,500	19,600	19,700	8,780	15,900	21,600	34,100	20,000	24,600	24,300	19,200	8,830
22	2,490	18,200	17,500	9,120	15,500	21,500	34,400	20,200	24,400	24,300	19,000	9,740
23	2,470	17,900	18,500	8,190	16,700	21,500	34,400	20,300	24,300	24,300	15,500	11,100
24	2,450	17,000	12,300	8,030	22,200	24,100	34,300	20,100	24,300	23,900	14,400	20,000
25	2,450	15,800	e9,810	6,350	22,200	28,000	34,500	20,200	24,300	20,700	14,300	20,000
26	2,440	e15,100	e14,900	5,410	22,300	28,100	34,300	20,200	24,400	19,600	14,300	20,100
27	2,420	7,220	e19,800	3,500	22,500	28,000	34,300	20,300	24,300	19,500	12,000	20,100
28	2,420	8,470	e19,700	4,740	22,400	28,100	34,500	20,300	24,300	19,500	11,600	20,200
29	2,420	8,340	e19,700	6,280	---	28,200	32,600	20,300	24,400	17,200	11,500	20,100
30	2,410	8,590	e19,700	5,600	---	28,200	30,100	20,300	24,300	14,300	11,500	20,100
31	2,370	---	19,700	e2,770	---	28,400	---	20,300	---	15,400	11,300	---
TOTAL	74,850	240,910	376,720	282,420	258,080	671,800	911,100	566,500	691,300	709,100	470,500	343,700
MEAN	2,415	8,030	12,150	9,110	9,217	21,670	30,370	18,270	23,040	22,870	15,180	11,460
MAX	3,190	19,700	19,800	19,700	22,500	28,400	34,500	28,000	24,600	24,500	19,700	20,200
MIN	2,240	2,220	2,030	2,770	2,150	14,900	24,100	11,700	20,000	14,300	11,300	6,770
†	1,040	840	319	-153	894	-753	863	-781	126	444	-511	-714

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003,* BY WATER YEAR (WY)

MEAN	5,528	6,218	7,249	9,587	10,380	10,940	11,540	10,430	7,764	6,244	5,319	5,445
MAX	20,360	17,690	18,380	17,850	26,800	27,350	32,660	31,750	23,040	22,870	15,180	25,970
(WY)	(1980)	(1986)	(1973)	(1991)	(1998)	(1998)	(1993)	(1978)	(2003)	(2003)	(2003)	(1996)
MIN	2,031	1,987	2,046	2,037	2,014	1,910	1,951	2,446	2,365	2,581	2,519	2,186
(WY)	(1971)	(1987)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(1977)	(1970)	(1993)	(1968)

02080500 ROANOKE RIVER AT ROANOKE RAPIDS, NC—Continued

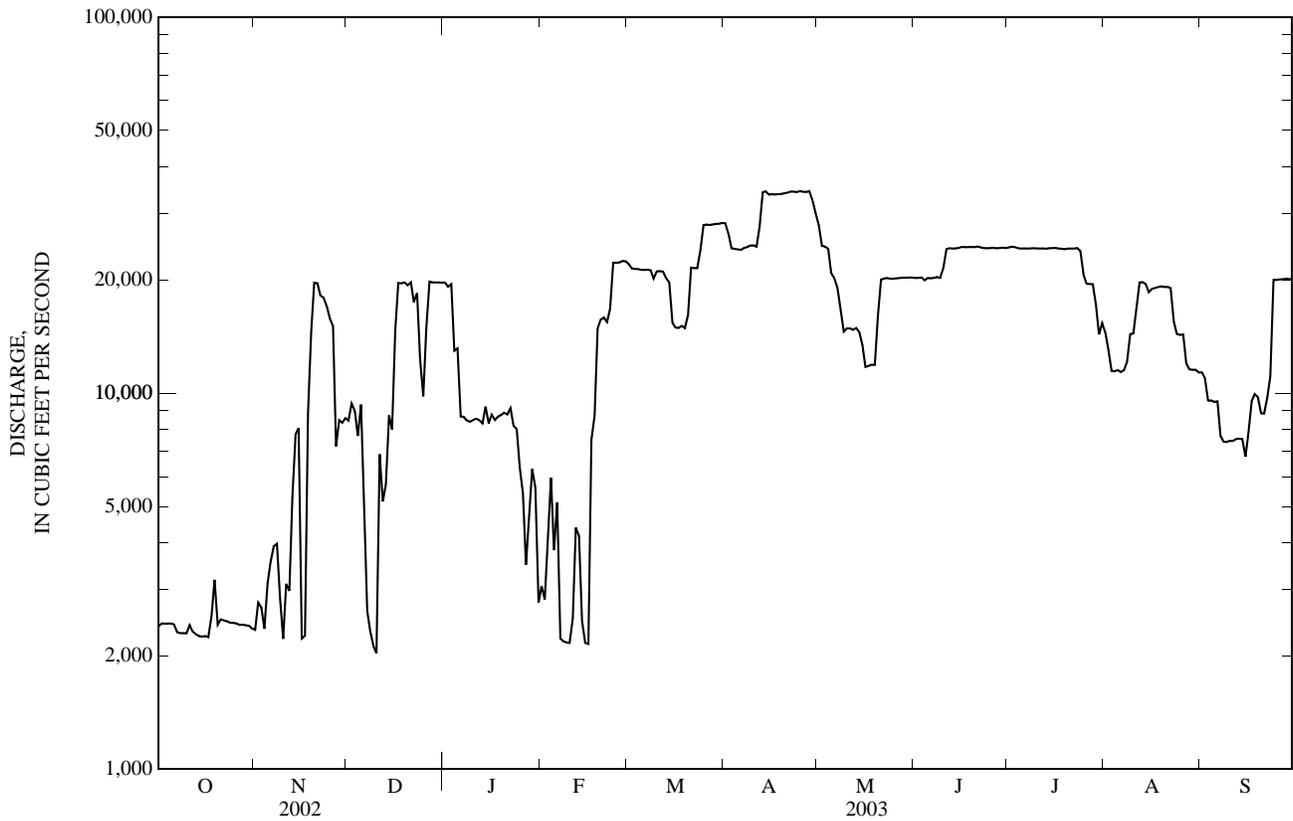
SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003*	
ANNUAL TOTAL	1,352,710		5,596,980		7,916 UNADJUSTED)	
ANNUAL MEAN	3,706		15,330 ‡16,900		15,330 2003	
HIGHEST ANNUAL MEAN					2,361 2002	
LOWEST ANNUAL MEAN					36,000 Sep 11, 1996	
HIGHEST DAILY MEAN	19,800	Dec 27	34,500	Apr 25	818 Nov 15, 1970	
LOWEST DAILY MEAN	1,870	Mar 22	2,030	Dec 10	989 Nov 5, 1986	
ANNUAL SEVEN-DAY MINIMUM	1,880	Apr 3	2,290	Oct 11	37,700 Apr 16, 1993	
MAXIMUM PEAK FLOW			35,100		11.87 Apr 16, 1993	
MAXIMUM PEAK STAGE			10.96		760 Nov 23, 1970	
INSTANTANEOUS LOW FLOW			1,630			
10 PERCENT EXCEEDS	7,720		24,500		19,000	
50 PERCENT EXCEEDS	2,520		15,700		5,910	
90 PERCENT EXCEEDS	1,910		2,440		2,010	

e Estimated.

* Regulated period only (1964-2003). See REMARKS.

† Change in contents, equivalent in cubic feet per second, in Leesville and Smith Mountain Lakes, provided by Appalachian Power Co.; Pilpott 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.



ROANOKE RIVER BASIN

0208062765 ROANOKE RIVER AT HALIFAX, NC

LOCATION.--Lat 36°19'59.80", long 77°34'58.02", Halifax County, Hydrologic Unit 03010107, approximately 0.5 mi east of Halifax on private dirt road and 119 river mi from mouth.

DRAINAGE AREA.--8,450 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--November 1996 to current year. Records from November 1996 to September 1997 are unpublished and available in the USGS District Office, Raleigh, NC.

GAGE.--Water-stage recorder. Datum of gage is at NGVD of 1929. Satellite telemetry at station.

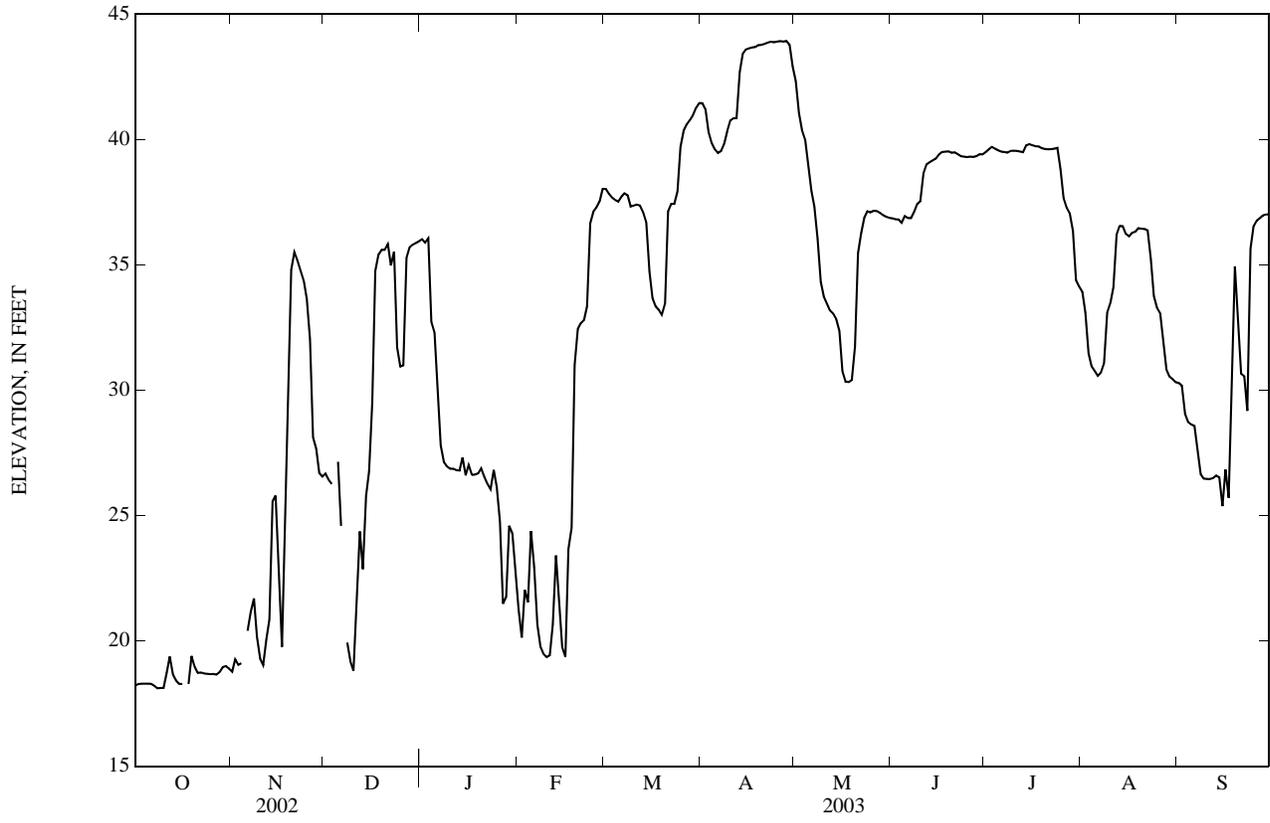
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 47.24 ft, Mar. 31, 1998; minimum recorded elevation, 16.43 ft, Dec. 8, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 43.98 ft, Apr. 29; minimum recorded elevation, 18.09 ft, Oct. 8.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.22	18.77	26.68	36.03	21.26	38.03	41.45	42.33	36.86	39.50	33.93	30.29
2	18.28	19.27	26.43	35.88	20.13	37.84	41.21	41.06	36.82	39.61	33.10	30.18
3	18.29	19.04	26.26	36.06	22.03	37.69	40.31	40.38	36.82	39.71	31.47	29.06
4	18.29	19.11	---	32.74	21.55	37.59	39.86	39.99	36.68	39.64	30.96	28.73
5	18.30	---	27.15	32.31	24.38	37.52	39.62	38.96	36.95	39.57	30.76	28.63
6	18.29	20.40	24.59	30.06	22.95	37.72	39.47	37.97	36.87	39.52	30.57	28.57
7	18.21	21.16	---	27.80	20.65	37.85	39.54	37.31	36.86	39.50	30.71	27.60
8	18.11	21.69	19.93	27.13	19.79	37.78	39.82	36.05	37.10	39.48	31.06	26.65
9	18.12	20.15	19.18	26.96	19.48	37.33	40.34	34.32	37.43	39.55	33.09	26.47
10	18.12	19.29	18.81	26.87	19.36	37.37	40.76	33.74	37.54	39.56	33.47	26.46
11	18.73	19.03	21.66	26.87	19.42	37.41	40.85	33.45	38.65	39.55	34.10	26.45
12	19.37	20.06	24.36	26.81	20.67	37.37	40.85	33.18	39.01	39.52	36.20	26.49
13	18.66	20.85	22.86	26.80	23.41	37.09	42.69	33.05	39.10	39.50	36.56	26.59
14	18.42	25.56	25.77	27.31	21.61	36.71	43.42	32.84	39.17	39.77	36.55	26.53
15	18.29	25.80	26.76	26.60	19.76	34.74	43.59	32.36	39.24	39.82	36.24	25.38
16	18.28	22.91	29.53	27.02	19.37	33.69	43.64	30.76	39.41	39.77	36.14	26.84
17	---	19.76	34.76	26.63	23.67	33.35	43.68	30.35	39.50	39.74	36.28	25.71
18	18.28	23.58	35.41	26.63	24.51	33.21	43.69	30.33	39.52	39.73	36.32	30.72
19	19.40	29.45	35.60	26.68	31.01	33.00	43.77	30.41	39.53	39.65	36.46	34.94
20	18.96	34.80	35.60	26.89	32.44	33.45	43.78	31.74	39.47	39.62	36.45	32.47
21	18.73	35.51	35.83	26.55	32.68	37.13	43.82	35.47	39.49	39.61	36.43	30.66
22	18.74	35.18	34.98	26.26	32.80	37.43	43.86	36.27	39.42	39.62	36.38	30.56
23	18.70	34.78	35.53	26.04	33.35	37.44	43.90	36.87	39.34	39.64	35.24	29.18
24	18.69	34.36	31.72	26.82	36.66	37.93	43.88	37.14	39.32	39.67	33.76	35.64
25	18.67	33.63	30.94	26.14	37.13	39.71	43.91	37.09	39.30	38.81	33.28	36.53
26	18.68	32.03	30.98	24.76	37.29	40.35	43.93	37.15	39.32	37.67	33.06	36.76
27	18.66	28.12	35.27	21.48	37.53	40.60	43.91	37.15	39.31	37.28	31.99	36.86
28	18.75	27.67	35.71	21.75	38.03	40.77	43.94	37.08	39.34	37.05	30.84	36.97
29	18.95	26.71	35.81	24.59	---	40.98	43.79	36.98	39.41	36.35	30.55	37.01
30	18.99	26.55	35.87	24.30	---	41.27	42.93	36.92	39.41	34.40	30.44	37.02
31	18.90	---	35.94	22.59	---	41.46	---	36.88	---	34.13	30.32	---
MEAN	---	---	---	27.46	26.18	37.48	42.34	35.66	38.54	38.92	33.64	30.40
MAX	---	---	---	36.06	38.03	41.46	43.94	42.33	39.53	39.82	36.56	37.02
MIN	---	---	---	21.48	19.36	33.00	39.47	30.33	36.68	34.13	30.32	25.38

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1998 to current year.

pH: March 1998 to current year.

WATER TEMPERATURE: March 1998 to current year.

DISSOLVED OXYGEN: March 1998 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: March 1998 to current year.

INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from March 1998 to current year.

REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources (DENR), Division of Water Resources, to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam. Dissolved oxygen, percent saturation, is computed using a barometric pressure of 760 mm Hg beginning October 1, 2000.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	213, November 2, 2000	53, September 19, 2003
pH, standard units	8.1, March 29, 30, 2000, June 30, 2002, August 24, 26, 2002	6.1, September 16, 1999
WATER TEMPERATURE, °C	30.9, July 22, 1998	2.2, January 25, 28, 2003
DISSOLVED OXYGEN, mg/L	16.1, January 13, 1999	3.8, August 21, 22, 2003
DISSOLVED OXYGEN, PERCENT SATURATION, %	132, January 13, 14, 1999	47, June 27, 2001, August 21, 2003

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	170, October 1, 2, 4, 8, 9	53, September 19
pH, standard units	8.0, March 12	6.3, September 19
WATER TEMPERATURE, °C	29.0, August 30	2.2, January 25, 28
DISSOLVED OXYGEN, mg/L	13.7, January 28, February 5	3.8, August 21, 22
DISSOLVED OXYGEN, PERCENT SATURATION, %	111, March 9, 10, 11	47, August 21

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	170	166	167	153	152	152	150	135	138	124	122	123
2	170	168	169	153	140	150	151	135	139	122	119	121
3	168	166	167	151	139	148	152	136	139	120	116	118
4	170	165	168	149	142	147	149	137	140	130	114	117
5	169	166	168	---	---	---	152	135	138	127	114	116
6	167	165	166	148	131	139	155	134	138	127	114	116
7	169	166	167	148	133	139	152	137	141	131	113	117
8	170	167	169	148	134	139	152	148	151	131	113	116
9	170	168	169	149	135	143	155	152	154	132	113	117
10	169	168	169	150	140	145	158	154	156	132	112	116
11	169	137	157	150	148	149	159	141	153	132	112	116
12	150	135	141	150	133	141	150	139	143	132	112	116
13	158	150	155	148	130	137	154	142	146	129	111	115
14	160	158	159	140	130	133	149	135	139	124	111	116
15	161	159	160	144	131	134	150	138	142	131	115	118
16	161	159	160	144	131	134	151	139	142	130	115	118
17	---	---	---	147	137	143	141	140	141	132	114	117
18	160	158	159	145	126	135	142	141	141	129	114	117
19	159	150	153	139	127	129	141	140	141	128	114	116
20	156	149	151	129	128	128	141	139	140	128	113	116
21	157	151	154	129	128	129	139	138	139	128	113	115
22	154	152	153	130	129	129	139	135	137	127	112	115
23	154	153	153	130	129	129	136	134	134	125	112	116
24	156	152	154	131	129	130	143	131	134	124	112	114
25	156	154	154	134	130	131	136	128	130	125	112	116
26	156	155	156	142	132	133	140	128	131	126	112	116
27	156	154	155	145	132	136	130	128	129	126	113	122
28	155	150	153	146	134	136	129	127	128	128	115	121
29	150	148	149	149	134	137	127	126	127	127	113	118
30	152	149	150	150	135	138	126	125	126	125	113	117
31	152	150	151	---	---	---	126	124	125	119	111	114
MONTH	---	---	---	---	---	---	159	124	139	132	111	117
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	126	113	120	103	102	103	101	100	101	89	87	88
2	126	112	120	103	102	103	101	98	101	89	88	88
3	126	115	118	103	102	102	101	100	101	89	83	87
4	126	115	120	103	102	102	101	100	100	87	86	87
5	121	110	113	105	103	104	100	99	99	88	87	88
6	127	110	115	107	104	105	99	97	98	89	88	89
7	124	110	118	108	106	107	97	95	96	90	89	89
8	123	121	122	110	108	109	95	94	95	91	89	90
9	125	123	124	112	109	110	94	85	91	91	90	91
10	125	124	124	112	111	111	90	88	89	91	89	90
11	126	124	125	113	111	112	89	86	87	90	89	90
12	128	114	123	113	112	112	89	86	88	90	90	90
13	128	110	115	114	113	113	89	87	88	90	85	89
14	129	110	117	114	113	113	89	85	87	90	89	89
15	127	110	121	119	111	113	86	81	83	90	89	90
16	125	120	124	121	111	113	82	80	81	91	90	91
17	123	107	115	121	111	112	82	81	82	91	90	91
18	125	103	113	120	110	112	83	82	83	90	89	90
19	113	101	107	120	110	111	84	82	83	90	89	90
20	114	100	106	118	106	109	85	84	84	90	88	90
21	115	100	108	107	106	106	86	85	85	89	88	88
22	114	106	107	106	105	106	87	84	85	89	88	88
23	111	103	105	106	105	106	88	80	84	88	87	87
24	106	104	105	106	105	106	85	85	85	89	87	88
25	106	105	105	105	104	105	86	85	85	90	89	89
26	106	105	105	105	103	104	86	85	86	89	88	89
27	106	104	105	103	100	101	86	86	86	89	89	89
28	104	103	103	100	99	99	87	84	86	89	89	89
29	---	---	---	100	99	100	88	84	87	90	89	90
30	---	---	---	101	100	100	88	86	88	90	89	89
31	---	---	---	101	100	100	---	---	---	89	89	89
MONTH	129	100	114	121	99	107	101	80	89	91	83	89

ROANOKE RIVER BASIN

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	89	89	89	94	93	93	102	99	101	104	102	103
2	89	89	89	94	93	93	102	101	102	104	102	103
3	90	89	89	93	93	93	103	101	102	105	103	104
4	92	90	90	95	93	94	102	100	102	105	102	104
5	91	89	91	94	93	94	101	99	100	103	102	103
6	95	89	93	94	93	94	101	100	100	103	101	102
7	95	94	95	94	94	94	101	97	99	103	101	102
8	96	95	95	94	92	93	99	92	97	102	99	101
9	96	94	95	93	92	93	96	93	95	100	99	99
10	97	94	96	94	93	93	97	94	96	100	99	100
11	97	95	96	95	93	94	98	96	97	100	99	100
12	98	96	97	96	94	95	99	96	98	100	98	99
13	98	97	98	96	95	96	99	93	98	100	98	100
14	98	96	97	96	94	96	101	98	99	103	99	101
15	96	95	95	97	89	96	100	99	99	112	102	104
16	95	93	94	98	97	97	100	100	100	103	95	99
17	94	93	93	98	95	97	101	100	100	115	96	101
18	93	92	93	98	97	97	101	100	101	97	74	92
19	93	92	93	99	89	97	102	100	101	84	53	68
20	93	92	92	99	90	97	104	102	103	100	84	89
21	93	92	92	99	98	99	104	103	104	103	89	91
22	92	91	92	101	99	100	104	103	104	105	89	91
23	91	91	91	101	99	100	103	102	103	110	90	94
24	92	91	91	100	99	100	103	102	103	96	94	95
25	92	91	92	101	99	100	102	101	102	97	96	96
26	92	91	92	101	100	101	103	102	102	97	96	96
27	92	91	92	101	101	101	103	101	102	97	94	95
28	93	92	93	102	101	101	102	101	102	94	91	93
29	93	92	93	102	101	101	102	100	101	91	88	89
30	94	93	94	103	100	101	103	101	102	89	88	89
31	---	---	---	101	100	101	104	102	102	---	---	---
MONTH	98	89	93	103	89	97	104	92	101	115	53	97

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.7	7.4	7.5	7.4	7.2	7.3	7.3	7.2	7.3	7.4	7.3	7.3
2	7.7	7.4	7.5	7.4	7.2	7.3	7.3	7.2	7.3	7.3	7.3	7.3
3	7.8	7.5	7.6	7.4	7.2	7.3	7.4	7.2	7.3	7.3	7.3	7.3
4	7.8	7.5	7.6	7.4	7.1	7.2	7.4	7.3	7.4	7.3	7.2	7.2
5	7.8	7.5	7.6	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3
6	7.8	7.6	7.7	7.2	7.0	7.1	7.4	7.2	7.3	7.3	7.2	7.3
7	7.8	7.4	7.5	7.2	7.1	7.1	7.4	7.2	7.3	7.4	7.2	7.3
8	7.6	7.4	7.5	7.2	7.1	7.2	7.4	7.3	7.3	7.4	7.3	7.3
9	7.7	7.4	7.5	7.3	7.2	7.2	7.4	7.3	7.3	7.4	7.3	7.3
10	7.7	7.4	7.5	7.3	7.1	7.2	7.4	7.3	7.3	7.4	7.3	7.3
11	7.5	7.1	7.4	7.2	7.1	7.2	7.5	7.3	7.4	7.4	7.3	7.3
12	7.3	7.1	7.2	7.2	7.1	7.1	7.5	7.3	7.4	7.4	7.3	7.3
13	7.4	7.3	7.3	7.1	7.0	7.0	7.4	7.3	7.4	7.3	7.3	7.3
14	7.6	7.4	7.4	7.2	7.1	7.1	7.4	7.3	7.4	7.4	7.3	7.3
15	7.7	7.3	7.5	7.2	7.1	7.2	7.5	7.4	7.4	7.5	7.2	7.4
16	7.4	7.3	7.3	7.2	7.1	7.1	7.5	7.4	7.5	7.5	7.3	7.4
17	---	---	---	7.1	6.9	7.1	7.6	7.5	7.5	7.5	7.3	7.4
18	7.6	7.3	7.4	7.1	6.9	7.0	7.6	7.6	7.6	7.5	7.3	7.4
19	7.6	7.3	7.4	7.1	7.0	7.1	7.6	7.6	7.6	7.5	7.4	7.4
20	7.6	7.3	7.4	7.1	7.1	7.1	7.6	7.6	7.6	7.5	7.4	7.4
21	7.6	7.3	7.4	7.1	7.0	7.1	7.6	7.6	7.6	7.5	7.4	7.4
22	7.4	7.2	7.3	7.1	7.0	7.1	7.6	7.6	7.6	7.5	7.4	7.4
23	7.4	7.2	7.3	7.2	7.1	7.1	7.6	7.5	7.6	7.5	7.4	7.4
24	7.5	7.2	7.3	7.2	7.1	7.2	7.5	7.4	7.5	7.5	7.4	7.4
25	7.4	7.2	7.3	7.2	7.1	7.1	7.5	7.4	7.4	7.5	7.4	7.5
26	7.4	7.2	7.3	7.2	7.1	7.2	7.6	7.4	7.5	7.5	7.4	7.4
27	7.5	7.2	7.3	7.3	7.1	7.2	7.5	7.4	7.4	7.5	7.4	7.4
28	7.5	7.2	7.3	7.3	7.1	7.2	7.4	7.4	7.4	7.6	7.4	7.5
29	7.2	7.2	7.2	7.3	7.2	7.2	7.4	7.4	7.4	7.6	7.4	7.5
30	7.2	7.2	7.2	7.3	7.2	7.2	7.4	7.4	7.4	7.5	7.4	7.4
31	7.4	7.2	7.2	---	---	---	7.4	7.4	7.4	7.4	7.2	7.3
MONTH	---	---	---	---	---	---	7.6	7.2	7.4	7.6	7.2	7.4
DAY	MAX	MIN	MEAN									
1	7.4	7.3	7.3	7.7	7.6	7.6	7.4	7.4	7.4	7.0	6.8	6.9
2	7.5	7.4	7.4	7.7	7.6	7.6	7.4	7.4	7.4	6.8	6.8	6.8
3	7.5	7.4	7.5	7.8	7.6	7.7	7.4	7.3	7.4	6.8	6.7	6.8
4	7.5	7.4	7.4	7.8	7.7	7.7	7.4	7.2	7.3	6.8	6.7	6.8
5	7.5	7.4	7.5	7.8	7.7	7.8	7.3	7.2	7.3	6.8	6.6	6.7
6	7.6	7.5	7.5	7.8	7.6	7.7	7.3	7.2	7.3	6.8	6.6	6.6
7	7.5	7.3	7.4	7.7	7.7	7.7	7.3	7.2	7.2	6.9	6.8	6.8
8	7.4	7.3	7.4	7.7	7.7	7.7	7.2	7.1	7.2	7.0	6.9	6.9
9	7.5	7.4	7.5	7.7	7.6	7.7	7.2	7.1	7.1	7.0	7.0	7.0
10	7.5	7.4	7.5	7.8	7.6	7.7	7.2	7.2	7.2	7.0	7.0	7.0
11	---	---	---	7.9	7.6	7.8	7.2	7.2	7.2	7.1	7.0	7.0
12	---	---	---	8.0	7.8	7.9	7.3	7.2	7.2	7.1	7.1	7.1
13	7.5	7.3	7.4	7.9	7.8	7.8	7.3	7.2	7.3	7.4	7.1	7.2
14	7.6	7.4	7.5	7.9	7.8	7.8	7.3	7.2	7.2	7.5	7.4	7.4
15	7.6	7.4	7.5	7.8	7.6	7.7	7.2	7.1	7.2	7.4	7.3	7.3
16	7.5	7.4	7.4	7.8	7.6	7.8	7.1	7.1	7.1	7.3	7.2	7.3
17	7.6	7.3	7.5	7.8	7.6	7.8	7.1	7.1	7.1	7.3	7.2	7.2
18	7.8	7.5	7.6	7.8	7.6	7.6	7.2	7.1	7.2	7.3	7.2	7.3
19	7.7	7.5	7.6	7.7	7.6	7.6	7.2	7.1	7.2	7.3	7.2	7.3
20	7.8	7.6	7.7	7.6	7.6	7.6	7.5	7.1	7.2	7.3	7.2	7.3
21	7.8	7.6	7.7	7.6	7.6	7.6	7.2	7.2	7.2	7.3	7.2	7.2
22	7.7	7.6	7.7	7.6	7.5	7.5	7.2	7.2	7.2	7.2	7.1	7.2
23	7.7	7.5	7.6	7.6	7.5	7.5	7.2	7.1	7.2	7.2	7.1	7.1
24	7.7	7.6	7.6	7.6	7.5	7.5	7.2	7.2	7.2	7.2	7.1	7.2
25	7.8	7.6	7.7	7.6	7.5	7.5	7.2	7.2	7.2	7.2	7.1	7.1
26	7.8	7.7	7.7	7.5	7.4	7.5	7.2	7.1	7.2	7.2	7.0	7.1
27	7.7	7.6	7.6	7.4	7.4	7.4	7.2	7.2	7.2	7.0	7.0	7.0
28	7.6	7.5	7.6	7.4	7.4	7.4	7.2	7.1	7.2	7.1	7.0	7.0
29	---	---	---	7.4	7.3	7.4	7.1	7.0	7.1	7.1	7.0	7.0
30	---	---	---	7.4	7.3	7.4	7.0	7.0	7.0	7.1	7.1	7.1
31	---	---	---	7.4	7.3	7.3	---	---	---	7.1	7.1	7.1
MONTH	---	---	---	8.0	7.3	7.6	7.5	7.0	7.2	7.5	6.6	7.1

ROANOKE RIVER BASIN

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.2	7.1	7.1	6.9	6.9	6.9	7.0	6.9	6.9	7.0	6.8	6.9
2	7.1	7.1	7.1	7.0	6.9	6.9	7.0	6.9	6.9	7.0	7.0	7.0
3	7.1	7.0	7.1	7.0	6.9	6.9	6.9	6.9	6.9	7.0	7.0	7.0
4	7.0	7.0	7.0	7.0	6.9	6.9	7.0	6.9	6.9	7.0	6.9	7.0
5	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.9	7.0	7.0	7.0	7.0
6	7.1	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
7	7.1	7.0	7.1	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
8	7.0	6.9	7.0	7.1	6.9	7.0	7.0	6.9	7.0	7.0	7.0	7.0
9	7.0	6.9	6.9	7.0	6.9	6.9	7.0	6.9	6.9	7.0	6.9	7.0
10	7.0	7.0	7.0	7.0	6.9	6.9	7.0	6.9	7.0	6.9	6.8	6.8
11	7.0	7.0	7.0	7.0	6.9	7.0	7.0	6.9	7.0	6.9	6.8	6.9
12	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.9	7.0	6.9	6.8	6.9
13	7.0	7.0	7.0	7.0	6.9	7.0	7.0	6.9	6.9	6.9	6.8	6.8
14	7.0	7.0	7.0	7.0	6.9	6.9	7.0	6.8	6.9	7.0	6.8	6.9
15	7.0	6.9	7.0	6.9	6.9	6.9	6.9	6.8	6.8	7.0	6.9	7.0
16	6.9	6.9	6.9	6.9	6.8	6.9	6.9	6.8	6.9	7.0	6.9	7.0
17	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.1	6.9	6.9
18	6.9	6.9	6.9	6.9	6.9	6.9	7.0	6.9	6.9	7.1	6.8	6.9
19	6.9	6.8	6.9	6.9	6.8	6.9	7.0	6.9	6.9	6.9	6.3	6.6
20	6.9	6.9	6.9	6.9	6.8	6.9	7.0	6.8	6.9	7.1	6.8	6.9
21	6.9	6.9	6.9	6.9	6.8	6.9	6.8	6.8	6.8	7.1	6.8	6.9
22	7.0	6.9	6.9	6.9	6.8	6.9	6.8	6.8	6.8	7.1	6.9	7.0
23	7.0	7.0	7.0	7.0	6.9	6.9	6.8	6.7	6.7	7.2	6.9	7.0
24	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.7	6.7	7.2	7.1	7.1
25	7.0	7.0	7.0	7.0	6.9	6.9	6.8	6.8	6.8	7.2	7.1	7.2
26	7.0	6.9	7.0	6.9	6.9	6.9	6.8	6.6	6.7	7.2	7.1	7.1
27	7.0	6.9	7.0	6.9	6.8	6.9	6.7	6.6	6.7	7.1	7.1	7.1
28	7.0	6.9	7.0	7.0	6.9	6.9	6.7	6.7	6.7	7.1	7.1	7.1
29	7.0	6.9	6.9	7.0	6.9	7.0	6.8	6.6	6.7	7.1	7.0	7.0
30	6.9	6.9	6.9	7.0	6.9	6.9	6.9	6.7	6.8	7.1	7.1	7.1
31	---	---	---	7.0	6.9	7.0	6.9	6.8	6.9	---	---	---
MONTH	7.2	6.8	7.0	7.1	6.8	6.9	7.0	6.6	6.9	7.2	6.3	7.0

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.6	23.9	24.3	15.6	15.1	15.4	10.7	9.2	10.0	7.8	7.4	7.6
2	24.9	24.2	24.6	15.4	14.8	15.1	9.9	8.9	9.6	7.9	7.7	7.8
3	25.8	24.9	25.4	15.1	14.3	14.7	9.7	8.9	9.5	7.7	7.5	7.6
4	25.7	25.1	25.5	15.2	14.5	14.7	8.9	8.3	8.7	7.5	7.0	7.4
5	25.7	25.1	25.4	---	---	---	8.6	7.8	8.4	7.1	6.6	6.9
6	25.5	24.7	25.1	14.6	14.2	14.3	8.2	7.1	7.9	7.2	6.7	6.9
7	24.8	24.2	24.6	14.4	13.5	13.8	7.8	6.9	7.4	7.0	5.8	6.6
8	24.7	23.4	24.1	14.2	13.2	13.6	7.6	7.1	7.3	6.8	6.0	6.4
9	23.6	23.2	23.4	14.7	13.5	14.0	7.9	7.0	7.5	7.0	6.2	6.5
10	23.3	23.1	23.2	15.7	14.3	14.9	7.2	6.7	6.9	6.8	6.4	6.6
11	23.3	22.4	22.9	16.0	15.7	15.8	7.3	6.8	7.1	6.8	5.9	6.5
12	22.5	22.2	22.3	15.7	15.2	15.3	7.6	7.1	7.3	6.6	5.7	6.4
13	22.7	22.4	22.5	15.7	14.3	14.8	7.6	7.0	7.2	6.4	5.4	6.0
14	22.7	21.0	21.9	14.8	14.0	14.4	7.6	7.1	7.3	6.2	5.6	5.9
15	21.0	20.3	20.6	14.8	13.9	14.5	7.8	7.0	7.3	5.9	5.4	5.7
16	21.0	20.4	20.7	14.7	14.5	14.6	7.8	7.2	7.5	5.6	4.8	5.4
17	---	---	---	14.7	13.6	14.3	7.6	7.3	7.4	5.4	4.7	5.2
18	20.4	19.4	19.8	14.0	12.8	13.5	7.5	7.2	7.3	5.1	4.0	4.6
19	19.8	18.9	19.4	13.8	12.8	13.4	7.4	7.2	7.3	4.7	3.7	4.3
20	19.9	19.2	19.7	13.7	13.1	13.4	7.8	7.3	7.6	4.9	3.9	4.3
21	20.0	18.4	19.3	13.7	13.4	13.5	8.0	7.6	7.7	4.5	3.8	4.1
22	18.6	18.1	18.4	13.6	13.1	13.5	7.6	7.2	7.4	4.6	3.5	4.1
23	18.9	18.0	18.5	13.1	12.3	12.7	7.6	7.2	7.4	4.2	3.4	3.8
24	19.0	18.1	18.5	12.4	12.0	12.2	7.5	7.3	7.4	3.5	2.5	3.1
25	18.4	17.8	18.0	12.5	11.9	12.1	7.5	7.1	7.4	3.5	2.2	2.6
26	18.5	17.8	18.1	12.6	12.1	12.3	7.2	6.5	7.0	3.2	2.5	2.9
27	18.5	18.0	18.3	12.3	11.8	12.0	6.9	6.6	6.7	3.2	2.3	2.8
28	18.6	17.4	18.0	11.8	10.9	11.5	7.1	6.6	6.8	3.6	2.2	2.6
29	17.4	16.4	16.8	11.3	10.4	11.1	7.2	6.9	7.0	3.5	3.0	3.2
30	16.4	15.8	16.0	11.0	10.6	10.8	7.3	6.9	7.1	3.3	3.1	3.2
31	15.8	15.4	15.6	---	---	---	7.5	7.1	7.3	3.3	3.0	3.1
MONTH	---	---	---	---	---	---	10.7	6.5	7.6	7.9	2.2	5.2
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.7	3.3	3.5	5.2	4.8	4.9	11.3	10.6	10.9	16.2	15.2	15.6
2	4.4	3.7	3.9	5.8	5.1	5.4	12.1	10.8	11.3	15.9	15.4	15.6
3	4.8	3.4	4.1	5.9	5.3	5.6	12.6	11.4	12.0	16.1	15.6	15.8
4	5.6	4.6	5.0	5.9	5.3	5.6	12.6	11.9	12.3	15.8	15.5	15.6
5	4.8	4.0	4.4	6.2	5.4	5.7	12.6	12.0	12.3	15.5	14.9	15.0
6	5.1	4.1	4.8	6.7	6.0	6.3	12.8	12.2	12.5	15.3	14.8	15.0
7	4.9	4.7	4.8	6.6	6.2	6.3	12.6	11.9	12.3	16.4	15.2	15.7
8	4.9	4.4	4.6	6.2	5.7	6.0	11.9	11.0	11.2	17.7	16.4	16.9
9	5.0	4.4	4.6	7.3	5.8	6.4	11.2	11.1	11.1	17.7	17.0	17.5
10	5.1	4.4	4.7	7.4	6.8	7.1	11.2	10.9	11.0	17.8	17.2	17.5
11	5.1	4.2	4.6	7.2	6.9	7.0	11.0	10.7	10.8	18.1	17.3	17.6
12	5.5	4.5	5.0	7.2	6.5	6.8	11.7	10.6	11.0	18.6	17.5	18.0
13	5.6	4.1	4.5	8.2	6.8	7.4	12.1	11.3	11.6	18.0	16.7	17.3
14	5.2	4.2	4.7	8.6	7.9	8.1	12.0	11.3	11.6	18.7	17.4	18.0
15	5.1	4.7	4.9	8.3	7.9	8.1	12.1	11.2	11.6	18.7	18.1	18.4
16	4.7	3.6	4.2	8.2	7.9	8.1	12.9	11.6	12.1	18.9	17.7	18.3
17	3.9	3.1	3.6	8.5	7.8	8.2	13.5	12.6	13.0	18.7	17.2	17.8
18	4.1	3.4	3.6	8.9	8.4	8.7	13.2	12.2	12.9	17.5	17.2	17.4
19	3.9	3.3	3.5	9.0	8.5	8.7	12.8	12.1	12.5	17.2	16.8	17.0
20	4.2	3.5	3.9	9.0	8.6	8.8	13.4	12.8	13.0	17.3	15.8	16.6
21	4.6	4.2	4.4	8.9	8.5	8.7	13.6	13.1	13.3	17.9	16.6	17.2
22	4.8	4.4	4.6	9.8	8.8	9.2	13.7	13.1	13.4	17.9	17.2	17.4
23	5.8	4.8	5.2	10.0	9.4	9.7	13.9	13.1	13.5	17.2	17.1	17.2
24	5.7	4.8	5.2	10.4	9.6	10	14.0	13.3	13.6	17.3	16.9	17.1
25	5.6	5.0	5.3	10.5	9.7	10.0	13.7	13.2	13.4	17.4	16.9	17.2
26	5.4	5.0	5.2	10.6	9.7	10.2	13.5	13.1	13.3	18.3	17.1	17.6
27	5.0	4.6	4.7	11.2	9.7	10.4	14.1	13.3	13.7	18.2	17.4	17.7
28	4.8	4.6	4.7	11.5	10.8	11.1	14.7	13.8	14.2	18.5	17.6	18.0
29	---	---	---	11.6	10.6	11.1	15.1	14.2	14.6	18.2	17.4	17.7
30	---	---	---	11.4	10.8	11.1	15.7	14.8	15.2	19.0	18.0	18.4
31	---	---	---	11.0	10.5	10.7	---	---	---	19.1	18.6	18.9
MONTH	5.8	3.1	4.5	11.6	4.8	8.1	15.7	10.6	12.5	19.1	14.8	17.1

ROANOKE RIVER BASIN

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	19.2	18.7	18.9	23.2	22.9	23.1	25.4	24.8	25.0	28.3	27.4	27.8
2	19.3	18.5	18.9	23.0	22.7	22.9	25.9	25.0	25.5	28.5	27.7	28.1
3	19.2	18.9	19.0	22.7	22.2	22.4	26.1	25.3	25.7	28.3	27.6	27.9
4	19.4	18.8	19.1	23.2	21.6	22.1	26.2	25.2	25.6	28.2	27.3	27.8
5	19.7	19.0	19.2	24.0	22.9	23.3	26.9	25.7	26.2	28.0	27.2	27.5
6	20.3	19.2	19.7	24.5	23.5	23.9	26.8	26.2	26.5	27.7	26.5	26.8
7	20.3	19.9	20.1	24.6	24.0	24.3	26.9	25.9	26.3	27.0	26.0	26.4
8	20.3	20.0	20.2	24.8	24.1	24.4	26.8	25.8	26.2	27.0	25.5	25.8
9	21.1	19.7	20.3	25.1	24.4	24.7	26.1	25.7	25.9	26.1	25.3	25.7
10	21.4	20.6	21.0	25.2	24.4	24.8	26.1	25.7	25.8	26.0	24.8	25.2
11	22.1	20.9	21.5	25.2	24.7	24.9	26.0	25.5	25.7	25.6	24.3	24.9
12	22.0	21.1	21.5	25.6	24.5	24.9	26.3	25.5	25.9	25.4	24.0	24.3
13	22.8	21.9	22.3	25.6	24.9	25.2	26.8	25.7	26.1	24.3	24.0	24.1
14	23.0	22.2	22.5	24.9	24.4	24.6	27.0	26.1	26.5	24.6	23.7	24.0
15	23.3	22.8	23.0	24.6	23.8	24.2	27.3	26.3	26.8	25.0	23.9	24.4
16	23.2	22.5	22.8	24.9	23.7	24.2	27.3	26.8	27.0	25.3	24.4	24.8
17	22.5	21.3	21.8	24.7	24.0	24.3	27.4	26.8	27.0	25.1	23.8	24.2
18	21.3	20.8	20.9	25.2	24.2	24.7	27.6	27.0	27.2	24.0	22.6	23.6
19	21.9	21.0	21.3	25.0	24.5	24.7	27.8	26.8	27.2	23.3	21.2	22.2
20	22.1	21.5	21.8	25.3	24.3	24.8	27.4	26.6	27.0	23.9	22.7	23.1
21	22.1	21.6	21.8	25.3	24.6	24.9	27.3	26.4	26.8	24.0	22.8	23.2
22	21.8	21.2	21.5	25.4	24.8	25.1	27.5	26.8	27.1	23.5	23.1	23.3
23	22.4	21.4	21.8	25.4	25.1	25.2	27.6	27.0	27.3	24.4	23.4	23.7
24	22.6	21.7	22.2	25.6	25.0	25.3	27.7	26.7	27.2	24.1	23.4	23.7
25	23.0	22.1	22.5	25.7	25.1	25.4	27.7	26.7	27.1	24.0	23.2	23.6
26	23.3	22.3	22.8	25.9	24.9	25.4	27.7	26.9	27.3	24.0	23.5	23.7
27	23.6	22.7	23.2	26.3	24.8	25.4	28.4	27.3	27.7	24.2	23.4	23.7
28	23.6	23.0	23.3	26.2	25.4	25.8	28.6	27.7	28.1	24.2	23.6	23.8
29	23.3	22.9	23.0	26.3	26.1	26.2	28.9	27.8	28.2	23.9	23.0	23.4
30	23.3	22.5	22.8	26.2	25.5	25.7	29.0	28.1	28.5	23.0	22.5	22.8
31	---	---	---	25.7	25.3	25.5	28.8	27.8	28.2	---	---	---
MONTH	23.6	18.5	21.4	26.3	21.6	24.6	29.0	24.8	26.7	28.5	21.2	24.8

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.1	6.0	6.4	8.2	7.6	7.9	10.3	9.6	9.9	10.9	10.1	10.6
2	7.0	5.8	6.3	8.3	7.4	7.7	10.3	9.9	10.1	10.9	10.4	10.7
3	7.1	5.9	6.4	8.1	7.3	7.6	10.6	9.9	10.1	11.0	10.5	10.7
4	7.1	5.9	6.4	8.1	7.5	7.7	10.6	10.1	10.3	10.9	9.4	10.4
5	7.2	5.8	6.3	---	---	---	10.6	10.1	10.3	11.0	10.1	10.6
6	7.5	6.4	6.8	7.9	7.2	7.5	10.9	10.1	10.3	---	---	---
7	7.2	6.0	6.5	8.7	7.4	7.9	10.8	10.3	10.5	---	---	---
8	7.2	6.3	6.6	8.8	8.1	8.4	10.9	10.6	10.7	---	---	---
9	7.4	6.4	6.8	9.2	8.3	8.6	10.9	10.6	10.7	---	---	---
10	7.4	6.4	6.9	9.0	8.4	8.7	11.1	10.8	10.9	---	---	---
11	6.9	6.2	6.6	8.9	8.2	8.5	10.9	10.6	10.7	---	---	---
12	6.5	6.0	6.1	8.8	8.0	8.5	10.9	10.5	10.6	---	---	---
13	6.7	6.3	6.5	9.4	8.3	8.9	11.0	10.5	10.7	---	---	---
14	7.6	6.6	6.9	9.3	8.5	8.8	10.8	10.4	10.5	---	---	---
15	7.9	6.8	7.2	9.4	8.6	8.8	11.0	10.4	10.6	11.8	11.3	11.4
16	7.4	6.7	7.0	9.2	8.4	8.7	10.8	10.4	10.6	12.0	11.5	11.7
17	---	---	---	8.9	8.4	8.7	10.8	10.5	10.6	12.0	11.5	11.7
18	8.4	7.4	7.7	9.2	8.4	8.7	11.0	10.3	10.6	12.3	11.7	11.9
19	8.5	7.4	7.8	9.0	8.5	8.7	10.9	10.2	10.4	12.4	11.9	12.1
20	8.3	7.5	7.7	8.9	8.2	8.7	10.5	10.1	10.3	12.4	12.0	12.2
21	8.2	7.5	7.7	9.1	8.6	8.8	10.7	9.9	10.3	12.5	12.1	12.2
22	8.2	7.5	7.7	8.8	8.6	8.7	10.8	10.1	10.5	12.7	12.1	12.4
23	8.4	7.7	7.9	9.3	8.8	9.1	10.7	10.2	10.5	12.9	12.2	12.4
24	8.4	7.5	7.8	9.4	9.2	9.3	10.6	9.5	10.3	13.2	12.4	12.7
25	8.1	7.4	7.7	9.3	9.0	9.3	10.6	9.6	10.2	13.4	12.9	13.1
26	8.1	7.4	7.6	9.4	9.0	9.1	11.0	9.6	10.4	13.3	12.9	13.0
27	8.1	7.4	7.7	9.6	9.0	9.1	11.1	10.3	10.6	13.6	13.0	13.3
28	8.1	7.3	7.5	9.8	9.2	9.4	10.9	10.2	10.6	13.7	13.2	13.4
29	7.6	7.2	7.4	9.8	9.4	9.5	11.0	10.3	10.6	13.4	13.1	13.2
30	7.6	7.3	7.5	9.9	9.4	9.6	11.0	10.2	10.6	13.4	13.0	13.2
31	8.1	7.4	7.6	---	---	---	11.0	10.1	10.6	13.3	13.0	13.1
MONTH	---	---	---	---	---	---	11.1	9.5	10.5	---	---	---
	MAX	MIN	MEAN									
1	13.3	13.1	13.2	13.2	13.0	13.1	10.5	10.0	10.2	8.9	8.4	8.7
2	13.3	13.0	13.2	13.2	12.9	13.1	10.1	9.7	9.9	8.6	8.1	8.3
3	13.5	13.0	13.3	13.3	12.9	13.1	9.8	9.5	9.6	8.4	8.2	8.3
4	13.4	12.7	13.0	13.4	13.1	13.3	9.8	9.4	9.6	8.5	8.2	8.4
5	13.7	12.8	13.3	13.4	13.2	13.3	9.6	9.3	9.5	8.4	7.9	8.1
6	13.4	13.0	13.3	13.3	13.0	13.1	9.5	9.2	9.4	8.2	7.9	8.0
7	13.4	12.9	13.1	13.2	13.1	13.1	9.4	9.2	9.3	8.0	7.8	7.9
8	13.4	13.0	13.2	13.4	13.0	13.2	9.4	9.2	9.3	8.0	7.9	7.9
9	13.5	13.1	13.3	13.3	13.1	13.2	9.3	9.1	9.2	8.1	7.6	7.9
10	13.5	13.2	13.3	13.3	13.0	13.1	9.2	9.0	9.1	8.0	7.8	7.8
11	13.3	12.7	13.0	13.5	13.0	13.1	9.1	9.0	9.0	8.0	7.8	7.8
12	13.0	12.7	12.8	13.1	12.8	12.9	9.2	8.9	9.0	8.2	7.9	8.0
13	13.2	12.6	12.9	12.9	12.5	12.6	9.3	9.1	9.2	8.4	8.0	8.2
14	13.1	12.6	12.9	12.5	12.2	12.4	9.2	9.0	9.2	8.5	8.2	8.4
15	13.0	12.4	12.7	12.2	11.8	12.1	9.2	8.9	9.1	8.4	8.2	8.3
16	12.8	12.5	12.6	12.0	11.6	11.9	8.9	8.7	8.8	8.3	8.0	8.1
17	13.0	12.8	12.9	11.9	11.5	11.7	---	---	---	8.3	7.8	8.0
18	13.4	12.8	13.0	11.7	11.3	11.6	---	---	---	8.3	7.9	8.1
19	13.4	12.9	13.2	11.6	11.2	11.5	---	---	---	8.3	8.1	8.2
20	13.4	13.0	13.2	11.4	11.0	11.2	---	---	---	8.3	8.1	8.2
21	13.4	12.9	13.2	11.3	11.0	11.2	---	---	---	8.3	8.0	8.1
22	13.2	12.8	13.1	11.3	11.0	11.2	---	---	---	8.1	7.9	7.9
23	13.1	12.4	12.8	11.3	10.9	11.1	---	---	---	8.0	7.8	7.9
24	13.0	12.6	12.9	11.2	10.9	11.1	---	---	---	7.9	7.8	7.8
25	13.3	12.8	13.1	11.2	10.9	11.1	---	---	---	7.8	7.5	7.7
26	13.3	13.0	13.1	11.0	10.6	10.8	---	---	---	7.8	7.5	7.6
27	13.3	13.0	13.1	10.7	10.4	10.6	---	---	---	7.7	7.4	7.5
28	13.3	13.0	13.1	10.5	10.3	10.4	---	---	---	7.8	7.5	7.6
29	---	---	---	10.3	10.0	10.2	9.2	8.8	9.1	7.8	7.3	7.5
30	---	---	---	10.2	10.0	10.1	8.9	8.8	8.9	7.7	7.5	7.6
31	---	---	---	10.5	10.0	10.2	---	---	---	7.7	7.4	7.5
MONTH	13.7	12.4	13.1	13.5	10.0	12.0	---	---	---	8.9	7.3	8.0

ROANOKE RIVER BASIN

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.8	7.4	7.5	5.7	5.3	5.5	5.1	4.7	4.8	5.4	4.8	5.1
2	7.9	7.7	7.8	5.7	5.4	5.6	5.2	4.6	4.9	5.5	5.2	5.3
3	7.8	7.3	7.6	5.9	5.4	5.7	5.1	4.8	4.9	5.6	5.2	5.4
4	7.4	7.2	7.3	5.8	5.4	5.6	5.2	4.7	4.9	---	---	---
5	7.4	7.1	7.2	6.1	5.5	5.7	5.5	4.9	5.2	---	---	---
6	7.6	7.2	7.4	6.1	5.5	5.8	5.4	5.2	5.3	---	---	---
7	7.6	7.3	7.4	6.4	5.9	6.1	5.6	5.0	5.2	---	---	---
8	7.4	7.0	7.3	6.5	6.0	6.2	5.5	5.1	5.2	---	---	---
9	7.5	6.9	7.1	6.5	6.0	6.2	5.1	4.8	4.9	---	---	---
10	7.4	6.7	7.0	6.6	6.0	6.3	5.2	4.8	5.0	5.9	5.5	5.7
11	7.0	6.6	6.8	6.5	6.2	6.3	5.0	4.7	4.8	6.1	5.6	5.8
12	6.9	6.5	6.7	6.6	6.1	6.3	4.8	4.6	4.7	6.1	5.7	5.9
13	6.9	6.5	6.7	6.6	6.1	6.3	4.8	4.4	4.6	6.2	5.9	6.0
14	6.8	6.5	6.7	6.1	5.8	6.0	4.8	4.4	4.6	6.3	6.0	6.2
15	6.8	6.4	6.6	5.9	5.6	5.7	4.8	4.5	4.7	6.6	6.0	6.1
16	6.6	6.2	6.3	5.8	5.3	5.5	4.9	4.4	4.7	6.5	5.9	6.2
17	6.2	5.9	6.0	5.8	5.4	5.6	5.0	4.5	4.7	6.4	5.5	6.0
18	6.2	5.9	6.1	5.8	5.5	5.7	5.1	4.8	4.9	6.6	5.7	6.2
19	6.2	5.8	6.0	5.7	5.3	5.5	4.9	4.4	4.7	6.4	5.8	6.1
20	6.3	5.9	6.1	5.7	5.3	5.5	4.5	4.1	4.2	6.7	6.0	6.2
21	6.5	6.1	6.3	5.6	5.3	5.4	4.1	3.8	3.9	6.5	6.0	6.2
22	6.6	6.3	6.5	5.4	4.9	5.2	4.2	3.8	4.0	6.1	5.5	5.7
23	6.8	6.4	6.6	5.4	5.1	5.3	4.6	4.1	4.3	6.5	5.3	5.7
24	6.8	6.4	6.6	5.5	5.3	5.4	4.9	4.3	4.5	6.5	5.9	6.2
25	6.7	6.3	6.5	5.5	4.8	5.1	5.1	4.6	4.8	6.5	6.0	6.3
26	6.4	6.2	6.3	5.0	4.7	4.8	5.1	4.6	4.8	6.4	6.1	6.3
27	6.4	6.0	6.2	5.2	4.5	4.8	5.3	4.6	4.9	6.2	6.0	6.1
28	6.2	5.9	6.0	5.3	4.8	5.0	5.2	4.8	5.0	6.2	5.9	6.1
29	6.0	5.5	5.8	5.3	5.1	5.2	5.4	4.8	5.0	6.3	5.9	6.1
30	5.7	5.4	5.5	5.2	4.8	5.0	5.3	4.9	5.1	6.7	6.2	6.5
31	---	---	---	5.3	5.1	5.2	5.3	5.0	5.2	---	---	---
MONTH	7.9	5.4	6.7	6.6	4.5	5.6	5.6	3.8	4.8	---	---	---

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	85	72	77	82	76	79	91	85	88	91	84	89
2	84	70	76	83	74	77	91	87	88	92	88	90
3	87	73	79	81	72	75	92	87	89	92	88	90
4	87	72	78	80	74	77	91	87	88	91	78	87
5	88	71	76	---	---	---	89	86	87	91	83	88
6	92	78	83	78	70	74	92	85	87	---	---	---
7	87	72	78	85	71	76	89	86	88	---	---	---
8	86	75	79	85	77	81	91	88	89	---	---	---
9	88	75	80	90	80	84	92	88	90	---	---	---
10	87	75	80	89	84	86	92	88	89	---	---	---
11	81	72	77	90	83	86	90	88	88	---	---	---
12	75	69	71	89	80	85	91	87	88	---	---	---
13	78	73	75	93	83	88	92	87	89	---	---	---
14	86	76	79	92	84	86	90	86	87	---	---	---
15	89	75	81	92	84	87	93	86	88	94	90	91
16	82	75	78	91	83	86	91	86	89	95	91	92
17	---	---	---	87	81	85	90	88	89	95	90	92
18	92	81	85	89	81	84	92	86	88	95	91	92
19	93	80	85	87	81	84	90	85	87	96	91	93
20	91	81	84	86	78	83	88	84	86	97	92	94
21	90	80	84	88	83	85	91	83	87	96	93	94
22	88	80	82	85	83	84	90	85	87	99	92	95
23	90	82	85	88	84	86	89	85	87	97	93	95
24	91	80	84	88	86	87	88	79	86	99	93	95
25	86	78	81	87	84	86	89	80	85	101	94	97
26	86	78	81	89	84	85	91	79	86	100	95	97
27	87	79	82	89	83	85	91	84	87	101	96	98
28	87	77	79	90	85	87	90	83	87	103	96	99
29	78	75	76	90	85	87	91	85	88	101	98	99
30	78	74	76	90	85	87	91	84	88	100	97	99
31	82	75	77	---	---	---	92	84	88	100	97	98
MONTH	---	---	---	---	---	---	93	79	88	---	---	---
DAY	MAX	MIN	MEAN									
1	101	98	100	104	101	103	95	90	92	90	85	88
2	103	99	100	106	101	103	93	90	91	87	81	84
3	105	98	102	107	102	104	92	87	89	85	83	84
4	105	99	102	108	104	106	92	87	90	86	82	84
5	107	99	102	108	105	106	90	87	89	84	79	81
6	105	100	104	108	105	107	90	86	88	81	78	79
7	105	100	102	107	106	106	88	86	87	82	78	80
8	104	100	102	108	104	106	86	84	85	84	81	82
9	105	101	103	111	105	107	85	83	84	85	79	83
10	106	102	103	111	107	109	84	82	83	84	81	82
11	103	98	101	111	107	108	82	81	82	85	81	82
12	103	98	101	109	104	106	85	80	82	87	83	85
13	103	97	100	108	103	105	86	83	85	89	82	86
14	102	98	100	107	103	105	86	83	84	91	86	89
15	101	97	99	104	100	102	85	82	83	90	88	89
16	98	96	97	102	98	101	84	81	82	90	84	87
17	99	96	97	102	98	100	---	---	---	89	81	84
18	102	97	98	101	97	100	---	---	---	87	82	85
19	102	97	99	100	97	98	---	---	---	86	84	85
20	103	98	101	98	95	97	---	---	---	87	82	85
21	104	99	102	98	95	96	---	---	---	86	83	85
22	103	100	102	99	95	97	---	---	---	86	82	83
23	103	99	101	100	95	98	---	---	---	83	81	82
24	104	99	102	100	96	98	---	---	---	82	81	81
25	106	101	103	101	96	98	---	---	---	81	78	80
26	105	102	104	98	94	96	---	---	---	83	78	80
27	103	101	102	97	93	95	---	---	---	82	77	79
28	104	101	102	97	93	95	---	---	---	83	79	81
29	---	---	---	94	92	93	90	87	89	83	76	79
30	---	---	---	93	90	92	90	87	88	83	80	81
31	---	---	---	95	90	92	---	---	---	83	79	81
MONTH	107	96	101	111	90	101	---	---	---	91	76	83

ROANOKE RIVER BASIN

0208062765 ROANOKE RIVER AT HALIFAX, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	JUNE			JULY			AUGUST			SEPTEMBER		
		MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	85	80	82	67	62	64	62	57	59	70	61	65	
2	86	82	84	67	63	65	64	56	61	71	66	68	
3	85	79	82	68	63	66	63	59	60	72	66	69	
4	80	78	79	68	62	65	65	57	61	---	---	---	
5	81	77	79	72	64	67	69	61	65	---	---	---	
6	84	78	81	73	65	69	68	65	66	---	---	---	
7	84	80	82	77	71	74	70	62	65	---	---	---	
8	82	77	81	78	72	75	69	63	65	---	---	---	
9	85	76	79	79	72	75	63	59	61	---	---	---	
10	83	76	79	80	72	76	64	59	62	73	67	69	
11	80	74	77	79	75	76	62	58	59	75	67	71	
12	79	73	76	81	74	76	60	56	58	75	68	70	
13	80	74	78	81	74	77	60	54	57	74	70	72	
14	79	75	77	74	70	72	60	55	58	76	71	73	
15	80	75	77	71	66	68	61	56	58	80	71	74	
16	77	72	74	70	64	66	62	55	59	79	71	74	
17	72	67	69	70	64	67	63	56	60	78	66	72	
18	70	66	68	71	67	69	65	60	62	78	68	73	
19	71	65	67	69	64	67	62	56	59	75	66	71	
20	72	67	70	70	64	67	57	51	52	80	70	73	
21	74	69	72	68	64	65	52	47	49	76	70	72	
22	75	71	73	66	59	63	53	48	50	72	64	68	
23	79	73	75	66	62	64	59	52	55	78	62	67	
24	79	73	76	68	64	66	62	54	57	78	70	73	
25	78	72	75	68	58	62	65	58	60	77	71	74	
26	75	72	73	62	57	59	65	58	61	76	72	74	
27	75	70	72	65	54	59	68	58	63	74	71	72	
28	73	69	70	66	59	62	67	61	65	74	70	72	
29	70	64	68	66	63	65	70	61	65	74	69	72	
30	67	63	64	65	59	62	69	63	66	78	72	75	
31	---	---	---	65	62	64	69	64	67	---	---	---	
MONTH	86	63	75	81	54	67	70	47	60	---	---	---	

02081000 ROANOKE RIVER NEAR SCOTLAND NECK, NC

LOCATION.--Lat 36°12'34.80", long 77°23'03.02", Halifax County, Hydrologic Unit 03010107, on right bank 50 ft upstream from bridge on U.S. 258, 3 mi downstream from Bridgers Creek, and 5.8 mi north of Scotland Neck.

DRAINAGE AREA.--8,671 mi².

PERIOD OF RECORD.--March 1974 to current year. Daily mean discharges, October 1940 to September 1956.

GAGE.--Water-stage recorder. Datum of gage is 5.77 ft above NGVD of 1929. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 41.98 ft, Aug. 19, 1940; minimum not determined

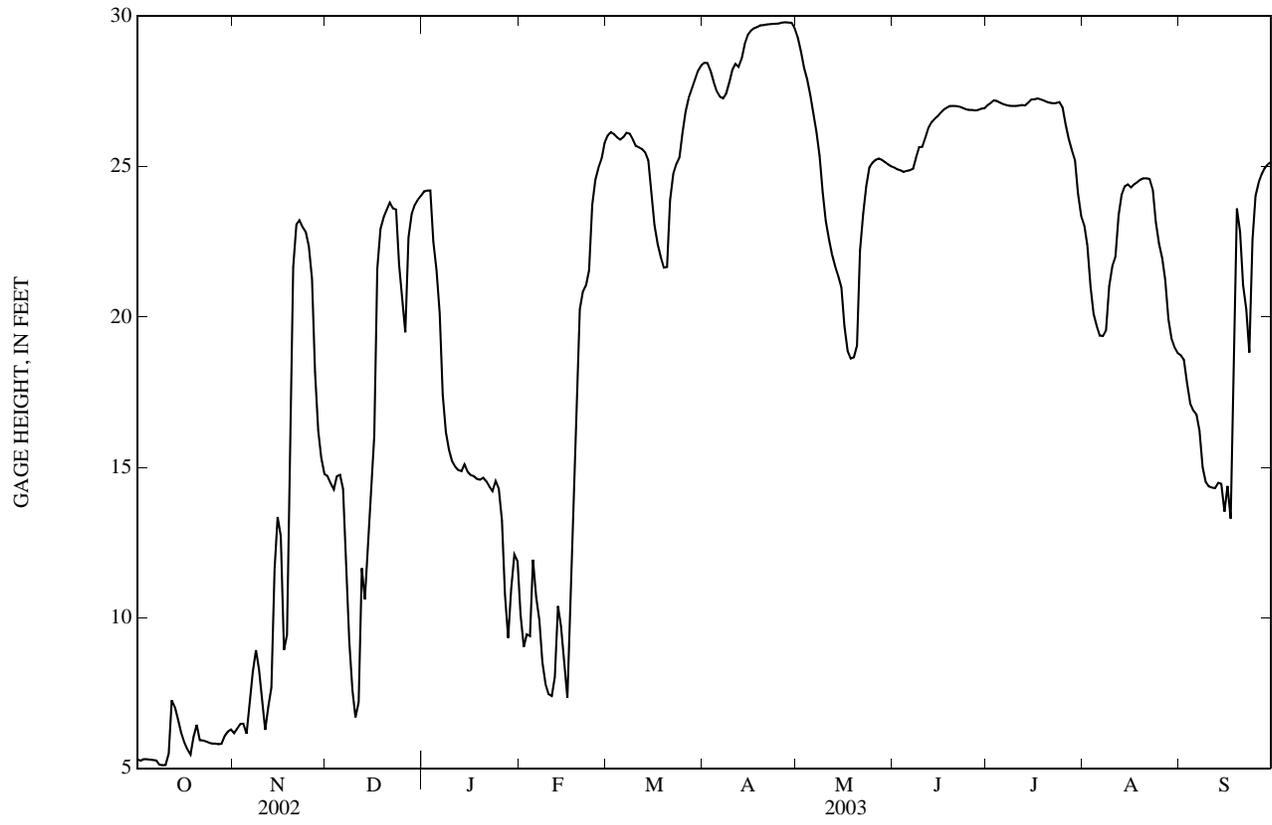
EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 29.81 ft, Apr. 26, 27; minimum recorded gage height, 5.10 ft, Oct. 8, 9, 10.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.29	6.17	14.72	24.18	10.10	26.04	28.45	29.30	24.97	27.05	23.04	18.72
2	5.25	6.32	14.48	24.20	9.03	26.14	28.45	28.83	24.91	27.12	22.37	18.58
3	5.30	6.48	14.27	24.21	9.45	26.08	28.19	28.30	24.88	27.20	21.00	17.80
4	5.30	6.48	14.71	22.51	9.40	25.97	27.82	27.90	24.82	27.18	20.11	17.13
5	5.28	6.15	14.75	21.56	11.93	25.90	27.51	27.40	24.86	27.12	19.70	16.90
6	5.27	7.12	14.29	20.12	10.68	25.98	27.32	26.74	24.88	27.08	19.38	16.76
7	5.26	8.19	12.21	17.42	9.92	26.12	27.27	26.16	24.93	27.05	19.37	16.22
8	5.12	8.93	9.22	16.16	8.52	26.10	27.42	25.36	25.30	27.02	19.56	15.00
9	5.10	8.29	7.59	15.59	7.79	25.92	27.80	24.12	25.65	27.02	21.03	14.52
10	5.10	7.21	6.69	15.20	7.46	25.69	28.21	23.19	25.66	27.02	21.69	14.37
11	5.49	6.27	7.20	15.03	7.40	25.64	28.41	22.59	25.96	27.03	21.99	14.33
12	7.26	7.06	11.65	14.91	8.03	25.59	28.31	22.08	26.30	27.05	23.38	14.31
13	7.03	7.68	10.62	14.87	10.39	25.47	28.59	21.69	26.48	27.03	24.06	14.49
14	6.61	11.62	12.68	15.10	9.71	25.22	29.07	21.37	26.60	27.13	24.35	14.46
15	6.19	13.35	14.53	14.86	8.43	24.14	29.38	20.98	26.68	27.24	24.41	13.53
16	5.87	12.71	16.05	14.75	7.34	23.06	29.53	19.70	26.80	27.24	24.31	14.38
17	5.63	8.93	21.61	14.70	9.47	22.43	29.60	18.88	26.90	27.27	24.42	13.30
18	5.46	9.44	22.93	14.62	12.55	22.01	29.64	18.62	26.97	27.23	24.48	17.40
19	6.05	15.37	23.31	14.59	17.38	21.65	29.70	18.65	27.02	27.20	24.56	23.60
20	6.44	21.67	23.56	14.66	20.26	21.67	29.71	19.05	27.02	27.15	24.61	22.83
21	5.93	23.08	23.80	14.54	20.84	23.88	29.72	22.22	27.01	27.12	24.61	21.05
22	5.92	23.22	23.61	14.36	21.05	24.75	29.74	23.44	26.99	27.11	24.59	20.25
23	5.89	22.99	23.58	14.21	21.55	25.08	29.75	24.35	26.95	27.11	24.23	18.82
24	5.84	22.82	21.73	14.55	23.73	25.30	29.75	24.98	26.91	27.15	23.15	22.57
25	5.82	22.36	20.63	14.30	24.57	26.12	29.76	25.13	26.89	26.97	22.44	24.03
26	5.82	21.27	19.49	13.24	24.96	26.84	29.79	25.22	26.88	26.41	21.96	24.47
27	5.80	18.17	22.64	10.77	25.26	27.28	29.80	25.27	26.87	25.92	21.22	24.75
28	5.82	16.23	23.42	9.33	25.79	27.58	29.79	25.23	26.88	25.56	19.92	24.96
29	6.07	15.32	23.72	10.96	---	27.90	29.79	25.15	26.93	25.22	19.30	25.08
30	6.22	14.78	23.90	12.11	---	28.19	29.61	25.08	26.95	24.11	18.99	25.16
31	6.29	---	24.03	11.89	---	28.37	---	25.01	---	23.37	18.80	---
MEAN	5.80	12.86	17.34	15.79	14.04	25.42	28.93	23.94	26.23	26.73	22.16	18.66
MAX	7.26	23.22	24.03	24.21	25.79	28.37	29.80	29.30	27.02	27.27	24.61	25.16
MIN	5.10	6.15	6.69	9.33	7.34	21.65	27.27	18.62	24.82	23.37	18.80	13.30

ROANOKE RIVER BASIN

02081000 ROANOKE RIVER NEAR SCOTLAND NECK, NC—Continued



02081022 ROANOKE RIVER NEAR OAK CITY, NC

LOCATION.--Lat 36°00'50.79", long 77°12'55.01", Martin County, Hydrologic Unit 03010107, on right bank at bridge on State Highway 11-42, and 5.2 mi northeast of Oak City.

DRAINAGE AREA.--8,810 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--Occasional measurements, water years 1968, 1969, 1972, 1975, 1978, 1980, 1983, 1986. July 1987 to current year.

GAGE.--Water stage recorder. Datum of gage is at NGVD of 1929. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 22.07 ft, Sept. 19, 1999; minimum recorded elevation, 2.31 ft, Nov. 5, 1997.

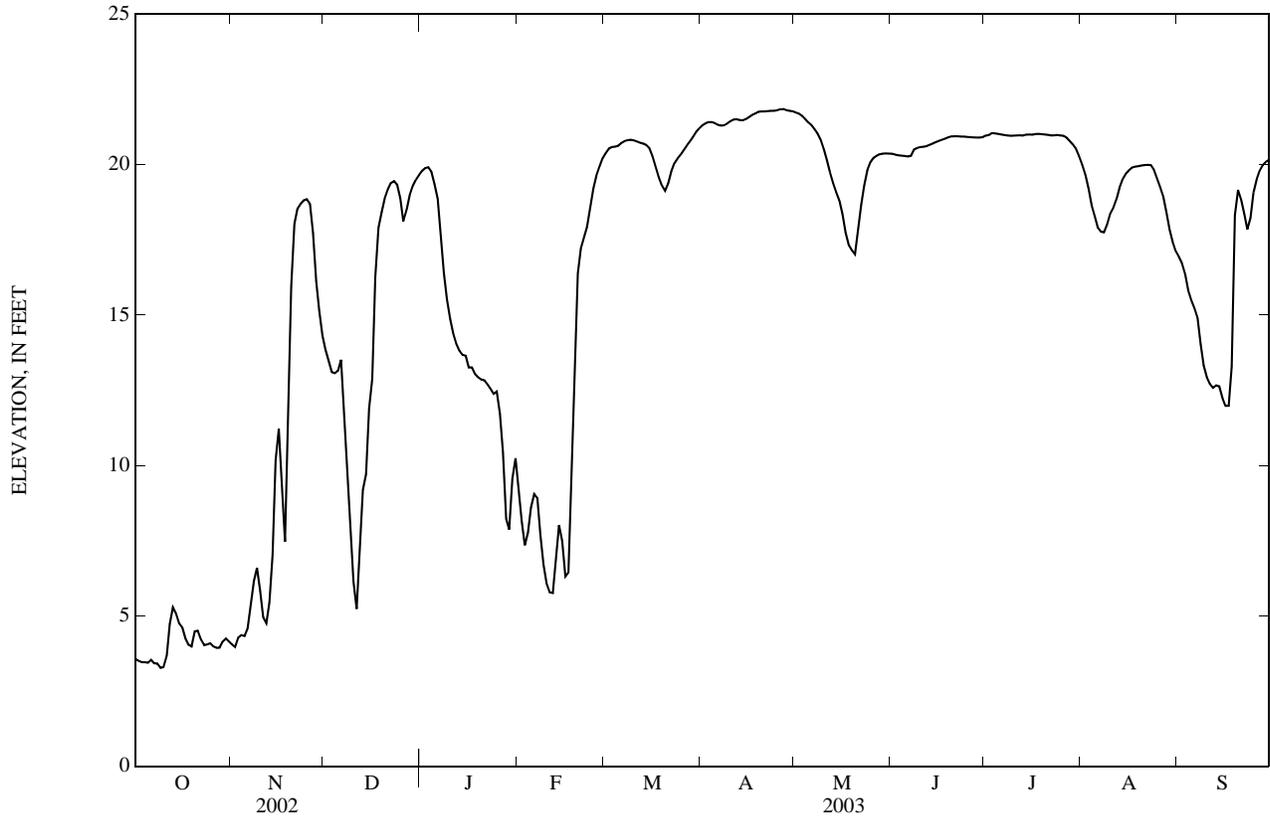
EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 21.90 ft, Apr. 26, 27; minimum recorded elevation, 3.21 ft, Oct. 9.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.57	4.05	13.85	19.79	9.20	20.39	21.31	21.73	20.36	20.97	19.98	16.94
2	3.50	3.96	13.48	19.88	8.13	20.53	21.37	21.69	20.33	20.99	19.67	16.74
3	3.46	4.28	13.10	19.91	7.34	20.58	21.41	21.63	20.31	21.05	19.20	16.38
4	3.46	4.36	13.06	19.77	7.77	20.60	21.42	21.52	20.30	21.04	18.66	15.82
5	3.44	4.33	13.15	19.35	8.60	20.63	21.38	21.41	20.29	21.02	18.29	15.50
6	3.54	4.57	13.51	18.87	9.05	20.72	21.33	21.32	20.27	21.00	17.91	15.23
7	3.42	5.39	11.82	17.56	8.91	20.78	21.30	21.19	20.29	20.99	17.77	14.92
8	3.42	6.16	9.70	16.38	7.69	20.81	21.31	21.03	20.50	20.97	17.75	14.03
9	3.27	6.60	7.63	15.52	6.68	20.83	21.37	20.82	20.55	20.96	18.02	13.32
10	3.29	5.83	6.13	14.88	6.08	20.80	21.44	20.52	20.59	20.96	18.38	12.93
11	3.66	4.96	5.23	14.40	5.78	20.77	21.50	20.14	20.59	20.97	18.57	12.71
12	4.72	4.76	7.51	14.05	5.76	20.73	21.51	19.74	20.62	20.98	18.86	12.58
13	5.29	5.44	9.19	13.81	6.95	20.70	21.49	19.38	20.66	20.97	19.24	12.66
14	5.07	7.02	9.71	13.68	8.02	20.65	21.47	19.09	20.70	21.00	19.52	12.63
15	4.76	10.17	11.89	13.64	7.48	20.55	21.52	18.81	20.75	21.00	19.69	12.24
16	4.61	11.22	12.89	13.26	6.31	20.29	21.58	18.37	20.79	21.00	19.81	11.98
17	4.26	9.12	16.27	13.26	6.44	19.93	21.65	17.74	20.83	21.02	19.90	11.98
18	4.04	7.46	17.90	13.05	10.14	19.60	21.70	17.32	20.87	21.02	19.93	13.29
19	3.98	10.47	18.42	12.93	12.94	19.31	21.76	17.15	20.91	21.01	19.95	18.32
20	4.49	15.95	18.87	12.86	16.38	19.12	21.77	17.02	20.94	21.00	19.97	19.16
21	4.51	18.03	19.18	12.83	17.20	19.36	21.77	17.86	20.94	20.99	19.98	18.84
22	4.22	18.53	19.39	12.69	17.57	19.77	21.78	18.66	20.94	20.97	19.99	18.36
23	4.03	18.70	19.45	12.54	17.93	20.04	21.79	19.31	20.94	20.97	19.99	17.85
24	4.05	18.81	19.34	12.38	18.55	20.20	21.79	19.82	20.93	20.98	19.84	18.23
25	4.09	18.85	18.88	12.46	19.21	20.33	21.80	20.08	20.92	20.97	19.55	19.08
26	3.98	18.69	18.11	11.71	19.64	20.48	21.84	20.23	20.91	20.96	19.25	19.51
27	3.93	17.73	18.48	10.43	19.94	20.63	21.85	20.30	20.91	20.90	18.95	19.80
28	3.94	16.12	18.98	8.23	20.21	20.77	21.81	20.35	20.90	20.79	18.42	19.99
29	4.14	15.14	19.28	7.87	---	20.93	21.79	20.37	20.90	20.67	17.86	20.10
30	4.25	14.32	19.50	9.55	---	21.09	21.77	20.37	20.91	20.53	17.44	20.17
31	4.14	---	19.65	10.24	---	21.21	---	20.37	---	20.28	17.13	---
MEAN	4.02	10.37	14.63	14.12	11.28	20.42	21.59	19.85	20.69	20.93	19.02	16.04
MAX	5.29	18.85	19.65	19.91	20.21	21.21	21.85	21.73	20.94	21.05	19.99	20.17
MIN	3.27	3.96	5.23	7.87	5.76	19.12	21.30	17.02	20.27	20.28	17.13	11.98

ROANOKE RIVER BASIN

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued



02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to 1973, 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1998 to current year.

pH: March 1998 to current year.

WATER TEMPERATURE: March 1998 to current year.

DISSOLVED OXYGEN: March 1998 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: March 1998 to current year.

INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from March 1998 to current year.

REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources (DENR), Division of Water Resources, to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam. Partial record site from October 1967 to September 1973. Dissolved oxygen, percent saturation, is computed using a barometric pressure of 760 mm Hg beginning October 1, 2000.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	5160, March 29, 2003	52, September 17, 1999
pH, standard units	8.1, July 1, 2, 2002	6.1, September 17, 1999, September 20, 21, 2003
WATER TEMPERATURE, °C	31.0, August 1, 2002	2.1, January 3, 2001
DISSOLVED OXYGEN, mg/L	15.5, January 6, 7, 1999	2.4, September 24, 2003
DISSOLVED OXYGEN, PERCENT SATURATION,%	123, January 6, 7, 1999	28, September 24, 2003

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	5160, March 29	62, September 20
pH, standard units	7.7, February 21, 22, 25, 26, 27	6.1, September 20, 21
WATER TEMPERATURE, °C	28.8, August 31	2.2, January 28
DISSOLVED OXYGEN, mg/L	13.8, January 29	2.4, September 24
DISSOLVED OXYGEN, PERCENT SATURATION,%	106, February 21, 24, March 10, 11	28, September 24

ROANOKE RIVER BASIN

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	175	174	174	157	149	154	145	137	139	111	110	111
2	176	172	174	154	147	153	145	137	140	111	109	110
3	177	174	175	153	151	152	146	139	141	109	106	107
4	178	177	177	154	146	153	146	139	142	106	103	105
5	178	176	177	153	144	149	145	137	140	108	99	102
6	179	177	178	152	146	149	144	137	140	107	100	102
7	179	177	178	150	138	147	143	134	137	104	100	101
8	179	175	177	138	127	132	146	134	139	108	102	105
9	178	175	177	136	126	131	141	134	135	112	103	106
10	191	177	182	137	128	132	142	136	141	113	104	107
11	180	170	177	141	129	136	144	142	143	114	105	108
12	172	168	170	143	137	140	153	144	147	115	107	111
13	168	141	153	145	143	144	152	139	143	117	108	112
14	142	138	140	144	130	138	143	139	141	125	115	118
15	147	142	144	138	128	132	144	135	139	123	115	119
16	152	147	149	134	129	131	139	136	137	125	115	118
17	161	152	156	136	132	133	140	128	137	125	115	118
18	164	161	163	135	129	131	129	123	125	124	114	117
19	167	164	165	146	131	135	125	118	121	124	114	117
20	168	166	167	134	129	131	124	117	122	123	113	116
21	168	159	162	133	132	132	128	122	125	122	114	117
22	161	159	160	132	132	132	129	127	128	122	113	116
23	165	161	164	132	131	131	129	127	128	122	112	115
24	165	163	164	131	130	131	127	126	127	121	111	114
25	165	163	164	131	130	130	126	125	126	119	110	114
26	166	162	164	132	130	131	126	123	125	118	110	113
27	166	165	165	133	131	132	123	117	119	119	112	115
28	167	166	166	136	131	133	117	110	113	122	113	116
29	166	164	165	140	132	137	113	109	112	126	113	121
30	165	162	164	142	136	138	113	112	112	124	111	117
31	163	157	159	---	---	---	112	111	111	118	111	113
MONTH	191	138	166	157	126	138	153	109	131	126	99	112
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	117	108	112	95	93	94	95	94	95	86	86	86
2	108	104	106	93	91	92	96	95	95	87	86	86
3	113	105	110	91	90	91	96	95	96	87	86	87
4	116	103	111	91	90	90	96	96	96	87	86	86
5	115	110	111	92	90	91	97	96	96	87	85	86
6	119	108	114	93	92	92	96	95	96	89	86	87
7	117	107	110	93	92	92	95	94	95	89	89	89
8	121	105	113	93	92	93	94	92	93	90	89	89
9	112	104	108	96	93	94	92	91	92	90	90	90
10	111	110	111	97	94	95	92	88	90	92	90	91
11	113	110	111	97	96	97	88	87	87	92	91	92
12	116	113	114	98	96	97	87	86	87	92	91	92
13	121	115	117	99	98	98	89	86	87	92	90	92
14	120	113	117	99	98	99	89	87	88	91	90	91
15	113	108	110	99	98	99	88	87	87	92	91	91
16	123	108	117	100	95	97	87	84	86	93	91	92
17	116	106	111	102	96	99	84	83	83	94	93	94
18	112	105	110	102	98	100	83	82	82	94	92	93
19	114	97	103	103	99	100	83	82	82	92	91	92
20	113	102	104	103	99	100	83	82	83	92	91	91
21	108	102	104	102	97	99	84	82	83	91	89	91
22	107	102	104	97	95	96	84	83	83	89	88	88
23	105	100	102	96	95	96	84	83	84	88	87	88
24	102	98	100	97	96	96	84	83	84	88	87	88
25	100	98	99	97	97	97	84	83	84	88	87	87
26	99	97	98	97	97	97	84	83	83	88	87	88
27	98	97	98	97	96	97	84	83	83	88	86	87
28	97	95	96	96	94	95	86	83	84	87	86	87
29	---	---	---	5,160	94	2,470	86	85	85	87	87	87
30	---	---	---	94	94	94	86	85	86	88	87	88
31	---	---	---	94	94	94	---	---	---	88	87	88
MONTH	123	95	108	5,160	90	172	97	82	88	94	85	89

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	88	87	88	95	94	94	99	98	99	100	99	99
2	88	88	88	94	93	94	100	99	99	103	100	102
3	88	88	88	94	93	93	101	99	100	102	101	102
4	89	88	88	94	93	93	101	100	101	103	102	102
5	90	88	89	95	93	94	101	99	100	104	102	103
6	89	88	89	95	94	94	100	98	99	104	102	102
7	91	89	90	95	94	95	98	97	98	103	102	103
8	91	89	90	95	92	94	98	98	98	104	103	103
9	91	90	91	93	92	93	---	---	---	112	102	105
10	91	90	91	93	92	92	---	---	---	111	105	108
11	94	90	92	92	91	92	---	---	---	105	102	103
12	95	94	95	92	91	92	---	---	---	102	94	98
13	96	95	96	93	90	92	---	---	---	96	93	94
14	97	96	97	---	---	---	---	---	---	95	93	94
15	97	96	97	---	---	---	---	---	---	95	92	94
16	96	96	96	---	---	---	---	---	---	96	94	95
17	97	96	96	---	---	---	---	---	---	97	94	95
18	96	96	96	---	---	---	---	---	---	94	84	89
19	96	96	96	---	---	---	---	---	---	87	74	80
20	99	96	97	---	---	---	100	99	100	74	62	65
21	99	97	98	---	---	---	101	100	100	73	64	68
22	98	96	97	---	---	---	101	99	100	79	73	76
23	98	97	97	99	95	98	100	98	100	86	79	81
24	98	97	97	98	97	97	99	97	98	98	82	87
25	98	97	98	98	97	98	98	96	97	92	89	91
26	98	97	98	99	98	98	97	96	96	93	92	93
27	98	97	97	99	97	98	97	95	96	93	92	93
28	97	95	96	99	98	98	96	94	95	93	91	92
29	95	93	94	100	98	98	97	95	96	92	89	91
30	96	94	95	99	98	99	99	97	98	89	87	88
31	---	---	---	100	98	99	100	98	98	---	---	---
MONTH	99	87	94	---	---	---	---	---	---	112	62	93

ROANOKE RIVER BASIN

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.3	7.2	7.3	7.2	7.1	7.2	7.1	7.1	7.1	7.0	7.0	7.0
2	7.2	7.2	7.2	7.3	7.1	7.2	7.2	7.1	7.2	7.0	7.0	7.0
3	7.2	7.1	7.2	7.3	7.2	7.3	7.2	7.2	7.2	7.0	6.9	6.9
4	7.2	7.1	7.2	7.3	7.2	7.3	7.2	7.1	7.2	6.9	6.6	6.8
5	7.2	7.1	7.2	7.3	7.2	7.3	7.1	7.0	7.1	6.6	6.6	6.6
6	7.2	7.2	7.2	7.3	7.3	7.3	7.0	6.9	7.0	6.7	6.6	6.6
7	7.2	7.2	7.2	7.3	7.2	7.3	6.9	6.8	6.9	6.6	6.5	6.5
8	7.2	7.2	7.2	7.2	7.2	7.2	6.9	6.8	6.8	6.6	6.5	6.6
9	7.3	7.2	7.2	7.3	7.2	7.2	6.8	6.8	6.8	6.7	6.6	6.6
10	7.2	7.2	7.2	7.2	7.2	7.2	6.8	6.8	6.8	6.7	6.7	6.7
11	7.2	7.1	7.1	7.2	7.2	7.2	6.8	6.8	6.8	6.8	6.7	6.8
12	7.1	7.0	7.0	7.2	7.2	7.2	7.0	6.8	6.9	6.7	6.7	6.7
13	7.0	6.6	6.8	7.2	7.2	7.2	7.0	6.9	6.9	6.7	6.7	6.7
14	6.7	6.6	6.6	7.2	7.1	7.2	6.9	6.8	6.9	7.0	6.7	6.8
15	6.8	6.6	6.7	7.2	7.1	7.2	6.8	6.8	6.8	7.0	6.9	6.9
16	6.9	6.8	6.8	7.2	7.2	7.2	6.9	6.8	6.8	6.9	6.8	6.8
17	6.9	6.9	6.9	7.2	7.2	7.2	7.1	6.8	6.9	6.8	6.8	6.8
18	7.0	6.9	7.0	7.2	7.1	7.1	7.1	7.0	7.1	6.8	6.8	6.8
19	7.1	7.0	7.1	7.2	7.1	7.1	7.1	7.1	7.1	6.8	6.8	6.8
20	7.2	7.1	7.1	7.3	7.2	7.2	7.2	7.1	7.1	6.8	6.8	6.8
21	7.2	7.1	7.2	7.4	7.3	7.3	7.2	7.0	7.1	6.9	6.8	6.9
22	7.3	7.2	7.2	7.4	7.3	7.3	7.1	7.1	7.1	6.9	6.9	6.9
23	7.2	7.2	7.2	7.3	7.2	7.3	7.1	7.0	7.0	6.9	6.9	6.9
24	7.2	7.2	7.2	7.3	7.2	7.3	7.1	6.9	7.0	6.9	6.9	6.9
25	7.2	7.2	7.2	7.3	7.1	7.3	6.9	6.8	6.8	6.9	6.9	6.9
26	7.3	7.2	7.2	7.2	7.0	7.1	6.8	6.7	6.8	6.9	6.8	6.8
27	7.3	7.2	7.2	7.0	6.8	6.9	7.1	6.8	7.0	6.8	6.8	6.8
28	7.2	7.2	7.2	6.9	6.7	6.8	7.1	7.0	7.0	6.8	6.7	6.8
29	7.3	7.2	7.2	7.0	6.9	7.0	7.0	7.0	7.0	6.8	6.7	6.8
30	7.3	7.2	7.2	7.1	7.0	7.0	7.0	7.0	7.0	6.9	6.8	6.8
31	7.2	7.2	7.2	---	---	---	7.0	7.0	7.0	6.8	6.7	6.8
MONTH	7.3	6.6	7.1	7.4	6.7	7.2	7.2	6.7	7.0	7.0	6.5	6.8
DAY	MAX	MIN	MEAN									
1	6.7	6.5	6.6	7.6	7.5	7.6	7.2	7.2	7.2	6.7	6.7	6.7
2	6.5	6.4	6.5	7.6	7.5	7.5	7.2	7.1	7.2	6.7	6.7	6.7
3	6.7	6.5	6.6	7.5	7.4	7.4	7.2	7.2	7.2	6.7	6.7	6.7
4	6.8	6.7	6.8	7.5	7.4	7.4	7.2	7.1	7.1	6.7	6.7	6.7
5	7.0	6.8	6.9	7.5	7.4	7.5	7.2	7.1	7.1	6.7	6.6	6.6
6	7.0	7.0	7.0	7.5	7.4	7.4	7.3	7.1	7.2	6.7	6.6	6.6
7	7.0	7.0	7.0	7.4	7.4	7.4	7.3	7.2	7.2	6.7	6.6	6.7
8	7.0	6.8	6.9	7.4	7.4	7.4	7.2	7.2	7.2	6.6	6.6	6.6
9	6.8	6.8	6.8	7.4	7.4	7.4	7.2	7.0	7.1	6.6	6.5	6.6
10	6.8	6.8	6.8	7.4	7.3	7.4	7.0	6.9	6.9	6.5	6.4	6.4
11	7.2	6.8	7.0	7.4	7.3	7.4	6.9	6.8	6.9	6.5	6.4	6.4
12	7.2	7.2	7.2	7.4	7.4	7.4	6.8	6.8	6.8	6.5	6.5	6.5
13	7.4	7.2	7.3	7.4	7.4	7.4	6.9	6.8	6.8	6.7	6.4	6.5
14	7.5	7.4	7.5	7.4	7.4	7.4	6.9	6.9	6.9	6.7	6.7	6.7
15	7.5	7.4	7.4	7.4	7.3	7.4	6.9	6.8	6.8	6.8	6.7	6.8
16	7.4	7.3	7.3	7.3	7.2	7.2	6.8	6.7	6.8	6.8	6.7	6.7
17	7.3	7.2	7.3	7.2	7.2	7.2	6.7	6.7	6.7	6.7	6.6	6.7
18	7.4	7.2	7.3	7.3	7.2	7.2	6.7	6.7	6.7	6.7	6.7	6.7
19	7.5	7.4	7.4	7.3	7.2	7.2	6.7	6.6	6.6	6.8	6.7	6.7
20	7.6	7.5	7.5	7.4	7.2	7.3	6.6	6.6	6.6	6.8	6.7	6.8
21	7.7	7.6	7.6	7.5	7.3	7.4	6.6	6.6	6.6	6.9	6.8	6.8
22	7.7	7.6	7.6	7.4	7.4	7.4	6.7	6.6	6.6	6.9	6.8	6.8
23	7.6	7.6	7.6	7.4	7.4	7.4	6.6	6.6	6.6	6.8	6.8	6.8
24	7.6	7.5	7.5	7.4	7.4	7.4	6.6	6.6	6.6	6.8	6.7	6.8
25	7.7	7.6	7.6	7.4	7.4	7.4	6.6	6.6	6.6	6.8	6.7	6.7
26	7.7	7.6	7.6	7.4	7.4	7.4	6.6	6.4	6.6	6.7	6.7	6.7
27	7.7	7.6	7.6	7.4	7.3	7.3	6.5	6.4	6.4	6.7	6.7	6.7
28	7.6	7.6	7.6	7.3	7.3	7.3	6.7	6.4	6.5	6.7	6.7	6.7
29	---	---	---	7.3	7.2	7.2	6.8	6.7	6.8	6.7	6.7	6.7
30	---	---	---	7.2	7.2	7.2	6.8	6.7	6.8	6.7	6.7	6.7
31	---	---	---	7.2	7.2	7.2	---	---	---	6.7	6.7	6.7
MONTH	7.7	6.4	7.2	7.6	7.2	7.4	7.3	6.4	6.8	6.9	6.4	6.7

ROANOKE RIVER BASIN

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	24.9	24.0	24.4	14.5	13.9	14.1	10.7	10.0	10.4	7.8	7.4	7.6
2	25.3	24.3	24.7	13.9	13.4	13.6	10.0	9.1	9.7	7.9	7.7	7.8
3	25.9	24.7	25.2	13.6	13.2	13.4	9.4	8.8	9.2	8.0	7.8	7.9
4	26.1	25.2	25.6	13.9	13.6	13.7	9.1	8.4	8.9	7.9	7.4	7.7
5	26.6	25.5	26.0	14.0	13.7	13.8	8.5	7.7	8.1	7.4	6.9	7.2
6	26.2	25.4	25.9	14.2	13.8	14.1	7.8	7.4	7.7	7.0	6.7	6.8
7	25.4	24.4	24.9	13.8	13.4	13.6	7.5	6.9	7.3	6.8	6.3	6.5
8	24.4	23.6	24.1	13.4	12.9	13.2	6.9	6.6	6.8	6.5	6.1	6.3
9	23.6	23.0	23.4	13.6	12.7	13.2	6.8	6.2	6.5	6.6	6.0	6.4
10	23.0	22.5	22.7	15.0	13.3	14.0	6.5	6.1	6.3	7.0	6.5	6.8
11	22.7	22.4	22.6	15.9	15.0	15.4	6.6	6.3	6.5	6.8	6.2	6.5
12	22.7	22.3	22.5	16.2	15.9	16.1	7.2	6.3	6.7	6.2	5.7	6.0
13	22.4	22.1	22.2	16.1	14.7	15.5	7.4	7.2	7.4	6.1	5.6	5.9
14	22.1	20.8	21.5	14.7	13.7	14.1	7.7	7.3	7.4	5.9	5.6	5.8
15	20.8	20.0	20.4	13.8	13.6	13.7	7.3	7.2	7.2	5.9	5.5	5.8
16	20.0	19.3	19.8	14.2	13.8	14.1	7.4	7.2	7.3	5.5	5.1	5.4
17	19.5	18.9	19.2	14.5	14.0	14.3	7.4	7.1	7.3	5.2	4.7	5.1
18	19.1	18.6	18.8	14.0	13.0	13.4	7.5	7.2	7.3	4.9	4.4	4.7
19	18.9	18.2	18.5	13.0	12.3	12.5	7.5	7.3	7.4	4.5	3.8	4.3
20	18.9	18.2	18.6	13.4	12.7	13.0	7.9	7.4	7.7	4.2	3.8	4.1
21	19.1	18.5	18.8	13.6	13.0	13.3	7.8	7.6	7.7	4.5	4.0	4.3
22	18.6	18.1	18.4	13.6	13.4	13.5	7.9	7.5	7.7	4.2	3.7	4.0
23	18.2	17.8	18.0	13.5	13.0	13.2	7.8	7.3	7.5	3.8	3.0	3.6
24	17.8	17.5	17.7	13.0	12.4	12.6	7.5	7.3	7.3	3.2	2.8	3.1
25	17.8	17.6	17.7	12.4	12.0	12.1	7.4	7.2	7.3	3.2	2.7	3.0
26	18.2	17.7	18.0	12.2	11.8	11.9	7.2	6.7	6.9	2.8	2.5	2.7
27	18.2	17.8	18.0	12.1	11.5	11.8	6.9	6.5	6.7	3.1	2.4	2.7
28	18.0	17.8	17.9	11.5	11.0	11.2	6.7	6.4	6.5	2.7	2.2	2.5
29	17.8	16.9	17.5	11.0	10.4	10.8	7.0	6.5	6.7	3.0	2.6	2.7
30	16.9	15.6	16.3	10.8	10.4	10.7	7.2	6.8	7.0	3.6	2.9	3.2
31	15.6	14.5	14.9	---	---	---	7.5	7.0	7.2	3.5	3.3	3.3
MONTH	26.6	14.5	20.8	16.2	10.4	13.3	10.7	6.1	7.5	8.0	2.2	5.2
DAY	MAX	MIN	MEAN									
1	3.4	3.2	3.3	5.2	4.8	4.9	11.2	10.7	10.9	16.2	15.6	15.9
2	3.7	3.2	3.4	5.8	5.2	5.4	11.9	11.1	11.4	16.5	16.0	16.2
3	4.6	3.7	4.1	6.1	5.7	5.9	12.8	11.8	12.2	16.4	16.1	16.2
4	5.7	4.6	5.2	6.3	5.7	6.0	13.4	12.6	12.9	16.1	15.6	15.8
5	5.9	5.1	5.5	6.7	6.1	6.3	13.5	13.0	13.3	15.6	15.4	15.5
6	5.6	4.6	5.1	7.0	6.4	6.6	13.4	13.0	13.2	15.4	15.1	15.3
7	5.0	4.5	4.7	7.0	6.7	6.8	13.2	12.5	12.8	16.0	15.4	15.6
8	4.8	4.3	4.6	6.9	6.5	6.7	12.5	11.9	12.2	16.9	16.0	16.3
9	4.9	4.6	4.7	7.1	6.6	6.8	11.9	10.9	11.2	17.7	16.9	17.3
10	4.8	4.5	4.7	7.8	6.8	7.2	10.9	10.8	10.8	18.1	17.7	18.0
11	5.0	4.4	4.7	7.8	7.3	7.4	10.8	10.5	10.6	18.4	18.0	18.2
12	5.5	4.8	5.1	7.6	7.2	7.4	11.1	10.4	10.7	18.5	18.2	18.4
13	5.6	5.1	5.3	8.0	7.3	7.6	11.9	11.0	11.4	18.9	18.1	18.6
14	5.6	4.8	5.1	8.6	7.8	8.1	12.4	11.8	12.1	18.2	17.4	17.8
15	5.3	4.8	5.0	8.8	8.3	8.5	12.7	12.1	12.4	18.6	17.9	18.2
16	5.4	4.8	5.0	9.1	8.6	8.8	13.2	12.4	12.8	18.8	18.5	18.7
17	4.8	4.1	4.6	9.2	9.0	9.1	13.5	12.9	13.2	18.9	18.2	18.5
18	4.1	3.3	3.6	9.5	8.8	9.2	13.4	13.0	13.2	18.4	17.1	18.0
19	4.3	3.7	4.0	9.5	9.4	9.4	13.2	13.0	13.1	17.4	16.8	17.1
20	4.3	3.9	4.1	9.5	9.2	9.3	13.2	12.8	13.0	17.6	17.1	17.4
21	4.7	4.0	4.3	9.5	9.4	9.4	13.5	13.1	13.3	17.6	16.9	17.3
22	5.4	4.7	5.0	9.6	9.1	9.3	14.1	13.5	13.8	17.9	17.1	17.4
23	5.8	5.4	5.6	10.2	9.5	9.8	14.2	13.8	14.0	17.8	17.3	17.5
24	6.0	5.6	5.7	10.7	10.1	10.4	14.1	13.7	13.9	17.5	17.2	17.3
25	6.0	5.4	5.7	10.9	10.3	10.6	14.0	13.8	13.9	17.6	17.2	17.4
26	5.9	5.3	5.5	11.1	10.3	10.7	14.1	13.8	14.0	17.9	17.4	17.6
27	5.5	5.1	5.3	11.2	10.6	10.9	14.3	13.9	14.1	18.2	17.7	17.9
28	5.1	4.8	4.9	11.8	10.5	11.1	14.7	14.1	14.4	18.2	17.9	18.0
29	---	---	---	12.2	11.6	11.9	15.3	14.6	14.9	18.6	17.9	18.2
30	---	---	---	11.9	11.5	11.7	15.8	15.1	15.4	18.6	17.8	18.2
31	---	---	---	11.5	11.0	11.2	---	---	---	18.8	18.4	18.6
MONTH	6.0	3.2	4.8	12.2	4.8	8.5	15.8	10.4	12.8	18.9	15.1	17.4

ROANOKE RIVER BASIN

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	6.3	6.5	8.0	7.9	7.9	10.0	9.6	9.8	12.0	11.6	11.8
2	6.7	6.2	6.5	8.2	7.9	8.0	10.3	9.8	10.1	11.9	11.5	11.7
3	6.6	6.2	6.4	8.3	8.2	8.3	10.6	10.3	10.4	12.0	11.5	11.7
4	6.7	6.1	6.3	8.3	8.0	8.2	10.8	10.4	10.6	12.0	11.3	11.7
5	6.8	6.1	6.4	8.2	8.0	8.2	11.0	10.7	10.9	11.6	10.5	11.0
6	6.7	6.0	6.3	8.2	8.0	8.0	11.1	10.7	10.9	11.3	10.6	10.9
7	6.9	6.1	6.5	8.1	7.9	8.0	11.0	10.7	10.8	11.0	10.3	10.5
8	7.7	6.5	7.0	8.0	7.8	7.9	11.2	10.7	11.0	10.8	10.6	10.7
9	7.9	7.2	7.6	8.1	7.9	8.0	11.3	10.9	11.1	11.0	10.8	10.9
10	8.1	7.3	7.7	8.1	7.8	7.9	11.3	11.0	11.2	11.2	10.8	11.0
11	8.3	7.3	7.9	7.8	7.4	7.7	11.5	11.1	11.3	11.6	11.0	11.3
12	8.3	7.4	7.8	7.6	7.2	7.3	---	---	---	11.6	11.2	11.4
13	7.8	6.1	6.9	7.3	7.2	7.3	---	---	---	11.6	11.3	11.4
14	6.6	5.6	6.0	7.3	7.0	7.2	---	---	---	11.8	11.3	11.6
15	6.9	6.0	6.6	7.3	7.0	7.2	---	---	---	11.7	11.5	11.6
16	7.0	6.7	6.9	7.3	7.0	7.1	---	---	---	11.8	11.6	11.7
17	7.3	7.0	7.2	7.1	6.8	7.0	---	---	---	12.0	11.7	11.8
18	7.5	7.2	7.4	7.0	6.9	6.9	11.2	9.5	10.4	12.1	11.8	12.0
19	7.8	7.4	7.7	7.3	7.0	7.1	10.7	9.8	10.3	12.5	12.0	12.1
20	8.0	7.8	7.8	7.5	7.1	7.3	10.3	9.5	9.9	12.6	12.2	12.4
21	7.9	7.7	7.8	8.3	7.4	7.8	11.2	9.9	10.8	12.6	12.3	12.4
22	7.9	7.7	7.8	8.3	8.1	8.2	11.0	10.4	10.7	12.8	12.4	12.6
23	7.9	7.7	7.8	8.5	7.8	8.3	11.0	10.4	10.7	13.0	12.6	12.8
24	7.9	7.8	7.8	9.0	8.4	8.6	11.0	10.2	10.6	13.1	12.8	12.9
25	7.9	7.7	7.8	9.1	8.8	8.9	10.5	9.6	10.0	13.5	12.9	13.1
26	7.8	7.6	7.7	9.1	8.8	8.9	10.3	9.6	9.9	13.6	13.3	13.5
27	7.8	7.6	7.7	8.9	8.1	8.4	11.3	10.0	10.7	13.6	13.3	13.4
28	7.6	7.4	7.5	9.0	8.1	8.4	11.5	10.8	11.1	13.6	13.3	13.5
29	7.7	7.5	7.6	9.5	8.9	9.2	12.1	10.9	11.7	13.8	13.4	13.6
30	7.8	7.6	7.6	9.8	9.4	9.6	12.1	11.7	11.9	13.7	13.3	13.5
31	7.9	7.6	7.8	---	---	---	12.1	11.6	11.9	13.5	13.1	13.3
MONTH	8.3	5.6	7.2	9.8	6.8	8.0	---	---	---	13.8	10.3	12.1
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.4	12.9	13.2	13.1	11.7	12.7	---	---	---	7.2	6.7	7.0
2	13.0	12.7	12.9	13.0	12.6	12.8	---	---	---	7.2	6.7	6.9
3	12.9	12.7	12.8	12.8	12.4	12.7	---	---	---	7.0	6.5	6.8
4	12.9	12.6	12.7	12.7	12.4	12.6	---	---	---	7.2	6.4	6.8
5	12.9	12.5	12.7	12.8	12.5	12.6	---	---	---	7.5	6.7	7.2
6	13.2	12.5	12.8	12.7	12.5	12.6	---	---	---	7.4	6.7	7.0
7	13.2	12.9	13.1	12.6	12.3	12.4	---	---	---	6.9	6.6	6.8
8	13.0	12.6	12.8	12.5	12.2	12.3	---	---	---	6.9	6.6	6.7
9	12.7	12.2	12.4	12.6	12.3	12.5	---	---	---	6.7	6.2	6.5
10	12.6	12.2	12.4	12.6	12.4	12.5	8.7	7.8	8.4	6.3	6.0	6.2
11	12.6	12.3	12.5	---	---	---	8.3	7.7	8.1	6.4	6.1	6.2
12	12.4	12.2	12.3	---	---	---	8.3	7.7	8.1	6.7	6.3	6.5
13	12.8	12.2	12.5	---	---	---	8.6	7.8	8.2	7.3	6.5	6.9
14	13.0	12.6	12.8	---	---	---	8.7	8.2	8.5	7.7	7.2	7.4
15	13.0	12.7	12.9	---	---	---	8.7	8.3	8.5	7.7	7.4	7.6
16	12.8	12.3	12.5	---	---	---	8.6	8.1	8.4	7.7	7.0	7.3
17	12.6	12.3	12.5	---	---	---	8.5	7.9	8.2	7.1	6.8	6.9
18	12.9	12.3	12.6	---	---	---	8.3	7.9	8.1	7.4	6.9	7.2
19	13.3	12.8	13.0	---	---	---	8.4	7.8	8.1	7.6	7.2	7.4
20	13.7	13.1	13.4	---	---	---	8.4	7.9	8.2	7.8	7.4	7.5
21	13.7	13.2	13.4	---	---	---	8.5	7.7	8.3	8.2	7.6	7.9
22	13.5	13.2	13.3	---	---	---	8.5	7.9	8.2	8.1	7.7	7.9
23	13.2	12.8	13.0	---	---	---	8.5	7.8	8.2	7.9	7.5	7.7
24	13.3	12.5	13.0	---	---	---	8.6	7.9	8.2	7.8	7.3	7.5
25	13.1	12.5	12.8	---	---	---	8.5	7.9	8.3	7.6	7.2	7.3
26	13.1	12.3	12.6	---	---	---	8.4	7.7	8.0	7.4	6.8	7.1
27	13.2	12.8	13.0	---	---	---	8.3	7.6	7.9	7.5	6.7	7.2
28	13.1	12.9	13.0	---	---	---	8.2	7.6	7.9	7.4	6.9	7.3
29	---	---	---	---	---	---	7.8	7.0	7.3	7.5	7.2	7.3
30	---	---	---	---	---	---	7.7	6.9	7.2	7.5	6.9	7.3
31	---	---	---	---	---	---	---	---	---	7.6	7.3	7.5
MONTH	13.7	12.2	12.8	---	---	---	---	---	---	8.2	6.0	7.1

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.5	7.0	7.3	5.4	4.9	5.1	4.7	4.2	4.4	5.0	4.9	4.9
2	7.7	7.0	7.3	5.1	4.8	4.9	4.7	4.3	4.4	4.9	4.7	4.8
3	7.9	7.6	7.7	5.1	4.8	4.9	4.5	4.1	4.3	4.9	4.7	4.8
4	7.8	7.4	7.6	5.0	4.8	4.9	4.3	4.0	4.1	5.0	4.7	4.9
5	7.5	7.2	7.3	5.2	4.5	4.9	4.4	4.0	4.2	5.0	4.8	4.9
6	7.4	6.9	7.1	5.1	4.8	5.0	4.7	4.3	4.5	5.3	4.9	5.1
7	7.3	7.0	7.1	5.4	4.6	5.1	4.8	4.6	4.7	5.4	5.2	5.3
8	7.3	6.6	6.9	5.4	5.0	5.2	4.9	4.7	4.8	5.4	5.2	5.3
9	6.8	6.3	6.6	5.5	5.2	5.3	5.0	4.8	4.9	5.5	5.3	5.4
10	6.6	6.0	6.3	5.5	5.3	5.4	5.0	4.7	4.8	5.6	5.4	5.5
11	6.3	6.0	6.1	5.5	5.2	5.3	5.0	4.8	4.9	5.7	5.5	5.6
12	6.3	6.1	6.2	5.4	5.1	5.3	5.0	4.7	4.9	5.8	5.5	5.7
13	6.3	6.0	6.2	5.4	5.2	5.3	5.0	4.8	4.8	5.9	5.7	5.8
14	6.2	5.9	6.0	5.4	5.2	5.3	5.0	4.6	4.8	6.0	5.8	5.9
15	6.0	5.9	6.0	5.4	5.1	5.2	5.0	4.8	4.9	6.1	5.8	6.0
16	6.0	5.8	5.9	5.2	4.9	5.0	5.0	4.6	4.8	6.1	5.9	6.0
17	5.8	5.4	5.6	5.2	4.9	5.0	4.9	4.5	4.7	6.2	5.9	6.0
18	5.6	5.3	5.5	5.3	4.8	5.0	5.0	4.7	4.8	6.6	6.0	6.3
19	5.5	5.3	5.4	5.3	5.0	5.1	5.0	4.8	4.8	6.3	5.5	5.8
20	5.4	5.1	5.2	5.2	4.9	5.0	5.0	4.7	4.9	5.6	4.1	4.8
21	5.4	5.1	5.3	5.6	4.9	5.0	4.8	4.5	4.6	4.1	3.5	3.9
22	5.5	5.3	5.3	5.2	4.8	5.0	4.6	4.3	4.4	3.8	3.0	3.5
23	5.5	5.3	5.4	5.0	4.8	4.9	4.5	4.3	4.4	4.0	2.6	3.4
24	5.7	5.4	5.5	5.2	4.9	5.0	4.5	4.2	4.3	5.4	2.4	3.6
25	5.6	5.4	5.5	5.2	4.9	5.1	4.5	4.2	4.3	5.8	5.4	5.7
26	5.6	5.3	5.4	5.0	4.4	4.6	4.6	4.4	4.5	5.9	5.6	5.8
27	5.4	5.2	5.3	4.5	4.3	4.4	4.8	4.5	4.7	5.8	5.3	5.5
28	5.4	5.1	5.2	4.6	4.3	4.4	4.5	4.3	4.4	5.6	5.2	5.4
29	5.5	5.1	5.3	4.7	4.4	4.6	4.7	4.4	4.6	5.4	5.1	5.2
30	5.4	5.1	5.2	4.8	4.2	4.5	4.8	4.7	4.8	5.3	5.1	5.2
31	---	---	---	4.3	4.1	4.2	5.0	4.8	4.9	---	---	---
MONTH	7.9	5.1	6.1	5.6	4.1	5.0	5.0	4.0	4.6	6.6	2.4	5.2

ROANOKE RIVER BASIN

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	81	76	78	78	77	77	89	86	88	100	97	99
2	81	75	78	79	76	77	90	87	89	100	97	98
3	81	75	78	80	78	79	92	89	91	102	97	99
4	83	75	77	80	77	79	93	90	92	101	94	98
5	85	75	79	80	77	79	94	91	92	96	87	92
6	83	74	78	80	77	78	93	90	91	93	87	89
7	84	74	79	78	76	77	91	88	90	90	84	86
8	92	78	83	77	74	75	92	88	90	88	86	87
9	93	85	89	78	75	76	92	89	90	90	87	89
10	94	85	90	79	75	77	92	90	91	92	88	90
11	96	85	92	78	75	77	94	90	92	94	90	92
12	96	86	91	77	73	74	---	---	---	94	90	92
13	90	70	79	74	72	73	---	---	---	93	90	92
14	76	64	69	72	68	70	---	---	---	95	90	92
15	77	67	73	71	67	69	---	---	---	94	91	93
16	76	74	76	71	68	69	---	---	---	94	91	93
17	79	76	78	69	67	68	---	---	---	94	92	93
18	80	78	80	68	66	67	93	79	87	94	92	93
19	83	79	82	68	66	67	89	82	86	95	93	94
20	86	83	84	72	67	69	86	80	83	97	94	95
21	86	82	84	80	71	75	94	83	91	97	94	96
22	85	82	83	80	78	79	92	87	90	98	95	96
23	84	81	83	81	75	79	92	87	89	98	96	97
24	83	82	82	85	79	81	92	85	88	98	96	97
25	83	81	82	85	82	83	88	80	83	100	96	98
26	83	81	82	84	81	83	85	79	82	101	98	99
27	83	80	81	83	75	78	93	82	88	102	98	99
28	80	78	79	82	74	77	94	88	91	100	97	99
29	81	78	79	86	80	83	100	89	96	103	99	100
30	80	77	78	88	84	87	100	96	98	102	100	101
31	78	76	77	---	---	---	100	97	99	102	98	100
MONTH	96	64	81	88	66	76	---	---	---	103	84	95
DAY	MAX	MIN	MEAN									
1	101	97	99	103	91	100	---	---	---	73	67	71
2	99	96	97	103	99	102	---	---	---	73	69	71
3	100	96	98	103	99	102	---	---	---	71	66	69
4	102	99	100	103	99	101	---	---	---	73	65	69
5	103	99	101	105	101	103	---	---	---	75	67	72
6	103	99	101	105	102	103	---	---	---	74	67	70
7	103	100	102	104	101	102	---	---	---	70	66	68
8	101	97	100	103	99	101	---	---	---	70	67	69
9	99	95	97	104	101	102	---	---	---	69	65	67
10	98	95	97	106	102	103	79	71	76	67	64	65
11	98	95	97	---	---	---	75	69	73	68	65	66
12	98	96	97	---	---	---	76	69	73	72	67	69
13	101	96	99	---	---	---	80	71	75	78	70	74
14	103	98	101	---	---	---	82	76	79	81	75	78
15	102	100	101	---	---	---	82	77	80	83	79	80
16	101	97	98	---	---	---	82	77	80	83	75	79
17	98	95	97	---	---	---	81	75	79	77	72	74
18	98	94	96	---	---	---	79	75	77	78	74	76
19	102	97	99	---	---	---	80	74	77	79	74	76
20	105	100	102	---	---	---	80	75	78	81	77	79
21	106	101	104	---	---	---	82	74	79	86	79	82
22	105	104	105	---	---	---	82	77	80	85	81	83
23	105	102	103	---	---	---	83	76	80	83	78	80
24	106	100	103	---	---	---	84	76	80	81	77	78
25	105	100	102	---	---	---	83	76	80	80	75	77
26	104	97	100	---	---	---	82	75	78	78	71	75
27	104	101	103	---	---	---	81	74	77	80	71	76
28	103	101	102	---	---	---	80	74	77	79	73	77
29	---	---	---	---	---	---	78	69	72	80	76	78
30	---	---	---	---	---	---	77	69	72	80	73	77
31	---	---	---	---	---	---	---	---	---	82	78	80
MONTH	106	94	100	---	---	---	---	---	---	86	64	74

02081022 ROANOKE RIVER NEAR OAK CITY, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	81	75	79	64	58	60	58	51	55	65	63	64
2	84	76	79	60	56	58	58	52	54	63	60	62
3	86	82	84	60	56	57	55	51	53	63	60	62
4	85	81	83	58	56	57	53	49	51	64	60	63
5	82	78	80	61	52	57	54	49	52	64	61	63
6	81	75	78	61	57	59	58	53	56	67	62	65
7	81	77	78	64	55	61	60	57	59	68	65	66
8	81	74	77	65	60	62	61	58	59	67	64	66
9	76	71	74	67	63	65	62	59	61	68	65	66
10	74	68	71	67	64	65	62	58	59	68	66	67
11	72	68	70	67	63	65	62	59	60	69	66	68
12	73	69	72	66	62	64	62	58	60	70	66	68
13	73	69	71	66	63	64	62	59	60	71	68	69
14	72	68	70	66	63	64	63	57	60	72	69	70
15	70	69	70	65	62	63	63	60	61	73	69	71
16	71	68	69	63	59	61	63	58	60	74	71	72
17	68	63	65	63	59	60	62	57	59	74	71	73
18	64	61	63	64	58	61	63	59	61	79	72	75
19	63	60	62	64	61	62	63	60	61	74	64	68
20	61	58	59	63	59	61	63	59	61	65	47	55
21	62	58	60	69	59	61	61	56	58	47	41	45
22	63	60	61	64	59	61	58	54	56	45	35	41
23	63	60	61	61	58	59	57	54	55	47	31	40
24	66	62	63	63	60	61	57	53	54	64	28	43
25	65	62	63	63	60	62	57	52	54	69	64	67
26	65	62	63	61	54	56	58	55	57	70	66	68
27	64	61	62	56	52	54	61	57	59	69	63	66
28	64	60	61	57	53	54	57	54	56	66	62	64
29	65	60	63	58	54	57	61	56	59	64	60	62
30	64	60	62	60	52	56	62	61	62	63	59	61
31	---	---	---	53	50	51	65	62	63	---	---	---
MONTH	86	58	69	69	50	60	65	49	58	79	28	63

ROANOKE RIVER BASIN

02081028 ROANOKE RIVER AT HAMILTON, NC

LOCATION.--Lat 35°55'50.78", long 77°12'10.01", Martin County, Hydrologic Unit 03010107, on downstream side of public boat ramp, 0.5 mi east of Hamilton.

DRAINAGE AREA.--8,890 mi².

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

GAGE.--Water stage recorder. Datum of gage is NGVD of 1929. Satellite telemetry at station.

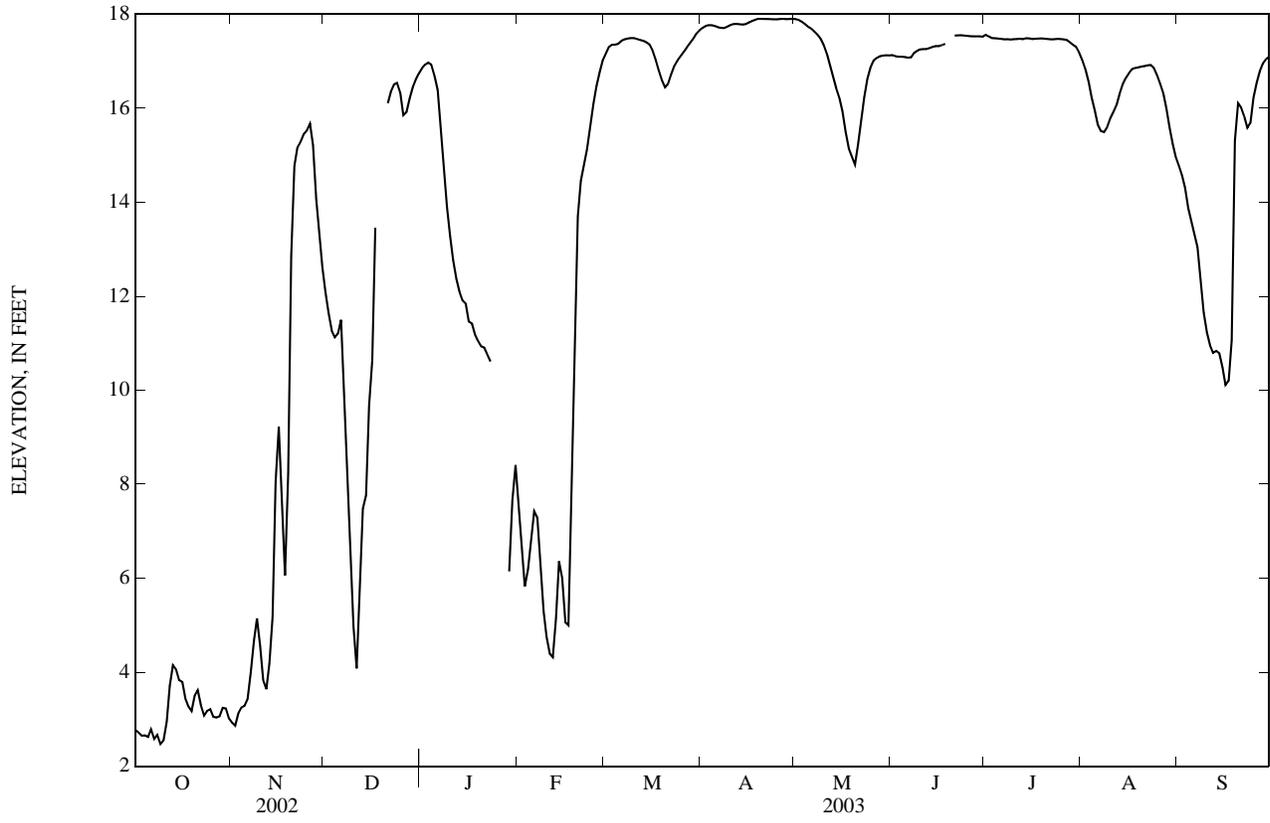
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 18.17 ft, Sept. 19, 1999; minimum recorded elevation 1.33 ft, Jan. 4, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 17.94 ft, Apr. 27; minimum recorded elevation, 2.34 ft, Oct. 9.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.77	2.93	12.09	16.85	7.63	17.16	17.70	17.90	17.13	17.56	17.02	14.78
2	2.71	2.86	11.64	16.93	6.62	17.30	17.75	17.87	17.11	17.53	16.83	14.59
3	2.65	3.13	11.27	16.97	5.82	17.35	17.77	17.84	17.10	17.49	16.57	14.31
4	2.66	3.25	11.13	16.93	6.18	17.35	17.77	17.79	17.10	17.49	16.23	13.87
5	2.62	3.28	11.21	16.69	6.76	17.37	17.75	17.73	17.09	17.48	15.95	13.61
6	2.78	3.43	11.50	16.39	7.43	17.43	17.72	17.69	17.08	17.48	15.65	13.33
7	2.58	4.00	10.12	15.58	7.29	17.47	17.71	17.63	17.08	17.47	15.51	13.05
8	2.67	4.67	8.31	14.68	6.24	17.48	17.71	17.56	17.18	17.47	15.49	12.31
9	2.47	5.15	6.40	13.91	5.30	17.49	17.73	17.48	17.22	17.46	15.60	11.65
10	2.55	4.56	4.98	13.28	4.75	17.49	17.77	17.35	17.25	17.47	15.79	11.24
11	2.95	3.84	4.08	12.77	4.39	17.47	17.79	17.15	17.26	17.47	15.92	10.96
12	3.71	3.64	5.56	12.38	4.32	17.45	17.80	16.91	17.26	17.48	16.07	10.80
13	4.15	4.19	7.48	12.10	5.15	17.43	17.79	16.65	17.28	17.47	16.30	10.84
14	4.06	5.18	7.76	11.91	6.36	17.40	17.78	16.43	17.31	17.49	16.51	10.79
15	3.83	8.05	9.67	11.84	6.00	17.36	17.79	16.22	17.32	17.48	16.64	10.49
16	3.79	9.22	10.64	11.46	5.06	17.24	17.82	15.94	17.32	17.47	16.75	10.11
17	3.45	7.67	13.45	11.42	5.00	17.04	17.86	15.50	17.34	17.48	16.83	10.20
18	3.27	6.06	---	11.19	8.09	16.81	17.88	15.15	17.37	17.48	16.86	11.07
19	3.17	8.22	---	11.04	10.59	16.60	17.90	14.97	---	17.49	16.87	15.31
20	3.51	12.85	---	10.93	13.70	16.45	17.90	14.80	---	17.48	16.89	16.11
21	3.62	14.77	16.11	10.91	14.46	16.52	17.90	15.22	17.55	17.47	16.90	16.02
22	3.30	15.16	16.35	10.75	14.80	16.72	17.90	15.76	17.55	17.47	16.92	15.82
23	3.08	15.29	16.50	10.61	15.13	16.90	17.89	16.23	17.55	17.47	16.92	15.59
24	3.18	15.45	16.54	---	15.59	17.02	17.89	16.63	17.55	17.47	16.86	15.70
25	3.22	15.52	16.33	---	16.09	17.10	17.89	16.86	17.54	17.47	16.71	16.23
26	3.05	15.67	15.85	---	16.47	17.20	17.90	17.01	17.53	17.46	16.52	16.54
27	3.03	15.21	15.92	---	16.77	17.29	17.90	17.07	17.53	17.45	16.32	16.78
28	3.06	14.07	16.21	---	17.01	17.38	17.89	17.11	17.53	17.41	15.99	16.95
29	3.24	13.30	16.44	6.15	---	17.47	17.90	17.12	17.53	17.35	15.60	17.04
30	3.23	12.61	16.61	7.66	---	17.58	17.90	17.13	17.52	17.31	15.25	17.09
31	3.02	---	16.74	8.41	---	17.65	---	17.12	---	17.19	14.97	---
MEAN	3.14	8.44	---	---	9.25	17.22	17.82	16.77	---	17.46	16.30	13.77
MAX	4.15	15.67	---	---	17.01	17.65	17.90	17.90	---	17.56	17.02	17.09
MIN	2.47	2.86	---	---	4.32	16.45	17.70	14.80	---	17.19	14.97	10.11

02081028 ROANOKE RIVER AT HAMILTON, NC—Continued



0208102855 ROANOKE RIVER ABOVE SECONDARY ROAD 1100 NEAR GRABTOWN, NC

LOCATION.--Lat 35°56'39", long 77°04'10", Bertie County, Hydrologic Unit 03010107, on left bank, 0.1 mi downstream of Coniott Creek, and 0.65 mi south-southeast of Quitsna.

PERIOD OF RECORD.--Water years 1998 to March 2003 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1998 to March 2003.

pH: January 1998 to March 2003.

WATER TEMPERATURE: January 1998 to March 2003.

DISSOLVED OXYGEN: January 1998 to March 2003.

DISSOLVED OXYGEN, PERCENT SATURATION: January 1998 to March 2003.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from January 1998 to March 2003.

REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources (DENR), Division of Water Resources, to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam. Dissolved oxygen, percent saturation, is computed using a barometric pressure of 760 mm Hg beginning October 1, 2000.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	215, August 30, 2001	32, September 18, 19, 1999
pH, standard units	7.9, March 8, 1998	5.7, September 18-21, 1999, March 31, 2003
WATER TEMPERATURE, °C	31.2, August 1, 2002	2.2, January 27, 28, 2003
DISSOLVED OXYGEN, mg/L	14.2, January 7, 1999	2.2, May 15, 2000
DISSOLVED OXYGEN, PERCENT SATURATION,%	121, July 5, 6, 1999	26, May 15, 2000

EXTREMES FOR CURRENT PERIOD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	171, October 6	91, March 6
pH, standard units	7.7, October 3, 4, 5	5.7, March 31
WATER TEMPERATURE, °C	26.2, October 5, 6	2.2, January 27, 28
DISSOLVED OXYGEN, mg/L	13.1, February 21	6.1, November 28
DISSOLVED OXYGEN, PERCENT SATURATION,%	102, February 22	54, November 28

0208102855 ROANOKE RIVER ABOVE SECONDARY ROAD 1100 NEAR GRABTOWN, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
OCTOBER 2002 TO MARCH 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	161	159	160	158	155	156	139	130	133	122	119	120
2	159	158	159	157	155	156	140	132	135	120	116	118
3	159	158	158	160	157	158	140	134	136	117	112	115
4	166	157	158	161	159	160	140	134	136	116	110	112
5	164	158	160	162	160	161	138	132	135	116	111	114
6	171	159	161	161	156	159	138	133	135	115	110	112
7	161	159	160	162	159	161	140	133	135	113	109	110
8	161	160	161	161	157	160	134	130	132	111	108	109
9	162	160	161	157	150	154	140	130	135	113	108	110
10	161	159	160	154	141	150	135	130	131	113	109	110
11	160	157	159	149	140	144	140	132	137	113	108	110
12	160	157	159	151	140	145	144	139	141	113	108	110
13	158	152	155	154	146	149	150	140	146	113	107	109
14	153	133	144	154	146	151	142	137	139	113	107	109
15	134	128	130	148	136	143	144	138	140	112	103	107
16	135	129	131	142	132	137	141	134	137	108	102	104
17	138	133	136	147	139	143	141	135	138	108	101	103
18	145	138	141	140	132	134	144	138	140	107	101	104
19	151	144	148	139	128	132	139	136	138	108	101	103
20	154	151	152	136	125	129	139	136	138	108	102	104
21	156	153	155	132	128	129	138	136	137	107	101	104
22	157	149	153	129	128	129	138	132	136	108	102	104
23	151	147	149	129	129	129	133	127	129	108	101	103
24	155	148	152	129	128	129	130	126	128	108	101	104
25	155	152	153	130	129	129	129	123	125	108	101	104
26	156	153	154	130	128	130	124	120	122	108	102	104
27	155	152	153	130	127	129	122	118	120	110	103	106
28	155	152	154	131	128	129	124	119	121	111	106	108
29	157	154	156	135	129	131	123	119	121	114	107	110
30	157	155	156	136	130	133	124	119	121	116	108	113
31	158	155	157	---	---	---	122	119	120	115	106	110
MONTH	171	128	153	162	125	143	150	118	133	122	101	108
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	110	105	107	98	95	97	---	---	---	---	---	---
2	110	102	106	96	93	95	---	---	---	---	---	---
3	104	100	103	97	93	94	---	---	---	---	---	---
4	108	100	105	95	92	94	---	---	---	---	---	---
5	111	100	107	95	93	94	---	---	---	---	---	---
6	112	106	108	95	91	93	---	---	---	---	---	---
7	114	105	109	96	92	93	---	---	---	---	---	---
8	114	105	108	96	92	93	---	---	---	---	---	---
9	115	104	109	96	92	94	---	---	---	---	---	---
10	109	102	105	99	95	96	---	---	---	---	---	---
11	109	107	108	99	95	97	---	---	---	---	---	---
12	110	107	109	100	92	97	---	---	---	---	---	---
13	112	109	111	102	96	98	---	---	---	---	---	---
14	117	110	113	103	99	100	---	---	---	---	---	---
15	117	108	113	106	99	101	---	---	---	---	---	---
16	111	105	108	104	98	101	---	---	---	---	---	---
17	119	105	113	104	99	101	---	---	---	---	---	---
18	111	103	106	106	101	102	---	---	---	---	---	---
19	111	99	104	105	101	103	---	---	---	---	---	---
20	116	99	106	106	101	103	---	---	---	---	---	---
21	109	104	106	105	102	103	---	---	---	---	---	---
22	110	104	106	105	101	102	---	---	---	---	---	---
23	109	104	106	102	100	101	---	---	---	---	---	---
24	108	101	104	102	101	101	---	---	---	---	---	---
25	105	101	103	102	100	101	---	---	---	---	---	---
26	101	98	100	101	99	100	---	---	---	---	---	---
27	100	98	99	101	99	100	---	---	---	---	---	---
28	100	97	98	100	98	99	---	---	---	---	---	---
29	---	---	---	99	98	98	---	---	---	---	---	---
30	---	---	---	98	97	97	---	---	---	---	---	---
31	---	---	---	97	95	96	---	---	---	---	---	---
MONTH	119	97	106	106	91	98	---	---	---	---	---	---

0208102855 ROANOKE RIVER ABOVE SECONDARY ROAD 1100 NEAR GRABTOWN, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
OCTOBER 2002 TO MARCH 2003

DAY	MAX	MIN	MEAN									
1	7.5	7.5	7.5	7.3	7.2	7.3	6.9	6.7	6.8	6.9	6.7	6.7
2	7.6	7.5	7.5	7.3	7.2	7.2	6.9	6.8	6.8	6.8	6.7	6.8
3	7.7	7.6	7.6	7.2	7.2	7.2	6.9	6.7	6.8	6.8	6.7	6.8
4	7.7	7.6	7.6	7.3	7.2	7.2	6.9	6.7	6.8	6.8	6.7	6.8
5	7.7	7.6	7.6	7.3	7.2	7.3	6.9	6.8	6.8	6.8	6.7	6.8
6	7.6	7.6	7.6	7.3	7.2	7.2	7.0	6.8	6.9	6.8	6.7	6.7
7	7.6	7.6	7.6	7.3	7.2	7.3	6.9	6.7	6.8	6.8	6.6	6.7
8	7.6	7.5	7.6	7.3	7.2	7.3	6.8	6.7	6.7	6.7	6.6	6.7
9	7.6	7.5	7.5	7.2	7.2	7.2	6.8	6.7	6.7	6.7	6.6	6.7
10	7.5	7.5	7.5	7.2	7.2	7.2	6.8	6.7	6.8	6.7	6.6	6.7
11	7.5	7.5	7.5	7.2	7.2	7.2	6.9	6.8	6.8	6.7	6.6	6.7
12	7.6	7.5	7.5	7.2	7.1	7.2	6.8	6.8	6.8	6.7	6.6	6.7
13	7.6	7.4	7.5	7.3	7.1	7.2	6.9	6.8	6.8	6.8	6.6	6.7
14	7.4	7.3	7.4	7.3	7.1	7.2	6.9	6.8	6.9	6.8	6.6	6.7
15	7.3	7.1	7.2	7.1	7.0	7.0	7.0	6.8	6.9	6.8	6.7	6.7
16	7.4	7.1	7.3	7.0	6.9	7.0	7.0	6.9	7.0	6.8	6.7	6.8
17	7.4	7.3	7.4	7.0	6.8	6.8	7.1	7.0	7.0	6.9	6.7	6.8
18	7.4	7.3	7.3	7.1	6.9	7.0	7.3	7.1	7.2	6.9	6.8	6.8
19	7.3	7.2	7.3	7.0	6.8	6.9	7.3	7.2	7.3	6.9	6.8	6.9
20	7.3	7.2	7.2	7.1	6.9	7.1	7.4	7.3	7.3	6.9	6.8	6.9
21	7.3	7.2	7.2	7.5	7.1	7.4	7.4	7.2	7.3	7.0	6.8	6.9
22	7.2	7.2	7.2	7.5	7.5	7.5	7.2	6.8	7.1	6.9	6.7	6.8
23	7.2	7.2	7.2	7.5	7.5	7.5	6.9	6.7	6.8	6.9	6.8	6.8
24	7.2	7.1	7.2	7.5	7.4	7.4	6.9	6.7	6.8	6.8	6.7	6.8
25	7.1	7.1	7.1	7.4	7.2	7.3	6.8	6.6	6.7	6.9	6.8	6.8
26	7.2	7.1	7.1	7.2	6.8	7.1	6.7	6.6	6.7	6.8	6.7	6.8
27	7.2	7.1	7.2	7.0	6.8	6.9	6.8	6.6	6.7	6.8	6.7	6.7
28	7.2	7.2	7.2	7.0	6.8	6.8	6.9	6.7	6.8	6.8	6.7	6.7
29	7.3	7.2	7.3	6.9	6.7	6.9	6.9	6.7	6.8	6.8	6.7	6.7
30	7.3	7.3	7.3	6.9	6.7	6.8	7.1	6.7	6.8	6.8	6.8	6.8
31	7.3	7.2	7.3	---	---	---	6.8	6.7	6.7	6.8	6.8	6.8
MONTH	7.7	7.1	7.4	7.5	6.7	7.2	7.4	6.6	6.9	7.0	6.6	6.8
DAY	MAX	MIN	MEAN									
1	6.8	6.7	6.7	6.4	6.3	6.3	---	---	---	---	---	---
2	6.7	6.6	6.7	6.4	6.3	6.3	---	---	---	---	---	---
3	6.6	6.6	6.6	6.4	6.2	6.3	---	---	---	---	---	---
4	6.7	6.6	6.6	6.3	6.2	6.3	---	---	---	---	---	---
5	6.7	6.6	6.6	6.3	6.2	6.2	---	---	---	---	---	---
6	6.7	6.7	6.7	6.3	6.2	6.2	---	---	---	---	---	---
7	6.8	6.7	6.7	6.2	6.1	6.2	---	---	---	---	---	---
8	6.7	6.7	6.7	6.2	6.1	6.1	---	---	---	---	---	---
9	6.7	6.7	6.7	6.2	6.0	6.1	---	---	---	---	---	---
10	6.7	6.6	6.6	6.2	6.0	6.1	---	---	---	---	---	---
11	6.6	6.2	6.5	6.1	6.0	6.0	---	---	---	---	---	---
12	6.5	6.3	6.4	6.1	5.9	6.0	---	---	---	---	---	---
13	6.5	6.4	6.4	6.1	5.9	6.0	---	---	---	---	---	---
14	6.6	6.4	6.5	6.1	5.9	6.0	---	---	---	---	---	---
15	6.6	6.5	6.6	6.0	5.9	5.9	---	---	---	---	---	---
16	6.6	6.5	6.6	6.0	5.8	5.9	---	---	---	---	---	---
17	6.5	6.4	6.5	6.0	5.8	5.9	---	---	---	---	---	---
18	6.5	6.3	6.4	6.0	5.9	5.9	---	---	---	---	---	---
19	6.7	6.3	6.5	6.0	5.9	5.9	---	---	---	---	---	---
20	6.9	6.6	6.8	6.0	5.8	5.9	---	---	---	---	---	---
21	6.9	6.9	6.9	6.0	5.9	5.9	---	---	---	---	---	---
22	7.0	6.9	7.0	6.0	5.9	6.0	---	---	---	---	---	---
23	7.0	7.0	7.0	6.0	5.9	6.0	---	---	---	---	---	---
24	7.0	6.8	6.9	6.1	5.9	6.0	---	---	---	---	---	---
25	6.9	6.6	6.8	6.0	5.9	6.0	---	---	---	---	---	---
26	6.7	6.4	6.5	6.1	5.9	6.0	---	---	---	---	---	---
27	6.4	6.3	6.4	6.1	5.9	6.0	---	---	---	---	---	---
28	6.4	6.3	6.4	6.0	5.9	6.0	---	---	---	---	---	---
29	---	---	---	6.0	5.8	5.9	---	---	---	---	---	---
30	---	---	---	5.9	5.8	5.8	---	---	---	---	---	---
31	---	---	---	5.8	5.7	5.7	---	---	---	---	---	---
MONTH	7.0	6.2	6.6	6.4	5.7	6.0	---	---	---	---	---	---

0208102855 ROANOKE RIVER ABOVE SECONDARY ROAD 1100 NEAR GRABTOWN, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
OCTOBER 2002 TO MARCH 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.2	24.7	25.0	15.3	14.4	14.8	9.6	8.7	9.0	7.7	6.9	7.4
2	25.1	24.8	25.0	14.4	13.7	14.0	9.1	8.3	8.7	8.2	7.7	7.9
3	25.4	24.9	25.1	13.7	13.3	13.5	8.8	7.7	8.2	8.4	8.0	8.2
4	25.7	25.2	25.5	13.7	13.3	13.5	8.0	7.0	7.4	8.3	7.7	8.0
5	26.2	25.7	25.9	13.7	13.4	13.5	7.7	6.5	7.0	7.8	7.1	7.4
6	26.2	25.8	25.9	14.1	13.6	13.9	7.0	6.1	6.6	7.1	6.7	6.9
7	25.9	25.6	25.7	13.9	13.5	13.8	6.5	5.5	5.9	6.7	6.0	6.3
8	25.6	24.4	25.1	13.5	13.2	13.4	6.0	5.2	5.7	6.1	5.8	6.0
9	24.4	23.5	23.9	13.5	13.0	13.3	6.1	5.6	5.9	6.5	5.9	6.2
10	23.5	23.2	23.3	14.3	13.2	13.8	6.1	5.8	6.0	6.8	6.5	6.7
11	23.2	22.6	22.9	15.2	14.3	14.7	6.3	5.9	6.1	6.7	6.2	6.4
12	22.6	22.5	22.6	15.8	15.2	15.6	6.7	6.1	6.4	6.2	5.4	5.8
13	22.8	22.2	22.5	15.9	15.4	15.7	7.4	6.5	6.8	5.7	5.0	5.4
14	22.6	21.5	22.1	15.4	14.1	14.9	7.7	7.4	7.5	5.5	5.0	5.3
15	21.5	20.6	20.9	14.1	13.5	13.7	7.4	7.2	7.3	5.4	5.0	5.2
16	20.6	20.1	20.3	14.2	13.7	13.9	7.3	7.0	7.2	5.2	4.4	4.8
17	20.1	19.6	19.8	14.2	13.7	14.1	7.4	7.0	7.2	4.9	4.3	4.6
18	19.6	19.0	19.2	13.9	13.3	13.8	7.4	7.2	7.3	4.5	3.6	4.0
19	19.0	18.5	18.7	13.4	12.2	12.7	7.5	7.3	7.4	4.1	3.5	3.8
20	18.9	18.5	18.7	12.9	12.1	12.6	7.9	7.5	7.7	4.2	3.4	3.8
21	18.9	18.4	18.6	13.3	12.8	13.2	7.8	7.7	7.7	4.1	3.6	3.9
22	18.5	18.3	18.4	13.5	13.2	13.4	7.9	7.5	7.7	4.0	3.5	3.7
23	18.7	18.0	18.4	13.3	12.9	13.2	8.0	7.5	7.8	3.9	2.8	3.3
24	18.4	17.9	18.1	12.9	12.4	12.7	7.6	7.3	7.5	3.0	2.5	2.7
25	18.1	17.6	17.7	12.4	11.9	12.2	7.5	7.1	7.4	3.0	2.6	2.8
26	17.9	17.5	17.7	12.0	11.0	11.6	7.1	6.6	6.8	2.9	2.6	2.7
27	18.2	17.7	18.0	11.5	10.6	11.1	6.6	6.1	6.3	2.7	2.2	2.5
28	18.1	17.8	18.0	10.8	9.7	10.2	6.2	5.7	6.0	2.8	2.2	2.5
29	18.0	17.5	17.7	10.2	9.3	9.8	6.3	5.5	5.9	3.0	2.3	2.7
30	17.5	16.6	17.1	9.9	9.2	9.6	6.8	5.8	6.2	3.0	2.8	2.9
31	16.6	15.3	15.9	---	---	---	7.0	6.2	6.6	3.4	2.9	3.3
MONTH	26.2	15.3	21.1	15.9	9.2	13.2	9.6	5.2	7.0	8.4	2.2	4.9
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.7	3.4	3.5	5.8	5.2	5.5	---	---	---	---	---	---
2	4.1	3.3	3.7	6.5	5.6	6.0	---	---	---	---	---	---
3	4.9	3.7	4.1	7.0	6.2	6.6	---	---	---	---	---	---
4	5.7	4.6	5.3	7.3	6.3	6.8	---	---	---	---	---	---
5	6.2	5.5	5.8	7.9	6.7	7.3	---	---	---	---	---	---
6	5.8	5.5	5.7	8.5	7.5	8.0	---	---	---	---	---	---
7	5.6	4.7	5.1	8.3	7.4	7.9	---	---	---	---	---	---
8	5.2	4.4	4.7	7.8	6.9	7.5	---	---	---	---	---	---
9	5.0	4.4	4.7	8.6	7.3	7.9	---	---	---	---	---	---
10	5.0	4.6	4.8	9.0	7.7	8.4	---	---	---	---	---	---
11	5.3	4.4	4.8	8.7	8.1	8.4	---	---	---	---	---	---
12	5.6	4.6	5.1	8.6	7.8	8.2	---	---	---	---	---	---
13	5.6	4.9	5.2	9.5	8.2	8.8	---	---	---	---	---	---
14	5.7	5.1	5.3	9.8	8.8	9.4	---	---	---	---	---	---
15	5.6	5.1	5.3	9.6	8.8	9.3	---	---	---	---	---	---
16	5.1	4.8	4.9	10.2	9.0	9.6	---	---	---	---	---	---
17	5.2	4.4	4.8	10.6	9.9	10.3	---	---	---	---	---	---
18	4.4	3.8	4.2	10.9	10.0	10.6	---	---	---	---	---	---
19	4.2	3.3	3.7	11.1	10.4	10.8	---	---	---	---	---	---
20	4.4	4.1	4.2	11.1	10.2	10.7	---	---	---	---	---	---
21	4.3	4.0	4.2	11.2	10.5	10.9	---	---	---	---	---	---
22	5.3	4.3	4.9	11.4	10.2	11.0	---	---	---	---	---	---
23	5.7	5.3	5.6	11.6	10.5	11.1	---	---	---	---	---	---
24	6.1	5.5	5.8	12.3	10.9	11.6	---	---	---	---	---	---
25	6.6	5.8	6.1	12.5	11.4	12.0	---	---	---	---	---	---
26	6.6	6.0	6.3	12.9	11.9	12.3	---	---	---	---	---	---
27	6.3	5.6	6.0	12.9	12.0	12.6	---	---	---	---	---	---
28	5.9	5.3	5.6	13.3	12.2	12.7	---	---	---	---	---	---
29	---	---	---	14.0	12.5	13.4	---	---	---	---	---	---
30	---	---	---	13.9	12.8	13.5	---	---	---	---	---	---
31	---	---	---	12.9	11.8	12.3	---	---	---	---	---	---
MONTH	6.6	3.3	5.0	14.0	5.2	9.7	---	---	---	---	---	---

0208102855 ROANOKE RIVER ABOVE SECONDARY ROAD 1100 NEAR GRABTOWN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
OCTOBER 2002 TO MARCH 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.0	6.8	6.9	---	---	---	8.0	6.8	7.3	---	---	---
2	7.4	6.7	7.1	---	---	---	8.2	7.2	7.7	---	---	---
3	7.4	7.0	7.2	8.6	8.2	8.4	8.1	7.1	7.7	---	---	---
4	7.4	7.2	7.3	8.9	8.6	8.8	9.0	7.5	8.1	---	---	---
5	7.3	6.9	7.1	9.0	8.8	8.9	9.5	8.2	9.0	---	---	---
6	7.2	6.8	7.0	9.0	8.7	8.8	9.7	9.0	9.4	---	---	---
7	7.2	6.9	7.0	9.0	8.7	8.8	9.5	8.8	9.1	---	---	---
8	7.1	6.9	7.0	9.1	8.8	8.9	9.3	8.8	9.0	---	---	---
9	7.2	6.9	7.0	8.9	8.7	8.8	9.7	8.9	9.3	---	---	---
10	7.6	7.0	7.2	9.1	8.8	8.9	10.2	9.5	9.9	---	---	---
11	7.9	7.5	7.7	8.8	8.4	8.6	10.3	10.0	10.1	---	---	---
12	7.9	7.6	7.8	8.4	7.9	8.2	10.2	9.8	10.1	---	---	---
13	7.9	7.6	7.8	8.0	7.7	7.9	10.4	10.0	10.2	---	---	---
14	---	---	---	8.2	7.9	8.1	10.3	10.0	10.1	---	---	---
15	---	---	---	8.2	7.9	8.1	10.6	10.1	10.4	---	---	---
16	---	---	---	8.2	7.7	8.0	10.8	10.4	10.6	---	---	---
17	---	---	---	7.8	7.3	7.5	11.0	10.8	10.9	---	---	---
18	---	---	---	7.8	7.6	7.7	---	---	---	---	---	---
19	---	---	---	7.8	7.5	7.6	---	---	---	---	---	---
20	---	---	---	8.3	7.7	8.1	---	---	---	---	---	---
21	---	---	---	8.4	8.1	8.2	---	---	---	---	---	---
22	---	---	---	8.2	8.1	8.1	---	---	---	---	---	---
23	---	---	---	8.3	8.1	8.2	---	---	---	---	---	---
24	---	---	---	8.5	8.2	8.4	---	---	---	---	---	---
25	---	---	---	8.6	7.7	8.3	---	---	---	---	---	---
26	---	---	---	8.2	6.6	7.6	---	---	---	---	---	---
27	---	---	---	7.6	6.3	6.9	---	---	---	---	---	---
28	---	---	---	7.3	6.1	6.5	---	---	---	---	---	---
29	---	---	---	7.8	6.3	7.2	---	---	---	---	---	---
30	---	---	---	8.0	6.8	7.4	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	11.2	10.3	10.8	---	---	---	---	---	---
2	---	---	---	11.3	10.6	10.8	---	---	---	---	---	---
3	---	---	---	11.4	10.3	10.6	---	---	---	---	---	---
4	---	---	---	11.0	10.2	10.5	---	---	---	---	---	---
5	---	---	---	10.8	10.2	10.4	---	---	---	---	---	---
6	---	---	---	10.6	9.8	10.2	---	---	---	---	---	---
7	---	---	---	10.3	9.6	9.9	---	---	---	---	---	---
8	---	---	---	10.2	9.4	9.8	---	---	---	---	---	---
9	---	---	---	10.5	9.4	10	---	---	---	---	---	---
10	---	---	---	10.4	9.7	10	---	---	---	---	---	---
11	---	---	---	10.1	9.4	9.8	---	---	---	---	---	---
12	12.0	11.5	11.7	10.0	9.0	9.7	---	---	---	---	---	---
13	11.9	11.6	11.7	10.2	9.6	9.8	---	---	---	---	---	---
14	12.0	11.6	11.8	10.2	9.3	9.8	---	---	---	---	---	---
15	12.2	11.8	12.0	10.2	9.2	9.6	---	---	---	---	---	---
16	12.2	12.0	12.1	9.8	8.9	9.3	---	---	---	---	---	---
17	12.1	11.7	11.9	9.3	8.6	9.0	---	---	---	---	---	---
18	12.0	11.6	11.7	9.3	8.5	8.8	---	---	---	---	---	---
19	12.7	11.6	12.3	9.1	8.3	8.7	---	---	---	---	---	---
20	13.0	12.7	12.8	9.1	8.1	8.5	---	---	---	---	---	---
21	13.1	12.9	13.0	8.7	8.1	8.4	---	---	---	---	---	---
22	13.0	12.7	12.9	8.8	8.1	8.4	---	---	---	---	---	---
23	12.7	12.4	12.6	8.9	8.2	8.5	---	---	---	---	---	---
24	12.5	11.9	12.3	9.1	8.2	8.5	---	---	---	---	---	---
25	12.3	11.5	12.1	8.9	8.0	8.4	---	---	---	---	---	---
26	11.8	10.4	10.9	8.8	7.9	8.3	---	---	---	---	---	---
27	11.1	10.4	10.7	8.6	7.6	8.0	---	---	---	---	---	---
28	11.4	10.2	10.7	8.3	7.5	7.8	---	---	---	---	---	---
29	---	---	---	8.0	6.9	7.4	---	---	---	---	---	---
30	---	---	---	7.3	6.7	6.9	---	---	---	---	---	---
31	---	---	---	7.0	6.3	6.6	---	---	---	---	---	---
MONTH	---	---	---	11.4	6.3	9.1	---	---	---	---	---	---

0208102855 ROANOKE RIVER ABOVE SECONDARY ROAD 1100 NEAR GRABTOWN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
OCTOBER 2002 TO MARCH 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	85	82	83	---	---	---	70	59	63	---	---	---
2	90	81	86	---	---	---	71	62	66	---	---	---
3	91	85	88	83	79	81	69	60	65	---	---	---
4	91	88	89	86	83	84	76	63	67	---	---	---
5	90	85	88	87	84	86	78	68	74	---	---	---
6	89	84	87	87	84	85	80	73	77	---	---	---
7	89	85	86	87	84	85	77	70	73	---	---	---
8	86	84	85	88	84	86	74	69	72	---	---	---
9	85	82	84	86	83	84	78	71	75	---	---	---
10	89	82	85	88	84	86	82	76	80	---	---	---
11	92	88	90	86	84	85	84	80	82	---	---	---
12	92	88	91	84	80	82	83	80	82	---	---	---
13	92	88	90	81	78	80	85	82	84	---	---	---
14	---	---	---	81	79	80	86	83	85	---	---	---
15	---	---	---	80	76	78	88	84	87	---	---	---
16	---	---	---	79	75	78	90	86	88	---	---	---
17	---	---	---	76	71	73	92	89	90	---	---	---
18	---	---	---	76	73	75	---	---	---	---	---	---
19	---	---	---	74	70	72	---	---	---	---	---	---
20	---	---	---	79	72	76	---	---	---	---	---	---
21	---	---	---	80	77	78	---	---	---	---	---	---
22	---	---	---	79	78	78	---	---	---	---	---	---
23	---	---	---	79	78	78	---	---	---	---	---	---
24	---	---	---	80	78	79	---	---	---	---	---	---
25	---	---	---	81	71	78	---	---	---	---	---	---
26	---	---	---	76	60	70	---	---	---	---	---	---
27	---	---	---	69	57	63	---	---	---	---	---	---
28	---	---	---	66	54	58	---	---	---	---	---	---
29	---	---	---	69	55	63	---	---	---	---	---	---
30	---	---	---	70	59	65	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	89	82	86	---	---	---	---	---	---
2	---	---	---	90	85	87	---	---	---	---	---	---
3	---	---	---	92	84	87	---	---	---	---	---	---
4	---	---	---	89	83	86	---	---	---	---	---	---
5	---	---	---	90	84	87	---	---	---	---	---	---
6	---	---	---	89	83	86	---	---	---	---	---	---
7	---	---	---	87	81	83	---	---	---	---	---	---
8	---	---	---	85	78	82	---	---	---	---	---	---
9	---	---	---	89	79	84	---	---	---	---	---	---
10	---	---	---	89	82	85	---	---	---	---	---	---
11	---	---	---	86	80	83	---	---	---	---	---	---
12	95	90	92	85	77	83	---	---	---	---	---	---
13	95	91	93	89	82	85	---	---	---	---	---	---
14	96	91	93	89	81	85	---	---	---	---	---	---
15	96	93	95	88	80	84	---	---	---	---	---	---
16	96	94	95	86	78	82	---	---	---	---	---	---
17	95	91	93	83	77	81	---	---	---	---	---	---
18	93	88	90	83	77	79	---	---	---	---	---	---
19	98	88	93	82	75	79	---	---	---	---	---	---
20	100	97	98	81	73	77	---	---	---	---	---	---
21	101	99	100	78	73	76	---	---	---	---	---	---
22	102	100	101	80	73	77	---	---	---	---	---	---
23	101	99	100	81	75	78	---	---	---	---	---	---
24	100	96	98	83	75	78	---	---	---	---	---	---
25	99	94	98	83	74	78	---	---	---	---	---	---
26	96	85	89	82	74	78	---	---	---	---	---	---
27	89	84	87	81	72	76	---	---	---	---	---	---
28	90	82	85	78	71	74	---	---	---	---	---	---
29	---	---	---	75	67	71	---	---	---	---	---	---
30	---	---	---	70	64	67	---	---	---	---	---	---
31	---	---	---	65	58	62	---	---	---	---	---	---
MONTH	---	---	---	92	58	80	---	---	---	---	---	---

02081054 ROANOKE RIVER AT WILLIAMSTON, NC

LOCATION.--Lat 35°51'40.78", long 77°02'20.00", Martin County, Hydrologic Unit 03010107, on right bank 175 ft upstream of U.S. Highway 17 bridge, .75 mi above Sweetwater Creek, and 1 mi northeast of Williamston.

DRAINAGE AREA.--9,070 mi².

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

GAGE.--Water stage recorder. Datum of gage is 2.86 above NGVD of 1929. Satellite telemetry at station.

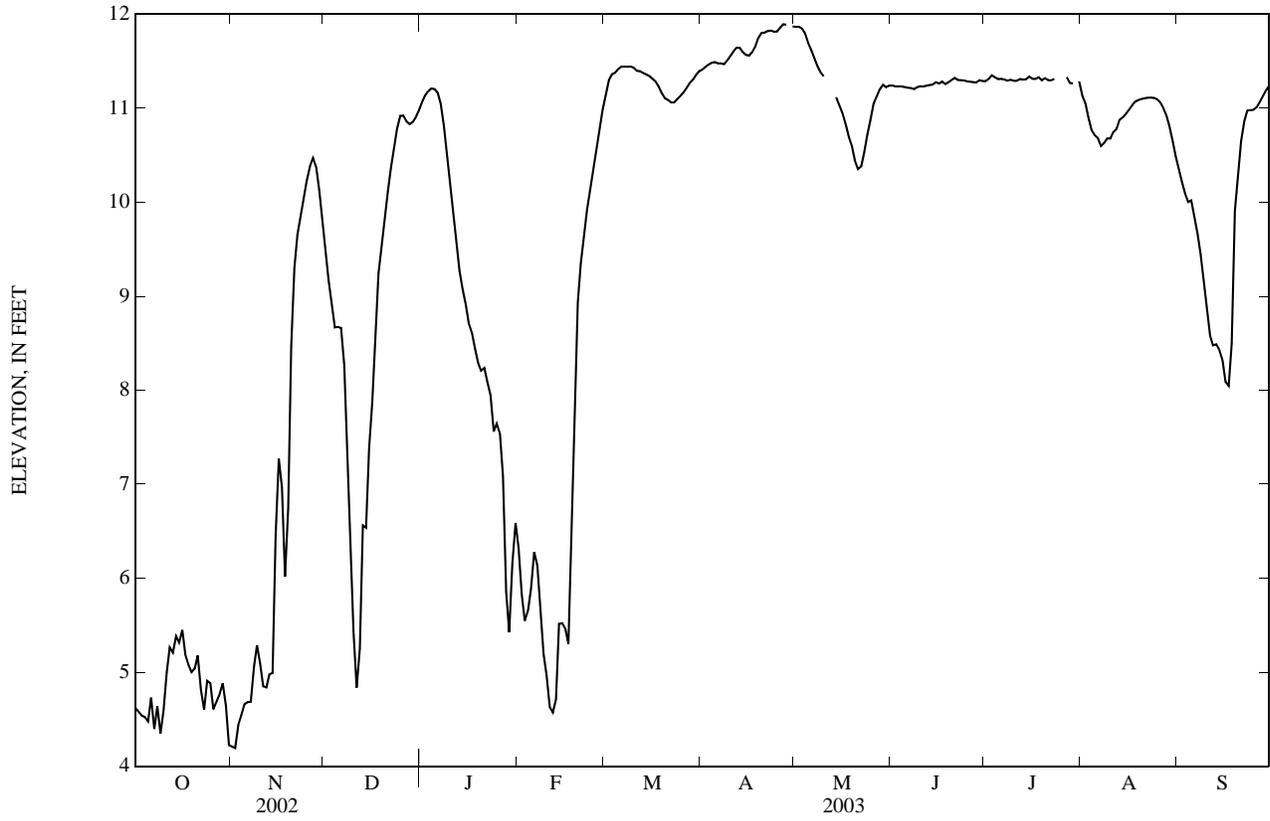
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 11.91 ft, Apr. 27, 2003; minimum recorded elevation, -0.35 ft, Jan. 4, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 11.91 ft, Apr. 27; minimum recorded elevation, 4.02 ft, Nov. 2.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.62	4.21	9.48	11.06	6.32	11.15	11.41	11.87	11.24	11.29	11.13	10.35
2	4.58	4.19	9.17	11.13	5.83	11.30	11.44	11.87	11.23	11.31	11.05	10.22
3	4.54	4.44	8.90	11.18	5.55	11.36	11.46	11.85	11.23	11.35	10.89	10.09
4	4.52	4.54	8.67	11.21	5.65	11.38	11.48	11.79	11.23	11.33	10.77	10.00
5	4.48	4.66	8.67	11.20	5.89	11.42	11.49	11.69	11.23	11.31	10.71	10.02
6	4.73	4.68	8.66	11.17	6.28	11.44	11.48	11.62	11.22	11.31	10.69	9.83
7	4.40	4.69	8.27	11.05	6.13	11.44	11.48	11.54	11.22	11.31	10.60	9.67
8	4.64	5.05	7.49	10.81	5.65	11.44	11.47	11.45	11.20	11.29	10.63	9.44
9	4.35	5.29	6.44	10.48	5.19	11.44	11.51	11.38	11.23	11.30	10.68	9.15
10	4.59	5.09	5.44	10.15	4.97	11.43	11.56	11.34	11.23	11.29	10.68	8.85
11	5.00	4.85	4.84	9.83	4.63	11.40	11.60	---	11.23	11.29	10.75	8.58
12	5.26	4.84	5.25	9.54	4.57	11.39	11.64	---	11.24	11.31	10.78	8.48
13	5.21	4.98	6.56	9.27	4.71	11.37	11.64	---	11.25	11.30	10.88	8.49
14	5.38	4.99	6.54	9.08	5.51	11.36	11.60	11.12	11.25	11.31	10.90	8.43
15	5.32	6.45	7.38	8.92	5.52	11.34	11.57	11.03	11.28	11.34	10.94	8.32
16	5.45	7.27	7.87	8.71	5.46	11.31	11.56	10.95	11.26	11.31	10.98	8.09
17	5.19	6.96	8.62	8.61	5.30	11.28	11.60	10.83	11.28	11.31	11.03	8.05
18	5.08	6.02	9.24	8.45	6.48	11.23	11.66	10.70	11.26	11.33	11.07	8.50
19	5.00	6.74	9.51	8.29	7.72	11.16	11.75	10.60	11.28	11.30	11.09	9.91
20	5.04	8.47	9.81	8.21	8.94	11.10	11.80	10.44	11.30	11.32	11.10	10.32
21	5.18	9.30	10.11	8.24	9.36	11.09	11.80	10.35	11.32	11.30	11.11	10.65
22	4.81	9.66	10.36	8.08	9.65	11.06	11.82	10.38	11.30	11.30	11.11	10.86
23	4.60	9.84	10.59	7.95	9.92	11.06	11.83	10.53	11.30	11.31	11.11	10.98
24	4.91	10.04	10.78	7.56	10.13	11.10	11.81	10.72	11.30	---	11.11	10.98
25	4.88	10.23	10.92	7.65	10.34	11.13	11.81	10.87	11.29	---	11.10	10.98
26	4.61	10.38	10.92	7.54	10.55	11.17	11.86	11.05	11.28	---	11.06	11.01
27	4.69	10.47	10.86	7.09	10.77	11.22	11.89	11.13	11.28	11.33	11.01	11.07
28	4.76	10.37	10.83	5.86	10.99	11.27	11.89	11.20	11.27	11.27	10.92	11.13
29	4.88	10.13	10.85	5.42	---	11.31	---	11.25	11.30	11.26	10.81	11.19
30	4.64	9.81	10.90	6.16	---	11.36	11.87	11.22	11.29	---	10.65	11.24
31	4.22	---	10.98	6.59	---	11.39	---	11.24	---	11.29	10.49	---
MEAN	4.82	6.95	8.87	8.92	7.07	11.29	---	---	11.26	---	10.90	9.83
MAX	5.45	10.47	10.98	11.21	10.99	11.44	---	---	11.32	---	11.13	11.24
MIN	4.22	4.19	4.84	5.42	4.57	11.06	---	---	11.20	---	10.49	8.05

02081054 ROANOKE RIVER AT WILLIAMSTON, NC—Continued



ROANOKE RIVER BASIN

02081094 ROANOKE RIVER AT JAMESVILLE, NC

LOCATION.--Lat 35°48'49.87", long 76°53'37.66", Martin County, Hydrologic Unit 03010107, at private pier on right bank, 50 ft downstream of boat ramp at end of Water Street, approximately 19.2 mi upstream from mouth, and 0.5 mi northeast of Jamesville.

DRAINAGE AREA.--9,250 mi².

TIDAL-ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to September 1993, August 1996 to current year. Records from August 1996 to September 1997 are unpublished and available in the USGS District Office, Raleigh, NC.

GAGE.--Water-stage recorder. Datum of gage is at NGVD of 1929. Satellite telemetry at station.

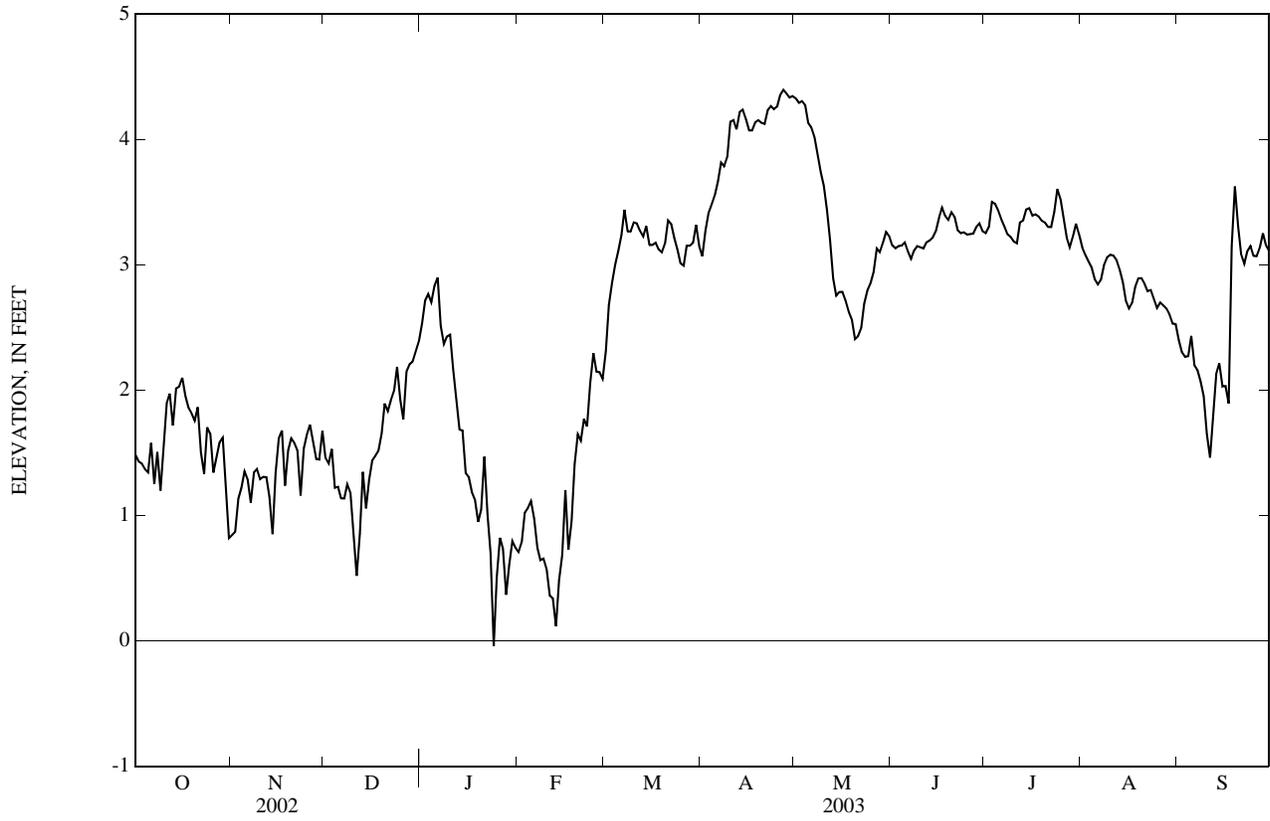
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 5.87 ft, Sept. 18, 19, 1999; minimum recorded elevation, -1.14 ft, Sept. 1, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 4.82 ft, Sept. 18; minimum recorded elevation, -0.47 ft, Jan. 24.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.49	0.85	1.46	2.53	0.71	2.31	3.07	4.33	3.16	3.25	3.14	2.40
2	1.43	0.87	1.42	2.71	0.79	2.68	3.28	4.29	3.13	3.30	3.08	2.30
3	1.42	1.13	1.53	2.77	1.02	2.86	3.41	4.31	3.15	3.50	3.03	2.27
4	1.37	1.22	1.22	2.70	1.06	3.00	3.48	4.28	3.15	3.49	2.98	2.27
5	1.34	1.35	1.23	2.83	1.11	3.11	3.55	4.13	3.18	3.44	2.89	2.43
6	1.58	1.29	1.14	2.90	0.98	3.24	3.67	4.10	3.11	3.37	2.84	2.20
7	1.25	1.10	1.14	2.51	0.74	3.44	3.82	4.02	3.05	3.31	2.88	2.16
8	1.51	1.34	1.25	2.37	0.64	3.27	3.79	3.88	3.11	3.25	3.00	2.07
9	1.20	1.37	1.18	2.43	0.66	3.27	3.86	3.74	3.15	3.22	3.06	1.95
10	1.53	1.29	0.82	2.44	0.57	3.34	4.14	3.63	3.14	3.19	3.08	1.65
11	1.89	1.31	0.52	2.17	0.36	3.33	4.16	3.44	3.13	3.17	3.07	1.46
12	1.97	1.31	0.85	1.95	0.34	3.27	4.08	3.20	3.18	3.34	3.04	1.83
13	1.72	1.15	1.35	1.69	0.12	3.23	4.22	2.89	3.19	3.35	2.96	2.13
14	2.01	0.85	1.06	1.68	0.48	3.31	4.24	2.75	3.22	3.44	2.86	2.21
15	2.03	1.34	1.28	1.34	0.68	3.16	4.16	2.78	3.27	3.45	2.72	2.03
16	2.10	1.62	1.44	1.31	1.20	3.16	4.07	2.78	3.38	3.39	2.65	2.03
17	1.96	1.68	1.48	1.19	0.73	3.18	4.07	2.71	3.46	3.40	2.70	1.89
18	1.86	1.24	1.52	1.13	0.96	3.12	4.14	2.63	3.39	3.39	2.82	3.15
19	1.82	1.52	1.65	0.95	1.41	3.10	4.16	2.57	3.36	3.35	2.89	3.63
20	1.76	1.62	1.89	1.05	1.65	3.17	4.13	2.41	3.42	3.34	2.89	3.31
21	1.87	1.58	1.83	1.47	1.60	3.35	4.12	2.43	3.38	3.30	2.85	3.09
22	1.50	1.52	1.92	1.01	1.77	3.33	4.23	2.50	3.28	3.30	2.79	3.01
23	1.33	1.16	2.00	0.70	1.71	3.22	4.27	2.69	3.25	3.43	2.80	3.11
24	1.70	1.54	2.19	-0.04	2.06	3.12	4.24	2.80	3.26	3.61	2.73	3.15
25	1.65	1.64	1.92	0.51	2.29	3.01	4.26	2.85	3.24	3.52	2.66	3.07
26	1.34	1.72	1.77	0.82	2.15	2.99	4.36	2.94	3.25	3.38	2.70	3.07
27	1.46	1.59	2.15	0.73	2.14	3.15	4.40	3.13	3.25	3.22	2.68	3.14
28	1.58	1.45	2.21	0.37	2.09	3.15	4.37	3.10	3.30	3.14	2.65	3.25
29	1.62	1.45	2.23	0.60	---	3.18	4.34	3.18	3.33	3.23	2.61	3.15
30	1.26	1.68	2.31	0.80	---	3.32	4.35	3.26	3.27	3.33	2.53	3.11
31	0.82	---	2.39	0.74	---	3.15	---	3.23	---	3.24	2.53	---
MEAN	1.59	1.36	1.56	1.56	1.14	3.15	4.01	3.26	3.24	3.34	2.84	2.55
MAX	2.10	1.72	2.39	2.90	2.29	3.44	4.40	4.33	3.46	3.61	3.14	3.63
MIN	0.82	0.85	0.52	-0.04	0.12	2.31	3.07	2.41	3.05	3.14	2.53	1.46

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955 to 1967, 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1955 to September 1967, March 1998 to current year

pH: March 1998 to current year.

WATER TEMPERATURE: October 1955 to September 1967, March 1998 to current year.

DISSOLVED OXYGEN: March 1998 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: March 1998 to current year.

INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from March 1998 to current year.

REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources (DENR), Division of Water Resources, to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam. Dissolved oxygen, percent saturation, is computed using a barometric pressure of 760 mm Hg beginning October 1, 2000. Dissolved oxygen, minimum extremes are reported only as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported only at <10%.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	182, April 11, 1999	36, September 19-21, 1999
pH, standard units	7.7, June 14, 15, 16, 17, 2002	5.6, May 3, 1998, September 18, 19, 1999
WATER TEMPERATURE, °C	31.4, August 3, 2002	2.2, January 5, 6, 2001, January 28, 29, 2003
DISSOLVED OXYGEN, mg/L	14.3, January 8, 1999	<1.0, September 21-30, 2003
DISSOLVED OXYGEN, PERCENT SATURATION,%	112, January 8, 1999	<10, September 21-30, 2003

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	173, October 3, 4	76, September 22
pH, standard units	7.2, February 21, 22	5.7, April 27, 28
WATER TEMPERATURE, °C	27.7, August 31	2.2, January 28, 29
DISSOLVED OXYGEN, mg/L	12.6, January 27, 28, 31	<1.0, September 21-30
DISSOLVED OXYGEN, PERCENT SATURATION,%	95, February 22, 23	<10, September 21-30

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	170	167	169	159	158	158	135	127	133	119	117	118
2	171	168	169	158	157	158	138	134	135	117	116	117
3	173	170	171	159	157	158	139	135	136	116	116	116
4	173	170	171	157	154	155	140	135	137	116	114	115
5	170	169	169	155	153	154	137	133	135	114	113	113
6	170	168	169	155	153	154	137	133	135	115	110	112
7	170	167	169	156	154	155	137	133	135	111	109	110
8	170	169	170	156	150	153	138	133	136	110	108	109
9	171	170	171	155	151	153	134	132	133	110	108	109
10	171	169	170	154	144	152	137	132	133	112	110	111
11	171	163	169	149	143	146	141	133	138	113	110	111
12	168	163	166	146	141	144	136	131	132	114	109	111
13	163	154	158	144	137	140	139	136	138	114	109	111
14	164	156	162	145	135	139	148	139	143	115	109	111
15	164	160	162	152	145	148	146	135	138	116	110	112
16	165	149	158	151	136	142	139	135	137	116	111	113
17	149	134	140	140	131	133	137	130	133	116	111	113
18	135	133	134	132	131	131	135	130	132	118	112	114
19	139	135	137	136	132	134	134	132	133	117	112	114
20	144	139	141	135	129	132	134	133	134	118	113	114
21	150	144	147	133	125	128	133	132	132	118	112	115
22	156	150	154	129	128	128	132	131	131	117	113	114
23	159	156	158	130	129	130	131	128	130	118	113	115
24	161	158	159	130	129	130	128	124	126	118	113	115
25	160	155	158	130	129	130	125	123	124	120	114	116
26	156	154	155	133	130	131	123	120	121	118	113	116
27	159	154	156	133	131	133	121	118	119	118	114	116
28	159	157	158	133	131	132	120	117	119	120	115	117
29	159	157	158	133	132	132	120	119	119	123	116	120
30	158	155	156	135	131	133	119	119	119	124	119	122
31	158	156	157	---	---	---	119	119	119	128	118	123
MONTH	173	133	159	159	125	142	148	117	131	128	108	114
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	125	117	121	99	99	99	97	90	96	86	85	85
2	120	117	118	99	97	98	96	95	95	86	86	86
3	121	116	119	97	96	97	96	93	95	87	86	86
4	116	112	114	98	95	96	96	94	95	87	87	87
5	118	113	115	96	94	95	96	94	95	87	87	87
6	121	111	116	95	92	93	95	95	95	87	86	87
7	121	116	117	93	92	93	95	93	94	87	86	87
8	122	110	118	94	93	94	93	93	93	88	87	87
9	118	108	115	96	94	95	93	90	91	89	87	88
10	124	115	119	97	95	96	92	90	90	89	88	89
11	121	112	115	97	95	96	90	88	90	91	89	90
12	113	108	112	97	95	96	89	88	88	91	89	91
13	113	111	112	99	97	98	88	87	88	93	91	92
14	114	112	113	100	98	99	87	87	87	93	92	92
15	117	113	115	101	100	100	87	86	86	93	92	93
16	119	113	117	102	101	102	86	85	86	93	92	93
17	113	100	108	103	102	102	86	85	86	94	93	93
18	114	100	104	103	102	103	86	85	85	94	93	94
19	114	105	109	103	103	103	85	84	84	93	92	93
20	111	100	106	104	103	103	85	83	83	93	93	93
21	113	101	107	103	101	102	83	82	83	93	93	93
22	109	105	106	103	101	102	83	82	82	93	91	92
23	109	103	105	103	102	103	83	82	82	91	87	89
24	107	103	104	103	102	102	83	82	82	88	87	87
25	105	101	103	102	102	102	83	82	82	89	88	89
26	103	102	102	102	99	102	83	79	82	89	89	89
27	102	100	101	102	101	101	85	82	83	89	89	89
28	100	99	99	102	96	101	84	83	83	89	89	89
29	---	---	---	101	99	100	85	84	84	89	89	89
30	---	---	---	100	98	99	85	84	85	89	88	88
31	---	---	---	98	96	97	---	---	---	89	88	88
MONTH	125	99	111	104	92	99	97	79	88	94	85	90

ROANOKE RIVER BASIN

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	89	88	89	93	93	93	95	93	94	102	100	101
2	89	89	89	93	90	92	94	93	94	104	101	102
3	89	88	89	91	89	90	94	93	93	104	102	103
4	89	89	89	92	91	92	93	91	92	104	99	103
5	90	89	89	93	92	92	92	91	91	100	97	98
6	90	89	90	94	93	93	92	90	91	102	100	101
7	90	89	90	94	93	94	---	---	---	103	102	102
8	91	90	90	95	92	93	---	---	---	103	102	103
9	91	90	91	92	92	92	---	---	---	104	101	103
10	93	91	92	92	92	92	---	---	---	104	101	102
11	94	93	93	92	91	92	---	---	---	104	103	103
12	94	93	94	91	90	90	---	---	---	105	102	104
13	94	94	94	91	89	91	---	---	---	104	102	103
14	95	94	94	89	88	89	90	88	89	105	104	104
15	96	94	95	90	87	89	91	89	90	105	103	104
16	95	94	94	91	89	90	92	91	91	105	104	104
17	96	95	95	90	90	90	92	91	92	104	103	104
18	96	95	96	91	90	90	93	92	92	112	98	103
19	96	95	95	91	90	91	93	90	92	112	87	94
20	95	94	95	92	91	91	93	91	92	94	88	90
21	95	94	94	92	91	91	93	91	93	90	77	84
22	94	93	94	92	91	92	94	92	93	82	76	78
23	94	93	93	93	88	92	94	93	94	94	81	90
24	93	93	93	92	88	90	95	94	95	96	92	94
25	93	93	93	93	82	91	96	95	95	94	91	92
26	93	93	93	93	80	83	96	95	96	94	91	92
27	93	93	93	95	80	91	97	96	96	93	90	92
28	93	93	93	96	82	93	97	94	96	92	88	91
29	93	93	93	97	84	93	98	95	96	92	89	91
30	93	93	93	93	81	92	100	97	98	91	89	90
31	---	---	---	95	92	94	101	99	100	---	---	---
MONTH	96	88	92	97	80	91	---	---	---	112	76	98

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.1	7.0	7.0	6.8	6.6	6.6	6.3	6.2	6.2	6.5	6.5	6.5
2	7.1	7.0	7.0	6.7	6.6	6.6	6.3	6.3	6.3	6.5	6.4	6.4
3	7.1	7.0	7.0	6.7	6.6	6.6	6.4	6.3	6.3	6.4	6.4	6.4
4	7.1	7.0	7.0	6.6	6.6	6.6	6.4	6.4	6.4	6.4	6.4	6.4
5	7.0	7.0	7.0	6.6	6.6	6.6	6.5	6.4	6.5	6.4	6.4	6.4
6	7.1	7.0	7.0	6.6	6.5	6.6	6.6	6.5	6.5	6.4	6.4	6.4
7	7.1	7.0	7.0	6.6	6.6	6.6	6.6	6.5	6.6	6.4	6.4	6.4
8	7.1	7.0	7.1	6.7	6.6	6.6	6.5	6.4	6.4	6.4	6.4	6.4
9	7.1	7.0	7.1	6.7	6.6	6.6	6.4	6.3	6.3	6.4	6.4	6.4
10	7.1	7.0	7.1	6.7	6.5	6.6	6.3	6.3	6.3	6.4	6.4	6.4
11	7.1	7.0	7.0	6.5	6.4	6.5	6.3	6.3	6.3	6.5	6.4	6.4
12	7.0	6.8	6.9	6.5	6.4	6.5	6.3	6.3	6.3	6.5	6.5	6.5
13	6.8	6.8	6.8	6.5	6.2	6.3	6.5	6.3	6.4	6.5	6.5	6.5
14	7.0	6.8	6.9	6.3	6.2	6.2	6.7	6.5	6.6	6.6	6.5	6.6
15	7.0	6.9	6.9	6.4	6.2	6.3	6.8	6.7	6.7	6.8	6.6	6.7
16	7.0	6.6	6.8	6.4	6.3	6.3	6.8	6.8	6.8	6.9	6.8	6.8
17	6.6	6.5	6.6	6.3	6.3	6.3	6.9	6.8	6.8	6.9	6.9	6.9
18	6.5	6.5	6.5	6.3	6.2	6.2	7.0	6.9	6.9	6.9	6.9	6.9
19	6.5	6.5	6.5	6.2	6.2	6.2	7.0	7.0	7.0	7.0	6.9	6.9
20	6.6	6.5	6.5	6.4	6.2	6.3	7.0	6.9	7.0	7.0	6.9	7.0
21	6.6	6.4	6.5	6.6	6.4	6.5	6.9	6.8	6.8	7.0	7.0	7.0
22	6.6	6.5	6.6	6.7	6.6	6.6	6.8	6.7	6.7	7.0	7.0	7.0
23	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.6	6.6	7.1	7.0	7.0
24	6.7	6.6	6.6	6.7	6.6	6.7	6.6	6.5	6.5	7.0	7.0	7.0
25	6.7	6.6	6.6	6.6	6.5	6.6	6.5	6.4	6.5	7.1	7.0	7.0
26	6.7	6.6	6.7	6.5	6.4	6.4	6.4	6.4	6.4	7.1	7.0	7.1
27	6.7	6.6	6.7	6.4	6.3	6.4	6.4	6.4	6.4	7.1	7.0	7.0
28	6.7	6.6	6.7	6.3	6.2	6.2	6.5	6.4	6.4	7.0	6.9	7.0
29	6.7	6.7	6.7	6.2	6.2	6.2	6.5	6.5	6.5	6.9	6.9	6.9
30	6.8	6.7	6.7	6.2	6.2	6.2	6.5	6.5	6.5	6.9	6.9	6.9
31	6.7	6.6	6.6	---	---	---	6.5	6.5	6.5	7.0	6.9	7.0
MONTH	7.1	6.4	6.8	6.8	6.2	6.5	7.0	6.2	6.5	7.1	6.4	6.7
	FEBRUARY			MARCH			APRIL			MAY		
1	7.1	7.0	7.1	6.6	6.6	6.6	6.4	6.4	6.4	6.2	6.1	6.2
2	7.0	7.0	7.0	6.6	6.5	6.5	6.4	6.4	6.4	6.2	6.2	6.2
3	7.0	6.9	7.0	6.5	6.5	6.5	6.4	6.3	6.4	6.3	6.2	6.3
4	6.9	6.8	6.8	6.5	6.5	6.5	6.4	6.3	6.4	6.5	6.3	6.4
5	6.9	6.8	6.8	6.5	6.4	6.5	6.4	6.3	6.3	6.5	6.4	6.5
6	7.1	6.9	6.9	6.5	6.5	6.5	6.4	6.3	6.3	6.5	6.5	6.5
7	7.1	7.0	7.1	6.5	6.4	6.4	6.4	6.3	6.3	6.5	6.5	6.5
8	7.1	7.0	7.0	6.5	6.4	6.4	6.3	6.3	6.3	6.5	6.5	6.5
9	7.1	7.0	7.0	6.4	6.4	6.4	6.6	6.3	6.4	6.5	6.5	6.5
10	7.1	7.0	7.0	6.5	6.4	6.4	6.6	6.4	6.5	6.5	6.5	6.5
11	7.0	6.9	6.9	6.5	6.4	6.4	6.4	6.4	6.4	6.5	6.5	6.5
12	6.9	6.8	6.8	6.6	6.5	6.5	6.5	6.4	6.4	6.5	6.5	6.5
13	6.8	6.7	6.8	6.6	6.5	6.6	6.4	6.4	6.4	6.6	6.5	6.5
14	6.9	6.8	6.8	6.7	6.6	6.6	6.4	6.3	6.4	6.6	6.6	6.6
15	7.0	6.8	6.9	6.7	6.6	6.6	6.3	6.2	6.3	6.6	6.6	6.6
16	7.0	6.9	7.0	6.7	6.6	6.6	6.3	6.2	6.3	6.6	6.6	6.6
17	7.0	6.8	6.9	6.7	6.6	6.6	6.3	6.2	6.2	6.6	6.6	6.6
18	6.9	6.8	6.8	6.6	6.6	6.6	6.2	6.2	6.2	6.6	6.6	6.6
19	6.9	6.9	6.9	6.7	6.6	6.6	6.2	6.1	6.1	6.6	6.6	6.6
20	7.0	6.9	6.9	6.6	6.6	6.6	6.1	6.1	6.1	6.6	6.6	6.6
21	7.2	7.0	7.1	6.6	6.5	6.5	6.1	6.0	6.0	6.6	6.6	6.6
22	7.2	7.1	7.1	6.6	6.5	6.5	6.0	6.0	6.0	6.7	6.6	6.6
23	7.1	6.9	7.0	6.6	6.5	6.6	6.0	5.9	5.9	6.7	6.6	6.7
24	7.1	6.9	6.9	6.6	6.5	6.6	5.9	5.9	5.9	6.7	6.6	6.6
25	6.9	6.8	6.8	6.6	6.6	6.6	5.9	5.8	5.9	6.6	6.5	6.6
26	6.8	6.7	6.8	6.6	6.5	6.6	5.8	5.8	5.8	6.6	6.5	6.5
27	6.8	6.6	6.7	6.6	6.5	6.6	5.8	5.7	5.8	6.5	6.5	6.5
28	6.6	6.6	6.6	6.6	6.5	6.5	6.0	5.7	5.8	6.5	6.5	6.5
29	---	---	---	6.5	6.5	6.5	6.2	6.0	6.1	6.5	6.5	6.5
30	---	---	---	6.5	6.4	6.4	6.2	6.1	6.1	6.5	6.5	6.5
31	---	---	---	6.4	6.4	6.4	---	---	---	6.5	6.5	6.5
MONTH	7.2	6.6	6.9	6.7	6.4	6.5	6.6	5.7	6.2	6.7	6.1	6.5

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	25.3	24.9	25.0	16.4	15.9	16.1	9.4	8.7	9.0	8.2	7.3	7.8
2	25.7	25.0	25.3	15.9	15.0	15.5	8.9	8.3	8.6	8.3	8.1	8.2
3	25.9	25.3	25.5	15.0	14.4	14.7	8.8	8.4	8.6	8.5	8.2	8.3
4	26.4	25.6	25.7	14.4	13.8	14.1	8.4	7.5	7.8	8.4	7.6	8.1
5	26.1	25.6	25.8	13.8	13.5	13.6	7.6	7.1	7.3	7.6	7.0	7.2
6	25.9	25.4	25.7	13.7	13.5	13.6	7.3	6.8	7.0	7.1	6.6	6.9
7	25.7	25.3	25.5	13.6	13.3	13.4	6.9	6.4	6.6	6.9	5.8	6.2
8	25.5	25.0	25.3	13.6	13.2	13.4	6.4	6.1	6.2	6.1	5.5	5.8
9	25.0	24.7	24.9	13.7	13.4	13.5	6.2	5.9	6.1	6.8	6.0	6.3
10	24.7	24.5	24.6	14.2	13.6	13.9	5.9	5.8	5.9	7.2	6.8	6.9
11	24.6	24.3	24.4	14.6	14.1	14.4	6.0	5.8	5.9	7.0	6.3	6.5
12	24.3	23.3	23.8	15.0	14.5	14.7	6.1	5.9	6.0	6.3	5.5	5.8
13	23.3	22.8	23.0	15.0	14.8	14.9	6.6	6.0	6.3	5.6	5.0	5.3
14	23.1	22.2	22.6	15.0	14.7	14.8	7.1	6.5	6.8	5.6	5.0	5.3
15	22.2	21.4	21.8	15.0	14.5	14.8	7.4	7.1	7.2	5.5	5.1	5.3
16	21.5	20.9	21.3	14.5	13.8	14.0	7.2	7.1	7.1	5.3	4.7	5.0
17	20.9	20.6	20.7	14.0	13.9	14.0	7.1	6.8	7.0	5.2	4.8	4.9
18	20.6	19.8	20.1	13.9	13.3	13.7	7.3	6.8	7.0	4.8	4.2	4.4
19	19.8	19.3	19.5	13.4	13.0	13.2	7.6	7.1	7.3	4.2	3.8	4.0
20	19.3	19.0	19.1	13.1	12.3	12.7	8.2	7.6	8.0	4.2	3.7	4.0
21	19.0	18.4	18.7	13.1	12.2	12.7	8.2	7.8	7.9	4.2	3.8	3.9
22	18.4	18.2	18.3	13.2	13.0	13.1	7.8	7.4	7.6	4.0	3.5	3.8
23	18.3	18.0	18.2	13.0	12.6	12.8	7.8	7.5	7.7	4.0	3.3	3.5
24	18.2	18.0	18.1	12.8	12.5	12.6	7.8	7.3	7.5	3.3	2.6	2.8
25	18.0	17.9	18.0	12.5	12.0	12.2	7.5	7.0	7.3	2.9	2.6	2.7
26	18.2	17.9	18.0	12.0	11.6	11.8	7.0	6.4	6.6	2.9	2.7	2.8
27	18.1	17.9	18.0	11.6	10.9	11.3	6.4	5.9	6.1	2.9	2.5	2.7
28	18.0	17.7	17.8	10.9	9.7	10.3	6.0	5.6	5.8	2.5	2.2	2.4
29	17.7	17.5	17.6	9.7	9.1	9.3	6.1	5.5	5.8	2.8	2.2	2.5
30	17.5	17.1	17.4	9.5	8.9	9.2	6.6	5.8	6.1	2.9	2.7	2.8
31	17.1	16.4	16.7	---	---	---	7.3	6.6	6.9	3.0	2.9	2.9
MONTH	26.4	16.4	21.5	16.4	8.9	13.3	9.4	5.5	7.0	8.5	2.2	5.0
DAY	MAX	MIN	MEAN									
1	3.6	3.0	3.4	6.4	5.5	5.9	12.5	11.0	11.8	17.4	16.7	17.0
2	4.0	3.4	3.7	7.3	6.4	6.8	13.9	11.9	12.8	17.6	17.0	17.3
3	4.2	3.7	3.9	7.6	6.8	7.2	15.0	13.3	14.1	17.6	17.0	17.3
4	4.8	4.1	4.5	7.6	6.4	7.0	15.6	14.2	14.9	17.0	16.1	16.5
5	5.4	4.7	5.0	9.0	7.6	8.2	16.0	15.0	15.5	16.1	15.5	15.7
6	5.7	5.2	5.4	9.4	8.8	9.1	15.9	15.2	15.6	16.4	15.6	16.0
7	5.7	5.4	5.5	9.2	7.3	8.1	15.3	13.5	14.3	17.1	16.2	16.6
8	5.5	4.8	5.2	8.3	6.8	7.5	13.5	12.4	12.9	17.8	17.0	17.3
9	4.8	4.5	4.7	9.6	7.9	8.7	12.4	11.4	11.8	18.2	17.6	17.9
10	4.9	4.7	4.8	9.7	8.7	9.2	11.4	10.9	11.0	18.7	18.0	18.3
11	5.0	4.6	4.8	9.0	8.0	8.3	11.0	10.5	10.8	19.4	18.5	18.9
12	5.2	4.8	5.0	9.4	7.7	8.4	12.0	10.3	11.0	19.7	19.2	19.4
13	5.3	4.8	5.1	10.4	9.0	9.6	12.9	11.5	12.1	19.4	18.7	19.0
14	5.4	5.1	5.2	10.3	9.6	10	13.5	12.1	12.8	18.8	18.2	18.5
15	5.6	5.3	5.5	9.6	8.8	9.2	14.4	12.8	13.5	18.6	18.2	18.4
16	5.5	5.2	5.4	11.1	9.4	10.1	15.4	14.0	14.6	19.0	18.3	18.6
17	5.3	4.8	5.1	11.8	11.0	11.4	15.9	14.9	15.3	18.9	18.1	18.6
18	4.9	4.5	4.7	11.9	11.3	11.6	15.5	14.7	14.9	18.1	17.2	17.7
19	4.7	4.3	4.5	11.7	11.2	11.4	14.9	14.4	14.6	17.2	16.8	17.0
20	4.5	3.8	4.2	11.9	11.2	11.5	14.8	13.8	14.3	17.2	16.4	16.8
21	4.5	4.4	4.5	12.7	11.9	12.3	14.9	14.1	14.5	17.7	17.0	17.4
22	5.6	4.4	5.0	13.4	12.1	12.7	15.5	14.6	15.0	17.7	17.5	17.6
23	7.1	5.6	6.5	13.1	12.4	12.8	15.5	14.8	15.2	17.5	17.3	17.4
24	7.0	6.0	6.4	13.6	12.3	12.9	15.3	14.5	15.0	17.6	17.4	17.5
25	7.3	6.6	6.9	14.0	12.5	13.2	15.1	14.7	14.9	17.8	17.2	17.5
26	6.8	6.1	6.3	14.6	13.0	13.8	15.5	14.9	15.2	18.2	17.7	18.0
27	6.1	5.8	5.9	14.4	13.7	14.1	15.7	15.1	15.4	18.2	17.8	18.0
28	5.9	5.6	5.7	14.8	13.3	14.0	16.1	15.2	15.6	17.9	17.4	17.7
29	---	---	---	15.4	14.3	14.8	16.6	15.6	16.0	18.0	17.5	17.8
30	---	---	---	15.4	12.9	14.5	17.1	16.2	16.6	18.4	17.7	18.1
31	---	---	---	12.9	11.6	12.1	---	---	---	18.4	18.1	18.3
MONTH	7.3	3.0	5.1	15.4	5.5	10.5	17.1	10.3	14.1	19.7	15.5	17.7

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.2	5.4	5.9	8.0	7.7	7.8	8.2	7.8	8.0	9.7	9.3	9.5
2	6.2	5.7	6.0	8.3	7.9	8.1	8.5	8.2	8.4	9.3	9.1	9.2
3	6.2	5.4	6.0	8.5	8.2	8.3	8.8	8.5	8.6	9.2	8.9	9.1
4	6.2	5.3	5.8	8.7	8.3	8.5	9.3	8.8	9.0	9.2	8.9	9.1
5	6.1	5.5	5.9	8.7	8.4	8.6	9.8	9.3	9.6	9.4	9.2	9.3
6	6.3	5.6	6.0	9.0	8.4	8.7	10.0	9.6	9.8	9.5	9.3	9.4
7	6.2	5.8	6.0	9.0	8.8	8.9	10.1	9.9	10	9.8	9.4	9.6
8	6.3	5.8	6.1	9.1	8.8	9.0	9.9	9.7	9.8	9.9	9.7	9.8
9	6.3	6.0	6.1	9.2	9.0	9.1	9.7	9.5	9.6	9.8	9.6	9.7
10	6.3	5.8	6.1	9.2	9.0	9.1	9.7	9.5	9.6	9.7	9.5	9.6
11	6.5	5.8	6.1	9.1	8.8	9.0	9.7	9.6	9.6	10.0	9.7	9.8
12	6.4	5.4	6.1	9.0	8.7	8.8	9.8	9.6	9.7	10.5	9.9	10.2
13	5.9	5.2	5.6	8.8	7.7	8.2	10.1	9.8	9.9	10.8	10.4	10.6
14	6.8	5.6	6.4	8.0	7.5	7.8	10.3	10.1	10.2	11.0	10.7	10.9
15	6.7	6.2	6.5	8.3	7.8	8.0	10.3	10.1	10.2	11.0	10.2	10.7
16	6.8	5.3	6.0	8.4	8.1	8.2	10.4	10.3	10.3	11.2	10.1	10.8
17	5.4	4.7	5.1	8.4	8.0	8.2	10.4	10.3	10.3	11.4	11.1	11.2
18	5.3	5.0	5.1	8.1	7.7	7.9	10.5	10.3	10.4	11.6	11.2	11.4
19	5.6	5.2	5.4	8.1	7.8	8.0	10.4	10.2	10.4	11.7	11.4	11.6
20	6.0	5.5	5.7	8.3	8.0	8.1	10.3	9.9	10.1	11.8	11.5	11.7
21	6.6	6.0	6.2	8.2	7.8	7.9	10.0	9.7	9.8	12.0	11.6	11.9
22	6.8	6.3	6.6	8.1	7.8	8.0	9.9	9.6	9.7	12.2	11.8	12.0
23	7.1	6.6	6.8	8.0	7.8	7.9	9.6	9.4	9.5	12.1	11.8	12.0
24	7.3	6.9	7.1	8.1	7.9	8.1	9.5	9.2	9.3	12.3	12.0	12.2
25	7.3	7.0	7.2	8.1	8.0	8.1	9.3	9.1	9.2	12.4	12.2	12.3
26	7.5	7.2	7.3	8.2	7.8	8.0	9.2	9.1	9.1	12.5	12.2	12.4
27	7.4	7.2	7.3	7.9	7.7	7.8	9.4	9.1	9.3	12.6	12.2	12.4
28	7.5	7.2	7.3	7.8	7.5	7.6	9.9	9.3	9.6	12.6	12.4	12.5
29	7.6	7.3	7.4	7.6	7.4	7.5	10.1	9.8	10	12.5	12.1	12.3
30	7.8	7.5	7.6	7.8	7.6	7.7	10.0	9.8	10	12.3	12.1	12.2
31	7.8	7.7	7.7	---	---	---	9.9	9.7	9.8	12.6	12.2	12.4
MONTH	7.8	4.7	6.3	9.2	7.4	8.2	10.5	7.8	9.6	12.6	8.9	10.9
DAY	MAX	MIN	MEAN									
1	12.5	12.1	12.3	10.6	10.2	10.4	7.8	7.0	7.3	6.2	6.0	6.1
2	12.3	12.0	12.1	10.4	9.9	10.2	7.7	7.2	7.4	6.0	5.7	5.9
3	12.1	11.6	11.8	10.3	9.8	10.0	7.8	7.0	7.3	5.8	5.6	5.7
4	11.6	11.1	11.3	10.5	10.0	10.2	7.6	6.9	7.2	5.8	5.6	5.7
5	11.2	10.9	11.1	10.2	9.6	9.8	7.3	6.8	7.0	6.0	5.7	5.9
6	11.3	10.9	11.1	9.8	9.2	9.4	6.9	6.4	6.7	6.0	5.5	5.8
7	11.3	10.9	11.1	9.3	8.9	9.1	7.1	6.4	6.6	5.5	5.4	5.5
8	11.4	11.0	11.1	9.8	9.1	9.4	6.8	6.4	6.6	5.4	5.3	5.3
9	11.5	11.2	11.4	9.7	9.2	9.4	7.3	6.7	7.1	5.3	5.1	5.2
10	11.5	11.0	11.3	9.7	9.1	9.4	7.3	6.9	7.2	5.2	4.9	5.1
11	11.1	10.7	10.9	9.7	8.5	9.3	7.3	7.1	7.2	5.0	4.8	4.9
12	10.8	10.4	10.6	9.2	8.2	8.7	7.6	7.2	7.4	4.8	4.7	4.7
13	10.8	10.4	10.6	9.3	8.3	8.8	7.5	7.3	7.4	5.0	4.7	4.8
14	11.1	10.5	10.8	9.3	8.3	8.8	7.4	7.2	7.3	5.1	4.9	5.0
15	11.1	10.8	10.9	9.4	8.6	9.0	7.2	7.0	7.1	5.1	5.0	5.0
16	11.3	10.9	11.1	9.4	8.5	8.9	7.0	6.7	6.9	5.2	5.0	5.2
17	11.2	10.7	10.8	9.1	8.2	8.7	6.8	6.6	6.7	5.3	5.2	5.2
18	11.2	10.7	10.9	8.8	8.0	8.4	6.7	6.3	6.5	5.5	5.2	5.3
19	11.5	10.9	11.2	8.8	7.9	8.4	6.5	6.3	6.4	5.7	5.5	5.6
20	12.1	11.3	11.7	8.4	7.8	8.1	6.7	6.3	6.5	5.8	5.5	5.7
21	12.2	11.8	12.0	7.9	7.5	7.7	6.6	6.4	6.5	5.9	5.6	5.8
22	12.2	11.6	12.0	8.4	7.2	7.8	6.5	6.2	6.3	6.2	5.8	6.0
23	11.9	10.8	11.3	8.6	7.6	8.1	6.5	6.2	6.3	6.6	6.1	6.4
24	11.5	10.8	11.1	8.8	7.8	8.2	6.6	6.4	6.5	6.4	5.5	5.8
25	11.0	10.5	10.7	8.8	7.8	8.2	6.6	6.3	6.4	5.5	5.3	5.4
26	10.9	10.4	10.6	8.5	7.6	8.0	6.4	6.1	6.2	5.4	5.1	5.3
27	10.7	10.2	10.5	8.2	7.4	7.8	6.3	5.9	6.2	5.1	4.8	5.0
28	10.7	10.2	10.4	7.9	7.2	7.5	6.6	6.1	6.3	5.0	4.7	4.9
29	---	---	---	7.4	6.9	7.2	6.5	6.3	6.4	5.1	4.9	5.0
30	---	---	---	7.0	6.3	6.6	6.4	6.2	6.2	5.2	5.0	5.0
31	---	---	---	7.3	6.2	6.8	---	---	---	5.2	5.1	5.2
MONTH	12.5	10.2	11.2	10.6	6.2	8.7	7.8	5.9	6.8	6.6	4.7	5.4

ROANOKE RIVER BASIN

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	5.3	5.1	5.2	3.6	3.4	3.5	2.9	2.8	2.9	3.0	2.8	2.9
2	5.3	5.2	5.2	4.0	3.5	3.7	2.8	2.7	2.8	3.2	2.9	3.0
3	5.2	5.1	5.2	4.0	3.7	3.8	2.8	2.7	2.7	3.4	2.9	3.1
4	5.1	4.9	5.0	3.7	3.6	3.7	2.8	2.6	2.7	4.2	3.1	3.3
5	4.9	4.7	4.8	3.7	3.6	3.6	2.7	2.5	2.6	4.2	3.2	3.6
6	4.8	4.7	4.8	3.6	3.5	3.6	2.8	2.6	2.7	3.5	3.2	3.3
7	4.8	4.7	4.8	3.6	3.5	3.6	---	---	---	3.8	3.4	3.6
8	4.7	4.5	4.6	3.6	3.4	3.5	---	---	---	4.0	3.8	3.9
9	4.5	4.4	4.4	3.4	3.2	3.3	---	---	---	4.1	3.8	4.0
10	4.5	4.1	4.4	3.4	3.3	3.3	---	---	---	4.1	3.8	4.0
11	4.2	4.0	4.1	3.5	3.2	3.3	---	---	---	4.5	4.1	4.3
12	4.0	3.9	4.0	3.8	3.4	3.5	---	---	---	4.9	4.5	4.7
13	4.0	3.8	3.9	3.6	3.3	3.4	---	---	---	5.0	4.7	4.8
14	3.9	3.7	3.8	3.7	3.5	3.6	3.2	2.7	3.0	5.0	4.7	4.8
15	3.9	3.6	3.7	3.7	3.4	3.6	3.0	2.7	2.8	5.0	4.9	4.9
16	3.9	3.6	3.7	3.6	3.4	3.5	---	---	---	5.1	4.8	5.0
17	3.7	3.5	3.6	3.6	3.4	3.5	---	---	---	5.4	4.9	5.1
18	3.6	3.5	3.6	3.7	3.4	3.5	2.7	2.4	2.5	6.4	4.9	5.8
19	3.7	3.5	3.6	3.7	3.6	3.6	2.9	2.3	2.5	5.8	2.8	3.8
20	3.6	3.5	3.5	3.8	3.6	3.6	2.7	2.3	2.4	2.8	1.3	2.1
21	3.8	3.6	3.7	3.8	3.6	3.7	2.5	2.3	2.4	1.4	0.3	0.9
22	4.1	3.8	3.9	3.7	3.5	3.6	2.5	2.4	2.4	0.4	0.0	0.1
23	4.2	4.0	4.1	4.1	3.1	3.6	2.5	2.3	2.4	0.1	0.0	0.0
24	4.2	4.0	4.2	4.0	3.1	3.5	2.5	2.3	2.4	0.1	0.0	0.0
25	4.2	4.0	4.1	3.3	3.1	3.2	2.7	2.5	2.6	0.1	0.0	0.0
26	4.2	4.0	4.1	3.5	3.1	3.3	2.6	2.5	2.6	0.1	0.0	0.0
27	4.0	3.7	3.9	3.4	3.1	3.3	2.5	2.4	2.4	0.1	0.0	0.0
28	3.9	3.7	3.8	3.4	3.0	3.2	2.5	2.2	2.4	0.1	0.0	0.1
29	3.8	3.6	3.6	3.8	3.0	3.3	2.6	2.2	2.4	0.4	0.1	0.1
30	3.7	3.5	3.6	3.6	2.8	3.2	2.9	2.3	2.5	1.1	0.3	0.7
31	---	---	---	2.9	2.8	2.8	3.0	2.4	2.7	---	---	---
MONTH	5.3	3.5	4.2	4.1	2.8	3.5	---	---	---	6.4	0.0	2.7

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	75	65	72	81	78	80	71	67	69	81	79	80
2	75	69	73	83	80	81	74	70	72	79	77	78
3	76	66	73	84	81	82	75	73	74	78	76	77
4	77	65	72	84	81	82	78	75	76	78	75	77
5	75	68	72	84	81	83	81	78	79	78	76	77
6	77	69	74	87	81	84	83	79	81	79	76	77
7	76	71	73	87	84	85	83	80	82	79	77	78
8	77	71	74	88	84	86	80	78	79	80	77	79
9	76	72	74	89	86	88	78	76	77	80	78	79
10	76	70	73	90	87	89	78	76	77	80	78	79
11	78	70	73	89	87	88	78	77	77	82	79	80
12	77	64	72	89	86	87	79	77	78	84	80	82
13	69	61	65	87	76	81	83	79	80	86	82	84
14	79	66	75	80	74	77	85	83	84	88	84	86
15	77	71	74	82	77	80	86	84	85	87	81	84
16	77	60	68	82	78	80	86	85	85	88	80	84
17	61	53	57	82	78	80	86	85	85	89	87	88
18	58	55	56	79	75	77	87	85	86	89	87	88
19	61	57	59	78	75	76	87	85	86	90	87	89
20	65	60	62	79	75	77	87	84	86	91	88	89
21	71	65	67	77	74	75	84	82	83	92	89	90
22	72	67	70	77	74	76	83	80	81	93	90	91
23	76	70	73	76	74	75	81	79	80	92	90	91
24	77	73	75	77	74	76	80	77	78	91	89	90
25	77	74	76	76	74	75	78	75	77	92	90	91
26	80	76	77	76	72	74	75	74	75	93	90	92
27	79	76	77	73	70	71	76	74	75	93	90	92
28	79	76	77	71	66	68	79	74	77	92	90	92
29	80	77	78	66	64	65	82	78	80	91	89	90
30	82	78	80	68	66	67	82	79	80	91	89	90
31	81	79	80	---	---	---	82	80	81	94	91	92
MONTH	82	53	72	90	64	79	87	67	80	94	75	85
DAY	MAX	MIN	MEAN									
1	93	91	92	86	81	83	73	64	68	64	62	63
2	93	91	92	85	82	83	75	67	70	62	60	61
3	92	89	90	86	80	83	77	67	71	61	58	59
4	89	86	88	88	81	84	77	67	72	59	57	58
5	89	85	87	87	81	84	74	68	71	60	58	59
6	90	87	88	85	80	82	70	64	67	61	56	59
7	90	87	88	80	75	77	69	62	65	57	55	56
8	89	87	88	84	75	79	64	61	63	57	55	56
9	90	87	89	85	78	81	67	63	65	56	54	55
10	90	86	88	86	78	81	66	63	65	55	53	54
11	86	84	85	83	72	79	66	64	65	54	51	53
12	85	82	83	80	69	74	71	65	68	53	51	51
13	85	81	83	83	72	77	70	67	69	54	51	52
14	88	83	85	83	73	78	70	67	69	55	52	53
15	88	85	87	82	74	78	71	66	68	54	53	54
16	89	87	88	86	74	79	70	66	68	56	53	55
17	89	84	85	84	75	79	69	65	67	57	55	56
18	87	83	85	81	73	77	67	62	64	58	55	55
19	90	84	87	81	72	77	64	62	63	59	57	58
20	94	87	90	77	72	74	66	61	63	60	57	58
21	94	91	93	75	70	72	65	62	64	62	58	60
22	95	92	94	81	67	73	65	61	63	65	61	63
23	95	89	92	82	71	76	65	61	63	69	64	67
24	93	87	90	85	73	78	66	63	64	67	58	61
25	90	86	88	86	73	78	66	62	63	58	56	57
26	89	84	86	84	72	78	64	60	62	57	54	56
27	86	82	84	80	71	75	64	59	62	54	51	53
28	85	81	83	78	69	73	67	61	63	53	49	51
29	---	---	---	74	68	71	67	63	65	53	51	53
30	---	---	---	70	60	65	66	63	64	55	53	53
31	---	---	---	69	58	63	---	---	---	56	54	55
MONTH	95	81	88	88	58	77	77	59	66	69	49	57

ROANOKE RIVER BASIN

02081094 ROANOKE RIVER AT JAMESVILLE, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	57	54	55	43	40	41	36	34	35	38	35	37
2	57	55	55	47	41	44	35	33	34	40	37	38
3	56	54	55	47	43	45	34	33	33	43	37	39
4	55	53	54	44	42	43	34	32	33	53	39	42
5	54	52	53	44	42	43	33	30	32	53	40	44
6	53	51	52	43	42	43	34	32	33	43	39	41
7	53	52	53	43	42	43	---	---	---	46	42	44
8	52	50	51	43	41	42	---	---	---	49	46	47
9	51	49	50	42	39	40	---	---	---	50	46	48
10	51	47	50	42	40	40	---	---	---	49	46	48
11	48	45	46	43	39	40	---	---	---	54	49	51
12	46	45	46	46	41	43	---	---	---	58	53	56
13	47	44	45	43	40	41	---	---	---	59	56	57
14	45	43	44	44	42	43	39	33	37	59	56	57
15	46	42	44	44	41	43	37	33	35	59	58	58
16	46	42	44	44	41	42	---	---	---	61	57	59
17	43	41	42	44	41	42	---	---	---	65	58	61
18	42	41	42	45	41	43	33	29	31	76	57	68
19	43	41	42	45	43	43	36	28	30	68	33	45
20	42	41	41	46	43	44	33	28	29	33	15	24
21	44	41	43	46	43	45	31	28	30	16	4	10
22	46	43	44	45	42	44	31	30	30	5	0	2
23	48	45	47	50	38	44	31	28	30	1	0	0
24	48	45	47	48	37	42	31	28	30	1	0	0
25	49	46	47	40	37	39	33	31	32	1	0	0
26	48	46	47	42	37	40	32	30	32	1	0	0
27	47	44	45	42	38	40	31	29	30	1	0	0
28	46	44	45	41	37	39	31	28	30	1	0	0
29	45	42	43	47	37	40	33	27	30	5	1	2
30	44	42	43	44	34	39	37	29	32	12	3	8
31	---	---	---	36	34	34	38	30	35	---	---	---
MONTH	57	41	47	50	34	42	---	---	---	76	0	33

0208111310 CASHIE RIVER AT SECONDARY ROAD 1257 NEAR WINDSOR, NC

LOCATION.--Lat 36°02'52", long 76°59'06", 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 mi².

PERIOD OF RECORD.--1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 15 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges and those below 5 ft³/s, which are poor. Maximum discharge for period of record, from rating curve extended above 5,500 ft³/s on basis of logarithmic plotting. Maximum gage height for period of record, from flood mark. Periods of no flow occur periodically.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.61	40	64	162	330	530	85	80	138	1.2	66	14
2	0.47	44	58	174	401	713	90	63	107	1.3	59	61
3	0.41	49	52	185	413	925	91	65	81	10	43	58
4	0.34	46	49	169	338	857	90	68	64	10	68	29
5	0.30	41	109	152	269	681	79	66	55	5.9	185	49
6	0.27	63	286	137	222	622	70	67	44	3.4	195	97
7	0.28	95	384	127	241	793	74	77	35	1.7	140	99
8	0.25	96	432	119	395	840	127	79	68	0.66	698	70
9	0.22	81	377	111	467	713	399	61	463	0.35	1,140	42
10	0.23	82	282	103	484	493	1,550	53	1,230	0.43	887	22
11	e1.0	78	219	93	484	341	2,200	50	993	0.33	698	12
12	e6.0	131	188	85	426	254	1,770	45	640	1.8	629	8.2
13	e42	308	182	78	362	201	1,210	37	387	1.3	398	14
14	e40	364	206	73	302	161	759	30	236	1.2	235	24
15	e24	320	248	68	253	133	476	25	145	20	176	29
16	18	299	256	63	239	114	317	21	98	90	123	24
17	19	337	262	63	517	101	224	17	73	105	80	16
18	16	531	236	61	849	91	167	14	60	83	58	219
19	13	608	191	58	861	82	132	23	52	48	47	2,470
20	10	523	175	57	657	81	112	23	46	26	40	3,300
21	26	407	191	56	445	132	96	23	44	12	40	2,600
22	37	302	200	54	344	214	83	37	40	5.9	50	1,630
23	37	226	182	52	379	197	72	110	36	4.3	49	982
24	33	176	180	52	422	169	64	384	32	12	36	677
25	27	142	258	50	420	150	59	568	26	12	22	537
26	23	117	355	47	377	124	70	790	19	7.6	12	403
27	19	97	357	47	311	98	133	743	13	11	6.3	308
28	15	83	346	45	358	80	160	536	8.7	35	4.3	253
29	16	78	287	45	---	69	139	375	7.1	26	2.1	207
30	27	73	223	60	---	64	109	258	4.1	38	0.59	170
31	33	---	179	144	---	69	---	179	---	70	1.1	---
TOTAL	485.38	5,837	7,014	2,790	11,566	10,092	11,007	4,967	5,244.9	645.37	6,188.39	14,424.2
MEAN	15.7	195	226	90.0	413	326	367	160	175	20.8	200	481
MAX	42	608	432	185	861	925	2,200	790	1,230	105	1,140	3,300
MIN	0.22	40	49	45	222	64	59	14	4.1	0.33	0.59	8.2
CFSM	0.14	1.80	2.09	0.83	3.82	3.01	3.40	1.48	1.62	0.19	1.85	4.45
IN.	0.17	2.01	2.42	0.96	3.98	3.48	3.79	1.71	1.81	0.22	2.13	4.97

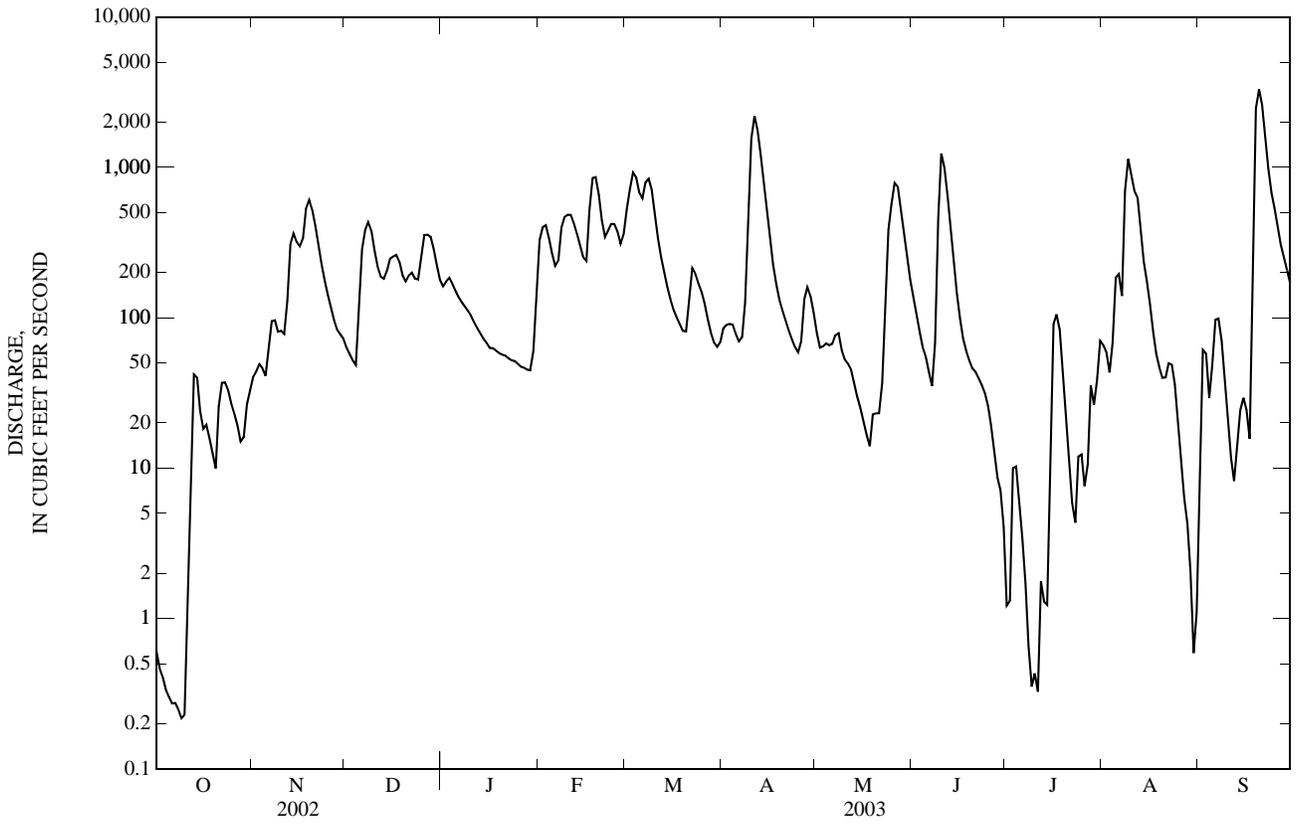
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

MEAN	68.5	45.1	84.2	178	209	231	142	59.3	75.5	29.3	79.8	180
MAX	614	195	254	509	651	663	367	321	487	102	488	1,838
(WY)	(2000)	(2003)	(1990)	(1993)	(1998)	(1989)	(2003)	(1989)	(2001)	(1991)	(1992)	(1999)
MIN	0.000	0.065	0.41	26.6	49.5	54.2	5.25	1.07	0.010	0.000	0.009	0.000
(WY)	(1995)	(2002)	(2002)	(2001)	(2002)	(2002)	(1995)	(1994)	(1994)	(1994)	(1993)	(1994)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003	
ANNUAL TOTAL	20,955.81		80,261.24		116	
ANNUAL MEAN	57.4		220		220	
HIGHEST ANNUAL MEAN					220	2003
LOWEST ANNUAL MEAN					20.9	2002
HIGHEST DAILY MEAN	608	Nov 19	3,300	Sep 20	14,500	Sep 17, 1999
LOWEST DAILY MEAN	0.00	Jun 13	0.22	Oct 9	0.00	Jul 30, 1987
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 16	0.27	Oct 4	0.00	Oct 8, 1987
MAXIMUM PEAK FLOW			3,480	Sep 20	15,700*	Sep 16, 1999
MAXIMUM PEAK STAGE			11.78	Sep 20	18.52*	Sep 16, 1999
INSTANTANEOUS LOW FLOW			0.18	Aug 31	0.00*	Jul 29, 1987
ANNUAL RUNOFF (CFSM)	0.53		2.04		1.08	
ANNUAL RUNOFF (INCHES)	7.22		27.65		14.63	
10 PERCENT EXCEEDS	188		533		285	
50 PERCENT EXCEEDS	13		83		30	
90 PERCENT EXCEEDS	0.00		9.5		0.05	

e Estimated.
 * See REMARKS.



0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC

LOCATION.--Lat 35°54'54.79", long 76°43'22.98", Bertie County, Hydrologic Unit 03010107, on right bank 10 ft upstream from bridge. Water quality monitor located near center of river on south bridge fender of shipping channel, 10 ft upstream from State Highway 45 bridge, approximately 1.6 mi upstream from mouth, and 2.7 mi northwest of Westover.

DRAINAGE AREA.--9,660 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--October 1990 to September 1993. August 1996 to current year. Records from August 1996 to September 1997 are unpublished and available in the USGS District Office, Raleigh, NC.

GAGE.--Water-stage recorder. Datum of gage is at NGVD of 1929. Satellite telemetry at water-quality station.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 4.68 ft, Sept. 16, 1999; minimum recorded elevation, -1.20 ft, Sept. 1, 1993.

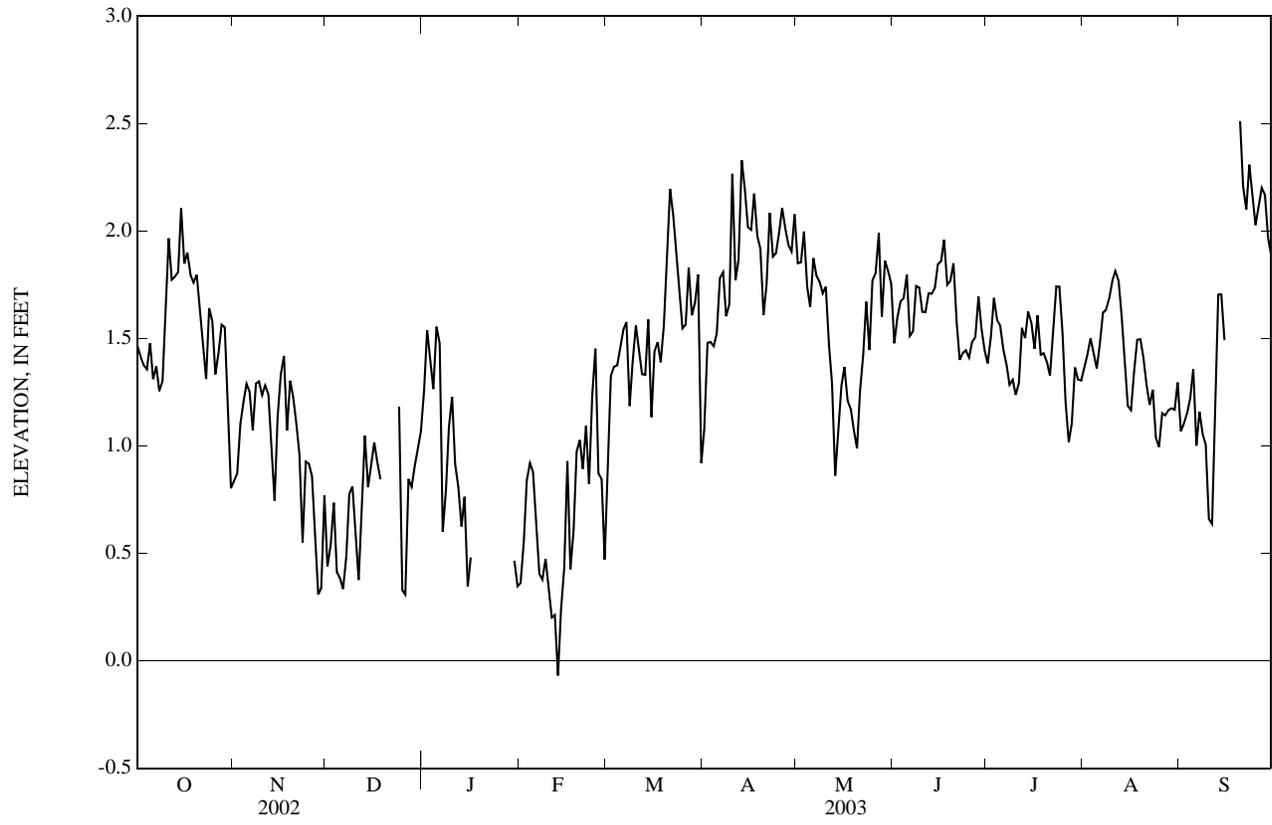
EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 2.95 ft, Sept. 19; minimum recorded elevation, -0.49 ft, Dec. 25.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.47	0.84	0.44	1.26	0.36	0.88	1.08	1.85	1.48	1.38	1.37	1.07
2	1.42	0.87	0.54	1.54	0.55	1.32	1.48	1.85	1.60	1.51	1.42	1.10
3	1.38	1.10	0.74	1.39	0.84	1.37	1.48	2.00	1.67	1.69	1.50	1.15
4	1.36	1.20	0.41	1.26	0.92	1.38	1.46	1.74	1.69	1.59	1.43	1.22
5	1.48	1.29	0.38	1.56	0.88	1.46	1.52	1.65	1.80	1.56	1.36	1.36
6	1.31	1.25	0.33	1.48	0.65	1.54	1.78	1.87	1.51	1.45	1.47	1.00
7	1.37	1.07	0.48	0.60	0.40	1.58	1.81	1.79	1.53	1.38	1.62	1.16
8	1.25	1.29	0.78	0.79	0.38	1.19	1.60	1.76	1.74	1.29	1.63	1.06
9	1.30	1.30	0.81	1.09	0.47	1.39	1.66	1.71	1.74	1.31	1.68	1.01
10	1.65	1.24	0.60	1.23	0.35	1.56	2.27	1.74	1.62	1.24	1.77	0.66
11	1.97	1.28	0.38	0.92	0.20	1.44	1.77	1.47	1.62	1.29	1.81	0.64
12	1.77	1.24	0.73	0.81	0.21	1.33	1.87	1.29	1.71	1.55	1.77	1.21
13	1.79	1.01	1.05	0.63	-0.07	1.33	2.33	0.86	1.71	1.50	1.61	1.71
14	1.81	0.75	0.81	0.76	0.24	1.59	2.20	1.04	1.73	1.63	1.38	1.70
15	2.11	1.13	0.92	0.35	0.43	1.13	2.02	1.28	1.85	1.57	1.19	1.49
16	1.85	1.33	1.02	0.48	0.93	1.44	2.01	1.37	1.86	1.45	1.17	---
17	1.90	1.42	0.92	---	0.42	1.48	2.17	1.21	1.96	1.61	1.35	---
18	1.80	1.07	0.84	---	0.61	1.39	1.98	1.17	1.75	1.42	1.49	---
19	1.76	1.30	---	---	0.97	1.56	1.92	1.07	1.77	1.43	1.50	---
20	1.80	1.23	---	---	1.03	1.88	1.61	0.99	1.85	1.39	1.41	2.51
21	1.62	1.10	---	---	0.89	2.20	1.75	1.26	1.57	1.33	1.28	2.21
22	1.46	0.96	---	---	1.09	2.07	2.08	1.42	1.40	1.52	1.19	2.10
23	1.31	0.55	---	---	0.82	1.90	1.88	1.67	1.43	1.74	1.26	2.31
24	1.64	0.93	1.18	---	1.24	1.70	1.90	1.45	1.45	1.74	1.04	2.16
25	1.58	0.92	0.33	---	1.45	1.55	1.99	1.77	1.41	1.52	1.00	2.03
26	1.33	0.86	0.31	---	0.87	1.56	2.11	1.80	1.48	1.21	1.15	2.11
27	1.43	0.59	0.85	---	0.85	1.83	2.01	1.99	1.51	1.02	1.14	2.20
28	1.56	0.31	0.81	---	0.47	1.61	1.94	1.60	1.69	1.10	1.17	2.17
29	1.55	0.34	0.91	---	---	1.67	1.91	1.86	1.54	1.37	1.18	1.97
30	1.22	0.77	0.99	0.47	---	1.80	2.08	1.82	1.44	1.31	1.17	1.89
31	0.80	---	1.07	0.35	---	0.92	---	1.75	---	1.30	1.30	---
MEAN	1.55	1.02	---	---	0.66	1.52	1.86	1.55	1.64	1.43	1.38	---
MAX	2.11	1.42	---	---	1.45	2.20	2.33	2.00	1.96	1.74	1.81	---
MIN	0.80	0.31	---	---	-0.07	0.88	1.08	0.86	1.40	1.02	1.00	---

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued



0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (TOP): May 2000 to current year.

SPECIFIC CONDUCTANCE (BOTTOM): November 1997 to current year

pH (TOP): May 2000 to current year.

pH (BOTTOM): November 1997 to current year.

WATER TEMPERATURE (TOP): May 2000 to current year.

WATER TEMPERATURE (BOTTOM): November 1997 to current year.

DISSOLVED OXYGEN (TOP): May 2000 to current year.

DISSOLVED OXYGEN (BOTTOM): November 1997 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP): May 2000 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM): November 1997 to current year.

INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from March 1998 to current year.

REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources (DENR), Division of Water Resources to define water-quality characteristics in the Roanoke River Basin below Roanoke Rapids Dam. Top constituents were monitored at approximately 18 ft above the streambed and bottom constituents, 2 ft above the streambed. Dissolved oxygen, percent saturation is computed using a barometric pressure of 760 mm Hg beginning October 1, 2000. Dissolved oxygen, minimum extremes are reported only as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported only as <10%.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE (TOP), microsiemens	9,880, February 2, 2002	73, June 20, 21, 2001
SPECIFIC CONDUCTANCE (BOTTOM), microsiemens	11,700 February 2, 2002	48, September 21, 1999
pH (TOP), standard units	8.0, August 19, 2002	6.0, June 19, 21, 22, 2001
pH (BOTTOM), standard units	7.7, June 17, 2000	5.8, March 4, 1998, September 18-22, 1999
WATER TEMPERATURE (TOP), °C	31.6, August 4, 2002	2.5, January 24, 2003
WATER TEMPERATURE (BOTTOM), °C	31.0, July 30, 1998, August 2, 1999	2.5, January 24, 2003
DISSOLVED OXYGEN (TOP), mg/L	12.6, February 22, 2003	<1.0, on several days during the period
DISSOLVED OXYGEN (BOTTOM), mg/L	14.0, January 6, 7, 2001, January 11, 2002	<1.0, on many days during period
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	115, May 11, 2003	<10, on several days during the period
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	115, November 30, 1999	< 10, on many days during period

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

EXTREMES FOR CURRENT WATER YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE (TOP), microsiemens	7, 940, October 6	80, May 4
SPECIFIC CONDUCTANCE (BOTTOM), microsiemens	9,260, October 4	84, April 25
pH (TOP), standard units	7.6, October 4, February 22	6.1, August 28
pH (BOTTOM), standard units	7.4, October 15, 16	6.2, November 29, April 30, May 1
WATER TEMPERATURE (TOP), C	28.0, August 31, September 3	2.5, January 24
WATER TEMPERATURE (BOTTOM), C	27.9, September 3	2.5, January 24
DISSOLVED OXYGEN (TOP), mg/L	12.6, February 22	<1.0, September 20-30
DISSOLVED OXYGEN (BOTTOM), mg/L	12.5, February 22, 23	<1.0, September 20-30
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	115, May 11	<10, September 20-30
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	101, February 22, 23	<10, September 20-30

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	943	383	502	293	230	247	146	140	144	143	138	140
2	750	332	465	630	258	309	152	145	148	142	137	139
3	1,120	368	567	464	267	301	165	147	152	137	134	136
4	1,760	289	631	328	258	280	155	148	152	137	134	135
5	1,670	529	887	553	243	298	159	142	151	137	134	135
6	7,940	760	3,030	527	185	281	151	140	145	135	126	131
7	1,580	654	1,060	298	181	236	155	150	153	126	125	126
8	1,970	685	1,120	360	203	255	158	155	156	128	125	126
9	1,240	676	882	316	216	243	180	155	160	135	125	129
10	3,480	608	1,120	685	208	312	173	158	162	135	131	133
11	3,640	547	1,220	2,150	299	596	205	149	169	138	133	135
12	1,430	355	745	850	259	467	171	146	157	140	134	137
13	1,100	274	439	850	335	456	177	144	161	142	137	140
14	2,020	521	950	343	178	201	173	155	165	145	139	142
15	4,030	398	918	202	173	187	198	164	172	146	130	139
16	4,120	238	1,340	183	169	176	174	162	168	137	131	134
17	269	217	237	180	164	172	174	160	163	139	125	134
18	288	252	269	168	156	161	162	137	153	146	136	140
19	412	265	323	180	157	169	163	145	153	144	132	138
20	570	303	383	163	144	154	167	159	162	148	137	142
21	4,720	303	754	147	140	143	163	157	159	155	116	142
22	613	295	449	144	135	138	165	156	160	143	132	138
23	399	270	339	141	135	138	164	149	155	150	131	139
24	3,180	248	679	145	141	142	154	149	151	139	112	126
25	794	224	434	145	137	141	155	141	144	142	112	126
26	289	215	251	144	139	141	143	140	141	145	114	129
27	388	217	276	145	139	141	142	138	140	148	133	140
28	448	253	325	144	139	141	141	137	138	145	114	137
29	519	283	382	144	141	142	141	137	139	160	120	148
30	668	236	405	148	140	145	141	137	139	163	140	151
31	269	219	239	---	---	---	141	139	140	149	142	146
MONTH	7,940	215	697	2,150	135	230	205	137	153	163	112	137

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6,090	2,320	5,640	3,090	219	612	154	149	152	141	137	139
2	8,820	5,900	7,140	3,590	2,450	3,340	159	153	156	140	137	138
3	9,220	8,820	9,040	3,290	2,370	3,070	174	155	160	138	134	135
4	9,260	8,920	9,190	5,480	2,990	4,710	162	155	159	136	134	134
5	9,100	8,840	8,950	5,540	349	4,660	166	148	157	137	134	135
6	8,900	4,620	7,370	4,440	360	2,620	158	147	151	135	126	131
7	6,510	5,930	6,190	3,870	423	3,270	160	155	159	126	124	125
8	6,390	2,440	4,440	4,210	2,200	3,550	164	160	161	127	124	125
9	3,210	1,440	1,980	6,440	4,160	5,100	187	160	165	134	124	128
10	5,430	3,210	4,790	7,570	6,060	6,710	178	163	168	135	131	133
11	5,560	5,420	5,500	8,300	7,530	7,920	218	157	177	137	132	134
12	5,560	4,200	5,420	8,170	3,320	7,640	176	151	161	139	133	136
13	5,460	1,030	3,820	7,750	311	1,990	181	153	166	141	136	139
14	4,940	505	2,930	311	172	192	177	158	168	144	139	141
15	4,120	427	1,250	190	165	179	203	167	175	145	130	137
16	4,390	234	1,460	175	163	169	176	165	170	136	130	133
17	3,710	223	1,170	173	157	164	177	161	165	---	---	---
18	4,460	3,710	4,320	162	149	155	163	137	154	---	---	---
19	6,450	4,450	5,480	171	152	162	163	146	154	---	---	---
20	7,260	6,410	6,790	160	151	155	167	160	162	---	---	---
21	7,990	2,970	6,660	155	150	152	163	157	160	---	---	---
22	6,120	3,690	5,330	155	145	148	165	155	159	---	---	---
23	6,270	5,880	6,090	151	145	148	163	148	153	---	---	---
24	6,020	1,450	4,870	154	150	151	152	148	149	---	---	---
25	1,490	214	758	154	147	150	154	139	142	---	---	---
26	6,000	231	2,000	153	148	150	142	139	140	---	---	---
27	7,090	5,740	6,480	154	149	150	141	137	139	---	---	---
28	7,240	6,580	7,050	153	148	150	140	136	137	---	---	---
29	---	---	---	152	150	151	140	136	137	---	---	---
30	---	---	---	155	149	153	140	137	138	---	---	---
31	256	209	233	---	---	---	140	138	139	---	---	---
MONTH	---	---	---	8,300	145	1,930	218	136	156	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	115	113	114	112	111	111	89	86	87
2	---	---	---	115	111	113	---	---	---	90	89	89
3	---	---	---	113	109	110	111	109	110	91	89	90
4	---	---	---	112	107	109	110	108	109	91	89	90
5	---	---	---	111	108	110	111	108	109	91	90	90
6	---	---	---	110	105	108	---	---	---	91	90	91
7	---	---	---	121	104	106	---	---	---	92	91	91
8	---	---	---	108	103	106	---	---	---	94	92	93
9	---	---	---	111	107	109	106	102	104	99	93	94
10	---	---	---	113	108	110	---	---	---	96	94	95
11	---	---	---	111	108	109	---	---	---	97	95	96
12	---	---	---	111	108	110	97	95	95	100	97	98
13	---	---	---	112	102	108	96	95	96	101	99	100
14	183	137	150	117	101	108	95	94	95	103	97	100
15	154	141	147	114	110	112	94	93	94	99	98	98
16	194	135	150	117	113	115	94	93	94	99	93	96
17	176	129	137	117	113	115	96	93	94	97	91	92
18	141	125	133	117	115	116	95	93	94	93	91	92
19	136	119	125	117	105	111	94	92	93	93	91	92
20	139	121	128	121	112	116	93	91	92	94	91	92
21	124	114	120	125	115	117	92	89	91	96	93	94
22	125	117	121	116	114	115	92	90	91	98	95	96
23	130	116	119	118	114	116	90	85	87	107	93	100
24	143	116	120	118	105	115	86	85	85	106	92	95
25	130	118	121	118	114	116	89	84	86	101	92	96
26	118	114	116	118	116	117	89	87	88	96	93	94
27	118	115	116	122	111	116	89	87	88	99	92	94
28	116	112	113	117	111	114	89	85	87	94	91	93
29	---	---	---	112	110	111	86	86	86	97	94	95
30	---	---	---	112	108	110	87	86	86	96	94	95
31	---	---	---	112	107	110	---	---	---	96	94	95
MONTH	---	---	---	125	101	112	---	---	---	107	86	94

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	98	94	96	113	97	109	106	100	103	117	104	108
2	98	95	98	109	108	109	102	100	101	107	105	106
3	100	98	99	111	103	107	102	99	101	108	106	107
4	102	99	100	110	104	107	107	99	103	117	107	112
5	103	101	102	112	110	111	107	100	105	118	110	114
6	104	101	103	113	105	109	110	101	105	116	111	113
7	105	103	103	114	113	114	109	106	107	119	115	117
8	107	104	105	113	102	107	108	103	105	119	117	118
9	107	103	105	104	102	103	104	99	101	120	111	116
10	110	100	105	107	101	103	103	99	101	114	110	112
11	109	99	103	107	102	104	102	99	100	118	112	115
12	103	101	102	105	100	102	102	99	100	139	110	119
13	110	102	106	103	101	102	103	93	101	131	121	126
14	111	108	110	103	100	102	101	90	95	134	121	126
15	117	109	110	102	99	100	108	101	107	130	121	124
16	118	108	110	103	101	102	110	106	108	145	126	133
17	113	108	109	104	102	103	112	107	108	155	128	135
18	111	105	109	105	101	102	116	102	107	142	96	120
19	113	109	110	104	102	103	106	98	103	117	108	112
20	112	108	110	106	103	104	102	95	97	115	104	108
21	110	107	109	106	103	105	102	96	99	117	109	114
22	109	107	108	108	106	107	106	96	99	115	92	109
23	109	106	108	109	105	108	111	105	107	119	108	111
24	109	107	108	106	99	102	108	106	107	121	115	118
25	109	108	109	106	102	104	110	107	109	118	113	115
26	110	103	106	106	104	105	111	103	107	119	111	114
27	105	103	103	106	104	105	105	103	104	119	112	114
28	106	104	105	107	105	106	113	104	109	127	112	114
29	106	104	105	109	105	107	115	111	112	116	113	114
30	114	104	109	106	100	102	115	111	113	115	108	111
31	---	---	---	104	100	102	119	112	114	---	---	---
MONTH	118	94	106	114	97	105	119	90	104	155	92	116

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.4	7.3	7.3	7.2	7.2	7.2	6.7	6.7	6.7	6.7	6.6	6.6
2	7.4	7.3	7.4	7.3	7.2	7.2	6.8	6.7	6.8	6.6	6.6	6.6
3	7.4	7.3	7.4	7.3	7.2	7.3	6.9	6.8	6.8	6.7	6.6	6.7
4	7.6	7.1	7.3	7.3	7.2	7.3	6.9	6.8	6.9	6.7	6.6	6.7
5	7.3	7.1	7.2	7.3	7.2	7.3	6.9	6.9	6.9	6.7	6.6	6.7
6	7.4	6.8	7.2	7.3	7.2	7.3	7.0	6.9	7.0	6.7	6.6	6.6
7	7.3	7.0	7.1	7.3	7.2	7.2	7.0	7.0	7.0	6.7	6.6	6.6
8	7.3	7.0	7.1	7.3	7.2	7.2	7.0	7.0	7.0	6.7	6.6	6.7
9	7.3	7.2	7.2	7.3	7.2	7.2	7.0	6.9	7.0	6.7	6.7	6.7
10	7.2	7.0	7.1	7.3	7.2	7.2	6.9	6.9	6.9	6.8	6.7	6.8
11	7.3	7.0	7.1	7.3	7.2	7.3	6.9	6.8	6.8	6.8	6.8	6.8
12	7.3	7.0	7.2	7.3	7.2	7.2	6.8	6.8	6.8	6.9	6.8	6.9
13	7.0	6.9	7.0	7.2	7.1	7.2	6.8	6.8	6.8	7.0	6.8	6.9
14	7.0	6.9	7.0	7.1	7.0	7.0	7.0	6.8	6.9	7.0	6.9	6.9
15	7.3	7.0	7.0	7.0	6.9	7.0	7.1	6.9	7.0	7.0	6.9	7.0
16	7.2	6.8	6.9	7.0	6.9	7.0	7.2	7.1	7.1	7.0	7.0	7.0
17	6.8	6.7	6.8	7.1	7.0	7.1	7.2	7.2	7.2	7.0	6.9	6.9
18	6.8	6.7	6.8	7.1	7.1	7.1	7.3	7.2	7.2	7.0	6.9	6.9
19	6.8	6.7	6.7	7.1	7.0	7.1	7.4	7.3	7.3	7.0	6.9	7.0
20	6.7	6.6	6.7	7.0	6.8	6.9	7.4	7.3	7.4	7.0	7.0	7.0
21	6.7	6.5	6.6	7.0	6.9	6.9	7.4	7.2	7.3	7.0	7.0	7.0
22	6.9	6.6	6.7	7.1	7.0	7.0	7.2	7.2	7.2	7.0	7.0	7.0
23	6.9	6.8	6.9	7.1	7.1	7.1	7.2	6.6	6.9	7.1	7.0	7.0
24	7.1	6.8	6.8	7.1	7.1	7.1	6.6	6.6	6.6	7.0	7.0	7.0
25	7.1	6.9	7.0	7.1	7.0	7.1	6.6	6.4	6.5	7.0	6.9	7.0
26	7.1	7.0	7.0	7.0	6.9	7.0	6.5	6.4	6.5	7.1	6.9	7.0
27	7.1	6.9	7.0	6.9	6.8	6.9	6.5	6.4	6.5	7.1	7.0	7.1
28	7.1	7.0	7.1	6.9	6.8	6.8	6.6	6.5	6.5	7.1	7.0	7.0
29	---	---	---	6.8	6.7	6.7	6.6	6.5	6.6	7.0	7.0	7.0
30	---	---	---	6.7	6.7	6.7	6.6	6.6	6.6	7.0	6.9	6.9
31	7.2	7.2	7.2	---	---	---	6.6	6.6	6.6	6.9	6.8	6.9
MONTH	---	---	---	7.3	6.7	7.1	7.4	6.4	6.9	7.1	6.6	6.9
DAY	MAX	MIN	MEAN									
1	7.0	6.9	7.0	7.0	6.9	7.0	6.7	6.7	6.7	6.6	6.5	6.5
2	7.1	7.0	7.1	7.0	6.9	6.9	6.7	6.7	6.7	6.6	6.5	6.6
3	7.1	7.1	7.1	6.9	6.9	6.9	6.7	6.6	6.6	6.6	6.5	6.6
4	7.1	7.1	7.1	6.9	6.9	6.9	6.7	6.6	6.6	6.6	6.5	6.6
5	7.1	7.0	7.0	6.9	6.9	6.9	6.7	6.6	6.6	6.6	6.6	6.6
6	7.0	6.9	6.9	6.9	6.9	6.9	6.6	6.6	6.6	6.6	6.6	6.6
7	7.0	6.9	6.9	7.0	6.7	6.8	6.6	6.5	6.6	6.6	6.6	6.6
8	7.1	7.0	7.0	6.8	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.6
9	7.1	7.0	7.1	6.8	6.8	6.8	6.6	6.6	6.6	6.6	6.6	6.6
10	7.2	7.0	7.1	6.9	6.8	6.8	6.7	6.5	6.6	6.6	6.6	6.6
11	7.1	7.0	7.0	6.9	6.8	6.8	6.6	6.5	6.6	6.6	6.6	6.6
12	7.1	7.0	7.1	6.9	6.8	6.8	6.6	6.6	6.6	6.6	6.6	6.6
13	7.3	7.0	7.1	6.9	6.8	6.8	6.6	6.5	6.6	6.6	6.6	6.6
14	7.3	7.2	7.2	6.9	6.7	6.8	6.6	6.5	6.5	6.7	6.6	6.6
15	7.3	7.2	7.2	6.8	6.8	6.8	6.6	6.5	6.5	6.6	6.6	6.6
16	7.4	7.2	7.3	6.8	6.8	6.8	6.6	6.5	6.5	6.7	6.6	6.6
17	7.3	7.2	7.2	6.9	6.8	6.8	6.6	6.5	6.5	6.7	6.7	6.7
18	7.2	7.1	7.2	6.8	6.8	6.8	6.6	6.5	6.5	6.7	6.7	6.7
19	7.2	7.1	7.2	6.8	6.8	6.8	6.5	6.5	6.5	6.7	6.7	6.7
20	7.2	7.2	7.2	6.9	6.8	6.8	6.6	6.5	6.5	6.7	6.7	6.7
21	7.4	7.2	7.3	6.8	6.7	6.7	6.6	6.5	6.5	6.7	6.7	6.7
22	7.6	7.4	7.5	6.7	6.7	6.7	6.6	6.5	6.5	6.7	6.7	6.7
23	7.5	7.3	7.4	6.8	6.7	6.7	6.5	6.5	6.5	6.8	6.7	6.8
24	7.4	7.2	7.3	6.8	6.7	6.8	6.5	6.5	6.5	6.8	6.7	6.7
25	7.3	7.3	7.3	6.8	6.8	6.8	6.5	6.5	6.5	6.7	6.6	6.7
26	7.3	7.2	7.2	6.8	6.7	6.8	6.5	6.5	6.5	6.6	6.6	6.6
27	7.2	7.1	7.2	6.9	6.8	6.8	6.5	6.5	6.5	6.6	6.6	6.6
28	7.1	7.0	7.1	6.8	6.7	6.7	6.5	6.5	6.5	6.6	6.5	6.5
29	---	---	---	6.8	6.7	6.7	6.5	6.5	6.5	6.6	6.5	6.6
30	---	---	---	6.7	6.6	6.7	6.6	6.5	6.5	6.6	6.5	6.5
31	---	---	---	6.7	6.6	6.6	---	---	---	6.5	6.5	6.5
MONTH	7.6	6.9	7.2	7.0	6.6	6.8	6.7	6.5	6.5	6.8	6.5	6.6

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	6.5	6.6	6.7	6.6	6.7	6.5	6.5	6.5	6.6	6.6	6.6			
2	6.6	6.5	6.6	6.8	6.7	6.7	6.5	6.5	6.5	6.6	6.6	6.6			
3	6.6	6.6	6.6	6.8	6.7	6.7	6.5	6.5	6.5	6.7	6.6	6.6			
4	6.6	6.5	6.6	6.7	6.7	6.7	6.5	6.4	6.5	6.8	6.7	6.7			
5	6.6	6.5	6.5	6.7	6.7	6.7	6.5	6.4	6.5	6.8	6.6	6.7			
6	6.5	6.5	6.5	6.7	6.7	6.7	6.5	6.4	6.5	6.7	6.6	6.7			
7	6.6	6.5	6.6	6.7	6.7	6.7	6.5	6.4	6.5	6.7	6.6	6.7			
8	6.6	6.5	6.6	6.8	6.7	6.7	6.6	6.4	6.5	6.7	6.7	6.7			
9	6.6	6.5	6.5	6.8	6.8	6.8	6.6	6.5	6.6	6.8	6.7	6.7			
10	6.6	6.5	6.5	6.8	6.8	6.8	6.6	6.5	6.6	6.8	6.7	6.8			
11	6.6	6.5	6.5	6.8	6.7	6.7	6.6	6.5	6.6	6.8	6.7	6.8			
12	6.5	6.5	6.5	6.8	6.7	6.7	6.5	6.5	6.5	6.8	6.5	6.7			
13	6.6	6.4	6.4	6.7	6.7	6.7	6.6	6.5	6.5	6.6	6.6	6.6			
14	6.4	6.4	6.4	6.7	6.7	6.7	6.5	6.5	6.5	6.6	6.6	6.6			
15	6.4	6.4	6.4	6.7	6.7	6.7	6.6	6.3	6.4	6.6	6.6	6.6			
16	6.4	6.4	6.4	6.7	6.6	6.7	6.4	6.4	6.4	6.7	6.6	6.7			
17	6.5	6.4	6.5	6.7	6.7	6.7	6.4	6.4	6.4	6.8	6.7	6.7			
18	6.5	6.4	6.4	6.7	6.7	6.7	6.4	6.4	6.4	7.1	6.4	6.7			
19	6.5	6.4	6.5	6.7	6.7	6.7	6.4	6.4	6.4	6.6	6.4	6.5			
20	6.5	6.4	6.5	6.7	6.7	6.7	6.4	6.4	6.4	6.4	6.3	6.3			
21	6.5	6.4	6.5	6.7	6.7	6.7	6.4	6.4	6.4	6.4	6.3	6.4			
22	6.5	6.5	6.5	6.7	6.7	6.7	6.4	6.3	6.3	6.4	6.3	6.3			
23	6.5	6.5	6.5	6.7	6.5	6.6	6.4	6.3	6.4	6.3	6.3	6.3			
24	6.6	6.5	6.6	6.6	6.5	6.5	6.3	6.2	6.3	6.3	6.3	6.3			
25	6.6	6.6	6.6	6.5	6.5	6.5	6.3	6.2	6.3	6.4	6.3	6.3			
26	6.6	6.6	6.6	6.5	6.5	6.5	6.2	6.2	6.2	6.4	6.4	6.4			
27	6.6	6.6	6.6	6.5	6.5	6.5	6.2	6.2	6.2	6.5	6.4	6.4			
28	6.6	6.6	6.6	6.5	6.5	6.5	6.4	6.1	6.3	6.5	6.4	6.5			
29	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.4	6.4	6.5	6.5	6.5			
30	6.6	6.6	6.6	6.6	6.5	6.5	6.6	6.4	6.5	6.5	6.4	6.4			
31	---	---	---	6.5	6.5	6.5	6.6	6.6	6.6	---	---	---			
MONTH	6.6	6.4	6.5	6.8	6.5	6.7	6.6	6.1	6.4	7.1	6.3	6.6			

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.0	6.8	6.9	6.9	6.7	6.8	6.3	6.3	6.3	7.0	7.0	7.0
2	7.0	6.9	6.9	7.0	6.8	6.9	6.3	6.3	6.3	7.0	7.0	7.0
3	7.0	6.8	6.8	6.9	6.8	6.9	6.4	6.3	6.3	7.0	6.9	6.9
4	7.0	6.7	6.9	7.0	6.9	7.0	6.4	6.3	6.4	6.9	6.9	6.9
5	7.0	6.9	6.9	7.1	6.8	6.9	6.5	6.4	6.4	6.9	6.9	6.9
6	7.1	6.8	6.9	7.0	6.8	6.9	6.6	6.4	6.5	6.9	6.9	6.9
7	7.0	6.8	6.9	6.9	6.8	6.8	6.6	6.5	6.6	6.9	6.9	6.9
8	7.2	6.8	7.0	7.0	6.8	6.9	6.6	6.5	6.6	7.0	6.9	7.0
9	7.3	7.2	7.2	7.1	7.0	7.0	6.6	6.4	6.5	7.0	6.9	7.0
10	7.3	7.1	7.2	7.0	6.9	7.0	6.5	6.4	6.4	7.0	6.9	7.0
11	7.2	7.1	7.2	6.9	6.9	6.9	6.6	6.4	6.4	7.0	6.9	7.0
12	7.1	7.0	7.1	6.9	6.8	6.8	6.6	6.4	6.5	7.0	6.9	6.9
13	7.1	6.9	7.0	6.9	6.8	6.8	6.6	6.5	6.6	7.0	6.9	6.9
14	7.2	6.9	7.0	6.8	6.7	6.7	6.7	6.6	6.6	7.0	7.0	7.0
15	7.4	7.0	7.1	6.7	6.5	6.6	6.9	6.7	6.8	7.0	7.0	7.0
16	7.4	6.7	7.0	6.6	6.5	6.6	6.9	6.8	6.9	7.0	7.0	7.0
17	6.9	6.7	6.8	6.6	6.6	6.6	7.0	6.9	7.0	7.0	6.8	6.9
18	6.8	6.8	6.8	6.6	6.6	6.6	7.0	7.0	7.0	6.8	6.8	6.8
19	6.8	6.7	6.7	6.6	6.5	6.6	7.2	7.0	7.2	6.9	6.8	6.8
20	6.9	6.7	6.7	6.5	6.4	6.5	7.2	7.2	7.2	6.9	6.9	6.9
21	6.9	6.7	6.8	6.5	6.4	6.5	7.2	7.1	7.2	6.9	6.8	6.9
22	6.8	6.7	6.8	6.6	6.5	6.5	7.1	7.1	7.1	6.9	6.9	6.9
23	7.0	6.8	6.9	6.7	6.5	6.6	7.3	7.0	7.2	7.0	6.9	6.9
24	7.0	6.8	6.9	6.7	6.6	6.7	7.3	7.2	7.3	7.0	6.9	7.0
25	6.9	6.6	6.8	6.7	6.6	6.6	7.3	7.2	7.2	7.0	6.9	7.0
26	7.0	6.7	6.9	6.6	6.4	6.5	7.2	7.2	7.2	7.0	6.9	7.0
27	7.0	6.8	6.9	6.5	6.4	6.4	7.2	7.1	7.2	7.1	7.0	7.1
28	6.8	6.8	6.8	6.5	6.3	6.4	7.2	7.1	7.1	7.1	6.9	7.0
29	---	---	---	6.3	6.2	6.3	7.2	7.2	7.2	7.0	6.9	7.0
30	---	---	---	6.4	6.3	6.3	7.2	7.1	7.1	7.0	6.9	6.9
31	6.9	6.8	6.9	---	---	---	7.1	7.0	7.1	6.9	6.8	6.9
MONTH	---	---	---	7.1	6.2	6.7	7.3	6.3	6.8	7.1	6.8	6.9
DAY	MAX	MIN	MEAN									
1	6.9	6.9	6.9	6.8	6.7	6.7	6.8	6.8	6.8	6.3	6.2	6.3
2	7.0	6.9	7.0	6.8	6.7	6.7	---	---	---	6.3	6.3	6.3
3	7.0	7.0	7.0	6.7	6.6	6.7	6.8	6.7	6.7	6.4	6.3	6.3
4	7.0	6.9	7.0	6.7	6.6	6.7	6.7	6.6	6.7	6.4	6.3	6.3
5	7.0	6.8	6.9	6.7	6.6	6.7	6.7	6.6	6.6	6.4	6.3	6.4
6	6.9	6.8	6.8	6.8	6.6	6.6	---	---	---	6.4	6.4	6.4
7	7.0	6.9	6.9	6.8	6.6	6.7	---	---	---	6.4	6.3	6.4
8	7.1	6.9	7.0	6.8	6.6	6.7	---	---	---	6.4	6.4	6.4
9	7.1	7.0	7.0	6.8	6.7	6.7	6.6	6.6	6.6	6.5	6.4	6.4
10	7.1	7.0	7.1	6.8	6.7	6.8	---	---	---	6.5	6.4	6.5
11	7.1	7.0	7.0	6.8	6.7	6.7	---	---	---	6.5	6.4	6.5
12	7.0	7.0	7.0	6.9	6.7	6.7	6.7	6.6	6.7	6.5	6.5	6.5
13	7.0	6.5	6.8	6.9	6.8	6.8	6.6	6.6	6.6	6.6	6.5	6.5
14	6.6	6.4	6.5	7.0	6.9	7.0	6.6	6.6	6.6	6.6	6.5	6.6
15	6.5	6.4	6.4	7.1	7.0	7.1	6.6	6.6	6.6	6.6	6.6	6.6
16	6.7	6.5	6.6	7.1	7.1	7.1	6.6	6.5	6.6	6.7	6.6	6.7
17	6.7	6.6	6.6	7.1	7.1	7.1	6.5	6.5	6.5	6.7	6.7	6.7
18	6.6	6.5	6.6	7.1	7.0	7.1	6.5	6.5	6.5	6.7	6.7	6.7
19	6.6	6.5	6.6	7.0	7.0	7.0	6.5	6.5	6.5	6.8	6.7	6.7
20	6.7	6.6	6.6	7.0	7.0	7.0	6.5	6.5	6.5	6.8	6.7	6.7
21	6.8	6.6	6.8	7.0	6.9	6.9	6.5	6.4	6.4	6.7	6.7	6.7
22	7.1	6.8	7.0	6.9	6.8	6.9	6.4	6.4	6.4	6.8	6.7	6.7
23	7.1	7.0	7.0	7.0	6.9	6.9	6.4	6.4	6.4	6.9	6.8	6.8
24	7.0	6.9	7.0	7.0	6.9	6.9	6.4	6.4	6.4	6.9	6.7	6.8
25	7.0	6.9	6.9	7.0	6.9	6.9	6.4	6.3	6.4	6.8	6.7	6.7
26	6.9	6.8	6.8	7.0	6.9	6.9	6.3	6.3	6.3	6.7	6.7	6.7
27	6.8	6.7	6.8	7.0	6.8	6.9	6.3	6.3	6.3	6.7	6.6	6.7
28	6.8	6.7	6.7	6.8	6.8	6.8	6.3	6.3	6.3	6.6	6.6	6.6
29	---	---	---	6.8	6.7	6.8	6.3	6.3	6.3	6.7	6.6	6.7
30	---	---	---	6.8	6.7	6.7	6.3	6.2	6.2	6.7	6.6	6.6
31	---	---	---	6.8	6.6	6.7	---	---	---	6.7	6.6	6.7
MONTH	7.1	6.4	6.8	7.1	6.6	6.8	---	---	---	6.9	6.2	6.6

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	6.6	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.7	6.7		
2	6.7	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.6	6.7	6.7	6.7	6.7		
3	6.7	6.7	6.7	6.8	6.7	6.7	6.6	6.6	6.6	6.7	6.7	6.7	6.7		
4	6.7	6.7	6.7	6.7	6.6	6.7	6.6	6.6	6.6	6.8	6.7	6.8	6.8		
5	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6	6.6	6.8	6.7	6.8	6.8		
6	6.7	6.7	6.7	6.8	6.7	6.7	6.6	6.6	6.6	6.7	6.7	6.7	6.7		
7	6.8	6.7	6.7	6.8	6.8	6.8	6.6	6.6	6.6	6.8	6.7	6.7	6.7		
8	6.8	6.7	6.7	6.8	6.8	6.8	6.6	6.4	6.5	6.8	6.7	6.8	6.8		
9	6.7	6.7	6.7	6.8	6.8	6.8	6.5	6.4	6.5	6.8	6.8	6.8	6.8		
10	6.7	6.7	6.7	6.8	6.8	6.8	6.5	6.4	6.5	6.8	6.8	6.8	6.8		
11	6.7	6.7	6.7	6.9	6.8	6.8	6.5	6.4	6.4	6.8	6.8	6.8	6.8		
12	6.7	6.7	6.7	7.0	6.9	6.9	6.5	6.4	6.4	6.8	6.4	6.6	6.6		
13	6.7	6.5	6.6	7.0	6.9	6.9	6.5	6.4	6.4	6.6	6.6	6.6	6.6		
14	6.6	6.6	6.6	7.0	7.0	7.0	6.5	6.4	6.4	6.6	6.6	6.6	6.6		
15	6.6	6.5	6.6	7.0	6.9	6.9	6.5	6.4	6.5	6.7	6.6	6.6	6.6		
16	6.6	6.6	6.6	6.9	6.9	6.9	6.6	6.5	6.6	6.8	6.7	6.7	6.7		
17	6.6	6.6	6.6	6.9	6.8	6.8	6.6	6.6	6.6	6.9	6.8	6.8	6.8		
18	6.6	6.5	6.6	6.9	6.8	6.8	6.6	6.5	6.6	7.2	6.6	6.8	6.8		
19	6.6	6.5	6.6	6.8	6.8	6.8	6.5	6.5	6.5	6.6	6.5	6.6	6.6		
20	6.6	6.5	6.6	6.8	6.7	6.8	6.5	6.4	6.5	6.5	6.4	6.4	6.4		
21	6.7	6.6	6.7	6.8	6.8	6.8	6.5	6.5	6.5	6.5	6.4	6.5	6.5		
22	6.7	6.7	6.7	6.8	6.7	6.7	6.6	6.5	6.5	6.5	6.4	6.4	6.4		
23	6.7	6.7	6.7	---	---	---	6.6	6.5	6.6	6.4	6.4	6.4	6.4		
24	6.7	6.7	6.7	6.7	6.6	6.7	6.6	6.5	6.6	6.4	6.4	6.4	6.4		
25	6.7	6.7	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.4	6.4	6.4	6.4		
26	6.7	6.7	6.7	6.7	6.6	6.7	6.6	6.6	6.6	6.5	6.4	6.4	6.4		
27	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6	6.6	6.5	6.5	6.5	6.5		
28	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.3	6.5	6.5	6.5	6.5	6.5		
29	6.7	6.6	6.6	6.8	6.7	6.7	6.5	6.4	6.5	6.6	6.5	6.5	6.5		
30	6.7	6.6	6.7	6.8	6.7	6.7	6.5	6.5	6.5	6.5	6.4	6.4	6.4		
31	---	---	---	6.7	6.7	6.7	6.6	6.5	6.5	---	---	---	---		
MONTH	6.8	6.5	6.7	---	---	---	6.7	6.3	6.5	7.2	6.4	6.6	6.6		

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.6	25.2	25.4	16.3	15.6	15.8	9.3	8.9	9.2	8.2	7.2	7.8
2	26.6	25.4	25.7	16.0	15.1	15.6	8.9	8.6	8.8	8.5	8.2	8.4
3	26.1	25.5	25.8	15.8	15.0	15.3	8.8	8.4	8.6	8.6	8.3	8.5
4	27.4	25.6	26.2	15.7	15.1	15.4	8.4	7.8	8.1	8.6	8.1	8.5
5	26.9	25.5	25.9	15.4	14.9	15.1	7.8	7.2	7.4	8.1	7.2	7.7
6	26.7	24.9	25.6	15.2	14.6	15.1	7.3	6.8	7.1	7.2	6.9	7.1
7	25.7	25.4	25.5	14.6	13.9	14.3	7.1	6.8	7.0	6.9	6.0	6.6
8	25.5	24.4	24.9	14.2	13.4	13.8	6.9	6.6	6.8	6.0	5.7	5.9
9	24.5	24.2	24.3	14.4	13.3	13.8	6.7	6.2	6.5	6.6	5.9	6.3
10	24.2	23.3	23.9	15.2	13.9	14.5	6.4	6.2	6.3	7.3	6.6	7.0
11	24.1	23.2	23.8	15.8	14.9	15.4	6.5	6.2	6.3	7.1	6.6	7.0
12	24.2	23.8	24.0	16.2	15.4	15.7	7.1	6.3	6.5	6.6	5.9	6.2
13	24.2	23.6	23.8	15.6	14.5	15.1	6.8	6.4	6.6	5.9	5.4	5.6
14	23.7	22.6	23.1	14.9	14.1	14.4	7.2	6.5	6.8	5.6	5.1	5.4
15	22.6	19.7	21.9	15.0	14.4	14.6	7.3	6.9	7.1	5.6	5.2	5.4
16	21.5	19.4	20.8	15.1	14.8	15.0	7.8	7.2	7.5	5.4	4.9	5.2
17	21.7	20.7	21.1	15.0	13.9	14.4	7.5	7.2	7.3	5.2	4.8	5.0
18	21.0	20.0	20.5	14.1	13.4	13.7	7.4	7.0	7.2	5.0	4.5	4.7
19	20.6	19.7	20.2	13.9	13.3	13.5	7.9	7.2	7.5	4.5	4.0	4.2
20	20.5	19.6	20.0	13.5	13.1	13.3	8.6	7.9	8.3	4.3	3.8	4.1
21	20.1	19.2	19.7	13.2	12.7	13.0	8.6	8.2	8.3	4.4	4.0	4.1
22	19.4	18.5	18.8	13.3	12.7	13.1	8.3	7.8	8.0	4.0	3.7	3.9
23	18.8	18.3	18.5	13.2	12.5	12.7	8.0	7.8	7.9	4.0	2.9	3.5
24	18.6	18.0	18.3	12.9	12.5	12.7	7.9	7.7	7.8	3.1	2.5	2.9
25	18.5	18.0	18.2	12.8	12.6	12.7	7.8	7.2	7.6	3.1	2.7	2.9
26	18.6	18.1	18.4	12.7	12.1	12.3	7.2	6.7	6.9	3.0	2.9	2.9
27	18.4	17.9	18.2	12.1	11.3	11.7	6.7	6.3	6.5	3.0	2.8	2.9
28	18.4	18.2	18.3	11.3	10.4	10.8	6.3	5.9	6.1	3.2	2.6	2.9
29	18.2	17.7	18.0	10.4	9.4	9.8	6.1	5.7	5.9	3.2	2.8	2.9
30	18.1	17.0	17.6	9.5	9.1	9.3	6.4	5.8	6.1	3.1	2.9	3.0
31	17.0	15.8	16.4	---	---	---	7.2	6.4	6.8	3.2	3.0	3.1
MONTH	27.4	15.8	21.7	16.3	9.1	13.7	9.3	5.7	7.3	8.6	2.5	5.2
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.6	3.2	3.4	6.3	5.8	6.0	12.2	11.7	11.9	17.8	17.2	17.5
2	4.3	3.4	3.8	7.2	6.3	6.8	13.5	12.0	12.7	18.0	17.5	17.7
3	5.0	4.0	4.5	7.6	7.1	7.4	14.8	13.5	14.2	17.9	17.4	17.7
4	6.0	4.8	5.3	7.4	7.1	7.3	15.5	14.8	15.2	17.4	16.3	16.8
5	5.8	5.1	5.5	8.8	7.3	8.2	16.1	15.5	15.9	16.3	15.7	15.9
6	5.5	5.0	5.3	9.6	8.8	9.4	16.2	15.7	16.0	16.7	15.7	16.1
7	5.8	5.4	5.5	9.5	7.9	8.9	15.7	14.0	15.0	17.6	16.6	17.0
8	5.8	5.5	5.7	8.0	7.3	7.6	14.0	12.6	13.2	18.4	17.5	17.9
9	6.2	5.6	5.8	9.2	8.0	8.6	12.6	11.5	12.0	19.1	18.1	18.4
10	5.9	5.2	5.5	9.6	9.2	9.5	11.5	10.9	11.1	19.3	18.5	18.9
11	5.8	4.8	5.3	9.4	8.3	8.8	10.9	10.7	10.9	20.0	19.0	19.4
12	5.9	5.2	5.6	8.9	8.2	8.4	11.7	10.5	10.9	20.3	19.5	19.9
13	5.9	5.3	5.7	10.2	8.9	9.6	12.9	11.7	12.3	20.0	19.4	19.6
14	5.8	5.4	5.6	10.4	9.9	10.3	13.5	12.8	13.1	19.4	18.8	19.1
15	5.8	5.6	5.7	9.9	9.2	9.5	14.3	13.4	13.7	19.1	18.8	18.9
16	5.8	5.3	5.6	10.6	9.3	9.9	15.5	14.3	14.9	19.5	18.5	19.0
17	5.8	5.4	5.6	11.8	10.6	11.4	16.0	15.5	15.8	19.4	18.6	18.9
18	5.6	5.1	5.3	12.0	11.8	11.9	16.0	15.0	15.4	18.6	17.6	18.0
19	5.6	4.9	5.2	11.9	11.5	11.8	15.0	14.7	14.9	17.6	17.1	17.3
20	5.4	4.8	5.2	11.9	11.5	11.7	14.9	14.4	14.7	17.8	16.8	17.3
21	5.0	4.5	4.8	12.9	11.9	12.5	15.1	14.6	14.9	18.4	17.3	17.8
22	6.2	5.0	5.5	13.5	12.9	13.2	15.9	15.1	15.5	18.3	18.0	18.1
23	7.1	6.0	6.7	13.7	13.1	13.5	15.8	15.5	15.7	18.0	17.7	17.8
24	7.4	6.9	7.1	13.6	13.1	13.3	15.6	15.2	15.4	18.1	17.5	17.8
25	7.3	6.9	7.1	13.9	13.2	13.6	15.4	15.1	15.2	18.6	17.8	18.1
26	7.2	6.4	6.9	14.4	13.4	14.0	15.8	15.1	15.4	19.1	18.1	18.5
27	6.4	6.1	6.2	14.9	14.1	14.5	16.0	15.4	15.7	18.8	18.4	18.6
28	6.1	5.9	6.0	14.6	14.1	14.3	16.4	15.6	16.0	18.6	18.0	18.3
29	---	---	---	15.5	14.4	15.1	16.9	16.1	16.5	18.6	18.0	18.4
30	---	---	---	15.7	14.3	15.3	17.5	16.7	17.1	19.1	18.2	18.6
31	---	---	---	14.3	12.1	12.7	---	---	---	18.9	18.6	18.8
MONTH	7.4	3.2	5.5	15.7	5.8	10.8	17.5	10.5	14.4	20.3	15.7	18.1

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.4	24.3	24.6	16.6	15.5	15.9	9.3	8.9	9.1	8.2	7.3	7.8
2	24.4	24.2	24.3	16.3	15.4	15.7	8.9	8.6	8.7	8.6	8.2	8.5
3	24.3	24.2	24.3	15.7	15.4	15.6	8.8	8.3	8.6	8.7	8.4	8.6
4	24.4	24.2	24.3	15.5	14.1	14.4	8.4	7.8	8.1	8.7	8.2	8.6
5	24.5	24.3	24.4	15.2	14.2	14.5	7.8	7.1	7.4	8.2	7.3	7.8
6	25.4	24.4	24.9	15.2	14.5	14.9	7.2	6.8	7.1	7.3	7.0	7.2
7	25.1	25.0	25.0	14.9	14.6	14.8	7.1	6.8	6.9	7.0	6.1	6.7
8	25.2	24.9	25.1	14.9	13.7	14.5	6.8	6.6	6.7	6.1	5.8	6.0
9	25.1	23.6	24.7	13.8	13.5	13.7	6.6	6.2	6.4	6.7	6.0	6.4
10	23.6	22.7	22.9	13.9	13.6	13.7	6.4	6.1	6.3	7.4	6.7	7.1
11	22.8	22.6	22.7	14.9	13.9	14.3	6.4	6.2	6.2	7.2	6.7	7.1
12	23.2	22.6	22.7	15.4	14.7	14.9	6.6	6.2	6.4	6.7	6.0	6.4
13	23.7	22.8	23.2	15.5	14.6	15.2	6.7	6.4	6.5	6.0	5.6	5.8
14	23.2	22.5	22.9	14.8	14.2	14.5	7.1	6.5	6.8	5.7	5.3	5.5
15	22.6	19.8	21.7	15.2	14.5	14.7	7.2	6.8	7.0	5.8	5.3	5.6
16	21.4	19.4	20.8	15.3	15.0	15.2	7.8	7.1	7.4	5.5	5.1	5.3
17	21.3	20.0	20.7	15.2	14.1	14.6	7.5	7.1	7.3	5.3	4.9	5.1
18	20.0	19.8	19.8	14.1	13.6	13.8	7.3	7.0	7.1	5.0	4.5	4.7
19	19.8	19.6	19.7	14.0	13.3	13.6	7.8	7.1	7.4	4.5	4.0	4.2
20	19.7	19.4	19.6	13.7	13.2	13.3	8.5	7.8	8.2	4.3	3.8	4.1
21	19.8	19.3	19.5	13.2	12.6	12.9	8.5	8.1	8.3	4.4	4.0	4.1
22	19.8	19.7	19.8	13.3	12.6	13.1	8.2	7.8	8.0	4.0	3.6	3.9
23	19.8	18.4	19.0	13.1	12.3	12.7	8.1	7.7	7.9	4.0	3.0	3.5
24	18.8	18.2	18.5	12.8	12.4	12.6	8.0	7.8	7.9	3.1	2.5	2.8
25	18.8	18.1	18.3	12.8	12.6	12.7	7.9	7.4	7.7	3.0	2.7	2.9
26	18.5	17.6	18.1	12.6	12.0	12.2	7.4	6.8	7.1	3.0	2.9	2.9
27	17.7	17.6	17.6	12.0	11.2	11.6	6.8	6.4	6.6	3.0	2.8	2.9
28	17.7	17.6	17.6	11.2	10.3	10.7	6.4	6.0	6.2	3.2	2.6	2.9
29	---	---	---	10.3	9.3	9.8	6.2	5.8	6.0	3.2	2.8	2.9
30	---	---	---	9.5	9.1	9.3	6.5	6.0	6.2	3.1	2.8	3.0
31	17.2	15.8	16.4	---	---	---	7.3	6.5	6.9	3.2	3.0	3.1
MONTH	---	---	---	16.6	9.1	13.6	9.3	5.8	7.2	8.7	2.5	5.3
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.6	3.1	3.4	6.3	5.8	6.0	12.3	11.8	12.0	17.8	17.2	17.5
2	4.1	3.4	3.7	7.2	6.3	6.8	---	---	---	18.0	17.5	17.7
3	4.9	4.0	4.4	7.6	7.1	7.4	14.9	13.5	14.3	17.9	17.4	17.7
4	5.8	4.8	5.2	7.4	7.1	7.3	15.6	14.9	15.2	17.4	16.3	16.7
5	5.8	5.1	5.5	8.8	7.3	8.2	16.2	15.6	15.9	16.3	15.7	15.8
6	5.4	5.0	5.3	9.6	8.8	9.4	---	---	---	16.6	15.7	16.1
7	5.8	5.4	5.5	9.5	7.9	8.9	---	---	---	17.6	16.6	17.0
8	5.8	5.4	5.6	8.0	7.3	7.6	---	---	---	18.4	17.4	17.8
9	6.0	5.6	5.8	9.2	8.0	8.6	12.7	11.6	12.1	18.9	18.1	18.4
10	5.9	5.2	5.5	9.6	9.2	9.5	---	---	---	19.2	18.5	18.8
11	5.7	4.8	5.2	9.4	8.3	8.8	---	---	---	19.9	19.0	19.4
12	5.9	5.2	5.5	8.9	8.2	8.4	11.6	10.4	10.8	20.3	19.5	19.9
13	6.0	5.3	5.7	10.2	8.9	9.6	12.8	11.6	12.2	20.0	19.4	19.6
14	5.7	5.5	5.6	10.5	10.0	10.3	13.4	12.7	13.0	19.4	18.8	19.1
15	5.8	5.6	5.7	10.0	9.3	9.6	14.3	13.3	13.7	19.0	18.8	18.9
16	5.8	5.5	5.6	10.7	9.4	9.9	15.4	14.3	14.8	19.4	18.5	18.9
17	5.8	5.4	5.6	11.8	10.7	11.5	15.9	15.4	15.7	19.3	18.6	18.9
18	5.5	5.1	5.3	12.1	11.8	12.0	15.9	14.9	15.4	18.6	17.6	18.0
19	5.4	4.9	5.2	12.0	11.6	11.9	14.9	14.6	14.8	17.6	17.1	17.3
20	5.3	4.8	5.2	12.0	11.6	11.7	14.8	14.3	14.6	17.7	16.8	17.2
21	5.0	4.5	4.8	13.0	12.0	12.5	15.1	14.6	14.8	18.2	17.3	17.7
22	6.0	5.0	5.4	13.5	12.9	13.2	15.8	15.1	15.4	18.2	18.0	18.1
23	7.1	6.0	6.6	13.7	13.1	13.5	15.8	15.4	15.6	18.0	17.7	17.8
24	7.3	6.9	7.1	13.6	13.1	13.4	15.6	15.1	15.3	18.0	17.5	17.7
25	7.3	6.8	7.1	13.8	13.3	13.6	15.3	15.0	15.1	18.4	17.8	18.0
26	7.2	6.4	6.8	14.3	13.4	14.1	15.7	15.0	15.4	18.8	18.1	18.4
27	6.4	6.1	6.2	14.8	14.2	14.5	15.9	15.4	15.6	18.8	18.4	18.6
28	6.1	5.9	6.0	14.5	14.2	14.3	16.3	15.5	15.9	18.5	18.0	18.3
29	---	---	---	15.4	14.5	15.1	16.8	16.0	16.4	18.6	18.0	18.3
30	---	---	---	15.7	14.3	15.3	17.5	16.7	17.1	19.0	18.2	18.6
31	---	---	---	14.3	12.2	12.8	---	---	---	18.9	18.6	18.7
MONTH	7.3	3.1	5.5	15.7	5.8	10.8	---	---	---	20.3	15.7	18.1

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	19.0	18.4	18.7	24.5	24.0	24.2	26.1	25.5	25.8	27.7	27.3	27.5
2	19.1	18.5	18.8	24.0	23.5	23.8	26.4	25.6	26.0	27.8	27.3	27.6
3	19.1	18.5	18.8	23.9	23.3	23.6	26.2	25.8	26.0	27.9	27.4	27.6
4	19.6	19.0	19.2	24.2	23.4	23.8	26.0	25.7	25.9	27.7	27.4	27.5
5	20.5	19.6	20.0	24.8	23.7	24.2	26.1	25.5	25.8	27.5	26.6	27.1
6	20.6	20.1	20.3	25.2	24.2	24.7	26.0	25.5	25.7	26.6	25.5	26.0
7	20.6	20.1	20.4	25.4	24.6	25.0	25.6	25.3	25.4	25.5	25.1	25.3
8	21.1	20.5	20.7	25.5	24.8	25.1	25.4	25.2	25.3	25.2	24.8	25.0
9	22.0	21.0	21.5	26.1	25.0	25.5	25.3	25.0	25.1	25.2	24.8	25.0
10	22.4	21.6	22.0	26.1	25.4	25.8	25.2	25.0	25.1	25.1	24.3	24.6
11	22.9	22.0	22.4	25.9	25.3	25.6	25.4	24.9	25.2	24.4	23.7	24.0
12	23.4	22.5	22.9	25.8	25.2	25.5	25.6	25.1	25.4	24.1	23.7	23.8
13	23.8	23.0	23.4	25.6	25.0	25.2	25.8	25.3	25.6	23.8	23.6	23.8
14	24.0	23.3	23.7	25.0	24.4	24.6	26.0	25.4	25.7	24.1	23.6	23.9
15	24.2	23.6	23.9	25.0	24.1	24.6	26.4	25.6	26.0	24.2	23.9	24.1
16	24.2	23.7	23.9	25.4	24.5	25.0	26.3	26.0	26.1	24.5	24.1	24.3
17	23.7	23.0	23.2	25.4	24.9	25.1	26.1	25.6	25.9	24.2	23.6	23.8
18	23.5	22.7	23.1	25.2	24.8	25.0	26.1	25.6	25.9	23.8	22.6	23.1
19	23.8	23.1	23.5	25.1	24.8	24.9	25.9	25.6	25.8	23.2	22.4	22.8
20	23.7	23.2	23.4	25.1	24.6	24.9	26.0	25.4	25.7	23.6	22.9	23.3
21	23.2	22.6	22.9	25.4	24.6	25.0	26.4	25.6	26.0	23.8	23.2	23.5
22	22.6	21.7	22.0	25.8	25.0	25.4	26.7	26.0	26.4	23.6	23.2	23.4
23	22.2	21.3	21.7	25.7	25.2	25.4	26.7	26.2	26.5	23.7	23.3	23.4
24	22.6	21.7	22.1	25.2	24.6	24.8	26.6	26.1	26.4	23.6	23.2	23.4
25	23.1	22.1	22.6	25.1	24.6	24.8	26.3	25.6	25.8	23.4	22.9	23.1
26	23.6	22.6	23.1	25.3	24.7	25.0	26.2	25.4	25.8	23.5	22.9	23.2
27	24.1	23.1	23.6	25.8	24.8	25.3	26.7	25.9	26.3	23.7	23.1	23.4
28	24.1	23.6	23.9	26.1	25.2	25.7	27.1	26.4	26.8	23.6	23.3	23.5
29	24.2	23.5	23.8	26.3	25.6	25.9	27.4	26.8	27.1	23.5	22.5	23.1
30	24.7	23.7	24.2	26.1	25.6	25.8	27.6	27.0	27.3	22.5	21.2	21.8
31	---	---	---	26.0	25.5	25.7	27.8	27.3	27.6	---	---	---
MONTH	24.7	18.4	22.1	26.3	23.3	25.0	27.8	24.9	26.0	27.9	21.2	24.4

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	5.3	4.3	4.7	7.1	6.7	6.9	8.1	7.6	7.9	9.0	8.7	8.9
2	5.3	4.2	4.8	7.4	6.9	7.1	8.4	7.8	8.1	8.7	8.4	8.5
3	5.1	3.6	4.6	7.5	7.1	7.2	9.0	8.1	8.5	8.4	8.0	8.1
4	8.1	3.6	5.4	7.5	7.2	7.3	9.2	8.6	8.8	8.1	8.0	8.0
5	6.8	4.8	5.7	7.9	7.3	7.6	9.8	8.9	9.5	8.4	8.0	8.3
6	7.1	2.8	5.8	8.2	7.8	8.0	10.1	9.5	9.8	8.5	8.3	8.4
7	6.1	5.0	5.5	8.3	7.8	8.0	10.2	9.6	9.9	8.8	8.4	8.5
8	6.6	2.2	4.7	8.2	8.0	8.1	10.2	9.6	9.9	9.0	8.8	8.9
9	6.5	5.3	5.7	8.3	7.8	8.1	10.0	9.4	9.7	8.9	8.7	8.8
10	5.8	5.0	5.4	8.4	8.0	8.2	9.8	9.0	9.4	8.7	8.6	8.6
11	5.7	4.8	5.3	8.3	8.0	8.2	9.5	8.7	9.1	8.7	8.5	8.6
12	5.6	4.3	5.0	8.1	7.5	7.8	9.4	8.8	9.1	9.2	8.7	8.9
13	5.5	4.3	4.9	8.0	7.3	7.7	9.7	8.8	9.3	9.4	9.1	9.3
14	5.7	4.3	5.2	7.6	7.0	7.3	9.8	9.1	9.5	9.7	9.4	9.6
15	7.6	4.5	5.2	7.2	6.4	6.8	10.1	9.4	9.8	9.9	9.7	9.8
16	7.5	4.0	5.4	7.3	6.5	6.9	10.4	9.5	9.8	10.0	9.8	9.9
17	4.5	3.9	4.2	7.4	7.0	7.2	10.5	9.8	10.1	10.2	9.7	10
18	4.6	4.0	4.3	7.3	7.0	7.2	11.1	10.1	10.5	10.0	9.7	9.9
19	4.9	4.1	4.5	7.2	6.9	7.0	11.0	10.3	10.7	10.3	10.0	10.2
20	4.8	3.6	4.1	7.4	6.9	7.1	10.8	10.2	10.5	10.5	10.3	10.4
21	4.8	3.4	4.2	8.4	7.3	7.6	10.7	9.9	10.3	10.7	10.3	10.5
22	4.9	3.7	4.4	8.1	7.5	7.7	10.5	9.9	10.2	10.9	10.6	10.7
23	5.0	4.7	4.9	8.2	7.8	8.0	10.2	9.2	9.7	11.1	10.8	11.0
24	6.0	4.6	5.2	8.1	7.8	8.0	9.2	8.9	9.0	11.3	10.9	11.2
25	6.0	5.4	5.7	8.3	7.9	8.1	8.9	8.7	8.8	11.4	11.1	11.3
26	6.2	5.8	6.0	8.2	7.8	8.0	8.8	8.6	8.6	11.6	11.3	11.4
27	6.4	5.9	6.1	8.2	7.6	7.9	8.8	8.5	8.6	11.9	11.5	11.6
28	6.4	6.0	6.2	8.2	7.5	7.8	9.1	8.8	8.8	11.9	11.6	11.7
29	6.7	6.3	6.5	7.7	7.3	7.5	9.3	9.0	9.2	11.8	11.6	11.7
30	6.7	6.4	6.5	7.8	7.3	7.6	9.4	9.2	9.3	11.8	11.6	11.7
31	7.1	6.7	6.9	---	---	---	9.3	9.0	9.1	11.7	11.4	11.6
MONTH	8.1	2.2	5.3	8.4	6.4	7.6	11.1	7.6	9.4	11.9	8.0	9.9
DAY	MAX	MIN	MEAN									
1	11.9	11.5	11.7	11.0	10.9	10.9	7.8	7.1	7.3	5.7	5.2	5.4
2	12.0	11.7	11.8	11.0	10.5	10.8	7.9	7.1	7.5	5.6	4.8	5.1
3	11.9	11.7	11.8	10.5	10.2	10.3	7.6	6.6	7.0	6.5	4.9	5.2
4	11.8	11.4	11.6	10.5	10.2	10.3	7.2	6.2	6.6	5.8	4.9	5.4
5	11.6	10.9	11.4	10.4	9.8	10.1	7.0	5.9	6.3	6.0	5.4	5.6
6	11.4	10.8	11.1	10.0	9.2	9.6	6.5	5.6	5.9	6.2	5.4	5.8
7	11.3	11.1	11.2	9.6	8.8	9.2	6.2	5.2	5.7	6.0	5.2	5.6
8	11.6	11.2	11.3	9.8	8.9	9.3	5.7	5.3	5.4	6.0	5.2	5.6
9	11.7	11.3	11.5	9.8	9.4	9.6	6.6	5.6	6.1	6.0	5.4	5.6
10	12.0	11.4	11.7	9.7	9.2	9.5	7.2	6.5	6.9	6.9	5.0	5.4
11	12.3	11.8	11.9	9.7	9.3	9.5	6.6	6.3	6.5	10.6	4.5	6.4
12	12.0	11.7	11.9	9.8	9.3	9.5	7.0	6.4	6.6	4.6	4.3	4.4
13	11.9	11.4	11.7	9.9	9.3	9.6	7.0	6.4	6.7	5.1	4.1	4.5
14	11.6	11.1	11.4	9.8	9.0	9.4	6.8	6.3	6.5	4.9	4.2	4.5
15	11.6	11.3	11.4	9.6	9.0	9.3	6.6	6.1	6.3	4.9	4.4	4.6
16	11.8	11.3	11.6	9.8	9.1	9.4	6.5	5.8	6.1	4.8	4.4	4.6
17	11.7	11.5	11.6	9.6	8.6	9.1	6.2	5.6	5.9	5.0	4.4	4.7
18	11.7	11.4	11.5	9.2	8.2	8.7	6.2	5.5	5.8	5.1	4.8	4.9
19	11.9	11.5	11.7	9.0	8.5	8.7	5.8	5.5	5.7	5.2	4.6	4.9
20	12.1	11.7	11.9	9.1	8.1	8.6	6.1	5.6	5.8	5.2	4.5	4.9
21	12.5	12.1	12.4	8.2	7.2	7.8	6.2	5.7	5.9	5.0	4.5	4.8
22	12.6	12.4	12.5	7.4	7.0	7.3	6.1	5.5	5.7	5.1	4.6	4.9
23	12.5	11.7	12.0	7.9	7.4	7.7	6.0	5.5	5.7	6.2	4.8	5.8
24	11.8	11.2	11.5	8.1	7.6	7.9	6.0	5.5	5.8	6.2	5.3	5.8
25	11.7	11.3	11.5	8.3	7.7	8.0	6.1	5.6	5.8	5.5	5.1	5.3
26	11.4	11.0	11.2	8.5	7.6	8.0	5.8	5.2	5.5	5.3	4.9	5.1
27	11.2	11.0	11.1	8.5	7.5	8.0	5.6	5.2	5.4	5.2	4.6	4.9
28	11.1	10.8	11.0	8.0	7.3	7.6	5.7	5.3	5.5	4.8	4.4	4.6
29	---	---	---	7.9	7.0	7.4	5.8	5.3	5.5	5.0	4.6	4.8
30	---	---	---	7.4	6.0	6.9	5.8	5.3	5.6	5.0	4.6	4.8
31	---	---	---	7.2	5.7	6.2	---	---	---	5.0	4.6	4.8
MONTH	12.6	10.8	11.6	11.0	5.7	8.8	7.9	5.2	6.1	10.6	4.1	5.1

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	5.2	4.7	5.0	4.0	3.6	3.8	2.8	2.7	2.8	2.5	2.2	2.4
2	5.2	4.9	5.0	4.3	3.6	3.9	2.9	2.7	2.8	2.6	2.2	2.4
3	5.4	5.1	5.2	4.3	3.8	4.0	2.8	2.6	2.7	2.8	2.4	2.6
4	5.3	4.9	5.1	4.0	3.7	3.8	2.8	2.4	2.6	3.1	2.6	2.8
5	5.1	4.6	4.8	3.9	3.6	3.8	2.8	2.5	2.6	3.8	3.0	3.4
6	4.8	4.5	4.6	3.8	3.6	3.7	2.7	2.6	2.6	3.5	2.8	3.0
7	4.9	4.7	4.8	3.7	3.4	3.6	3.0	2.6	2.8	3.8	2.9	3.3
8	5.0	4.5	4.8	3.7	3.4	3.6	3.1	2.8	2.9	3.9	3.6	3.7
9	4.7	4.3	4.5	3.7	3.4	3.6	3.2	2.8	2.9	4.5	3.8	4.1
10	4.6	4.2	4.4	3.7	3.4	3.5	2.9	2.5	2.7	4.5	4.2	4.4
11	4.6	4.3	4.5	3.7	3.4	3.5	3.1	2.4	2.7	4.6	4.4	4.5
12	4.5	4.1	4.3	3.8	3.2	3.5	2.5	2.2	2.4	5.0	4.6	4.8
13	4.2	3.9	4.1	3.4	3.1	3.2	3.0	2.3	2.5	4.8	4.3	4.6
14	4.1	3.8	4.0	3.5	3.1	3.3	2.8	2.5	2.6	4.5	4.2	4.3
15	4.0	3.7	3.8	---	---	---	3.0	2.5	2.6	4.4	4.0	4.2
16	4.1	3.7	3.8	---	---	---	2.8	2.6	2.6	4.8	4.1	4.5
17	4.1	3.5	3.8	---	---	---	2.9	2.6	2.7	5.2	4.6	4.9
18	3.8	3.4	3.6	---	---	---	2.7	2.4	2.5	6.9	4.1	5.3
19	3.8	3.6	3.7	---	---	---	3.0	2.3	2.5	4.1	2.6	3.3
20	3.8	3.4	3.6	---	---	---	2.8	2.4	2.6	2.6	0.2	1.4
21	4.0	3.5	3.8	---	---	---	2.5	2.3	2.4	0.2	0.2	0.2
22	4.4	4.0	4.1	---	---	---	2.6	2.4	2.5	0.2	0.2	0.2
23	4.6	4.3	4.4	---	---	---	2.7	2.3	2.5	0.2	0.2	0.2
24	4.6	4.3	4.4	3.5	2.9	3.2	2.8	2.3	2.5	0.2	0.2	0.2
25	4.6	4.4	4.5	3.0	2.7	2.9	2.9	2.5	2.6	0.2	0.2	0.2
26	4.6	4.3	4.4	3.4	2.8	3.1	2.9	2.6	2.7	0.2	0.2	0.2
27	4.5	4.2	4.3	3.4	3.1	3.2	2.6	2.4	2.5	0.2	0.2	0.2
28	4.4	4.1	4.2	3.4	3.2	3.3	2.5	2.2	2.3	0.2	0.2	0.2
29	4.1	3.6	3.9	3.5	3.0	3.2	2.6	2.2	2.3	0.2	0.2	0.2
30	4.0	3.8	3.9	3.5	2.8	3.1	2.7	2.2	2.4	0.3	0.2	0.2
31	---	---	---	3.0	2.7	2.8	2.7	2.2	2.3	---	---	---
MONTH	5.4	3.4	4.3	---	---	---	3.2	2.2	2.6	6.9	0.2	2.5

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.4	3.5	4.6	6.9	5.1	6.4	7.2	6.7	7.0	8.9	8.6	8.8
2	5.6	4.5	5.1	7.5	5.8	6.9	7.4	7.0	7.2	8.6	8.3	8.4
3	5.5	4.4	4.8	7.1	6.6	6.8	8.1	7.3	7.6	8.4	8.0	8.1
4	4.5	3.9	4.3	7.9	6.6	7.6	8.4	7.7	8.0	8.1	7.9	7.9
5	3.9	3.0	3.5	7.8	6.9	7.4	9.0	8.2	8.7	8.1	7.9	8.1
6	3.5	2.4	2.9	7.6	6.7	7.2	9.3	8.9	9.1	8.3	8.1	8.2
7	2.7	1.6	2.2	7.5	6.6	7.0	9.4	9.0	9.3	8.6	8.2	8.3
8	4.5	1.5	2.9	8.6	6.3	7.2	9.6	9.0	9.3	8.9	8.6	8.8
9	5.4	3.2	3.9	8.8	8.3	8.6	9.3	8.8	9.1	8.9	8.7	8.8
10	6.3	5.3	5.9	8.7	8.0	8.4	9.2	8.5	8.9	8.8	8.5	8.6
11	6.2	5.8	6.0	8.2	7.6	7.9	8.9	8.2	8.5	8.8	8.4	8.6
12	6.0	5.0	5.6	7.8	7.1	7.4	8.9	8.3	8.6	9.1	8.7	8.9
13	5.2	3.4	4.6	7.5	6.8	7.1	9.2	8.4	8.8	9.4	9.0	9.2
14	5.8	4.5	5.1	7.4	6.6	7.0	9.4	8.8	9.1	9.6	9.3	9.5
15	7.7	5.0	5.7	6.9	6.1	6.4	9.8	9.1	9.5	9.8	9.5	9.6
16	7.8	4.1	5.5	7.0	6.1	6.5	10.0	9.4	9.6	10.1	9.8	9.9
17	5.2	4.2	4.5	7.2	6.6	6.9	10.2	9.7	9.9	10.4	10.1	10.2
18	5.5	5.0	5.2	7.0	6.6	6.8	10.6	9.9	10.2	10.5	10.2	10.4
19	5.1	4.5	4.8	6.8	6.3	6.6	10.6	10.1	10.3	10.8	10.5	10.6
20	6.3	4.2	4.9	6.6	5.9	6.2	10.3	9.8	10.1	10.9	10.7	10.8
21	6.4	4.3	5.7	6.7	6.0	6.4	10.1	9.5	9.8	11.0	10.8	10.9
22	5.0	3.8	4.4	7.0	6.5	6.7	9.8	9.3	9.5	11.2	10.9	11.1
23	6.8	4.3	5.8	7.2	6.9	7.0	9.5	9.0	9.3	11.4	11.2	11.3
24	6.8	5.0	6.1	7.1	6.9	7.0	9.1	8.8	8.9	11.7	11.3	11.5
25	6.1	5.1	5.6	7.3	7.0	7.2	8.8	8.6	8.7	11.6	11.5	11.6
26	7.6	5.1	6.4	7.4	6.9	7.2	8.7	8.4	8.6	11.9	11.6	11.8
27	7.4	6.4	7.0	7.3	6.8	7.1	8.8	8.6	8.6	12.0	11.8	11.9
28	6.6	5.9	6.3	7.3	6.6	7.0	9.0	8.7	8.8	12.1	11.9	12.0
29	---	---	---	6.8	6.5	6.6	9.3	9.0	9.1	12.1	11.9	11.9
30	---	---	---	6.8	6.4	6.7	9.3	9.2	9.2	12.0	11.8	11.9
31	7.0	6.4	6.7	---	---	---	9.2	8.9	9.1	11.8	11.7	11.7
MONTH	---	---	---	8.8	5.1	7.0	10.6	6.7	9.0	12.1	7.9	10.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.0	11.7	11.9	10.8	10.5	10.6	8.1	7.5	7.7	6.2	5.9	6.0
2	12.0	11.8	11.9	10.7	10.2	10.6	---	---	---	6.2	5.5	5.8
3	11.9	11.6	11.7	10.4	9.9	10.1	7.9	7.0	7.3	5.8	5.4	5.6
4	11.8	11.4	11.5	10.3	9.9	10.1	7.5	6.6	6.9	5.8	5.4	5.6
5	11.6	10.9	11.4	10.2	9.5	9.9	7.2	6.2	6.6	6.0	5.6	5.8
6	11.5	10.9	11.2	9.9	9.1	9.5	---	---	---	6.0	5.8	5.9
7	11.3	11.0	11.2	9.5	8.4	9.0	---	---	---	5.8	5.4	5.6
8	11.4	11.0	11.2	9.5	8.5	8.9	---	---	---	5.7	5.2	5.4
9	11.4	11.2	11.3	9.6	9.1	9.3	6.7	5.9	6.3	5.4	5.0	5.2
10	11.8	11.2	11.5	9.6	9.0	9.3	---	---	---	5.4	4.9	5.0
11	11.8	11.5	11.7	9.6	9.1	9.4	---	---	---	4.9	4.6	4.8
12	11.7	11.4	11.6	9.7	9.1	9.3	7.0	6.7	6.9	4.7	4.5	4.6
13	11.7	11.2	11.5	10.0	9.3	9.6	7.1	6.5	6.8	4.8	4.4	4.6
14	11.3	10.8	11.0	10.0	9.3	9.7	6.8	6.3	6.5	4.8	4.6	4.7
15	11.5	11.0	11.2	9.7	9.3	9.5	6.7	6.1	6.3	4.8	4.7	4.7
16	11.6	11.1	11.4	9.9	9.3	9.6	6.4	5.8	6.0	4.8	4.6	4.7
17	11.5	11.2	11.4	9.7	8.8	9.2	6.2	5.5	5.8	5.0	4.7	4.9
18	11.3	11.0	11.2	9.4	8.5	8.9	6.0	5.3	5.6	5.0	4.8	4.9
19	11.6	11.2	11.4	9.2	8.7	8.9	5.6	5.3	5.5	5.4	5.0	5.2
20	11.9	11.6	11.7	9.2	8.3	8.8	---	---	---	5.4	5.0	5.2
21	12.4	11.9	12.2	8.4	7.5	8.0	---	---	---	5.3	5.1	5.2
22	12.5	12.2	12.3	7.6	7.3	7.5	---	---	---	5.4	5.1	5.3
23	12.5	11.6	12.0	8.1	7.6	7.9	---	---	---	6.1	5.4	5.8
24	11.8	11.1	11.5	8.3	7.9	8.1	---	---	---	6.2	5.2	5.8
25	11.7	11.2	11.4	8.6	8.1	8.3	---	---	---	5.4	5.1	5.2
26	11.3	10.8	11.0	8.7	7.9	8.3	---	---	---	5.3	4.8	5.0
27	11.0	10.8	10.9	8.7	7.8	8.2	---	---	---	5.0	4.4	4.8
28	10.9	10.6	10.7	8.3	7.6	7.9	---	---	---	4.7	4.2	4.4
29	---	---	---	8.2	7.3	7.7	---	---	---	4.8	4.5	4.7
30	---	---	---	7.7	6.3	7.2	---	---	---	4.8	4.5	4.6
31	---	---	---	7.5	6.1	6.5	---	---	---	5.0	4.5	4.8
MONTH	12.5	10.6	11.5	10.8	6.1	8.9	---	---	---	6.2	4.2	5.2

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.2	4.6	5.0	3.9	3.4	3.6	3.3	3.1	3.2	2.7	2.4	2.6
2	5.2	4.9	5.1	4.3	3.4	3.7	3.2	3.1	3.1	2.8	2.5	2.6
3	5.3	5.0	5.2	4.3	3.6	3.9	3.2	3.0	3.1	2.9	2.6	2.7
4	5.3	4.7	5.0	4.1	3.6	3.9	3.2	2.9	3.0	3.3	2.8	3.0
5	5.1	4.5	4.7	---	---	---	3.1	2.9	3.0	3.6	3.2	3.4
6	4.7	4.3	4.5	---	---	---	3.1	2.9	3.0	3.4	2.8	3.0
7	4.9	4.5	4.7	---	---	---	3.2	2.9	3.1	3.6	3.0	3.2
8	5.0	4.3	4.6	---	---	---	3.4	2.8	3.1	3.9	3.5	3.6
9	4.6	4.1	4.3	---	---	---	3.2	2.7	2.9	4.4	3.8	4.1
10	4.4	3.9	4.2	---	---	---	2.9	2.5	2.7	4.6	4.2	4.4
11	4.3	3.9	4.2	---	---	---	3.1	2.4	2.7	4.6	4.3	4.5
12	4.2	3.9	4.0	4.0	3.5	3.8	2.6	2.3	2.4	5.5	4.6	4.9
13	4.2	3.8	4.0	3.7	3.4	3.5	3.1	2.3	2.5	5.0	4.5	4.8
14	4.2	3.8	4.0	3.8	3.5	3.6	2.9	2.5	2.7	4.6	4.4	4.6
15	4.0	3.6	3.8	3.6	3.5	3.6	2.9	2.5	2.7	4.6	4.2	4.4
16	4.1	3.6	3.8	3.6	3.4	3.5	3.0	2.8	2.9	5.0	4.4	4.7
17	4.1	3.5	3.8	3.6	3.4	3.5	3.0	2.8	2.8	5.5	5.0	5.2
18	3.8	3.4	3.6	3.7	3.3	3.5	2.9	2.6	2.7	7.1	4.3	5.6
19	3.8	3.4	3.6	3.6	3.4	3.4	2.8	2.4	2.6	4.3	2.8	3.5
20	3.8	3.1	3.4	3.5	3.4	3.4	2.7	2.5	2.6	2.8	0.2	1.6
21	3.8	3.3	3.6	3.6	3.3	3.4	2.5	2.4	2.5	0.2	0.2	0.2
22	4.2	3.6	3.9	3.6	3.5	3.5	2.4	2.2	2.4	0.3	0.2	0.2
23	4.4	3.8	4.1	3.9	3.3	3.5	2.5	2.2	2.4	0.3	0.3	0.3
24	4.4	3.9	4.1	4.0	3.5	3.8	2.5	2.2	2.4	0.3	0.3	0.3
25	4.7	4.0	4.4	3.6	3.4	3.5	2.7	2.4	2.5	0.3	0.2	0.3
26	4.7	4.3	4.5	3.8	3.4	3.6	2.7	2.5	2.6	0.3	0.2	0.3
27	4.7	4.2	4.4	3.8	3.6	3.7	2.6	2.4	2.5	0.3	0.2	0.3
28	4.5	4.0	4.2	3.8	3.6	3.7	2.6	2.4	2.5	0.3	0.2	0.3
29	4.1	3.4	3.8	3.8	3.4	3.6	2.7	2.4	2.5	0.4	0.2	0.3
30	3.9	3.0	3.5	3.8	3.0	3.3	2.8	2.4	2.6	0.4	0.3	0.4
31	---	---	---	3.3	3.1	3.2	2.9	2.4	2.6	---	---	---
MONTH	5.3	3.0	4.2	---	---	---	3.4	2.2	2.7	7.1	0.2	2.6

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	65	53	57	73	67	70	71	66	69	75	74	75
2	66	52	59	75	69	71	72	67	70	74	72	73
3	63	44	56	76	71	73	77	69	73	72	69	70
4	103	44	67	76	72	74	78	73	75	70	68	69
5	85	59	71	79	73	76	82	75	79	70	68	70
6	87	34	71	82	78	80	84	79	81	70	69	70
7	75	61	68	81	76	79	84	79	82	71	69	70
8	80	27	57	80	77	78	84	78	81	72	71	71
9	78	63	68	81	76	79	82	77	79	72	71	72
10	69	60	64	84	78	81	79	73	76	72	71	71
11	68	57	63	83	81	82	77	71	74	72	70	71
12	67	51	60	83	75	79	77	72	74	74	71	72
13	65	51	58	80	72	76	79	72	76	75	73	74
14	67	51	60	75	69	72	81	74	78	77	75	76
15	83	52	59	71	63	67	84	78	81	79	77	78
16	82	45	60	73	65	69	87	80	82	79	77	78
17	51	44	47	73	69	70	87	82	84	80	76	78
18	51	44	48	71	67	70	92	83	87	78	76	77
19	54	45	50	69	66	67	91	86	89	79	77	78
20	53	40	45	71	66	68	92	87	90	81	78	80
21	53	38	46	80	69	73	92	84	88	82	79	80
22	53	40	47	77	71	74	89	83	86	83	80	82
23	54	50	52	78	74	76	86	78	82	84	81	83
24	64	49	55	77	74	75	78	75	76	84	81	83
25	64	57	61	79	75	77	75	73	73	85	82	84
26	66	62	64	77	73	75	73	70	71	86	84	85
27	68	62	65	76	70	73	72	69	70	88	85	86
28	68	64	66	75	67	71	73	71	71	89	85	87
29	71	67	69	69	64	66	75	72	74	88	86	87
30	70	67	68	68	64	66	76	74	75	88	86	87
31	72	69	71	---	---	---	76	74	75	88	85	86
MONTH	103	27	60	84	63	74	92	66	78	89	68	78
DAY	MAX	MIN	MEAN									
1	90	86	88	89	87	88	73	66	68	60	55	57
2	92	88	90	90	87	88	74	67	70	59	51	54
3	93	90	91	88	85	86	73	65	68	68	51	55
4	93	91	92	88	85	86	72	62	66	60	51	56
5	92	87	91	88	84	86	70	60	64	61	55	57
6	90	86	88	87	81	84	66	57	60	63	56	60
7	90	88	89	84	75	80	63	51	57	62	54	58
8	93	89	90	83	75	78	54	51	52	64	56	59
9	95	90	92	84	81	83	61	53	57	64	58	60
10	95	91	93	85	81	83	66	59	63	75	54	58
11	99	92	94	84	79	82	60	57	59	115	50	70
12	96	93	94	85	79	81	65	58	60	51	47	49
13	96	91	94	87	82	84	65	60	63	56	45	49
14	92	89	91	88	80	84	65	60	62	53	45	49
15	93	90	91	84	79	81	64	59	61	53	47	50
16	94	90	92	86	81	83	64	58	61	52	47	49
17	93	91	92	88	79	83	63	57	60	54	47	50
18	93	90	91	86	76	80	63	55	58	54	51	52
19	95	90	92	83	78	81	58	55	56	54	48	51
20	95	93	94	84	75	79	60	55	57	54	47	51
21	98	94	96	76	68	73	61	56	58	53	48	51
22	101	97	99	71	67	69	61	55	58	54	49	52
23	101	97	98	76	71	74	61	55	58	65	51	61
24	98	92	95	78	73	76	60	55	58	65	56	61
25	97	93	95	80	74	77	61	56	58	59	54	56
26	95	89	92	82	74	78	58	52	55	56	53	55
27	91	89	90	84	73	78	57	52	54	56	49	53
28	90	87	88	78	71	74	58	54	55	51	47	49
29	---	---	---	79	70	74	59	54	57	53	49	51
30	---	---	---	75	59	69	61	55	58	54	49	51
31	---	---	---	67	54	58	---	---	---	54	49	52
MONTH	101	86	92	90	54	79	74	51	60	115	45	54

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	56	50	53	48	43	45	35	33	34	32	28	30
2	56	52	54	51	43	46	36	33	35	33	28	31
3	58	55	56	51	45	47	35	32	33	36	30	33
4	57	54	55	47	44	45	35	30	32	40	33	36
5	56	51	53	47	43	45	35	31	33	48	38	43
6	53	50	51	46	43	44	33	32	32	44	35	37
7	55	52	53	45	41	43	37	32	34	47	36	41
8	56	51	54	45	41	43	38	34	36	47	44	45
9	53	49	51	45	42	44	39	34	36	55	46	50
10	53	48	51	46	42	43	35	30	33	55	51	53
11	54	50	52	46	42	43	38	29	33	55	52	54
12	52	48	50	47	39	43	31	27	29	59	55	57
13	50	46	48	42	38	39	37	28	31	57	51	55
14	49	45	47	42	37	40	34	31	32	54	50	52
15	48	44	46	---	---	---	37	31	32	53	48	50
16	49	44	46	---	---	---	35	32	32	58	49	53
17	49	41	45	---	---	---	36	32	33	62	55	58
18	45	40	42	---	---	---	33	30	31	80	48	63
19	45	42	44	---	---	---	37	28	31	48	31	38
20	45	40	42	---	---	---	35	29	32	31	2	16
21	47	41	44	---	---	---	31	28	30	2	2	2
22	50	46	47	---	---	---	33	30	31	2	2	2
23	53	49	50	---	---	---	34	29	31	2	2	2
24	53	49	51	42	35	39	35	28	31	2	2	2
25	54	51	52	37	33	35	36	31	32	2	2	2
26	53	51	52	42	34	38	36	32	33	2	2	2
27	53	49	51	42	38	40	33	30	31	2	2	2
28	52	49	50	42	39	40	32	27	29	2	2	2
29	49	43	46	43	37	39	33	28	30	2	2	2
30	48	45	46	43	35	38	34	28	30	3	2	2
31	---	---	---	37	33	35	34	28	30	---	---	---
MONTH	58	40	49	---	---	---	39	27	32	80	2	30

ROANOKE RIVER BASIN

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	65	43	55	70	52	65	63	58	60	75	73	74
2	67	54	62	75	59	69	64	60	62	73	71	72
3	66	53	58	71	66	68	69	62	65	72	69	70
4	54	47	51	77	66	74	71	65	68	70	67	68
5	47	36	42	76	69	73	75	69	72	69	67	68
6	43	29	35	75	66	71	77	74	75	69	67	68
7	33	19	26	74	65	69	78	74	76	70	67	68
8	55	18	35	83	62	70	79	74	76	72	69	71
9	64	39	48	85	80	83	76	72	74	72	71	71
10	73	63	69	84	78	81	74	69	72	72	71	71
11	72	68	70	80	75	77	72	66	69	72	69	71
12	70	59	65	77	71	74	73	67	70	74	71	72
13	61	40	54	75	68	71	75	69	72	75	72	74
14	67	53	60	73	65	69	77	72	75	77	74	75
15	85	57	65	68	60	63	81	75	79	78	76	77
16	85	46	61	70	61	65	84	78	80	80	77	78
17	57	47	51	70	65	68	85	81	83	81	80	80
18	60	55	57	68	64	66	88	82	84	82	79	81
19	56	49	52	66	61	63	88	84	86	83	80	82
20	69	46	53	63	56	59	88	84	86	84	82	83
21	70	47	62	63	57	60	86	81	83	84	83	83
22	55	42	48	67	62	64	83	78	81	86	83	85
23	73	47	62	68	65	66	80	76	78	86	85	85
24	72	54	65	67	65	66	77	74	75	87	84	86
25	65	55	59	69	66	68	74	72	73	86	85	86
26	80	54	68	69	64	67	73	69	71	89	86	88
27	78	67	74	68	63	65	72	70	70	89	87	88
28	69	62	66	67	59	63	73	70	71	91	88	89
29	66	59	62	61	57	58	75	72	73	90	88	89
30	68	57	64	60	56	58	75	74	75	90	88	89
31	72	65	68	---	---	---	75	74	75	88	87	87
MONTH	85	18	57	85	52	68	88	58	74	91	67	78
DAY	MAX	MIN	MEAN									
1	91	87	89	87	84	86	75	69	71	65	62	63
2	91	89	90	88	85	87	---	---	---	65	58	61
3	92	89	91	86	82	84	76	69	72	61	56	59
4	92	89	91	86	82	84	75	66	69	59	56	57
5	92	87	91	86	82	84	73	63	67	61	57	59
6	91	86	88	86	80	83	---	---	---	61	59	60
7	90	87	89	83	72	78	---	---	---	60	56	58
8	91	87	89	80	72	75	---	---	---	60	55	57
9	91	89	90	83	79	80	62	56	59	58	54	55
10	94	89	91	84	79	82	---	---	---	58	53	54
11	94	90	92	83	78	81	---	---	---	53	50	52
12	94	90	92	84	78	80	64	60	62	52	49	51
13	93	89	91	87	82	85	66	61	63	53	48	50
14	90	86	88	90	83	86	65	60	62	52	50	51
15	92	88	89	86	81	83	64	59	61	52	51	51
16	92	89	91	87	83	85	63	57	60	52	50	51
17	92	89	91	89	81	85	62	56	59	54	51	53
18	90	87	89	87	79	83	61	53	56	54	51	52
19	92	88	90	86	80	83	56	52	54	56	52	54
20	93	91	92	85	77	82	---	---	---	56	52	54
21	97	92	95	78	71	75	---	---	---	56	53	54
22	101	96	98	73	70	72	---	---	---	57	54	56
23	101	96	98	78	73	76	---	---	---	64	57	61
24	98	92	95	80	75	78	---	---	---	65	55	61
25	97	92	94	83	78	80	---	---	---	58	54	55
26	94	88	90	85	77	81	---	---	---	56	51	53
27	89	87	88	86	76	81	---	---	---	54	47	51
28	88	85	86	81	75	77	---	---	---	50	45	47
29	---	---	---	82	73	77	---	---	---	51	48	50
30	---	---	---	78	62	72	---	---	---	51	48	50
31	---	---	---	70	58	62	---	---	---	54	48	51
MONTH	101	85	91	90	58	80	---	---	---	65	45	55

0208114150 ROANOKE RIVER AT NC 45 NEAR WESTOVER, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	56	49	53	47	41	44	41	38	39	34	30	33
2	56	53	55	51	40	44	40	38	39	36	32	33
3	57	54	56	51	42	46	40	37	38	37	33	35
4	57	51	54	---	---	---	40	36	37	42	36	38
5	56	50	52	---	---	---	38	36	37	45	40	43
6	52	48	50	---	---	---	38	36	37	43	35	37
7	55	50	52	---	---	---	39	36	38	44	36	40
8	56	48	52	---	---	---	42	34	38	47	42	44
9	52	46	49	---	---	---	39	33	36	54	46	49
10	50	45	48	---	---	---	35	30	33	55	51	53
11	50	45	48	---	---	---	38	29	33	55	51	54
12	49	45	47	49	43	47	32	28	29	65	55	58
13	50	44	47	45	41	43	38	28	31	59	53	57
14	50	45	47	46	42	44	36	31	33	55	52	54
15	48	43	45	44	42	43	36	31	34	55	50	53
16	49	43	45	44	41	42	37	35	36	60	53	56
17	49	41	45	44	41	43	37	34	35	65	59	61
18	45	40	42	45	40	42	36	32	33	83	50	65
19	45	40	43	44	41	42	35	29	32	50	33	41
20	45	37	40	43	41	41	33	31	32	33	2	18
21	44	39	42	44	40	42	31	29	31	2	2	2
22	48	41	45	44	42	43	30	27	29	4	2	2
23	51	43	47	48	40	43	31	27	30	4	4	4
24	50	45	48	48	42	46	31	27	29	4	4	4
25	55	46	51	44	41	42	33	29	31	4	2	4
26	55	50	52	46	41	43	34	31	32	4	2	4
27	55	49	52	47	44	46	32	30	31	4	2	4
28	54	47	50	47	44	46	33	30	31	4	2	4
29	49	41	45	47	42	44	34	30	32	5	2	4
30	47	36	42	47	37	41	36	30	33	5	3	5
31	---	---	---	41	38	39	37	30	33	---	---	---
MONTH	57	36	48	---	---	---	42	27	34	83	2	32

LOCATION.--Lat 36°20'03", long 78°46'03", Granville County, Hydrologic Unit 03020101, on right bank on downstream side of bridge at U.S. Hwy 158 1.8 miles northwest of Berea.

DRAINAGE AREA.--26.0 mi².

GAGE-HEIGHT RECORDS

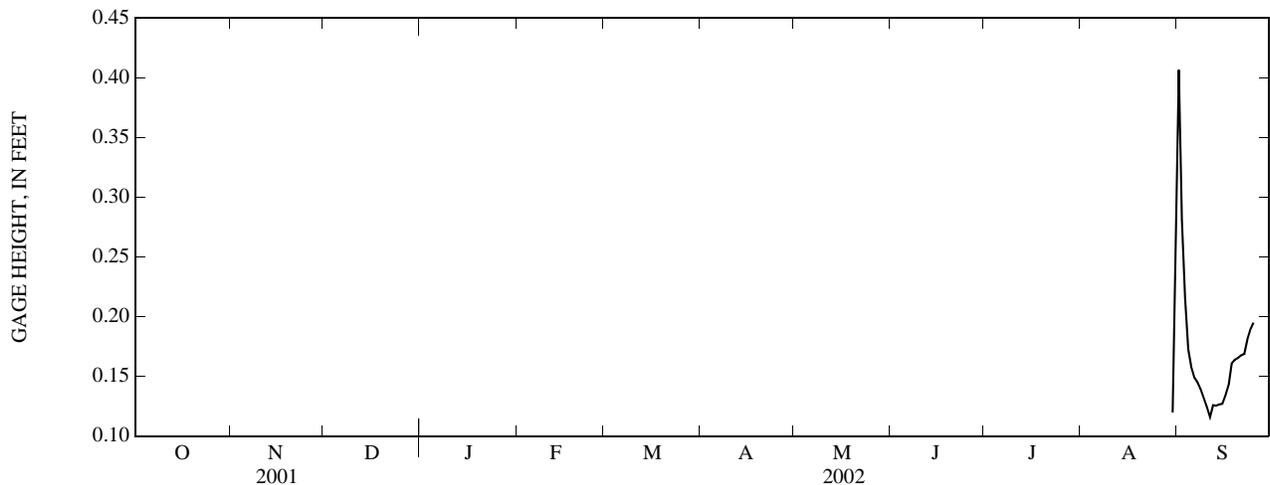
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 445 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.87 m, Mar. 20, Aug. 10, 2003; minimum gage height recorded, 0.10 m, Aug. 29, Sept. 11, 2002.

GAGE HEIGHT, ABOVE DATUM, METERS
AUGUST TO SEPTEMBER 2002
DAILY MEAN VALUES

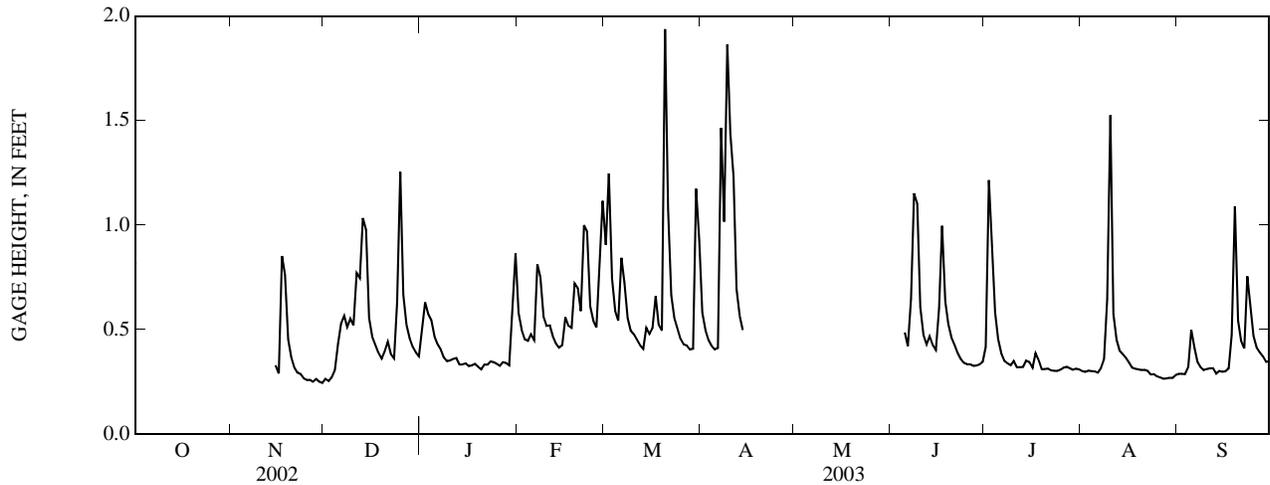
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.41
2	---	---	---	---	---	---	---	---	---	---	---	0.28
3	---	---	---	---	---	---	---	---	---	---	---	0.22
4	---	---	---	---	---	---	---	---	---	---	---	0.17
5	---	---	---	---	---	---	---	---	---	---	---	0.16
6	---	---	---	---	---	---	---	---	---	---	---	0.15
7	---	---	---	---	---	---	---	---	---	---	---	0.15
8	---	---	---	---	---	---	---	---	---	---	---	0.14
9	---	---	---	---	---	---	---	---	---	---	---	0.13
10	---	---	---	---	---	---	---	---	---	---	---	0.12
11	---	---	---	---	---	---	---	---	---	---	---	0.12
12	---	---	---	---	---	---	---	---	---	---	---	0.13
13	---	---	---	---	---	---	---	---	---	---	---	0.13
14	---	---	---	---	---	---	---	---	---	---	---	0.13
15	---	---	---	---	---	---	---	---	---	---	---	0.13
16	---	---	---	---	---	---	---	---	---	---	---	0.13
17	---	---	---	---	---	---	---	---	---	---	---	0.14
18	---	---	---	---	---	---	---	---	---	---	---	0.16
19	---	---	---	---	---	---	---	---	---	---	---	0.16
20	---	---	---	---	---	---	---	---	---	---	---	0.17
21	---	---	---	---	---	---	---	---	---	---	---	0.17
22	---	---	---	---	---	---	---	---	---	---	---	0.17
23	---	---	---	---	---	---	---	---	---	---	---	0.18
24	---	---	---	---	---	---	---	---	---	---	---	0.19
25	---	---	---	---	---	---	---	---	---	---	---	0.19
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	0.12	---
31	---	---	---	---	---	---	---	---	---	---	0.22	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



02081190 TAR RIVER NEAR BERE A, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.26	0.51	0.58	0.90	0.58	---	---	0.42	0.30	0.29
2	---	---	0.25	0.63	0.50	1.25	0.50	---	---	1.22	0.30	0.29
3	---	---	0.27	0.57	0.45	0.74	0.45	---	---	0.95	0.30	0.29
4	---	---	0.30	0.55	0.45	0.59	0.42	---	---	0.58	0.30	0.32
5	---	---	0.43	0.47	0.48	0.54	0.40	---	0.49	0.45	0.30	0.50
6	---	---	0.53	0.43	0.45	0.84	0.41	---	0.42	0.39	0.29	0.41
7	---	---	0.57	0.41	0.81	0.72	1.46	---	0.65	0.35	0.32	0.35
8	---	---	0.51	0.37	0.75	0.56	1.02	---	1.15	0.34	0.36	0.32
9	---	---	0.55	0.35	0.56	0.50	1.86	---	1.10	0.33	0.65	0.31
10	---	---	0.52	0.35	0.52	0.48	1.44	---	0.61	0.35	1.53	0.31
11	---	---	0.77	0.36	0.52	0.45	1.23	---	0.48	0.32	0.57	0.31
12	---	---	0.75	0.36	0.47	0.43	0.69	---	0.43	0.32	0.45	0.32
13	---	---	1.03	0.33	0.43	0.41	0.56	---	0.47	0.32	0.40	0.29
14	---	---	0.98	0.33	0.41	0.51	0.50	---	0.42	0.35	0.38	0.30
15	---	0.33	0.56	0.34	0.42	0.48	---	---	0.40	0.34	0.37	0.30
16	---	0.29	0.47	0.33	0.56	0.51	---	---	0.60	0.32	0.34	0.30
17	---	0.85	0.43	0.33	0.52	0.66	---	---	1.00	0.39	0.32	0.31
18	---	0.76	0.39	0.34	0.51	0.52	---	---	0.63	0.35	0.31	0.48
19	---	0.45	0.36	0.32	0.72	0.49	---	---	0.53	0.31	0.31	1.09
20	---	0.37	0.39	0.31	0.70	1.94	---	---	0.46	0.31	0.31	0.54
21	---	0.32	0.44	0.33	0.59	1.08	---	---	0.43	0.31	0.31	0.45
22	---	0.29	0.38	0.33	1.00	0.66	---	---	0.39	0.30	0.30	0.41
23	---	0.29	0.36	0.35	0.97	0.56	---	---	0.36	0.30	0.29	0.75
24	---	0.27	0.63	0.34	0.61	0.51	---	---	0.34	0.30	0.29	0.60
25	---	0.26	1.25	0.34	0.54	0.46	---	---	0.33	0.31	0.28	0.47
26	---	0.26	0.67	0.33	0.51	0.43	---	---	0.33	0.32	0.27	0.41
27	---	0.25	0.52	0.34	0.82	0.42	---	---	0.33	0.32	0.26	0.39
28	---	0.26	0.46	0.34	1.12	0.40	---	---	0.33	0.31	0.27	0.37
29	---	0.25	0.42	0.33	---	0.41	---	---	0.33	0.31	0.27	0.35
30	---	0.24	0.39	0.57	---	1.17	---	---	0.35	0.31	0.27	0.35
31	---	---	0.37	0.86	---	0.92	---	---	---	0.31	0.28	---
MEAN	---	---	0.52	0.40	0.61	0.66	---	---	---	0.39	0.37	0.41
MAX	---	---	1.25	0.86	1.12	1.94	---	---	---	1.22	1.53	1.09
MIN	---	---	0.25	0.31	0.41	0.40	---	---	---	0.30	0.26	0.29

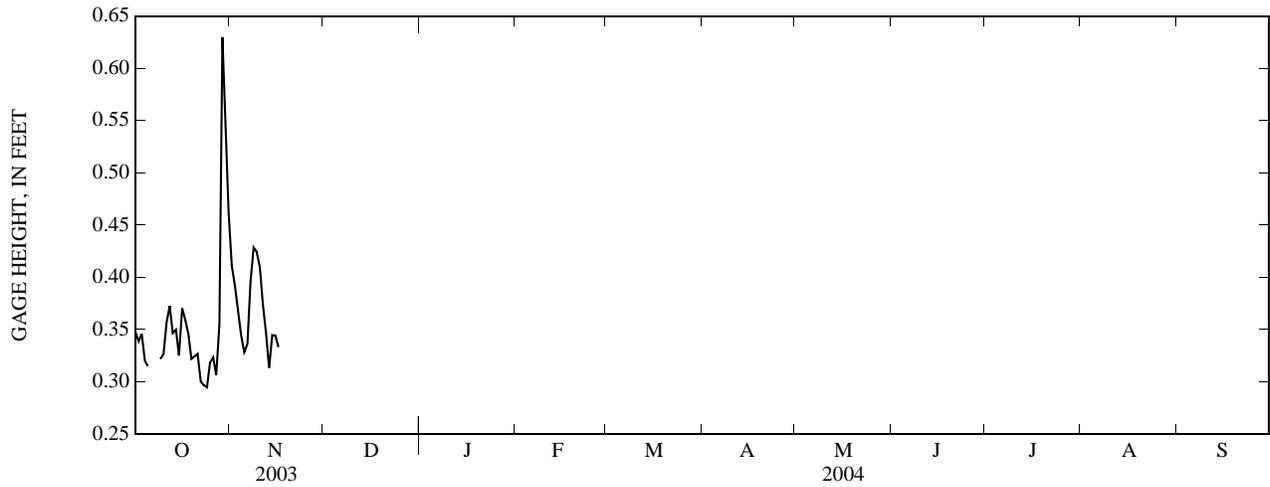


TAR RIVER BASIN

02081190 TAR RIVER NEAR BEREHA, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
 WATER YEAR OCTOBER TO NOVEMBER 2003
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.35	0.41	---	---	---	---	---	---	---	---	---	---
2	0.34	0.39	---	---	---	---	---	---	---	---	---	---
3	0.35	0.37	---	---	---	---	---	---	---	---	---	---
4	0.32	0.34	---	---	---	---	---	---	---	---	---	---
5	0.32	0.33	---	---	---	---	---	---	---	---	---	---
6	---	0.34	---	---	---	---	---	---	---	---	---	---
7	---	0.40	---	---	---	---	---	---	---	---	---	---
8	---	0.43	---	---	---	---	---	---	---	---	---	---
9	0.32	0.42	---	---	---	---	---	---	---	---	---	---
10	0.33	0.41	---	---	---	---	---	---	---	---	---	---
11	0.36	0.37	---	---	---	---	---	---	---	---	---	---
12	0.37	0.35	---	---	---	---	---	---	---	---	---	---
13	0.35	0.31	---	---	---	---	---	---	---	---	---	---
14	0.35	0.34	---	---	---	---	---	---	---	---	---	---
15	0.33	0.34	---	---	---	---	---	---	---	---	---	---
16	0.37	0.33	---	---	---	---	---	---	---	---	---	---
17	0.36	---	---	---	---	---	---	---	---	---	---	---
18	0.35	---	---	---	---	---	---	---	---	---	---	---
19	0.32	---	---	---	---	---	---	---	---	---	---	---
20	0.32	---	---	---	---	---	---	---	---	---	---	---
21	0.33	---	---	---	---	---	---	---	---	---	---	---
22	0.30	---	---	---	---	---	---	---	---	---	---	---
23	0.30	---	---	---	---	---	---	---	---	---	---	---
24	0.29	---	---	---	---	---	---	---	---	---	---	---
25	0.32	---	---	---	---	---	---	---	---	---	---	---
26	0.32	---	---	---	---	---	---	---	---	---	---	---
27	0.31	---	---	---	---	---	---	---	---	---	---	---
28	0.35	---	---	---	---	---	---	---	---	---	---	---
29	0.63	---	---	---	---	---	---	---	---	---	---	---
30	0.55	---	---	---	---	---	---	---	---	---	---	---
31	0.46	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



02081190 TAR RIVER NEAR BERE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 26.5°C, Aug. 7, 2003; minimum recorded, 0.8°C, Dec. 4, 5, 2002.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00660)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
MAR 04...	0.12	<0.008	<0.02	<0.02	0.024	0.43	0.2	<0.1	0.2	6.4	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	15.800	45	60.50
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	0.11	<0.008	<0.02	0.03	0.021	0.43	0.3	<0.1	0.3	5.0	--	--	--
Date	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water fltrd, ug/L (61625)	4Chloro-2methyl-phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)
MAR 04...	--	--	K15	--	<0.09	<0.006	<0.1	<0.005	E.002	<0.004	<0.004	<0.006	<0.006
MAY 16...	1,400	7.8	--	11.3	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	74	--	--	--	--	--	--	--	--	--	--
JUL 16...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	E.010	<0.004	<0.004	<0.006	<0.006

02081190 TAR RIVER NEAR BERE A, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos oxon, water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cy-per-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipron-il, water, fltrd, ug/L (62170)
MAR 04...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.004	0.024	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipron-il amide, wat flt ug/L (62169)	Fipron-nil sulfide water, fltrd, ug/L (62167)	Fipron-nil sulfone water, fltrd, ug/L (62168)
MAR 04...	<0.04	0.189	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
Date	Fipron-nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)
MAR 04...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	E.003
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.007	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	E.006
Date	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)
MAR 04...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	M	<0.005	<0.004	0.009	<0.02	<0.07

TAR RIVER BASIN

02081190 TAR RIVER NEAR BERE A, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	---	---	---	10.6	8.0	9.5
2	---	---	---	---	---	---	---	---	---	10.6	9.5	9.9
3	---	---	---	---	---	---	---	---	---	9.5	8.4	9.2
4	---	---	---	---	---	---	---	---	---	8.4	6.1	7.3
5	---	---	---	---	---	---	5.1	0.8	2.9	6.1	5.2	5.7
6	---	---	---	---	---	---	4.3	2.6	3.3	6.0	4.7	5.3
7	---	---	---	---	---	---	2.9	1.7	2.4	5.6	3.4	4.4
8	---	---	---	---	---	---	3.5	2.0	2.8	7.7	4.4	5.7
9	---	---	---	---	---	---	4.2	3.4	3.8	---	---	---
10	---	---	---	---	---	---	4.2	3.6	3.9	---	---	---
11	---	---	---	---	---	---	4.3	4.0	4.2	---	---	---
12	---	---	---	---	---	---	5.5	4.2	4.9	---	---	---
13	---	---	---	---	---	---	5.7	5.4	5.5	---	---	---
14	---	---	---	---	---	---	6.4	5.4	5.9	---	---	---
15	---	---	---	12.2	10.3	11.2	6.5	5.6	6.1	---	---	---
16	---	---	---	12.9	11.9	12.5	7.2	5.5	6.3	---	---	---
17	---	---	---	12.3	10.9	11.7	6.8	5.7	6.3	---	---	---
18	---	---	---	10.9	9.1	9.8	8.1	5.9	6.7	---	---	---
19	---	---	---	9.6	8.1	8.9	8.1	6.9	7.5	---	---	---
20	---	---	---	9.7	7.9	8.9	10.7	8.0	9.5	---	---	---
21	---	---	---	10.5	8.8	9.7	9.0	7.3	8.2	---	---	---
22	---	---	---	---	---	---	9.4	6.4	7.7	---	---	---
23	---	---	---	---	---	---	9.6	6.1	7.5	---	---	---
24	---	---	---	---	---	---	7.6	6.6	7.1	---	---	---
25	---	---	---	---	---	---	6.6	5.8	6.2	---	---	---
26	---	---	---	---	---	---	5.8	4.8	5.3	---	---	---
27	---	---	---	---	---	---	5.1	3.8	4.5	---	---	---
28	---	---	---	---	---	---	4.8	3.4	4.2	---	---	---
29	---	---	---	---	---	---	5.6	3.8	4.8	6.5	3.1	5.0
30	---	---	---	---	---	---	6.8	4.1	5.5	5.8	2.3	3.4
31	---	---	---	---	---	---	8.8	5.2	6.7	3.1	2.2	2.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.7	3.1	3.9	6.3	4.5	5.2	12.3	9.4	10.8	---	---	---
2	5.7	3.9	4.7	9.0	6.3	7.5	15.7	11.6	13.7	---	---	---
3	6.8	4.4	5.7	9.0	7.7	8.5	18.3	13.9	16.0	---	---	---
4	9.4	6.7	7.9	9.2	6.9	8.2	18.6	14.9	16.9	---	---	---
5	8.6	6.4	7.3	11.8	8.8	10.4	18.2	15.9	17.0	---	---	---
6	6.8	5.0	5.8	12.6	11.6	12.2	18.4	14.5	16.5	---	---	---
7	5.4	4.7	5.0	12.5	8.7	10.4	16.0	9.9	12.0	---	---	---
8	5.1	4.2	4.7	10.2	7.2	8.9	9.9	9.6	9.7	---	---	---
9	5.2	3.7	4.4	13.0	9.6	11.2	9.8	8.6	9.1	---	---	---
10	5.5	4.6	5.0	12.6	9.8	11.1	9.3	8.8	8.9	---	---	---
11	6.1	4.1	5.2	9.8	7.8	8.7	9.7	8.6	9.0	---	---	---
12	7.6	4.6	5.8	13.1	6.3	9.6	13.4	9.7	11.4	---	---	---
13	7.2	3.4	5.3	15.0	9.0	12.2	15.5	12.1	13.8	20.9	15.2	17.6
14	6.4	4.1	5.4	13.7	11.6	12.7	16.7	13.2	14.9	20.7	12.8	16.5
15	6.9	5.8	6.3	11.6	10.2	10.6	---	---	---	18.3	14.8	16.6
16	5.8	2.7	4.5	11.2	9.8	10.6	---	---	---	18.7	16.2	17.3
17	2.7	1.4	1.9	12.5	11.2	11.8	---	---	---	16.7	15.1	16.0
18	5.2	2.1	3.5	13.8	12.1	12.9	---	---	---	15.1	13.8	14.4
19	4.8	3.1	4.0	13.4	11.7	12.7	---	---	---	14.7	13.5	14.1
20	6.4	4.8	5.6	11.7	8.6	9.5	---	---	---	17.1	13.7	15.2
21	7.0	6.1	6.6	11.5	8.7	9.9	---	---	---	16.9	14.8	15.8
22	7.7	7.0	7.1	13.6	11.1	12.4	---	---	---	16.3	15.0	15.7
23	9.5	7.7	8.8	14.3	11.6	13.1	---	---	---	15.9	15.4	15.7
24	9.3	7.3	8.3	15.6	12.7	14.1	---	---	---	16.5	15.3	15.9
25	9.2	7.8	8.6	16.9	12.3	14.6	---	---	---	17.6	15.8	16.7
26	8.3	6.2	7.3	18.2	13.6	15.8	---	---	---	18.8	17.2	18.0
27	6.2	4.0	5.2	18.4	14.1	16.1	---	---	---	18.2	16.2	17.2
28	4.7	3.8	4.2	19.1	13.9	16.2	---	---	---	---	---	---
29	---	---	---	19.6	16.6	17.9	---	---	---	---	---	---
30	---	---	---	18.1	10.1	13.9	---	---	---	---	---	---
31	---	---	---	10.7	8.7	9.8	---	---	---	---	---	---
MONTH	9.5	1.4	5.6	19.6	4.5	11.6	---	---	---	---	---	---

02081500 TAR RIVER NEAR TAR RIVER, NC

LOCATION.--Lat 36°11'42", long 78°34'59", Granville County, Hydrologic Unit 03020101, on right bank 90 ft upstream from bridge on State Highway 96, 1.2 mi upstream from Fishing Creek, 2.5 mi east of town of Tar River, and 8 mi south of Oxford.

DRAINAGE AREA.--167 mi².

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

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

GAGE.--Water-stage recorder and concrete control with sharp-crested weir. Datum of gage is 286.34 ft above NAVD of 1988. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges which are poor. Occasional intermittent diversion for irrigation. Maximum discharge for period of record from rating curve extended above 11,500 ft³/s, by logarithmic plotting. Minimum discharge for current water year also occurred Oct. 2, 3, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.45	225	47	339	494	1,170	472	223	170	241	32	119
2	0.43	143	40	645	271	1,420	284	215	173	900	67	54
3	0.43	98	38	414	196	1,080	215	163	138	2,600	91	35
4	0.46	78	36	436	171	407	178	149	137	478	53	28
5	0.47	66	601	262	194	314	158	122	715	232	51	58
6	0.43	404	802	193	160	725	149	119	238	174	49	103
7	0.47	448	672	161	809	839	1,120	123	188	146	188	53
8	0.47	193	386	139	929	358	3,540	110	1,780	117	222	38
9	0.47	129	324	128	363	261	3,850	85	1,870	92	192	32
10	0.58	91	284	115	261	209	3,980	69	665	98	1,300	29
11	2,140	71	384	96	289	171	3,500	88	254	109	574	26
12	7,220	271	882	82	215	154	1,010	149	189	117	231	23
13	453	1,080	861	76	165	143	445	88	172	98	151	22
14	161	410	2,550	70	137	168	299	57	167	117	211	22
15	106	216	696	68	132	188	230	50	145	111	163	22
16	639	154	308	63	167	198	203	110	186	81	110	21
17	531	465	212	63	241	440	189	139	512	70	84	19
18	204	1,120	164	63	201	287	173	128	341	115	60	26
19	111	361	141	59	506	209	170	1,350	416	69	49	1,240
20	70	212	261	57	625	2,430	170	623	299	53	57	379
21	56	159	352	57	419	5,820	165	235	191	46	47	148
22	75	132	207	56	936	875	162	1,280	162	42	40	90
23	155	102	155	55	2,250	397	150	3,580	130	43	36	1,030
24	102	81	224	e53	637	282	129	1,530	100	56	32	628
25	65	71	1,930	e51	320	219	120	583	80	54	28	193
26	51	64	1,270	e51	232	185	142	1,420	68	44	27	120
27	45	59	363	e50	539	162	393	777	59	38	25	80
28	220	52	241	e49	2,310	145	259	341	54	35	23	63
29	824	49	192	51	---	142	173	231	55	33	21	54
30	962	48	159	142	---	827	146	194	52	32	19	44
31	495	---	137	1,280	---	1,820	---	173	---	31	21	---
TOTAL	14689.66	7,052	14,919	5,424	14,169	22,045	22,174	14,504	9,706	6,472	4,254	4,799
MEAN	474	235	481	175	506	711	739	468	324	209	137	160
MAX	7,220	1,120	2,550	1,280	2,310	5,820	3,980	3,580	1,870	2,600	1,300	1,240
MIN	0.43	48	36	49	132	142	120	50	52	31	19	19
CFSM	2.84	1.41	2.88	1.05	3.03	4.26	4.43	2.80	1.94	1.25	0.82	0.96
IN.	3.27	1.57	3.32	1.21	3.16	4.91	4.94	3.23	2.16	1.44	0.95	1.07

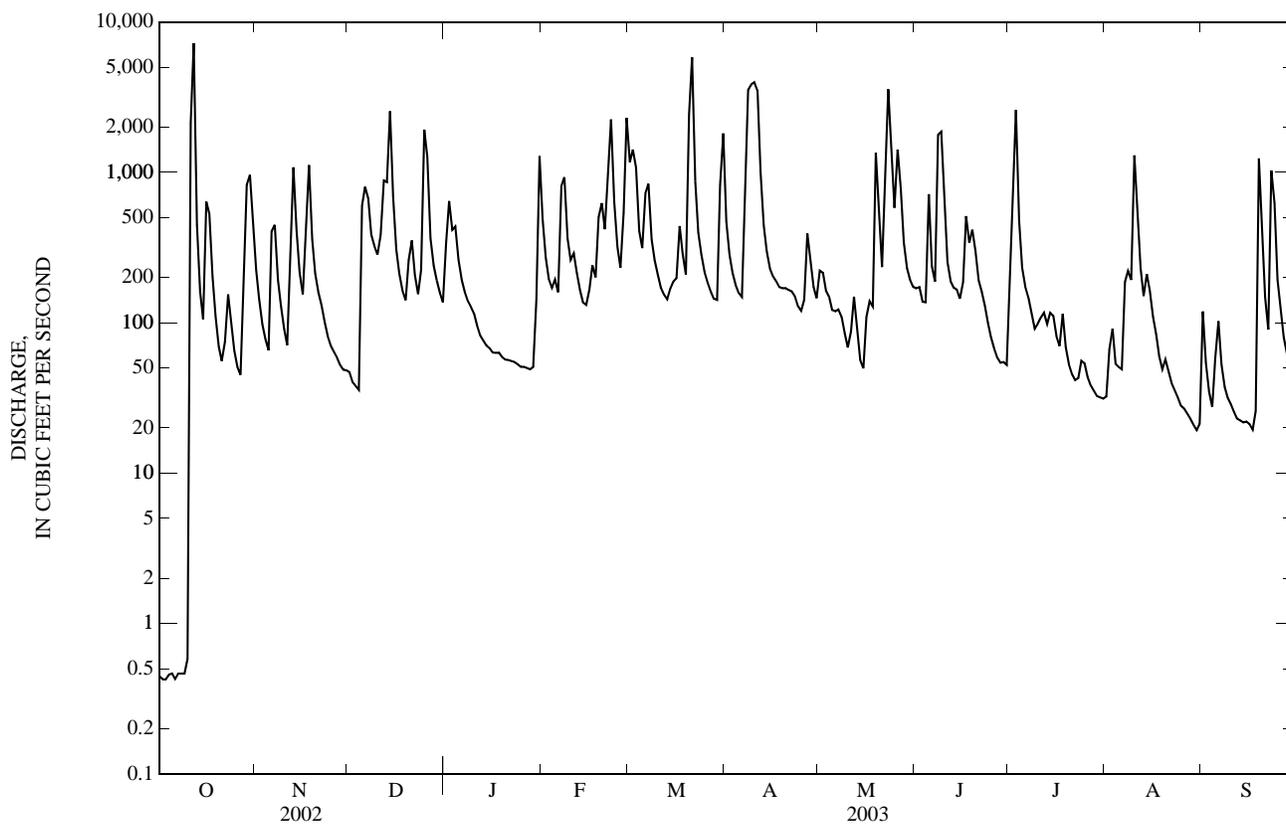
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	70.5	110	148	254	318	342	221	123	79.5	80.1	75.3	84.9
MAX	565	599	558	819	798	1,047	739	475	488	677	542	939
(WY)	(1972)	(1973)	(1973)	(1978)	(1960)	(1998)	(2003)	(1978)	(1982)	(1975)	(1955)	(1999)
MIN	0.41	0.28	4.39	7.04	44.4	61.0	33.1	12.1	2.36	0.92	1.39	0.28
(WY)	(1971)	(1942)	(1942)	(1942)	(2002)	(1981)	(1995)	(2002)	(2002)	(1966)	(1976)	(1968)

02081500 TAR RIVER NEAR TAR RIVER, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	46,117.80		140,207.66			
ANNUAL MEAN	126		384		158	
HIGHEST ANNUAL MEAN					384 2003	
LOWEST ANNUAL MEAN					26.6 2002	
HIGHEST DAILY MEAN	7,220	Oct 12	7,220	Oct 12	10,800	Sep 7, 1996
LOWEST DAILY MEAN	0.19	Aug 12	0.43	Oct 2	0.02	Aug 13, 1977
ANNUAL SEVEN-DAY MINIMUM	0.26	Aug 9	0.45	Oct 1	0.07	Aug 8, 1977
MAXIMUM PEAK FLOW			10,800	Oct 12	19,900*	Sep 6, 1996
MAXIMUM PEAK STAGE			17.16	Oct 12	24.06	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.37*	Oct 1	0.00	Aug 14, 1977
ANNUAL RUNOFF (CFSM)	0.76		2.30		0.95	
ANNUAL RUNOFF (INCHES)	10.27		31.23		12.86	
10 PERCENT EXCEEDS	284		912		328	
50 PERCENT EXCEEDS	21		161		44	
90 PERCENT EXCEEDS	0.67		36		3.4	

e Estimated.
 * See REMARKS.



02081510 FOUNDRY BRANCH AT MOUTH NEAR OXFORD, NC

LOCATION.--Lat 36°16'40", long 78°35'23", Granville County, Hydrologic Unit 03020101, at mouth, 2.5 miles south of Oxford.

DRAINAGE AREA.--4.85 mi².

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--May to November 2003 (discontinued).

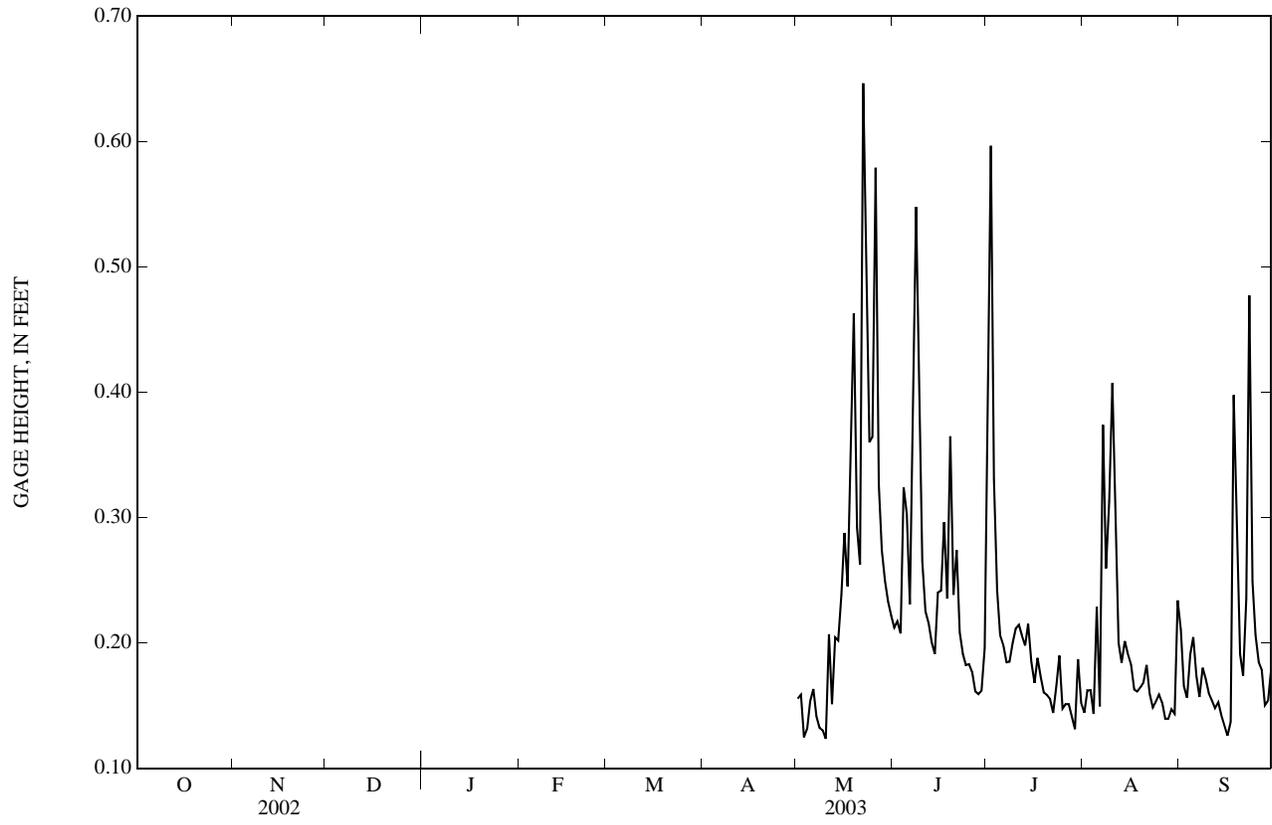
GAGE.--Water-stage recorder. Elevation of gage is 370 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 1.40 m, July 2, 2003; minimum gage height recorded, .08 m, May 3, 12, 2003.

GAGE HEIGHT, ABOVE DATUM, METERS
MAY TO SEPTEMBER 2003
DAILY MEAN VALUES

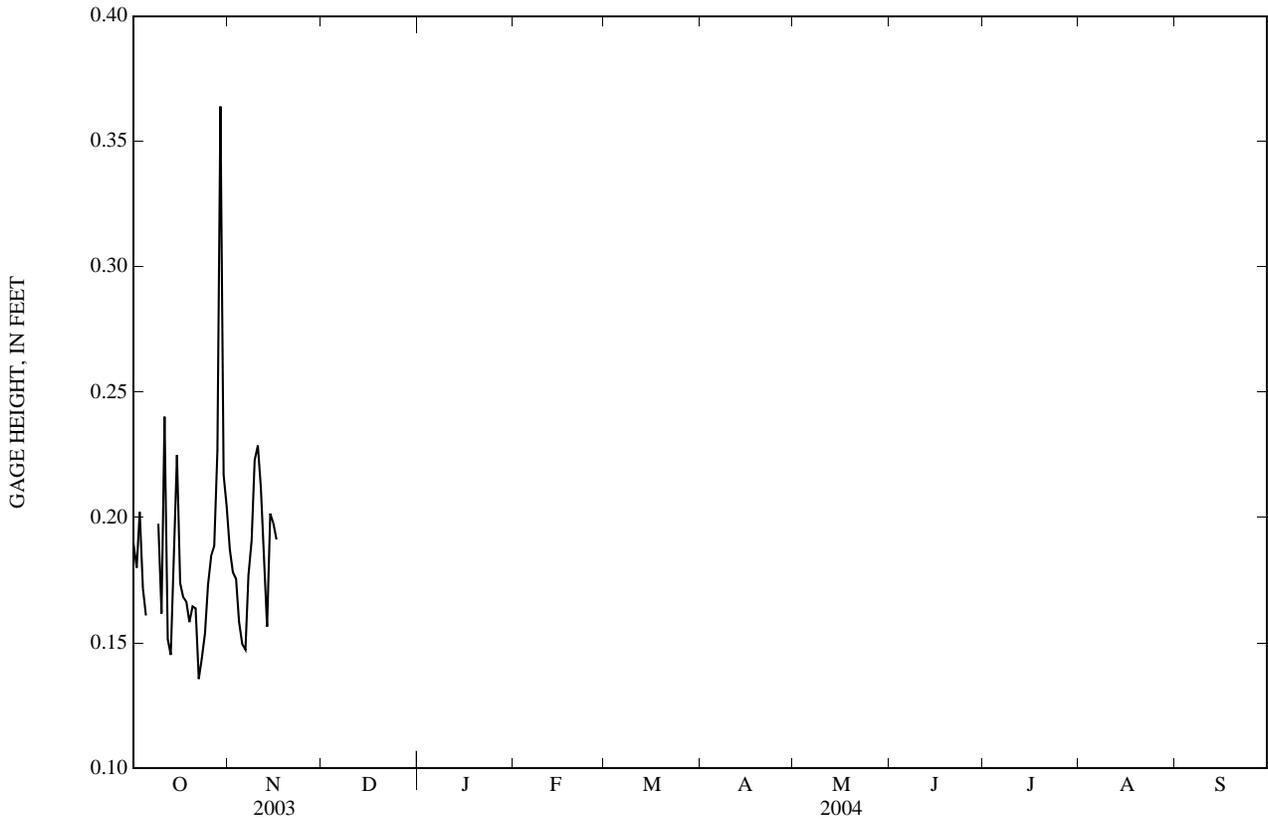
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	0.16	0.21	0.30	0.14	0.21
2	---	---	---	---	---	---	---	0.16	0.22	0.60	0.16	0.17
3	---	---	---	---	---	---	---	0.12	0.21	0.33	0.16	0.16
4	---	---	---	---	---	---	---	0.13	0.32	0.24	0.14	0.19
5	---	---	---	---	---	---	---	0.15	0.30	0.21	0.23	0.20
6	---	---	---	---	---	---	---	0.16	0.23	0.20	0.15	0.17
7	---	---	---	---	---	---	---	0.14	0.36	0.18	0.37	0.16
8	---	---	---	---	---	---	---	0.13	0.55	0.18	0.26	0.18
9	---	---	---	---	---	---	---	0.13	0.41	0.20	0.31	0.17
10	---	---	---	---	---	---	---	0.12	0.27	0.21	0.41	0.16
11	---	---	---	---	---	---	---	0.21	0.23	0.21	0.33	0.15
12	---	---	---	---	---	---	---	0.15	0.22	0.21	0.20	0.15
13	---	---	---	---	---	---	---	0.20	0.20	0.20	0.18	0.15
14	---	---	---	---	---	---	---	0.20	0.19	0.22	0.20	0.14
15	---	---	---	---	---	---	---	0.24	0.24	0.18	0.19	0.13
16	---	---	---	---	---	---	---	0.29	0.24	0.17	0.18	0.13
17	---	---	---	---	---	---	---	0.25	0.30	0.19	0.16	0.14
18	---	---	---	---	---	---	---	0.37	0.24	0.17	0.16	0.40
19	---	---	---	---	---	---	---	0.46	0.36	0.16	0.16	0.28
20	---	---	---	---	---	---	---	0.29	0.24	0.16	0.17	0.19
21	---	---	---	---	---	---	---	0.26	0.27	0.16	0.18	0.17
22	---	---	---	---	---	---	---	0.65	0.21	0.14	0.16	0.24
23	---	---	---	---	---	---	---	0.55	0.19	0.17	0.15	0.48
24	---	---	---	---	---	---	---	0.36	0.18	0.19	0.15	0.25
25	---	---	---	---	---	---	---	0.36	0.18	0.15	0.16	0.21
26	---	---	---	---	---	---	---	0.58	0.18	0.15	0.15	0.18
27	---	---	---	---	---	---	---	0.33	0.16	0.15	0.14	0.18
28	---	---	---	---	---	---	---	0.27	0.16	0.14	0.14	0.15
29	---	---	---	---	---	---	---	0.25	0.16	0.13	0.15	0.15
30	---	---	---	---	---	---	---	0.23	0.20	0.19	0.14	0.18
31	---	---	---	---	---	---	---	0.22	---	0.15	0.23	---
MEAN	---	---	---	---	---	---	---	0.26	0.25	0.20	0.19	0.19
MAX	---	---	---	---	---	---	---	0.65	0.55	0.60	0.41	0.48
MIN	---	---	---	---	---	---	---	0.12	0.16	0.13	0.14	0.13

02081510 FOUNDRY BRANCH AT MOUTH NEAR OXFORD, NC—Continued



GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.19	0.19	---	---	---	---	---	---	---	---	---	---
2	0.18	0.18	---	---	---	---	---	---	---	---	---	---
3	0.20	0.18	---	---	---	---	---	---	---	---	---	---
4	0.17	0.16	---	---	---	---	---	---	---	---	---	---
5	0.16	0.15	---	---	---	---	---	---	---	---	---	---
6	---	0.15	---	---	---	---	---	---	---	---	---	---
7	---	0.18	---	---	---	---	---	---	---	---	---	---
8	---	0.19	---	---	---	---	---	---	---	---	---	---
9	0.20	0.22	---	---	---	---	---	---	---	---	---	---
10	0.16	0.23	---	---	---	---	---	---	---	---	---	---
11	0.24	0.21	---	---	---	---	---	---	---	---	---	---
12	0.15	0.19	---	---	---	---	---	---	---	---	---	---
13	0.15	0.16	---	---	---	---	---	---	---	---	---	---
14	0.18	0.20	---	---	---	---	---	---	---	---	---	---
15	0.22	0.20	---	---	---	---	---	---	---	---	---	---
16	0.17	0.19	---	---	---	---	---	---	---	---	---	---
17	0.17	---	---	---	---	---	---	---	---	---	---	---
18	0.17	---	---	---	---	---	---	---	---	---	---	---
19	0.16	---	---	---	---	---	---	---	---	---	---	---
20	0.16	---	---	---	---	---	---	---	---	---	---	---
21	0.16	---	---	---	---	---	---	---	---	---	---	---
22	0.14	---	---	---	---	---	---	---	---	---	---	---
23	0.14	---	---	---	---	---	---	---	---	---	---	---
24	0.15	---	---	---	---	---	---	---	---	---	---	---
25	0.17	---	---	---	---	---	---	---	---	---	---	---
26	0.18	---	---	---	---	---	---	---	---	---	---	---
27	0.19	---	---	---	---	---	---	---	---	---	---	---
28	0.23	---	---	---	---	---	---	---	---	---	---	---
29	0.36	---	---	---	---	---	---	---	---	---	---	---
30	0.22	---	---	---	---	---	---	---	---	---	---	---
31	0.20	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



02081510 FOUNDRY BRANCH AT MOUTH NEAR OXFORD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd, 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd, 0.7u GF ug/L (82676)
APR 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<0.03	<0.006	E.004	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.08	<0.005	<0.004
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
APR 29...	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--
16...	0.030	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	8
SEP 22...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value

Medium codes used in this table:
 9 - Surface water
 D - Plant tissue

TAR RIVER BASIN

02081510 FOUNDRY BRANCH AT MOUTH NEAR OXFORD, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
MAY TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	---	---	---	---	---	---	---	---	---	20.1	15.7	17.7
2	---	---	---	---	---	---	---	---	---	20.6	15.9	17.8
3	---	---	---	---	---	---	---	---	---	20.1	16.7	17.7
4	---	---	---	---	---	---	---	---	---	17.7	14.2	15.3
5	---	---	---	---	---	---	---	---	---	15.8	12.2	13.3
6	---	---	---	---	---	---	---	---	---	15.9	12.7	13.7
7	---	---	---	---	---	---	---	---	---	19.4	14.3	15.9
8	---	---	---	---	---	---	---	---	---	21.7	16.7	18.4
9	---	---	---	---	---	---	---	---	---	22.1	17.2	19.1
10	---	---	---	---	---	---	---	---	---	22.4	17.7	19.7
11	---	---	---	---	---	---	---	---	---	22.2	18.6	19.9
12	---	---	---	---	---	---	---	---	---	22.4	17.1	19.7
13	---	---	---	---	---	---	---	---	---	20.9	15.2	17.6
14	---	---	---	---	---	---	---	---	---	20.7	12.8	16.5
15	---	---	---	---	---	---	---	---	---	18.3	14.8	16.6
16	---	---	---	---	---	---	---	---	---	18.7	16.2	17.3
17	---	---	---	---	---	---	---	---	---	16.7	15.1	16.0
18	---	---	---	---	---	---	---	---	---	15.1	13.8	14.4
19	---	---	---	---	---	---	---	---	---	14.7	13.5	14.1
20	---	---	---	---	---	---	---	---	---	17.1	13.6	15.2
21	---	---	---	---	---	---	---	---	---	16.9	14.8	15.7
22	---	---	---	---	---	---	---	---	---	16.3	15.0	15.7
23	---	---	---	---	---	---	---	---	---	15.9	15.4	15.7
24	---	---	---	---	---	---	---	---	---	16.5	15.3	15.9
25	---	---	---	---	---	---	---	---	---	17.6	15.8	16.7
26	---	---	---	---	---	---	---	---	---	18.8	17.2	18.0
27	---	---	---	---	---	---	---	---	---	18.2	16.2	17.2
28	---	---	---	---	---	---	---	---	---	18.2	15.1	16.4
29	---	---	---	---	---	---	---	---	---	18.6	15.6	16.5
30	---	---	---	---	---	---	---	---	---	19.4	14.8	16.6
31	---	---	---	---	---	---	---	---	---	19.4	15.5	16.8
MONTH	---	---	---	---	---	---	---	---	---	22.4	12.2	16.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	JUNE		
										JULY		
1	20.4	15.5	17.2	24.2	22.4	23.2	25.7	23.2	24.3	27.1	23.8	25.1
2	19.7	13.7	16.2	22.4	21.3	21.9	24.6	22.9	23.9	27.0	23.3	25.1
3	18.3	14.4	16.2	22.2	21.3	21.8	26.3	22.8	24.4	26.9	23.2	25.1
4	21.8	16.1	18.5	23.9	20.4	21.9	25.6	23.7	24.8	26.0	23.4	24.4
5	21.6	19.6	20.6	26.4	21.6	23.4	26.0	22.9	24.2	25.4	21.9	23.4
6	21.8	18.0	19.6	27.1	22.6	24.3	25.8	21.6	23.7	21.9	18.9	20.3
7	23.0	19.1	20.3	26.4	23.0	24.3	24.6	22.6	23.4	21.9	17.9	20.3
8	22.5	20.7	21.4	28.2	22.5	24.9	24.0	22.6	23.2	20.8	19.6	20.0
9	22.2	20.4	21.4	28.5	23.3	25.1	25.5	22.7	23.6	21.8	19.0	20.1
10	22.9	19.6	21.1	28.3	23.9	25.5	23.8	22.4	23.0	21.1	18.5	19.4
11	23.5	19.9	21.4	27.9	23.4	24.9	24.2	22.6	23.3	22.0	16.4	19.1
12	24.5	20.7	22.1	27.7	23.3	25.0	25.5	22.6	23.6	20.0	18.7	19.2
13	24.4	21.1	22.2	25.1	22.6	23.5	25.6	22.9	23.9	19.9	18.5	19.2
14	25.5	21.2	22.8	24.5	21.8	23.0	25.5	22.9	24.0	22.7	19.7	20.9
15	25.0	21.6	23.0	26.4	21.9	23.8	27.1	22.7	24.5	23.3	20.0	21.5
16	23.7	21.2	22.5	27.8	22.3	24.5	26.2	23.1	24.3	23.7	18.4	21.3
17	21.2	19.9	20.5	27.1	22.7	24.5	26.8	23.1	24.6	22.6	16.1	19.2
18	21.8	19.6	20.5	27.4	22.0	24.4	26.6	23.0	24.6	19.7	18.3	19.1
19	23.1	20.6	22.2	25.6	22.8	24.2	25.0	22.9	23.9	21.5	19.0	20.0
20	22.8	20.5	21.6	27.0	21.9	24.3	25.6	22.4	24.0	23.4	18.9	20.7
21	21.6	19.1	20.4	27.2	22.6	25.0	26.6	21.8	24.2	23.5	18.8	20.9
22	22.5	17.6	19.6	27.3	24.0	25.6	26.2	22.7	24.6	22.4	20.4	21.2
23	24.4	18.0	20.5	24.9	22.9	23.5	26.1	22.4	24.5	22.4	21.0	21.9
24	25.2	18.4	21.2	25.9	22.4	23.7	25.0	22.1	23.7	21.9	19.1	20.2
25	26.0	19.2	22.0	25.7	20.7	23.2	25.6	20.3	23.3	22.4	18.0	19.8
26	26.7	19.8	22.7	26.0	21.3	23.8	26.6	21.9	24.4	22.6	18.1	20.0
27	26.7	21.0	23.4	27.3	22.6	25.1	27.2	22.6	25.2	23.0	17.7	20.2
28	23.6	21.3	22.4	27.4	23.9	25.8	28.1	23.8	26.0	21.8	19.3	20.4
29	26.1	20.4	22.9	26.0	24.0	24.8	28.5	24.4	26.4	19.3	16.3	17.7
30	26.5	21.0	23.4	24.1	22.7	23.1	28.7	24.6	26.6	18.0	13.2	15.8
31	---	---	---	24.0	22.0	22.9	26.2	24.3	25.1	---	---	---
MONTH	26.7	13.7	21.0	28.5	20.4	24.0	28.7	20.3	24.3	27.1	13.2	20.7

LOCATION.--Lat 36°16'10", long 78°35'28", Granville County, Hydrologic Unit 03020101, on right bank on downstream side of bridge at Secondary Road 1607, and 2.5 miles south of Oxford.

DRAINAGE AREA.--6.65 mi².

GAGE-HEIGHT RECORDS

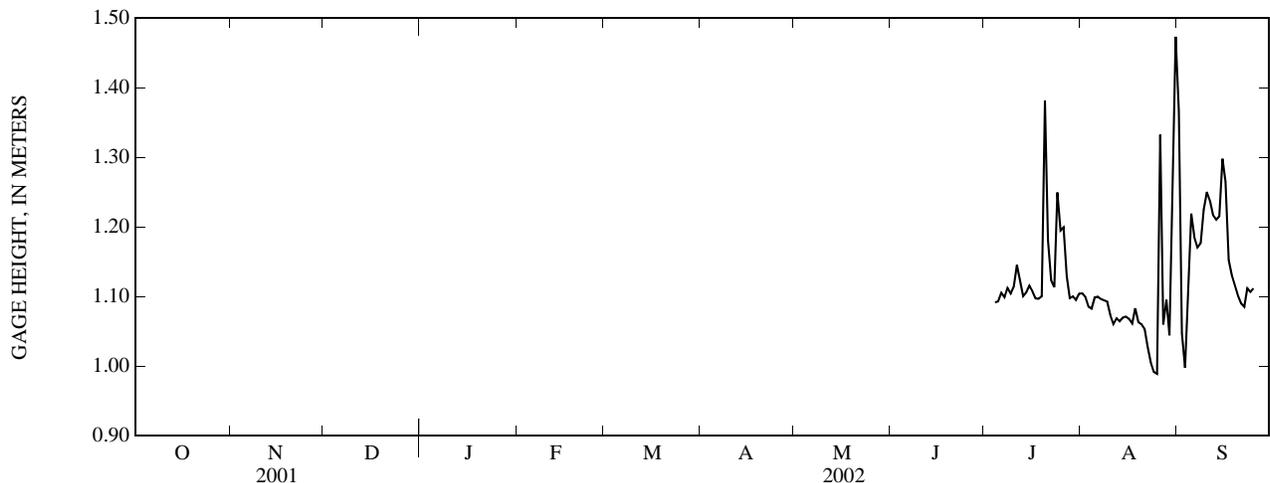
PERIOD OF RECORD.--July 2002 to April 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 365 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.77 m, July 20, 2002; minimum gage height recorded, 0.95 m, Sept. 4, 2002.

GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

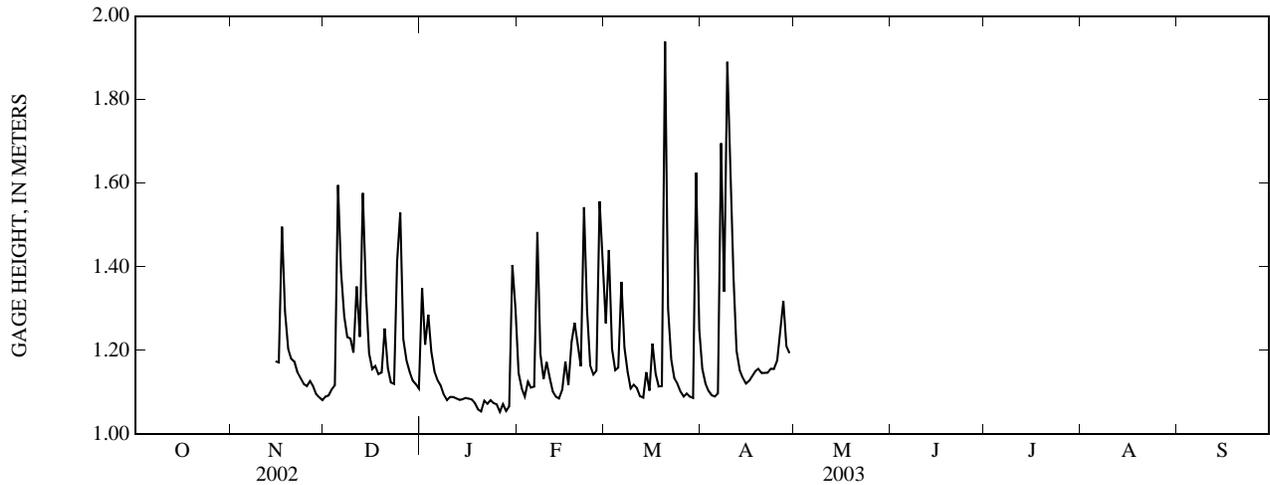
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	1.10	1.37
2	---	---	---	---	---	---	---	---	---	---	1.10	1.05
3	---	---	---	---	---	---	---	---	---	---	1.09	1.00
4	---	---	---	---	---	---	---	---	---	1.09	1.08	1.12
5	---	---	---	---	---	---	---	---	---	1.09	1.10	1.22
6	---	---	---	---	---	---	---	---	---	1.11	1.10	1.18
7	---	---	---	---	---	---	---	---	---	1.10	1.10	1.17
8	---	---	---	---	---	---	---	---	---	1.11	1.09	1.18
9	---	---	---	---	---	---	---	---	---	1.10	1.09	1.22
10	---	---	---	---	---	---	---	---	---	1.11	1.07	1.25
11	---	---	---	---	---	---	---	---	---	1.15	1.06	1.24
12	---	---	---	---	---	---	---	---	---	1.12	1.07	1.22
13	---	---	---	---	---	---	---	---	---	1.10	1.06	1.21
14	---	---	---	---	---	---	---	---	---	1.11	1.07	1.22
15	---	---	---	---	---	---	---	---	---	1.12	1.07	1.30
16	---	---	---	---	---	---	---	---	---	1.11	1.07	1.26
17	---	---	---	---	---	---	---	---	---	1.10	1.06	1.15
18	---	---	---	---	---	---	---	---	---	1.10	1.08	1.13
19	---	---	---	---	---	---	---	---	---	1.10	1.06	1.12
20	---	---	---	---	---	---	---	---	---	1.38	1.06	1.10
21	---	---	---	---	---	---	---	---	---	1.18	1.05	1.09
22	---	---	---	---	---	---	---	---	---	1.12	1.03	1.09
23	---	---	---	---	---	---	---	---	---	1.11	1.01	1.11
24	---	---	---	---	---	---	---	---	---	1.25	0.99	1.11
25	---	---	---	---	---	---	---	---	---	1.19	0.99	1.11
26	---	---	---	---	---	---	---	---	---	1.20	1.33	---
27	---	---	---	---	---	---	---	---	---	1.13	1.06	---
28	---	---	---	---	---	---	---	---	---	1.10	1.10	---
29	---	---	---	---	---	---	---	---	---	1.10	1.04	---
30	---	---	---	---	---	---	---	---	---	1.10	1.22	---
31	---	---	---	---	---	---	---	---	---	1.10	1.47	---
MEAN	---	---	---	---	---	---	---	---	---	---	1.09	---
MAX	---	---	---	---	---	---	---	---	---	---	1.47	---
MIN	---	---	---	---	---	---	---	---	---	---	0.99	---



02081511 FISHING CREEK NEAR OXFORD, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER 2002 TO APRIL 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1.09	1.35	1.15	1.26	1.16	---	---	---	---	---
2	---	---	1.09	1.21	1.11	1.44	1.12	---	---	---	---	---
3	---	---	1.11	1.29	1.09	1.20	1.10	---	---	---	---	---
4	---	---	1.12	1.20	1.13	1.15	1.09	---	---	---	---	---
5	---	---	1.60	1.15	1.11	1.16	1.09	---	---	---	---	---
6	---	---	1.39	1.13	1.11	1.36	1.10	---	---	---	---	---
7	---	---	1.28	1.12	1.48	1.21	1.70	---	---	---	---	---
8	---	---	1.23	1.09	1.19	1.15	1.34	---	---	---	---	---
9	---	---	1.23	1.08	1.13	1.11	1.89	---	---	---	---	---
10	---	---	1.19	1.09	1.17	1.12	1.70	---	---	---	---	---
11	---	---	1.35	1.09	1.13	1.11	1.38	---	---	---	---	---
12	---	---	1.23	1.09	1.10	1.09	1.20	---	---	---	---	---
13	---	---	1.58	1.08	1.09	1.09	1.15	---	---	---	---	---
14	---	---	1.33	1.08	1.09	1.15	1.13	---	---	---	---	---
15	---	1.17	1.19	1.09	1.11	1.10	1.12	---	---	---	---	---
16	---	1.17	1.16	1.08	1.17	1.22	1.13	---	---	---	---	---
17	---	1.50	1.16	1.08	1.12	1.14	1.14	---	---	---	---	---
18	---	1.29	1.14	1.07	1.22	1.11	1.15	---	---	---	---	---
19	---	1.20	1.15	1.06	1.27	1.11	1.16	---	---	---	---	---
20	---	1.18	1.25	1.05	1.22	1.94	1.15	---	---	---	---	---
21	---	1.17	1.16	1.08	1.16	1.30	1.15	---	---	---	---	---
22	---	1.15	1.12	1.07	1.54	1.18	1.15	---	---	---	---	---
23	---	1.13	1.12	1.08	1.30	1.13	1.16	---	---	---	---	---
24	---	1.12	1.41	1.07	1.16	1.12	1.16	---	---	---	---	---
25	---	1.11	1.53	1.07	1.14	1.10	1.18	---	---	---	---	---
26	---	1.13	1.23	1.05	1.15	1.09	1.24	---	---	---	---	---
27	---	1.12	1.18	1.07	1.56	1.10	1.32	---	---	---	---	---
28	---	1.10	1.15	1.06	1.43	1.09	1.21	---	---	---	---	---
29	---	1.09	1.13	1.07	---	1.09	1.19	---	---	---	---	---
30	---	1.08	1.12	1.40	---	1.63	---	---	---	---	---	---
31	---	---	1.11	1.30	---	1.25	---	---	---	---	---	---
MEAN	---	---	1.23	1.12	1.20	1.20	---	---	---	---	---	---
MAX	---	---	1.60	1.40	1.56	1.94	---	---	---	---	---	---
MIN	---	---	1.09	1.05	1.09	1.09	---	---	---	---	---	---



02081511 FISHING CREEK NEAR OXFORD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Dimethoate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Ipro-dione, water, fltrd, ug/L (61593)
MAR 04...	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	E.021	<0.002	<0.003	<1
APR 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Isofen-phos, water, fltrd, ug/L (61594)	Malaxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metaxyl, water, fltrd, ug/L (61596)	Methialthion water, fltrd, ug/L (61598)	Methyl paraxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd, 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Myclobutanil water, fltrd, ug/L (61599)	Pendimethalin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)
MAR 04...	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013	<0.007	<0.008	<0.022	<0.10	<0.011
APR 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd, 0.7u GF ug/L (82676)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Terbutylazine, water, fltrd, ug/L (04022)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Dichlorvos, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)
MAR 04...	<0.06	<0.008	E.01	<0.005	<0.004	0.008	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	87
APR 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Suspended sedi-ment concentration mg/L (80154)
MAR 04...	14
APR 29...	--
SEP 22...	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value

Medium codes used in this table:
 9 - Surface water

TAR RIVER BASIN

02081511 FISHING CREEK NEAR OXFORD, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	27.4	24.0	25.8	21.6	20.8	21.2
2	---	---	---	---	---	---	27.0	23.7	25.4	22.1	20.9	21.5
3	---	---	---	---	---	---	27.8	22.7	25.0	23.4	20.5	22.0
4	---	---	---	26.8	23.1	24.8	27.8	22.2	24.7	24.9	21.9	23.6
5	---	---	---	26.5	22.6	24.5	26.5	22.4	24.7	25.2	22.6	24.1
6	---	---	---	27.0	22.4	24.3	27.0	23.3	24.8	24.2	21.2	23.0
7	---	---	---	25.6	19.9	22.8	25.1	20.8	23.2	23.9	20.2	22.3
8	---	---	---	24.6	20.3	22.6	24.6	19.1	22.2	23.5	19.9	21.8
9	---	---	---	27.3	21.4	23.3	24.8	19.0	22.0	23.5	20.8	22.3
10	---	---	---	26.5	23.3	24.4	24.9	18.4	21.7	24.1	21.9	23.0
11	---	---	---	24.5	22.6	23.7	25.7	19.1	22.2	24.6	21.6	23.2
12	---	---	---	23.8	20.1	22.1	25.1	20.8	23.1	23.3	19.1	21.7
13	---	---	---	24.0	19.9	22.1	26.5	22.3	24.3	22.4	17.5	20.7
14	---	---	---	24.3	22.2	23.0	26.5	22.1	24.4	22.6	20.1	21.7
15	---	---	---	24.8	22.4	23.5	26.7	24.3	25.3	22.7	20.8	22.0
16	---	---	---	26.0	22.1	24.1	27.3	24.4	25.7	23.8	22.2	22.9
17	---	---	---	27.0	22.5	24.5	27.6	24.4	25.8	24.4	21.8	23.2
18	---	---	---	26.3	22.3	24.5	27.3	24.2	25.5	24.0	21.8	23.2
19	---	---	---	27.4	23.2	25.2	27.3	23.3	25.4	23.7	22.2	23.1
20	---	---	---	25.9	20.6	23.6	27.4	23.7	25.7	24.0	20.7	22.7
21	---	---	---	24.8	21.7	23.2	27.4	24.2	25.8	24.3	20.4	22.6
22	---	---	---	25.8	22.6	24.3	27.5	24.0	25.8	24.7	20.9	22.8
23	---	---	---	26.1	23.3	24.7	28.5	24.1	26.3	23.4	22.0	22.6
24	---	---	---	26.3	23.8	24.7	28.1	24.2	25.9	22.7	19.8	21.5
25	---	---	---	25.2	23.9	24.5	27.4	22.7	25.2	22.1	19.5	21.1
26	---	---	---	24.8	23.6	24.2	25.4	22.2	23.6	---	---	---
27	---	---	---	26.3	23.7	24.8	23.7	22.7	23.3	---	---	---
28	---	---	---	27.3	23.2	25.2	23.2	22.2	22.5	---	---	---
29	---	---	---	27.7	24.5	26.1	22.9	21.5	22.4	---	---	---
30	---	---	---	28.2	24.6	26.4	22.4	21.0	21.6	---	---	---
31	---	---	---	27.5	24.7	26.1	21.4	20.8	21.1	---	---	---
MONTH	---	---	---	---	---	---	28.5	18.4	24.2	---	---	---

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO MAY 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.4	3.1	5.5	11.6	9.1	10.6
2	---	---	---	---	---	---	7.6	0.9	5.1	10.6	9.2	9.9
3	---	---	---	---	---	---	8.7	3.4	6.1	10.0	8.6	9.3
4	---	---	---	---	---	---	6.1	2.4	4.4	8.6	6.4	7.5
5	---	---	---	---	---	---	4.4	0.6	2.7	7.1	4.9	6.0
6	---	---	---	---	---	---	5.1	3.9	4.3	7.6	5.6	6.4
7	---	---	---	---	---	---	5.3	2.9	4.1	6.9	4.1	5.5
8	---	---	---	---	---	---	6.0	3.3	4.7	8.0	4.9	6.5
9	---	---	---	---	---	---	6.4	5.1	5.7	10.3	6.2	8.1
10	---	---	---	---	---	---	6.3	4.9	5.7	10.2	7.0	8.3
11	---	---	---	---	---	---	6.2	4.2	5.3	8.3	4.0	6.1
12	---	---	---	---	---	---	8.2	5.9	7.0	6.5	2.3	4.2
13	---	---	---	---	---	---	7.4	5.3	6.4	6.6	1.6	4.1
14	---	---	---	---	---	---	8.0	6.2	7.2	7.0	2.7	5.0
15	---	---	---	12.8	9.9	11.5	7.8	5.6	6.7	7.2	3.3	5.2
16	---	---	---	13.4	12.0	12.7	8.2	5.5	6.8	5.7	2.1	4.1
17	---	---	---	12.6	11.0	11.9	7.7	5.9	7.0	6.1	2.8	4.1
18	---	---	---	11.3	9.6	10.4	8.6	6.2	7.5	5.0	0.0	2.2
19	---	---	---	11.2	8.4	9.8	8.9	7.3	8.1	4.8	0.0	1.9
20	---	---	---	11.7	8.5	10.2	11.8	8.9	10.5	7.3	1.0	3.6
21	---	---	---	11.7	9.6	10.8	9.8	7.4	8.5	4.9	2.5	3.8
22	---	---	---	12.1	9.9	11.1	9.3	5.8	7.5	6.5	0.9	3.7
23	---	---	---	11.2	7.3	9.2	9.1	6.1	7.6	4.2	0.9	2.3
24	---	---	---	11.6	6.0	8.7	8.0	6.5	7.0	4.3	0.0	1.9
25	---	---	---	11.9	6.8	9.4	6.8	5.4	6.2	5.3	0.0	2.2
26	---	---	---	11.9	7.4	9.9	6.8	4.9	5.8	5.5	0.8	2.6
27	---	---	---	10.7	7.2	9.2	6.4	4.3	5.3	4.8	0.4	2.4
28	---	---	---	9.0	1.8	5.6	6.3	3.9	5.1	5.4	0.0	2.5
29	---	---	---	8.8	1.1	5.3	7.5	4.5	5.8	6.1	3.4	4.6
30	---	---	---	10.3	5.9	7.9	8.1	4.7	6.3	4.7	2.7	3.7
31	---	---	---	---	---	---	9.6	6.5	7.9	4.7	2.9	4.0
MONTH	---	---	---	---	---	---	11.8	0.6	6.3	11.6	0.0	4.9

02081511 FISHING CREEK NEAR OXFORD, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO MAY 2003

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	4.5	5.4	7.8	5.6	6.7	13.3	9.0	11.0	20.1	15.7	17.7
2	7.2	4.1	5.6	9.7	6.9	8.2	17.0	11.1	13.8	20.6	15.9	17.9
3	8.7	4.6	6.7	10.0	7.1	8.5	19.7	12.4	15.4	18.3	16.0	17.3
4	10.4	8.0	9.1	10.2	6.4	8.4	18.6	13.7	16.0	16.0	14.1	14.9
5	---	---	---	12.7	9.3	10.9	18.3	15.0	16.3	14.1	12.2	12.8
6	7.9	5.3	6.4	12.6	11.3	11.9	19.5	12.6	15.5	15.9	12.7	14.3
7	6.1	3.7	5.0	11.6	8.2	9.4	14.2	9.6	11.1	19.4	14.3	16.5
8	7.0	4.6	5.6	11.6	6.5	9.0	10.9	9.9	10.6	21.7	16.7	18.7
9	7.2	3.9	5.2	14.3	9.2	11.3	10.3	8.4	9.5	22.1	17.2	19.2
10	6.1	5.2	5.7	13.3	8.4	10.4	10.0	8.7	9.2	22.4	17.7	19.7
11	8.2	4.4	6.2	10.6	6.5	8.2	10.5	9.2	9.8	20.8	18.6	19.7
12	9.6	5.2	6.9	14.3	5.6	9.4	15.0	10.1	12.2	---	---	---
13	9.4	3.5	6.2	16.0	8.9	12.0	16.2	11.2	13.6	---	---	---
14	7.8	4.4	6.4	14.6	10.5	12.7	18.1	11.5	14.1	---	---	---
15	8.2	6.9	7.4	10.5	8.8	9.7	17.8	12.6	15.1	---	---	---
16	6.9	2.4	4.8	11.4	9.3	10.3	19.3	13.7	16.0	---	---	---
17	3.4	1.2	2.6	12.9	11.4	12.1	18.6	13.7	15.7	---	---	---
18	7.0	3.0	3.9	14.8	12.3	13.4	14.0	12.1	12.7	---	---	---
19	6.4	2.9	4.5	13.7	11.6	12.7	12.8	11.2	12.0	---	---	---
20	8.1	5.2	6.7	11.7	8.2	9.5	15.4	11.0	12.8	---	---	---
21	8.1	6.6	7.5	12.3	9.7	10.9	14.8	11.2	13.1	---	---	---
22	8.4	7.0	7.5	14.4	10.9	12.5	17.8	13.5	15.1	---	---	---
23	10.3	8.0	9.2	15.3	10.5	12.9	18.6	10.6	13.9	---	---	---
24	10.2	6.3	8.3	16.4	11.7	13.6	17.5	9.6	13.2	---	---	---
25	10.1	7.8	8.9	17.0	10.8	13.6	14.3	12.0	13.2	---	---	---
26	8.4	6.0	7.4	18.3	12.5	14.9	16.4	13.6	14.7	---	---	---
27	6.0	3.5	4.6	18.3	13.0	15.0	17.1	14.0	15.4	---	---	---
28	5.8	4.0	5.1	18.3	12.3	14.9	18.2	13.2	15.5	---	---	---
29	---	---	---	19.6	15.4	17.0	19.3	14.2	16.4	---	---	---
30	---	---	---	16.8	10.4	12.7	19.8	14.5	16.6	---	---	---
31	---	---	---	12.0	8.9	10.5	---	---	---	---	---	---
MONTH	---	---	---	19.6	5.6	11.4	19.8	8.4	13.7	---	---	---

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

LOCATION.--Lat 36°05'35", long 78°17'47", Franklin County, Hydrologic Unit 03020101, on left bank 0.1 mi downstream of bridge on U.S. Highway 401 (Bickett Boulevard) at Louisburg, and 0.2 mi upstream from Fox Creek.

DRAINAGE AREA.--427 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 175.75 ft above NAVD of 1988. 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 telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for current water year also occurred Oct. 10.

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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	680	156	611	1,790	3,840	2,320	317	385	252	116	200
2	24	449	148	1,540	697	3,080	764	417	363	537	163	219
3	23	328	139	1,070	495	2,460	573	354	324	1,840	160	130
4	22	261	136	952	425	1,470	492	304	297	2,830	158	120
5	22	233	418	716	420	759	448	286	738	731	141	176
6	21	420	1,800	536	393	967	424	308	907	362	153	164
7	20	1,020	1,620	456	771	1,920	607	307	456	275	141	158
8	18	576	1,040	398	1,920	1,140	2,660	281	1,100	232	443	117
9	17	389	722	367	1,110	692	4,810	258	2,750	198	837	113
10	18	299	638	335	604	564	6,370	249	3,320	180	798	105
11	261	255	609	306	601	481	7,090	276	1,170	210	1,540	89
12	e3,250	316	1,250	281	533	434	5,660	288	477	203	583	79
13	7,150	1,470	1,240	264	430	402	3,280	266	391	202	331	76
14	e3,000	1,580	2,420	259	361	398	1,000	218	346	572	351	77
15	e600	649	3,630	250	343	427	707	196	314	426	440	79
16	795	474	2,160	240	364	444	602	225	496	245	270	75
17	1,970	536	628	241	465	795	533	298	816	189	232	70
18	773	1,610	485	234	470	707	482	329	775	172	186	131
19	425	1,320	412	212	634	522	455	1,250	606	178	158	e700
20	287	595	439	231	1,050	1,500	449	2,010	811	232	152	e1,750
21	240	458	839	224	957	4,960	426	705	481	e155	162	434
22	243	387	605	215	877	6,950	408	802	369	e127	132	272
23	347	322	450	211	2,320	3,570	376	2,750	294	168	117	578
24	321	266	430	184	3,250	934	339	4,410	252	219	106	1,900
25	232	234	1,470	209	e1,680	631	327	3,970	220	262	92	669
26	190	211	2,930	208	e900	535	406	e1,850	197	164	82	329
27	168	197	2,610	201	705	484	561	e2,700	180	129	76	244
28	204	182	701	168	2,730	440	717	1,460	164	112	71	200
29	1,350	168	529	211	---	422	452	652	176	102	67	170
30	1,660	162	456	270	---	605	359	511	167	114	62	146
31	1,410	---	397	1,190	---	2,100	---	435	---	122	84	---
TOTAL	25,087	16,047	31,507	12,790	27,295	44,633	44,097	28,682	19,342	11,740	8,404	9,570
MEAN	809	535	1,016	413	975	1,440	1,470	925	645	379	271	319
MAX	7,150	1,610	3,630	1,540	3,250	6,950	7,090	4,410	3,320	2,830	1,540	1,900
MIN	17	162	136	168	343	398	327	196	164	102	62	70
CFM	1.90	1.25	2.38	0.97	2.28	3.37	3.44	2.17	1.51	0.89	0.63	0.75
IN.	2.19	1.40	2.74	1.11	2.38	3.89	3.84	2.50	1.69	1.02	0.73	0.83

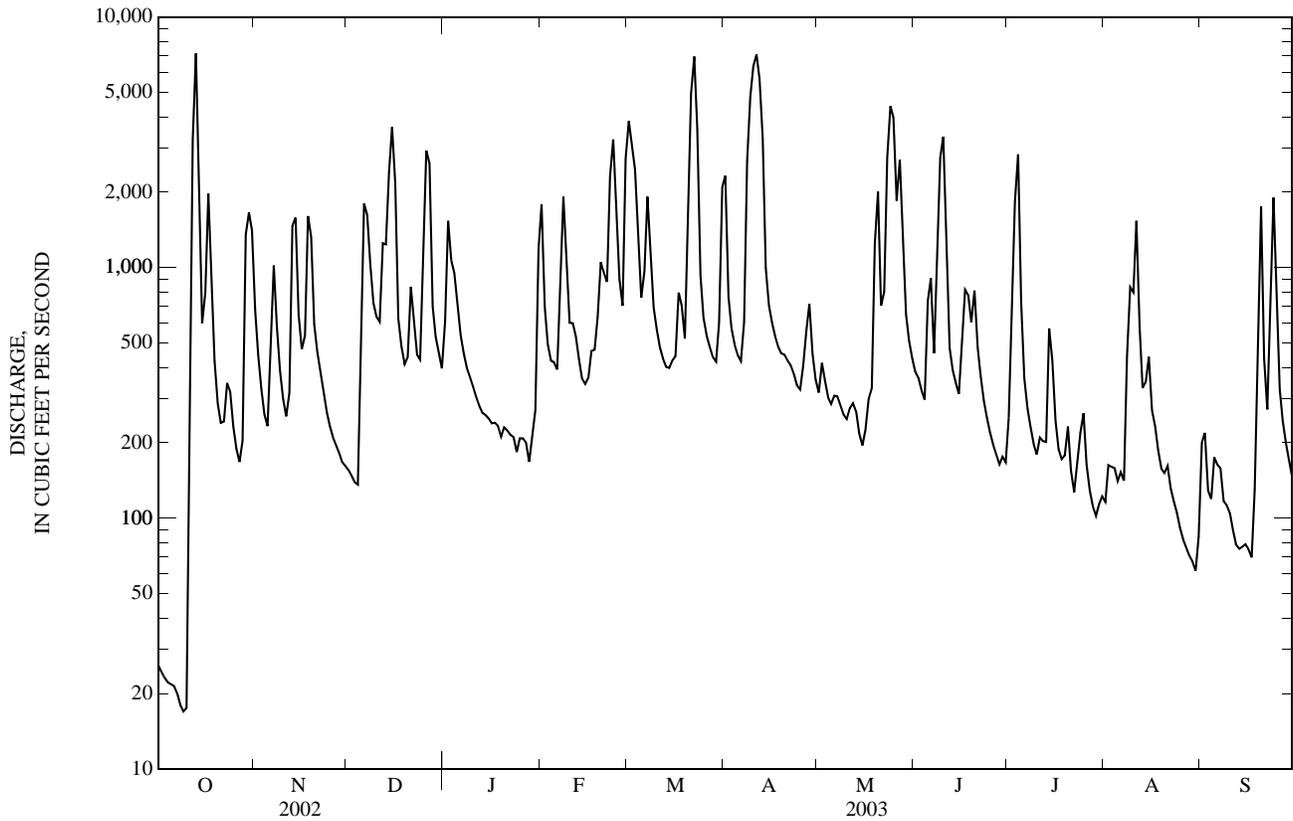
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

	193	283	399	786	781	988	639	374	251	231	169	307
MEAN	193	283	399	786	781	988	639	374	251	231	169	307
MAX	809	1,192	1,108	1,845	1,956	2,726	1,557	984	1,451	1,692	512	2,949
(WY)	(2003)	(1986)	(1984)	(1978)	(1998)	(1998)	(1993)	(1989)	(1982)	(1975)	(1986)	(1999)
MIN	28.5	34.9	64.5	78.0	175	214	127	54.2	14.1	29.8	26.8	19.7
(WY)	(1987)	(1999)	(2002)	(1981)	(2002)	(1988)	(1995)	(2002)	(2002)	(2002)	(1988)	(1980)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	113,437.5		279,194			
ANNUAL MEAN	311		765		449	
HIGHEST ANNUAL MEAN					765 2003	
LOWEST ANNUAL MEAN					124 2002	
HIGHEST DAILY MEAN	7,150	Oct 13	7,150	Oct 13	22,400	Sep 17, 1999
LOWEST DAILY MEAN	2.1	Aug 14	17	Oct 9	2.1	Aug 14, 2002
ANNUAL SEVEN-DAY MINIMUM	2.7	Aug 11	20	Oct 4	2.7	Aug 11, 2002
MAXIMUM PEAK FLOW			8,000	Oct 13	23,700	Sep 17, 1999
MAXIMUM PEAK STAGE			21.77	Oct 13	26.05	Sep 17, 1999
INSTANTANEOUS LOW FLOW			16*	Oct 9	1.7	Aug 15, 2002
ANNUAL RUNOFF (CFSM)	0.73		1.79		1.05	
ANNUAL RUNOFF (INCHES)	9.88		24.32		14.29	
10 PERCENT EXCEEDS	720		1,910		910	
50 PERCENT EXCEEDS	117		408		177	
90 PERCENT EXCEEDS	9.9		128		38	

e Estimated.
 * See REMARKS.



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

LOCATION.--Lat 35°53'59", long 77°51'56", 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 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 84.85 ft above NAVD of 1988 (levels by North Carolina State Highway Commission). Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. The city of Rocky Mount diverted an average of 5.3 ft³/s for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for current water year due to regulation. Minimum discharge for period of record also occurred Oct. 29, 30, 1993. Maximum gage height for period of record from floodmarks. Minimum discharge for current water year also occurred Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	2,500	371	968	2,210	4,180	2,920	712	880	318	253	208
2	127	1,520	364	1,470	2,750	5,170	3,140	608	732	408	290	228
3	149	964	342	2,450	1,710	5,410	1,800	623	641	1,450	440	292
4	113	686	336	2,250	1,190	4,860	1,230	619	580	2,610	456	311
5	111	551	713	1,840	1,030	3,210	1,040	548	523	3,100	413	295
6	106	729	1,780	1,500	945	2,680	932	541	875	1,730	350	311
7	109	1,100	2,950	1,170	1,340	3,350	1,070	555	1,380	753	596	324
8	125	1,680	3,000	973	2,060	3,530	1,810	563	2,470	519	705	329
9	131	1,270	2,150	828	2,900	2,650	4,040	544	3,180	449	2,010	311
10	132	851	1,560	747	2,410	1,730	5,900	534	3,520	460	3,080	279
11	134	637	1,370	685	1,740	1,390	7,000	492	3,570	347	3,180	251
12	1,130	625	1,410	611	1,550	1,170	8,090	447	2,550	331	3,210	235
13	3,160	1,460	2,070	562	1,330	1,040	9,800	429	1,060	314	2,070	230
14	4,500	2,750	2,940	513	1,060	963	9,040	422	708	328	1,190	216
15	5,800	2,920	3,440	497	916	930	6,410	390	597	602	884	211
16	5,360	1,750	3,870	475	909	953	1,900	355	531	813	1,320	908
17	1,860	1,420	3,830	489	1,310	1,060	840	328	639	572	1,320	1,030
18	2,370	1,680	1,900	487	1,400	1,400	802	407	1,120	470	907	332
19	1,470	2,500	1,130	480	1,530	1,200	949	1,200	1,210	389	732	111
20	781	2,350	1,020	455	1,640	2,150	881	2,320	1,210	334	588	563
21	724	1,420	1,090	435	1,990	4,830	870	2,920	1,460	324	508	2,090
22	892	1,080	1,460	451	2,120	5,640	877	2,180	1,000	319	461	1,150
23	1,010	858	1,300	444	3,150	5,820	820	3,070	721	274	406	668
24	933	706	1,060	432	3,900	7,120	747	4,330	561	258	365	870
25	769	607	1,370	393	4,070	6,740	679	4,490	474	273	294	2,190
26	582	531	2,350	382	3,330	2,100	704	4,930	404	331	241	1,490
27	467	485	3,250	e404	1,810	1,210	870	4,900	347	334	253	732
28	419	444	3,500	e405	2,860	1,040	1,130	3,600	328	281	238	518
29	522	422	1,960	391	---	1,020	1,250	2,570	325	249	224	397
30	2,200	394	1,190	450	---	e1,450	924	1,440	310	259	210	345
31	2,910	---	985	1,110	---	2,030	---	1,090	---	237	202	---
TOTAL	39,227	36,890	56,061	24,747	55,160	88,026	78,465	48,157	33,906	19,436	27,396	17,425
MEAN	1,265	1,230	1,808	798	1,970	2,840	2,616	1,553	1,130	627	884	581
MAX	5,800	2,920	3,870	2,450	4,070	7,120	9,800	4,930	3,570	3,100	3,210	2,190
MIN	106	394	336	382	909	930	679	328	310	237	202	111
CFSM	1.63	1.58	2.33	1.03	2.54	3.65	3.37	2.00	1.45	0.81	1.14	0.75
IN.	1.88	1.77	2.68	1.18	2.64	4.21	3.76	2.31	1.62	0.93	1.31	0.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2003, BY WATER YEAR (WY)

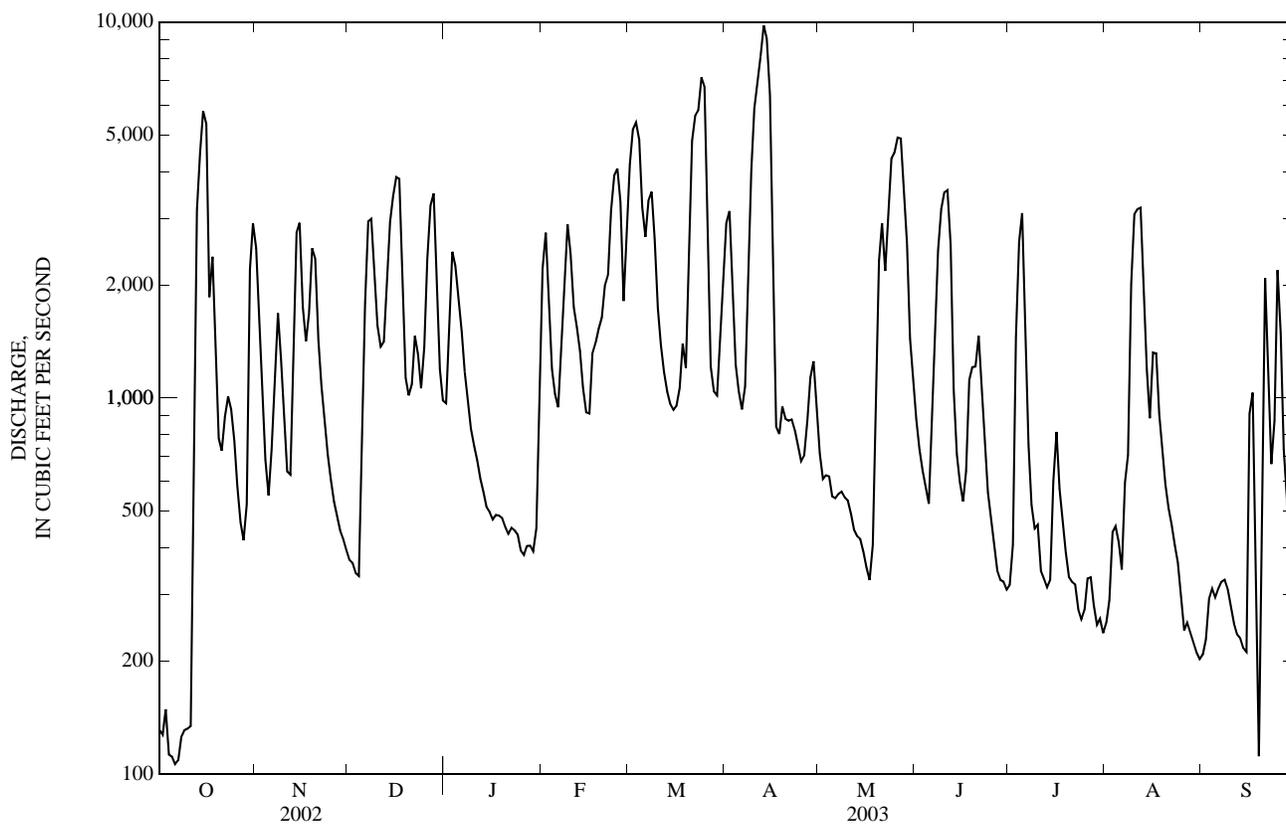
	396	537	736	1,323	1,400	1,737	1,166	710	526	459	388	572
MEAN	396	537	736	1,323	1,400	1,737	1,166	710	526	459	388	572
MAX	2,157	1,876	2,406	2,794	3,002	3,829	2,864	2,123	2,064	2,321	1,147	6,436
(WY)	(2000)	(1973)	(1973)	(1978)	(1998)	(1998)	(1987)	(1989)	(1982)	(1975)	(2000)	(1999)
MIN	60.2	66.2	109	186	456	358	284	128	72.7	53.9	77.9	75.4
(WY)	(1994)	(1981)	(1992)	(1981)	(1991)	(1981)	(1981)	(2002)	(2002)	(2002)	(1988)	(1993)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1972 - 2003	
ANNUAL TOTAL	243,510		524,896			
ANNUAL MEAN	667		1,438		827	
HIGHEST ANNUAL MEAN					1,471	1973
LOWEST ANNUAL MEAN					211	1981
HIGHEST DAILY MEAN	5,800	Oct 15	9,800	Apr 13	25,000	Sep 17, 1999
LOWEST DAILY MEAN	40	Jul 27	106	Oct 6	29	Oct 28, 1993
ANNUAL SEVEN-DAY MINIMUM	45	Jul 24	118	Oct 4	36	Oct 27, 1993
MAXIMUM PEAK FLOW			10,200	Apr 13	29,300	Sep 16, 1999
MAXIMUM PEAK STAGE			19.69	Apr 13	32.89*	Sep 16, 1999
INSTANTANEOUS LOW FLOW			105*	Oct 6	28*	Oct 28, 1993
ANNUAL RUNOFF (CFSM)	0.86		1.85		1.06	
ANNUAL RUNOFF (INCHES)	11.66		25.13		14.47	
10 PERCENT EXCEEDS	1,920		3,230		1,990	
50 PERCENT EXCEEDS	282		916		380	
90 PERCENT EXCEEDS	54		293		96	

e Estimated.

* See REMARKS.



0208250885 TAR RIVER AT US HIGHWAY 301 BYPASS AT ROCKY MOUNT, NC

LOCATION.--Lat 35°55'30.2", long 77°49'50.5", Nash County, Hydrologic Unit 03020101, at bridge on US Highway 301 bypass, approximately 2 mi southwest of Rocky Mount.

DRAINAGE AREA.--787 mi².

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--May 2003 to September 2003.

GAGE.--Water-stage recorder. Datum of gage is 75.00 ft above NAVD of 1988. Satellite telemetry at station.

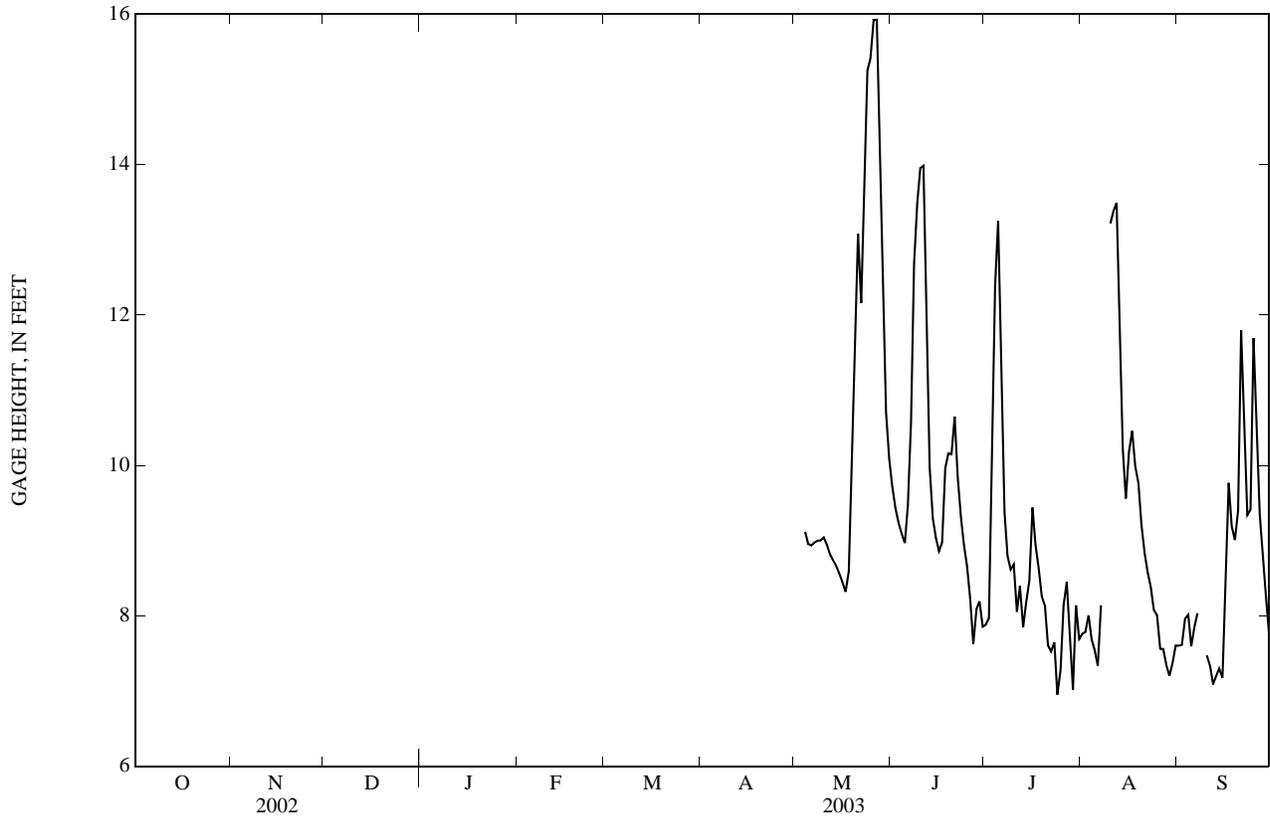
EXTREMES FOR PERIOD OF RECORD.--Maximum, 16.15 ft, May 27, 2003; minimum, 6.82 ft, July 29, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum, 16.15 ft, May 27; minimum, 6.82 ft, July 29.

GAGE HEIGHT, FEET
MAY TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	9.72	7.88	7.76	7.60
2	---	---	---	---	---	---	---	---	9.43	7.97	7.79	7.61
3	---	---	---	---	---	---	---	---	9.23	10.49	8.01	7.96
4	---	---	---	---	---	---	---	9.12	9.10	12.40	7.69	8.01
5	---	---	---	---	---	---	---	8.95	8.97	13.25	7.54	7.59
6	---	---	---	---	---	---	---	8.94	9.47	11.22	7.34	7.86
7	---	---	---	---	---	---	---	8.97	10.59	9.38	8.14	8.04
8	---	---	---	---	---	---	---	9.00	12.68	8.80	---	---
9	---	---	---	---	---	---	---	9.00	13.49	8.61	---	---
10	---	---	---	---	---	---	---	9.04	13.95	8.68	13.22	7.48
11	---	---	---	---	---	---	---	8.94	13.98	8.05	13.38	7.33
12	---	---	---	---	---	---	---	8.82	12.61	8.39	13.49	7.09
13	---	---	---	---	---	---	---	8.74	9.97	7.85	11.84	7.20
14	---	---	---	---	---	---	---	8.66	9.29	8.18	10.22	7.30
15	---	---	---	---	---	---	---	8.56	9.04	8.46	9.56	7.18
16	---	---	---	---	---	---	---	8.45	8.86	9.44	10.18	8.76
17	---	---	---	---	---	---	---	8.32	8.97	8.94	10.46	9.77
18	---	---	---	---	---	---	---	8.59	9.96	8.63	9.99	9.19
19	---	---	---	---	---	---	---	10.26	10.16	8.26	9.77	9.01
20	---	---	---	---	---	---	---	12.05	10.15	8.14	9.21	9.40
21	---	---	---	---	---	---	---	13.08	10.65	7.61	8.84	11.79
22	---	---	---	---	---	---	---	12.16	9.85	7.52	8.58	10.26
23	---	---	---	---	---	---	---	13.50	9.32	7.65	8.38	9.34
24	---	---	---	---	---	---	---	15.25	8.95	6.95	8.08	9.41
25	---	---	---	---	---	---	---	15.41	8.65	7.28	8.01	11.69
26	---	---	---	---	---	---	---	15.92	8.24	8.14	7.56	10.73
27	---	---	---	---	---	---	---	15.93	7.63	8.45	7.56	9.35
28	---	---	---	---	---	---	---	14.19	8.09	7.79	7.34	8.83
29	---	---	---	---	---	---	---	12.67	8.19	7.02	7.20	8.23
30	---	---	---	---	---	---	---	10.70	7.85	8.14	7.38	7.74
31	---	---	---	---	---	---	---	10.09	---	7.69	7.60	---
MEAN	---	---	---	---	---	---	---	---	9.90	8.62	---	---
MAX	---	---	---	---	---	---	---	---	13.98	13.25	---	---
MIN	---	---	---	---	---	---	---	---	7.63	6.95	---	---

0208250885 TAR RIVER AT US HIGHWAY 301 BYPASS AT ROCKY MOUNT, NC—Continued



PRECIPITATION RECORDS

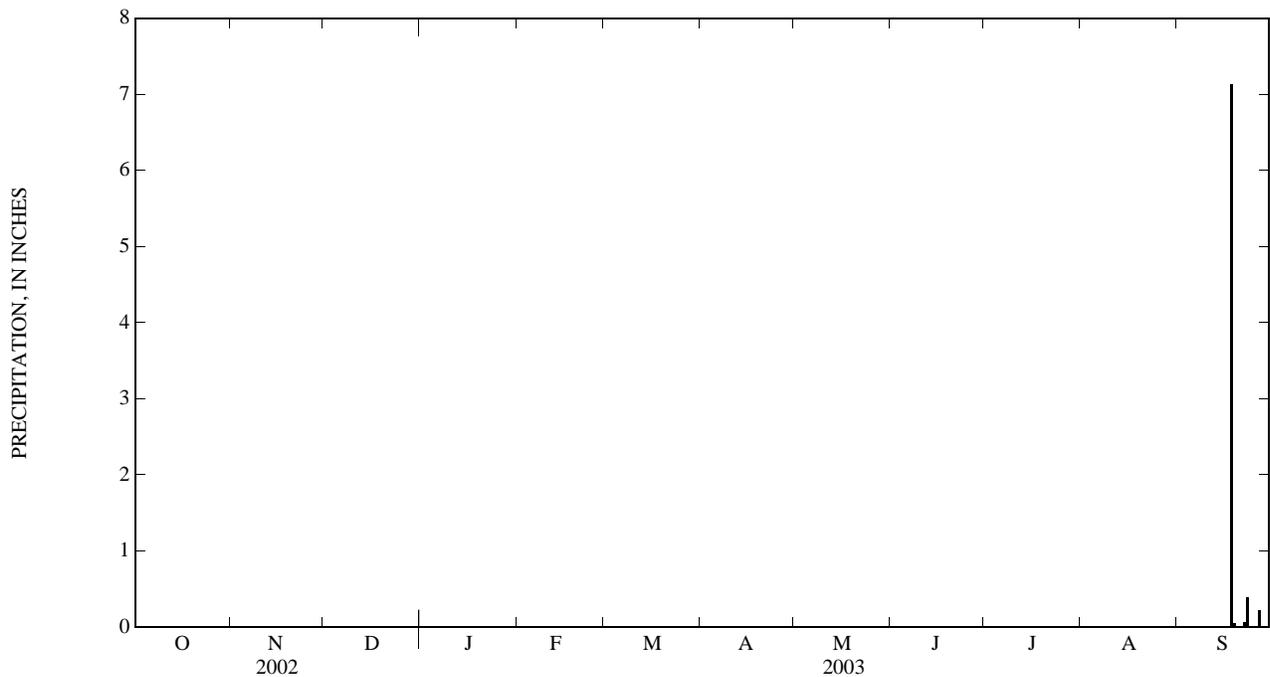
PERIOD OF RECORD.--September 2003.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation collected during freezing periods may not be accurately reflected in the daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
 SEPTEMBER 2003
 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	0.00
17	---	---	---	---	---	---	---	---	---	---	---	0.00
18	---	---	---	---	---	---	---	---	---	---	---	7.13
19	---	---	---	---	---	---	---	---	---	---	---	0.04
20	---	---	---	---	---	---	---	---	---	---	---	0.00
21	---	---	---	---	---	---	---	---	---	---	---	0.00
22	---	---	---	---	---	---	---	---	---	---	---	0.06
23	---	---	---	---	---	---	---	---	---	---	---	0.39
24	---	---	---	---	---	---	---	---	---	---	---	0.00
25	---	---	---	---	---	---	---	---	---	---	---	0.00
26	---	---	---	---	---	---	---	---	---	---	---	0.00
27	---	---	---	---	---	---	---	---	---	---	---	0.21
28	---	---	---	---	---	---	---	---	---	---	---	0.00
29	---	---	---	---	---	---	---	---	---	---	---	0.00
30	---	---	---	---	---	---	---	---	---	---	---	0.00
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---



02082576 STONY CREEK AT WINSTEAD AVENUE AT ROCKY MOUNT, NC

LOCATION.--Lat 35°57'56", long 77°50'49", Nash County, Hydrologic Unit 03020101, at bridge on Winstead Avenue, 2.2 mi above mouth and 3.3 mi northwest of Rocky Mount.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--July to September 2003.

GAGE.--Water-stage recorder. Datum of gage is 90.00 ft, above North American Vertical Datum of 1988. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 8.34 ft, Aug. 19, 2003; minimum 3.29 ft, July 29, 2003.

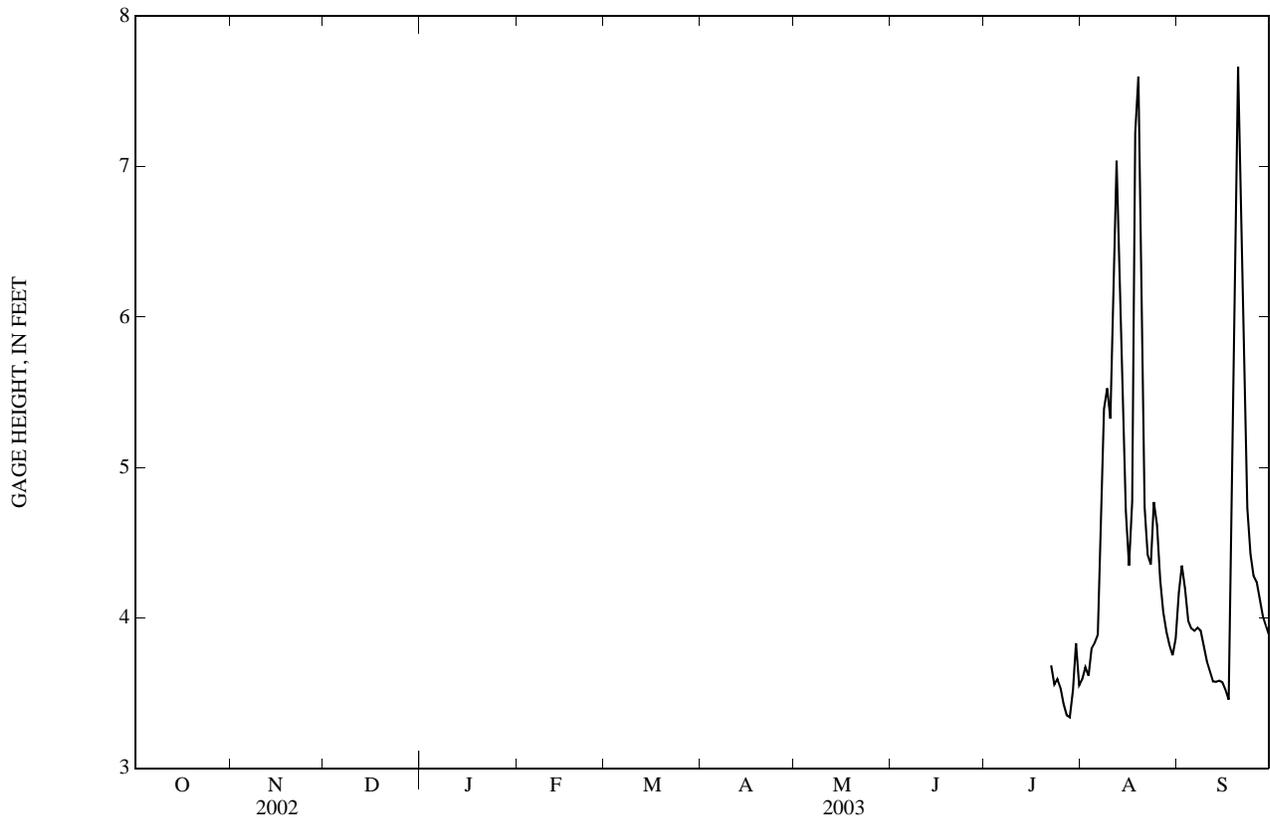
EXTREMES FOR CURRENT YEAR.--Maximum, 8.34 ft, Aug. 19; minimum, 3.29 ft, July 29.

GAGE HEIGHT, FEET
FOR PERIOD JULY TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	3.59	4.17
2	---	---	---	---	---	---	---	---	---	---	3.67	4.35
3	---	---	---	---	---	---	---	---	---	---	3.62	4.19
4	---	---	---	---	---	---	---	---	---	---	3.80	3.98
5	---	---	---	---	---	---	---	---	---	---	3.83	3.93
6	---	---	---	---	---	---	---	---	---	---	3.89	3.91
7	---	---	---	---	---	---	---	---	---	---	4.68	3.93
8	---	---	---	---	---	---	---	---	---	---	5.39	3.92
9	---	---	---	---	---	---	---	---	---	---	5.53	3.82
10	---	---	---	---	---	---	---	---	---	---	5.32	3.71
11	---	---	---	---	---	---	---	---	---	---	5.89	3.64
12	---	---	---	---	---	---	---	---	---	---	7.04	3.58
13	---	---	---	---	---	---	---	---	---	---	6.50	3.57
14	---	---	---	---	---	---	---	---	---	---	5.55	3.58
15	---	---	---	---	---	---	---	---	---	---	4.71	3.57
16	---	---	---	---	---	---	---	---	---	---	4.35	3.52
17	---	---	---	---	---	---	---	---	---	---	4.77	3.46
18	---	---	---	---	---	---	---	---	---	---	7.23	4.68
19	---	---	---	---	---	---	---	---	---	---	7.60	6.67
20	---	---	---	---	---	---	---	---	---	---	5.65	7.66
21	---	---	---	---	---	---	---	---	---	---	4.74	6.83
22	---	---	---	---	---	---	---	---	---	---	4.42	5.52
23	---	---	---	---	---	---	---	---	---	3.68	4.35	4.73
24	---	---	---	---	---	---	---	---	---	3.56	4.77	4.42
25	---	---	---	---	---	---	---	---	---	3.59	4.62	4.28
26	---	---	---	---	---	---	---	---	---	3.53	4.25	4.24
27	---	---	---	---	---	---	---	---	---	3.43	4.04	4.12
28	---	---	---	---	---	---	---	---	---	3.35	3.91	4.01
29	---	---	---	---	---	---	---	---	---	3.34	3.82	3.95
30	---	---	---	---	---	---	---	---	---	3.52	3.75	3.88
31	---	---	---	---	---	---	---	---	---	3.83	3.86	---
MEAN	---	---	---	---	---	---	---	---	---	---	4.81	4.33
MAX	---	---	---	---	---	---	---	---	---	---	7.60	7.66
MIN	---	---	---	---	---	---	---	---	---	---	3.59	3.46

PAMLICO RIVER BASIN

02082576 STONY CREEK AT WINSTEAD AVENUE AT ROCKY MOUNT, NC—Continued



02082585 TAR RIVER AT NC 97 AT ROCKY MOUNT, NC

LOCATION.--Lat 35°57'16", long 77°47'14". 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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 52.81 ft above NAVD of 1988. City of Rocky Mount telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Prior to October 1996, some regulation at low flow caused by mill above station. The city of Rocky Mount diverted an average of 18.0 ft³/s for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for current water year and period of record, result of regulation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	3,300	542	1,250	2,590	5,340	2,860	881	1,180	462	268	340
2	115	1,970	529	1,640	3,460	6,880	3,050	737	1,000	475	e390	240
3	113	1,240	518	2,740	2,210	7,000	1,960	728	854	1,430	e560	406
4	103	928	502	2,760	1,490	6,510	1,370	741	753	2,240	e620	382
5	89	769	1,140	2,200	1,270	4,710	1,220	651	675	2,670	536	346
6	65	1,060	2,350	1,810	1,190	3,850	1,150	646	863	1,810	534	319
7	60	1,390	3,830	1,420	1,770	4,720	1,340	659	1,550	973	1,020	389
8	89	2,010	4,080	1,200	2,490	4,930	1,840	674	3,570	671	1,150	e404
9	101	1,590	2,880	1,060	3,530	3,790	4,110	717	3,300	601	1,980	e360
10	98	1,090	1,980	973	3,220	2,300	6,910	842	3,270	674	2,860	291
11	382	849	1,710	906	2,270	1,770	9,150	825	3,150	494	2,980	247
12	1,390	881	1,720	819	1,960	1,480	9,490	691	2,550	542	3,240	236
13	3,890	1,890	2,500	754	1,680	1,310	10,600	594	1,250	354	2,500	197
14	5,260	3,470	3,740	699	1,340	1,220	10,100	527	939	471	1,500	200
15	6,290	3,970	4,400	675	1,180	1,180	8,100	473	792	565	1,110	199
16	6,760	2,390	4,930	649	1,210	1,190	2,770	427	702	981	1,270	691
17	2,720	1,930	4,790	676	1,770	1,270	1,180	378	725	724	1,500	1,050
18	2,700	2,190	2,670	677	1,900	1,690	920	544	1,170	586	1,710	1,340
19	1,860	2,970	1,430	668	2,070	1,360	1,140	1,450	1,270	533	1,700	1,480
20	1,030	3,000	1,310	641	2,060	2,860	1,090	2,200	1,260	536	1,140	1,340
21	1,100	1,810	1,390	605	2,400	6,310	1,070	2,790	1,460	493	769	2,390
22	1,370	1,370	1,760	622	2,680	7,830	1,070	2,530	1,170	323	627	1,570
23	1,420	1,170	1,630	612	4,080	7,430	1,020	3,370	931	401	554	1,030
24	1,280	1,010	1,410	594	5,090	7,690	935	4,900	739	272	542	930
25	1,050	873	1,750	557	5,330	7,520	843	5,110	623	258	530	1,870
26	822	762	2,820	533	4,450	3,050	899	5,290	559	305	295	1,570
27	662	698	3,930	558	2,500	1,390	1,060	5,150	437	384	293	943
28	605	646	4,230	560	3,650	1,220	1,220	3,800	353	403	259	684
29	743	611	2,650	544	---	1,240	1,320	2,680	489	279	217	563
30	2,460	572	1,490	696	---	1,640	1,090	1,600	362	330	192	368
31	3,660	---	1,260	1,450	---	2,140	---	1,340	---	285	287	---
TOTAL	48,407	48,409	71,871	31,548	70,840	112,820	90,877	53,945	37,946	21,525	33,133	22,375
MEAN	1,562	1,614	2,318	1,018	2,530	3,639	3,029	1,740	1,265	694	1,069	746
MAX	6,760	3,970	4,930	2,760	5,330	7,830	10,600	5,290	3,570	2,670	3,240	2,390
MIN	60	572	502	533	1,180	1,180	843	378	353	258	192	197

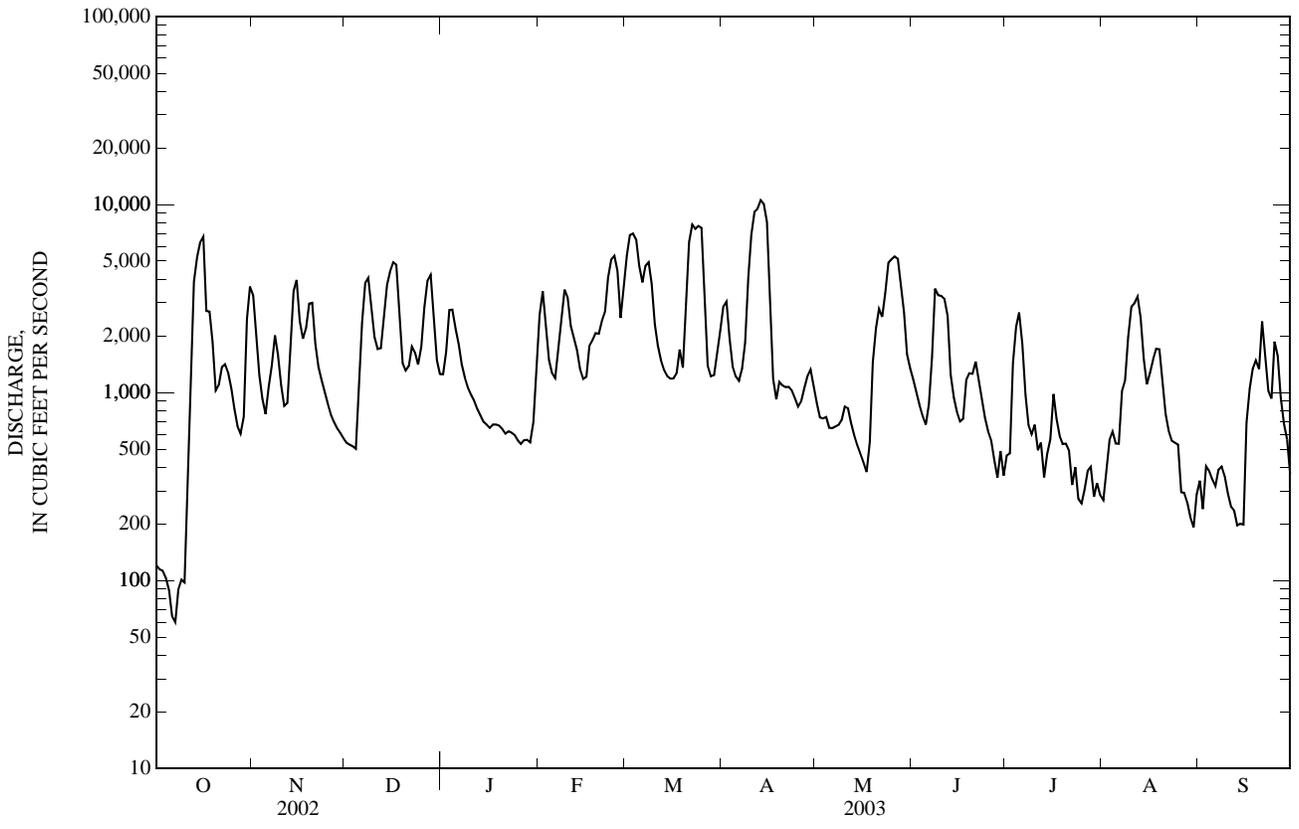
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2003, BY WATER YEAR (WY)

MEAN	492	601	799	1,525	1,617	2,098	1,389	843	620	419	438	723
MAX	2,918	1,905	2,318	3,230	3,920	4,507	3,447	2,725	2,238	1,368	1,266	8,135
(WY)	(2000)	(1980)	(2003)	(1978)	(1998)	(1998)	(1987)	(1989)	(1982)	(2000)	(2000)	(1999)
MIN	70.4	74.5	125	254	546	477	332	148	67.3	54.1	79.7	70.6
(WY)	(1981)	(1981)	(1992)	(1981)	(1977)	(1981)	(1995)	(2002)	(2002)	(1986)	(1987)	(1993)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1977 - 2003	
ANNUAL TOTAL	324,458		643,696			
ANNUAL MEAN	889		1,764		978	
HIGHEST ANNUAL MEAN					1,764	2003
LOWEST ANNUAL MEAN					262	1981
HIGHEST DAILY MEAN	6,760	Oct 16	10,600	Apr 13	31,500	Sep 17, 1999
LOWEST DAILY MEAN	39	Jun 21	60	Oct 7	6.6	Oct 3, 1983
ANNUAL SEVEN-DAY MINIMUM	45	Jun 19	86	Oct 4	31	Oct 18, 1993
MAXIMUM PEAK FLOW			10,800	Apr 13	34,100	Sep 17, 1999
MAXIMUM PEAK STAGE			22.58	Apr 13	31.66	Sep 17, 1999
INSTANTANEOUS LOW FLOW			49*	Oct 7	5.7*	Sep 23, 1988
10 PERCENT EXCEEDS	2,680		3,950		2,330	
50 PERCENT EXCEEDS	413		1,180		471	
90 PERCENT EXCEEDS	52		358		97	

e Estimated.
 * See REMARKS.

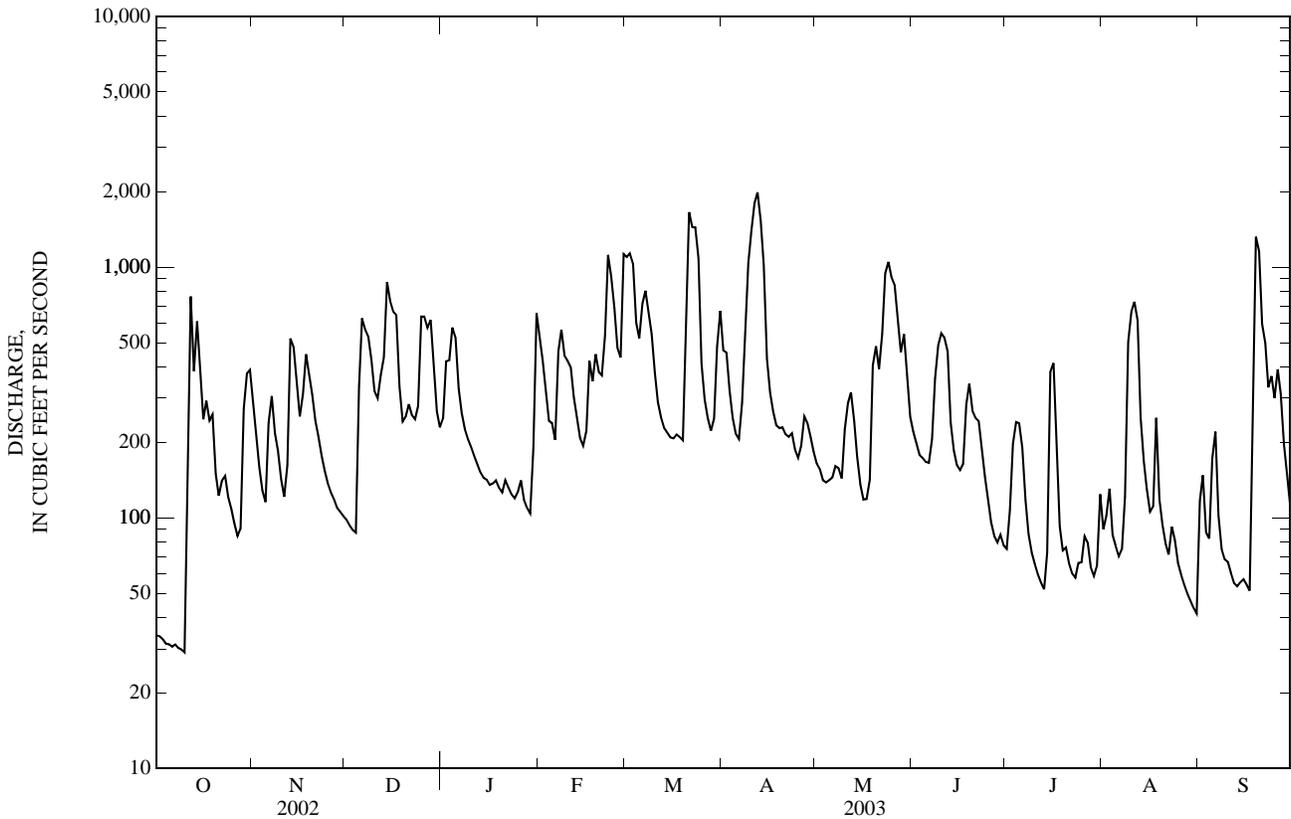


PAMLICO RIVER BASIN

02082770 SWIFT CREEK AT HILLIARDSTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1963 - 2003	
ANNUAL TOTAL	61,056.1		112,593		168	
ANNUAL MEAN	167		308		308	
HIGHEST ANNUAL MEAN					51.0	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	2,470	Aug 31	1,990	Apr 12	22,000	Sep 17, 1999
LOWEST DAILY MEAN	2.2	Aug 13	29	Oct 10	0.60	Sep 25, 1968
ANNUAL SEVEN-DAY MINIMUM	2.6	Aug 10	30	Oct 4	1.1	Sep 21, 1968
MAXIMUM PEAK FLOW			2,080	Apr 12	23,000*	Sep 17, 1999
MAXIMUM PEAK STAGE			12.06	Apr 12	21.30*	Sep 17, 1999
INSTANTANEOUS LOW FLOW			29*	Oct 9	0.60	Sep 25, 1968
ANNUAL RUNOFF (CFSM)	1.01		1.86		1.01	
ANNUAL RUNOFF (INCHES)	13.68		25.23		13.76	
10 PERCENT EXCEEDS	402		639		355	
50 PERCENT EXCEEDS	84		217		92	
90 PERCENT EXCEEDS	6.4		67		24	

* See REMARKS.



0208281175 SWIFT CREEK AT NC 97 NEAR LEGGETT, NC

LOCATION.--Lat 35°58'49.0", long 77°35'39.7", Edgecombe County, Hydrologic Unit 03020101, at bridge on NC 97, approximately 1 mi west of Highway 42 and approximately 0.5 mi north of U.S. Highway 64.

DRAINAGE AREA.--263 mi².

PERIOD OF RECORD.--January 2003 to September 2003.

GAGE.--Water-stage recorder. Datum of gage is 35.00 ft above NAVD of 1988. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 14.49 ft, Apr. 11, 12, 2003; minimum, 7.46 ft, Sept. 17, 18, 2003.

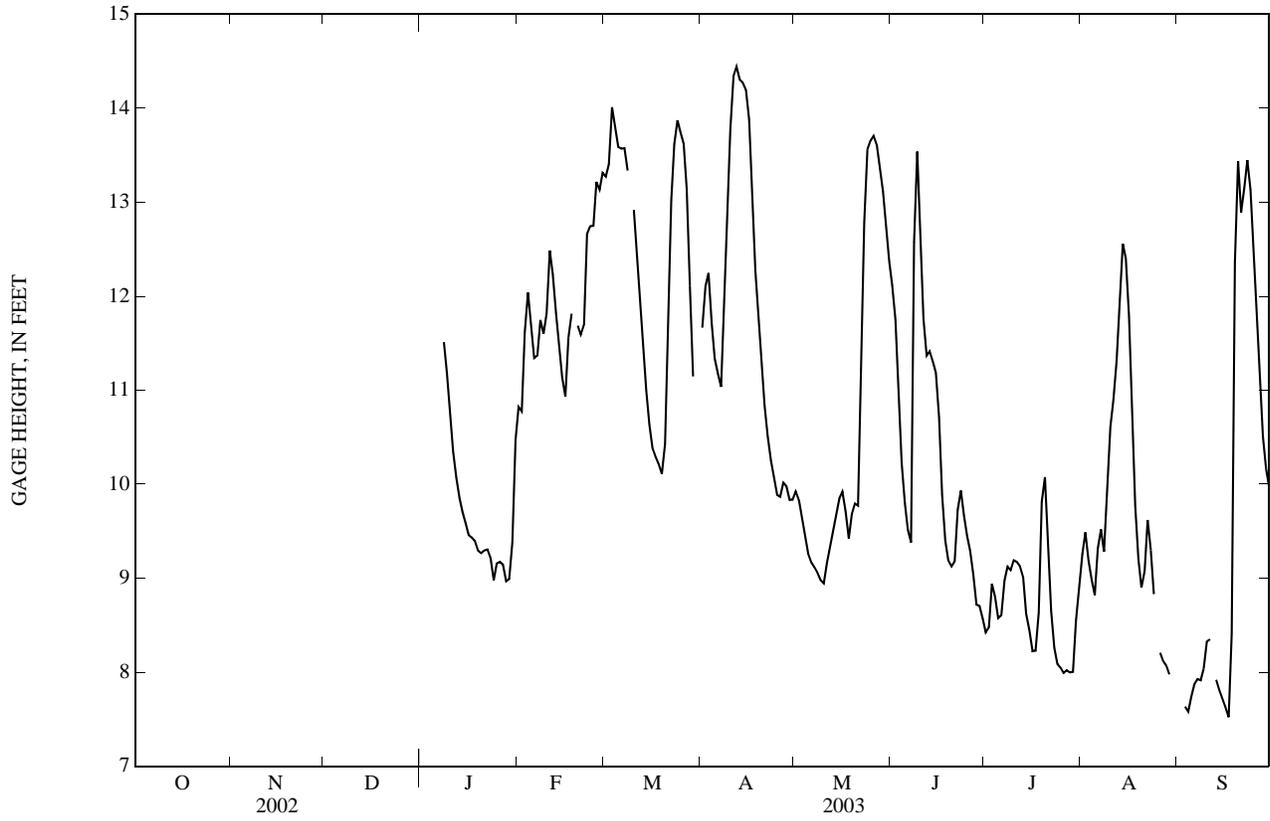
EXTREMES FOR CURRENT YEAR.--Maximum, 14.49 ft, Apr. 11, 12; minimum, 7.46 ft, Sept. 17, 18.

GAGE HEIGHT, FEET
JANUARY TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	10.82	13.27	11.67	9.92	12.11	8.43	9.26	---
2	---	---	---	---	10.77	13.40	12.11	9.83	11.75	8.48	9.49	---
3	---	---	---	---	11.62	14.01	12.25	9.64	10.99	8.94	9.19	7.63
4	---	---	---	---	12.04	13.79	11.71	9.44	10.23	8.80	8.99	7.58
5	---	---	---	---	11.68	13.59	11.34	9.26	9.80	8.58	8.82	7.74
6	---	---	---	---	11.34	13.57	11.18	9.17	9.52	8.61	9.32	7.88
7	---	---	---	---	11.37	13.57	11.04	9.12	9.38	8.98	9.52	7.93
8	---	---	---	11.51	11.75	13.34	11.70	9.06	12.57	9.12	9.28	7.91
9	---	---	---	11.18	11.60	---	12.55	8.98	13.54	9.09	9.91	8.04
10	---	---	---	10.73	11.82	12.92	13.78	8.94	12.58	9.19	10.61	8.33
11	---	---	---	10.35	12.48	12.49	14.34	9.16	11.76	9.17	10.90	8.35
12	---	---	---	10.07	12.23	12.03	14.44	9.33	11.37	9.13	11.31	---
13	---	---	---	9.85	11.82	11.51	14.30	9.51	11.42	9.01	11.90	7.92
14	---	---	---	9.70	11.52	11.00	14.27	9.68	11.31	8.62	12.56	7.81
15	---	---	---	9.58	11.13	10.63	14.20	9.85	11.19	8.45	12.40	7.72
16	---	---	---	9.46	10.93	10.39	13.88	9.92	10.71	8.23	11.79	7.63
17	---	---	---	9.43	11.56	10.29	13.25	9.71	9.89	8.23	10.72	7.52
18	---	---	---	9.40	11.81	10.22	12.28	9.42	9.40	8.64	9.77	8.41
19	---	---	---	9.29	---	10.11	11.73	9.68	9.19	9.81	9.20	12.36
20	---	---	---	9.27	11.69	10.43	11.23	9.79	9.13	10.07	8.90	13.44
21	---	---	---	9.30	11.59	11.97	10.84	9.77	9.18	9.35	9.08	12.89
22	---	---	---	9.30	11.70	13.02	10.51	10.82	9.73	8.65	9.62	13.15
23	---	---	---	9.22	12.66	13.62	10.25	12.78	9.93	8.26	9.30	13.45
24	---	---	---	8.98	12.75	13.87	10.07	13.56	9.67	8.09	8.83	13.13
25	---	---	---	9.16	12.75	13.74	9.89	13.65	9.45	8.05	---	12.50
26	---	---	---	9.17	13.22	13.62	9.87	13.71	9.29	7.99	8.21	11.76
27	---	---	---	9.14	13.13	13.14	10.02	13.61	9.04	8.02	8.12	11.05
28	---	---	---	8.97	13.31	12.11	9.98	13.37	8.72	8.00	8.07	10.51
29	---	---	---	8.99	---	11.15	9.84	13.11	8.71	8.00	7.98	10.16
30	---	---	---	9.38	---	---	9.83	12.76	8.57	8.55	---	9.97
31	---	---	---	10.47	---	---	---	12.37	---	8.89	---	---
MEAN	---	---	---	---	---	---	11.81	10.61	10.34	8.69	---	---
MAX	---	---	---	---	---	---	14.44	13.71	13.54	10.07	---	---
MIN	---	---	---	---	---	---	9.83	8.94	8.57	7.99	---	---

PAMLICO RIVER BASIN

0208281175 SWIFT CREEK AT NC 97 NEAR LEGGETT, NC—Continued



02082950 LITTLE FISHING CREEK NEAR WHITE OAK, NC

LOCATION.--Lat 36°11'09", long 77°52'33", 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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 115.44 ft above NAVD of 1988. Feb. 14, 1962, to Apr. 23, 1979, auxiliary nonrecording gage 3.6 mi downstream. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor.. Maximum discharge for period of record, from rating curve extended above 6,900 ft³/s on basis of slope-conveyance study of peak flow. Maximum gage height for period of record, from flood marks. Minimum discharge for current water year also occurred Oct. 10.

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

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	171	71	182	694	1,450	578	142	217	78	73	53
2	9.0	111	66	365	410	1,090	331	128	208	104	94	70
3	8.5	81	63	412	244	571	254	121	159	219	105	53
4	8.1	66	60	295	201	392	215	157	142	194	78	46
5	8.0	60	201	222	204	323	196	152	235	139	63	280
6	7.6	185	505	181	175	609	187	146	369	103	56	138
7	7.3	303	475	161	432	829	317	159	224	82	307	96
8	7.1	172	361	145	640	593	903	139	503	70	485	74
9	6.8	116	262	138	437	351	1,670	123	1,140	63	771	62
10	6.9	90	212	130	288	275	2,100	117	800	57	935	56
11	145	77	203	120	326	226	2,320	356	408	57	913	50
12	391	90	333	110	270	202	2,000	318	216	54	439	45
13	375	419	399	104	207	190	920	158	169	55	255	43
14	135	522	783	102	173	187	388	109	149	210	172	45
15	99	301	828	102	169	183	290	90	135	317	127	49
16	93	178	523	98	264	172	241	88	132	168	106	46
17	188	239	248	e96	430	172	212	106	158	148	100	42
18	116	487	180	e95	355	169	190	107	249	187	95	362
19	66	414	149	e94	453	160	234	359	247	104	141	2,520
20	46	235	157	e94	475	891	296	525	254	81	141	3,640
21	41	170	199	e94	480	2,040	232	307	192	72	95	2,150
22	50	172	179	e93	532	2,350	229	464	149	63	83	316
23	63	148	145	e93	1,080	1,400	237	1,240	124	60	76	237
24	52	122	182	e93	1,010	399	195	1,570	107	74	70	457
25	41	106	683	e92	488	296	167	1,290	93	95	62	353
26	36	94	909	e91	293	245	212	680	84	76	56	198
27	32	85	755	e91	344	218	327	769	76	69	51	153
28	37	79	329	e91	1,230	201	239	825	71	56	47	132
29	319	75	225	e92	---	209	194	341	82	48	44	119
30	335	73	189	155	---	354	163	255	79	51	41	104
31	293	---	167	684	---	665	---	214	---	61	38	---
TOTAL	3,031.9	5,441	10,041	4,915	12,304	17,412	16,037	11,555	7,171	3,215	6,119	11,989
MEAN	97.8	181	324	159	439	562	535	373	239	104	197	400
MAX	391	522	909	684	1,230	2,350	2,320	1,570	1,140	317	935	3,640
MIN	6.8	60	60	91	169	160	163	88	71	48	38	42
CFSM	0.55	1.02	1.83	0.90	2.48	3.17	3.02	2.11	1.35	0.59	1.12	2.26
IN.	0.64	1.14	2.11	1.03	2.59	3.66	3.37	2.43	1.51	0.68	1.29	2.52

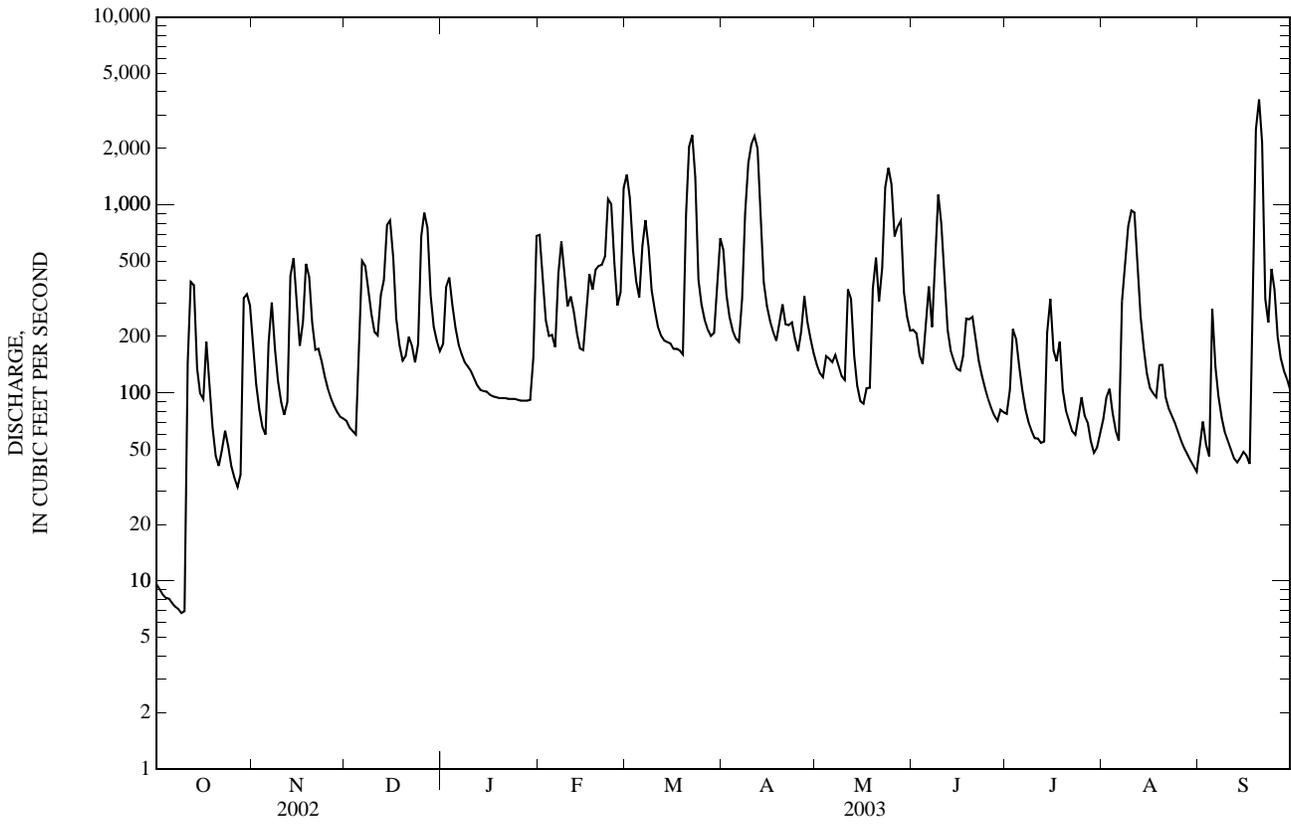
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2003, BY WATER YEAR (WY)

MEAN	102	118	154	252	325	340	235	139	101	88.5	80.1	109
MAX	982	860	482	570	742	873	720	550	300	602	330	1,947
(WY)	(1973)	(1986)	(1973)	(1962)	(1984)	(1998)	(1987)	(1984)	(1965)	(1975)	(1967)	(1999)
MIN	3.78	10.2	23.6	37.6	83.4	83.0	56.8	34.2	5.24	2.42	4.21	2.34
(WY)	(1971)	(1999)	(2002)	(1981)	(1991)	(1981)	(1967)	(2002)	(2002)	(2002)	(1993)	(1980)

02082950 LITTLE FISHING CREEK NEAR WHITE OAK, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1960 - 2003	
ANNUAL TOTAL	43,739.77		109,230.9		170	
ANNUAL MEAN	120		299		327	
HIGHEST ANNUAL MEAN					47.2	1973
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	2,160	Apr 2	3,640	Sep 20	20,000	Sep 17, 1999
LOWEST DAILY MEAN	0.51	Aug 15	6.8	Oct 9	0.51	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	0.55	Aug 9	7.4	Oct 4	0.55	Aug 9, 2002
MAXIMUM PEAK FLOW			3,960	Sep 20	31,000*	Sep 16, 1999
MAXIMUM PEAK STAGE			17.94	Sep 20	30.80*	Sep 16, 1999
INSTANTANEOUS LOW FLOW			6.6*	Oct 9	0.50	Aug 14, 2002
ANNUAL RUNOFF (CFSM)	0.68		1.69		0.96	
ANNUAL RUNOFF (INCHES)	9.19		22.96		13.01	
10 PERCENT EXCEEDS	302		681		357	
50 PERCENT EXCEEDS	59		172		79	
90 PERCENT EXCEEDS	1.7		55		15	

e Estimated.
 * See REMARKS.



02083000 FISHING CREEK NEAR ENFIELD, NC

LOCATION.--Lat 36°09'04", long 77°41'34", 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 mi².

PERIOD OF RECORD.--October 1923 to current year. Figures of daily discharge below 250 ft³/s, Oct 1, 1923, to July 3, 1924; below 350 ft³/s, May 30, 1925, to May 31, 1926; below 150 ft³/s, June 1 to Nov. 16, 1926; and below 100 ft³/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 73.23 ft above NAVD of 1988. 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. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Slight diurnal fluctuation and some regulation at low flow caused by upstream mills.

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 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	805	300	507	1,680	2,820	1,640	439	553	195	243	91
2	65	514	290	635	1,470	3,030	1,300	396	550	212	253	154
3	62	378	276	983	937	2,990	859	372	487	376	348	178
4	58	303	262	955	634	2,120	650	379	413	606	297	143
5	55	253	489	771	590	1,300	560	430	393	575	209	233
6	53	389	1,270	592	545	1,430	521	403	691	420	169	494
7	50	804	1,370	496	806	2,190	564	418	701	285	169	263
8	47	738	1,220	445	1,480	2,020	1,540	426	881	207	656	171
9	45	479	957	414	1,440	1,470	2,500	383	1,890	169	1,520	140
10	43	370	729	395	1,060	970	3,670	365	2,170	150	1,820	124
11	108	310	627	376	944	728	4,540	753	1,820	136	2,620	114
12	1,210	312	736	354	839	616	4,790	1,160	1,360	144	2,120	105
13	1,360	850	929	336	660	561	4,570	1,060	741	136	1,060	97
14	1,150	1,550	1,610	323	533	535	3,620	621	451	166	534	93
15	648	1,290	1,820	318	479	529	2,000	385	386	724	372	98
16	418	745	1,740	312	557	527	915	332	355	698	292	102
17	473	688	1,380	315	1,040	515	694	329	369	483	244	97
18	561	1,210	865	317	1,130	510	600	371	491	401	247	346
19	422	1,340	557	294	1,100	485	613	587	656	422	292	2,830
20	293	980	514	294	1,100	992	719	1,260	645	303	398	4,270
21	220	658	613	327	1,150	2,910	700	1,300	640	214	301	4,880
22	220	560	624	327	1,140	3,450	612	1,180	521	173	217	4,480
23	288	524	550	317	2,170	3,540	630	2,130	406	150	199	2,490
24	311	461	525	241	2,450	3,430	556	2,990	338	153	170	1,130
25	247	406	1,240	236	2,110	2,220	485	3,280	279	188	150	1,130
26	199	378	1,770	313	1,340	877	491	3,260	228	259	145	878
27	171	357	1,820	311	868	635	691	2,620	201	200	127	614
28	160	334	1,540	242	2,110	564	774	2,100	187	155	114	443
29	371	320	1,030	286	---	554	613	1,670	208	130	106	376
30	1,110	311	652	356	---	853	505	985	215	218	96	337
31	1,080	---	547	1,210	---	1,560	---	664	---	225	90	---
TOTAL	11,567	18,617	28,852	13,598	32,362	46,931	42,922	33,048	19,226	8,873	15,578	26,901
MEAN	373	621	931	439	1,156	1,514	1,431	1,066	641	286	503	897
MAX	1,360	1,550	1,820	1,210	2,450	3,540	4,790	3,280	2,170	724	2,620	4,880
MIN	43	253	262	236	479	485	485	329	187	130	90	91
CFSM	0.71	1.18	1.77	0.83	2.20	2.88	2.72	2.03	1.22	0.54	0.96	1.70
IN.	0.82	1.32	2.04	0.96	2.29	3.32	3.04	2.34	1.36	0.63	1.10	1.90

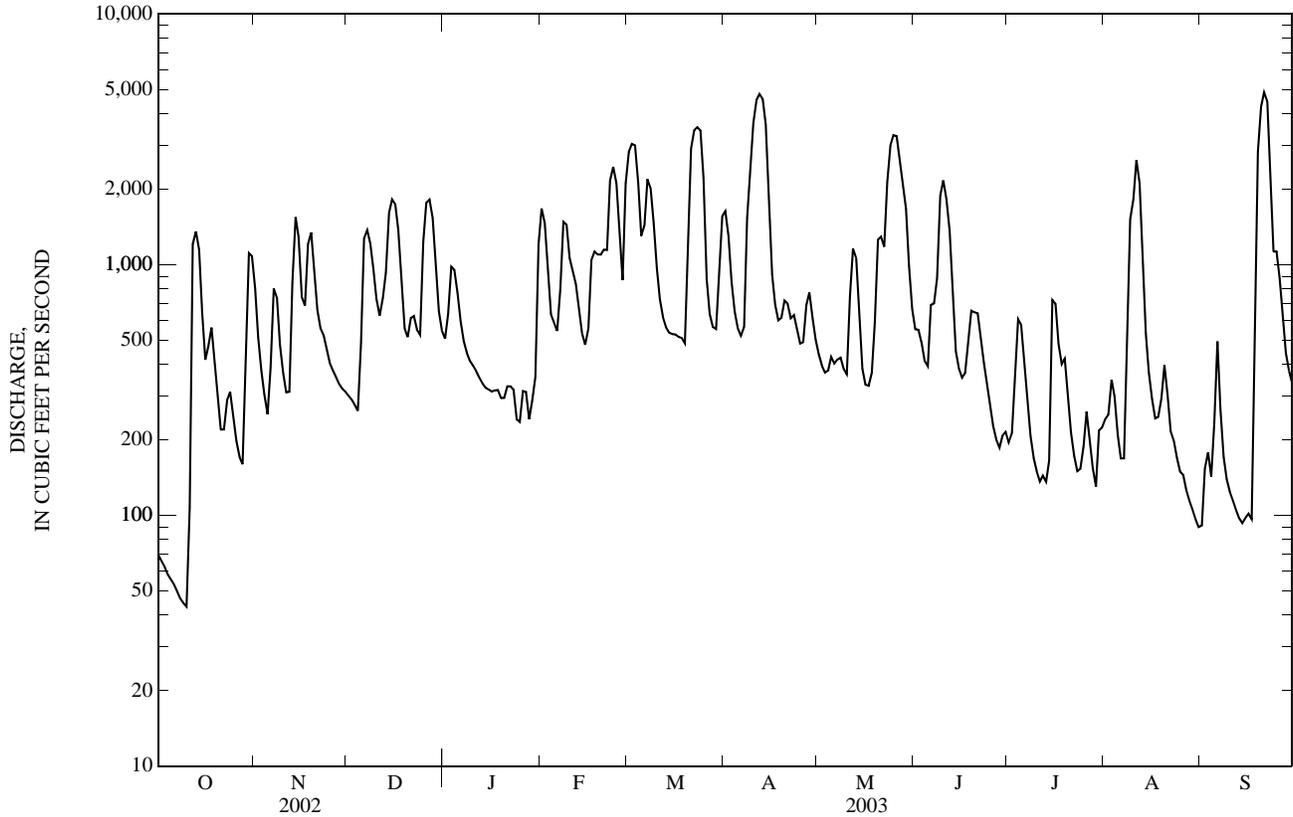
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2003, BY WATER YEAR (WY)

	269	330	477	712	862	900	699	434	318	300	322	333
MAX	2,035	1,948	1,391	2,303	2,145	2,158	2,049	2,174	1,255	1,483	1,828	5,122
(WY)	(1930)	(1986)	(1935)	(1936)	(1960)	(1989)	(1987)	(1958)	(1938)	(1975)	(1940)	(1999)
MIN	14.0	26.0	46.0	60.4	198	248	170	103	27.0	38.0	26.8	14.2
(WY)	(1934)	(1934)	(1934)	(1934)	(1934)	(1981)	(1967)	(2002)	(2002)	(2002)	(1993)	(1980)

PAMLICO RIVER BASIN

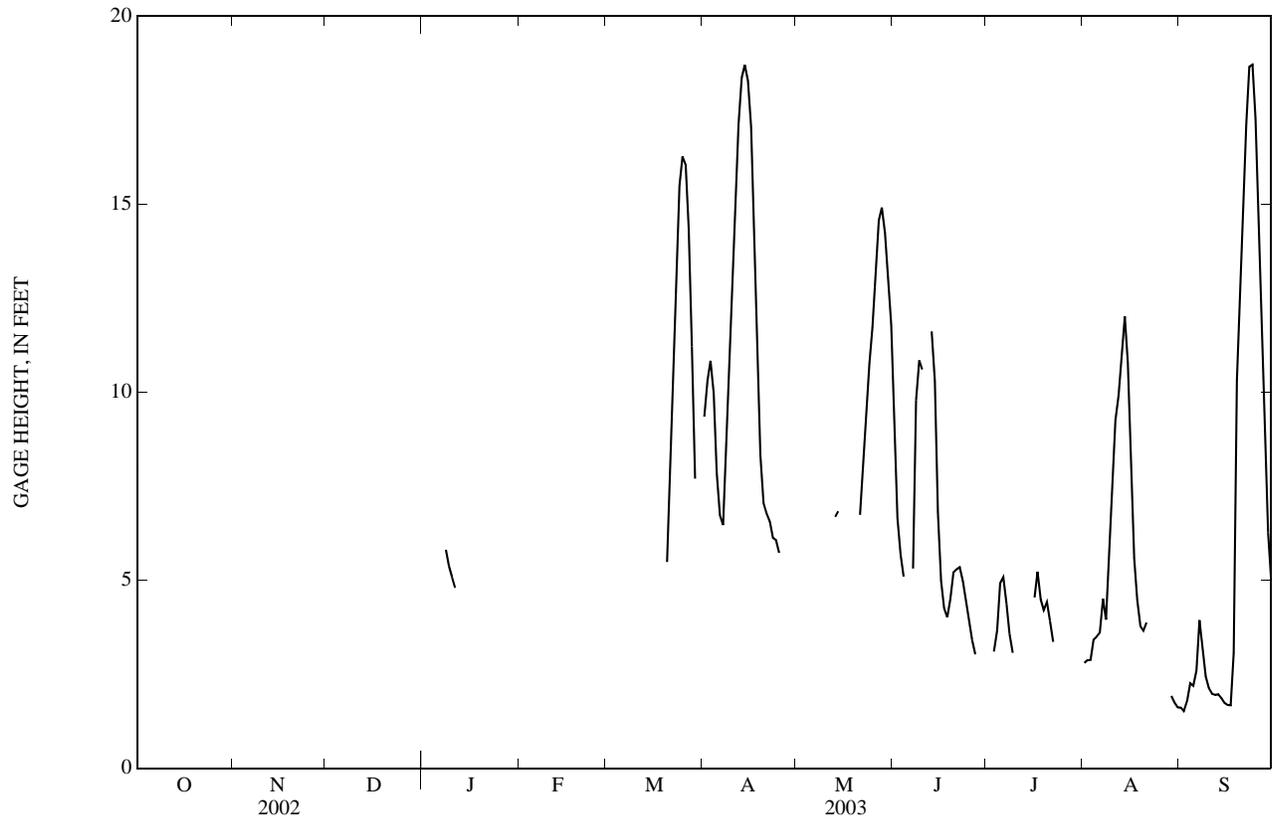
02083000 FISHING CREEK NEAR ENFIELD, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1927 - 2003	
ANNUAL TOTAL	141,951		298,475		495	
ANNUAL MEAN	389		818		871	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					148	
HIGHEST DAILY MEAN	4,400	Sep 1	4,880	Sep 21	29,200	Sep 18, 1999
LOWEST DAILY MEAN	12	Aug 16	43	Oct 10	6.9	Oct 5, 1968
ANNUAL SEVEN-DAY MINIMUM	13	Aug 14	50	Oct 4	8.1	Sep 30, 1968
MAXIMUM PEAK FLOW			4,950	Sep 21	30,100	Sep 18, 1999
MAXIMUM PEAK STAGE			16.85	Sep 21	21.65	Sep 18, 1999
INSTANTANEOUS LOW FLOW			42	Oct 10	NOT DETERMINED	
ANNUAL RUNOFF (CFSM)	0.74		1.55		0.94	
ANNUAL RUNOFF (INCHES)	10.04		21.11		12.78	
10 PERCENT EXCEEDS	1,000		1,930		1,090	
50 PERCENT EXCEEDS	201		524		271	
90 PERCENT EXCEEDS	20		154		68	



PAMLICO RIVER BASIN

0208331077 FISHING CREEK AT NC 97 NEAR LEGGETT, NC—Continued



02083500 TAR RIVER AT TARBORO, NC

LOCATION.--Lat 35°53'39.9", long 77°31'59.0", Edgecombe County, Hydrologic Unit 03020103, on right bank 50 ft downstream 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 mi².

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 9.32 ft above NAVD of 1988. 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. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some diurnal fluctuation at low flow caused by mills upstream from station. Maximum gage height for period of record, from floodmarks. Town of Tarboro diverted 3.8 ft³/s for municipal water supply. Minimum discharge for period of record also occurred Oct. 22, 1933, and Oct. 6, 1968. Minimum discharge for current water year also occurred on Oct. 9.

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 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	423	5,010	1,560	4,360	3,750	8,750	5,220	2,520	6,260	e926	931	628
2	395	5,270	1,460	3,840	4,770	9,160	5,980	2,170	4,220	1,030	952	717
3	374	4,150	1,380	3,880	5,620	10,200	6,710	1,920	e3,030	1,800	951	604
4	349	3,050	1,320	4,590	5,690	11,900	6,470	1,790	e2,450	2,570	1,280	760
5	335	2,510	1,780	4,910	5,050	13,000	4,720	1,720	2,120	3,580	1,370	e920
6	308	2,330	3,700	4,550	4,040	e13,000	3,860	1,670	e1,870	4,260	1,470	e770
7	274	2,680	5,090	3,970	3,770	e12,400	3,410	1,640	e2,530	3,140	e2,150	e710
8	256	3,120	5,850	3,360	4,560	11,700	4,600	1,580	e4,680	1,900	e3,370	e950
9	254	3,670	6,490	2,970	5,280	11,100	6,430	1,580	7,190	1,460	e3,600	888
10	273	3,260	6,470	2,650	6,060	10,300	9,270	1,610	8,130	1,350	e3,950	806
11	470	2,670	5,710	2,390	6,620	8,530	12,500	1,790	8,230	1,340	e5,050	726
12	1,510	2,460	4,820	2,180	6,430	6,800	16,500	1,830	7,990	1,130	e6,120	661
13	3,400	3,390	4,380	1,990	5,700	5,100	18,600	2,050	7,540	1,120	6,520	639
14	5,290	4,840	5,040	1,840	4,780	3,910	20,100	2,130	e5,570	1,050	6,680	581
15	5,990	5,710	6,040	1,720	3,880	3,370	20,800	1,940	3,690	1,120	6,060	551
16	6,840	6,460	6,760	1,650	3,380	3,050	20,500	1,550	2,600	1,340	4,960	520
17	7,390	6,500	7,320	1,630	4,310	2,960	17,400	1,300	2,010	1,950	4,600	882
18	6,720	6,320	7,720	1,620	5,130	2,950	11,900	1,180	1,810	1,700	4,120	2,290
19	5,160	6,310	7,420	1,590	5,500	3,170	7,610	1,750	2,170	1,490	3,760	6,130
20	3,490	6,480	5,510	1,570	5,590	3,110	5,000	2,970	2,480	1,600	3,340	7,580
21	e2,630	6,570	4,740	1,510	5,540	5,560	3,610	4,170	2,600	1,570	2,440	8,050
22	e2,510	5,580	4,200	1,490	5,590	7,600	3,250	4,960	2,780	1,270	1,890	8,600
23	2,730	4,410	4,020	1,500	6,180	9,320	2,990	5,710	2,470	974	1,600	9,360
24	e2,690	3,670	3,700	1,440	7,300	11,100	2,750	7,310	2,050	877	1,380	9,610
25	e2,470	3,020	3,800	1,390	8,130	12,500	2,570	8,810	e1,720	757	1,240	9,360
26	2,130	2,570	4,490	1,350	8,680	13,800	2,420	9,650	e1,470	692	1,130	8,820
27	1,800	2,240	5,320	1,340	9,090	13,700	2,530	10,800	e1,280	736	879	6,970
28	e1,530	2,000	6,130	1,360	8,940	9,630	2,650	11,700	1,090	821	807	4,800
29	1,430	1,820	6,820	1,350	---	6,430	2,900	11,800	e947	786	715	2,880
30	1,970	1,680	6,760	1,380	---	4,450	2,930	10,700	e986	808	632	2,090
31	4,090	---	5,250	2,320	---	4,540	---	8,300	---	976	572	---
TOTAL	75,481	119,750	151,050	73,690	159,360	253,090	236,180	130,600	103,963	46,123	84,519	98,853
MEAN	2,435	3,992	4,873	2,377	5,691	8,164	7,873	4,213	3,465	1,488	2,726	3,295
MAX	7,390	6,570	7,720	4,910	9,090	13,800	20,800	11,800	8,230	4,260	6,680	9,610
MIN	254	1,680	1,320	1,340	3,380	2,950	2,420	1,180	947	692	572	520
CFSM	1.12	1.83	2.23	1.09	2.61	3.74	3.61	1.93	1.59	0.68	1.25	1.51
IN.	1.29	2.04	2.57	1.26	2.72	4.31	4.02	2.23	1.77	0.79	1.44	1.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 2003,[@] BY WATER YEAR (WY)

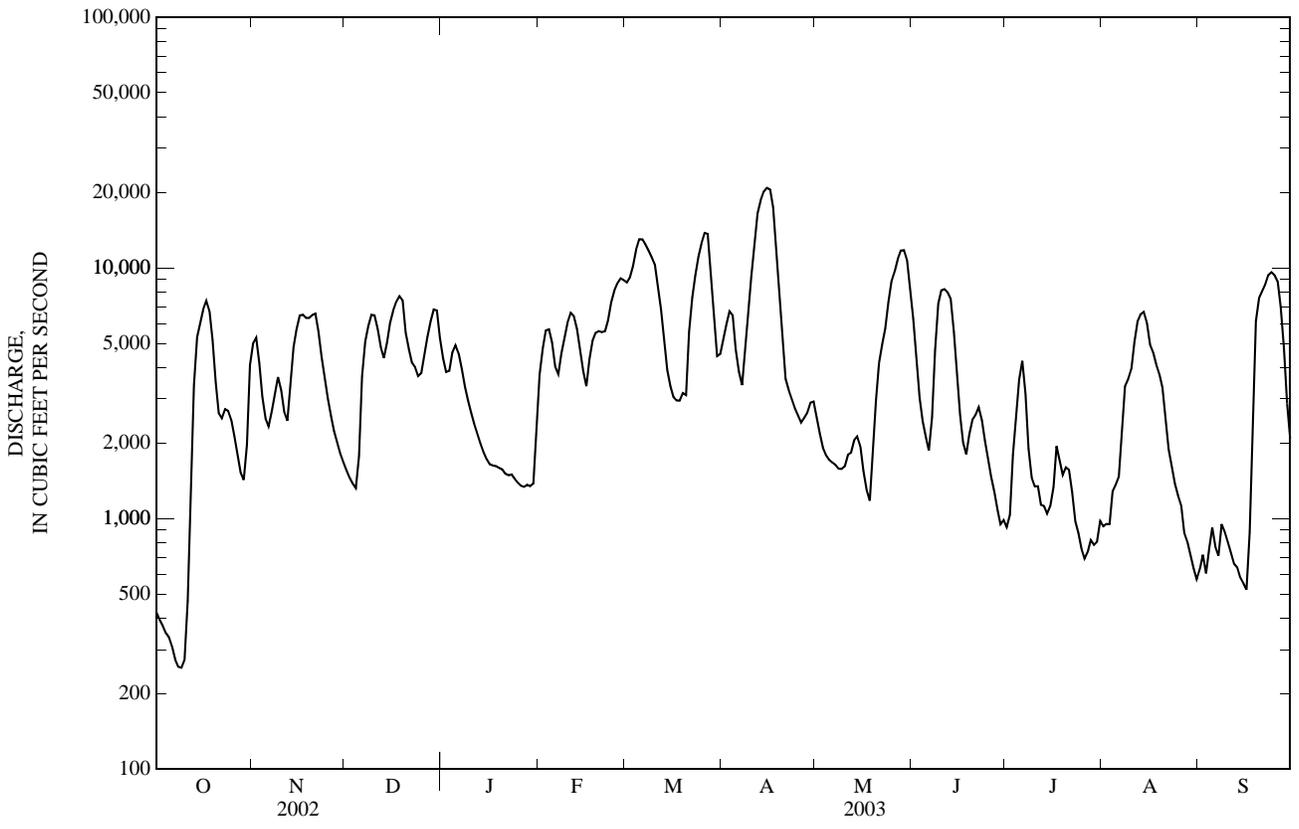
MEAN	1,147	1,281	2,008	3,299	4,274	4,434	3,258	1,844	1,361	1,292	1,428	1,615
MAX	8,896	5,049	6,195	10,020	12,920	11,050	8,553	8,411	4,873	6,291	8,260	26,760
(WY)	(2000)	(1948)	(1949)	(1936)	(1899)	(1989)	(1987)	(1958)	(1979)	(1975)	(1940)	(1999)
MIN	56.7	115	191	253	497	1,116	688	344	146	165	180	63.8
(WY)	(1934)	(1934)	(1934)	(1934)	(1934)	(1981)	(1995)	(2002)	(2002)	(2002)	(1993)	(1968)

PAMLICO RIVER BASIN

02083500 TAR RIVER AT TARBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1896 - 2003 [®]	
ANNUAL TOTAL	715,587		1,532,659		2,269	
ANNUAL MEAN	1,961		4,199		4,199	
HIGHEST ANNUAL MEAN					594	2003
LOWEST ANNUAL MEAN					1981	1981
HIGHEST DAILY MEAN	9,840	Sep 5	20,800	Apr 15	70,500	Sep 19, 1999
LOWEST DAILY MEAN	73	Aug 24	254	Oct 9	36	Oct 17, 1933
ANNUAL SEVEN-DAY MINIMUM	78	Aug 19	293	Oct 4	40	Sep 26, 1932
MAXIMUM PEAK FLOW			21,000	Apr 15	70,600*	Sep 19, 1999
MAXIMUM PEAK STAGE			26.27	Apr 15	41.51*	Sep 19, 1999
INSTANTANEOUS LOW FLOW			247*	Oct 8	36	Oct 17, 1933
ANNUAL RUNOFF (CFSM)	0.90		1.92		1.04	
ANNUAL RUNOFF (INCHES)	12.19		26.12		14.12	
10 PERCENT EXCEEDS	5,850		8,770		5,690	
50 PERCENT EXCEEDS	1,140		3,170		1,230	
90 PERCENT EXCEEDS	109		881		282	

* See REMARKS.
[®] See PERIOD OF RECORD.
 e Estimated.



02083640 TOWN CREEK AT US 258 NEAR PINETOPS, NC

LOCATION.--Lat 35°47'54", long 77°35'29", Edgecombe County, Hydrologic Unit 03020103, at bridge on US Highway 258, 0.2 mi downstream from Bynums Mill Creek and 2.8 mi east of Pinetops.

DRAINAGE AREA.--190 mi².

GAGE-HEIGHT RECORDS

PERIOD OF RECORD.--July to September 2003.

GAGE.--Water-stage recorder. Datum of gage is 20.00 ft, above NAVD of 1988. Satellite telemetry at station.

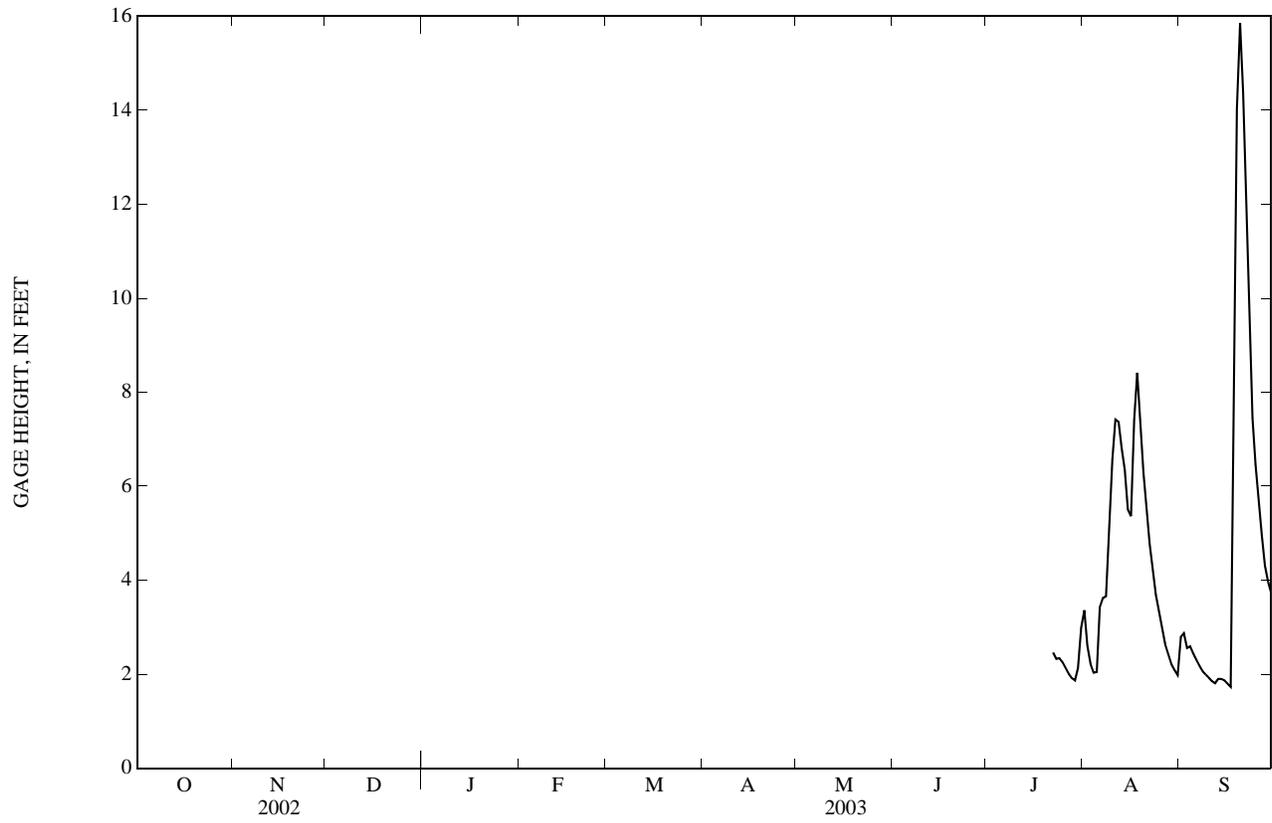
EXTREMES FOR PERIOD OF RECORD.--Maximum, 15.92 ft, Sept. 20, 2003; minimum 1.67 ft, Sept. 18, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum, 15.92 ft, Sept. 20; minimum, 1.67 ft, Sept. 18.

GAGE HEIGHT, FEET
FOR PERIOD JULY TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	3.36	2.79
2	---	---	---	---	---	---	---	---	---	---	2.60	2.87
3	---	---	---	---	---	---	---	---	---	---	2.22	2.56
4	---	---	---	---	---	---	---	---	---	---	2.03	2.59
5	---	---	---	---	---	---	---	---	---	---	2.05	2.44
6	---	---	---	---	---	---	---	---	---	---	3.42	2.30
7	---	---	---	---	---	---	---	---	---	---	3.62	2.18
8	---	---	---	---	---	---	---	---	---	---	3.66	2.07
9	---	---	---	---	---	---	---	---	---	---	5.11	1.99
10	---	---	---	---	---	---	---	---	---	---	6.58	1.93
11	---	---	---	---	---	---	---	---	---	---	7.42	1.85
12	---	---	---	---	---	---	---	---	---	---	7.37	1.81
13	---	---	---	---	---	---	---	---	---	---	6.82	1.90
14	---	---	---	---	---	---	---	---	---	---	6.34	1.90
15	---	---	---	---	---	---	---	---	---	---	5.51	1.87
16	---	---	---	---	---	---	---	---	---	---	5.36	1.80
17	---	---	---	---	---	---	---	---	---	---	7.42	1.73
18	---	---	---	---	---	---	---	---	---	---	8.42	4.42
19	---	---	---	---	---	---	---	---	---	---	7.33	14.03
20	---	---	---	---	---	---	---	---	---	---	6.30	15.85
21	---	---	---	---	---	---	---	---	---	---	5.57	14.38
22	---	---	---	---	---	---	---	---	---	2.46	4.78	11.72
23	---	---	---	---	---	---	---	---	---	2.33	4.18	9.19
24	---	---	---	---	---	---	---	---	---	2.34	3.69	7.45
25	---	---	---	---	---	---	---	---	---	2.25	3.30	6.46
26	---	---	---	---	---	---	---	---	---	2.13	2.94	5.77
27	---	---	---	---	---	---	---	---	---	2.01	2.64	4.98
28	---	---	---	---	---	---	---	---	---	1.92	2.42	4.31
29	---	---	---	---	---	---	---	---	---	1.87	2.21	3.97
30	---	---	---	---	---	---	---	---	---	2.13	2.09	3.73
31	---	---	---	---	---	---	---	---	---	2.99	1.98	---
MEAN	---	---	---	---	---	---	---	---	---	---	4.48	4.76
MAX	---	---	---	---	---	---	---	---	---	---	8.42	15.85
MIN	---	---	---	---	---	---	---	---	---	---	1.98	1.73

02083640 TOWN CREEK AT US 258 NEAR PINETOPS, NC—Continued



02083640 TOWN CREEK AT US 258 NEAR PINETOPS, NC—Continued

PRECIPITATION RECORDS

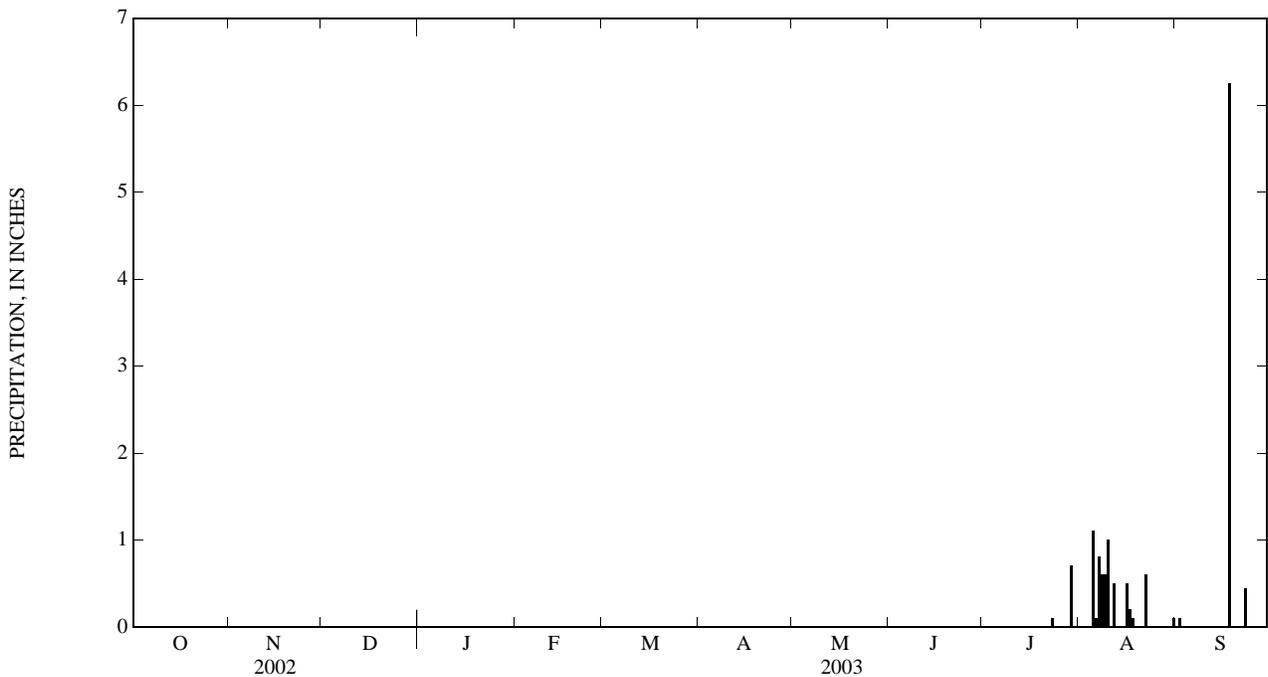
PERIOD OF RECORD.--July to September 2003.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation collected during freezing periods may not be accurately reflected in the daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
FOR PERIOD JULY TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.00	0.00
2	---	---	---	---	---	---	---	---	---	---	0.00	0.10
3	---	---	---	---	---	---	---	---	---	---	0.00	0.00
4	---	---	---	---	---	---	---	---	---	---	0.00	0.00
5	---	---	---	---	---	---	---	---	---	---	1.10	0.00
6	---	---	---	---	---	---	---	---	---	---	0.10	0.00
7	---	---	---	---	---	---	---	---	---	---	0.80	0.00
8	---	---	---	---	---	---	---	---	---	---	0.60	0.00
9	---	---	---	---	---	---	---	---	---	---	0.60	0.00
10	---	---	---	---	---	---	---	---	---	---	1.00	0.00
11	---	---	---	---	---	---	---	---	---	---	0.00	0.00
12	---	---	---	---	---	---	---	---	---	---	0.50	0.00
13	---	---	---	---	---	---	---	---	---	---	0.00	0.00
14	---	---	---	---	---	---	---	---	---	---	0.00	0.00
15	---	---	---	---	---	---	---	---	---	---	0.00	0.00
16	---	---	---	---	---	---	---	---	---	---	0.50	0.00
17	---	---	---	---	---	---	---	---	---	---	0.20	0.00
18	---	---	---	---	---	---	---	---	---	---	0.10	6.25
19	---	---	---	---	---	---	---	---	---	---	0.00	0.01
20	---	---	---	---	---	---	---	---	---	---	0.00	0.00
21	---	---	---	---	---	---	---	---	---	---	0.00	0.00
22	---	---	---	---	---	---	---	---	---	0.00	0.60	0.01
23	---	---	---	---	---	---	---	---	---	0.10	0.00	0.44
24	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
25	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
26	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
27	---	---	---	---	---	---	---	---	---	0.00	0.00	0.01
28	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
29	---	---	---	---	---	---	---	---	---	0.70	0.00	0.00
30	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
31	---	---	---	---	---	---	---	---	---	0.00	0.10	---
TOTAL	---	---	---	---	---	---	---	---	---	---	6.20	6.82



LOCATION.--Lat 35°48'31", long 77°26'47", Pitt County, Hydrologic Unit 03020103, on left bank on Old U.S. Highway 64, 1.3 mi southeast of Conetoe.

DRAINAGE AREA.--65.4 mi².

PERIOD OF RECORD.--July 2002 to June 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

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

DISCHARGE, CUBIC FEET PER SECOND
FOR PERIOD OCTOBER 2002 TO JUNE 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	56	45	55	85	233	52	31	40	---	---	---
2	3.6	46	43	65	68	387	46	28	32	---	---	---
3	3.4	40	42	60	58	301	41	36	27	---	---	---
4	3.3	36	39	58	54	185	38	34	25	---	---	---
5	3.0	35	209	51	50	167	35	29	23	---	---	---
6	2.9	118	266	47	45	424	36	60	20	---	---	---
7	3.5	89	153	44	159	494	61	62	18	---	---	---
8	4.1	62	118	41	155	260	171	43	36	---	---	---
9	4.6	52	95	42	105	190	459	33	26	---	---	---
10	6.0	47	81	37	161	143	747	28	20	---	---	---
11	74	53	83	34	197	112	787	35	17	---	---	---
12	199	234	93	31	134	95	573	28	16	---	---	---
13	74	496	115	32	95	83	272	22	12	---	---	---
14	56	280	213	30	77	75	182	19	10	---	---	---
15	47	152	139	29	73	67	132	17	9.1	---	---	---
16	43	118	104	28	102	63	98	17	10	---	---	---
17	40	328	82	31	567	60	76	15	9.7	---	---	---
18	34	442	70	30	356	57	61	14	9.2	---	---	---
19	30	208	65	28	213	51	67	75	9.5	---	---	---
20	28	144	76	28	162	78	62	70	10	---	---	---
21	61	119	90	28	134	233	53	45	9.6	---	---	---
22	70	105	73	27	123	187	50	37	8.6	---	---	---
23	63	88	64	27	219	125	45	151	8.0	---	---	---
24	49	77	71	25	144	93	38	295	7.2	---	---	---
25	43	69	171	25	109	73	34	163	6.7	---	---	---
26	40	63	120	25	88	63	39	136	6.4	---	---	---
27	35	58	86	25	98	53	82	109	5.9	---	---	---
28	33	53	72	24	351	49	58	106	5.8	---	---	---
29	37	50	64	25	---	46	45	76	5.8	---	---	---
30	95	49	57	31	---	49	37	57	6.2	---	---	---
31	80	---	53	88	---	60	---	45	---	---	---	---
TOTAL	1,269.4	3,767	3,052	1,151	4,182	4,556	4,477	1,916	449.7	---	---	---
MEAN	40.9	126	98.5	37.1	149	147	149	61.8	15.0	---	---	---
MAX	199	496	266	88	567	494	787	295	40	---	---	---
MIN	2.9	35	39	24	45	46	34	14	5.8	---	---	---
CFSM	0.63	1.92	1.51	0.57	2.28	2.25	2.28	0.95	0.23	---	---	---
IN.	0.72	2.14	1.74	0.65	2.38	2.59	2.55	1.09	0.26	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD JULY 2002 TO JUNE 2003

MEAN	40.9	126	98.5	37.1	149	147	149	61.8	15.0	3.29	2.73	18.8
MAX	40.9	126	98.5	37.1	149	147	149	61.8	15.0	3.29	2.73	18.8
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)
MIN	40.9	126	98.5	37.1	149	147	149	61.8	15.0	3.29	2.73	18.8
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)

SUMMARY STATISTICS

MAXIMUM PEAK FLOW
MAXIMUM PEAK STAGE
INSTANTANEOUS LOW FLOW

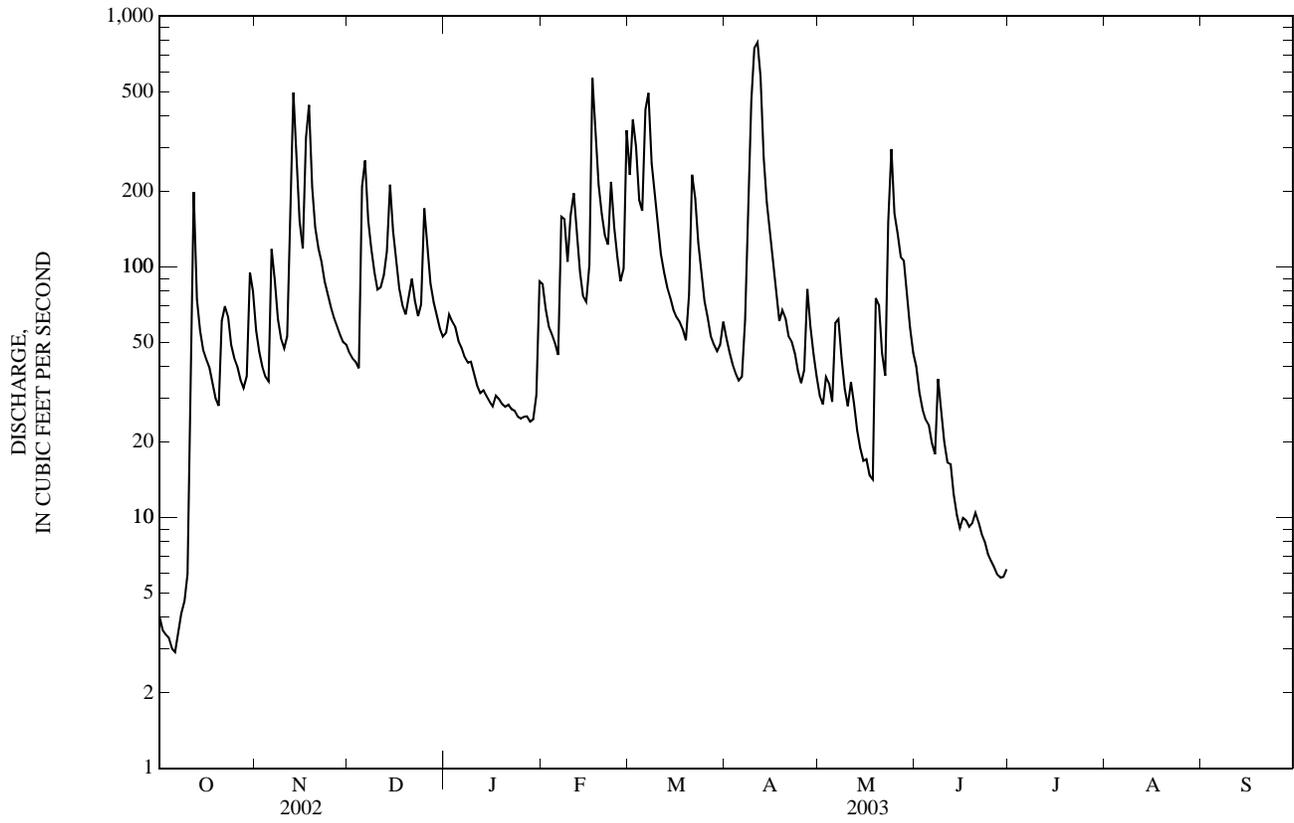
FOR PERIOD
OCTOBER 2002 TO JUNE 2003

807
14.69
2.7
Apr 11 2003
Apr 11 2003
Oct 5 2003

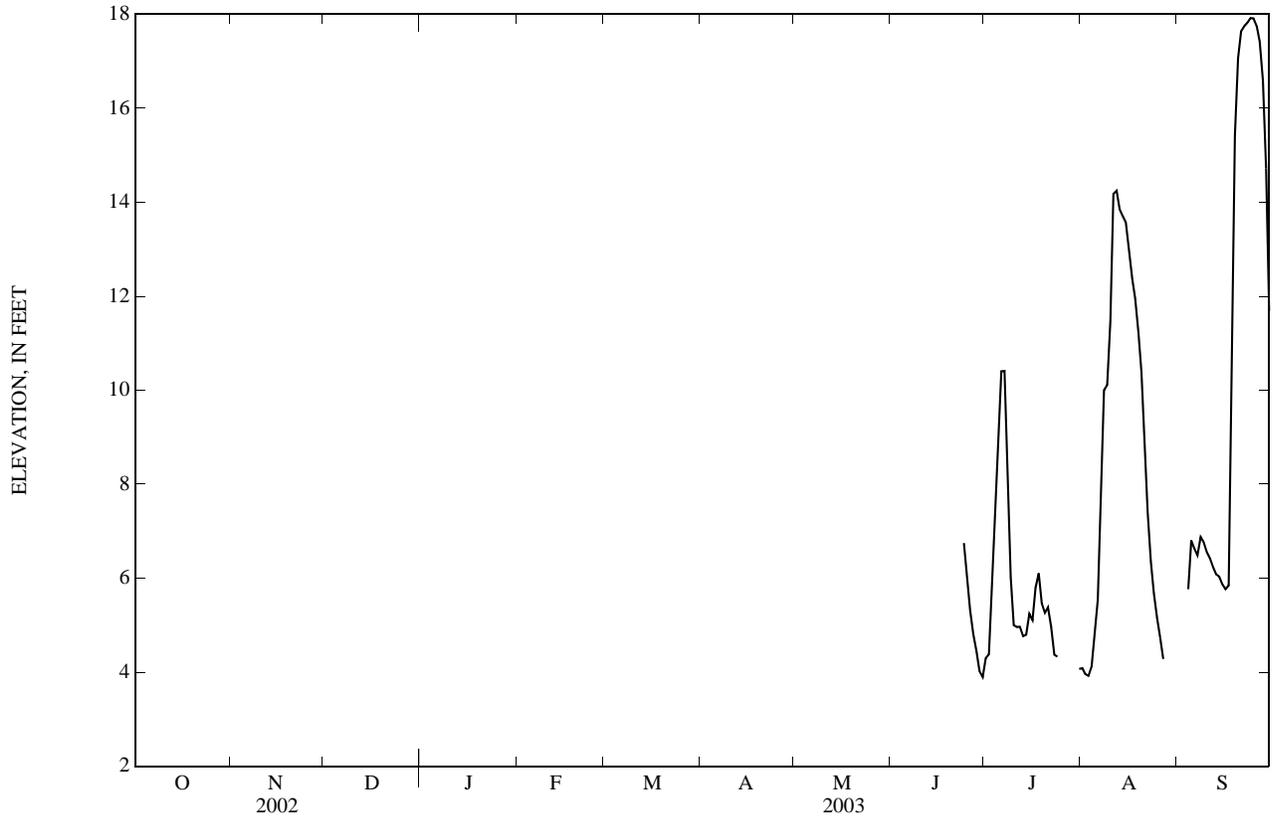
FOR PERIOD
JULY 2002 TO JUNE 2003

807
14.69
NOT DETERMINED
Apr 11 2003
Apr 11 2003

0208378372 CONETOE CREEK AT CONETOE, NC—Continued



02083893 TAR RIVER AT US 264 BYPASS NEAR ROCK SPRINGS, NC—Continued



02084000 TAR RIVER AT GREENVILLE, NC.

LOCATION.--Lat 35°37'05", long 77°22'29", Pitt County, Hydrologic Unit 03020103, on right bank approximately 1500 ft downstream from railroad bridge, and 21 mi upstream from Pamlico River at Washington.

DRAINAGE AREA.--2,660 mi² (revised).

PERIOD OF RECORD.--May 1997 to current year. Gage height records collected at site 800 ft upstream from 1905 to 1935 and at site 200 ft upstream from 1935 to 1984, are in reports of the National Weather Service. Unpublished records of gage height for the period October 1984 to September 1990 are available in files of USGS District Office, Raleigh, NC.

REVISED RECORDS.--WDR NC-99-1(m).

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 3.54 ft below NAVD of 1988. Satellite telemetry at station.

REMARKS.--Records fair. This site is affected by both astronomical and wind tides.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 22, 1940 reached a stage of 22.07 ft at site 200 ft upstream at present datum; discharge 36,500 ft³/s. Maximum observed stage during period 1905-39 (National Weather Service Records) 24.5 ft July 28, 1919.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	711	4,590	2,200	6,230	3,130	10,900	5,350	3,480	11,100	1,210	1,270	685
2	650	5,170	2,010	5,090	4,270	11,000	5,610	2,940	8,850	1,200	1,200	820
3	622	5,300	1,900	4,540	e4,930	11,400	6,220	2,600	5,980	2,360	1,210	799
4	506	4,530	1,820	4,680	5,580	12,200	6,820	2,330	3,660	3,200	e1,300	822
5	548	3,410	2,110	e5,100	5,670	13,300	6,630	2,180	2,610	4,050	e1,710	1,170
6	436	3,000	3,570	5,220	5,180	14,400	5,330	2,370	2,160	4,660	e2,500	1,030
7	388	3,180	4,860	4,870	4,500	15,300	4,110	2,500	1,960	4,790	e3,290	943
8	302	3,500	5,580	4,180	4,720	15,300	4,220	2,340	2,950	3,680	4,840	1,090
9	339	3,940	6,390	3,560	5,190	14,700	5,510	2,160	4,940	2,350	4,900	1,030
10	308	4,010	7,020	3,150	5,830	13,900	8,300	2,050	6,510	1,720	5,760	930
11	665	3,450	7,100	2,810	6,610	12,900	12,000	2,330	8,120	1,750	9,160	844
12	2,700	3,360	6,410	2,580	7,180	11,500	14,900	2,410	8,760	1,750	10,100	794
13	3,380	4,500	5,650	2,360	7,070	9,480	17,100	2,430	8,790	1,590	9,380	804
14	4,570	5,370	5,430	2,200	6,370	7,080	18,500	2,440	8,280	1,600	8,920	709
15	5,480	6,080	5,900	2,090	5,380	4,950	19,300	2,430	6,690	1,850	8,700	691
16	e6,410	6,930	6,700	1,960	4,460	3,950	19,700	2,120	4,450	1,800	7,820	619
17	e7,200	7,920	7,530	1,990	4,840	3,560	19,800	1,660	2,660	2,140	6,730	616
18	7,770	8,470	8,190	1,940	5,810	3,440	18,700	1,450	2,020	2,330	6,120	1,920
19	7,580	8,540	8,590	1,940	6,550	3,500	16,100	2,200	2,000	2,000	5,530	6,890
20	6,140	8,380	8,450	1,900	6,800	3,590	12,400	3,680	2,330	1,840	4,960	9,060
21	4,140	8,240	7,100	1,840	6,740	4,760	8,530	4,530	2,600	1,910	4,050	10,500
22	e3,250	8,020	5,760	1,790	6,530	6,430	5,350	5,090	2,840	1,740	2,880	11,100
23	e3,240	6,980	5,080	1,830	6,560	8,410	e3,600	5,940	2,890	1,440	2,260	11,500
24	3,330	5,600	4,770	1,770	7,140	10,300	e3,300	7,370	2,470	1,420	1,870	11,700
25	3,200	4,370	4,510	1,680	8,360	11,700	e3,000	8,880	2,030	1,260	1,610	11,700
26	2,900	3,530	4,720	1,670	9,370	13,100	e2,900	10,500	1,720	994	1,430	11,400
27	2,530	3,030	5,190	1,660	10,100	13,900	e2,900	11,900	1,480	934	1,190	10,800
28	2,230	2,710	5,770	1,630	10,700	14,000	e3,000	12,800	1,300	972	977	9,630
29	2,000	2,490	6,470	1,660	---	12,600	e3,300	13,200	1,060	975	905	7,140
30	2,180	2,330	7,180	1,660	---	9,600	e3,700	13,200	1,010	1,160	841	4,250
31	3,230	---	7,190	2,010	---	6,260	---	12,500	---	1,250	718	---
TOTAL	88,935	150,930	171,150	87,590	175,570	307,410	266,180	154,010	124,220	61,925	124,131	131,986
MEAN	2,869	5,031	5,521	2,825	6,270	9,916	8,873	4,968	4,141	1,998	4,004	4,400
MAX	7,770	8,540	8,590	6,230	10,700	15,300	19,800	13,200	11,100	4,790	10,100	11,700
MIN	302	2,330	1,820	1,630	3,130	3,440	2,900	1,450	1,010	934	718	616
CFSM	1.08	1.89	2.08	1.06	2.36	3.73	3.34	1.87	1.56	0.75	1.51	1.65
IN.	1.24	2.11	2.39	1.22	2.46	4.30	3.72	2.15	1.74	0.87	1.74	1.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

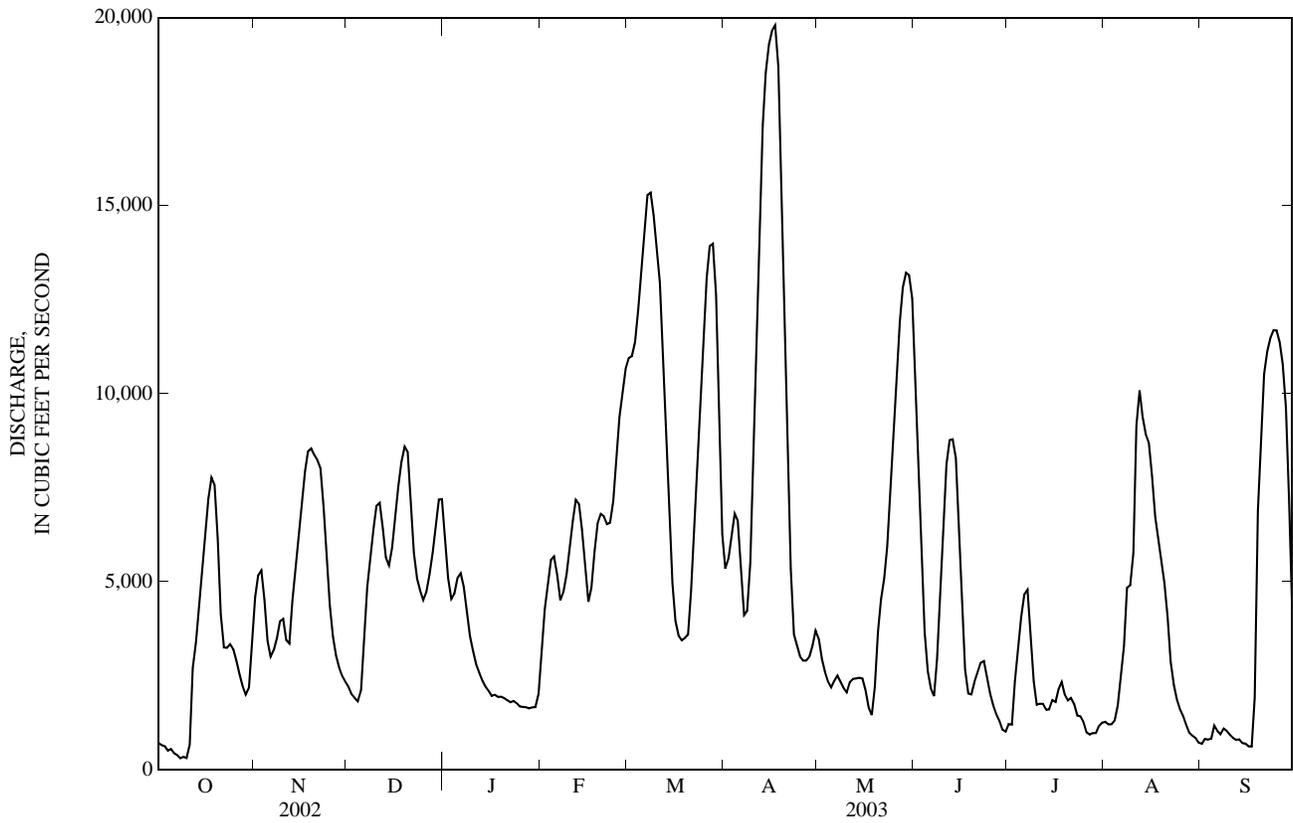
MEAN	2,786	1,560	1,925	3,663	5,459	5,470	4,020	1,926	1,680	979	1,728	6,143
MAX	11,690	5,031	5,521	6,167	13,280	12,020	8,873	4,968	4,141	1,998	4,352	29,850
(WY)	(2000)	(2003)	(2003)	(1999)	(1998)	(1998)	(2003)	(2003)	(2003)	(2003)	(2000)	(1999)
MIN	282	265	455	1,133	1,898	1,857	1,643	528	190	265	287	450
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(2002)	(1999)	(2002)	(2002)	(2002)	(1999)	(2001)

02084000 TAR RIVER AT GREENVILLE, NC.—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	850,461		1,844,037		3,170	
ANNUAL MEAN	2,330		5,052		5,052	
HIGHEST ANNUAL MEAN					1,288	2003
LOWEST ANNUAL MEAN					24	2002
HIGHEST DAILY MEAN	9,590	Sep 6	19,800	Apr 17	72,300	Sep 21, 1999
LOWEST DAILY MEAN	24	Aug 25	302	Oct 8	24	Aug 25, 2002
ANNUAL SEVEN-DAY MINIMUM	84	Aug 19	404	Oct 4	84	Aug 19, 2002
MAXIMUM PEAK FLOW			20,100	Apr 17	73,000	Sep 21, 1999
MAXIMUM PEAK STAGE			17.59	Apr 17	29.72	Sep 21, 1999
INSTANTANEOUS LOW FLOW			-314	Oct 6	-851	Aug 22, 1999
ANNUAL RUNOFF (CFSM)	0.88		1.90		1.19	
ANNUAL RUNOFF (INCHES)	11.89		25.79		16.19	
10 PERCENT EXCEEDS	6,400		11,000		7,580	
50 PERCENT EXCEEDS	1,590		4,050		1,500	
90 PERCENT EXCEEDS	128		1,080		283	

e Estimated.

Note.-- Negative values indicate reverse flow.



02084160 CHICOD CREEK AT SECONDARY ROAD 1760 NEAR SIMPSON, NC

LOCATION.--Lat 35°33'48", long 77°13'42", 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 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.1 ft below NAVD of 1988. Satellite telemetry at station.

REMARKS.--Records poor. Maximum gage height for period of record from flood mark. No flow occurs at times during most years.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	11	22	10	5.2	167	31	7.3	196	1.9	34	11
2	0.00	9.8	23	16	5.1	113	31	6.5	202	6.1	28	8.9
3	0.00	9.1	24	16	4.8	94	30	6.3	113	151	27	7.4
4	0.00	9.2	24	13	4.6	66	30	6.1	60	104	33	8.1
5	0.00	9.7	60	12	4.4	55	25	6.2	36	33	28	33
6	0.00	14	88	10	4.8	183	22	14	24	14	28	52
7	0.00	17	54	8.9	10	359	27	31	17	9.4	72	34
8	0.00	18	40	8.0	16	179	41	28	14	8.2	313	27
9	0.00	16	34	7.6	11	120	370	16	12	7.2	362	26
10	0.00	15	32	7.0	15	83	886	10	10	7.3	270	23
11	9.6	15	33	6.4	27	57	623	10	8.8	8.9	252	21
12	131	29	36	5.9	14	45	297	7.9	8.1	9.9	184	19
13	43	81	44	5.9	9.4	38	157	4.8	7.2	9.1	121	19
14	11	65	62	5.7	7.9	34	77	2.7	7.0	13	161	17
15	8.3	31	25	5.4	7.1	30	39	2.0	6.7	16	204	16
16	8.4	28	16	5.3	14	29	23	1.8	6.8	18	133	15
17	9.2	91	13	5.8	532	30	15	1.3	6.0	23	103	13
18	9.1	180	11	5.2	335	32	11	2.5	4.7	19	92	314
19	8.7	106	11	5.1	161	30	11	142	4.9	15	74	1,160
20	8.4	49	11	4.8	103	46	9.6	187	5.3	14	61	639
21	8.8	30	14	4.7	74	447	8.1	76	5.3	13	48	289
22	9.0	26	13	4.7	61	396	7.8	31	4.9	11	39	143
23	8.6	23	11	4.8	181	182	7.7	130	4.3	66	33	88
24	8.0	22	11	4.4	175	108	5.8	850	3.0	672	30	70
25	7.7	22	17	4.2	92	71	5.7	532	2.5	259	26	57
26	7.3	24	18	4.2	60	50	7.0	615	1.9	86	27	38
27	6.7	24	14	4.1	58	39	7.6	664	1.7	73	26	28
28	6.7	24	12	3.7	179	32	8.2	578	1.3	66	25	77
29	8.1	23	10	3.8	---	30	9.2	314	1.1	39	22	305
30	11	23	9.3	4.3	---	30	8.1	187	2.0	42	19	215
31	11	---	9.1	5.3	---	32	---	135	---	34	15	---
TOTAL	339.62	1,044.8	801.4	212.2	2,171.3	3,207	2,830.8	4,605.4	777.5	1,849.0	2,890	3,773.4
MEAN	11.0	34.8	25.9	6.85	77.5	103	94.4	149	25.9	59.6	93.2	126
MAX	131	180	88	16	532	447	886	850	202	672	362	1,160
MIN	0.00	9.1	9.1	3.7	4.4	29	5.7	1.3	1.1	1.9	15	7.4
CFSM	0.24	0.77	0.57	0.15	1.72	2.30	2.10	3.30	0.58	1.33	2.07	2.80
IN.	0.28	0.86	0.66	0.18	1.79	2.65	2.34	3.81	0.64	1.53	2.39	3.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2003,@ BY WATER YEAR (WY)

MEAN	30.6	31.2	46.0	94.4	85.0	95.2	55.3	33.5	31.7	19.7	40.8	96.4
MAX	274	219	94.2	244	245	201	144	149	192	120	238	1,188
(WY)	(2000)	(1978)	(1978)	(1978)	(1998)	(1980)	(1978)	(2003)	(1995)	(1996)	(1992)	(1999)
MIN	0.27	1.23	4.41	6.85	19.7	18.0	4.49	0.65	0.001	0.89	0.000	0.024
(WY)	(1977)	(1982)	(2002)	(2003)	(1977)	(1981)	(1981)	(1985)	(1985)	(1998)	(1976)	(2002)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1976 - 2003@

ANNUAL TOTAL	9,491.22	24,502.42	
ANNUAL MEAN	26.0	67.1	54.4
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			20.4
HIGHEST DAILY MEAN	525	Apr 1	1,160
LOWEST DAILY MEAN	0.00	Aug 4	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 4	0.00
MAXIMUM PEAK FLOW			1,350
MAXIMUM PEAK STAGE			11.37
INSTANTANEOUS LOW FLOW			0.00*
ANNUAL RUNOFF (CFSM)	0.58		1.49
ANNUAL RUNOFF (INCHES)	7.85		20.26
10 PERCENT EXCEEDS	62		180
50 PERCENT EXCEEDS	8.8		19
90 PERCENT EXCEEDS	0.00		4.8

NOT DETERMINED

21.46* Sep 18, 1999

0.00* Jul 19, 1976

1.21

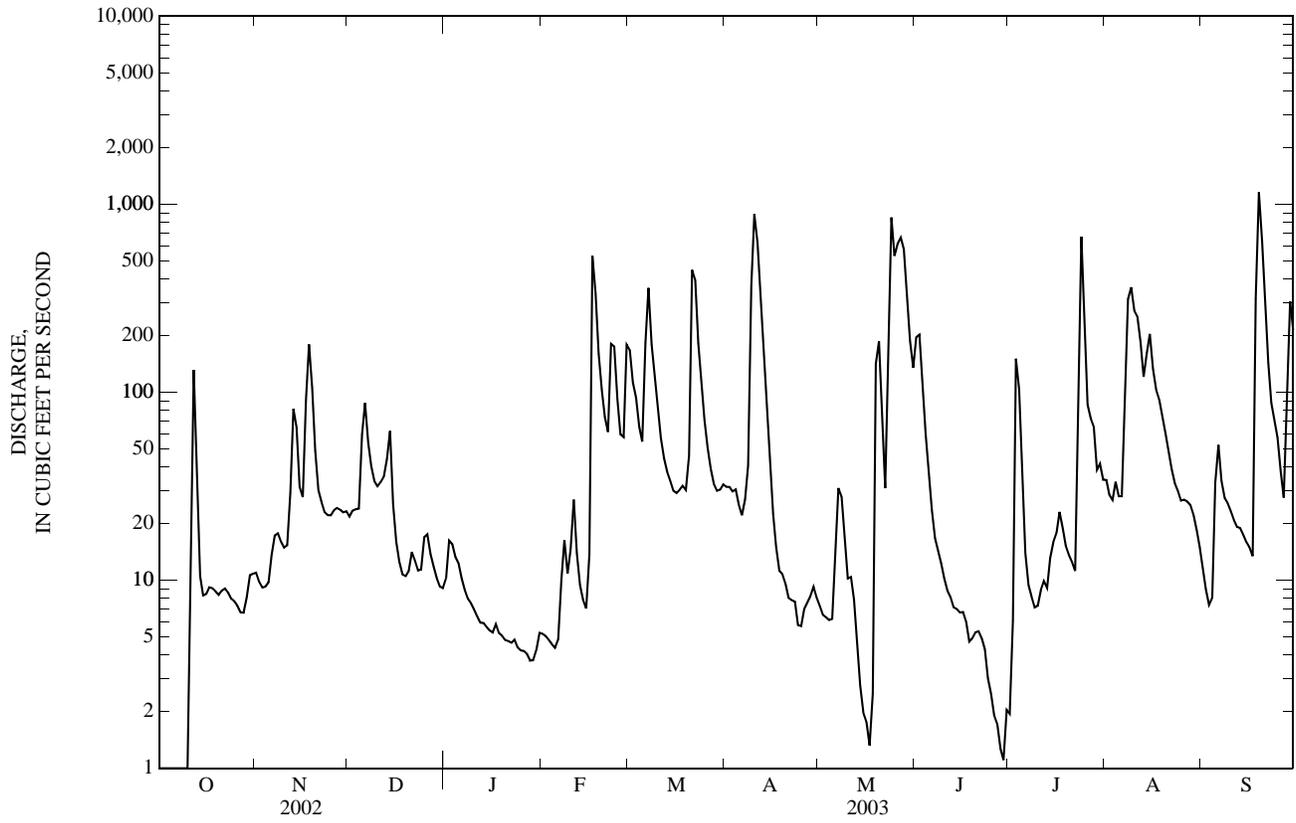
16.42

124

11

0.43

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



TAR RIVER BASIN

02084173 TAR RIVER AT SECONDARY ROAD 1565 NEAR GRIMESLAND, NC

LOCATION.--Lat 35°34'25.7", long 77°10'32.7", Pitt County, Hydrologic Unit 03020103, at bridge on Secondary Road 1565, approximately 1.1 mi northeast of Grimesland.

DRAINAGE AREA.--2,858 mi².

PERIOD OF RECORD.--May 2003 to September 2003.

GAGE.--Water stage recorder. Elevation of gage is at NAVD of 1988 (levels by North Carolina Geodetic Survey). Satellite telemetry at station.

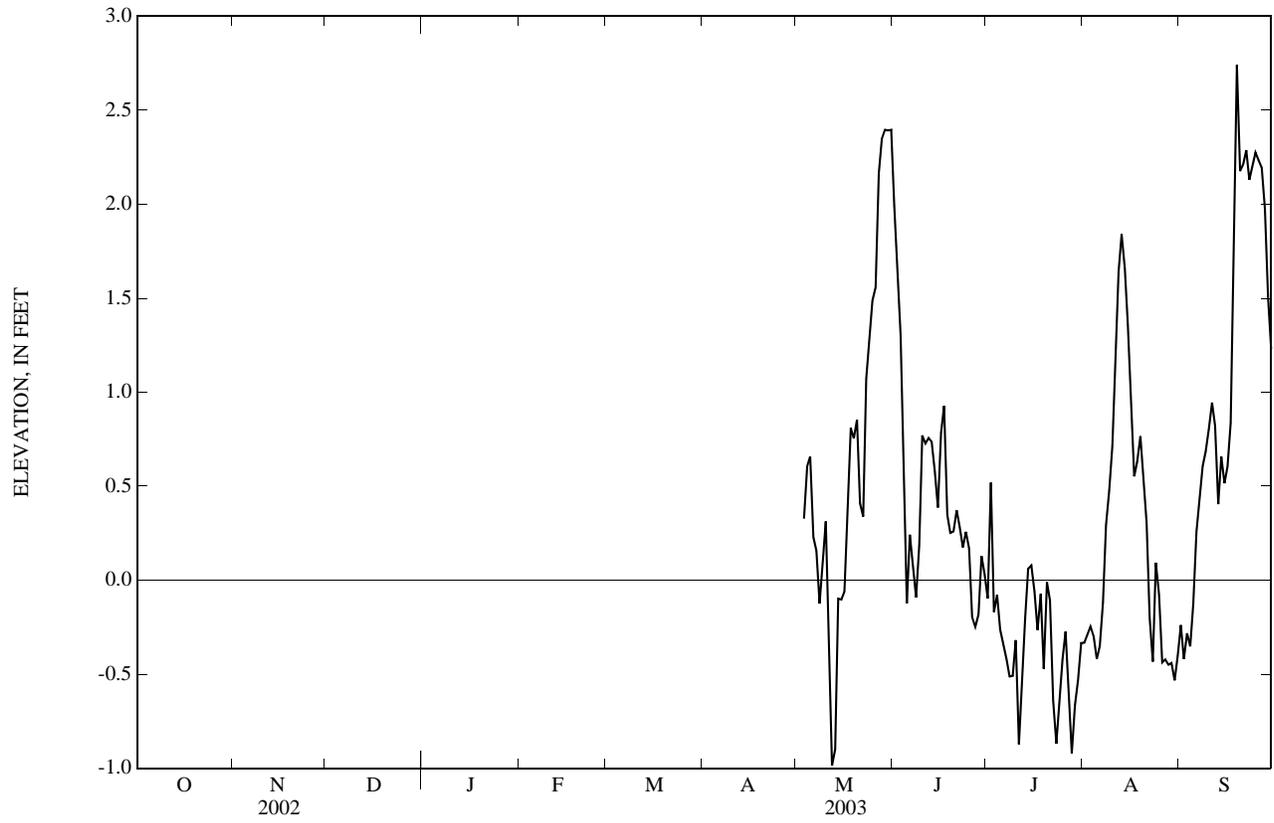
EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 4.15 ft, Sept. 18, 2003; minimum recorded elevation, -1.82 ft, May 13, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 4.15 ft, Sept. 18; minimum recorded elevation, -1.82 ft, May 13.

ELEVATION, FEET
MAY TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	1.99	-0.10	-0.33	-0.24
2	---	---	---	---	---	---	---	---	1.71	0.52	-0.29	-0.42
3	---	---	---	---	---	---	---	0.33	1.30	-0.17	-0.25	-0.28
4	---	---	---	---	---	---	---	0.60	0.45	-0.08	-0.30	-0.35
5	---	---	---	---	---	---	---	0.66	-0.12	-0.26	-0.42	-0.12
6	---	---	---	---	---	---	---	0.23	0.24	-0.34	-0.35	0.26
7	---	---	---	---	---	---	---	0.16	0.06	-0.42	-0.12	0.42
8	---	---	---	---	---	---	---	-0.12	-0.09	-0.51	0.29	0.61
9	---	---	---	---	---	---	---	0.09	0.19	-0.51	0.48	0.69
10	---	---	---	---	---	---	---	0.31	0.77	-0.32	0.71	0.81
11	---	---	---	---	---	---	---	-0.20	0.73	-0.87	1.09	0.94
12	---	---	---	---	---	---	---	-0.99	0.76	-0.59	1.64	0.82
13	---	---	---	---	---	---	---	-0.90	0.74	-0.20	1.84	0.40
14	---	---	---	---	---	---	---	-0.10	0.58	0.06	1.66	0.66
15	---	---	---	---	---	---	---	-0.10	0.39	0.08	1.36	0.52
16	---	---	---	---	---	---	---	-0.06	0.79	-0.06	0.89	0.60
17	---	---	---	---	---	---	---	0.34	0.93	-0.26	0.55	0.84
18	---	---	---	---	---	---	---	0.81	0.35	-0.07	0.63	1.83
19	---	---	---	---	---	---	---	0.76	0.25	-0.47	0.77	2.74
20	---	---	---	---	---	---	---	0.85	0.26	-0.01	0.55	2.18
21	---	---	---	---	---	---	---	0.41	0.37	-0.11	0.30	2.21
22	---	---	---	---	---	---	---	0.34	0.28	-0.64	-0.20	2.29
23	---	---	---	---	---	---	---	1.07	0.17	-0.87	-0.43	2.13
24	---	---	---	---	---	---	---	1.28	0.26	-0.66	0.09	2.21
25	---	---	---	---	---	---	---	1.49	0.17	-0.42	-0.08	2.28
26	---	---	---	---	---	---	---	1.56	-0.20	-0.27	-0.44	2.23
27	---	---	---	---	---	---	---	2.17	-0.25	-0.57	-0.42	2.20
28	---	---	---	---	---	---	---	2.35	-0.18	-0.92	-0.45	1.98
29	---	---	---	---	---	---	---	2.40	0.13	-0.66	-0.44	1.50
30	---	---	---	---	---	---	---	2.39	0.03	-0.53	-0.53	1.23
31	---	---	---	---	---	---	---	2.40	---	-0.33	-0.40	---
MEAN	---	---	---	---	---	---	---	---	0.44	-0.34	0.24	1.11
MAX	---	---	---	---	---	---	---	---	1.99	0.52	1.84	2.74
MIN	---	---	---	---	---	---	---	---	-0.25	-0.92	-0.53	-0.42

02084173 TAR RIVER AT SECONDARY ROAD 1565 NEAR GRIMESLAND, NC—Continued



0208436195 TRANTERS CREEK AT SECONDARY ROAD 1567 NEAR WASHINGTON, NC

LOCATION.--Lat 35°33'43.9", long 77°05'17.9", Beaufort County, Hydrologic Unit 03020103, on Secondary Road 1567, 2 mi northwest of Washington.

DRAINAGE AREA.--246 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--June 2003 to September 2003.

GAGE.--Water-stage recorder. Datum of gage is sea level, NAVD 1988 (levels by North Carolina Geodetic Survey).

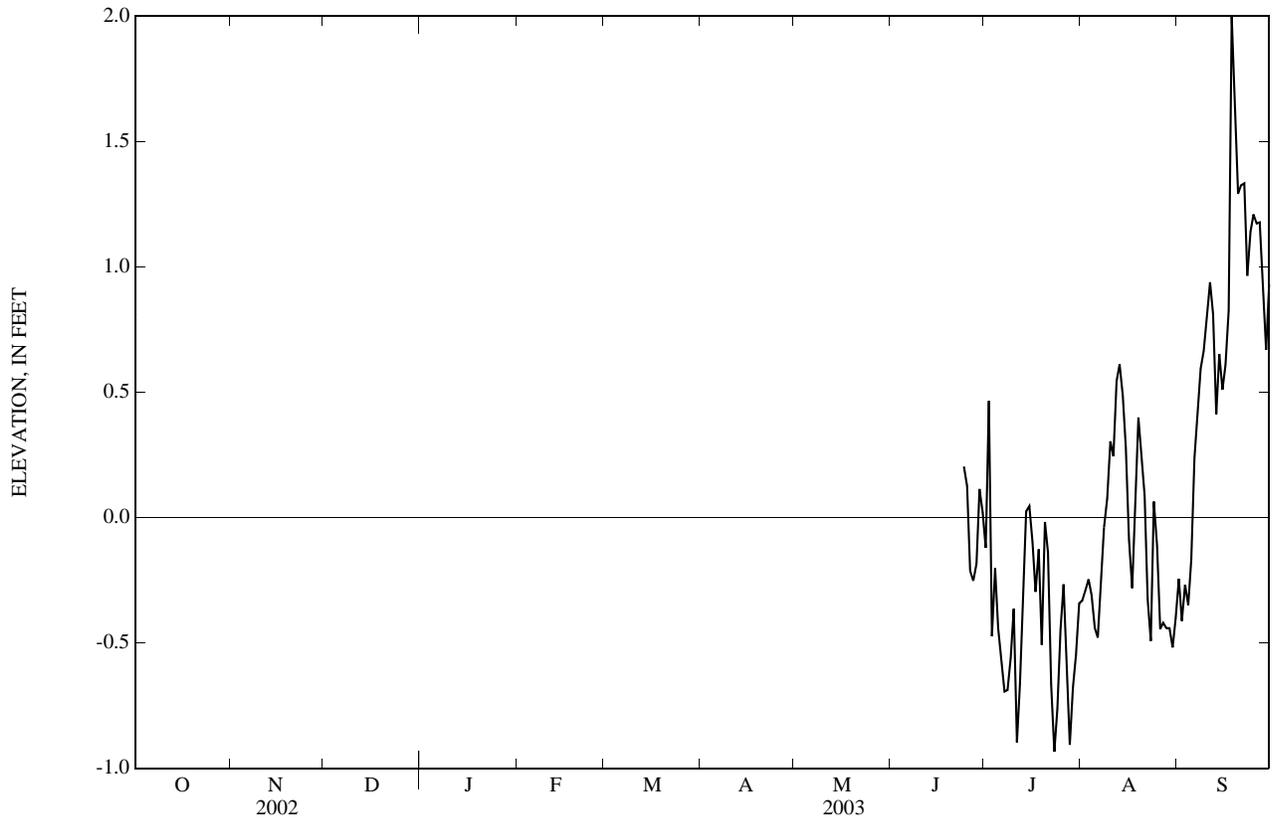
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 4.97 ft, Sept. 18, 2003; minimum elevation recorded, -1.50, July 23, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 4.97 ft, Sept. 18; minimum elevation recorded, -1.50 ft, July 23.

ELEVATION, FEET
JUNE TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	-0.12	-0.33	-0.24
2	---	---	---	---	---	---	---	---	---	0.47	-0.29	-0.41
3	---	---	---	---	---	---	---	---	---	-0.47	-0.25	-0.27
4	---	---	---	---	---	---	---	---	---	-0.20	-0.31	-0.35
5	---	---	---	---	---	---	---	---	---	-0.44	-0.44	-0.17
6	---	---	---	---	---	---	---	---	---	-0.58	-0.48	0.24
7	---	---	---	---	---	---	---	---	---	-0.69	-0.29	0.42
8	---	---	---	---	---	---	---	---	---	-0.69	-0.04	0.59
9	---	---	---	---	---	---	---	---	---	-0.56	0.08	0.66
10	---	---	---	---	---	---	---	---	---	-0.36	0.30	0.80
11	---	---	---	---	---	---	---	---	---	-0.90	0.24	0.94
12	---	---	---	---	---	---	---	---	---	-0.66	0.54	0.81
13	---	---	---	---	---	---	---	---	---	-0.29	0.61	0.41
14	---	---	---	---	---	---	---	---	---	0.02	0.49	0.65
15	---	---	---	---	---	---	---	---	---	0.05	0.28	0.51
16	---	---	---	---	---	---	---	---	---	-0.10	-0.09	0.61
17	---	---	---	---	---	---	---	---	---	-0.30	-0.28	0.83
18	---	---	---	---	---	---	---	---	---	-0.13	0.09	2.00
19	---	---	---	---	---	---	---	---	---	-0.51	0.40	1.72
20	---	---	---	---	---	---	---	---	---	-0.02	0.24	1.29
21	---	---	---	---	---	---	---	---	---	-0.14	0.09	1.33
22	---	---	---	---	---	---	---	---	---	-0.67	-0.32	1.33
23	---	---	---	---	---	---	---	---	---	-0.93	-0.49	0.96
24	---	---	---	---	---	---	---	---	0.20	-0.76	0.06	1.14
25	---	---	---	---	---	---	---	---	0.13	-0.45	-0.11	1.21
26	---	---	---	---	---	---	---	---	-0.21	-0.27	-0.45	1.17
27	---	---	---	---	---	---	---	---	-0.25	-0.56	-0.42	1.18
28	---	---	---	---	---	---	---	---	-0.18	-0.91	-0.44	0.96
29	---	---	---	---	---	---	---	---	0.11	-0.68	-0.44	0.67
30	---	---	---	---	---	---	---	---	0.02	-0.55	-0.52	0.93
31	---	---	---	---	---	---	---	---	---	-0.34	-0.40	---
MEAN	---	---	---	---	---	---	---	---	---	-0.41	-0.10	0.73
MAX	---	---	---	---	---	---	---	---	---	0.47	0.61	2.00
MIN	---	---	---	---	---	---	---	---	---	-0.93	-0.52	-0.41

0208436195 TRANTERS CREEK AT SECONDARY ROAD 1567 NEAR WASHINGTON, NC—Continued



PRECIPITATION RECORDS

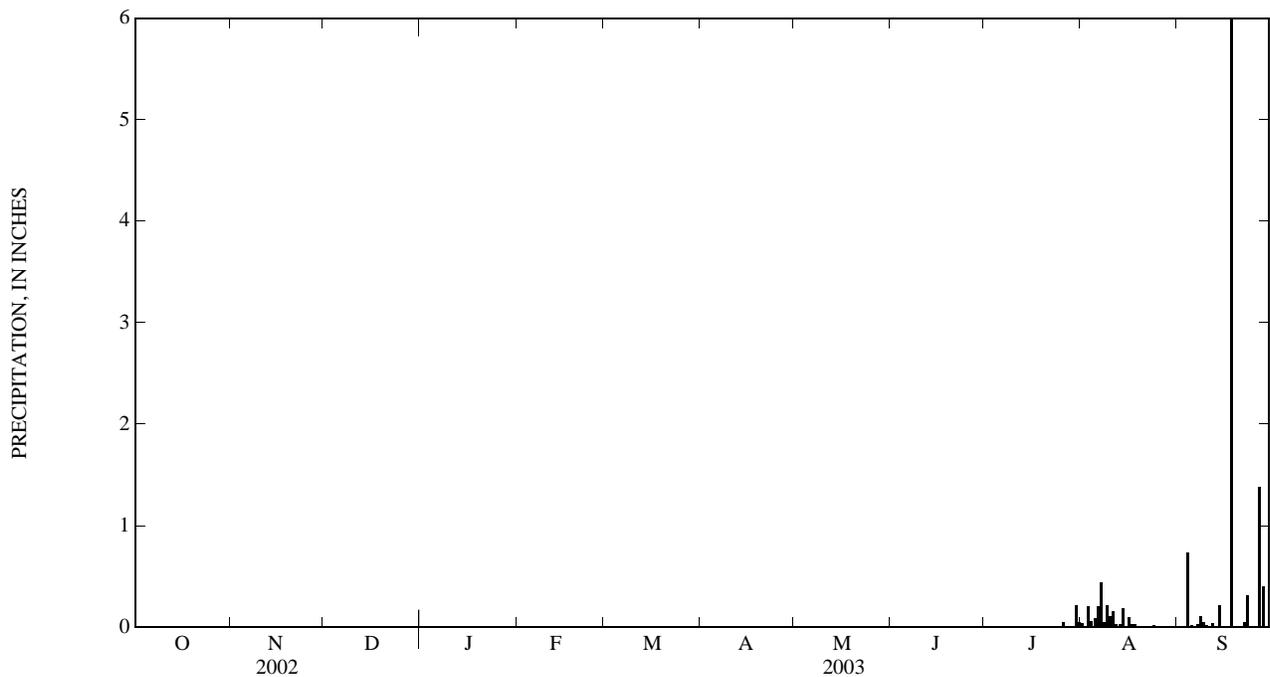
PERIOD OF RECORD.--July 2003 to September 2003.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation collected during freezing periods may not be accurately reflected in the daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
JULY TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.03	0.00
2	---	---	---	---	---	---	---	---	---	---	0.00	0.00
3	---	---	---	---	---	---	---	---	---	---	0.20	0.00
4	---	---	---	---	---	---	---	---	---	---	0.05	0.73
5	---	---	---	---	---	---	---	---	---	---	0.08	0.01
6	---	---	---	---	---	---	---	---	---	---	0.20	0.00
7	---	---	---	---	---	---	---	---	---	---	0.44	0.02
8	---	---	---	---	---	---	---	---	---	---	0.04	0.10
9	---	---	---	---	---	---	---	---	---	---	0.21	0.04
10	---	---	---	---	---	---	---	---	---	---	0.10	0.01
11	---	---	---	---	---	---	---	---	---	---	0.15	0.00
12	---	---	---	---	---	---	---	---	---	---	0.02	0.03
13	---	---	---	---	---	---	---	---	---	---	0.02	0.00
14	---	---	---	---	---	---	---	---	---	---	0.18	0.21
15	---	---	---	---	---	---	---	---	---	---	0.00	0.00
16	---	---	---	---	---	---	---	---	---	---	0.09	0.00
17	---	---	---	---	---	---	---	---	---	---	0.02	0.00
18	---	---	---	---	---	---	---	---	---	---	0.02	6.00
19	---	---	---	---	---	---	---	---	---	---	0.00	0.00
20	---	---	---	---	---	---	---	---	---	---	0.00	0.00
21	---	---	---	---	---	---	---	---	---	---	0.00	0.00
22	---	---	---	---	---	---	---	---	---	---	0.00	0.04
23	---	---	---	---	---	---	---	---	---	---	0.00	0.31
24	---	---	---	---	---	---	---	---	---	---	0.01	0.00
25	---	---	---	---	---	---	---	---	---	---	0.00	0.00
26	---	---	---	---	---	---	---	---	---	0.04	0.00	0.00
27	---	---	---	---	---	---	---	---	---	0.00	0.00	1.38
28	---	---	---	---	---	---	---	---	---	0.00	0.00	0.40
29	---	---	---	---	---	---	---	---	---	0.00	0.00	0.00
30	---	---	---	---	---	---	---	---	---	0.21	0.00	0.00
31	---	---	---	---	---	---	---	---	---	0.04	0.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	1.86	9.28



02084472 PAMLICO RIVER AT WASHINGTON, NC

LOCATION.--Lat 35°32'34", long 77°03'42", Beaufort County, Hydrologic Unit 03020104, at bridge on US Highway 17 at Washington, and 0.7 mi downstream of Kennedy Creek.

DRAINAGE AREA.--3,200 mi².

PERIOD OF RECORD.--October 1999 to current year. Daily mean elevations published March 1988 to May 1993.

REVISED RECORDS.--WRD NC-00-1B: Drainage area.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for negative daily discharges, which are poor. This site is strongly affected by both astronomical and wind tides. The astronomical tides occur at primary harmonic periods of 12.42 hours and 24.8 hours. Mean daily discharge data for this site may be affected by aliasing due to tides and can contain fluctuations that are not representative of net downstream discharge.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 83,000 ft³/s, Sept. 21, 1999, maximum gage height, 8.14 ft, Sept. 16, 1999; minimum discharge, -90,800 ft³/s, Sept. 4, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,400 ft³/s, Sept. 19, maximum gage height 6.25 ft, Sept. 18; minimum discharge, -45,900 ft³/s, Sept. 18, minimum gage height -2.62 ft, Dec. 25.

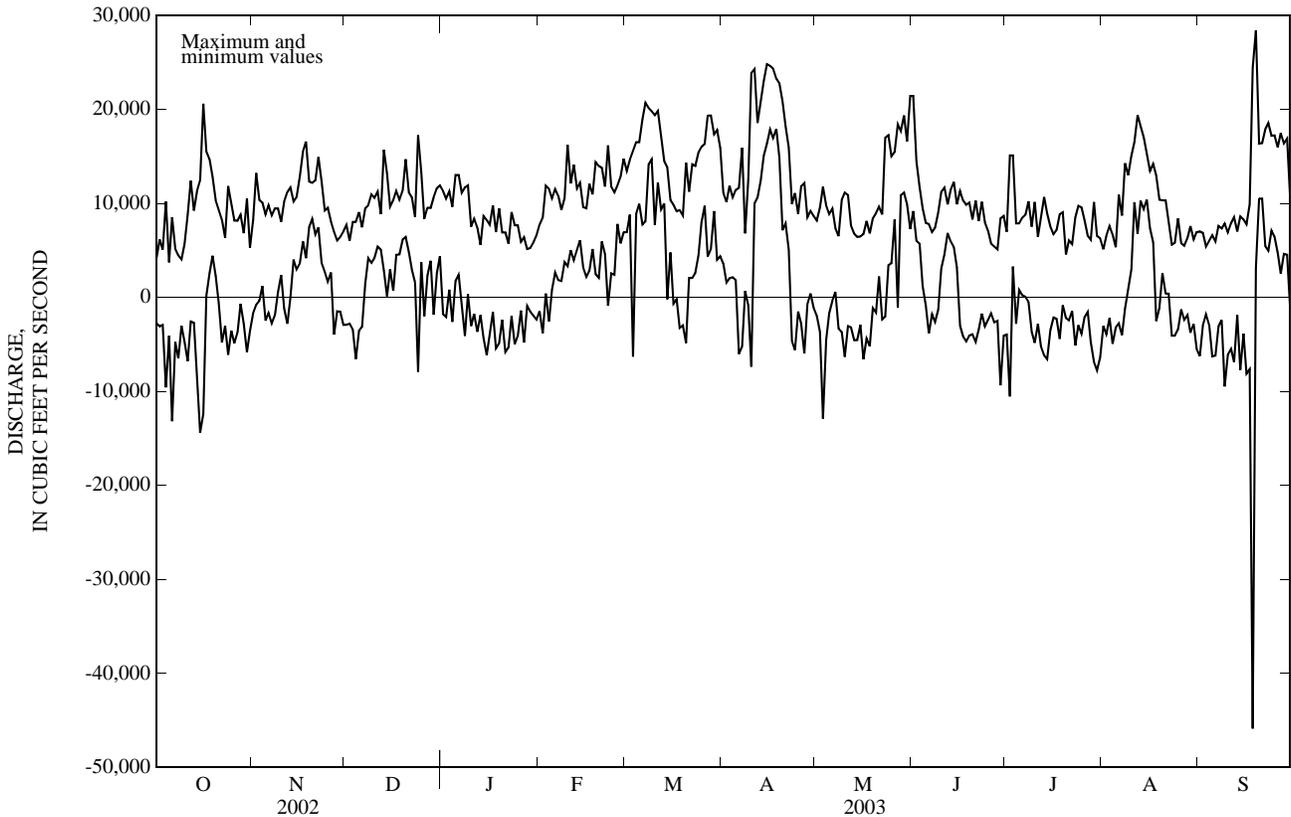
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4,160	-2,730	8,260	-1,680	7,700	-2,910	11,300	-1,790	7,730	-1,480	13,500	6,950
2	6,170	-3,090	13,200	-803	6,040	-2,810	10,500	-2,080	8,490	-3,820	14,600	8,800
3	5,090	-2,930	10,400	-356	8,030	-3,420	11,300	814	11,900	419	15,600	-6,300
4	10,200	-9,560	10,100	1,210	8,030	-6,560	9,630	-2,600	11,600	-2,560	16,500	8,900
5	3,730	-4,070	8,820	-2,460	9,060	-3,540	13,000	1,730	10,500	822	16,500	9,950
6	8,540	-13,200	9,800	-1,650	7,460	-3,140	13,000	2,400	11,500	2,670	18,900	7,760
7	5,170	-4,750	8,730	-2,770	9,460	1,460	11,100	-665	10,800	1,850	20,700	8,100
8	4,480	-6,480	9,460	-1,860	9,810	4,170	11,700	-4,090	9,310	1,740	20,200	14,200
9	4,060	-3,020	9,460	555	11,000	3,690	11,900	327	10,600	3,780	19,800	14,700
10	5,680	-4,720	8,050	2,380	10,600	4,200	7,530	-3,040	16,200	3,320	19,400	7,710
11	8,830	-6,780	10,200	-1,190	11,200	5,410	8,370	-1,750	12,100	5,010	19,900	12,200
12	12,400	-2,570	11,200	-2,800	8,860	5,090	7,440	-3,660	14,100	3,960	17,200	9,330
13	9,230	-2,690	11,700	-21	15,700	2,850	5,580	-1,880	11,600	5,050	14,500	9,980
14	11,300	-8,430	10,200	4,010	13,100	126	8,660	-4,320	12,200	6,060	13,900	-200
15	12,500	-14,400	10,700	2,990	9,640	2,980	8,230	-6,140	9,610	3,200	10,400	4,780
16	20,600	-12,400	12,800	3,610	10,300	708	7,730	-4,050	9,460	2,180	9,850	-662
17	15,600	156	15,500	5,950	11,300	4,530	9,790	-1,560	12,100	2,830	9,160	-198
18	14,700	2,560	16,600	4,170	10,400	4,570	6,950	-5,410	11,000	5,140	9,290	-3,250
19	12,800	4,420	12,300	7,490	11,400	6,160	9,450	-4,860	14,400	2,480	8,690	-2,980
20	10,300	2,250	12,200	8,330	14,700	6,420	6,920	-2,370	14,000	2,090	14,300	-4,850
21	9,300	-617	12,400	6,690	11,200	4,810	6,920	-5,800	13,800	5,960	11,200	2,080
22	8,250	-4,800	14,900	7,440	10,600	2,960	5,720	-5,310	11,800	4,590	14,200	2,080
23	6,340	-3,020	12,300	3,680	8,560	1,580	9,080	-1,990	16,200	-879	14,000	2,600
24	11,800	-6,100	9,250	2,740	17,200	-7,920	7,680	-5,000	11,800	2,550	15,400	4,470
25	10,000	-3,540	9,530	1,670	13,300	3,760	7,680	-4,110	11,200	2,400	16,000	7,980
26	8,180	-4,890	8,070	2,650	8,350	-1,990	5,910	-1,390	11,900	7,810	16,300	9,740
27	8,160	-3,730	7,000	-3,950	9,540	2,370	6,410	-4,790	12,800	5,740	19,300	4,350
28	8,780	-686	6,050	-1,480	9,520	3,900	5,140	-910	14,700	6,920	19,400	5,130
29	6,840	-2,800	6,430	-1,520	10,600	-1,840	5,230	-1,500	---	---	17,400	9,180
30	10,500	-5,840	7,020	-2,920	11,600	2,600	5,830	-1,940	---	---	17,800	4,000
31	5,290	-3,580	---	---	11,900	4,380	6,610	-2,360	---	---	15,900	4,370
MONTH	20,600	-14,400	16,600	-3,950	17,200	-7,920	13,000	-6,140	16,200	-3,820	20,700	-6,300

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	MAX	MIN	MAX	MIN	MAX	MIN
1	11,100	3,610	8,180	-1,940	21,400	9,170	6,980	-3,960	5,120	-3,030	7,020	-6,230
2	10,200	1,590	9,570	-3,680	14,500	6,030	15,100	-10,500	6,560	-3,900	6,870	-2,980
3	11,900	2,050	11,800	-12,900	11,700	5,720	15,100	3,270	7,600	-2,190	5,410	-1,810
4	10,600	2,140	9,790	-4,520	9,480	1,220	7,880	-2,800	6,690	-4,940	6,030	-2,960
5	11,400	1,830	8,860	-1,680	7,920	-884	7,870	813	5,330	-3,210	6,630	-6,270
6	11,700	-6,010	9,460	-361	7,810	-3,830	8,500	230	10,900	-2,760	5,970	-6,190
7	15,900	-5,240	7,370	586	6,970	-1,780	8,820	67	8,710	-4,000	7,600	-3,100
8	6,820	684	6,520	-3,320	7,420	-2,600	10,200	-505	14,300	-1,210	7,330	-2,410
9	12,600	-876	10,400	-3,670	9,040	-1,300	7,520	-3,660	13,000	892	7,870	-9,460
10	23,900	-7,370	11,100	-6,330	11,200	3,100	10,200	-4,830	15,100	2,970	6,910	-6,080
11	24,300	9,970	10,900	-3,060	11,700	4,600	6,430	-2,810	16,500	10,100	7,880	-5,480
12	18,600	10,600	7,660	-3,190	9,900	6,840	8,540	-5,200	19,400	6,750	8,520	-6,880
13	20,900	12,400	6,790	-4,540	11,400	5,960	10,700	-6,150	18,200	10,300	7,010	-1,880
14	23,000	15,100	6,440	-4,540	12,300	5,350	8,920	-6,570	17,000	9,380	8,620	-7,720
15	24,800	16,400	6,480	-2,910	9,910	3,190	7,560	-3,500	15,300	10,400	8,290	-3,850
16	24,600	17,900	6,720	-6,570	11,300	-3,020	6,730	-2,140	13,400	7,360	7,780	-8,110
17	24,300	16,900	8,140	-4,350	10,300	-4,160	7,150	-2,280	14,200	5,850	9,900	-7,640
18	23,300	17,900	6,820	-5,190	9,840	-4,680	8,850	-4,400	13,000	-2,520	24,400	-45,900
19	22,800	14,900	8,400	-1,130	10,100	-4,060	9,060	-825	10,400	-1,110	28,400	3,170
20	20,800	7,150	8,960	-1,610	8,290	-3,920	4,570	-2,190	10,300	2,580	16,400	10,500
21	18,200	7,860	9,650	2,230	10,300	-4,710	6,080	-2,440	10,300	422	16,400	10,500
22	15,900	5,070	8,830	-2,340	8,120	-3,420	5,670	-1,470	8,140	405	17,900	5,470
23	9,940	-4,630	17,000	-2,050	10,200	-1,740	8,520	-5,120	5,620	-4,070	18,500	4,970
24	11,100	-5,590	17,300	3,430	8,010	-3,090	9,730	-2,950	5,820	-4,070	17,200	7,090
25	8,870	-1,500	15,000	3,640	7,090	-2,390	9,580	-3,850	8,410	-3,400	17,200	6,460
26	11,800	-2,810	15,500	8,290	5,730	-1,700	8,200	-2,080	5,770	-1,280	16,000	4,740
27	12,200	-5,970	18,400	-1,110	5,410	-2,640	6,560	-1,530	5,500	-2,380	17,500	2,540
28	8,510	-752	17,700	10,900	5,110	-2,500	6,140	-4,770	6,310	-1,870	16,400	4,630
29	9,180	417	19,400	11,100	8,400	-9,340	10,200	-6,860	7,590	-3,760	16,900	4,550
30	8,670	-1,070	16,600	9,920	8,660	-4,070	6,540	-7,760	6,170	-2,830	10,500	-1,260
31	---	---	21,400	7,270	---	---	6,290	-6,370	6,960	-5,470	---	---
MONTH	24,800	-7,370	21,400	-12,900	21,400	-9,340	15,100	-10,500	19,400	-5,470	28,400	-45,900



02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to 1967, 1999 to current year.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): April 1999 to current year.

pH (TOP AND BOTTOM): April 1999 to current year.

WATER TEMPERATURE (TOP AND BOTTOM): April 1999 to current year.

DISSOLVED OXYGEN (TOP AND BOTTOM): April 1999 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): April 1999 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from April 1999 to current year.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. Top constituents were monitored at 8 ft above the streambed and bottom constituents, 2 ft above the streambed. Salinity and dissolved oxygen, percent saturation are computed. The dissolved oxygen percent saturation is computed using a barometric pressure of 760 mm of Hg beginning October 1, 2000. Salinity, minimum extremes are reported as <0.1 ppt. Dissolved oxygen, minimum extremes are reported as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported as <10%. Daily records of salinity and water temperature for October 1961 to September 1967 are available in the files of the USGS District Office, Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	14.4, January 3, 2002	<0.1, on many days during the period
SALINITY (BOTTOM), ppt	15.1, October 24, 2002	<0.1, on many days during the period
pH (TOP), standard units	9.1, July 19, 20, 1999	5.4, August 19, 2001
pH (BOTTOM), standard units	8.8, July 2, 3, 4, 1999	5.3, September 11, 12, 13, 1999
WATER TEMPERATURE (TOP), °C	34.1, July 31, 1999	0.4, January 24, 2003
WATER TEMPERATURE (BOTTOM), °C	32.6, July 31, 1999	0.5, January 24, 2003
DISSOLVED OXYGEN (TOP), mg/L	15.3, November 22, 2001	<1.0 on many days during the period
DISSOLVED OXYGEN (BOTTOM), mg/L	12.9, January 24, 2003	<1.0, on many days during the period

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	13.5, December 5	<0.1, on many days during the year
SALINITY (BOTTOM), ppt	15.1, October 24	<0.1, on many days during the year
pH (TOP), standard units	8.4, January 22	6.0, November 25
pH (BOTTOM), standard units	8.5, September 11	6.0, September 24, 25, 26
WATER TEMPERATURE (TOP), °C	31.4, August 31	0.4, January 24
WATER TEMPERATURE (BOTTOM), °C	30.8, September 1	0.5, January 24
DISSOLVED OXYGEN (TOP), mg/L	12.0, January 24, February 19, 20, 21	<1.0, on several days during the year
DISSOLVED OXYGEN (BOTTOM), mg/L	12.9, January 24	<1.0, on many days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	129, June 28	<10, on several days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	108, September 11	<10, on many days during the year

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.1	0.18	0.64	6.7	0.06	0.66	2.9	0.08	0.90	0.04	0.03	0.03
2	2.1	0.31	0.92	0.46	0.04	0.14	6.7	0.44	1.8	0.04	0.03	0.03
3	3.8	0.37	1.3	2.9	0.04	0.30	11.3	0.27	3.8	0.04	0.03	0.03
4	7.2	1.3	3.5	0.24	0.04	0.06	13.1	1.1	5.9	0.08	0.04	0.04
5	3.1	1.2	2.3	3.0	0.04	0.59	13.5	0.42	3.5	0.05	0.04	0.04
6	8.5	1.6	5.4	0.43	0.04	0.09	5.6	0.24	0.80	0.05	0.03	0.04
7	6.7	2.8	5.1	5.0	0.05	0.98	0.45	0.06	0.16	0.18	0.03	0.05
8	9.3	4.1	7.4	1.8	0.08	0.45	0.06	0.04	0.05	0.49	0.03	0.09
9	9.2	3.7	6.7	0.16	0.05	0.07	0.06	0.04	0.05	0.21	0.03	0.07
10	9.2	3.9	7.7	0.14	0.04	0.05	0.06	0.04	0.04	3.4	0.04	0.58
11	7.8	3.0	6.1	0.06	0.04	0.05	0.05	0.04	0.04	4.9	0.21	0.69
12	3.0	0.18	0.72	0.12	0.04	0.05	0.07	0.04	0.05	7.1	0.22	1.4
13	4.1	0.10	0.71	0.07	0.04	0.04	0.09	0.04	0.06	6.0	0.22	0.58
14	5.2	0.09	1.7	0.12	0.05	0.06	0.05	0.04	0.04	9.7	0.20	2.9
15	7.8	0.19	2.2	0.07	0.04	0.05	0.05	0.04	0.04	3.5	0.23	0.90
16	4.3	0.04	0.75	0.05	0.03	0.04	0.04	0.04	0.04	5.6	0.36	2.0
17	0.14	0.03	0.07	0.04	0.03	0.03	0.04	0.03	0.04	2.1	0.06	0.27
18	0.06	0.03	0.04	0.04	0.03	0.04	0.03	0.02	0.03	3.7	0.15	1.1
19	0.05	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	1.1	0.04	0.33
20	0.05	0.03	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.97	0.05	0.24
21	9.2	0.04	0.50	0.04	0.04	0.04	0.04	0.03	0.03	1.5	0.05	0.36
22	12.4	0.17	2.8	0.04	0.04	0.04	0.04	0.03	0.04	5.0	0.06	1.1
23	13.3	0.55	5.4	0.04	0.04	0.04	0.11	0.04	0.05	5.7	0.06	1.1
24	12.9	1.1	5.4	0.05	0.04	0.04	1.4	0.04	0.29	1.3	0.04	0.58
25	6.8	0.22	1.4	0.06	0.04	0.04	0.04	0.04	0.04	0.83	0.05	0.32
26	8.6	0.20	1.8	0.10	0.04	0.06	0.04	0.04	0.04	0.16	0.05	0.07
27	7.3	0.48	2.9	4.9	0.05	0.74	0.04	0.04	0.04	3.5	0.06	0.86
28	1.6	0.27	0.76	10.3	0.15	2.0	0.04	0.03	0.04	4.2	0.24	0.91
29	7.4	0.26	2.2	10.5	0.25	1.9	0.03	0.03	0.03	0.67	0.20	0.32
30	6.3	0.49	1.9	3.4	0.15	0.56	0.03	0.03	0.03	6.0	0.24	0.90
31	5.5	0.33	1.5	---	---	---	0.03	0.03	0.03	9.5	0.31	3.9
MONTH	13.3	0.03	2.6	10.5	0.03	0.31	13.5	0.02	0.58	9.7	0.03	0.70
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.3	0.44	1.9	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04
2	11.7	0.28	1.5	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.04
3	0.56	0.05	0.20	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04
4	0.05	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.04	0.04	0.04
5	0.08	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
6	0.06	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
7	0.07	0.03	0.04	0.03	0.02	0.03	0.04	0.03	0.03	0.04	0.04	0.04
8	0.17	0.05	0.07	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.04
9	0.06	0.04	0.05	0.03	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.04
10	0.07	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.04	0.05	0.04	0.04
11	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.04	0.04
12	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.04	0.04
13	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.05	0.04	0.04
14	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.05	0.04	0.04
15	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.04	0.04	0.04
16	0.04	0.03	0.03	0.04	0.03	0.04	0.02	0.02	0.02	0.05	0.04	0.04
17	0.04	0.03	0.04	0.04	0.03	0.04	0.02	0.02	0.02	0.04	0.04	0.04
18	0.04	0.03	0.03	0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04
19	0.04	0.03	0.03	0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04
20	0.04	0.03	0.03	---	---	---	0.03	0.02	0.02	0.04	0.04	0.04
21	0.03	0.03	0.03	---	---	---	0.03	0.03	0.03	0.04	0.04	0.04
22	0.03	0.03	0.03	---	---	---	0.03	0.03	0.03	0.04	0.04	0.04
23	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.03	0.04	0.04	0.03	0.04
24	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03
25	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04	0.04	0.03	0.03
26	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03
27	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
28	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
29	---	---	---	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
30	---	---	---	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
31	---	---	---	---	---	---	---	---	---	0.03	0.03	0.03
MONTH	11.7	0.03	0.16	---	---	---	---	---	---	0.05	0.03	0.04

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.05	0.05			
2	0.03	0.03	0.03	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
3	0.04	0.03	0.03	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
4	0.04	0.03	0.03	0.04	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
5	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
6	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.41	0.05	0.09			
7	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.04	0.38	0.05	0.12			
8	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.03	1.0	0.05	0.30			
9	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	1.7	0.05	0.33			
10	0.04	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	1.4	0.05	0.28			
11	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.03	1.4	0.08	0.59			
12	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.02	0.97	0.05	0.27			
13	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.05	0.05	0.05			
14	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.25	0.05	0.12			
15	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.16	0.05	0.06			
16	0.03	0.03	0.03	0.05	0.04	0.04	0.03	0.03	0.03	0.75	0.05	0.19			
17	0.04	0.03	0.03	0.05	0.05	0.05	0.03	0.03	0.03	1.3	0.08	0.36			
18	0.04	0.03	0.04	0.05	0.04	0.05	0.03	0.03	0.03	2.5	0.05	0.98			
19	0.04	0.04	0.04	0.05	0.05	0.05	0.03	0.03	0.03	1.9	0.04	0.51			
20	0.04	0.04	0.04	0.05	0.04	0.05	0.03	0.03	0.03	0.04	0.03	0.03			
21	0.04	0.04	0.04	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03			
22	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03			
23	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.03	0.03	0.03			
24	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
25	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
26	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03			
27	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
28	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
29	0.04	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.04	0.03	0.03	0.03			
30	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03			
31	---	---	---	0.05	0.05	0.05	0.05	0.04	0.05	---	---	---			
MONTH	0.04	0.03	0.04	0.05	0.03	0.04	0.05	0.02	0.04	2.5	0.03	0.16			

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.0	2.7	5.3	10.7	1.8	8.7	11.8	4.1	10.5	0.03	0.02	0.03
2	5.7	1.1	4.6	12.9	0.04	6.5	10.9	9.3	10.3	0.03	0.03	0.03
3	7.9	4.9	6.5	13.0	1.3	9.9	11.3	8.8	10.2	0.04	0.03	0.03
4	9.2	3.4	8.0	12.8	0.59	8.2	13.1	9.8	12.4	5.1	0.03	0.80
5	8.0	3.5	6.3	11.9	1.8	9.9	13.0	3.8	11.7	10.1	0.03	6.1
6	9.2	5.6	7.7	11.3	0.57	7.5	11.9	7.3	11.3	12.3	0.03	3.1
7	9.2	6.5	8.6	11.8	5.7	10.2	11.5	0.64	7.9	10.9	0.03	3.7
8	10.0	8.5	9.6	11.5	1.6	9.0	10.0	0.04	3.0	8.2	0.03	2.0
9	10.8	8.9	10.2	10.1	0.55	7.7	11.7	0.04	6.0	12.0	0.03	7.0
10	10.4	7.8	9.7	10.9	0.35	7.4	12.6	0.04	7.0	12.3	11.7	12.1
11	8.6	3.6	7.1	5.3	0.04	0.82	13.0	0.03	2.6	12.3	11.6	12.0
12	6.0	0.45	2.9	8.5	0.04	1.1	13.5	0.04	6.1	12.0	10.9	11.5
13	7.1	0.65	4.6	10.7	0.04	2.4	13.5	0.04	8.5	11.4	11.1	11.3
14	7.8	0.56	5.7	11.8	0.41	9.9	0.91	0.04	0.06	11.2	9.4	10.9
15	9.4	1.1	7.9	12.0	0.04	4.0	10.8	0.04	2.5	10.7	1.8	8.5
16	7.1	0.04	1.2	11.3	0.03	0.74	6.6	0.03	0.50	10.4	5.1	8.7
17	7.3	0.03	2.5	0.03	0.03	0.03	5.2	0.03	0.09	9.0	1.1	6.2
18	8.4	0.03	2.5	0.04	0.03	0.03	0.03	0.03	0.03	7.1	3.4	5.9
19	8.6	0.03	1.3	0.03	0.03	0.03	0.03	0.03	0.03	5.6	0.05	3.5
20	9.3	0.03	1.6	0.04	0.03	0.03	0.03	0.03	0.03	5.9	0.31	3.5
21	11.9	0.03	8.8	0.04	0.04	0.04	0.03	0.03	0.03	6.0	0.85	3.5
22	13.1	11.3	12.6	0.04	0.04	0.04	0.04	0.03	0.03	6.5	6.0	6.4
23	14.3	13.0	13.8	0.04	0.04	0.04	12.1	0.03	3.5	7.0	0.16	4.6
24	15.1	3.8	13.7	3.7	0.04	0.14	13.0	0.03	9.0	2.5	0.05	1.3
25	14.7	3.7	13.8	8.5	0.04	1.7	4.1	0.03	0.09	3.1	0.12	1.2
26	14.8	14.1	14.6	9.2	0.10	6.5	0.04	0.03	0.04	5.7	0.22	3.2
27	14.5	13.2	14.2	9.4	2.1	8.1	0.04	0.03	0.03	7.8	1.1	5.5
28	14.1	13.6	13.8	11.7	8.7	10.6	0.03	0.03	0.03	8.0	7.5	7.8
29	13.8	11.5	12.8	12.7	10.9	12.3	0.03	0.03	0.03	8.3	7.8	8.0
30	12.4	3.3	9.9	12.5	10.4	11.8	0.03	0.02	0.03	9.5	7.9	8.7
31	10.8	9.5	10.1	---	---	---	0.03	0.02	0.02	11.1	9.5	10.4
MONTH	15.1	0.03	8.1	13.0	0.03	5.2	13.5	0.02	4.0	12.3	0.02	5.7
DAY	MAX	MIN	MEAN									
1	12.8	10.4	11.8	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04
2	12.9	8.6	12.5	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04
3	13.2	1.8	11.4	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04
4	5.7	0.03	0.53	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
5	12.2	0.03	3.1	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04
6	12.3	0.22	7.0	0.03	0.02	0.03	0.04	0.03	0.03	0.04	0.04	0.04
7	12.6	0.04	4.1	0.03	0.02	0.03	0.04	0.03	0.03	0.04	0.04	0.04
8	13.0	7.3	12.2	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
9	12.8	0.67	9.2	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.04	0.04
10	12.2	0.04	4.1	0.03	0.03	0.03	0.04	0.03	0.04	0.05	0.04	0.04
11	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.04	0.04
12	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.04	0.04
13	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.04	0.04
14	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.02	0.02	0.05	0.04	0.05
15	0.03	0.03	0.03	0.04	0.03	0.03	0.02	0.02	0.02	0.05	0.04	0.04
16	0.04	0.03	0.03	0.04	0.04	0.04	0.02	0.02	0.02	0.05	0.04	0.04
17	0.04	0.03	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.05	0.04	0.04
18	0.04	0.03	0.03	0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04
19	0.03	0.03	0.03	0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04
20	0.03	0.03	0.03	---	---	---	0.03	0.02	0.03	0.04	0.04	0.04
21	0.03	0.03	0.03	---	---	---	0.03	0.03	0.03	0.04	0.04	0.04
22	0.03	0.03	0.03	---	---	---	0.04	0.03	0.03	0.04	0.04	0.04
23	0.04	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.03	0.04
24	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03
25	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
26	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03
27	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
28	0.03	0.03	0.03	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
29	---	---	---	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
30	---	---	---	---	---	---	0.04	0.04	0.04	0.03	0.03	0.03
31	---	---	---	---	---	---	---	---	---	0.03	0.03	0.03
MONTH	13.2	0.03	2.7	---	---	---	---	---	---	0.05	0.03	0.04

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.05	0.05			
2	0.03	0.03	0.03	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
3	0.03	0.03	0.03	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
4	0.04	0.03	0.03	0.04	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
5	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05			
6	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	1.8	0.05	0.32			
7	0.04	0.04	0.04	0.04	0.03	0.03	0.04	0.03	0.04	2.8	0.08	1.6			
8	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.03	0.03	2.3	0.04	1.2			
9	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	2.1	0.05	0.81			
10	0.04	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0.03	2.1	0.05	1.2			
11	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.03	2.1	0.49	1.4			
12	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.02	1.4	0.05	0.59			
13	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03	0.82	0.05	0.24			
14	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.03	0.78	0.05	0.31			
15	0.03	0.03	0.03	0.05	0.04	0.04	0.03	0.03	0.03	0.24	0.05	0.06			
16	0.03	0.03	0.03	0.05	0.04	0.04	0.03	0.03	0.03	---	---	---			
17	0.04	0.03	0.03	0.05	0.04	0.05	0.03	0.03	0.03	---	---	---			
18	0.04	0.03	0.04	0.05	0.05	0.05	0.03	0.03	0.03	---	---	---			
19	0.04	0.04	0.04	0.05	0.05	0.05	0.03	0.03	0.03	---	---	---			
20	0.04	0.04	0.04	0.05	0.05	0.05	0.03	0.03	0.03	0.04	0.03	0.03			
21	0.04	0.04	0.04	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03			
22	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03			
23	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.03	0.04	0.03	0.03	0.03			
24	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
25	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
26	0.05	0.04	0.04	0.04	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.03			
27	0.05	0.04	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
28	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03			
29	0.05	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.04	0.03	0.03	0.03			
30	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.05	0.04	0.03	0.03			
31	---	---	---	0.05	0.05	0.05	0.05	0.04	0.05	---	---	---			
MONTH	0.05	0.03	0.04	0.05	0.03	0.04	0.05	0.02	0.04	---	---	---			

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.7	6.4	6.5	6.8	6.4	6.6	6.7	6.4	6.5	6.7	6.6	6.7
2	6.7	6.5	6.5	6.8	6.6	6.7	6.8	6.3	6.6	6.6	6.6	6.6
3	6.7	6.4	6.5	6.8	6.5	6.7	7.1	6.3	6.7	6.6	6.6	6.6
4	7.0	6.5	6.7	6.8	6.6	6.7	7.0	6.5	6.7	6.7	6.6	6.7
5	7.5	6.6	6.7	6.7	6.4	6.6	7.0	6.5	6.7	6.9	6.7	6.8
6	7.2	6.6	6.8	6.7	6.6	6.7	6.8	6.3	6.6	7.0	6.8	7.0
7	6.9	6.6	6.7	6.7	6.4	6.6	6.5	6.3	6.4	7.0	6.8	7.0
8	7.0	6.6	6.8	6.7	6.4	6.6	6.4	6.3	6.3	7.0	6.8	7.0
9	7.1	6.7	6.8	6.7	6.6	6.7	6.4	6.3	6.4	7.0	6.8	6.9
10	7.0	6.6	6.8	6.8	6.6	6.7	6.4	6.4	6.4	6.9	6.6	6.9
11	6.9	6.6	6.8	6.8	6.7	6.8	6.4	6.3	6.4	6.9	6.6	6.8
12	6.7	6.6	6.6	6.8	6.7	6.7	6.3	6.3	6.3	7.0	6.6	6.8
13	6.6	6.3	6.4	6.7	6.5	6.6	6.3	6.2	6.3	6.9	6.7	6.8
14	6.7	6.3	6.5	6.5	6.4	6.4	6.3	6.3	6.3	7.2	6.6	6.8
15	6.7	6.3	6.5	6.5	6.3	6.4	6.3	6.3	6.3	7.0	6.8	6.9
16	6.8	6.4	6.5	6.6	6.4	6.5	6.3	6.3	6.3	7.7	6.9	7.1
17	6.5	6.4	6.4	6.6	6.6	6.6	6.3	6.3	6.3	7.1	6.9	7.0
18	6.4	6.3	6.4	6.6	6.5	6.6	6.3	6.1	6.3	8.3	7.0	7.2
19	6.4	6.3	6.4	6.5	6.5	6.5	6.3	6.3	6.3	7.2	7.0	7.0
20	6.4	6.4	6.4	6.5	6.3	6.4	6.4	6.3	6.4	7.2	7.0	7.0
21	6.5	6.3	6.4	6.3	6.2	6.2	6.4	6.3	6.3	7.2	7.0	7.0
22	6.6	6.3	6.4	6.3	6.2	6.2	6.4	6.3	6.4	8.4	7.0	7.3
23	6.7	6.3	6.4	6.3	6.2	6.2	6.4	6.3	6.4	8.1	7.0	7.2
24	6.6	6.4	6.5	6.2	6.1	6.2	6.6	6.4	6.4	7.4	7.1	7.2
25	6.6	6.3	6.4	6.2	6.0	6.2	6.7	6.6	6.6	7.2	7.0	7.1
26	6.5	6.4	6.5	6.2	6.2	6.2	6.7	6.7	6.7	7.1	7.0	7.0
27	6.5	6.4	6.4	6.5	6.1	6.2	6.7	6.7	6.7	7.5	7.0	7.2
28	6.5	6.4	6.5	6.7	6.1	6.4	6.8	6.7	6.7	7.4	7.1	7.2
29	6.6	6.4	6.5	6.8	6.1	6.4	6.8	6.8	6.8	7.1	7.0	7.1
30	6.6	6.4	6.5	6.6	6.3	6.4	6.8	6.8	6.8	7.4	7.0	7.1
31	6.8	6.4	6.6	---	---	---	6.8	6.7	6.7	7.9	7.0	7.3
MONTH	7.5	6.3	6.5	6.8	6.0	6.5	7.1	6.1	6.5	8.4	6.6	7.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.4	7.0	7.1	6.6	6.5	6.5	---	---	---	6.8	6.6	6.7
2	7.7	6.9	7.1	6.5	6.5	6.5	6.7	6.6	6.7	6.8	6.6	6.8
3	7.0	6.9	7.0	6.5	6.5	6.5	---	---	---	6.9	6.7	6.8
4	7.0	6.9	7.0	6.5	6.5	6.5	6.9	6.8	6.9	6.9	6.8	6.8
5	7.0	6.8	6.9	6.5	6.4	6.5	6.9	6.8	6.9	6.8	6.8	6.8
6	6.9	6.8	6.8	6.4	6.4	6.4	6.9	6.7	6.8	6.8	6.7	6.8
7	6.8	6.7	6.8	6.4	6.4	6.4	6.8	6.6	6.7	6.8	6.7	6.7
8	6.8	6.7	6.8	6.5	6.4	6.4	6.7	6.6	6.6	6.7	6.5	6.6
9	6.8	6.7	6.8	6.5	6.4	6.5	6.8	6.7	6.7	6.7	6.6	6.7
10	6.8	6.8	6.8	6.5	6.5	6.5	7.0	6.5	6.8	6.8	6.6	6.7
11	6.8	6.8	6.8	6.6	6.5	6.5	6.6	6.4	6.5	6.9	6.7	6.8
12	6.8	6.8	6.8	6.6	6.6	6.6	6.5	6.3	6.4	7.1	6.8	6.9
13	6.8	6.7	6.8	6.6	6.6	6.6	6.3	6.3	6.3	7.2	6.9	7.0
14	6.7	6.7	6.7	6.7	6.6	6.7	6.3	6.3	6.3	7.2	6.9	7.0
15	6.7	6.7	6.7	6.7	6.6	6.7	6.3	6.3	6.3	7.4	7.0	7.2
16	6.8	6.7	6.8	6.7	6.6	6.7	6.3	6.3	6.3	7.8	7.2	7.3
17	6.8	6.7	6.7	6.7	6.6	6.7	6.3	6.3	6.3	7.5	7.2	7.3
18	6.7	6.4	6.6	6.8	6.7	6.8	6.3	6.2	6.2	7.4	7.2	7.3
19	6.4	6.3	6.4	6.9	6.8	6.8	6.2	6.2	6.2	7.3	7.1	7.1
20	6.5	6.4	6.5	---	---	---	6.2	6.2	6.2	7.1	6.9	7.0
21	6.6	6.5	6.6	---	---	---	6.2	6.2	6.2	6.9	6.8	6.8
22	6.6	6.6	6.6	---	---	---	6.2	6.2	6.2	6.8	6.6	6.8
23	6.6	6.5	6.6	6.7	6.5	6.6	6.5	6.2	6.4	7.0	6.8	6.9
24	6.7	6.6	6.6	6.6	6.5	6.5	6.6	6.5	6.5	6.9	6.5	6.7
25	6.7	6.6	6.6	---	---	---	6.7	6.6	6.6	6.6	6.5	6.6
26	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.6	6.7	6.5	6.4	6.5
27	6.6	6.6	6.6	---	---	---	6.7	6.6	6.7	6.5	6.4	6.4
28	6.6	6.6	6.6	---	---	---	6.7	6.6	6.6	6.4	6.4	6.4
29	---	---	---	---	---	---	6.7	6.6	6.7	6.4	6.4	6.4
30	---	---	---	---	---	---	6.8	6.6	6.7	6.5	6.4	6.4
31	---	---	---	---	---	---	---	---	---	6.5	6.5	6.5
MONTH	7.7	6.3	6.7	---	---	---	---	---	---	7.8	6.4	6.8

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.6	6.5	6.5	7.1	6.8	6.9	6.8	6.7	6.7	6.9	6.7	6.7
2	6.5	6.5	6.5	7.1	6.9	7.0	7.0	6.7	6.8	6.9	6.7	6.7
3	6.6	6.5	6.6	6.9	6.5	6.7	6.9	6.7	6.8	7.1	6.7	6.8
4	6.6	6.4	6.5	6.6	6.4	6.5	6.9	6.7	6.8	7.0	6.8	6.9
5	6.6	6.5	6.6	6.6	6.5	6.5	6.8	6.7	6.8	6.9	6.8	6.8
6	6.7	6.6	6.6	6.8	6.5	6.6	6.8	6.7	6.8	7.0	6.8	6.9
7	6.7	6.6	6.7	6.8	6.7	6.8	6.8	6.6	6.7	6.9	6.8	6.8
8	6.8	6.7	6.7	6.9	6.8	6.8	6.7	6.4	6.6	6.9	6.6	6.8
9	6.9	6.7	6.8	6.8	6.7	6.7	6.4	6.3	6.4	7.2	6.6	6.8
10	6.8	6.6	6.7	7.0	6.6	6.7	6.4	6.2	6.3	7.0	6.7	6.9
11	6.6	6.5	6.6	6.8	6.6	6.7	6.4	6.2	6.3	8.2	6.8	7.1
12	6.7	6.6	6.7	6.9	6.7	6.7	6.3	6.2	6.2	7.3	6.8	7.0
13	6.7	6.6	6.6	6.8	6.6	6.7	6.3	6.2	6.3	6.9	6.7	6.8
14	6.7	6.6	6.7	6.8	6.6	6.6	6.3	6.2	6.3	7.0	6.7	6.8
15	6.8	6.6	6.7	6.7	6.6	6.6	6.3	6.3	6.3	6.9	6.8	6.8
16	6.7	6.6	6.6	6.7	6.5	6.6	6.4	6.3	6.3	7.6	6.6	6.9
17	6.7	6.6	6.6	6.7	6.6	6.6	6.4	6.3	6.4	7.5	6.7	6.9
18	6.7	6.6	6.6	6.7	6.6	6.6	6.4	6.2	6.3	7.2	6.8	7.0
19	6.7	6.6	6.6	6.7	6.6	6.6	6.4	6.3	6.3	6.8	6.4	6.6
20	6.7	6.6	6.6	6.9	6.7	6.7	6.4	6.3	6.4	6.4	6.2	6.3
21	6.8	6.7	6.7	6.9	6.7	6.8	6.4	6.3	6.4	6.3	6.1	6.2
22	6.8	6.8	6.8	6.9	6.7	6.8	6.4	6.3	6.4	6.2	6.1	6.1
23	6.9	6.8	6.8	7.0	6.8	6.9	6.4	6.4	6.4	6.2	6.1	6.2
24	6.9	6.8	6.9	6.9	6.6	6.8	6.5	6.4	6.5	6.3	6.2	6.2
25	7.1	6.8	6.9	6.6	6.3	6.5	6.7	6.5	6.5	6.2	6.2	6.2
26	7.1	6.8	6.9	6.4	6.3	6.4	6.8	6.5	6.6	6.2	6.2	6.2
27	7.6	6.9	7.0	6.6	6.3	6.5	6.8	6.5	6.6	6.3	6.2	6.2
28	8.3	6.8	7.1	6.7	6.4	6.5	7.0	6.6	6.7	6.3	6.3	6.3
29	7.4	6.8	7.0	6.8	6.5	6.6	7.0	6.6	6.7	6.3	6.3	6.3
30	7.2	6.8	6.9	6.8	6.6	6.7	6.9	6.7	6.8	6.3	6.3	6.3
31	---	---	---	6.8	6.6	6.7	7.0	6.7	6.8	---	---	---
MONTH	8.3	6.4	6.7	7.1	6.3	6.7	7.0	6.2	6.5	8.2	6.1	6.6

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.7	6.6	6.6	6.7	6.5	6.6	6.9	6.6	6.7	6.7	6.6	6.7
2	6.7	6.6	6.7	6.9	6.6	6.7	6.8	6.7	6.8	6.6	6.6	6.6
3	6.9	6.7	6.8	6.7	6.5	6.6	7.1	6.8	6.9	6.6	6.6	6.6
4	7.0	6.7	6.9	6.7	6.4	6.6	7.1	6.9	7.0	6.7	6.5	6.6
5	6.7	6.6	6.6	6.6	6.5	6.6	7.0	6.7	6.9	6.7	6.4	6.6
6	6.9	6.7	6.8	6.6	6.4	6.5	6.8	6.7	6.8	7.0	6.5	6.8
7	6.8	6.7	6.8	6.6	6.6	6.6	6.9	6.5	6.7	6.9	6.6	6.8
8	6.8	6.7	6.8	6.6	6.5	6.6	6.9	6.5	6.7	6.9	6.6	6.8
9	6.8	6.7	6.8	6.7	6.4	6.6	6.9	6.5	6.8	6.9	6.5	6.8
10	6.8	6.7	6.8	6.8	6.4	6.6	7.1	6.5	6.9	6.8	6.7	6.8
11	6.8	6.6	6.7	6.9	6.4	6.8	7.0	6.6	6.8	6.7	6.7	6.7
12	6.6	6.5	6.6	6.9	6.4	6.7	7.1	6.5	6.9	6.7	6.7	6.7
13	6.7	6.4	6.6	6.8	6.2	6.6	7.0	6.6	6.9	6.7	6.6	6.7
14	6.7	6.3	6.6	6.6	6.3	6.5	6.8	6.5	6.7	6.8	6.7	6.7
15	6.7	6.4	6.6	6.6	6.2	6.4	6.8	6.3	6.7	6.8	6.6	6.7
16	6.7	6.3	6.5	6.6	6.4	6.5	6.8	6.6	6.8	6.9	6.7	6.8
17	6.8	6.3	6.5	6.6	6.6	6.6	6.9	6.7	6.8	6.9	6.7	6.8
18	6.7	6.4	6.5	6.6	6.4	6.5	6.8	6.5	6.7	7.3	6.8	7.0
19	6.7	6.3	6.5	6.5	6.4	6.5	6.6	6.5	6.5	7.3	6.9	7.0
20	6.6	6.3	6.4	6.5	6.4	6.5	6.5	6.5	6.5	7.4	6.9	7.1
21	6.7	6.4	6.6	6.6	6.5	6.5	6.5	6.5	6.5	7.6	6.9	7.2
22	6.7	6.7	6.7	6.6	6.6	6.6	6.5	6.5	6.5	8.2	7.6	8.0
23	6.8	6.7	6.7	6.6	6.6	6.6	6.7	6.3	6.6	8.2	7.0	7.6
24	6.8	6.6	6.7	6.6	6.2	6.6	6.7	6.5	6.7	7.3	6.9	7.2
25	6.7	6.6	6.7	6.6	6.4	6.6	6.7	6.4	6.7	7.2	6.9	7.1
26	6.8	6.7	6.7	6.6	6.4	6.5	6.8	6.7	6.7	7.3	7.0	7.2
27	6.8	6.6	6.7	6.7	6.4	6.6	6.7	6.6	6.7	7.9	7.0	7.4
28	6.7	6.7	6.7	6.8	6.6	6.7	6.8	6.7	6.8	7.8	7.6	7.7
29	6.8	6.6	6.6	6.8	6.7	6.7	6.8	6.8	6.8	7.6	7.3	7.5
30	6.6	6.6	6.6	6.8	6.7	6.7	6.8	6.7	6.8	7.4	7.1	7.2
31	6.6	6.6	6.6	---	---	---	6.7	6.7	6.7	7.5	7.2	7.4
MONTH	7.0	6.3	6.7	6.9	6.2	6.6	7.1	6.3	6.7	8.2	6.4	7.0
	MAX	MIN	MEAN									
1	7.3	7.1	7.2	6.6	6.6	6.6	---	---	---	6.8	6.6	6.8
2	7.2	7.0	7.1	6.6	6.6	6.6	---	---	---	6.8	6.7	6.8
3	7.1	6.8	7.0	6.6	6.6	6.6	---	---	---	6.9	6.8	6.8
4	7.2	6.7	7.1	6.6	6.6	6.6	6.7	6.7	6.7	6.9	6.7	6.8
5	7.1	6.7	7.0	6.6	6.6	6.6	6.7	6.6	6.7	6.8	6.8	6.8
6	6.9	6.7	6.8	6.6	6.6	6.6	6.7	6.6	6.6	6.8	6.7	6.8
7	7.0	6.5	6.9	6.6	6.4	6.5	6.7	6.5	6.6	6.8	6.6	6.7
8	6.7	6.6	6.7	6.4	6.4	6.4	6.7	6.5	6.6	6.7	6.6	6.6
9	6.8	6.6	6.6	6.4	6.4	6.4	6.8	6.7	6.8	6.7	6.6	6.6
10	7.0	6.6	6.8	6.5	6.4	6.4	7.0	6.6	6.8	6.7	6.6	6.7
11	7.0	6.9	7.0	6.5	6.5	6.5	6.6	6.5	6.6	6.8	6.6	6.7
12	6.9	6.9	6.9	6.5	6.5	6.5	6.5	6.5	6.5	7.0	6.7	6.8
13	6.9	6.8	6.8	6.6	6.5	6.5	6.5	6.5	6.5	7.1	6.9	7.0
14	6.8	6.8	6.8	6.6	6.5	6.6	6.5	6.4	6.4	7.3	6.9	7.0
15	6.8	6.8	6.8	6.6	6.6	6.6	6.5	6.4	6.4	7.3	6.9	7.1
16	6.9	6.8	6.9	6.6	6.6	6.6	6.4	6.4	6.4	7.2	7.0	7.1
17	6.9	6.8	6.8	6.6	6.6	6.6	6.4	6.4	6.4	7.3	7.0	7.1
18	6.8	6.6	6.7	6.7	6.6	6.7	6.6	6.4	6.4	7.2	7.0	7.1
19	6.7	6.6	6.6	6.7	6.6	6.7	6.6	6.5	6.5	7.1	6.9	7.0
20	6.7	6.7	6.7	---	---	---	6.6	6.6	6.6	6.9	6.8	6.8
21	6.8	6.7	6.8	---	---	---	6.6	6.6	6.6	6.8	6.7	6.7
22	6.8	6.8	6.8	---	---	---	6.6	6.6	6.6	6.8	6.6	6.7
23	6.9	6.8	6.8	6.6	6.5	6.5	6.7	6.5	6.6	7.0	6.8	6.9
24	6.9	6.7	6.8	6.5	6.5	6.5	6.6	6.5	6.6	6.9	6.6	6.7
25	6.7	6.7	6.7	---	---	---	6.7	6.6	6.6	6.6	6.5	6.6
26	6.7	6.6	6.7	6.5	6.4	6.5	6.7	6.6	6.7	6.5	6.5	6.5
27	6.7	6.6	6.6	---	---	---	6.7	6.6	6.7	6.5	6.3	6.4
28	6.6	6.6	6.6	---	---	---	6.7	6.6	6.7	6.3	6.3	6.3
29	---	---	---	---	---	---	6.7	6.6	6.7	6.3	6.3	6.3
30	---	---	---	---	---	---	6.8	6.7	6.7	6.3	6.3	6.3
31	---	---	---	---	---	---	---	---	---	6.4	6.3	6.3
MONTH	7.3	6.5	6.8	---	---	---	---	---	---	7.3	6.3	6.7

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.4	6.3	6.4	7.0	6.8	6.8	6.8	6.8	6.8	6.8	6.6	6.7
2	6.4	6.4	6.4	7.0	6.9	6.9	6.9	6.8	6.8	6.7	6.6	6.7
3	6.4	6.4	6.4	6.9	6.5	6.7	6.9	6.8	6.8	6.7	6.6	6.7
4	6.4	6.4	6.4	6.5	6.4	6.4	6.9	6.8	6.8	6.9	6.7	6.8
5	6.4	6.4	6.4	6.6	6.5	6.5	6.9	6.8	6.8	6.9	6.8	6.8
6	6.5	6.4	6.5	6.7	6.5	6.6	6.9	6.8	6.9	6.9	6.8	6.8
7	6.6	6.5	6.5	6.8	6.6	6.7	6.9	6.5	6.7	6.9	6.7	6.8
8	6.6	6.6	6.6	6.8	6.6	6.7	6.6	6.3	6.5	6.8	6.6	6.8
9	6.7	6.6	6.6	6.8	6.7	6.7	6.4	6.3	6.3	7.2	6.6	6.8
10	6.7	6.4	6.5	6.8	6.6	6.7	6.3	6.2	6.2	7.3	6.7	7.0
11	6.4	6.3	6.4	6.8	6.6	6.7	6.3	6.2	6.3	8.5	6.9	7.4
12	6.5	6.4	6.5	6.8	6.6	6.7	6.2	6.1	6.2	7.8	6.6	7.1
13	6.6	6.5	6.6	6.7	6.6	6.6	6.2	6.2	6.2	7.0	6.6	6.7
14	6.6	6.6	6.6	6.7	6.6	6.6	6.2	6.1	6.2	6.9	6.6	6.8
15	6.7	6.6	6.6	6.8	6.6	6.6	6.3	6.2	6.2	6.7	6.6	6.6
16	6.7	6.6	6.6	6.7	6.5	6.6	6.3	6.1	6.3	---	---	---
17	6.7	6.6	6.6	6.7	6.6	6.6	6.3	6.1	6.3	---	---	---
18	6.7	6.6	6.6	6.7	6.6	6.6	6.3	6.1	6.2	---	---	---
19	6.7	6.6	6.6	6.8	6.6	6.7	6.3	6.2	6.3	---	---	---
20	6.7	6.6	6.6	6.8	6.7	6.7	6.3	6.2	6.3	6.4	6.2	6.2
21	6.8	6.7	6.7	6.8	6.6	6.8	6.3	6.2	6.3	6.2	6.1	6.1
22	6.8	6.8	6.8	6.9	6.7	6.8	6.3	6.2	6.3	6.1	6.1	6.1
23	6.9	6.8	6.8	6.9	6.7	6.8	6.3	6.2	6.3	6.2	6.1	6.1
24	6.9	6.8	6.9	6.8	6.5	6.7	6.4	6.3	6.3	6.2	6.0	6.2
25	6.9	6.7	6.8	6.5	6.2	6.3	6.4	6.3	6.4	6.1	6.0	6.1
26	6.9	6.8	6.8	6.3	6.2	6.2	6.5	6.4	6.4	6.1	6.0	6.1
27	6.9	6.8	6.8	6.3	6.2	6.3	6.6	6.4	6.5	6.2	6.1	6.1
28	6.9	6.8	6.8	6.5	6.3	6.4	6.7	6.5	6.6	6.2	6.2	6.2
29	7.1	6.8	6.9	6.6	6.4	6.5	6.7	6.6	6.6	6.2	6.2	6.2
30	6.9	6.8	6.8	6.7	6.5	6.6	6.7	6.6	6.6	6.2	6.2	6.2
31	---	---	---	6.8	6.6	6.7	6.7	6.6	6.7	---	---	---
MONTH	7.1	6.3	6.6	7.0	6.2	6.6	6.9	6.1	6.5	---	---	---

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	25.5	24.0	24.5	16.3	13.7	14.5	8.8	7.4	8.1	6.9	5.8	6.4
2	25.8	24.2	24.9	13.8	12.8	13.3	9.2	6.9	8.0	7.8	6.9	7.3
3	25.9	24.4	25.2	13.4	12.2	12.6	10.2	7.1	8.3	8.8	7.8	8.2
4	27.2	25.2	26.1	12.6	11.9	12.2	9.9	6.4	8.0	9.0	8.2	8.7
5	27.6	25.6	26.4	13.4	11.5	12.1	9.9	5.8	6.9	8.8	7.8	8.3
6	26.6	25.5	26.2	12.9	11.7	12.2	7.2	5.1	5.6	7.9	7.4	7.6
7	26.3	25.2	25.9	13.8	11.3	12.2	5.2	4.3	4.8	7.4	6.6	6.9
8	26.0	24.3	25.6	12.9	11.5	12.2	4.3	3.8	4.1	7.1	6.3	6.6
9	25.4	23.7	24.5	12.8	11.7	12.2	4.2	3.9	4.0	7.6	6.4	6.9
10	24.9	23.8	24.3	13.8	12.1	12.8	4.0	3.9	4.0	7.6	6.9	7.2
11	24.2	23.7	24.0	14.6	12.8	13.6	4.1	3.9	4.0	7.5	6.5	7.0
12	23.7	22.3	23.0	14.8	13.7	14.2	4.9	4.1	4.5	7.5	6.1	6.7
13	23.3	21.8	22.3	15.6	14.6	15.1	5.3	4.7	4.9	7.3	6.0	6.4
14	23.0	20.6	22.0	15.0	14.2	14.6	6.5	5.3	5.9	7.7	5.6	6.5
15	22.5	20.3	21.0	14.2	13.5	13.8	6.7	6.1	6.3	6.6	5.2	5.7
16	21.0	19.2	19.9	13.6	12.9	13.0	6.8	6.1	6.4	6.7	4.6	5.5
17	19.7	18.5	19.0	13.2	12.9	13.1	6.6	6.1	6.3	5.2	4.2	4.7
18	18.5	17.6	18.0	13.1	12.3	12.8	6.5	6.0	6.2	4.8	3.5	4.1
19	17.7	16.8	17.2	12.3	11.6	12.0	6.6	6.0	6.3	4.2	3.1	3.7
20	17.6	16.4	16.9	11.6	11.1	11.3	7.8	6.6	7.4	4.7	2.9	3.6
21	19.5	16.6	17.0	11.2	10.9	11.0	8.1	7.6	7.8	4.2	3.1	3.6
22	20.9	16.4	17.4	11.4	10.7	11.1	8.5	7.7	8.1	5.0	2.6	3.4
23	21.0	16.4	18.2	10.7	10.2	10.5	8.8	8.2	8.4	4.7	1.9	3.0
24	20.3	16.8	18.1	10.9	9.9	10.2	8.3	7.7	8.0	1.9	0.4	1.0
25	18.3	16.1	16.7	10.7	9.7	10.1	7.9	7.2	7.6	2.2	0.9	1.6
26	19.2	15.9	16.8	10.3	9.6	10	7.4	6.6	7.0	2.1	1.6	1.8
27	18.8	16.4	17.3	11.2	9.6	9.9	7.0	6.5	6.8	2.1	0.9	1.7
28	16.9	16.5	16.7	12.1	8.9	9.8	6.5	5.7	6.1	2.5	1.3	2.0
29	18.8	16.4	17.1	11.9	8.3	9.2	6.0	5.3	5.6	3.3	1.9	2.4
30	18.0	15.6	16.5	9.7	8.1	8.6	5.7	5.2	5.4	3.1	2.6	2.8
31	16.3	14.7	15.5	---	---	---	5.9	5.4	5.6	3.2	2.6	2.9
MONTH	27.6	14.7	20.8	16.3	8.1	12.0	10.2	3.8	6.3	9.0	0.4	5.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.0	3.0	3.5	7.8	7.3	7.5	---	---	---	22.0	20.3	21.1
2	4.7	3.5	3.9	8.1	7.6	7.8	15.9	14.0	14.6	22.6	20.8	21.2
3	5.1	3.8	4.4	8.9	7.7	8.2	---	---	---	21.8	21.0	21.5
4	5.7	4.4	5.0	8.4	7.7	8.0	17.2	15.1	15.9	21.0	19.9	20.4
5	6.2	5.1	5.6	9.4	8.4	9.0	17.8	15.9	16.6	20.1	19.3	19.6
6	6.2	5.7	6.0	10.1	9.4	9.7	17.5	16.6	17.0	20.8	19.3	19.9
7	6.4	6.1	6.2	10.1	9.1	9.6	17.0	16.0	16.5	21.8	19.5	20.4
8	6.6	5.7	6.1	10.1	8.9	9.5	16.0	14.9	15.4	22.8	20.6	21.5
9	6.0	5.5	5.7	11.2	10.0	10.5	14.9	12.8	14.0	23.4	21.5	22.5
10	5.5	5.2	5.4	11.4	10.7	11.1	12.8	10.9	12.1	24.8	22.4	23.4
11	5.8	5.1	5.4	11.0	10.3	10.4	11.0	10.4	10.7	25.9	23.5	24.4
12	6.0	5.2	5.5	11.2	10.2	10.7	11.6	10.3	10.8	24.8	23.8	24.3
13	5.9	5.2	5.5	11.8	11.1	11.5	12.4	11.2	11.7	24.2	23.4	23.8
14	5.8	5.4	5.6	12.3	11.5	11.8	12.8	11.8	12.3	24.4	23.0	23.6
15	6.1	5.7	5.9	11.9	11.4	11.6	13.6	12.3	13.0	23.8	22.8	23.2
16	5.9	5.8	5.9	13.4	11.8	12.5	14.8	13.4	14.1	24.2	22.3	23.0
17	5.9	5.3	5.7	13.9	13.0	13.4	15.7	14.6	15.1	23.6	21.7	22.7
18	6.0	4.7	5.1	14.1	13.3	13.7	15.6	15.2	15.4	21.8	20.5	21.2
19	5.4	4.3	4.7	13.7	13.3	13.6	16.0	15.4	15.6	20.6	19.8	20.3
20	5.8	4.6	5.1	---	---	---	16.3	15.4	15.8	20.2	18.7	19.3
21	6.1	5.2	5.7	---	---	---	16.9	15.6	16.1	19.9	18.2	19.0
22	7.9	6.1	7.0	---	---	---	17.8	16.0	16.7	19.6	19.1	19.3
23	9.3	7.9	8.7	16.1	15.2	15.5	18.3	16.3	17.1	19.3	18.9	19.2
24	9.8	8.7	9.2	16.6	15.0	15.7	18.4	16.8	17.5	19.5	18.5	18.8
25	10.5	9.5	9.9	---	---	---	17.9	17.2	17.5	20.0	18.2	18.9
26	9.5	8.7	9.2	16.1	15.3	15.7	18.5	17.3	17.8	20.3	18.8	19.3
27	8.7	8.1	8.5	---	---	---	18.8	17.4	18.0	19.5	19.1	19.3
28	8.1	7.5	7.8	---	---	---	19.4	17.6	18.1	19.9	18.8	19.2
29	---	---	---	---	---	---	21.1	18.2	19.4	20.0	19.0	19.5
30	---	---	---	---	---	---	22.2	19.5	20.4	20.8	19.2	19.7
31	---	---	---	---	---	---	---	---	---	19.7	19.5	19.6
MONTH	10.5	3.0	6.2	---	---	---	---	---	---	25.9	18.2	20.9

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	20.5	19.2	19.7	28.6	28.0	28.2	29.7	28.8	29.3	30.9	29.3	30.0
2	20.9	19.3	20.0	28.0	26.5	27.2	30.5	28.6	29.4	30.8	29.4	30.0
3	21.1	19.5	20.2	26.5	25.4	26.0	29.7	29.0	29.3	31.3	29.4	30.1
4	21.3	20.3	20.7	27.4	24.6	25.7	29.1	28.2	28.7	30.4	29.3	29.8
5	23.2	20.9	21.8	27.2	25.4	26.4	29.6	27.6	28.5	29.6	28.4	28.7
6	23.8	21.8	22.6	28.1	26.0	26.9	28.8	28.0	28.3	28.4	26.9	27.5
7	23.3	22.6	23.0	28.3	26.7	27.4	28.2	26.7	27.2	26.9	25.9	26.3
8	24.5	22.8	23.4	29.4	26.8	27.8	27.2	26.2	26.6	26.4	25.4	25.8
9	25.6	23.3	24.1	29.6	27.6	28.5	26.3	25.3	25.7	26.4	24.7	25.5
10	25.4	23.7	24.5	30.9	28.2	29.0	25.6	25.0	25.2	25.6	24.6	25.0
11	25.5	23.8	24.5	29.6	28.1	28.9	25.2	24.5	24.8	25.0	23.3	24.1
12	25.9	24.2	24.8	30.3	28.4	29.1	25.4	24.4	24.8	23.9	23.4	23.6
13	25.9	24.7	25.2	29.6	27.8	28.7	25.8	24.9	25.3	23.5	23.2	23.4
14	26.6	25.0	25.6	28.0	27.2	27.6	26.2	25.2	25.7	25.1	23.0	23.8
15	27.0	25.2	25.8	28.8	27.2	27.7	26.7	25.5	26.1	25.2	23.7	24.1
16	26.2	25.5	25.8	29.5	27.4	28.2	26.3	25.9	26.1	25.5	24.2	24.8
17	25.6	25.1	25.4	29.0	27.6	28.1	26.4	25.5	25.9	24.7	23.9	24.3
18	27.2	24.9	25.5	29.7	27.7	28.4	26.5	25.4	25.9	24.1	22.6	23.3
19	27.2	25.6	26.2	28.9	27.9	28.1	26.6	25.5	26.0	22.6	22.0	22.4
20	26.4	25.9	26.1	29.7	27.4	28.2	27.1	25.7	26.3	22.6	21.6	22.0
21	26.2	25.4	25.8	30.0	27.9	28.8	27.6	25.8	26.5	22.8	21.9	22.2
22	25.8	24.6	25.1	29.1	27.9	28.5	27.9	26.2	26.9	22.7	22.2	22.4
23	26.0	24.2	25.0	28.6	27.6	28.0	27.9	26.3	27.0	23.1	22.4	22.7
24	26.4	24.5	25.2	28.1	27.0	27.5	28.2	26.9	27.5	23.2	22.3	22.7
25	27.1	25.1	26.0	27.3	25.9	26.5	29.0	26.7	27.6	23.2	22.1	22.5
26	27.7	25.6	26.6	27.5	25.4	26.2	30.3	26.9	27.8	23.0	22.1	22.5
27	28.7	26.2	27.2	29.1	25.7	27.2	30.5	27.4	28.6	23.0	22.2	22.5
28	29.3	26.9	27.7	29.8	26.6	27.8	31.3	27.8	28.7	23.1	22.3	22.6
29	29.1	27.1	27.9	30.6	27.6	28.7	30.7	28.2	29.1	22.7	21.7	22.2
30	29.9	27.8	28.4	30.6	28.5	29.1	31.0	28.6	29.5	21.7	20.9	21.3
31	---	---	---	30.5	28.8	29.4	31.4	29.2	29.9	---	---	---
MONTH	29.9	19.2	24.7	30.9	24.6	27.9	31.4	24.4	27.2	31.3	20.9	24.6

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	25.8	25.5	25.7	18.6	14.9	17.6	12.8	9.7	11.8	6.9	5.8	6.4
2	25.7	24.6	25.5	17.7	13.0	15.6	11.5	10.3	11.0	7.8	6.9	7.3
3	25.6	25.5	25.6	17.7	12.8	16.3	10.7	9.9	10.2	8.8	7.8	8.1
4	26.4	25.6	25.7	17.4	12.2	15.4	10.2	10.0	10.2	9.0	8.1	8.6
5	26.4	25.9	26.1	17.0	12.3	16.0	10.2	7.4	9.7	8.8	7.9	8.5
6	26.4	25.9	26.1	16.8	12.5	15.2	9.7	7.7	9.3	8.5	7.4	7.8
7	26.3	25.9	26.0	16.1	13.9	15.8	9.0	4.8	7.4	7.9	6.6	7.2
8	26.0	25.8	25.9	15.8	12.7	14.9	7.9	3.8	5.1	7.4	6.3	6.7
9	25.8	25.0	25.6	15.4	12.2	14.5	7.9	3.9	6.0	7.6	6.4	7.1
10	25.5	24.4	24.9	15.7	12.5	14.6	7.7	3.8	6.0	7.7	7.5	7.6
11	24.6	23.8	24.1	14.2	12.9	13.5	7.8	3.9	4.8	7.8	7.6	7.7
12	23.8	22.9	23.4	15.3	13.7	14.3	7.7	4.1	5.8	7.8	7.7	7.8
13	23.7	22.3	23.2	16.0	14.6	15.3	7.7	4.9	6.7	7.9	7.8	7.8
14	23.6	21.9	23.1	16.1	14.7	15.9	6.5	5.3	5.9	7.9	7.5	7.7
15	23.1	21.1	22.8	16.1	13.2	14.4	7.6	6.0	6.5	7.8	5.6	7.3
16	22.1	19.4	20.1	15.7	12.9	13.2	7.6	6.1	6.4	7.7	6.3	7.3
17	21.7	18.6	19.8	13.3	12.9	13.2	6.9	6.1	6.3	7.4	5.0	6.5
18	21.6	17.8	19.0	13.1	12.4	12.8	6.4	6.0	6.2	6.7	4.8	6.0
19	21.4	16.9	17.8	12.4	11.6	12.0	6.6	6.1	6.3	5.8	3.6	4.9
20	20.6	16.5	17.4	11.6	11.1	11.4	7.8	6.6	7.4	5.2	3.1	4.5
21	21.1	17.0	20.0	11.1	10.9	11.0	8.1	7.6	7.8	5.0	3.7	4.5
22	21.2	20.9	21.1	11.4	10.7	11.1	8.5	7.7	8.1	5.1	4.7	5.0
23	21.2	21.1	21.1	10.7	10.2	10.5	8.8	8.2	8.5	5.1	1.9	4.2
24	21.1	17.6	20.7	11.5	9.9	10.2	8.8	7.7	8.6	2.5	0.5	1.1
25	20.9	17.5	20.6	12.6	9.7	10.5	8.0	7.2	7.6	2.1	0.6	1.1
26	20.9	20.7	20.9	12.9	9.8	12.0	7.4	6.6	7.0	1.8	1.1	1.4
27	20.9	20.4	20.7	12.9	10.3	12.5	7.0	6.4	6.8	2.2	1.4	1.8
28	20.7	20.5	20.6	13.0	12.5	12.8	6.5	5.7	6.1	2.5	2.1	2.3
29	20.6	19.8	20.2	13.0	12.0	12.9	5.8	5.3	5.5	2.6	2.4	2.5
30	20.2	17.0	19.3	13.0	11.9	12.7	5.6	5.2	5.4	2.9	2.6	2.7
31	19.2	18.1	18.8	---	---	---	5.9	5.4	5.6	2.9	2.8	2.8
MONTH	26.4	16.5	22.3	18.6	9.7	13.6	12.8	3.8	7.3	9.0	0.5	5.6
DAY	MAX	MIN	MEAN									
1	3.1	2.9	3.0	7.8	7.3	7.5	---	---	---	21.6	20.2	20.7
2	3.7	3.1	3.3	8.2	7.6	7.9	---	---	---	21.8	20.7	21.0
3	4.4	3.4	3.5	8.9	7.8	8.2	---	---	---	21.6	20.9	21.4
4	5.6	4.2	4.9	8.5	7.8	8.1	16.5	15.2	15.8	20.9	19.7	20.3
5	6.0	5.0	5.3	9.4	8.5	9.0	17.3	16.0	16.6	20.1	19.1	19.5
6	6.2	5.0	5.4	10.1	9.4	9.7	17.5	16.6	17.0	20.3	19.3	19.7
7	6.3	5.3	5.9	10.1	9.2	9.6	17.1	16.1	16.6	21.0	19.4	19.8
8	5.8	5.4	5.5	10.2	9.0	9.5	16.1	15.0	15.4	22.4	20.5	21.2
9	5.9	5.5	5.7	11.2	10.1	10.6	15.0	12.8	14.0	23.0	21.5	22.2
10	5.7	5.2	5.4	11.5	10.8	11.1	12.8	11.0	12.2	24.3	22.4	23.3
11	5.8	5.0	5.3	11.0	10.4	10.5	11.0	10.5	10.8	25.3	23.5	24.2
12	6.0	5.2	5.5	11.3	10.2	10.7	11.7	10.4	10.9	24.8	23.6	24.2
13	5.9	5.2	5.5	11.9	11.2	11.5	12.4	11.3	11.8	24.1	23.0	23.6
14	5.8	5.3	5.6	12.3	11.6	11.9	12.9	11.9	12.4	24.2	22.8	23.3
15	6.0	5.6	5.8	11.9	11.5	11.7	13.7	12.4	13.0	23.8	22.8	23.2
16	5.9	5.8	5.8	13.2	11.9	12.5	14.8	13.5	14.1	23.5	22.3	22.7
17	5.8	5.2	5.6	13.8	13.1	13.3	15.8	14.6	15.2	23.6	21.6	22.7
18	6.0	4.8	5.0	14.2	13.3	13.6	15.6	15.3	15.5	21.8	20.5	21.3
19	5.1	4.4	4.7	13.8	13.4	13.6	16.0	15.4	15.7	20.6	19.7	20.2
20	5.7	4.6	5.1	---	---	---	16.2	15.4	15.8	19.8	18.5	19.0
21	6.2	5.3	5.7	---	---	---	16.4	15.7	16.1	19.6	18.1	18.8
22	8.0	6.2	7.1	---	---	---	17.5	16.1	16.6	19.4	19.0	19.2
23	9.4	8.0	8.8	15.7	15.2	15.4	17.9	16.3	17.0	19.3	18.9	19.2
24	9.7	8.8	9.2	16.1	15.0	15.4	18.0	16.7	17.4	18.9	18.6	18.7
25	10.4	9.6	9.9	---	---	---	17.8	17.2	17.4	19.4	18.2	18.7
26	9.6	8.8	9.3	16.1	15.4	15.8	18.2	17.3	17.6	19.8	18.9	19.3
27	8.8	8.2	8.5	---	---	---	18.5	17.4	17.8	19.5	19.1	19.3
28	8.2	7.5	7.8	---	---	---	18.8	17.4	17.8	19.7	18.9	19.2
29	---	---	---	---	---	---	19.8	18.2	18.8	20.0	19.1	19.5
30	---	---	---	---	---	---	21.2	19.4	19.9	20.3	19.2	19.7
31	---	---	---	---	---	---	---	---	---	19.8	19.5	19.7
MONTH	10.4	2.9	6.0	---	---	---	---	---	---	25.3	18.1	20.8

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.3	19.2	19.7	28.5	27.8	28.1	29.4	28.7	29.0	30.8	29.3	29.8
2	20.5	19.3	19.9	27.9	26.5	27.2	29.6	28.5	28.8	30.2	29.3	29.7
3	20.8	19.5	20.1	26.5	25.0	25.9	29.6	28.8	29.0	30.0	29.1	29.4
4	21.4	20.3	20.7	26.1	24.5	25.2	28.9	28.1	28.5	29.8	29.2	29.5
5	22.2	20.9	21.3	26.9	25.2	26.0	28.6	27.6	27.9	29.4	28.3	28.6
6	23.0	21.6	22.3	27.8	26.0	26.8	28.6	27.9	28.2	28.4	27.1	27.6
7	23.2	22.5	22.9	27.9	26.6	27.3	28.2	26.5	27.0	27.8	26.1	27.2
8	23.8	22.8	23.1	28.2	26.7	27.1	26.9	25.8	26.3	27.2	25.5	26.4
9	25.1	23.3	23.9	29.2	27.5	28.2	25.8	25.2	25.5	26.4	24.5	25.7
10	25.0	23.7	24.2	29.6	28.2	28.6	25.4	24.7	25.1	25.9	24.8	25.1
11	24.9	23.7	24.3	29.3	27.9	28.7	25.0	24.5	24.7	25.1	23.9	24.5
12	25.4	24.1	24.7	29.7	28.4	28.8	25.2	24.3	24.7	24.1	23.4	23.7
13	25.6	24.6	25.1	29.4	27.8	28.6	25.8	24.8	25.2	23.6	23.2	23.4
14	26.1	24.9	25.4	27.8	27.2	27.5	26.2	25.2	25.6	24.8	23.1	23.7
15	26.5	25.1	25.7	28.2	27.2	27.4	26.6	25.3	26.0	24.2	23.7	23.9
16	26.0	25.5	25.8	28.2	27.3	27.6	26.3	25.4	26.0	---	---	---
17	25.6	25.0	25.3	28.2	27.3	27.6	26.3	25.4	25.8	---	---	---
18	26.1	24.8	25.2	28.6	27.6	27.9	26.1	25.2	25.7	---	---	---
19	26.4	25.4	25.8	28.7	27.7	28.0	26.5	25.5	25.9	---	---	---
20	26.1	25.8	25.9	28.0	27.1	27.5	26.8	25.5	26.1	22.4	21.6	22.0
21	26.1	25.2	25.7	28.7	27.7	28.0	27.2	25.7	26.3	22.7	21.9	22.2
22	25.8	24.3	24.8	28.8	27.8	28.2	27.5	26.1	26.6	22.7	22.2	22.4
23	25.3	24.1	24.4	28.4	27.6	27.9	27.3	26.1	26.6	23.1	22.5	22.7
24	25.3	24.4	24.7	28.0	26.9	27.3	27.6	26.8	27.1	23.0	22.3	22.6
25	26.5	25.0	25.4	27.2	25.7	26.3	27.7	26.6	27.0	23.0	22.1	22.5
26	26.6	25.5	25.8	26.8	25.3	25.8	28.0	26.8	27.1	22.8	22.1	22.5
27	27.3	25.9	26.4	26.8	25.7	26.1	27.8	27.4	27.6	22.8	22.2	22.5
28	27.6	26.7	27.1	28.3	26.5	27.1	28.6	27.7	27.9	23.0	22.4	22.6
29	28.6	27.0	27.7	29.5	27.6	28.1	29.4	28.0	28.3	22.6	21.8	22.2
30	28.7	27.7	28.0	29.4	28.4	28.8	29.6	28.4	28.8	21.8	20.9	21.3
31	---	---	---	29.8	28.6	29.1	30.1	29.0	29.3	---	---	---
MONTH	28.7	19.2	24.4	29.8	24.5	27.5	30.1	24.3	26.9	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	5.5	5.2	5.4	7.3	5.8	6.3	5.9	4.8	5.2	6.5	5.0	5.4
2	5.5	5.3	5.4	6.7	6.0	6.3	6.4	4.8	5.4	6.2	4.7	5.2
3	5.6	5.2	5.5	6.0	4.5	5.0	6.2	5.1	5.5	7.2	4.8	5.6
4	5.5	5.1	5.3	4.8	4.0	4.4	6.1	5.0	5.4	6.3	4.8	5.4
5	5.8	5.3	5.5	4.9	4.0	4.6	5.8	5.0	5.4	5.8	4.9	5.1
6	5.8	5.3	5.5	5.3	4.3	4.9	5.6	4.8	5.2	5.5	4.4	5.0
7	5.9	5.5	5.7	5.4	4.8	5.1	5.3	4.8	5.0	5.0	4.3	4.7
8	6.1	5.6	5.8	5.8	5.1	5.3	5.2	3.9	4.7	5.4	3.5	4.3
9	6.1	5.5	5.8	5.8	5.0	5.4	4.7	3.8	4.4	6.2	4.0	4.6
10	6.0	5.1	5.5	7.0	5.0	5.6	4.7	4.3	4.5	5.9	4.7	5.3
11	5.6	4.7	5.0	6.0	5.0	5.4	5.0	4.3	4.8	9.0	5.1	6.3
12	4.8	4.6	4.7	6.6	5.1	5.4	4.5	3.9	4.2	7.1	5.0	5.8
13	4.8	4.6	4.7	5.5	4.8	5.1	4.1	3.8	3.9	5.3	4.4	4.8
14	4.8	4.5	4.6	5.3	4.7	4.9	4.2	3.9	4.0	6.0	4.4	4.9
15	4.8	4.4	4.5	5.2	4.5	4.7	4.1	4.0	4.1	5.1	4.4	4.6
16	4.7	4.3	4.5	5.9	4.5	5.0	4.4	4.0	4.2	8.4	4.4	5.5
17	4.7	4.3	4.4	5.9	4.8	5.2	4.5	4.2	4.3	8.1	5.2	5.9
18	4.7	4.0	4.2	6.1	4.8	5.3	4.4	3.8	4.2	7.0	5.8	6.3
19	5.3	4.2	4.5	5.5	4.8	5.2	4.7	4.2	4.5	5.9	3.8	4.7
20	5.2	4.5	4.8	6.3	5.0	5.5	4.8	4.3	4.6	4.0	2.9	3.4
21	5.4	4.9	5.1	6.8	5.2	5.7	4.8	4.2	4.5	3.5	2.7	2.9
22	6.0	5.4	5.6	6.0	5.2	5.6	4.6	4.2	4.5	3.0	2.6	2.7
23	6.5	5.6	5.8	5.9	4.7	5.3	4.8	4.3	4.5	3.1	2.5	2.7
24	6.4	5.7	6.0	5.1	4.4	4.8	5.1	4.4	4.7	3.2	2.5	2.8
25	6.9	5.7	6.1	4.4	3.3	3.9	5.9	4.4	4.9	2.8	2.2	2.5
26	7.1	5.6	6.3	4.7	3.7	4.0	6.6	4.6	5.0	2.7	2.3	2.6
27	8.9	5.8	6.6	5.1	4.1	4.5	6.4	4.4	5.3	3.0	2.4	2.6
28	9.8	5.7	6.9	5.9	4.4	4.8	7.5	4.7	5.4	3.0	2.2	2.6
29	8.4	5.6	6.6	6.3	4.6	5.0	7.2	4.7	5.5	2.8	2.1	2.5
30	7.9	5.5	6.3	6.4	4.7	5.2	6.8	5.1	5.7	2.5	1.8	2.3
31	---	---	---	6.3	4.7	5.3	7.1	5.1	5.7	---	---	---
MONTH	9.8	4.0	5.4	7.3	3.3	5.1	7.5	3.8	4.8	9.0	1.8	4.3

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.4	0.1	0.7	5.4	0.8	1.9	5.8	3.0	3.9	9.9	9.4	9.7
2	2.5	0.1	0.6	8.2	1.0	3.9	5.6	3.3	4.3	9.4	8.9	9.1
3	0.2	0.1	0.1	7.5	0.7	2.3	7.4	4.4	5.9	9.0	8.5	8.8
4	3.1	0.1	0.4	7.6	0.7	3.1	7.1	5.1	5.8	8.7	5.6	8.1
5	2.6	0.1	1.0	5.7	0.8	1.7	8.1	4.2	5.4	8.7	4.1	5.8
6	3.2	0.0	1.2	7.4	0.8	2.6	6.0	3.6	4.2	9.3	3.3	7.6
7	1.1	0.1	0.2	3.3	1.0	1.4	9.6	4.1	6.1	9.5	4.0	7.5
8	0.2	0.1	0.1	7.1	0.9	1.9	10.6	5.8	8.9	9.4	5.9	8.5
9	0.4	0.1	0.1	7.0	1.1	2.4	10.8	6.0	8.2	9.4	5.4	6.9
10	1.6	0.1	0.2	7.0	1.1	2.6	11.0	6.3	8.4	5.4	4.7	5.1
11	3.1	0.1	2.0	8.3	2.9	6.2	11.1	6.3	9.8	5.1	4.4	4.7
12	4.1	1.4	2.9	8.3	1.7	6.2	10.7	6.0	8.4	5.0	4.5	4.7
13	3.6	1.2	2.5	8.1	1.6	5.5	10.6	5.5	7.5	4.7	4.2	4.5
14	3.6	1.9	2.4	6.1	1.1	1.8	10.7	8.3	9.7	6.6	4.5	5.3
15	3.9	1.1	1.7	6.8	1.1	4.2	10.1	5.6	8.4	9.1	5.1	6.5
16	5.2	2.9	4.2	7.6	1.5	6.5	9.9	6.4	9.1	8.3	6.0	6.8
17	5.4	0.9	3.4	7.7	6.4	7.1	10.0	6.5	9.4	10.2	6.2	7.7
18	5.3	0.5	3.5	7.6	6.0	6.7	10.3	8.9	9.8	11.3	7.2	9.0
19	5.6	0.6	4.4	7.2	6.2	6.7	9.9	9.6	9.8	11.2	9.6	10.2
20	5.3	0.6	4.2	6.9	6.3	6.6	9.7	8.9	9.4	11.4	10.2	10.7
21	5.2	0.3	1.3	7.2	6.1	6.7	8.9	8.5	8.7	11.3	10.0	10.7
22	0.3	0.3	0.3	7.6	6.4	7.0	8.6	8.3	8.5	11.8	10.5	11.2
23	0.5	0.3	0.3	7.4	6.0	6.7	8.4	4.7	7.3	12.1	10.2	11.2
24	4.2	0.4	0.7	6.8	4.3	6.3	8.9	4.3	5.6	12.9	11.4	12.4
25	4.2	0.4	0.6	6.7	3.0	5.5	9.1	7.2	8.9	12.8	12.0	12.4
26	0.5	0.4	0.4	6.2	2.6	3.7	9.3	9.0	9.2	12.2	11.0	11.8
27	0.5	0.5	0.5	4.9	2.7	3.6	9.5	9.0	9.3	12.3	10.7	11.3
28	0.5	0.5	0.5	4.4	3.1	3.9	10.0	9.4	9.7	11.5	10.8	11.1
29	0.9	0.5	0.6	3.8	3.0	3.4	10.3	9.9	10.1	10.9	9.9	10.6
30	3.6	0.6	1.3	3.7	3.0	3.3	10.3	10.1	10.2	10.3	8.3	9.2
31	1.4	0.6	0.9	---	---	---	10.2	9.9	10.0	10.1	9.2	9.7
MONTH	5.6	0.0	1.4	8.3	0.7	4.4	11.1	3.0	8.1	12.9	3.3	8.7
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.2	8.1	8.7	9.7	9.5	9.6	---	---	---	6.3	5.4	6.1
2	9.2	7.8	8.5	9.8	9.6	9.7	---	---	---	6.2	5.5	6.0
3	11.3	7.9	8.6	9.8	9.4	9.6	---	---	---	6.2	5.8	6.0
4	11.8	9.6	11.6	9.9	9.5	9.6	7.9	7.4	7.7	6.1	5.4	5.8
5	11.7	6.6	10.2	9.6	9.0	9.2	7.4	6.8	7.2	6.1	5.5	5.8
6	10.9	5.8	8.2	9.1	8.5	8.8	7.1	6.7	6.8	6.1	5.6	5.9
7	10.8	5.0	8.8	8.7	8.1	8.4	6.9	6.1	6.5	6.4	5.5	6.0
8	7.0	4.5	5.0	8.2	7.9	8.1	6.5	6.0	6.2	6.0	5.2	5.5
9	10.7	3.8	5.9	8.0	7.6	7.8	7.6	6.4	7.1	5.9	5.0	5.6
10	11.3	3.3	8.6	7.8	7.4	7.6	8.5	7.6	7.9	5.8	5.2	5.5
11	11.3	11.1	11.2	7.8	7.6	7.7	7.9	7.6	7.7	5.7	4.9	5.4
12	11.4	11.2	11.3	7.8	7.5	7.7	7.7	7.5	7.6	6.3	5.2	5.8
13	11.4	11.1	11.2	7.8	7.5	7.7	7.7	7.4	7.5	6.7	5.7	6.0
14	11.3	11.2	11.2	8.0	7.6	7.8	7.4	7.2	7.4	7.1	5.7	6.1
15	11.3	11.1	11.2	7.9	7.6	7.7	7.3	6.9	7.1	8.0	6.1	6.8
16	11.3	11.1	11.2	7.7	7.5	7.6	7.0	6.6	6.8	7.8	6.7	7.0
17	11.3	10.9	11.1	7.7	7.4	7.6	6.6	6.3	6.4	7.9	6.3	6.9
18	11.4	10.9	11.1	7.9	7.4	7.7	6.3	6.1	6.2	7.5	6.4	6.9
19	11.8	11.4	11.6	8.0	7.6	7.8	6.2	5.8	6.0	6.8	6.3	6.5
20	11.8	11.6	11.8	---	---	---	5.9	5.7	5.8	6.6	6.2	6.4
21	11.8	11.4	11.7	---	---	---	5.8	5.6	5.7	6.7	6.3	6.5
22	11.5	10.8	11.2	---	---	---	5.9	5.5	5.7	6.6	6.2	6.5
23	10.9	9.9	10.5	7.1	6.6	6.9	6.1	5.7	5.9	7.2	6.5	6.8
24	10.2	9.6	10.0	6.8	6.2	6.5	6.2	5.8	6.0	6.9	6.1	6.3
25	9.7	9.3	9.5	---	---	---	6.6	6.0	6.3	6.2	6.0	6.1
26	9.5	9.2	9.4	6.3	5.9	6.1	6.6	6.0	6.3	6.0	5.5	5.8
27	9.5	9.2	9.4	---	---	---	6.4	6.0	6.2	5.6	5.2	5.4
28	9.6	9.4	9.5	---	---	---	6.4	5.8	6.2	5.2	5.0	5.1
29	---	---	---	---	---	---	6.2	5.7	6.0	5.3	5.1	5.2
30	---	---	---	---	---	---	6.4	5.8	6.1	5.3	5.1	5.2
31	---	---	---	---	---	---	---	---	---	5.5	5.2	5.3
MONTH	11.8	3.3	9.9	---	---	---	---	---	---	8.0	4.9	6.0

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.5	5.3	5.4	7.5	5.8	6.2	5.2	4.5	4.9	6.1	4.7	5.2
2	5.5	5.3	5.4	6.8	6.1	6.4	5.8	4.6	4.9	5.2	4.4	4.7
3	5.6	5.4	5.5	6.2	4.5	5.2	5.7	4.7	5.2	5.0	4.1	4.4
4	5.5	5.3	5.4	5.0	4.2	4.6	5.6	4.9	5.2	5.5	4.5	4.8
5	5.5	5.1	5.4	5.2	4.7	4.9	5.4	4.8	5.0	5.3	4.8	5.0
6	5.6	5.1	5.4	5.4	4.6	5.1	5.4	4.8	5.2	5.7	2.3	4.7
7	5.9	5.5	5.7	5.3	4.7	5.1	5.4	4.9	5.1	4.8	0.2	2.2
8	6.0	5.6	5.8	5.2	4.6	4.9	5.2	4.6	5.0	4.4	1.3	3.1
9	6.0	5.7	5.8	5.5	4.6	4.9	4.8	4.4	4.6	6.1	3.3	4.7
10	5.9	5.2	5.5	5.8	4.7	5.0	4.7	4.3	4.5	6.2	4.9	5.6
11	5.3	5.0	5.1	5.7	4.9	5.1	5.0	4.5	4.8	9.1	4.9	6.6
12	5.0	4.7	4.9	5.9	4.8	5.2	4.5	4.0	4.3	7.8	4.9	6.1
13	4.8	4.5	4.7	5.5	4.7	5.0	4.2	3.9	4.0	5.4	4.3	4.9
14	4.6	4.2	4.4	5.4	4.7	4.9	4.3	3.8	4.1	5.6	4.3	4.7
15	4.5	4.1	4.2	4.9	4.4	4.6	4.2	4.0	4.2	4.8	4.1	4.4
16	4.5	4.0	4.2	5.4	4.4	4.8	4.5	3.9	4.2	---	---	---
17	4.7	4.0	4.2	5.4	4.6	5.0	4.5	3.9	4.4	---	---	---
18	4.1	3.6	3.9	5.4	4.6	5.1	4.4	3.5	4.2	---	---	---
19	4.7	3.9	4.2	5.4	4.9	5.2	4.7	4.1	4.5	---	---	---
20	4.8	4.2	4.5	5.4	4.8	5.1	4.6	3.9	4.4	3.7	3.0	3.3
21	5.3	4.8	5.0	5.7	4.6	5.2	4.6	3.9	4.3	3.0	2.6	2.8
22	5.7	5.2	5.4	6.0	5.2	5.5	4.5	3.6	4.2	2.8	2.5	2.7
23	5.8	5.2	5.5	5.9	4.9	5.4	4.4	3.8	4.1	2.8	2.5	2.6
24	5.8	5.2	5.5	5.3	4.3	4.8	4.6	3.8	4.2	2.9	2.5	2.7
25	6.0	5.4	5.7	4.6	3.4	3.9	4.8	3.8	4.3	2.8	2.4	2.6
26	6.2	5.3	5.7	4.4	3.5	3.8	4.8	4.2	4.4	2.7	2.5	2.6
27	6.2	5.4	5.8	4.2	3.7	4.0	4.7	4.1	4.3	3.0	2.5	2.7
28	6.6	5.6	5.9	4.8	4.0	4.5	5.0	4.1	4.5	3.0	2.5	2.7
29	7.5	5.6	6.3	5.8	4.4	4.7	5.8	4.4	4.7	2.8	2.4	2.6
30	6.6	5.2	5.8	5.5	4.4	4.9	5.5	4.6	5.0	2.6	1.8	2.3
31	---	---	---	5.8	4.4	4.9	5.6	4.7	5.1	---	---	---
MONTH	7.5	3.6	5.2	7.5	3.4	5.0	5.8	3.5	4.6	---	---	---

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	61	56	59	94	74	81	78	62	68	88	66	72
2	62	58	60	86	75	79	86	62	71	83	62	69
3	63	58	60	75	55	62	82	67	72	98	63	75
4	62	57	60	61	48	55	80	65	70	84	63	71
5	68	60	63	62	49	57	76	64	70	76	63	67
6	69	61	64	68	53	61	73	62	68	70	55	63
7	69	64	66	70	60	65	68	60	64	63	54	59
8	73	65	69	76	64	68	66	49	59	66	43	53
9	74	65	70	76	64	70	58	47	54	77	49	57
10	73	61	66	94	65	73	58	52	55	72	57	64
11	66	57	60	79	64	70	61	52	58	107	60	75
12	59	55	57	88	66	71	54	47	51	84	59	69
13	59	56	57	72	61	66	50	46	48	62	52	57
14	60	55	57	67	59	62	52	48	49	73	52	58
15	60	54	56	68	57	60	51	49	50	62	52	55
16	58	53	55	78	57	65	55	49	52	103	53	67
17	57	52	54	77	61	67	56	52	54	97	62	71
18	59	48	52	80	62	68	54	47	52	82	68	74
19	67	52	56	71	62	66	59	52	55	68	44	54
20	65	56	59	83	63	70	60	54	57	46	34	39
21	67	60	63	90	67	74	61	53	56	40	31	33
22	73	65	68	78	67	72	59	52	56	35	30	32
23	80	67	71	76	60	68	61	54	57	36	29	31
24	79	69	73	65	55	61	65	55	60	37	29	32
25	87	70	75	56	41	48	77	55	62	32	26	29
26	90	69	78	60	45	50	87	58	64	31	27	30
27	116	72	84	67	51	57	85	56	68	35	28	31
28	129	72	88	78	55	61	102	60	70	35	26	31
29	110	71	85	85	59	65	97	61	73	32	24	29
30	105	70	81	86	61	67	92	67	75	29	20	26
31	---	---	---	84	61	69	96	67	76	---	---	---
MONTH	129	48	66	94	41	65	102	46	61	107	20	52

PAMLICO RIVER BASIN

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	29	1	8	54	8	20	51	28	36	80	77	79
2	30	1	7	78	11	39	50	30	39	78	75	76
3	2	1	1	71	7	23	66	40	53	76	73	74
4	39	1	5	71	7	29	63	45	52	74	48	69
5	32	1	12	53	8	17	68	37	47	73	35	50
6	40	0	15	70	8	25	51	32	37	78	28	64
7	14	1	2	32	10	14	75	35	50	78	34	62
8	2	1	1	67	9	19	81	49	69	77	49	69
9	5	1	1	66	11	23	83	51	65	76	45	57
10	19	1	2	66	11	25	84	53	67	45	39	43
11	37	1	23	80	28	59	85	53	76	43	37	39
12	48	17	34	81	17	61	82	50	67	42	38	40
13	42	14	30	80	16	55	84	46	61	40	35	38
14	41	22	28	60	11	18	85	67	78	55	38	45
15	44	13	19	66	11	41	82	47	69	73	43	54
16	57	33	47	72	15	61	80	53	74	68	50	56
17	58	10	37	73	61	68	81	54	76	80	52	63
18	57	6	37	72	57	64	83	72	79	88	59	72
19	58	7	46	67	58	62	80	78	80	85	77	80
20	55	7	43	64	58	60	80	75	78	87	80	83
21	54	3	13	65	56	61	75	72	74	86	78	83
22	3	3	3	69	58	63	73	71	72	93	82	88
23	6	3	4	67	54	60	72	40	62	91	80	86
24	44	4	8	60	39	56	75	37	48	90	83	87
25	44	4	7	59	28	49	76	61	75	90	85	88
26	6	4	5	55	25	34	78	74	76	88	79	84
27	6	6	6	44	26	34	77	73	76	88	77	82
28	6	6	6	42	29	37	80	76	78	84	79	81
29	10	6	7	36	28	32	82	79	80	80	73	78
30	38	7	14	35	28	31	82	80	81	76	61	68
31	15	6	10	---	---	---	81	79	80	75	68	72
MONTH	58	0	16	81	7	41	85	28	66	93	28	68
	MAX	MIN	MEAN									
1	68	60	65	82	79	80	---	---	---	71	60	68
2	70	59	63	83	80	81	---	---	---	70	62	67
3	87	59	65	83	81	82	---	---	---	71	65	67
4	94	74	91	83	81	82	79	75	77	68	60	64
5	92	52	81	82	78	80	75	70	74	67	60	63
6	87	46	65	80	75	77	74	69	71	67	61	65
7	87	40	71	77	71	74	71	62	67	70	62	66
8	56	36	40	73	70	71	65	60	62	68	59	62
9	86	30	47	71	69	70	73	63	69	69	57	64
10	89	26	68	71	68	70	80	71	74	68	60	65
11	90	87	89	70	68	69	72	68	70	69	58	65
12	92	88	90	71	67	69	71	68	69	76	62	69
13	91	88	89	72	69	70	71	69	70	79	67	71
14	90	89	89	74	70	72	70	68	69	83	67	72
15	91	88	89	73	70	71	69	67	68	94	71	80
16	91	89	90	74	70	72	67	65	66	92	77	82
17	90	86	88	75	71	72	66	63	64	93	73	80
18	89	86	87	76	71	74	63	61	62	84	73	78
19	92	89	91	77	73	75	62	59	60	76	69	72
20	94	91	93	---	---	---	60	58	59	72	66	69
21	94	92	93	---	---	---	59	57	58	72	67	70
22	94	91	93	---	---	---	60	58	59	72	67	70
23	92	86	90	71	66	69	64	58	62	78	71	74
24	90	84	87	68	63	65	66	60	63	74	65	68
25	86	83	84	---	---	---	69	62	66	68	64	66
26	84	79	82	63	59	61	69	63	66	65	60	63
27	81	79	80	---	---	---	67	64	65	61	56	59
28	81	79	80	---	---	---	68	61	65	57	54	56
29	---	---	---	---	---	---	68	62	65	58	55	57
30	---	---	---	---	---	---	72	64	67	59	56	57
31	---	---	---	---	---	---	---	---	---	60	57	58
MONTH	94	26	80	---	---	---	---	---	---	94	54	67

02084472 PAMLICO RIVER AT WASHINGTON, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	61	58	59	96	74	80	68	59	63	82	62	68
2	60	59	60	87	77	81	76	60	64	69	58	62
3	63	59	60	77	55	64	75	61	67	66	54	58
4	62	59	60	62	51	55	73	63	68	73	59	64
5	63	58	61	65	57	61	70	62	64	70	62	65
6	65	58	62	69	57	64	70	62	67	73	29	60
7	69	64	66	68	59	64	69	61	64	60	3	28
8	71	65	68	66	58	62	65	57	62	54	16	39
9	72	67	69	72	58	64	59	54	57	76	41	57
10	72	62	66	76	61	65	57	52	55	75	60	69
11	63	59	61	75	63	66	61	54	58	108	59	79
12	61	57	59	77	62	67	54	48	52	93	58	73
13	59	55	57	72	60	65	52	47	49	64	51	58
14	56	52	55	68	59	63	53	47	50	67	50	56
15	56	50	52	63	56	59	53	49	52	57	49	53
16	55	49	52	69	56	61	56	48	52	---	---	---
17	57	49	51	69	59	64	56	48	54	---	---	---
18	51	44	47	69	59	65	54	43	52	---	---	---
19	59	48	52	70	63	67	59	50	55	---	---	---
20	59	52	56	69	61	65	58	48	54	42	34	38
21	66	59	62	74	59	67	57	48	54	34	30	32
22	69	62	66	78	66	71	57	45	52	33	29	31
23	70	62	66	76	62	69	55	47	51	32	29	30
24	70	63	67	68	54	61	58	48	53	34	29	31
25	75	66	70	58	42	49	61	48	54	32	28	30
26	77	65	70	55	43	47	62	53	56	31	29	30
27	78	67	72	52	46	50	60	52	55	35	29	31
28	83	70	75	62	50	56	64	52	57	35	29	31
29	97	71	80	76	56	61	76	57	61	32	27	30
30	86	66	74	72	57	64	73	60	65	30	20	27
31	---	---	---	77	57	64	74	61	67	---	---	---
MONTH	97	44	62	96	42	63	76	43	58	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5

LOCATION.--Lat 35°25'52", long 76°50'29", Beaufort County, Hydrologic Unit 03020104, on U.S. Coast Guard Channel Light 5.

PERIOD OF RECORD.--Water years 1989 to 1992, 1999 to current year.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): May 1989 to September 1992, May 1999 to current year.

pH (TOP AND BOTTOM): May 1999 to current year.

WATER TEMPERATURE (TOP): May 1989 to September 1992, May 1999 to current year.

WATER TEMPERATURE (BOTTOM): May 1999 to current year.

DISSOLVED OXYGEN (TOP AND BOTTOM) : May 1989 to September 1992, May 1999 to current year.

DISSOLVED OXYGEN (MID): May 1989 to September 1992.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): May 1989 to September 1992, May 1999 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION (MID): May 1989 to September 1992.

INSTRUMENTATION.--Water-quality monitor from May 1989 to September 1992. Constituents monitored were: specific conductance, top and bottom, water temperature top, dissolved oxygen, top, mid-depth and bottom. Water-quality monitor with satellite telemetry from May 1999 to current year. Constituents monitored were the same as previous water years except, mid-depth dissolved oxygen was not measured, water temperature, bottom, was added as well as pH top and bottom.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. The monitor was removed on August 29, 1999 to prevent possible destruction of the equipment during Hurricane Dennis. It was reinstalled on September 9, 1999. The monitor was removed again on September 14, 1999 to prevent possible destruction during Hurricane Floyd. It was reinstalled on October 21, 1999. The monitor was removed on September 16, 2003, to prevent possible destruction of the equipment during Hurricane Isabel. It was reinstalled on September 20, 2003. Top constituents were monitored at 8 ft above the streambed and bottom constituents, 2 ft above the streambed. Salinity and dissolved oxygen, percent saturation are computed. The dissolved oxygen percent saturation is computed using a barometric pressure of 760 mm of Hg beginning October 1, 2000. Salinity, minimum extremes are reported as <0.1 ppt. Dissolved oxygen, minimum extremes are reported as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported as <10%.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	19.6, August 21, October 21, 2002	<0.1, on many days during the period
SALINITY (BOTTOM), ppt	20.8, October 23, 2002	<0.1, on several days during the period
pH (TOP), standard units	9.2, August 4, 2001	6.2, October 22, 23, 24, 1999
pH (BOTTOM), standard units	8.8, April 1, 2000, February 14, 2002, August 6, 2003, September 23, 2003	5.9, October 23, 1999
WATER TEMPERATURE (TOP), °C	33.1, July 31, 1999	0.0, December 3, 1989, January 24, 2003
WATER TEMPERATURE (BOTTOM), °C	30.5, July 24, 1999	0.1, January 24, 2003
DISSOLVED OXYGEN (TOP), mg/L	18.5, February 5, 1991	<1.0, on many days during the period
DISSOLVED OXYGEN (BOTTOM), mg/L	18.6, January 5, 1992	<1.0, on many days during the period

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	19.6, October 21	<0.1, on several days during the year
SALINITY (BOTTOM), ppt	20.8, October 23	<0.1, April 18, 19
pH (TOP), standard units	9.1, January 3, August 5, September 20, 21	6.4, April 15, September 26, 28
pH (BOTTOM), standard units	8.8, August 6, September 23	6.6, on many days during the year
WATER TEMPERATURE (TOP), °C	31.1, August 27	0.0, January 24
WATER TEMPERATURE (BOTTOM), °C	30.1, July 9	0.1, January 24
DISSOLVED OXYGEN (TOP), mg/L	15.6, February 14	<1.0, on several days during the year
DISSOLVED OXYGEN (BOTTOM), mg/L	13.9, January 28	<1.0, on many days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	168, July 21	<10, on several days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	119, August 20	<10, on many days during the year

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.0	7.5	7.9	14.4	9.4	12.0	13.2	12.4	12.9	11.5	4.3	6.7
2	11.3	5.6	8.4	12.6	10.6	11.5	14.1	12.5	13.2	8.9	3.6	5.4
3	15.3	6.3	11.3	13.6	11.1	12.4	13.9	12.4	13.2	7.0	3.3	5.3
4	16.7	11.2	13.5	13.2	9.4	11.2	14.8	12.2	13.5	6.6	2.7	4.2
5	13.0	9.3	10.7	16.0	9.5	12.0	15.0	12.2	13.4	7.3	5.1	6.3
6	18.2	8.9	13.0	12.5	8.6	10.7	13.7	10.9	12.0	10.6	4.5	7.1
7	14.2	10.7	12.4	13.3	8.6	10.7	13.6	11.2	12.2	12.0	6.4	9.4
8	14.5	10.2	12.8	14.0	10.5	12.4	15.4	9.5	12.1	13.0	11.4	12.2
9	13.5	12.6	13.3	17.2	10.4	13.6	14.7	6.7	12.8	12.2	9.7	11.3
10	13.9	12.2	13.1	16.5	11.7	13.5	15.2	6.4	11.4	11.5	7.3	9.1
11	13.8	12.4	13.2	13.7	10.5	12.2	13.7	6.2	9.6	10.6	7.3	8.7
12	12.4	10.6	11.2	16.1	8.7	11.7	10.1	8.4	9.0	11.8	7.3	8.8
13	14.3	10.4	12.3	9.3	6.4	7.9	12.2	8.3	10.3	10.7	7.6	9.5
14	15.3	11.3	14.0	13.5	7.5	10.5	12.1	9.8	10.8	13.0	8.2	9.8
15	14.8	12.4	13.5	16.9	9.8	13.5	10.5	8.0	9.6	10.8	8.6	9.6
16	14.1	9.7	11.7	13.6	10.6	11.9	8.5	5.9	6.7	11.3	9.0	10
17	12.2	7.6	10.3	10.7	4.2	8.1	11.8	5.0	7.3	10.2	9.8	10.0
18	14.5	6.3	10.4	11.2	4.4	8.5	10.8	5.1	6.8	11.6	9.7	10.5
19	14.7	12.1	13.4	10.7	7.8	9.7	10.2	5.5	8.7	11.6	10.0	10.8
20	18.7	10	12.9	15.5	9.9	12.2	8.6	3.9	6.3	11.3	9.3	10.8
21	19.6	10.2	15.6	15.5	12.4	13.6	6.2	4.9	5.4	11.1	9.3	10.5
22	18.1	15.1	16.6	16.9	9.1	12.7	7.1	4.7	5.8	11.3	9.8	10.7
23	18.6	15.8	17.1	12.6	9.8	11.6	6.6	4.4	5.4	11.3	6.4	10
24	18.8	9.8	14.6	11.4	9.1	10.2	12.4	4.0	6.3	9.2	5.9	7.7
25	12.6	11.4	12.2	14.9	9.2	11.5	8.8	6.8	7.5	---	---	---
26	12.2	11.7	11.9	14.7	10.7	13.3	9.5	6.8	8.3	11.8	9.0	11.0
27	13.3	11.3	12.0	15.7	5.5	11.2	8.3	7.0	7.7	12.4	7.2	9.4
28	14.2	11.8	12.5	16.0	9.4	12.7	9.2	5.0	7.2	---	---	---
29	12.8	11.7	12.4	14.7	10.1	12.3	9.7	5.3	6.9	13.3	9.3	11.1
30	12.2	10.2	11.1	13.5	11.7	12.6	10.9	7.3	8.6	14.3	10.9	11.8
31	13.3	8.8	10.3	---	---	---	8.2	6.5	7.4	11.4	10.2	11.0
MONTH	19.6	5.6	12.4	17.2	4.2	11.6	15.4	3.9	9.3	---	---	---

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	15.1	12.8	14.2	16.6	13.3	15.4	14.8	12.4	13.4	15.7	12.0	15.2
2	15.6	14.3	15.1	16.7	10.7	15.0	15.5	13.7	14.8	17.6	14.3	16.4
3	16.3	15.2	15.7	16.7	12.8	15.6	15.5	12.8	13.9	16.3	15.1	15.7
4	17.5	14.1	16.5	17.1	15.7	16.1	14.9	12.4	14.2	18.1	3.7	16.8
5	18.1	15.7	16.5	17.5	14.3	16.4	14.9	12.2	13.7	18.0	16.7	17.8
6	19.5	16.2	18.0	16.9	10.6	14.6	14.7	13.5	14.4	17.5	5.9	15.9
7	19.2	16.7	17.6	17.9	12.4	16.6	15.1	14.1	14.5	17.1	7.3	13.8
8	19.5	15.1	18.3	18.4	16.9	17.9	16.0	14.8	15.2	14.1	11.8	13.0
9	19.5	13.7	17.0	18.4	16.8	18.1	16.0	14.6	15.3	12.7	11.6	12.4
10	19.4	14.0	17.9	18.4	16.3	17.9	16.5	14.1	15.1	12.6	10.0	11.8
11	18.4	13.0	15.0	17.9	13.2	17.2	15.9	14.1	15.3	12.6	11.4	12.3
12	17.5	12.1	14.9	17.9	12.3	17.5	16.2	14.5	15.3	12.8	12.0	12.4
13	17.7	16.1	17.2	17.5	7.5	16.4	16.1	11.8	14.9	13.0	12.7	12.9
14	17.3	13.9	15.4	17.1	16.8	17.0	14.9	10.1	11.8	13.8	10.4	13.0
15	15.6	12.7	14.9	17.1	16.7	16.9	12.2	9.8	11.1	13.1	9.0	11.2
16	14.9	10.7	13.5	16.7	14.6	15.8	14.6	12.0	12.9	13.7	9.3	12.6
17	15.3	13.1	14.7	16.5	10.3	16.0	14.9	14.5	14.7	11.8	10.0	10.4
18	16.8	14.1	15.4	16.6	10.7	14.7	14.7	13.3	14.4	11.9	9.7	10.9
19	18.1	16.4	17.2	16.1	15.7	15.9	14.7	12.8	14.3	11.8	10.2	11.3
20	19.5	17.5	18.7	16.5	16.1	16.4	14.5	6.5	11.9	11.8	10.6	11.1
21	19.9	19.3	19.6	16.9	16.5	16.7	16.0	13.1	14.7	11.3	10.4	10.8
22	20.5	19.9	20.2	17.2	10.1	15.2	16.5	9.1	15.5	11.4	10.7	11.1
23	---	---	---	14.7	10.6	12.8	17.1	15.5	16.5	11.3	6.5	10.0
24	---	---	---	15.1	13.1	14.6	17.1	8.7	15.3	12.0	6.0	9.8
25	18.8	12.8	17.9	16.7	14.7	15.7	14.7	6.9	10.1	12.8	10.3	12.0
26	19.0	16.6	17.9	16.7	15.1	16.5	9.7	7.6	9.0	14.5	12.2	13.5
27	18.8	16.6	18.2	17.1	14.0	16.2	11.2	9.5	10.2	14.6	10.0	13.2
28	17.0	15.5	16.4	17.1	15.3	16.4	13.1	10.4	11.8	---	---	---
29	17.9	12.8	16.6	17.5	13.9	16.8	16.0	12.5	14.0	15.3	13.7	14.5
30	---	---	---	17.3	12.4	15.7	15.7	11.4	13.9	15.5	14.5	15.2
31	16.8	13.0	15.3	---	---	---	15.3	12.6	14.0	15.9	15.1	15.4
MONTH	---	---	---	18.4	7.5	16.1	17.1	6.5	13.7	---	---	---
DAY	MAX	MIN	MEAN									
1	16.6	15.8	16.2	8.4	7.7	8.1	---	---	---	7.1	4.8	6.5
2	16.7	16.4	16.6	10.2	7.1	8.5	---	---	---	7.5	2.3	5.4
3	16.9	15.4	16.6	11.6	9.3	10.6	7.6	1.9	4.3	8.1	2.1	6.2
4	16.7	11.5	15.3	10.3	6.5	8.3	6.0	1.8	3.8	7.7	3.2	6.7
5	16.1	13.6	15.4	9.8	2.3	5.8	6.1	1.9	4.1	7.7	3.5	6.5
6	15.7	11.6	15.1	10.6	2.0	9.5	7.7	2.4	5.3	7.3	2.4	3.8
7	15.3	9.9	14.4	10.8	6.5	9.8	5.9	2.1	2.9	7.8	3.8	7.0
8	15.5	14.7	15.1	11.5	9.8	11.0	5.5	2.1	3.2	7.6	2.8	6.7
9	15.2	14.7	15.0	12.3	10.0	11.2	5.1	2.1	2.6	7.1	3.3	6.4
10	15.0	8.3	13.5	12.4	8.3	11.6	3.0	1.5	2.5	6.8	3.8	5.8
11	13.7	11.0	12.7	10.5	7.9	9.7	1.9	0.6	1.2	6.2	3.1	5.2
12	13.5	7.5	10.5	11.1	8.9	10.3	2.6	0.6	1.3	6.2	3.6	4.5
13	11.3	8.2	9.6	11.7	10.4	11.1	3.1	1.4	2.6	5.2	3.9	4.2
14	11.7	7.8	10.5	11.7	1.4	9.4	2.4	0.3	1.5	4.6	4.0	4.3
15	---	---	---	10.2	6.2	9.2	1.5	0.1	0.4	4.7	3.8	4.4
16	---	---	---	9.2	2.0	4.8	1.8	0.1	0.5	4.5	3.6	4.0
17	---	---	---	---	---	---	2.5	0.1	0.6	4.3	3.5	4.0
18	---	---	---	---	---	---	0.4	0.0	0.1	4.2	4.0	4.1
19	---	---	---	---	---	---	3.3	0.0	0.3	4.0	3.4	3.7
20	12.8	10.9	12.1	---	---	---	6.2	0.1	4.2	3.8	3.5	3.6
21	12.9	11.4	12.5	---	---	---	6.1	4.1	5.6	4.1	2.9	3.6
22	13.5	6.1	12.4	---	---	---	7.8	1.9	6.4	4.2	2.9	3.7
23	---	---	---	---	---	---	8.6	4.9	7.9	3.7	2.5	3.2
24	8.1	5.6	6.9	---	---	---	9.0	5.9	8.4	3.4	1.9	2.6
25	9.2	5.4	6.5	---	---	---	8.8	6.6	8.0	3.8	2.0	3.3
26	9.8	3.5	4.9	---	---	---	7.6	4.1	7.1	3.4	0.9	2.6
27	9.8	7.3	9.0	---	---	---	7.6	3.4	7.0	3.7	0.8	2.4
28	9.3	3.6	8.4	---	---	---	7.5	4.3	6.9	3.6	0.7	2.8
29	---	---	---	---	---	---	8.5	4.8	7.2	3.7	0.5	2.7
30	---	---	---	---	---	---	8.7	4.7	7.8	3.5	1.1	3.0
31	---	---	---	---	---	---	---	---	---	3.9	0.5	3.2
MONTH	---	---	---	---	---	---	---	---	---	8.1	0.5	4.4

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	8.4	8.0	8.2	7.6	7.4	7.5	8.0	7.8	7.9	8.8	7.4	8.3
2	8.5	7.4	8.1	7.6	7.4	7.5	8.2	7.9	8.1	8.6	7.5	8.2
3	8.2	7.0	7.6	7.8	7.5	7.6	8.2	8.1	8.2	9.1	7.9	8.5
4	7.9	7.0	7.3	7.8	7.5	7.6	8.2	8.1	8.1	8.7	7.3	7.9
5	8.3	7.3	7.8	7.8	7.3	7.6	8.1	8.1	8.1	8.7	7.6	8.1
6	8.0	7.1	7.6	7.7	7.5	7.6	8.2	8.0	8.1	8.4	7.3	7.9
7	8.2	7.4	7.9	7.7	7.4	7.6	8.2	8.0	8.1	8.0	7.3	7.6
8	8.1	7.6	7.9	8.0	7.6	7.8	8.3	8.0	8.2	8.3	7.8	8.1
9	8.0	7.8	7.8	8.1	7.2	7.8	8.2	7.9	8.2	8.5	8.1	8.2
10	8.0	7.7	7.8	8.1	7.4	7.9	8.2	7.8	8.1	8.6	8.2	8.4
11	7.8	7.6	7.7	8.1	7.8	8.0	8.1	7.7	7.9	8.9	8.4	8.6
12	7.6	7.5	7.6	8.0	7.4	7.8	8.2	7.8	7.9	8.9	8.1	8.7
13	7.8	7.3	7.6	8.0	7.4	7.5	8.1	7.8	8.0	9.0	8.6	8.7
14	7.9	7.7	7.8	7.8	7.3	7.5	8.0	7.9	7.9	8.8	8.0	8.6
15	7.9	7.7	7.8	7.8	7.2	7.5	8.6	7.9	8.1	8.8	8.6	8.8
16	7.8	7.6	7.7	7.8	7.2	7.6	8.6	8.1	8.3	8.8	8.4	8.7
17	8.0	7.4	7.7	7.8	6.9	7.5	8.5	7.8	8.2	8.6	8.5	8.6
18	7.9	7.1	7.4	7.4	6.9	7.2	8.8	7.8	8.5	8.7	8.5	8.6
19	7.8	7.0	7.5	7.4	7.2	7.3	8.8	7.8	8.4	8.7	8.5	8.6
20	7.6	7.0	7.2	7.3	7.0	7.2	8.8	7.7	8.3	8.8	8.6	8.6
21	7.6	6.8	7.3	7.5	7.0	7.2	8.4	7.6	8.0	8.7	8.6	8.7
22	7.5	6.9	7.3	7.5	7.0	7.2	8.5	7.7	8.0	8.7	8.6	8.6
23	7.5	6.9	7.3	7.6	7.3	7.5	8.6	7.7	8.1	8.8	8.5	8.7
24	7.8	7.0	7.4	7.6	7.4	7.5	8.6	7.7	8.2	---	---	---
25	7.9	7.5	7.7	7.7	7.4	7.5	8.3	7.7	7.8	---	---	---
26	7.6	7.5	7.5	8.0	7.2	7.6	8.2	7.7	7.9	8.7	8.3	8.5
27	7.6	7.4	7.5	7.7	7.3	7.5	8.5	7.9	8.0	8.8	8.2	8.4
28	7.6	7.2	7.5	7.9	7.4	7.6	8.7	7.6	8.3	8.5	8.1	8.3
29	7.7	7.4	7.5	7.9	7.6	7.8	8.7	7.9	8.3	8.5	8.0	8.3
30	7.5	7.3	7.4	8.0	7.7	7.9	8.9	7.6	8.4	8.4	7.9	8.3
31	7.6	7.3	7.4	---	---	---	9.0	8.1	8.6	8.4	8.3	8.4
MONTH	8.5	6.8	7.6	8.1	6.9	7.6	9.0	7.6	8.1	---	---	---
	MAX	MIN	MEAN									
1	8.5	8.0	8.2	7.4	7.0	7.2	---	---	---	7.8	7.3	7.5
2	8.4	8.0	8.1	7.3	6.8	7.1	---	---	---	8.5	7.2	7.6
3	8.5	8.1	8.3	7.3	6.8	7.0	7.8	7.2	7.4	8.2	7.3	7.7
4	8.5	8.2	8.4	7.5	7.2	7.3	7.8	7.2	7.4	7.5	7.2	7.3
5	8.6	8.2	8.4	7.3	7.0	7.1	7.5	7.1	7.3	7.8	7.4	7.5
6	8.6	8.3	8.5	7.0	6.9	7.0	7.4	7.2	7.3	8.4	7.3	7.9
7	8.6	8.4	8.5	7.1	7.0	7.1	7.5	7.3	7.3	8.9	7.9	8.4
8	8.5	8.0	8.3	7.1	6.9	7.0	7.4	7.2	7.3	8.9	7.9	8.6
9	8.7	7.9	8.4	7.0	6.7	6.8	7.3	7.2	7.3	8.9	7.0	8.4
10	8.6	7.1	8.1	7.4	6.7	6.9	7.5	7.2	7.3	8.5	7.2	7.8
11	8.5	7.8	8.1	7.1	6.7	6.9	7.4	7.3	7.3	8.1	7.1	7.6
12	8.5	7.9	8.2	6.8	6.6	6.7	7.4	7.2	7.3	7.6	7.3	7.4
13	8.5	7.6	8.0	6.8	6.6	6.7	7.3	7.0	7.2	7.6	7.2	7.4
14	8.9	7.9	8.2	7.2	6.6	7.0	7.2	6.7	7.0	8.3	7.3	7.7
15	---	---	---	7.2	7.0	7.1	7.1	6.4	6.6	8.0	7.3	7.6
16	---	---	---	7.5	7.1	7.2	6.9	6.6	6.7	8.1	7.4	7.7
17	---	---	---	---	---	---	7.0	6.5	6.7	7.6	7.3	7.4
18	---	---	---	---	---	---	6.9	6.6	6.8	7.5	7.3	7.4
19	---	---	---	---	---	---	7.0	6.6	6.8	7.6	7.4	7.5
20	8.8	7.7	8.4	---	---	---	7.1	6.7	6.9	8.0	7.4	7.7
21	8.8	7.2	8.1	---	---	---	7.0	6.6	6.7	8.4	7.1	7.9
22	8.5	6.8	7.4	---	---	---	6.8	6.6	6.7	8.2	7.2	7.8
23	---	---	---	---	---	---	6.9	6.6	6.8	7.6	7.4	7.5
24	7.7	7.2	7.3	---	---	---	7.0	6.7	6.8	8.6	7.4	7.8
25	8.2	7.4	7.7	---	---	---	7.2	7.0	7.1	8.8	7.1	8.0
26	8.1	7.5	7.8	---	---	---	8.4	6.9	7.1	8.9	7.5	8.2
27	8.0	7.4	7.5	---	---	---	8.3	6.9	7.5	8.7	6.9	8.2
28	7.8	7.2	7.4	---	---	---	8.5	7.2	7.8	8.4	7.2	7.9
29	---	---	---	---	---	---	8.6	8.0	8.4	8.5	7.2	7.8
30	---	---	---	---	---	---	8.6	7.4	8.0	8.6	7.0	7.5
31	---	---	---	---	---	---	---	---	---	7.8	7.0	7.3
MONTH	---	---	---	---	---	---	---	---	---	8.9	6.9	7.7

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.1	7.0	7.0	7.4	7.0	7.2	7.6	7.4	7.5	7.2	7.1	7.2
2	7.2	7.0	7.1	7.4	7.1	7.2	7.7	7.5	7.6	7.2	7.1	7.1
3	7.6	7.1	7.3	7.4	7.2	7.3	7.8	7.5	7.6	7.1	7.0	7.1
4	7.5	7.2	7.3	7.3	7.2	7.2	7.7	7.6	7.7	7.3	7.0	7.1
5	7.3	7.1	7.2	7.4	7.0	7.2	7.7	7.6	7.7	7.1	7.0	7.1
6	7.4	7.1	7.2	7.5	7.0	7.1	7.7	7.6	7.6	7.6	7.0	7.0
7	7.2	7.1	7.1	7.4	7.0	7.2	7.7	7.6	7.7	8.0	7.0	7.3
8	7.6	7.2	7.2	7.3	7.0	7.2	7.7	7.6	7.7	8.2	7.4	7.9
9	7.7	7.1	7.2	7.2	7.0	7.1	7.8	7.6	7.7	8.2	7.9	8.1
10	7.5	7.1	7.2	7.3	6.9	7.0	7.7	7.6	7.7	8.4	8.0	8.1
11	7.7	7.1	7.3	7.7	6.9	7.1	7.7	7.6	7.7	8.1	7.9	8.0
12	7.6	7.1	7.3	7.5	7.0	7.1	7.7	7.5	7.6	8.4	7.6	7.9
13	7.3	7.1	7.2	7.5	7.1	7.2	7.6	7.4	7.5	8.0	7.5	7.8
14	7.9	7.1	7.6	7.3	7.1	7.2	7.6	7.4	7.5	8.3	7.4	7.7
15	7.9	7.6	7.7	7.3	7.0	7.1	7.6	7.4	7.5	8.7	7.7	8.3
16	7.7	7.4	7.6	7.3	7.0	7.1	7.5	7.4	7.5	8.7	7.1	7.6
17	7.5	7.2	7.3	7.1	6.8	7.0	7.4	7.4	7.4	8.3	7.5	8.1
18	7.4	7.0	7.2	7.3	6.9	7.1	7.4	7.2	7.3	8.2	8.0	8.2
19	7.2	7.0	7.1	7.4	7.1	7.2	7.3	7.2	7.3	8.3	8.0	8.2
20	7.4	7.0	7.2	7.3	7.1	7.2	8.0	7.2	7.4	8.3	8.1	8.2
21	7.4	7.1	7.2	7.3	7.1	7.2	7.5	7.2	7.3	8.4	8.2	8.3
22	7.1	6.9	7.0	7.2	6.9	7.1	7.7	7.3	7.4	8.3	8.2	8.3
23	7.3	7.0	7.1	7.2	7.0	7.1	7.6	7.3	7.5	8.4	8.2	8.3
24	7.0	6.9	6.9	7.3	7.1	7.2	8.0	7.3	7.5	8.3	8.0	8.1
25	7.6	6.8	6.9	7.3	7.2	7.3	7.7	7.3	7.4	8.2	7.8	7.9
26	7.0	6.8	6.9	7.3	7.0	7.2	8.0	7.4	7.7	7.8	7.4	7.6
27	7.0	6.9	6.9	7.5	7.0	7.2	7.9	7.4	7.6	8.0	7.4	7.7
28	7.0	6.9	6.9	7.6	7.2	7.3	7.7	7.4	7.6	7.7	7.4	7.6
29	7.6	6.9	7.0	7.6	7.2	7.3	7.7	7.4	7.5	7.7	7.4	7.5
30	7.4	6.9	6.9	7.6	7.2	7.4	7.6	7.4	7.5	7.5	7.1	7.3
31	7.3	6.8	7.1	---	---	---	7.4	7.2	7.3	7.5	7.0	7.3
MONTH	7.9	6.8	7.2	7.7	6.8	7.2	8.0	7.2	7.5	8.7	7.0	7.7
DAY	MAX	MIN	MEAN									
1	7.4	7.2	7.3	7.0	6.7	6.8	---	---	---	6.7	6.6	6.6
2	7.2	7.1	7.2	7.1	6.8	6.9	---	---	---	7.3	6.6	6.7
3	7.6	7.1	7.2	7.1	7.0	7.1	7.2	6.6	6.9	7.8	6.6	6.9
4	8.1	7.1	7.4	7.1	6.9	7.0	7.4	6.7	6.9	7.1	6.6	6.7
5	7.6	7.0	7.3	7.1	6.8	6.9	7.3	6.7	6.9	7.3	6.6	6.8
6	8.1	6.9	7.2	7.0	6.8	6.8	7.4	6.8	7.0	8.1	6.7	7.4
7	8.1	6.8	6.9	6.8	6.8	6.8	7.5	6.8	7.3	7.0	6.7	6.9
8	7.2	6.8	7.0	6.8	6.7	6.7	7.5	6.8	7.2	7.5	6.7	6.9
9	7.1	6.8	6.9	6.7	6.7	6.7	7.4	6.8	7.3	7.2	6.7	6.9
10	8.2	6.8	7.1	6.7	6.7	6.7	7.6	7.2	7.4	7.0	6.7	6.8
11	7.6	6.9	7.2	6.7	6.6	6.7	7.4	7.3	7.4	7.2	6.7	6.8
12	8.1	6.8	7.4	6.6	6.6	6.6	7.4	7.2	7.3	7.5	6.7	7.1
13	7.8	7.2	7.4	6.7	6.6	6.7	7.2	7.1	7.2	7.6	7.0	7.4
14	7.9	6.8	7.2	7.1	6.7	6.8	7.2	6.9	7.1	7.5	7.1	7.3
15	---	---	---	6.9	6.7	6.8	7.0	6.6	6.8	7.4	6.9	7.1
16	---	---	---	7.3	6.7	7.0	7.0	6.7	6.8	7.4	6.9	7.2
17	---	---	---	---	---	---	7.0	6.6	6.8	7.4	6.9	7.3
18	---	---	---	---	---	---	7.0	6.7	6.9	7.4	7.2	7.3
19	---	---	---	---	---	---	7.1	6.6	6.9	7.4	7.2	7.3
20	7.2	7.0	7.1	---	---	---	7.0	6.7	6.8	7.4	7.2	7.3
21	7.0	6.9	7.0	---	---	---	6.8	6.7	6.7	7.8	7.1	7.4
22	7.1	6.8	6.9	---	---	---	6.8	6.7	6.7	7.8	7.0	7.1
23	---	---	---	---	---	---	6.8	6.7	6.8	7.6	6.9	7.3
24	7.3	7.0	7.1	---	---	---	6.9	6.6	6.7	7.5	7.1	7.3
25	8.1	6.8	7.4	---	---	---	6.7	6.6	6.7	7.7	7.0	7.1
26	8.0	6.7	7.6	---	---	---	6.9	6.6	6.6	7.7	6.9	7.1
27	7.0	6.6	6.7	---	---	---	6.8	6.6	6.6	8.6	6.9	7.4
28	7.0	6.6	6.8	---	---	---	6.8	6.6	6.6	8.4	6.8	7.0
29	---	---	---	---	---	---	6.8	6.6	6.6	8.0	6.8	7.0
30	---	---	---	---	---	---	6.8	6.6	6.7	7.0	6.8	6.8
31	---	---	---	---	---	---	---	---	---	7.2	6.8	6.9
MONTH	---	---	---	---	---	---	---	---	---	8.6	6.6	7.1

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.1	24.5	24.7	16.5	15.0	15.7	10.0	8.8	9.5	9.3	7.7	8.3
2	25.5	24.7	25.1	15.2	14.4	14.9	9.3	8.4	8.7	9.4	8.7	9.1
3	25.7	25.3	25.5	15.1	14.1	14.4	8.9	7.9	8.5	10.0	8.9	9.3
4	26.5	25.2	25.7	14.8	13.8	14.3	7.9	7.2	7.5	9.4	8.0	8.7
5	27.3	25.6	26.4	15.5	13.5	14.2	7.6	6.5	6.9	8.6	7.5	8.2
6	27.0	25.2	25.9	14.9	14.1	14.6	6.9	6.1	6.4	---	---	---
7	26.6	25.5	26.0	14.3	13.6	14.1	6.8	5.7	6.4	---	---	---
8	26.3	24.4	25.0	14.9	13.3	14.1	7.2	5.7	6.5	7.4	6.4	6.8
9	24.4	23.5	23.8	15.2	13.1	14.2	7.1	5.8	6.5	7.6	6.5	7.0
10	23.7	23.2	23.5	16.3	14.3	15.2	6.7	5.8	6.2	8.0	7.4	7.7
11	23.8	23.4	23.6	17.5	15.7	16.8	6.7	6.2	6.4	8.0	6.8	7.3
12	23.6	23.4	23.5	18.0	16.3	17.3	7.0	6.2	6.6	7.4	6.1	6.7
13	23.6	23.1	23.4	17.7	15.0	16.3	7.4	6.6	6.9	6.7	5.8	6.4
14	23.6	22.0	23.0	15.5	13.7	14.8	8.2	7.2	7.5	7.0	5.8	6.1
15	22.4	20.7	21.3	16.1	14.4	15.4	7.9	6.9	7.3	6.3	5.5	5.8
16	21.6	20.2	20.9	15.4	14.9	15.1	7.6	6.6	7.1	6.1	4.7	5.4
17	20.8	20.2	20.4	15.1	14.1	14.9	7.5	6.5	7.0	5.6	4.8	5.3
18	20.9	18.9	20.1	14.2	13.3	13.9	7.6	6.0	6.7	5.0	3.9	4.6
19	20.9	19.7	20.3	14.1	13.2	13.8	8.0	6.5	7.5	5.2	3.9	4.3
20	20.9	19.5	20.2	15.0	13.9	14.4	9.6	7.9	8.9	4.8	3.6	4.1
21	21.0	20.0	20.4	15.0	14.4	14.7	9.0	8.1	8.7	4.5	3.9	4.2
22	20.5	19.4	20.0	14.9	13.3	14.3	9.2	7.8	8.2	4.1	3.4	3.8
23	20.5	19.4	19.9	13.3	11.4	12.4	8.8	8.0	8.4	3.7	1.2	2.8
24	20.2	17.4	19.0	11.9	10.6	11.3	8.8	8.0	8.4	1.4	0.0	0.8
25	18.4	17.6	18.0	13.0	11.5	12.1	8.6	7.5	8.3	---	---	---
26	18.7	18.0	18.3	12.9	12.0	12.5	7.5	6.1	7.0	2.0	1.4	1.7
27	19.0	18.1	18.5	12.9	11.2	12.2	6.9	6.1	6.4	2.0	1.4	1.6
28	19.1	18.3	18.6	12.7	9.8	11.2	7.3	6.0	6.8	---	---	---
29	18.7	18.0	18.4	11.2	9.3	10.3	7.6	6.0	6.8	3.3	1.5	2.3
30	18.1	17.0	17.6	10.5	9.4	10.0	7.8	6.8	7.5	3.3	2.3	2.9
31	17.0	15.4	16.2	---	---	---	7.9	7.3	7.7	3.6	3.0	3.3
MONTH	27.3	15.4	21.7	18.0	9.3	14.0	10.0	5.7	7.4	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.7	3.2	3.4	8.7	8.0	8.4	---	---	---	22.1	21.0	21.5
2	4.2	2.9	3.4	9.6	8.2	9.0	---	---	---	23.7	21.1	22.0
3	5.0	2.9	3.9	9.7	8.5	9.0	17.4	14.8	15.6	23.0	20.9	22.1
4	6.6	4.5	5.8	9.8	8.5	9.2	18.2	15.5	16.5	20.9	19.5	20.2
5	6.7	5.8	6.4	11.0	9.5	10.2	17.5	16.4	16.8	19.5	18.8	19.1
6	6.6	5.7	6.2	11.1	10.5	10.8	17.4	16.5	17.0	20.8	18.9	19.8
7	6.0	5.8	5.9	10.6	9.2	9.8	16.5	15.6	16.1	22.5	20.3	21.2
8	5.9	4.9	5.4	9.7	8.6	9.0	15.7	14.8	15.2	23.8	21.2	22.4
9	6.4	5.5	5.8	10.8	9.4	10.1	14.8	13.8	14.3	24.4	21.7	23.4
10	6.2	5.5	5.8	11.6	9.5	10.3	13.9	12.8	13.3	24.6	22.9	23.5
11	6.4	5.1	5.7	10.8	10.2	10.4	12.8	11.9	12.5	25.0	23.1	24.0
12	6.6	5.4	5.9	11.7	10.2	10.8	13.3	11.5	12.5	24.0	22.7	23.2
13	6.6	5.2	5.8	12.8	11.0	11.9	14.2	12.8	13.3	22.7	21.7	22.1
14	6.6	5.4	5.8	12.6	10.8	11.6	15.2	13.2	14.0	22.9	21.0	22.1
15	---	---	---	11.5	10.4	10.9	15.5	13.6	14.4	22.3	21.6	21.9
16	---	---	---	12.6	11.2	11.7	17.1	15.0	16.0	24.0	21.6	22.4
17	---	---	---	---	---	---	18.0	15.8	16.6	22.9	21.2	22.0
18	---	---	---	---	---	---	17.0	16.1	16.6	21.4	20.6	21.0
19	---	---	---	---	---	---	17.0	16.2	16.6	20.6	19.7	20.1
20	7.7	6.6	6.8	---	---	---	17.4	16.1	16.7	20.9	19.3	19.9
21	8.1	6.6	7.3	---	---	---	18.3	16.4	17.0	21.9	19.8	20.6
22	10.0	6.3	8.1	---	---	---	19.0	16.7	17.8	22.1	20.6	21.4
23	---	---	---	---	---	---	18.7	17.2	17.8	21.1	20.4	20.7
24	9.7	8.2	9.2	---	---	---	18.9	16.5	17.4	21.1	20.1	20.5
25	9.9	9.3	9.6	---	---	---	18.2	17.5	17.9	22.3	20.2	21.1
26	9.6	8.8	9.1	---	---	---	19.3	17.5	17.9	22.8	21.1	21.9
27	8.8	8.3	8.5	---	---	---	19.5	17.8	18.8	22.6	20.7	21.9
28	8.6	8.0	8.2	---	---	---	20.0	18.4	18.9	22.2	20.9	21.6
29	---	---	---	---	---	---	21.5	19.7	20.5	22.4	21.1	21.8
30	---	---	---	---	---	---	21.8	20.3	21.0	22.7	20.8	21.9
31	---	---	---	---	---	---	---	---	---	22.8	21.3	22.0
MONTH	---	---	---	---	---	---	---	---	---	25.0	18.8	21.6

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	25.7	25.5	25.6	18.3	16.3	17.4	10.0	9.1	9.7	8.1	8.0	8.0
2	25.6	25.3	25.5	17.0	14.8	16.2	9.9	8.7	9.5	8.3	8.0	8.1
3	25.4	25.1	25.2	16.3	15.0	15.8	9.8	8.1	8.9	8.4	8.1	8.2
4	25.8	25.1	25.2	16.0	15.5	15.7	9.3	7.3	8.0	8.6	8.2	8.3
5	25.4	25.2	25.3	16.0	15.0	15.8	7.7	6.5	7.1	8.5	8.3	8.4
6	25.4	25.1	25.3	16.0	14.8	15.6	7.5	6.8	7.2	8.7	7.8	8.5
7	25.4	25.3	25.3	15.7	14.6	15.3	7.1	6.8	6.9	8.6	7.3	7.9
8	25.4	24.6	25.2	15.3	14.9	15.2	7.3	6.9	7.1	7.6	6.6	7.1
9	25.2	23.7	24.9	15.3	15.0	15.2	7.3	6.7	7.0	7.4	6.7	7.1
10	25.1	23.8	24.8	15.4	15.0	15.3	7.2	6.6	6.9	7.8	7.3	7.6
11	24.9	23.6	24.0	16.7	15.1	15.4	7.1	6.8	6.9	7.8	7.7	7.8
12	24.4	23.5	24.0	17.0	15.0	15.3	7.1	6.9	7.0	7.9	6.7	7.4
13	24.4	24.0	24.2	16.2	15.5	15.8	7.3	7.0	7.1	7.4	7.2	7.3
14	24.3	22.6	23.3	16.0	15.9	15.9	8.0	7.2	7.5	7.4	6.6	7.2
15	22.9	21.0	22.0	16.0	15.9	16.0	7.4	6.9	7.2	7.1	5.7	6.4
16	22.1	20.7	21.3	16.0	15.7	15.9	7.6	7.3	7.4	7.0	5.3	6.6
17	21.6	21.1	21.4	16.0	14.9	15.9	7.6	7.4	7.5	6.4	5.2	5.5
18	21.4	20.6	21.0	15.8	14.4	15.2	7.7	7.5	7.6	5.6	4.3	4.7
19	21.3	21.1	21.2	15.1	14.5	14.9	7.9	7.6	7.8	5.0	4.0	4.5
20	21.3	20.8	21.0	14.8	14.5	14.7	9.5	7.6	8.2	4.7	3.6	4.2
21	21.0	20.8	20.9	14.8	14.5	14.6	8.7	8.1	8.4	4.5	3.9	4.2
22	21.2	20.8	21.0	14.8	13.3	14.4	8.8	8.4	8.5	4.0	3.6	3.8
23	21.0	20.5	20.7	13.4	12.3	12.7	8.7	8.4	8.6	3.7	1.2	2.8
24	21.0	20.1	20.8	13.1	12.5	12.9	8.7	8.4	8.6	1.7	0.1	1.2
25	20.7	19.5	20.3	13.1	12.8	13.0	8.7	7.5	8.4	1.8	1.1	1.6
26	20.6	19.5	20.1	13.2	12.9	13.1	7.5	6.2	7.1	2.2	1.7	2.0
27	20.3	19.7	20.1	13.3	12.5	13.0	7.7	7.5	7.6	2.2	1.5	1.8
28	20.0	19.6	19.8	13.0	11.6	12.4	7.8	7.6	7.7	---	---	---
29	20.2	18.5	19.8	12.7	10.8	12.2	7.8	7.6	7.7	2.2	1.8	2.0
30	20.0	17.7	19.5	12.1	9.9	11.4	7.9	7.6	7.8	2.2	1.9	2.0
31	19.4	17.0	18.0	---	---	---	8.1	7.8	7.9	2.4	1.8	2.1
MONTH	25.8	17.0	22.5	18.3	9.9	14.7	10.0	6.2	7.8	---	---	---
DAY	MAX	MIN	MEAN									
1	2.4	1.9	2.1	8.8	8.6	8.8	---	---	---	18.3	16.5	16.9
2	2.7	2.3	2.5	8.8	8.6	8.7	---	---	---	21.0	16.8	18.1
3	3.3	2.5	2.7	8.8	8.7	8.7	15.4	14.1	14.5	22.1	16.7	18.3
4	6.5	2.7	3.9	9.0	8.8	8.9	17.6	14.1	15.1	20.4	17.4	18.2
5	5.3	3.6	4.4	10.3	8.9	9.3	16.9	14.4	15.3	19.1	17.4	18.1
6	6.1	4.5	4.8	11.0	8.9	9.1	17.0	14.4	15.3	20.2	17.8	19.0
7	5.8	4.7	5.2	9.8	8.9	9.2	16.5	15.0	15.9	19.3	17.8	18.1
8	5.5	5.1	5.3	9.2	9.0	9.1	15.7	14.8	15.2	21.1	18.0	18.6
9	5.5	5.3	5.4	9.3	9.1	9.2	15.1	13.8	14.3	22.8	18.4	19.3
10	6.0	5.3	5.6	9.8	9.2	9.3	13.9	12.7	13.3	22.1	18.9	20.0
11	5.8	5.4	5.6	9.8	9.3	9.5	12.8	11.9	12.5	23.7	19.6	21.1
12	6.6	5.6	6.0	9.7	9.4	9.5	13.0	11.6	12.4	23.1	20.3	22.5
13	6.3	5.4	6.0	9.6	9.4	9.5	13.2	12.6	12.7	22.7	21.7	22.1
14	6.3	5.7	6.2	12.0	9.5	10.1	14.9	12.7	13.1	22.2	21.2	21.7
15	---	---	---	10.7	9.8	10.1	14.6	13.2	13.9	22.1	21.6	21.8
16	---	---	---	12.2	10.3	11.2	16.5	13.3	14.8	22.0	21.5	21.7
17	---	---	---	---	---	---	17.6	13.7	15.7	22.8	21.2	21.9
18	---	---	---	---	---	---	16.9	16.1	16.5	21.4	20.6	20.9
19	---	---	---	---	---	---	16.8	15.2	16.5	20.6	19.7	20.1
20	6.3	6.2	6.3	---	---	---	16.6	13.7	14.5	19.8	19.2	19.4
21	6.4	6.2	6.3	---	---	---	14.9	13.9	14.2	21.2	19.8	20.3
22	9.0	6.3	6.5	---	---	---	15.6	14.1	14.4	21.2	20.2	20.4
23	---	---	---	---	---	---	15.9	14.6	15.1	20.9	20.2	20.5
24	9.8	8.6	9.1	---	---	---	16.6	15.1	15.6	20.4	20.1	20.2
25	9.9	9.1	9.5	---	---	---	16.4	15.5	15.8	21.8	20.2	20.5
26	9.6	8.8	9.1	---	---	---	17.2	15.9	16.1	22.0	20.6	20.9
27	9.1	8.8	9.0	---	---	---	17.4	16.0	16.2	21.9	20.7	21.2
28	9.0	8.4	8.9	---	---	---	17.8	16.1	16.4	21.6	20.8	21.0
29	---	---	---	---	---	---	17.4	16.2	16.3	22.1	20.8	21.2
30	---	---	---	---	---	---	18.8	16.2	16.5	21.4	20.9	21.0
31	---	---	---	---	---	---	---	---	---	21.9	21.1	21.2
MONTH	---	---	---	---	---	---	---	---	---	23.7	16.5	20.2

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.1	6.8	7.9	8.0	6.3	7.3	9.7	8.8	9.2	13.4	6.6	11.3
2	9.5	3.9	7.4	7.9	7.1	7.5	10.5	8.5	9.8	12.0	7.2	10.6
3	7.6	0.2	4.3	8.5	6.9	7.7	10.8	9.7	10.3	14.1	9.2	11.4
4	5.9	0.3	2.5	8.8	7.4	8.1	10.6	9.7	10.2	11.6	8.9	10.1
5	9.2	2.8	5.8	8.7	5.3	7.8	10.5	9.6	10.1	12.0	8.6	10.1
6	6.7	0.6	4.5	8.3	7.5	8.0	10.8	9.8	10.4	11.3	6.8	8.9
7	9.1	3.6	6.6	8.4	7.2	7.9	11.3	10.0	10.7	9.7	7.2	8.5
8	7.9	4.7	6.6	9.9	7.5	8.4	12.0	9.3	11.0	10.9	8.2	9.7
9	7.5	5.7	6.4	9.8	4.1	8.2	11.6	9.4	10.8	12.2	9.3	10.9
10	7.3	5.9	6.6	10.2	5.3	8.8	11.1	10.0	10.7	12.6	10.3	11.7
11	6.6	5.4	6.1	9.3	8.2	8.8	10.8	9.8	10.4	14.4	10.3	12.3
12	6.8	5.8	6.3	8.4	5.5	7.8	11.7	10.0	10.7	13.8	9.0	12.9
13	7.1	4.0	6.0	8.3	7.2	7.7	11.2	10.0	10.4	14.6	11.5	13.0
14	7.7	6.0	6.9	8.4	5.4	7.2	10.5	9.6	10.1	13.6	8.1	12.0
15	8.0	6.5	7.3	7.7	4.1	6.3	13.3	9.9	11.0	12.8	11.3	12.1
16	7.8	6.3	7.0	7.8	5.6	7.3	12.9	10.8	11.7	12.3	10.1	11.3
17	8.8	5.2	6.9	8.5	6.0	7.7	12.6	8.8	11.5	10.6	9.5	10.1
18	8.6	3.0	5.8	7.7	6.2	7.0	13.3	9.5	12.1	11.3	9.6	10.2
19	7.5	2.6	5.2	7.6	6.7	7.1	13.9	9.8	12.1	11.3	9.6	10.6
20	6.9	1.3	4.2	6.8	2.6	5.1	13.8	10.3	11.7	11.2	9.7	10.6
21	7.0	0.3	3.9	5.8	1.6	3.8	12.0	9.9	11.0	11.1	10.0	10.6
22	5.4	0.8	3.9	6.6	2.5	4.9	12.3	10.1	11.0	10.8	10.2	10.5
23	5.9	0.8	4.1	8.0	6.5	7.4	12.4	10.2	11.0	11.3	10.4	10.8
24	8.6	2.3	5.5	8.6	8.0	8.2	12.5	8.2	11.1	11.6	10.1	11.1
25	8.2	7.1	7.6	8.6	6.2	7.7	10.6	8.7	9.7	---	---	---
26	7.7	6.9	7.2	9.3	5.0	7.5	11.5	9.4	10.4	12.4	10.0	11.2
27	7.6	6.4	7.1	9.0	6.2	7.9	13.0	10.5	11.1	12.5	10.0	11.2
28	7.4	4.9	6.9	9.5	6.2	8.1	13.6	9.3	12.0	12.2	10.3	11.2
29	7.7	6.7	7.2	9.5	8.3	9.0	13.9	10.1	12.2	12.2	9.9	11.5
30	7.6	6.5	7.0	9.2	8.3	9.0	14.7	7.8	11.8	12.1	9.6	11.3
31	7.5	6.5	7.1	---	---	---	15.4	10.6	12.9	11.9	10.8	11.5
MONTH	9.5	0.2	6.1	10.2	1.6	7.5	15.4	7.8	10.9	---	---	---
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.2	10.7	11.4	10.0	7.9	9.1	---	---	---	8.9	8.0	8.5
2	12.4	10.6	11.3	10.3	7.8	9.4	---	---	---	10.0	7.5	8.7
3	13.4	11.0	12.0	9.9	7.4	8.7	9.8	8.4	9.1	9.5	7.7	8.6
4	12.6	11.3	11.9	9.7	8.9	9.2	9.8	8.7	9.3	8.3	7.2	7.8
5	12.8	10.8	11.9	9.3	8.8	9.1	9.1	7.9	8.7	9.0	7.9	8.4
6	12.8	11.5	12.0	9.2	8.4	8.9	8.9	8.2	8.6	10.3	7.9	9.2
7	11.9	11.3	11.6	9.1	8.3	8.8	9.1	8.5	8.7	11.4	9.2	10.2
8	12.3	10.6	11.4	9.2	8.2	8.8	8.8	8.4	8.6	10.8	8.8	9.6
9	14.0	9.2	11.9	9.3	7.7	8.6	9.0	8.1	8.6	9.8	4.1	8.8
10	12.7	6.1	10.4	9.3	4.2	6.9	9.7	8.0	9.1	8.9	6.1	7.4
11	12.6	9.5	10.9	8.9	8.4	8.6	9.8	9.4	9.6	8.2	5.6	7.1
12	11.9	10.5	11.3	8.7	8.2	8.4	9.8	9.1	9.7	7.3	6.2	6.7
13	12.4	9.6	11.0	9.3	8.2	8.7	9.8	9.0	9.6	7.7	6.3	7.1
14	15.6	10.3	11.7	9.2	7.9	8.6	9.6	8.5	9.2	8.6	6.9	7.5
15	---	---	---	9.6	8.5	9.2	9.4	7.9	8.4	8.1	5.7	7.2
16	---	---	---	10.1	9.0	9.3	9.2	8.3	8.8	8.4	5.9	7.4
17	---	---	---	---	---	---	9.8	7.9	8.5	7.0	5.9	6.6
18	---	---	---	---	---	---	8.8	8.2	8.5	7.1	6.4	6.7
19	---	---	---	---	---	---	9.0	8.0	8.6	7.8	6.6	7.2
20	13.9	11.2	12.5	---	---	---	9.1	8.3	8.6	9.1	7.2	8.1
21	13.5	8.2	11.9	---	---	---	8.9	7.7	8.2	10.1	5.5	8.6
22	12.8	4.0	9.3	---	---	---	8.3	7.5	8.0	8.4	6.2	7.9
23	---	---	---	---	---	---	8.5	5.3	7.2	7.5	6.9	7.3
24	10.1	8.3	9.0	---	---	---	7.9	4.4	6.8	9.5	7.1	8.0
25	11.0	9.4	10.2	---	---	---	8.6	6.7	7.7	9.8	5.5	8.4
26	10.6	9.9	10.2	---	---	---	10.8	6.4	7.7	10.2	7.9	9.0
27	10.7	9.6	10.1	---	---	---	10.3	6.7	8.9	9.9	4.3	8.8
28	10.9	9.7	10.0	---	---	---	10.7	7.9	9.5	9.4	7.3	8.7
29	---	---	---	---	---	---	10.8	9.9	10.3	9.6	7.5	8.6
30	---	---	---	---	---	---	10.5	8.0	9.5	9.9	7.2	8.2
31	---	---	---	---	---	---	---	---	---	9.1	6.2	7.9
MONTH	---	---	---	---	---	---	---	---	---	11.4	4.1	8.1

0208453300 PAMLICO RIVER AT LIGHT 5—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	110	82	95	80	64	74	85	78	81	113	56	97
2	116	48	90	79	70	74	91	74	84	105	62	92
3	93	2	52	84	68	75	92	83	88	125	80	99
4	73	4	31	86	72	80	89	81	85	101	76	87
5	116	35	72	84	53	76	86	80	83	102	74	86
6	84	7	56	82	74	78	88	79	84	96	58	76
7	114	44	81	82	70	77	92	80	87	80	60	70
8	98	57	81	98	73	82	97	77	90	91	67	80
9	89	68	77	96	41	80	95	78	88	102	76	90
10	86	70	78	103	53	88	90	82	87	107	87	98
11	78	64	72	97	84	91	87	80	84	121	85	102
12	80	68	74	88	56	81	97	81	87	113	75	105
13	84	47	70	87	73	79	92	83	85	118	94	106
14	90	70	81	83	54	71	88	80	84	109	67	97
15	90	74	82	76	42	64	112	82	91	103	91	97
16	87	72	79	78	56	73	108	88	97	97	81	90
17	98	58	77	84	60	76	104	73	95	84	75	80
18	95	34	63	75	60	68	110	79	99	87	75	79
19	82	29	58	74	65	69	116	82	101	88	73	82
20	75	15	47	66	26	50	117	89	101	87	73	81
21	78	3	43	57	16	37	104	85	95	85	77	82
22	60	9	43	64	25	48	105	85	94	83	77	80
23	65	9	45	75	62	70	107	86	94	84	77	80
24	90	25	59	80	72	75	108	70	95	82	71	78
25	86	76	81	80	59	72	91	74	82	---	---	---
26	83	74	77	88	47	71	94	78	85	89	72	81
27	82	69	77	83	59	74	107	85	90	91	71	81
28	79	53	74	86	59	74	113	77	98	---	---	---
29	83	71	76	85	74	80	116	84	100	91	72	84
30	80	69	74	82	74	80	123	65	99	91	70	84
31	76	67	73	---	---	---	130	89	108	90	81	87
MONTH	116	2	69	103	16	73	130	65	91	---	---	---
DAY	MAX	MIN	MEAN									
1	92	80	86	85	68	78	---	---	---	102	90	96
2	94	79	85	89	67	82	---	---	---	117	85	100
3	102	83	91	87	64	76	101	83	91	111	86	99
4	100	88	95	84	77	80	103	87	95	92	81	87
5	105	87	97	84	77	81	95	82	90	98	85	91
6	104	92	97	84	76	81	92	85	90	115	85	101
7	96	90	93	81	74	78	93	86	89	132	102	115
8	99	83	90	81	71	76	87	84	86	124	99	111
9	114	74	96	82	68	77	88	80	84	117	47	104
10	103	48	83	86	37	62	92	77	87	107	71	88
11	102	75	87	80	75	77	92	89	90	100	66	84
12	97	83	91	80	73	76	94	85	91	85	73	79
13	101	76	88	87	75	81	95	86	92	89	72	82
14	125	82	94	85	72	79	96	82	89	100	79	87
15	---	---	---	88	78	83	94	77	82	93	65	82
16	---	---	---	95	82	86	96	83	89	99	68	85
17	---	---	---	---	---	---	104	80	88	82	68	75
18	---	---	---	---	---	---	91	84	87	80	72	75
19	---	---	---	---	---	---	93	82	88	86	74	79
20	117	92	103	---	---	---	94	84	89	102	80	89
21	113	68	99	---	---	---	95	79	85	114	60	96
22	108	33	79	---	---	---	90	77	84	97	69	90
23	---	---	---	---	---	---	91	55	76	84	78	81
24	89	72	79	---	---	---	85	45	71	107	79	89
25	97	82	90	---	---	---	91	71	82	112	61	94
26	93	86	89	---	---	---	116	67	82	119	89	103
27	92	82	86	---	---	---	112	71	96	114	48	101
28	94	83	86	---	---	---	118	85	103	108	82	99
29	---	---	---	---	---	---	123	109	115	111	85	99
30	---	---	---	---	---	---	119	90	107	115	81	94
31	---	---	---	---	---	---	---	---	---	106	70	91
MONTH	---	---	---	---	---	---	---	---	---	132	47	92

0208455155 PAMLICO RIVER AT LIGHT 3

LOCATION.--Lat 35°21'25", long 76°38'47", Beaufort County, Hydrologic Unit 03020104, on U.S. Coast Guard Channel Light 3.

PERIOD OF RECORD.--Water years 1989 to 1992, 1999 to current year.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): May 1989 to September 1992, May 1999 current year.

pH (TOP AND BOTTOM): May 1999 to current year.

WATER TEMPERATURE (TOP): May 1989 to September 1992, May 1999 to current year.

WATER TEMPERATURE (BOTTOM): May 1999 to current year.

DISSOLVED OXYGEN (TOP AND BOTTOM): May 1989 to September 1992, May 1999 to current year.

DISSOLVED OXYGEN (MID): May 1989 to September 1992.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): May 1989 to September 1992, May 1999 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION (MID): May 1989 to September 1992.

INSTRUMENTATION.--Water-quality monitor from May 1989 to September 1992. Constituents monitored were: specific conductance, top and bottom, water temperature top, dissolved oxygen, top, mid-depth and bottom. Water-quality monitor with satellite telemetry from May 1999 to current year. Constituents monitored were the same as previous water years except, mid-depth dissolved oxygen was not measured, water temperature, bottom, was added as well as pH top and bottom.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. The monitor was removed on August 29, 1999 to prevent possible destruction of the equipment during Hurricane Dennis. It was reinstalled on September 9, 1999. The monitor was removed again on September 14, 1999 to prevent possible destruction during Hurricane Floyd. It was reinstalled on October 7, 1999. The monitor was removed on September 15, 2003 to prevent possible destruction of the equipment during Hurricane Isabel. It was reinstalled on September 21, 2003. Top constituents were monitored at 8 ft above the streambed and bottom constituents, 2 ft above the streambed. Salinity and dissolved oxygen, percent saturation are computed. The dissolved oxygen percent saturation is computed using a barometric pressure of 760 mm of Hg beginning October 1, 2000. Dissolved oxygen, minimum extremes are reported as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported as <10%.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	20.3, August 26, 2002	0.3, October 11, 1999
SALINITY (BOTTOM), ppt	23.0, October 6, 2002	0.5, October 11, 27, 1999
pH (TOP), standard units	9.5, April 15, 2003, August 15, 2003	6.6, October 7, 1999
pH (BOTTOM), standard units	9.2, April 14, 15, 2003, August 15, 2003	6.6, May 27, 2000, July 12, 2001
WATER TEMPERATURE (TOP), °C	33.3, August 20, 1990, July 9, 1991	0.0, January 25, 2003
WATER TEMPERATURE (BOTTOM), °C	32.6, August 1, 1999	0.6, January 25, 2003
DISSOLVED OXYGEN (TOP), mg/L	21.2, January 30, 1992	<1.0, August 5-11, 23-25, 27-31, September 2-5, 1992
DISSOLVED OXYGEN (BOTTOM), mg/L	18.0, May 3, 1991	<1.0, on many days during the period

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	19.6, October 15	0.6, April 22
SALINITY (BOTTOM), ppt	23.0, October 6	1.0, April 23
pH (TOP), standard units	9.5, April 15, August 15	7.1, March 13, 14
pH (BOTTOM), standard units	9.2, April 14, 15, August 15	6.7, March 13, 20, 28
WATER TEMPERATURE (TOP), °C	33.1, August 28	0.0, January 25
WATER TEMPERATURE (BOTTOM), °C	30.2, July 9, 10	0.6, January 25
DISSOLVED OXYGEN (TOP), mg/L	18.4, September 12	5.0, July 5
DISSOLVED OXYGEN (BOTTOM), mg/L	13.8, April 14	<1.0, on several days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	225, September 12	63, July 5
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	142, August 24	<10, on several days during the year

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.2	15.1	15.5	16.4	13.7	15.3	16.7	15.9	16.2	13.5	10.2	11.5
2	15.9	12.1	14.0	14.9	13.6	14.2	16.7	15.5	16.0	11.0	10.4	10.7
3	12.1	10.9	11.5	16.1	14.1	15.1	16.5	15.7	16.1	11.5	10.4	11.0
4	16.1	9.8	12.1	16.1	14.8	15.3	16.7	15.8	16.4	11.8	10.4	11.2
5	14.2	12.8	13.4	15.9	15.1	15.5	16.6	15.6	16.2	10.6	7.9	9.8
6	16.3	12.8	14.1	16.5	15.7	16.0	16.7	16.0	16.4	10.0	7.3	8.5
7	16.4	14.2	15.5	17.2	15.0	16.4	16.2	14.3	15.3	12.6	9.8	10.9
8	17.1	15.5	16.1	15.4	12.7	13.9	14.5	13.4	13.9	13.5	10.2	11.6
9	17.6	16.7	17.2	14.2	12.6	13.4	15.9	13.5	15.1	13.9	13.4	13.6
10	17.8	17.1	17.4	16.5	12.6	14.5	16.9	12.6	14.4	13.7	13.4	13.5
11	18.2	16.8	17.7	18.8	13.6	15.8	16.6	11.8	13.6	13.7	13.5	13.5
12	17.3	16.4	16.8	19.0	13.7	16.8	14.7	13.0	14.0	13.5	10.9	12.6
13	17.3	14.6	16.0	17.2	16.6	16.9	15.3	13.2	14.3	---	---	---
14	17.9	14.7	16.4	17.5	11.2	15.1	15.1	14.5	14.8	12.0	10.9	11.5
15	19.6	15.9	17.5	15.3	10.9	12.2	15.3	14.0	14.7	12.7	11.2	12.4
16	19.5	16.4	17.3	17.3	13.7	15.0	14.2	13.5	13.9	13.1	12.6	12.8
17	16.9	15.5	16.5	15.9	13.7	14.5	14.4	11.4	13.6	13.3	12.8	13.1
18	16.5	14.1	15.6	15.7	12.4	14.2	13.9	12.5	13.5	13.4	12.4	13.0
19	14.7	9.2	11.6	13.0	10.7	11.8	13.7	11.7	12.5	12.9	12.5	12.7
20	13.3	9.5	12.0	10.7	8.5	9.9	15.5	10.4	12.8	13.5	12.8	13.2
21	13.2	10.9	12.1	9.7	6.4	8.9	12.4	11.1	11.7	13.5	13.1	13.4
22	13.1	11.5	12.3	14.7	6.1	9.3	12.1	11.3	11.6	13.8	13.0	13.3
23	13.0	12.1	12.4	16.1	13.1	14.7	11.5	9.3	9.9	14.1	12.2	13.4
24	18.0	12.3	15.2	15.7	13.9	14.8	13.4	8.3	9.9	13.0	10.9	12.1
25	18.3	16.0	17.4	15.1	10.6	13.7	12.4	10.7	11.7	12.7	11.2	11.7
26	16.3	15.7	16.0	14.5	9.3	12.6	12.8	10.7	11.5	11.3	9.8	10.5
27	16.3	15.0	15.9	16.0	11.2	13.5	12.8	11.0	12.0	13.4	10.5	12.1
28	17.2	15.5	16.5	14.9	10.2	12.3	11.0	10.1	10.6	12.3	11.0	11.4
29	16.8	16.1	16.6	15.4	11.3	13.2	10.4	9.8	10.1	12.5	11.1	11.8
30	16.7	16.1	16.3	16.3	14.9	15.7	12.0	10.0	11.0	12.8	11.3	12.1
31	17.5	16.1	16.8	---	---	---	11.7	10.1	10.7	12.8	11.5	12.3
MONTH	19.6	9.2	15.2	19.0	6.1	14.0	16.9	8.3	13.4	---	---	---

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.6	11.3	11.9	9.0	5.0	7.6	5.6	3.9	4.5	4.8	4.6	4.7
2	13.3	11.2	12.5	9.3	5.0	6.1	5.2	4.0	4.7	4.9	4.5	4.7
3	14.6	11.3	12.6	7.3	4.1	5.6	5.0	3.3	4.2	5.5	4.6	4.9
4	16.5	13.6	14.8	---	---	---	4.4	4.0	4.3	5.9	4.7	5.3
5	15.5	14.3	14.5	---	---	---	4.7	4.0	4.3	5.8	5.2	5.5
6	15.2	14.3	14.8	---	---	---	5.0	4.0	4.4	5.7	5.0	5.4
7	14.8	14.3	14.4	---	---	---	---	---	---	5.2	4.1	4.8
8	14.7	12.9	14.2	7.7	4.8	6.4	---	---	---	4.8	3.9	4.4
9	12.9	9.7	11.6	---	---	---	---	---	---	4.8	4.1	4.4
10	13.2	8.1	11.6	7.1	2.6	3.8	---	---	---	4.8	3.9	4.3
11	13.2	11.8	12.9	9.9	5.7	7.1	---	---	---	5.0	4.1	4.5
12	13.1	12.6	12.8	---	---	---	4.9	3.8	4.3	5.4	4.7	5.1
13	---	---	---	5.3	1.9	2.9	4.3	3.1	3.6	5.6	5.2	5.4
14	13.0	10.9	11.9	6.4	2.2	4.8	4.5	3.7	4.1	5.7	5.1	5.4
15	11.7	10.3	11.2	6.4	4.4	5.6	4.5	2.6	3.7	5.7	5.3	5.5
16	12.3	10.7	11.7	7.6	6.4	6.9	2.6	1.5	1.8	5.7	5.5	5.6
17	12.5	10.6	11.6	---	---	---	2.1	1.1	1.5	6.3	5.6	6.0
18	10.8	9.3	10.1	6.7	6.4	6.6	2.1	1.3	1.6	6.7	6.0	6.4
19	11.3	8.6	9.8	7.5	6.6	7.0	2.5	1.9	2.0	6.5	5.8	5.9
20	10.5	8.4	9.3	---	---	---	2.2	1.7	1.9	6.7	5.4	5.8
21	9.5	7.9	8.9	---	---	---	1.7	1.0	1.3	6.1	5.3	5.6
22	12.2	7.5	9.6	5.6	3.1	4.6	1.3	0.6	1.0	6.0	5.5	5.7
23	12.6	10.0	11.2	3.7	2.6	3.1	2.7	1.0	1.6	5.9	5.4	5.6
24	12.1	10.8	11.3	6.4	3.7	5.1	2.9	1.6	2.3	5.6	5.0	5.3
25	12.1	10.5	11.4	5.4	3.9	4.7	5.7	2.3	3.6	5.3	4.7	5.1
26	11.8	10.2	10.8	5.3	4.3	4.7	5.1	3.8	4.1	5.1	4.4	4.6
27	11.2	9.9	10.4	6.9	5.0	6.0	4.8	4.3	4.6	4.9	4.5	4.7
28	10.6	7.9	9.5	7.1	5.7	6.4	4.8	4.3	4.5	4.7	3.9	4.4
29	---	---	---	7.0	5.3	6.1	4.5	4.3	4.4	4.1	3.2	3.7
30	---	---	---	6.6	4.5	5.4	4.8	4.3	4.5	3.5	2.5	3.0
31	---	---	---	5.9	4.9	5.3	---	---	---	3.2	2.4	2.6
MONTH	---	---	---	---	---	---	---	---	---	6.7	2.4	5.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.3	2.4	2.8	3.9	3.5	3.7	4.1	3.4	3.8	4.6	3.9	4.2
2	3.4	2.7	3.1	5.2	3.6	4.2	4.4	4.0	4.3	4.8	4.3	4.5
3	3.2	2.8	3.0	4.9	4.5	4.7	4.5	4.1	4.2	5.3	4.5	5.0
4	2.9	2.6	2.8	4.8	4.6	4.7	4.6	4.1	4.3	5.7	5.3	5.4
5	2.7	2.3	2.6	4.8	4.7	4.8	4.4	4.1	4.3	5.7	5.3	5.5
6	2.8	1.9	2.5	4.8	4.6	4.8	4.4	4.1	4.3	6.1	5.5	5.8
7	2.8	2.2	2.5	4.8	4.6	4.8	4.5	4.1	4.3	6.2	5.9	6.0
8	2.9	2.4	2.6	4.8	4.5	4.7	4.5	4.0	4.3	6.3	5.7	6.1
9	2.6	2.0	2.4	4.9	4.4	4.7	4.5	4.0	4.2	6.2	5.8	6.0
10	2.9	2.3	2.6	4.8	4.4	4.7	4.4	4.1	4.2	6.4	5.8	6.1
11	2.9	2.0	2.5	4.8	4.3	4.6	4.2	3.6	3.9	6.3	6.0	6.1
12	2.3	2.0	2.1	4.7	4.3	4.5	4.1	3.5	3.8	6.2	6.0	6.1
13	2.6	2.1	2.3	4.9	4.5	4.7	3.8	3.0	3.5	6.2	6.0	6.1
14	2.5	1.8	2.2	4.8	4.4	4.6	3.2	1.3	2.7	6.2	5.9	6.1
15	2.2	1.8	2.0	4.7	4.5	4.6	2.0	1.1	1.7	---	---	---
16	2.8	2.0	2.3	4.6	4.3	4.5	1.7	1.1	1.3	---	---	---
17	3.8	2.7	3.5	4.6	4.1	4.5	2.3	1.5	1.9	---	---	---
18	3.6	2.0	2.5	4.6	4.2	4.4	2.5	2.0	2.3	---	---	---
19	2.9	2.3	2.6	4.5	4.3	4.4	3.8	2.3	2.9	---	---	---
20	3.0	2.4	2.7	4.6	4.2	4.4	3.8	2.6	3.0	---	---	---
21	3.3	2.5	2.9	4.7	4.3	4.5	3.5	2.6	3.0	---	---	---
22	3.4	2.5	2.9	4.5	4.0	4.4	3.6	2.5	3.1	7.1	6.1	6.5
23	3.3	2.3	2.7	5.1	3.9	4.4	3.1	2.6	2.7	6.4	6.0	6.2
24	3.1	2.6	2.9	4.7	4.0	4.2	3.6	2.8	3.1	6.3	5.0	5.9
25	2.8	2.2	2.6	4.5	4.0	4.3	3.5	2.7	3.2	6.2	5.5	5.8
26	2.6	2.3	2.5	4.5	4.4	4.5	2.8	2.3	2.6	5.7	3.3	4.3
27	2.9	2.2	2.6	4.5	3.9	4.2	2.6	2.2	2.4	4.8	3.6	4.3
28	3.1	2.8	3.0	4.3	3.8	4.1	2.9	2.2	2.6	4.5	3.8	4.2
29	3.5	3.1	3.3	4.3	3.9	4.1	3.5	2.9	3.2	4.9	3.6	4.1
30	3.9	3.3	3.5	4.3	3.6	3.9	3.9	3.3	3.6	5.1	2.2	3.8
31	---	---	---	3.7	3.3	3.6	4.2	3.3	3.8	---	---	---
MONTH	3.9	1.8	2.7	5.2	3.3	4.4	4.6	1.1	3.3	---	---	---

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.3	2.5	2.8	6.4	3.7	4.4	5.5	3.9	4.7	9.3	4.1	6.4
2	3.6	3.0	3.2	7.2	3.7	4.6	6.2	4.0	4.4	8.3	4.5	5.4
3	3.5	2.8	3.1	4.9	4.5	4.7	5.3	4.1	4.3	8.6	4.9	6.1
4	3.0	2.6	2.8	4.8	4.6	4.7	8.1	4.1	4.8	5.6	5.2	5.3
5	2.7	2.3	2.6	4.8	4.7	4.8	5.7	4.2	4.5	5.7	5.3	5.5
6	4.2	2.4	2.8	4.9	4.7	4.8	5.1	4.2	4.4	6.0	5.5	5.7
7	4.3	2.5	3.2	4.8	4.6	4.8	4.9	4.3	4.6	6.2	5.8	6.0
8	3.9	2.4	2.7	4.9	4.7	4.8	4.8	4.3	4.5	6.2	5.7	6.0
9	3.6	2.4	2.6	5.0	4.5	4.7	7.0	4.2	4.9	6.2	5.7	6.0
10	3.8	2.4	3.0	5.0	4.4	4.7	4.8	4.2	4.4	6.4	5.7	6.1
11	3.1	2.1	2.6	4.9	4.4	4.6	4.6	3.7	4.1	6.3	6.0	6.1
12	2.5	2.1	2.2	4.9	4.3	4.6	4.3	3.7	3.9	6.2	6.0	6.1
13	2.7	2.2	2.3	5.0	4.6	4.7	4.0	3.4	3.7	6.2	6.1	6.1
14	2.6	1.9	2.3	4.8	4.4	4.6	3.9	2.7	3.3	9.1	6.0	6.7
15	2.2	1.9	2.0	4.8	4.5	4.6	3.1	1.6	2.4	---	---	---
16	3.1	2.1	2.5	4.8	4.4	4.6	3.4	1.4	1.9	---	---	---
17	3.7	2.7	3.5	4.9	4.4	4.6	3.4	1.7	2.2	---	---	---
18	4.4	2.7	3.2	5.1	4.3	4.5	4.1	2.2	2.7	---	---	---
19	3.8	2.4	2.9	4.6	4.3	4.4	4.4	2.4	3.4	---	---	---
20	3.3	2.4	2.9	5.0	4.4	4.6	4.5	3.0	3.5	---	---	---
21	3.4	2.7	3.0	5.0	4.4	4.6	4.0	3.0	3.3	---	---	---
22	3.6	2.6	3.1	4.5	4.1	4.4	3.6	2.6	3.2	8.3	6.4	7.4
23	3.6	2.4	2.9	5.2	3.9	4.4	3.7	2.6	2.9	7.6	6.1	6.5
24	3.3	2.9	3.1	4.9	4.0	4.5	3.9	2.9	3.2	8.6	5.9	6.8
25	3.5	2.6	3.1	4.9	4.3	4.6	4.4	2.8	3.6	6.5	5.6	6.0
26	3.3	2.5	2.8	5.1	4.3	4.8	3.3	2.5	2.9	8.0	5.0	6.2
27	4.2	2.3	2.9	4.5	4.0	4.2	4.1	2.5	2.9	8.3	5.2	7.0
28	6.2	3.0	3.6	4.2	3.8	4.1	11.0	2.6	4.5	7.1	3.8	4.8
29	9.2	3.4	6.4	8.8	3.9	4.5	10.0	3.1	4.8	5.4	3.6	4.3
30	7.5	3.7	5.1	5.2	3.7	4.3	8.9	3.4	4.0	7.1	3.7	5.6
31	---	---	---	5.7	3.6	4.4	9.7	3.8	5.1	---	---	---
MONTH	9.2	1.9	3.0	8.8	3.6	4.6	11.0	1.4	3.8	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	8.2	8.0	8.1	7.9	7.7	7.8	8.1	8.0	8.0	8.6	8.1	8.3
2	8.2	8.0	8.2	8.0	7.7	7.9	8.2	8.0	8.1	8.6	8.3	8.5
3	8.3	8.1	8.2	8.1	7.9	8.0	8.2	8.1	8.1	8.5	8.3	8.4
4	8.3	7.8	8.1	8.2	8.0	8.1	8.1	8.1	8.1	8.6	8.4	8.5
5	8.3	7.9	8.1	8.2	8.1	8.1	8.1	8.0	8.1	8.7	8.4	8.5
6	8.2	8.0	8.1	8.1	7.9	8.0	8.1	8.0	8.1	8.7	8.4	8.6
7	8.3	8.0	8.1	8.1	8.0	8.0	8.2	8.1	8.1	8.4	8.0	8.1
8	8.2	8.0	8.1	8.3	8.0	8.1	8.2	8.1	8.2	8.4	7.9	8.1
9	8.1	7.9	8.0	8.5	8.1	8.3	8.2	8.1	8.2	8.3	7.9	8.1
10	8.1	7.9	8.0	8.4	8.3	8.4	8.2	8.1	8.1	8.2	8.1	8.2
11	8.0	7.8	7.9	8.4	8.1	8.3	8.1	8.0	8.1	8.3	8.1	8.2
12	7.9	7.8	7.9	8.4	8.0	8.2	8.1	8.0	8.1	8.6	8.2	8.4
13	8.2	7.8	8.0	8.2	8.1	8.2	8.1	8.0	8.1	---	---	---
14	8.2	7.8	8.0	8.7	8.0	8.3	8.1	8.0	8.0	8.7	8.4	8.6
15	8.0	8.0	8.0	8.6	8.2	8.4	8.2	8.0	8.1	8.7	8.4	8.5
16	8.1	7.9	7.9	8.5	8.2	8.4	8.3	8.1	8.2	8.4	8.1	8.3
17	8.0	7.7	7.9	8.5	8.2	8.4	8.4	8.1	8.3	8.2	8.1	8.1
18	8.0	7.8	7.9	8.5	8.2	8.3	8.5	8.3	8.3	8.2	8.1	8.1
19	8.3	7.9	8.1	8.5	8.2	8.4	8.4	8.0	8.2	8.3	8.1	8.2
20	8.3	8.0	8.1	8.5	7.9	8.1	8.2	7.8	8.0	8.2	8.0	8.1
21	8.2	8.0	8.1	8.3	7.7	8.1	8.1	7.9	8.0	8.1	8.0	8.0
22	8.1	7.9	8.0	7.9	7.3	7.6	8.1	8.0	8.0	8.1	8.0	8.1
23	8.2	7.8	8.0	7.8	7.6	7.7	8.2	8.0	8.1	8.0	8.0	8.0
24	8.1	7.8	8.0	8.2	7.8	7.9	8.3	7.9	8.1	8.2	7.9	8.0
25	7.9	7.7	7.8	8.2	7.9	8.1	8.0	7.7	7.9	8.1	8.0	8.1
26	8.0	7.8	7.9	8.2	7.9	8.1	7.9	7.7	7.8	8.2	8.1	8.2
27	8.1	7.8	7.9	8.1	8.0	8.1	8.1	7.8	8.0	8.2	7.9	8.0
28	8.0	7.8	7.9	8.1	7.9	8.0	8.3	8.0	8.1	8.0	7.9	8.0
29	7.9	7.7	7.8	8.1	7.9	8.0	8.3	8.3	8.3	8.0	7.9	8.0
30	7.8	7.7	7.7	8.1	7.8	8.0	8.3	8.2	8.3	8.0	7.8	7.9
31	7.8	7.6	7.7	---	---	---	8.5	8.2	8.4	8.0	7.8	7.9
MONTH	8.3	7.6	8.0	8.7	7.3	8.1	8.5	7.7	8.1	---	---	---
	MAX	MIN	MEAN									
1	8.0	7.9	7.9	9.0	8.2	8.6	8.4	7.8	8.0	8.7	8.1	8.4
2	8.0	7.8	7.9	8.9	8.1	8.7	8.7	7.8	8.2	8.9	8.1	8.5
3	8.0	7.8	7.9	8.8	8.1	8.4	8.9	8.1	8.4	8.6	7.9	8.2
4	7.8	7.6	7.7	---	---	---	8.7	8.3	8.5	8.3	7.7	7.9
5	7.8	7.7	7.7	---	---	---	8.7	8.3	8.5	8.6	7.7	8.0
6	7.8	7.7	7.7	---	---	---	8.8	8.5	8.6	8.5	7.6	8.0
7	7.8	7.7	7.8	---	---	---	---	---	---	8.7	8.1	8.4
8	8.1	7.7	7.8	8.9	7.6	8.0	---	---	---	8.8	8.1	8.5
9	8.3	8.1	8.2	---	---	---	---	---	---	8.8	8.1	8.5
10	8.4	7.9	8.1	8.7	7.3	8.0	---	---	---	8.8	7.8	8.2
11	8.0	7.9	7.9	8.3	7.4	8.0	---	---	---	8.2	7.5	7.9
12	8.0	7.9	7.9	---	---	---	8.9	7.5	8.2	7.7	7.4	7.6
13	---	---	---	8.2	7.1	7.5	9.3	8.1	8.7	7.7	7.4	7.6
14	8.1	7.9	8.0	7.7	7.1	7.4	9.3	8.6	9.0	8.4	7.4	7.9
15	8.2	8.1	8.1	8.4	7.4	7.8	9.5	8.7	9.1	8.0	7.6	7.8
16	8.1	8.0	8.0	8.2	7.4	7.8	9.1	7.7	8.3	8.5	7.5	7.9
17	8.0	7.8	7.9	---	---	---	8.2	7.4	7.9	7.8	7.6	7.7
18	8.1	7.9	8.0	8.5	8.2	8.4	8.4	7.5	7.7	8.0	7.6	7.7
19	8.6	8.0	8.2	8.4	8.0	8.2	8.4	7.6	7.8	7.9	7.6	7.7
20	8.6	8.3	8.5	---	---	---	8.5	7.5	7.8	8.4	7.7	7.9
21	8.7	8.4	8.6	---	---	---	7.9	7.6	7.7	8.2	7.8	8.0
22	8.8	8.2	8.5	8.6	7.8	8.2	7.9	7.4	7.6	7.9	7.6	7.8
23	8.3	7.9	8.1	8.5	8.2	8.3	7.7	7.3	7.5	7.6	7.4	7.5
24	8.1	7.9	8.0	8.4	8.1	8.3	8.6	7.3	7.8	8.1	7.4	7.7
25	8.1	8.0	8.1	8.7	8.2	8.4	8.0	7.6	7.7	8.1	7.6	7.9
26	8.3	8.0	8.1	8.8	7.9	8.5	9.0	7.7	8.2	8.2	7.6	8.0
27	8.2	8.1	8.2	8.4	7.9	8.2	8.4	7.7	8.0	7.9	7.5	7.7
28	8.5	7.8	8.2	8.5	8.1	8.3	8.7	7.8	8.2	8.1	7.5	7.7
29	---	---	---	8.4	8.0	8.2	8.5	8.0	8.3	8.3	7.7	8.0
30	---	---	---	8.3	7.6	8.1	8.7	8.0	8.3	8.8	7.8	8.3
31	---	---	---	8.1	7.4	7.8	---	---	---	8.5	7.8	8.3
MONTH	---	---	---	---	---	---	---	---	---	8.9	7.4	8.0

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	8.2	7.3	7.7	8.5	7.9	8.2	9.0	8.4	8.8	9.0	8.3	8.6
2	8.7	7.4	8.1	8.2	7.4	7.7	9.1	8.8	8.9	8.7	8.2	8.4
3	8.4	7.8	8.0	7.8	7.4	7.6	9.1	8.8	8.9	8.9	8.3	8.6
4	8.1	7.4	7.7	8.3	7.6	7.9	9.0	8.7	8.8	8.7	8.4	8.6
5	8.8	7.3	8.0	8.3	7.6	7.9	9.0	8.3	8.8	8.6	8.2	8.4
6	9.2	8.2	8.6	8.2	7.8	8.0	9.3	8.7	8.9	8.5	8.2	8.4
7	8.8	7.9	8.4	8.1	7.6	7.8	8.9	8.6	8.8	8.3	7.8	8.0
8	8.8	7.4	8.1	8.3	7.7	7.9	8.9	8.7	8.8	8.1	7.7	7.9
9	9.0	7.9	8.4	8.2	7.5	7.8	8.9	8.6	8.8	8.2	7.7	7.9
10	8.6	7.8	8.3	8.5	7.6	8.0	9.0	8.6	8.7	8.0	7.6	7.8
11	8.7	7.6	8.0	8.1	7.7	7.9	8.9	8.6	8.8	7.9	7.5	7.7
12	8.1	7.8	8.0	8.2	7.7	7.9	9.1	8.8	8.9	8.9	7.5	7.9
13	7.8	7.3	7.5	7.9	7.6	7.7	9.2	8.7	8.9	8.4	7.8	8.1
14	8.2	7.3	7.6	8.3	7.5	7.6	9.2	8.8	9.0	8.9	8.0	8.4
15	8.3	7.4	7.7	8.7	7.5	8.0	9.5	9.0	9.2	---	---	---
16	8.1	7.4	7.6	8.5	7.5	8.1	9.1	8.8	8.9	---	---	---
17	8.0	7.4	7.7	8.6	7.5	8.1	9.0	8.3	8.6	---	---	---
18	8.6	7.4	7.9	8.6	7.6	8.2	9.2	8.3	8.8	---	---	---
19	8.5	7.3	7.9	8.2	7.6	7.9	8.8	8.4	8.6	---	---	---
20	8.9	7.3	8.0	8.9	7.5	8.1	9.1	8.5	8.7	---	---	---
21	8.4	7.7	8.0	8.7	7.6	8.1	9.1	8.3	8.6	---	---	---
22	8.4	7.6	7.9	8.3	7.7	8.0	9.0	8.6	8.8	8.2	7.5	7.9
23	8.7	7.7	8.1	8.2	7.6	7.9	9.1	8.5	8.8	8.3	7.5	7.8
24	8.7	7.8	8.3	8.4	7.6	7.9	9.1	8.6	8.8	9.0	7.9	8.3
25	8.7	8.2	8.4	8.9	7.8	8.3	9.2	8.5	8.8	9.1	8.2	8.7
26	8.5	8.0	8.3	8.6	7.9	8.2	9.1	8.6	8.8	9.1	8.6	8.9
27	8.5	7.7	8.1	8.7	7.6	8.2	9.2	8.6	8.9	9.1	8.5	8.7
28	8.4	7.9	8.1	8.4	8.0	8.3	9.1	8.6	8.8	9.0	8.4	8.6
29	8.7	8.0	8.2	8.9	8.0	8.3	9.0	8.4	8.7	8.8	8.0	8.3
30	8.8	7.9	8.4	9.0	7.8	8.4	8.9	8.3	8.6	8.6	7.9	8.3
31	---	---	---	9.2	8.4	8.8	9.0	8.3	8.6	---	---	---
MONTH	9.2	7.3	8.0	9.2	7.4	8.0	9.5	8.3	8.8	---	---	---

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.1	7.3	7.7	8.2	6.9	7.4	8.9	7.5	8.3	8.8	7.2	7.8
2	8.4	7.3	7.7	8.0	7.0	7.5	9.0	7.5	8.8	8.6	7.1	7.9
3	8.1	7.2	7.8	7.7	7.4	7.5	8.9	7.7	8.8	8.6	6.9	7.8
4	8.0	7.2	7.6	8.0	7.5	7.6	8.9	7.1	8.5	8.8	8.5	8.6
5	8.6	7.2	7.7	8.2	7.5	7.8	8.8	7.7	8.5	8.7	8.2	8.5
6	8.6	7.5	8.0	8.1	7.6	7.9	9.1	8.2	8.8	8.5	8.2	8.4
7	8.3	7.2	7.8	8.0	7.6	7.8	8.9	8.4	8.7	8.2	7.8	8.0
8	8.5	7.2	7.7	7.9	7.4	7.7	8.8	8.6	8.7	8.1	7.7	7.9
9	8.4	7.3	7.8	8.2	7.3	7.7	8.8	7.2	8.4	8.2	7.7	7.9
10	8.0	7.1	7.5	8.2	7.4	7.8	8.8	8.4	8.7	8.1	7.6	7.8
11	8.2	7.3	7.6	8.1	7.7	7.9	8.9	8.4	8.7	8.1	7.6	7.8
12	7.9	7.5	7.7	8.0	7.6	7.8	9.0	8.6	8.8	8.4	7.6	7.9
13	7.6	7.2	7.4	7.8	7.5	7.6	9.0	8.1	8.8	8.5	8.0	8.3
14	7.9	7.2	7.4	7.7	7.5	7.6	9.1	8.1	8.7	8.3	7.4	8.0
15	8.1	7.4	7.6	7.8	7.3	7.6	9.2	8.1	8.6	---	---	---
16	8.1	7.0	7.4	8.5	7.5	7.8	9.1	8.0	8.7	---	---	---
17	7.9	7.3	7.6	8.1	7.2	7.7	8.9	8.0	8.5	---	---	---
18	7.9	6.9	7.4	8.5	7.2	7.9	8.6	7.7	8.3	---	---	---
19	8.2	7.0	7.4	8.2	7.6	7.9	8.7	7.5	8.2	---	---	---
20	8.3	7.0	7.3	8.1	7.1	7.5	8.9	7.7	8.5	---	---	---
21	8.3	7.5	7.9	8.2	7.2	7.7	8.8	7.7	8.4	---	---	---
22	8.2	7.4	7.8	8.3	7.7	8.1	9.0	8.1	8.7	7.7	6.9	7.2
23	8.3	7.2	7.7	8.2	7.6	7.9	8.9	8.6	8.7	7.6	7.0	7.4
24	8.6	7.3	7.8	8.1	7.4	7.6	9.0	8.3	8.7	8.3	6.9	7.4
25	8.4	7.5	8.1	8.1	7.2	7.6	9.0	8.1	8.5	8.6	7.3	8.2
26	8.3	7.6	8.0	8.3	7.0	7.4	9.0	8.5	8.7	8.6	6.8	8.0
27	8.4	7.2	7.9	8.7	7.7	8.1	8.9	8.2	8.5	8.1	6.8	7.2
28	8.3	7.1	7.8	8.5	8.0	8.3	8.7	7.1	8.3	8.8	6.9	8.2
29	7.9	6.9	7.1	8.8	6.9	8.2	8.7	7.2	8.2	8.7	7.6	8.2
30	8.0	6.9	7.3	8.6	7.3	8.1	9.0	7.3	8.4	8.5	7.1	8.1
31	---	---	---	8.5	7.4	8.2	8.7	7.2	8.2	---	---	---
MONTH	8.6	6.9	7.7	8.8	6.9	7.8	9.2	7.1	8.6	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	25.6	24.5	24.9	15.9	14.9	15.4	10.1	9.1	9.4	9.5	7.9	8.5
2	26.9	24.8	25.6	15.1	14.1	14.7	9.1	8.2	8.6	9.3	8.7	8.9
3	26.9	25.1	25.8	14.7	13.6	14.0	8.8	8.0	8.5	10.0	8.9	9.3
4	27.5	25.7	26.4	14.4	13.4	13.8	8.0	7.0	7.5	9.3	8.2	8.8
5	27.8	25.5	26.6	13.9	13.5	13.7	7.2	6.8	7.0	8.5	7.5	8.2
6	27.1	25.7	26.3	14.7	13.8	14.4	7.0	6.4	6.8	8.9	7.6	8.3
7	26.4	25.2	25.8	14.2	13.3	13.9	6.8	5.8	6.3	8.2	6.8	7.5
8	26.1	24.4	25.3	14.4	12.8	13.5	6.8	5.4	6.0	7.0	6.1	6.7
9	24.6	23.5	24.0	14.7	13.2	14.0	6.3	5.8	6.1	7.9	6.8	7.2
10	24.1	23.5	23.8	16.3	14.4	15.2	6.4	5.8	6.0	7.8	7.3	7.6
11	24.0	23.6	23.8	16.9	15.8	16.3	6.5	6.2	6.4	7.6	7.0	7.2
12	23.9	23.5	23.7	17.0	15.7	16.5	7.8	6.4	6.8	7.2	6.2	6.7
13	24.9	23.0	23.8	16.6	15.2	16.0	7.3	6.5	6.9	---	---	---
14	24.4	22.0	23.2	15.5	14.4	15.0	7.7	7.1	7.3	6.6	5.7	6.0
15	22.1	21.1	21.5	14.8	13.5	14.3	7.9	6.9	7.3	6.1	5.6	5.8
16	21.5	20.7	21.2	15.2	14.6	14.9	7.5	6.8	7.2	5.6	5.0	5.4
17	21.8	20.6	21.0	15.4	14.8	15.2	7.5	6.6	7.0	5.5	5.1	5.3
18	21.0	19.9	20.3	14.8	13.1	14.1	7.7	6.5	6.9	5.2	3.9	4.6
19	20.2	18.2	19.0	14.4	12.5	13.5	7.9	6.5	7.2	4.2	3.5	3.9
20	20.5	18.8	19.4	13.8	13.0	13.2	9.7	7.9	8.7	4.4	3.6	4.0
21	19.9	19.2	19.7	13.4	12.8	13.0	8.7	8.2	8.5	4.2	3.9	4.0
22	19.4	18.2	18.6	14.1	13.1	13.6	8.7	7.9	8.3	4.1	3.6	3.8
23	18.4	17.2	17.9	13.4	11.9	12.5	8.8	8.1	8.4	3.7	2.0	2.9
24	18.4	17.8	18.1	13.2	11.2	11.9	8.5	7.9	8.3	2.0	0.9	1.4
25	18.6	18.1	18.3	13.4	11.5	12.2	8.7	7.8	8.4	1.7	0.0	0.8
26	18.9	18.3	18.6	12.6	11.7	12.2	7.8	6.5	7.1	1.8	0.6	1.1
27	19.1	18.4	18.7	12.1	10.9	11.6	7.8	6.4	6.8	1.6	0.9	1.3
28	19.0	18.5	18.7	11.0	9.5	10.3	7.0	6.2	6.5	2.3	0.2	1.2
29	18.7	18.3	18.5	10.4	9.0	9.6	7.2	6.1	6.6	2.8	1.3	2.0
30	18.3	17.6	18.0	10.4	9.6	10.1	7.7	6.4	7.1	2.9	2.4	2.7
31	17.6	15.9	16.8	---	---	---	8.2	7.2	7.6	3.2	2.7	2.9
MONTH	27.8	15.9	21.7	17.0	9.0	13.6	10.1	5.4	7.3	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	3.5	3.1	3.3	10.3	7.8	8.6	14.2	13.0	13.7	22.1	21.0	21.6
2	4.5	3.0	3.7	---	---	---	16.8	13.3	14.4	23.0	21.5	22.0
3	5.5	3.4	4.4	---	---	---	17.1	14.1	15.4	22.4	20.6	21.6
4	6.0	3.8	4.7	---	---	---	16.6	15.1	15.8	20.7	19.3	20.0
5	5.7	4.6	5.3	---	---	---	17.0	15.7	16.4	19.4	18.7	19.0
6	5.5	5.1	5.2	---	---	---	17.3	16.6	16.8	21.1	19.0	19.8
7	5.5	5.2	5.4	---	---	---	---	---	---	23.2	20.4	21.5
8	6.2	5.0	5.4	10.7	9.0	9.5	---	---	---	23.4	21.6	22.4
9	7.1	4.8	5.7	---	---	---	---	---	---	24.3	22.6	23.3
10	6.3	5.6	5.9	11.6	9.8	10.6	---	---	---	25.0	23.3	23.9
11	6.2	5.3	5.7	10.1	9.5	9.7	---	---	---	24.8	23.4	24.1
12	6.3	5.5	6.0	---	---	---	14.1	12.3	13.1	23.9	22.8	23.3
13	---	---	---	12.8	10.7	11.8	15.1	13.0	13.9	22.9	22.2	22.6
14	6.3	5.3	5.8	12.2	10.3	11.2	15.4	13.7	14.6	23.4	21.6	22.4
15	6.7	6.0	6.4	11.7	10.1	10.7	17.0	14.4	15.4	22.5	21.9	22.2
16	6.6	6.3	6.4	13.0	10.8	11.2	19.2	15.2	16.4	24.4	21.8	22.8
17	6.4	5.8	6.1	---	---	---	18.0	15.9	16.9	23.1	21.6	22.4
18	6.1	5.5	5.8	13.0	12.0	12.7	17.4	16.6	16.9	21.8	20.8	21.3
19	6.9	5.0	6.1	12.9	12.6	12.7	17.4	16.7	16.9	20.9	19.9	20.5
20	7.5	6.1	6.8	---	---	---	17.5	16.2	16.8	21.2	19.5	20.3
21	8.1	6.6	7.2	---	---	---	17.6	16.4	16.9	22.4	19.9	20.9
22	9.8	7.5	8.4	16.4	13.8	14.9	19.1	17.2	18.1	21.7	20.7	21.3
23	10.0	9.0	9.4	16.0	15.4	15.8	18.8	17.5	18.2	21.1	20.4	20.7
24	9.9	8.4	9.3	16.3	15.1	15.6	20.7	17.4	18.3	21.9	20.1	20.8
25	9.9	9.4	9.6	16.8	14.9	15.6	18.1	17.5	17.8	22.7	20.7	21.5
26	9.4	8.9	9.1	16.6	15.4	16.0	20.1	17.9	18.6	23.8	21.4	22.4
27	8.9	8.6	8.8	16.1	15.6	15.8	19.1	18.4	18.6	22.6	21.8	22.1
28	8.7	8.3	8.5	16.8	15.3	16.0	21.3	18.1	19.1	23.0	21.4	22.0
29	---	---	---	17.2	16.0	16.7	20.9	18.8	19.8	22.9	21.7	22.2
30	---	---	---	17.3	15.5	16.7	21.6	20.0	20.8	23.7	21.6	22.5
31	---	---	---	15.5	13.9	14.7	---	---	---	22.8	21.9	22.6
MONTH	---	---	---	---	---	---	---	---	---	25.0	18.7	21.8

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.2	21.4	21.8	29.0	28.1	28.4	29.8	28.3	28.9	31.2	29.0	29.6
2	25.1	21.1	22.4	28.3	26.6	27.3	29.5	28.7	29.0	30.0	28.7	29.3
3	22.9	21.7	22.3	27.3	26.3	26.8	29.0	28.3	28.6	31.2	28.9	29.5
4	23.2	22.2	22.6	28.2	26.5	27.3	28.4	27.9	28.2	29.6	28.9	29.2
5	24.3	22.3	23.2	28.4	27.0	27.7	29.3	27.4	28.2	29.2	28.0	28.5
6	26.1	23.2	24.2	29.1	27.4	28.0	29.1	27.9	28.3	28.0	26.6	27.3
7	24.6	23.9	24.2	29.0	27.7	28.2	28.2	27.4	27.7	26.6	25.7	26.2
8	25.1	23.8	24.3	30.8	27.8	28.9	27.7	27.1	27.4	25.8	25.2	25.5
9	28.3	24.3	25.6	30.9	28.4	29.5	27.6	27.0	27.3	25.2	24.6	24.9
10	26.9	25.4	26.1	31.1	29.2	29.8	27.3	26.8	27.0	25.0	23.5	24.3
11	27.4	25.6	26.6	29.5	28.0	29.0	27.5	26.6	27.0	23.8	23.0	23.3
12	27.7	26.6	27.0	29.2	28.1	28.6	27.6	26.8	27.2	25.4	22.7	23.4
13	27.5	26.6	27.0	28.2	27.2	27.8	28.4	27.0	27.5	23.9	23.2	23.6
14	27.8	26.4	26.9	27.7	26.6	26.9	29.6	27.4	28.0	24.7	23.0	23.7
15	28.4	26.5	27.3	30.5	26.6	27.8	30.3	27.9	28.7	---	---	---
16	27.9	27.1	27.5	29.5	27.1	28.1	28.9	27.9	28.2	---	---	---
17	27.1	26.6	26.9	31.3	27.5	28.6	28.5	27.4	27.9	---	---	---
18	28.7	26.0	26.8	29.8	27.8	28.8	29.7	27.4	28.1	---	---	---
19	28.7	26.5	27.4	28.9	28.0	28.3	28.3	27.3	27.9	---	---	---
20	28.6	26.5	27.3	30.2	27.6	28.3	29.4	27.6	28.3	---	---	---
21	27.5	26.5	26.9	29.3	27.5	28.4	30.3	27.7	28.4	---	---	---
22	26.8	25.6	26.1	29.2	27.6	28.3	30.0	28.4	29.0	24.7	23.6	23.9
23	27.5	25.5	26.3	28.1	27.5	27.9	30.4	28.6	29.2	24.6	23.8	24.1
24	28.9	26.0	27.2	27.6	26.8	27.2	30.0	28.5	29.1	25.2	24.0	24.4
25	30.4	26.8	28.1	27.9	26.9	27.4	30.2	28.1	28.9	26.7	23.9	24.9
26	29.0	27.1	28.0	28.2	27.1	27.5	30.2	28.2	29.1	26.1	24.2	25.0
27	29.1	27.6	28.3	29.3	27.1	28.0	31.3	29.0	29.9	25.7	24.3	24.9
28	29.5	27.6	28.2	29.1	27.6	28.2	33.1	29.2	30.0	25.9	24.7	25.0
29	29.6	27.7	28.4	32.3	27.7	28.6	30.9	29.1	29.8	25.2	23.5	24.4
30	30.6	28.0	28.7	30.1	28.1	28.6	30.3	28.7	29.5	23.6	22.5	23.0
31	---	---	---	30.0	28.4	29.0	31.8	29.0	29.6	---	---	---
MONTH	30.6	21.1	26.1	32.3	26.3	28.2	33.1	26.6	28.4	---	---	---

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.2	21.4	21.8	28.3	27.2	27.8	29.5	28.2	28.7	29.6	28.3	28.9
2	22.5	21.3	21.6	28.1	26.5	27.3	29.4	28.4	28.9	29.5	28.5	29.0
3	22.7	21.6	22.1	27.2	26.2	26.7	29.0	28.3	28.6	29.3	28.6	29.0
4	23.1	22.2	22.6	27.9	26.5	26.9	28.4	27.5	28.0	29.6	28.9	29.1
5	24.1	22.3	22.9	28.4	27.0	27.6	28.3	27.4	27.9	29.2	28.0	28.5
6	24.3	23.1	23.5	28.8	27.3	27.9	28.8	27.9	28.2	28.0	26.6	27.3
7	24.4	23.3	23.9	28.9	27.6	28.2	28.2	27.5	27.8	26.6	25.7	26.2
8	24.9	23.8	24.2	28.9	27.7	28.1	27.6	27.3	27.5	25.8	25.2	25.5
9	25.4	24.3	24.6	30.2	28.3	29.1	27.4	27.1	27.3	25.2	24.6	25.0
10	26.8	24.2	25.2	30.2	28.9	29.4	27.3	26.8	27.0	25.0	23.5	24.3
11	27.1	25.7	26.4	29.5	28.0	29.0	27.4	26.4	26.9	23.8	23.0	23.3
12	27.4	26.6	26.9	29.0	28.2	28.5	27.5	26.8	27.1	24.0	22.7	23.2
13	27.4	26.6	26.9	28.2	27.2	27.8	27.9	26.9	27.2	23.9	23.2	23.6
14	27.8	26.3	26.8	27.2	26.6	26.9	27.7	27.1	27.4	23.5	23.2	23.4
15	28.1	26.5	27.2	27.3	26.5	26.8	28.3	27.2	27.5	---	---	---
16	27.8	26.9	27.4	29.3	27.0	27.6	28.6	27.9	28.0	---	---	---
17	27.1	26.6	26.8	28.5	27.4	27.8	28.3	27.3	27.8	---	---	---
18	27.1	25.8	26.5	29.8	27.9	28.5	27.9	27.4	27.5	---	---	---
19	27.9	26.2	26.8	28.9	28.0	28.3	28.1	27.2	27.7	---	---	---
20	27.5	26.6	26.8	28.2	27.5	27.7	28.8	27.6	28.0	---	---	---
21	27.4	26.5	26.9	28.6	27.6	27.9	28.8	27.7	28.1	---	---	---
22	26.6	25.6	26.1	29.2	27.6	28.3	29.5	28.2	28.9	24.4	23.1	23.5
23	26.8	25.3	25.9	28.2	27.6	27.9	29.5	28.6	28.9	24.0	23.6	23.9
24	27.8	25.7	26.3	27.6	26.3	27.0	29.8	28.6	28.9	24.3	23.6	23.9
25	27.9	26.8	27.2	27.5	27.0	27.1	29.3	28.1	28.4	24.9	23.9	24.2
26	28.2	27.1	27.7	27.5	27.1	27.3	29.6	28.2	28.6	24.9	24.0	24.5
27	28.6	27.1	27.8	29.0	27.1	27.7	30.1	28.8	29.1	24.8	23.9	24.3
28	28.2	26.9	27.6	28.7	27.5	28.0	29.7	28.0	29.1	25.5	24.3	24.9
29	27.9	26.2	27.0	29.4	27.5	28.1	29.7	28.1	29.1	25.2	23.9	24.5
30	28.1	26.8	27.6	28.7	28.0	28.3	30.0	28.5	29.1	24.0	22.6	23.4
31	---	---	---	28.7	28.2	28.5	29.6	28.1	28.9	---	---	---
MONTH	28.6	21.3	25.7	30.2	26.2	27.9	30.1	26.4	28.1	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	8.2	6.1	7.2	8.8	7.8	8.2	10.0	9.2	9.6	14.2	11.2	12.4
2	9.9	6.9	8.4	9.3	8.4	8.8	10.6	9.4	10	12.8	11.8	12.3
3	9.8	8.0	8.8	9.8	8.6	9.2	10.3	10.0	10.2	12.4	11.6	12.0
4	9.7	6.2	8.4	10.4	9.3	9.9	10.7	10.0	10.2	12.4	11.5	11.8
5	9.4	6.7	8.1	10.2	9.5	9.9	10.7	10.1	10.3	13.6	11.9	12.3
6	8.3	7.2	7.7	9.5	8.5	9.0	10.8	10.0	10.4	14.1	12.0	13.3
7	9.2	6.5	7.9	9.7	8.5	9.1	11.8	10.5	11.1	12.0	10.7	11.3
8	8.7	6.8	7.7	11.0	9.4	10.1	12.0	11.2	11.6	12.9	11.0	11.5
9	8.6	6.4	7.5	11.7	9.7	10.7	12.0	11.0	11.4	12.4	10.7	11.4
10	8.5	7.1	7.7	10.7	9.1	10.2	11.7	10.8	11.3	11.8	11.2	11.5
11	7.8	6.4	7.0	9.8	8.4	9.2	11.3	10.8	11.1	12.0	11.3	11.6
12	7.4	6.8	7.0	9.4	7.8	8.7	11.7	10.7	11.1	14.3	11.7	12.8
13	10.2	6.9	8.2	8.7	8.1	8.4	11.4	10.8	11.1	---	---	---
14	9.2	6.8	7.8	12.2	7.8	9.5	11.2	10.5	10.9	13.8	12.7	13.3
15	---	---	---	11.6	9.3	10.2	12.1	10.4	11.1	13.7	12.3	12.7
16	---	---	---	10.1	7.9	9.3	12.4	11.1	11.8	12.4	11.4	12.0
17	---	---	---	9.8	8.4	9.2	13.1	11.3	12.1	11.6	10.9	11.1
18	9.5	7.4	8.3	9.9	8.3	9.1	13.0	11.8	12.3	11.4	10.7	11.0
19	11.6	8.5	9.9	11.0	9.4	10.2	13.2	12.0	12.6	11.3	10.9	11.1
20	10.8	9.0	9.8	11.0	9.7	10.2	12.5	10.5	11.5	11.2	10.7	10.9
21	9.9	8.5	9.3	11.8	9.8	10.5	11.6	11.0	11.3	11.2	10.7	10.9
22	9.0	8.0	8.5	9.8	7.5	8.7	11.6	11.2	11.4	11.3	10.8	11.0
23	10.1	8.0	9.0	9.1	7.7	8.4	12.1	11.3	11.7	11.4	10.9	11.1
24	9.4	7.6	8.4	11.7	8.7	9.7	12.6	10.4	11.8	11.9	11.3	11.6
25	8.1	7.5	7.8	12.2	9.9	11.0	11.0	10.5	10.7	12.1	11.5	11.8
26	9.0	7.7	8.2	11.6	10.5	11.0	11.4	10.4	10.9	12.3	11.9	12.2
27	9.2	7.9	8.4	10.9	10.0	10.4	12.6	10.8	11.8	12.3	11.7	12.0
28	8.8	7.4	8.0	11.3	9.7	10.3	13.7	12.2	12.8	12.3	12.0	12.2
29	7.9	7.2	7.5	10.6	9.0	10.0	13.7	13.0	13.4	12.3	12.1	12.2
30	7.5	7.0	7.2	9.8	8.9	9.3	13.6	12.8	13.2	12.2	11.9	12.1
31	7.9	6.9	7.5	---	---	---	14.7	12.7	13.7	12.3	11.9	12.1
MONTH	---	---	---	12.2	7.5	9.6	14.7	9.2	11.4	---	---	---
DAY	MAX	MIN	MEAN									
1	12.3	11.9	12.1	15.6	10.9	13.0	10.8	9.3	9.9	10.2	8.8	9.5
2	12.2	11.7	11.9	14.0	10.4	12.8	12.0	9.2	10.2	10.8	8.9	9.7
3	12.2	11.7	12.0	13.4	10.5	11.6	11.6	9.8	10.4	9.9	8.6	9.1
4	11.8	11.0	11.3	---	---	---	10.8	9.6	10.3	9.7	8.3	8.9
5	11.4	11.1	11.3	---	---	---	10.7	9.5	10.2	10.6	8.5	9.3
6	11.4	11.1	11.2	---	---	---	10.5	9.9	10.2	10.4	8.4	9.4
7	11.3	11.0	11.2	---	---	---	---	---	---	10.6	9.3	9.9
8	12.1	11.0	11.3	16.0	9.4	11.0	---	---	---	10.5	9.0	9.8
9	13.0	12.0	12.3	---	---	---	---	---	---	10.0	8.7	9.5
10	13.3	11.2	12.1	13.1	9.6	11.1	---	---	---	9.7	7.6	8.7
11	11.8	11.2	11.4	11.2	8.1	10.2	---	---	---	8.6	6.6	7.7
12	11.6	11.2	11.4	---	---	---	13.3	9.6	11.3	7.4	6.2	6.9
13	---	---	---	11.3	9.6	10.4	14.6	11.1	12.3	7.8	6.3	7.2
14	12.2	11.3	11.8	10.2	9.1	9.7	14.2	11.6	12.9	9.0	6.3	7.7
15	12.5	11.6	12.1	11.9	9.7	10.4	14.7	11.7	12.8	7.8	6.8	7.3
16	11.6	11.1	11.3	11.7	8.9	10.2	13.4	10.4	11.4	8.9	6.5	7.6
17	11.4	10.7	11.0	---	---	---	11.4	10.1	10.7	7.4	6.8	7.1
18	12.1	11.1	11.6	12.1	11.0	11.5	11.2	9.9	10.3	8.0	6.5	7.2
19	13.6	11.8	12.3	11.0	9.5	10.3	11.1	9.9	10.3	8.0	7.1	7.5
20	13.8	12.2	13.0	---	---	---	11.3	10.0	10.4	9.2	7.6	8.3
21	14.0	12.1	12.9	---	---	---	10.7	10.1	10.4	9.2	7.9	8.5
22	14.1	10.4	12.5	11.7	9.7	10.5	10.6	9.6	9.9	8.4	7.4	8.0
23	10.7	9.6	10.2	11.2	10.3	10.7	10.0	8.4	9.3	7.9	7.2	7.5
24	10.6	9.3	10.0	10.4	9.9	10.1	9.9	8.0	8.9	8.9	7.2	7.8
25	10.6	10.0	10.3	11.7	9.8	10.5	9.2	7.8	8.5	8.8	7.7	8.2
26	11.1	9.9	10.3	11.2	8.8	10.2	11.0	8.0	9.1	9.0	7.4	8.3
27	10.8	10.1	10.4	9.9	8.8	9.3	9.5	8.1	8.6	8.6	7.3	7.8
28	12.0	9.1	10.6	10.5	9.0	9.5	10.6	8.7	9.5	8.8	7.2	7.9
29	---	---	---	10.0	8.9	9.4	9.7	8.9	9.3	9.3	7.8	8.4
30	---	---	---	9.7	8.2	9.1	10.4	8.9	9.5	10.6	8.0	9.2
31	---	---	---	9.9	8.0	9.0	---	---	---	9.7	7.4	8.8
MONTH	---	---	---	---	---	---	---	---	---	10.8	6.2	8.3

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	8.9	6.8	7.8	8.0	6.8	7.3	10.5	6.6	9.0	10.8	6.6	8.0
2	10.9	7.4	8.9	7.2	5.1	6.1	11.1	7.9	9.0	8.4	6.0	7.0
3	9.5	7.9	8.5	6.9	5.4	6.0	10.8	7.3	8.5	11.8	5.9	8.3
4	8.3	7.2	7.8	7.6	5.9	6.6	9.6	6.1	7.9	8.8	6.7	7.6
5	9.4	7.1	8.1	7.4	5.0	6.5	10.9	5.9	8.1	8.8	5.7	6.9
6	10.8	7.9	9.0	7.3	5.9	6.6	10.7	6.6	8.2	8.0	6.5	7.1
7	9.3	7.5	8.4	6.7	5.5	6.1	8.5	6.3	7.3	7.8	5.8	6.8
8	9.1	6.1	7.9	7.3	5.7	6.3	9.1	6.4	7.4	8.0	6.6	7.3
9	10.2	7.7	8.8	8.2	5.8	6.9	9.7	6.6	7.7	9.1	6.6	7.8
10	9.1	7.4	8.4	9.6	6.5	7.4	9.6	6.8	7.5	9.3	7.5	8.4
11	9.0	7.0	7.9	8.1	6.4	7.1	9.6	6.6	8.0	9.7	7.7	8.7
12	7.8	6.9	7.4	8.4	6.4	7.0	11.1	7.4	8.6	18.4	8.2	9.8
13	7.0	6.3	6.7	7.3	6.0	6.7	10.9	7.2	9.0	12.2	9.0	10.2
14	8.2	6.1	7.0	9.4	6.2	6.9	12.3	8.0	9.7	16.0	9.3	11.1
15	8.5	6.6	7.4	11.5	6.5	8.4	14.0	9.4	11.4	---	---	---
16	7.7	5.8	6.9	9.6	6.4	8.2	10.6	8.2	9.0	---	---	---
17	6.9	5.8	6.4	10.1	6.3	7.7	9.7	7.0	8.2	---	---	---
18	8.7	6.0	7.1	9.4	5.8	7.6	13.5	7.4	9.5	---	---	---
19	8.6	5.6	7.1	7.3	5.7	6.4	8.7	7.1	8.1	---	---	---
20	10.4	5.6	7.7	12.6	5.6	7.9	11.0	6.3	8.4	---	---	---
21	8.5	6.7	7.5	9.9	5.6	7.5	11.4	6.6	8.5	---	---	---
22	8.7	6.8	7.5	7.7	6.3	6.9	11.1	7.2	9.0	7.9	6.0	7.0
23	10.0	7.1	8.0	7.6	5.9	6.6	11.5	7.8	9.2	9.0	5.6	6.8
24	10.0	7.6	8.6	7.8	6.0	6.5	12.2	7.5	9.4	12.1	6.8	8.8
25	9.9	8.2	8.9	10.5	5.4	7.0	12.5	7.6	9.7	14.2	7.8	10.6
26	8.8	7.6	8.1	8.3	5.9	7.0	10.6	8.0	9.2	12.6	9.3	10.8
27	8.8	6.8	7.7	9.3	5.9	7.4	11.5	7.1	9.1	12.5	8.0	9.2
28	8.6	6.9	7.6	8.2	6.3	7.3	11.1	6.8	8.5	11.2	7.4	8.7
29	9.2	7.0	7.6	10.5	6.6	8.0	10.8	6.8	8.3	10.2	6.9	8.1
30	10.0	6.9	8.2	11.8	6.4	8.3	9.9	6.8	8.1	9.4	7.3	8.2
31	---	---	---	13.2	7.1	9.4	11.9	6.8	8.3	---	---	---
MONTH	10.9	5.6	7.8	13.2	5.0	7.1	14.0	5.9	8.6	---	---	---

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	6.4	7.4	7.0	2.3	4.9	9.1	3.6	6.3	8.6	0.9	3.8
2	9.0	6.1	7.5	6.7	2.2	5.3	9.9	2.9	7.7	7.5	1.0	4.5
3	8.3	6.4	7.7	6.8	5.2	5.9	8.4	2.6	7.3	6.8	0.1	3.6
4	8.2	6.5	7.4	7.3	5.8	6.2	8.6	0.4	6.1	8.0	6.0	6.8
5	9.5	6.1	7.6	7.2	5.5	6.4	8.0	3.3	6.2	7.9	4.8	6.1
6	9.7	6.7	8.0	7.2	5.9	6.5	9.3	3.6	7.1	7.3	5.5	6.5
7	8.4	6.0	7.5	7.2	5.8	6.5	7.8	5.2	6.7	6.8	5.0	5.9
8	8.4	5.2	7.2	6.9	5.0	6.2	7.9	5.8	6.7	6.9	5.6	6.3
9	8.6	5.6	7.3	7.5	4.0	6.2	7.4	0.1	5.3	8.0	6.0	6.7
10	7.7	4.8	6.6	7.8	5.3	6.4	7.8	5.3	7.0	8.0	6.3	7.1
11	7.9	6.2	7.0	8.0	6.4	7.1	9.0	5.8	7.4	8.2	6.3	7.3
12	7.7	6.8	7.3	7.4	6.2	6.7	9.3	6.8	8.0	9.6	6.8	7.5
13	7.0	6.0	6.7	7.4	5.7	6.7	9.8	3.7	7.5	9.9	7.6	8.6
14	8.0	6.0	6.8	7.4	6.3	6.8	10.2	3.8	6.9	8.7	4.8	7.4
15	7.9	6.4	7.0	7.7	5.8	6.8	10.1	5.0	7.1	---	---	---
16	7.8	4.7	6.2	9.3	5.2	7.3	10.0	5.0	7.7	---	---	---
17	7.2	5.7	6.6	7.7	3.6	6.2	8.8	5.0	7.5	---	---	---
18	7.4	2.2	5.8	9.1	3.7	6.7	7.9	4.7	6.8	---	---	---
19	7.6	2.7	5.9	7.0	5.5	6.3	7.8	3.8	6.3	---	---	---
20	8.1	3.6	5.6	7.1	2.2	5.2	8.9	4.1	6.7	---	---	---
21	8.1	6.3	7.3	6.9	2.9	5.6	8.6	3.7	6.4	---	---	---
22	8.3	6.2	7.4	7.5	5.9	6.6	10.1	5.2	8.0	6.7	1.2	3.9
23	8.9	5.3	7.3	7.5	5.6	6.4	9.0	6.7	7.8	6.7	1.6	5.4
24	9.6	5.9	7.6	7.3	4.9	5.9	10.7	6.3	7.7	8.4	0.6	4.7
25	9.2	6.7	8.2	6.9	3.4	5.4	10.1	4.9	6.9	10.5	4.5	8.2
26	8.3	6.4	7.5	7.9	1.4	4.2	9.6	6.1	7.6	10.5	0.6	6.9
27	8.2	4.7	6.8	9.5	6.1	7.3	8.6	4.7	6.4	7.4	0.3	2.9
28	7.6	3.3	6.5	8.0	6.6	7.4	7.4	0.3	5.4	10.4	1.6	7.3
29	6.8	0.6	3.2	10.4	1.0	6.9	7.9	0.6	5.3	10.5	5.7	8.0
30	6.9	1.3	4.4	7.7	3.9	6.1	9.5	1.3	6.8	9.2	2.5	7.5
31	---	---	---	6.9	2.9	5.7	8.0	0.8	5.6	---	---	---
MONTH	9.7	0.6	6.8	10.4	1.0	6.3	10.7	0.1	6.8	---	---	---

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	100	74	87	89	78	83	87	81	84	120	98	107
2	124	84	103	93	83	87	91	80	86	110	102	107
3	123	98	109	96	83	89	89	85	87	108	101	105
4	122	77	104	102	90	95	90	83	86	108	98	102
5	120	82	101	99	92	95	88	83	85	116	100	105
6	105	89	96	92	84	89	89	82	86	119	102	113
7	115	80	98	94	82	88	95	84	90	102	89	94
8	108	82	94	107	89	97	97	89	93	106	89	94
9	104	77	90	115	93	104	97	89	92	104	88	95
10	101	84	92	107	93	102	94	88	91	99	93	96
11	93	76	83	101	85	94	92	88	90	100	94	96
12	88	80	83	97	79	89	97	87	91	118	96	105
13	123	81	98	89	81	85	95	89	92	---	---	---
14	110	80	92	122	77	94	94	87	90	111	101	107
15	---	---	---	115	89	100	102	86	93	110	98	101
16	---	---	---	100	79	92	104	92	98	99	90	95
17	---	---	---	98	84	92	108	93	99	91	86	88
18	105	82	92	96	81	89	109	96	101	89	83	85
19	124	92	107	108	89	98	110	99	104	86	83	85
20	117	97	106	106	92	97	106	91	99	87	81	83
21	108	93	101	113	93	100	100	94	97	86	82	83
22	96	85	91	94	72	84	100	95	97	86	82	84
23	107	85	96	85	74	79	104	96	100	84	81	82
24	100	81	89	109	80	90	107	89	100	85	81	83
25	86	80	83	114	91	103	93	89	91	85	80	83
26	97	82	88	109	98	102	94	86	90	88	84	86
27	100	85	90	102	92	96	105	89	96	87	83	85
28	95	80	86	102	87	92	112	99	105	89	84	86
29	85	77	81	94	80	88	113	107	110	90	86	88
30	79	74	76	88	78	83	113	106	110	90	88	89
31	82	72	78	---	---	---	124	106	115	92	88	90
MONTH	---	---	---	122	72	93	124	80	95	---	---	---
DAY	MAX	MIN	MEAN									
1	92	89	91	139	93	112	105	90	96	117	101	109
2	94	87	90	---	---	---	120	88	101	126	101	111
3	95	89	93	---	---	---	121	96	105	114	96	103
4	92	84	88	---	---	---	111	96	104	107	92	97
5	91	87	89	---	---	---	110	96	104	115	92	101
6	91	88	89	---	---	---	109	102	105	117	91	103
7	90	87	89	---	---	---	---	---	---	124	103	112
8	95	86	90	143	81	97	---	---	---	123	102	113
9	104	95	98	---	---	---	---	---	---	119	103	112
10	107	89	97	120	85	100	---	---	---	116	91	103
11	95	89	91	99	71	90	---	---	---	102	78	92
12	93	91	92	---	---	---	130	90	108	87	72	82
13	---	---	---	102	89	96	145	106	120	91	73	84
14	98	90	94	94	82	89	142	112	127	106	73	89
15	101	95	98	110	87	94	152	115	129	90	78	84
16	95	90	92	109	81	93	143	104	116	107	74	88
17	91	87	89	---	---	---	121	102	111	85	77	83
18	97	88	93	114	103	108	117	102	107	91	74	82
19	111	95	99	104	90	97	116	102	107	89	79	84
20	112	99	106	---	---	---	118	102	108	104	83	92
21	118	100	107	---	---	---	112	103	108	106	87	96
22	119	91	107	119	94	104	111	100	105	95	84	91
23	94	84	89	114	103	108	108	90	99	89	80	84
24	94	81	88	106	99	102	108	84	95	102	80	88
25	94	88	91	119	98	105	98	82	90	101	87	94
26	96	86	90	115	89	104	122	85	98	106	84	96
27	93	87	90	101	89	94	103	86	93	99	84	89
28	103	78	91	108	92	97	119	92	103	102	82	91
29	---	---	---	103	91	97	109	96	102	108	89	97
30	---	---	---	101	82	94	118	98	106	125	91	106
31	---	---	---	98	80	89	---	---	---	113	86	102
MONTH	---	---	---	---	---	---	---	---	---	126	72	95

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	102	78	89	104	88	95	138	85	117	145	86	106
2	132	84	103	93	64	77	146	103	117	112	78	92
3	111	90	98	87	67	76	141	94	110	159	77	109
4	97	83	90	98	74	84	124	78	102	116	87	99
5	112	82	95	96	63	83	143	75	104	114	73	89
6	132	93	108	95	75	84	140	84	106	101	81	91
7	111	90	100	87	70	78	109	80	93	97	72	84
8	111	73	95	98	73	82	116	81	94	98	81	90
9	129	92	108	110	75	90	123	83	98	110	80	95
10	113	92	104	130	85	98	122	85	94	111	91	100
11	114	87	98	106	83	93	122	83	101	114	91	103
12	98	87	94	110	83	91	141	93	109	225	96	115
13	89	79	84	94	77	86	140	91	115	144	106	121
14	105	76	88	119	78	86	161	102	125	192	110	132
15	110	83	93	149	81	107	185	120	148	---	---	---
16	99	74	87	125	81	106	137	105	116	---	---	---
17	87	73	80	134	80	100	125	89	106	---	---	---
18	112	74	89	124	74	99	174	94	122	---	---	---
19	111	70	90	95	73	83	112	91	104	---	---	---
20	135	70	97	164	71	102	145	80	108	---	---	---
21	108	84	94	130	71	96	152	84	110	---	---	---
22	109	83	93	101	81	89	147	93	118	94	72	84
23	127	87	99	97	76	85	154	101	120	108	67	82
24	130	94	109	99	76	83	162	98	123	146	81	106
25	131	103	115	134	68	89	166	98	126	174	93	129
26	114	96	104	106	75	90	141	103	120	156	113	131
27	115	87	99	122	75	95	156	93	121	152	96	112
28	113	89	98	106	80	94	151	89	114	138	89	106
29	121	89	98	144	84	104	145	89	110	124	83	97
30	131	89	106	154	83	107	132	88	107	111	85	95
31	---	---	---	175	92	123	161	89	109	---	---	---
MONTH	135	70	97	175	63	92	185	75	112	---	---	---

PAMLICO RIVER BASIN

0208455155 PAMLICO RIVER AT LIGHT 3—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	96	73	85	90	29	63	119	46	82	113	12	49
2	104	70	86	86	27	68	130	37	100	99	13	59
3	96	73	89	86	65	74	109	34	94	89	1	47
4	95	75	86	93	72	79	111	5	78	105	78	90
5	113	71	89	93	69	82	103	42	79	103	62	79
6	116	79	95	93	75	83	121	46	92	92	70	82
7	100	71	89	93	74	83	100	66	85	84	62	73
8	102	62	86	90	64	79	101	74	85	84	69	78
9	105	67	88	100	52	81	94	1	67	97	73	81
10	94	58	80	104	69	85	98	67	88	96	76	85
11	100	76	87	105	83	92	114	72	93	97	75	86
12	98	85	91	96	80	87	118	86	101	114	79	88
13	89	75	84	95	73	85	125	47	95	117	89	102
14	102	75	85	93	79	85	130	48	88	103	56	87
15	101	80	88	97	73	85	130	63	90	---	---	---
16	100	59	79	122	66	93	129	64	99	---	---	---
17	91	72	83	99	46	80	113	64	96	---	---	---
18	93	27	73	120	47	86	101	60	87	---	---	---
19	97	34	74	91	71	82	100	48	80	---	---	---
20	103	45	71	91	28	66	116	52	87	---	---	---
21	103	79	92	89	37	72	112	47	83	---	---	---
22	104	76	91	98	76	85	133	67	104	80	14	46
23	112	65	90	96	71	82	118	87	102	80	19	65
24	123	73	95	92	62	74	142	82	101	101	7	56
25	118	85	103	88	43	68	132	63	89	127	54	98
26	107	81	95	100	18	53	127	78	98	127	7	83
27	106	59	87	124	77	94	114	61	84	90	4	35
28	98	41	83	103	84	95	98	4	70	127	19	88
29	87	7	41	137	13	89	104	8	70	127	68	97
30	89	18	56	100	50	79	126	17	89	109	30	88
31	---	---	---	89	37	73	105	10	74	---	---	---
MONTH	123	7	84	137	13	80	142	1	88	---	---	---

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18

LOCATION.--Lat 35°31'05", long 76°29'47", Hyde County, Hydrologic Unit 03020104, on U.S. Coast Guard Channel Light 18.

PERIOD OF RECORD.--Water years 2002 to current year.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): May 2002 to current year.

pH (TOP AND BOTTOM): May 2002 to current year.

WATER TEMPERATURE (TOP AND BOTTOM): May 2002 to current year.

DISSOLVED OXYGEN (TOP AND BOTTOM): May 2002 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): May 2002 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from May 2002 to current year.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. The monitor was removed on September 15, 2003 to prevent possible destruction of the equipment during Hurricane Isabel. It was reinstalled on September 21, 2003. Top constituents were monitored at 8 ft above the streambed and bottom constituents, 2 ft above the streambed. Salinity and dissolved oxygen, percent saturation are computed. The dissolved oxygen percent saturation is computed using a barometric pressure of 760 mm Hg. Dissolved oxygen, minimum extremes are reported as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported as <10%.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	18.5, October 11, 2002	0.3, August 17, 23, 2003
SALINITY (BOTTOM), ppt	20.5 October 25, 26, 2002	0.3, August 17, 23, 2003
pH (TOP), standard units	8.5, July 17, 2002	5.5, August 23, 2003
pH (BOTTOM), standard units	8.2, on several days during the period	5.5, August 23, 2003
WATER TEMPERATURE (TOP), °C	32.2, July 31, 2002	0.2, January 25, 2003
WATER TEMPERATURE (BOTTOM), °C	30.8, July 31, 2002	0.4, January 24, 2003
DISSOLVED OXYGEN (TOP), mg/L	13.6, February 9, 2003	3.5, August 7, 2002
DISSOLVED OXYGEN (BOTTOM), mg/L	13.1, January 25, 2003	<1.0, on many days during the period

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	18.5, October 11	0.3, August 17, 23
SALINITY (BOTTOM), ppt	20.5, October 25, 26	0.3, August 17, 23
pH (TOP), standard units	8.4, December 28, January 3	5.5, August 23
pH (BOTTOM), standard units	8.2, on several days during the year	5.5, August 23
WATER TEMPERATURE (TOP), °C	31.5, August 28	0.2, January 25
WATER TEMPERATURE (BOTTOM), °C	30.3, July 10, August 29, 30	0.4, January 24
DISSOLVED OXYGEN (TOP), mg/L	13.6, February 9	4.1, August 16
DISSOLVED OXYGEN (BOTTOM), mg/L	13.1, January 25	<1.0, on several days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	116, March 22, 23	53, August 16
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	101, February 19, 25	<10, on several days during the year

PAMLICO RIVER BASIN

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	18.1	17.8	18.0	17.7	17.5	17.7	13.5	13.1	13.3	13.6	12.8	13.2
2	18.0	17.8	17.9	17.7	17.5	17.6	13.5	13.1	13.4	---	---	---
3	17.9	17.8	17.9	17.9	17.5	17.7	13.8	13.3	13.5	---	---	---
4	17.9	17.8	17.9	17.9	17.7	17.8	13.5	12.0	12.7	13.1	12.4	12.8
5	18.0	17.9	17.9	18.0	17.7	17.9	13.6	13.0	13.3	13.5	12.4	13.0
6	18.1	17.9	18.0	18.1	17.8	17.9	13.3	12.4	12.9	13.3	12.3	12.9
7	18.1	17.9	18.0	17.9	17.1	17.8	13.3	12.2	12.8	12.5	12.0	12.3
8	18.3	17.9	18.1	17.7	17.5	17.6	13.2	12.4	12.7	12.6	11.7	12.2
9	18.3	18.1	18.3	17.7	17.5	17.6	13.0	12.2	12.6	12.7	12.2	12.4
10	18.4	18.2	18.3	17.7	17.5	17.6	13.0	11.9	12.6	12.6	11.8	12.2
11	18.5	18.2	18.4	17.9	17.0	17.5	13.0	12.2	12.5	12.4	10.3	11.4
12	18.2	17.2	17.7	17.7	16.6	17.2	13.0	12.6	12.8	11.8	9.8	10.8
13	17.8	16.6	17.4	16.8	15.5	16.0	13.8	12.8	13.3	---	---	---
14	17.8	16.9	17.3	17.0	15.7	16.2	14.1	13.1	13.7	---	---	---
15	18.1	17.3	17.6	16.8	15.7	16.3	13.5	13.3	13.4	---	---	---
16	18.4	17.7	17.9	16.8	16.1	16.4	13.6	13.3	13.5	11.3	11.0	11.2
17	18.2	17.3	17.8	17.0	14.3	16.2	13.5	12.3	12.6	11.3	11.1	11.3
18	17.7	16.5	17.2	15.7	14.2	15.2	12.8	12.3	12.5	11.7	11.0	11.3
19	17.6	16.9	17.2	15.8	14.7	15.3	13.9	12.5	12.9	11.6	10.9	11.3
20	17.4	16.9	17.1	15.5	13.8	15.2	15.1	13.1	13.9	11.6	11.0	11.1
21	17.4	15.7	16.5	15.5	13.8	14.6	14.0	13.6	13.7	11.8	11.1	11.5
22	16.6	15.9	16.1	15.1	14.0	14.7	14.0	13.5	13.8	11.7	10.5	11.1
23	16.5	16.0	16.2	14.9	14.3	14.5	13.9	13.5	13.8	11.8	11.1	11.5
24	17.2	16.1	16.7	14.9	14.7	14.8	14.1	13.0	13.6	---	---	---
25	17.6	17.1	17.4	14.8	14.4	14.7	13.7	13.1	13.4	---	---	---
26	17.7	17.5	17.5	14.7	13.1	13.9	13.5	13.1	13.3	11.3	10.5	10.9
27	17.6	17.3	17.4	13.6	12.2	12.8	13.5	13.0	13.3	11.5	10.1	10.8
28	17.6	17.4	17.5	13.0	12.2	12.6	13.5	11.5	12.7	11.7	10.4	11.2
29	17.8	17.5	17.7	13.5	12.4	13.1	13.3	12.4	12.9	11.5	10.7	11.0
30	17.7	17.5	17.7	13.8	13.1	13.3	13.6	12.2	12.7	11.5	10.9	11.3
31	17.7	17.5	17.6	---	---	---	13.4	12.4	12.9	11.3	10.6	10.9
MONTH	18.5	15.7	17.6	18.1	12.2	15.9	15.1	11.5	13.1	---	---	---
DAY	MAX	MIN	MEAN									
1	11.5	10.8	11.0	9.0	8.1	8.6	7.5	6.5	7.0	4.5	4.1	4.3
2	11.6	11.0	11.3	9.2	8.5	9.0	7.0	6.1	6.5	4.3	3.1	3.6
3	11.7	11.1	11.4	9.4	8.8	9.1	6.8	4.8	6.1	4.3	3.0	3.8
4	12.5	10.9	11.7	9.3	8.7	9.0	6.0	5.3	5.7	4.2	3.6	3.9
5	11.7	11.2	11.5	9.6	9.0	9.3	5.8	5.0	5.5	4.1	3.7	3.9
6	11.8	11.2	11.5	9.5	8.9	9.2	6.1	4.4	5.7	4.1	3.8	3.9
7	11.5	10.6	11.4	9.8	7.9	9.1	6.0	5.1	5.2	3.9	3.7	3.8
8	11.6	10.9	11.3	8.7	7.0	7.8	5.6	4.7	5.0	3.9	3.0	3.4
9	11.5	10.5	11.1	8.4	7.3	7.8	5.7	5.4	5.6	3.7	3.2	3.6
10	11.7	10.6	11.2	8.3	7.0	7.8	6.4	5.1	5.8	3.6	3.3	3.4
11	12.0	11.4	11.6	8.3	7.6	8.1	5.5	4.9	5.2	3.5	2.7	3.2
12	11.6	11.2	11.4	8.2	7.7	8.0	5.3	4.5	4.9	3.1	2.4	2.6
13	11.7	11.2	11.4	8.0	7.8	8.0	4.9	3.2	4.2	3.2	2.4	2.8
14	11.4	10.7	11.2	9.0	8.0	8.5	4.6	3.6	4.0	2.8	2.2	2.6
15	11.2	9.8	10.7	8.2	7.2	7.8	5.0	4.1	4.5	2.9	2.5	2.7
16	11.0	8.7	10.2	8.5	7.9	8.2	4.8	4.0	4.4	2.8	2.0	2.5
17	8.9	7.1	8.3	8.3	6.7	7.8	4.4	4.1	4.3	2.9	2.5	2.7
18	9.2	7.4	8.0	8.4	7.7	8.2	4.3	3.6	4.0	3.5	2.5	3.2
19	10.6	8.3	9.5	9.1	8.3	8.6	4.3	3.5	4.0	3.5	3.3	3.3
20	10.7	8.5	9.8	8.8	8.6	8.7	4.2	3.3	3.7	3.5	3.2	3.4
21	10.4	9.0	9.7	8.8	8.4	8.6	4.1	3.6	3.9	3.5	3.1	3.4
22	11.8	9.8	10.6	8.5	7.0	8.0	4.1	4.0	4.1	3.7	3.4	3.5
23	---	---	---	8.0	5.4	7.0	4.2	4.0	4.1	3.8	3.5	3.7
24	---	---	---	7.4	6.5	7.1	4.2	3.9	4.1	3.8	2.9	3.4
25	10.5	10.1	10.3	7.6	6.9	7.3	4.1	3.7	3.9	3.3	2.9	3.2
26	10.4	8.9	9.7	7.7	7.4	7.6	4.1	3.9	4.0	3.4	2.3	3.0
27	9.8	8.6	9.4	7.9	7.4	7.6	4.3	3.7	3.9	3.0	2.5	2.9
28	9.7	8.2	8.8	8.0	7.7	7.9	4.3	3.9	4.0	2.9	2.3	2.6
29	---	---	---	8.1	7.8	8.0	4.3	4.1	4.2	2.7	2.3	2.6
30	---	---	---	8.0	6.9	7.7	4.3	3.9	4.2	2.4	2.2	2.3
31	---	---	---	7.5	6.5	7.1	---	---	---	2.4	1.6	2.2
MONTH	---	---	---	9.8	5.4	8.1	7.5	3.2	4.7	4.5	1.6	3.2

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	2.1	1.5	1.9	1.3	1.1	1.2	0.8	0.6	0.7	0.6	0.6	0.6
2	2.1	1.4	1.8	1.6	1.3	1.4	0.7	0.6	0.7	0.6	0.6	0.6
3	2.3	2.0	2.1	1.6	1.0	1.2	0.7	0.7	0.7	0.7	0.6	0.6
4	2.3	1.7	2.0	1.3	1.0	1.2	0.7	0.6	0.7	0.7	0.6	0.6
5	1.9	1.7	1.8	1.2	0.9	1.1	0.7	0.6	0.7	0.7	0.6	0.7
6	2.0	1.7	1.9	1.2	1.0	1.1	0.7	0.7	0.7	0.7	0.6	0.6
7	2.0	1.2	1.9	1.3	1.0	1.2	0.7	0.6	0.7	0.9	0.7	0.8
8	1.7	1.2	1.6	1.2	0.9	1.1	0.7	0.6	0.7	1.0	0.8	0.9
9	1.6	1.2	1.4	1.2	1.1	1.2	0.7	0.6	0.6	1.3	0.9	1.1
10	1.6	1.3	1.5	1.3	1.1	1.2	0.7	0.4	0.5	1.5	1.1	1.3
11	1.6	1.2	1.5	1.3	1.0	1.1	0.6	0.4	0.5	1.5	1.3	1.4
12	1.5	1.2	1.4	1.2	1.1	1.1	0.6	0.5	0.5	2.1	1.5	1.8
13	1.5	1.2	1.3	1.2	1.1	1.2	0.5	0.4	0.4	2.0	1.9	2.0
14	1.4	1.1	1.3	1.2	1.1	1.1	0.5	0.4	0.5	2.1	1.9	2.0
15	1.4	1.1	1.3	1.2	1.1	1.1	0.5	0.4	0.4	---	---	---
16	1.6	1.2	1.4	1.2	0.7	1.1	0.5	0.4	0.4	---	---	---
17	1.8	1.3	1.5	1.1	0.9	1.0	0.4	0.3	0.4	---	---	---
18	1.8	1.4	1.6	1.1	1.0	1.1	0.5	0.4	0.4	---	---	---
19	1.4	1.2	1.4	1.1	0.7	0.9	0.5	0.4	0.5	---	---	---
20	1.5	1.2	1.3	1.0	0.9	0.9	0.5	0.4	0.4	---	---	---
21	1.3	1.2	1.3	0.9	0.8	0.9	0.5	0.4	0.4	---	---	---
22	1.3	1.2	1.2	0.9	0.7	0.8	0.5	0.4	0.4	7.0	5.8	6.5
23	1.4	1.2	1.3	0.9	0.6	0.7	0.6	0.3	0.4	6.9	5.8	6.5
24	1.4	1.2	1.3	0.8	0.7	0.7	0.5	0.4	0.5	6.5	4.6	5.7
25	1.6	1.3	1.4	0.8	0.7	0.7	0.6	0.5	0.5	5.9	5.2	5.6
26	1.4	1.1	1.2	0.8	0.8	0.8	0.5	0.4	0.5	5.9	5.4	5.6
27	1.2	0.9	1.1	0.8	0.6	0.7	0.5	0.5	0.5	6.0	5.5	5.8
28	1.2	1.1	1.2	0.7	0.6	0.6	0.6	0.4	0.5	5.9	5.5	5.6
29	1.2	1.0	1.1	0.7	0.6	0.7	0.5	0.5	0.5	5.6	4.6	5.4
30	1.2	1.1	1.1	0.8	0.7	0.7	0.6	0.5	0.5	5.4	4.5	4.9
31	---	---	---	0.8	0.7	0.7	0.7	0.5	0.6	---	---	---
MONTH	2.3	0.9	1.5	1.6	0.6	1.0	0.8	0.3	0.5	---	---	---

PAMLICO RIVER BASIN

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.1	17.9	18.0	18.1	17.5	17.9	14.3	13.1	13.5	15.7	14.9	15.5
2	18.0	17.8	17.9	18.5	17.3	17.9	14.9	14.1	14.6	---	---	---
3	17.9	17.8	17.9	18.4	17.5	17.9	14.5	13.3	13.8	---	---	---
4	18.0	17.9	17.9	18.3	17.7	18.1	14.7	12.6	13.4	---	---	---
5	18.2	17.8	18.0	18.6	17.7	18.2	15.0	13.4	14.2	14.5	13.6	13.9
6	18.0	17.9	17.9	18.6	17.7	17.9	13.7	12.8	13.3	14.3	12.3	13.7
7	18.1	18.0	18.0	18.3	17.5	17.9	15.8	13.3	14.3	13.2	12.2	12.6
8	18.1	17.9	18.1	18.4	17.7	18.0	16.1	14.3	15.7	13.3	11.9	12.5
9	18.3	18.1	18.2	18.1	17.5	17.9	16.5	13.7	16.0	13.0	12.4	12.8
10	18.9	18.2	18.5	18.1	17.5	17.7	16.3	13.9	15.9	13.5	12.7	13.1
11	19.0	18.2	18.7	17.8	17.3	17.6	16.1	13.9	15.4	13.3	12.6	12.9
12	18.2	17.7	17.9	17.9	17.4	17.7	15.7	13.3	15.2	13.5	12.1	13.0
13	18.1	17.9	18.0	17.8	15.4	16.9	16.9	15.4	16.1	---	---	---
14	18.0	17.2	17.5	17.2	16.6	17.0	16.4	13.1	14.7	---	---	---
15	18.4	17.3	17.9	17.5	17.2	17.4	14.7	13.3	14.1	---	---	---
16	18.6	17.8	18.1	17.6	17.5	17.6	14.5	13.5	13.9	13.2	11.3	12.5
17	18.3	17.9	18.2	17.5	15.1	17.2	14.8	13.7	14.1	13.1	11.3	11.8
18	18.1	17.5	17.8	16.9	15.3	15.9	16.3	14.6	15.6	12.4	11.4	11.7
19	18.4	18.1	18.3	16.7	16.1	16.6	16.5	16.1	16.4	12.6	11.3	11.8
20	18.4	17.6	18.1	16.7	16.2	16.5	16.6	15.6	16.2	12.2	11.1	11.6
21	18.1	17.2	17.9	16.7	16.3	16.5	16.1	14.3	15.3	13.2	12.2	12.8
22	18.3	17.5	18.0	16.7	14.9	16.0	14.5	13.8	14.2	14.0	11.9	13.4
23	18.6	18.0	18.3	15.2	14.3	15.0	14.3	13.8	14.1	14.0	11.3	12.3
24	19.8	18.5	19.1	15.3	14.7	15.0	14.5	13.9	14.3	---	---	---
25	20.5	19.6	20.1	15.1	14.8	15.0	14.3	13.3	13.7	---	---	---
26	20.5	18.5	19.7	15.7	14.9	15.2	14.5	13.1	13.5	13.4	12.2	12.7
27	19.9	18.7	19.5	15.9	13.5	15.1	14.5	14.1	14.3	13.5	11.0	12.2
28	20.3	19.6	20.1	16.3	14.5	15.6	14.5	14.1	14.2	---	---	---
29	20.2	19.4	19.9	16.2	13.0	15.3	14.3	13.2	13.9	---	---	---
30	19.9	17.6	18.6	13.9	13.0	13.5	14.5	13.9	14.2	---	---	---
31	17.8	17.5	17.7	---	---	---	15.3	14.3	14.7	---	---	---
MONTH	20.5	17.2	18.4	18.6	13.0	16.7	16.9	12.6	14.6	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	11.5	9.8	10.7	7.8	6.8	7.3	8.3	7.4	7.9
2	---	---	---	11.6	11.1	11.5	7.6	6.9	7.3	8.1	7.0	7.6
3	---	---	---	11.4	10.9	11.2	7.3	6.5	7.0	7.8	4.3	6.5
4	---	---	---	12.5	10.5	11.6	7.0	6.2	6.6	6.4	5.3	6.0
5	---	---	---	12.2	11.7	11.9	6.7	6.2	6.5	5.8	4.5	5.3
6	---	---	---	11.8	9.9	11.6	6.7	5.7	6.3	5.5	4.2	4.9
7	---	---	---	10.6	9.3	9.7	6.9	5.6	6.4	5.1	4.3	4.6
8	---	---	---	10.0	9.6	9.8	6.8	5.1	5.8	4.4	4.0	4.3
9	---	---	---	9.8	9.7	9.8	6.7	5.3	5.8	4.3	3.6	4.1
10	---	---	---	10.4	9.4	9.9	6.5	5.2	5.8	4.1	3.6	3.8
11	---	---	---	10.8	10.3	10.6	6.6	5.1	6.0	4.1	3.3	3.7
12	---	---	---	10.8	10.2	10.6	5.5	4.9	5.2	3.3	2.4	2.8
13	---	---	---	10.7	10.4	10.5	5.9	5.3	5.6	3.9	2.5	3.0
14	---	---	---	10.5	8.2	8.9	6.5	5.6	6.0	4.0	3.4	3.8
15	---	---	---	9.5	8.7	9.0	6.4	5.9	6.3	3.6	2.7	3.1
16	---	---	---	9.5	8.8	9.3	6.4	5.9	6.1	3.5	2.9	3.4
17	---	---	---	9.5	9.3	9.4	6.0	4.4	5.4	3.6	2.6	3.1
18	---	---	---	10.4	9.3	9.7	4.5	4.1	4.4	3.8	2.9	3.3
19	12.0	10.7	11.4	10.7	9.5	10.4	4.7	4.1	4.4	3.8	3.3	3.4
20	13.1	12.0	12.5	10.7	8.6	10.1	7.0	3.5	4.2	4.6	3.3	3.8
21	---	---	---	10.8	8.6	9.6	9.8	6.8	8.8	4.8	4.5	4.7
22	13.6	12.4	13.3	10.2	8.6	9.2	9.7	8.5	9.3	4.8	4.5	4.7
23	---	---	---	9.6	8.5	9.0	9.2	7.0	7.9	4.9	3.7	4.5
24	---	---	---	9.7	9.0	9.5	9.3	7.0	8.5	3.8	3.3	3.5
25	11.3	10.3	10.6	10.0	9.7	9.8	9.7	8.8	9.4	3.9	3.4	3.6
26	10.5	10.2	10.4	10.1	9.5	9.9	9.6	8.6	9.2	3.9	3.5	3.7
27	10.5	9.7	10.2	9.9	8.8	9.5	9.2	8.3	8.9	3.9	3.5	3.7
28	9.9	9.0	9.7	9.9	7.9	9.1	9.2	8.6	9.0	3.8	2.6	2.9
29	---	---	---	9.1	7.8	8.1	9.0	8.0	8.6	3.2	2.4	2.8
30	---	---	---	8.7	6.8	7.8	8.4	7.4	8.0	2.8	2.2	2.6
31	---	---	---	7.8	6.8	7.2	---	---	---	2.7	2.1	2.5
MONTH	---	---	---	12.5	6.8	9.8	9.8	3.5	6.9	8.3	2.1	4.1

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	2.6	1.7	2.1	3.0	2.2	2.8	0.8	0.6	0.7	0.7	0.6	0.6
2	2.8	2.5	2.6	3.8	2.1	3.2	0.8	0.6	0.7	0.7	0.6	0.6
3	2.9	2.2	2.6	3.2	1.0	1.6	0.7	0.7	0.7	0.7	0.6	0.6
4	2.8	1.7	2.2	1.9	1.2	1.5	0.7	0.6	0.7	0.7	0.6	0.6
5	2.4	1.7	2.1	1.5	1.1	1.3	0.7	0.6	0.7	0.7	0.6	0.7
6	2.5	2.2	2.4	1.5	1.1	1.3	0.7	0.7	0.7	0.8	0.6	0.7
7	2.6	1.6	2.2	1.3	1.1	1.2	0.7	0.6	0.7	0.9	0.7	0.8
8	2.2	1.6	1.8	1.5	0.9	1.2	0.7	0.6	0.7	1.0	0.8	0.9
9	2.2	1.6	1.9	1.5	1.1	1.3	0.7	0.6	0.6	3.8	1.0	1.6
10	2.5	1.8	2.1	1.3	1.1	1.2	0.7	0.4	0.6	1.6	1.2	1.4
11	2.5	1.7	2.2	1.3	1.0	1.2	0.6	0.4	0.5	2.3	1.3	1.5
12	2.3	1.4	1.7	1.4	1.1	1.2	0.6	0.5	0.5	3.3	1.5	2.2
13	1.7	1.2	1.4	1.3	1.1	1.2	0.6	0.4	0.5	3.4	2.1	2.6
14	1.4	1.1	1.3	1.2	1.1	1.2	0.6	0.4	0.5	6.5	3.4	4.9
15	1.5	1.1	1.3	1.3	1.1	1.2	0.6	0.5	0.5	---	---	---
16	2.0	1.2	1.4	1.3	1.0	1.2	0.6	0.4	0.5	---	---	---
17	1.9	1.3	1.6	1.3	1.0	1.2	0.4	0.3	0.4	---	---	---
18	1.9	1.5	1.8	1.2	1.0	1.1	0.6	0.4	0.5	---	---	---
19	1.8	1.3	1.7	1.2	0.7	1.0	0.6	0.4	0.5	---	---	---
20	1.8	1.4	1.7	1.1	1.0	1.1	0.8	0.6	0.7	---	---	---
21	1.8	1.2	1.5	1.1	0.8	1.0	0.8	0.6	0.7	---	---	---
22	1.7	1.2	1.4	0.9	0.7	0.8	0.8	0.4	0.6	7.9	7.1	7.6
23	1.7	1.3	1.5	0.9	0.6	0.8	0.6	0.3	0.4	7.8	6.5	7.1
24	1.7	1.5	1.6	0.9	0.7	0.8	0.7	0.5	0.5	7.1	6.6	6.9
25	1.8	1.6	1.7	0.8	0.7	0.8	2.6	0.6	1.8	7.1	6.7	6.9
26	2.2	1.1	1.5	0.9	0.7	0.8	2.2	0.5	1.2	7.1	6.9	7.1
27	1.3	1.1	1.3	0.9	0.6	0.7	0.8	0.5	0.5	7.1	6.9	7.0
28	1.5	1.1	1.3	0.8	0.6	0.7	0.7	0.4	0.6	7.0	5.9	6.6
29	2.9	1.4	2.2	0.9	0.6	0.7	0.7	0.5	0.6	6.8	5.4	5.8
30	3.0	2.5	2.8	0.8	0.7	0.8	0.7	0.5	0.6	5.8	5.1	5.5
31	---	---	---	0.9	0.7	0.8	0.7	0.5	0.6	---	---	---
MONTH	3.0	1.1	1.8	3.8	0.6	1.2	2.6	0.3	0.6	---	---	---

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.9	7.8	7.9	7.6	7.5	7.5	7.8	7.7	7.7	8.2	8.0	8.1
2	8.0	7.7	7.8	7.6	7.5	7.6	7.8	7.7	7.8	---	---	---
3	8.0	7.8	7.8	7.6	7.5	7.6	7.8	7.7	7.8	---	---	---
4	7.9	7.7	7.8	7.7	7.6	7.6	7.8	7.6	7.7	8.2	8.0	8.1
5	8.0	7.7	7.8	7.7	7.6	7.6	7.9	7.7	7.8	8.3	8.1	8.2
6	7.9	7.6	7.7	7.6	7.6	7.6	7.8	7.7	7.8	8.3	8.2	8.2
7	7.9	7.6	7.7	7.7	7.6	7.6	8.0	7.7	7.8	8.2	8.0	8.1
8	7.8	7.6	7.7	7.8	7.6	7.7	7.9	7.8	7.8	8.1	7.9	8.0
9	7.8	7.6	7.6	7.8	7.6	7.7	7.9	7.7	7.8	8.1	8.0	8.0
10	7.7	7.6	7.6	7.8	7.7	7.8	7.8	7.6	7.7	8.1	8.0	8.0
11	7.6	7.5	7.6	7.8	7.6	7.7	7.8	7.7	7.7	8.2	7.8	8.0
12	7.6	7.5	7.5	7.8	7.6	7.7	8.0	7.7	7.8	8.1	7.8	8.0
13	7.8	7.4	7.6	7.6	7.5	7.5	8.0	7.8	7.9	---	---	---
14	7.7	7.5	7.5	7.6	7.5	7.5	8.0	7.8	7.9	---	---	---
15	7.6	7.5	7.6	7.6	7.5	7.6	8.0	7.8	7.9	---	---	---
16	7.7	7.5	7.6	7.6	7.5	7.6	8.1	7.9	8.0	8.1	8.0	8.1
17	7.8	7.5	7.6	7.6	7.4	7.5	8.1	7.7	7.9	8.1	8.0	8.0
18	7.8	7.6	7.6	7.6	7.4	7.5	8.0	7.7	7.9	8.1	8.0	8.0
19	7.8	7.6	7.7	7.6	7.4	7.5	8.2	8.0	8.1	8.0	7.8	8.0
20	7.9	7.6	7.7	7.9	7.5	7.6	8.1	7.8	8.0	8.0	7.8	7.9
21	7.8	7.4	7.6	8.0	7.6	7.8	8.1	7.9	8.0	8.0	7.9	8.0
22	7.5	7.3	7.4	7.8	7.6	7.7	8.1	8.0	8.0	8.0	7.8	7.8
23	7.6	7.4	7.4	7.8	7.7	7.8	8.1	8.0	8.1	7.9	7.8	7.9
24	7.5	7.4	7.5	7.9	7.8	7.8	8.1	8.0	8.0	---	---	---
25	7.6	7.4	7.5	8.2	7.8	7.9	8.0	7.8	7.9	---	---	---
26	7.6	7.4	7.5	7.9	7.6	7.8	7.9	7.8	7.9	7.8	7.6	7.8
27	7.6	7.5	7.5	7.7	7.5	7.6	8.0	7.9	7.9	7.7	7.5	7.6
28	7.6	7.5	7.6	7.6	7.5	7.6	8.4	7.8	8.1	7.7	7.5	7.7
29	7.6	7.4	7.5	7.7	7.6	7.7	8.2	7.9	8.1	7.7	7.6	7.6
30	7.5	7.4	7.4	7.8	7.6	7.7	8.3	8.1	8.2	7.7	7.6	7.6
31	7.5	7.4	7.4	---	---	---	8.3	7.9	8.2	7.6	7.5	7.5
MONTH	8.0	7.3	7.6	8.2	7.4	7.6	8.4	7.6	7.9	---	---	---
	MAX	MIN	MEAN									
1	7.6	7.5	7.5	8.1	7.3	7.6	7.2	7.1	7.2	7.2	7.0	7.1
2	7.7	7.6	7.6	8.0	7.5	7.8	7.2	7.1	7.1	7.0	6.6	6.8
3	7.7	7.5	7.6	8.1	7.8	7.9	7.4	7.1	7.2	6.9	6.5	6.7
4	7.6	7.4	7.5	8.1	7.7	7.9	7.2	7.1	7.2	6.9	6.7	6.8
5	7.6	7.4	7.5	8.0	7.7	7.9	7.2	7.1	7.2	6.8	6.7	6.8
6	7.7	7.6	7.6	7.9	7.6	7.8	7.2	6.9	7.2	6.9	6.8	6.8
7	7.6	7.4	7.5	7.7	7.0	7.4	7.2	7.0	7.1	7.0	6.8	6.9
8	7.9	7.4	7.6	7.3	6.9	7.1	7.2	7.0	7.1	6.9	6.6	6.8
9	8.1	7.4	7.6	7.8	7.1	7.3	7.3	7.2	7.2	7.0	6.7	6.8
10	7.9	7.4	7.7	7.4	7.2	7.3	7.4	7.2	7.3	6.9	6.8	6.8
11	7.6	7.3	7.5	7.4	7.2	7.3	7.2	7.1	7.2	6.9	6.6	6.8
12	7.5	7.4	7.5	7.6	7.1	7.4	7.2	7.1	7.1	6.9	6.6	6.8
13	7.6	7.4	7.5	7.7	7.4	7.6	7.1	6.7	6.9	7.0	6.7	6.9
14	7.7	7.4	7.5	7.7	7.4	7.5	6.9	6.6	6.8	6.9	6.6	6.8
15	7.6	7.4	7.5	7.4	7.2	7.3	7.0	6.8	6.9	6.9	6.7	6.8
16	7.4	7.0	7.3	7.7	7.3	7.5	6.9	6.8	6.9	6.8	6.5	6.7
17	7.1	6.8	7.0	7.6	7.0	7.3	6.9	6.8	6.9	6.8	6.7	6.8
18	7.6	6.9	7.2	7.5	7.2	7.3	6.9	6.7	6.8	7.0	6.8	7.0
19	7.8	7.5	7.6	7.6	7.2	7.4	7.0	6.6	6.9	7.1	7.0	7.0
20	7.8	7.5	7.7	7.4	7.3	7.4	7.0	6.8	6.8	7.1	7.0	7.1
21	7.7	7.3	7.5	7.6	7.3	7.4	7.4	6.8	7.0	7.1	6.9	7.0
22	7.8	7.6	7.7	7.9	7.1	7.3	7.5	7.0	7.2	7.1	7.0	7.1
23	---	---	---	7.7	6.6	7.3	7.3	7.0	7.2	7.1	7.0	7.1
24	---	---	---	7.3	6.6	6.9	7.7	7.1	7.2	7.1	6.8	7.0
25	7.8	7.6	7.7	7.2	6.9	7.1	7.3	7.0	7.1	7.0	6.8	6.9
26	7.7	7.3	7.5	7.2	7.0	7.1	7.4	7.0	7.2	7.0	6.6	6.8
27	7.6	7.3	7.5	7.2	7.0	7.1	7.3	6.7	7.0	6.9	6.7	6.8
28	7.5	7.4	7.4	7.2	7.1	7.2	7.2	6.7	7.0	6.9	6.6	6.7
29	---	---	---	7.2	7.1	7.2	7.1	6.9	7.0	6.8	6.6	6.7
30	---	---	---	7.2	7.0	7.1	7.3	7.0	7.1	6.8	6.6	6.7
31	---	---	---	7.3	7.0	7.2	---	---	---	6.8	6.4	6.7
MONTH	---	---	---	8.1	6.6	7.4	7.7	6.6	7.1	7.2	6.4	6.9

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.8	6.3	6.6	6.6	6.4	6.5	6.4	5.9	6.2	6.4	6.4	6.4
2	6.8	6.2	6.5	6.8	6.6	6.7	6.5	5.9	6.2	6.5	6.3	6.4
3	6.8	6.6	6.8	6.8	6.5	6.7	6.4	6.3	6.3	6.5	6.4	6.5
4	6.9	6.6	6.7	6.8	6.5	6.7	6.3	6.0	6.1	6.6	6.5	6.5
5	6.7	6.6	6.7	6.7	6.3	6.5	6.4	6.0	6.2	6.6	6.3	6.6
6	6.9	6.6	6.7	6.6	6.4	6.5	6.3	6.0	6.2	6.7	6.5	6.6
7	6.8	6.3	6.7	6.7	6.5	6.6	6.4	5.9	6.1	6.8	6.6	6.8
8	6.7	6.3	6.6	6.7	6.3	6.6	6.4	6.1	6.3	7.0	6.8	6.8
9	6.7	6.3	6.6	6.7	6.5	6.6	6.4	5.9	6.2	7.1	6.9	7.0
10	6.6	6.4	6.5	6.7	6.6	6.6	6.4	5.8	6.0	7.2	7.0	7.1
11	6.6	6.3	6.5	6.7	6.4	6.6	6.4	5.9	6.1	7.2	7.2	7.2
12	6.5	6.2	6.4	6.7	6.6	6.7	6.2	6.0	6.2	7.3	7.2	7.3
13	6.6	6.3	6.5	6.7	6.6	6.7	6.0	5.8	5.9	7.3	7.2	7.3
14	6.5	6.4	6.5	6.8	6.4	6.6	6.1	5.9	6.0	7.2	7.2	7.2
15	6.6	6.3	6.5	6.7	6.5	6.5	6.1	5.8	6.0	---	---	---
16	6.7	6.4	6.6	6.7	6.2	6.4	6.0	5.7	5.9	---	---	---
17	6.8	6.5	6.7	6.4	6.0	6.2	6.1	5.6	5.9	---	---	---
18	6.8	6.7	6.7	6.5	6.3	6.4	6.2	5.9	6.1	---	---	---
19	6.7	6.5	6.6	6.5	5.9	6.2	6.2	6.1	6.2	---	---	---
20	6.6	6.4	6.5	6.4	6.3	6.4	6.2	6.0	6.1	---	---	---
21	6.6	6.5	6.6	6.4	6.2	6.3	6.1	6.0	6.1	---	---	---
22	6.6	6.5	6.5	6.6	6.1	6.3	6.1	5.9	6.0	7.1	6.8	7.0
23	6.7	6.5	6.6	6.8	6.4	6.6	6.4	5.5	6.0	7.2	7.0	7.1
24	6.6	6.5	6.6	6.7	6.4	6.6	6.4	6.1	6.2	7.1	6.7	6.9
25	6.8	6.6	6.6	6.6	6.3	6.4	6.3	6.1	6.2	6.9	6.7	6.8
26	6.6	6.3	6.5	6.6	6.4	6.5	6.2	5.9	6.1	6.8	6.7	6.8
27	6.6	6.3	6.5	6.4	5.9	6.2	6.3	6.0	6.2	6.9	6.8	6.8
28	6.7	6.5	6.6	6.4	5.9	6.2	6.3	5.8	6.1	6.9	6.8	6.8
29	6.6	6.4	6.5	6.4	6.0	6.3	6.3	6.0	6.2	6.9	6.7	6.9
30	6.6	6.5	6.5	6.5	6.1	6.4	6.5	6.1	6.3	7.1	6.7	6.8
31	---	---	---	6.4	6.2	6.3	6.5	6.2	6.3	---	---	---
MONTH	6.9	6.2	6.6	6.8	5.9	6.5	6.5	5.5	6.1	---	---	---

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.8	7.5	7.7	7.7	7.5	7.6	7.7	7.6	7.6	7.7	7.4	7.6
2	7.6	7.4	7.5	7.7	7.5	7.6	7.8	7.7	7.8	---	---	---
3	7.8	7.3	7.5	7.7	7.5	7.6	7.7	7.6	7.7	---	---	---
4	7.8	7.2	7.4	7.6	7.5	7.5	7.8	7.6	7.7	---	---	---
5	7.6	7.1	7.3	7.7	7.5	7.6	7.8	7.7	7.8	8.1	7.4	7.7
6	7.7	7.2	7.6	7.6	7.6	7.6	7.8	7.7	7.7	8.2	7.4	7.7
7	7.7	7.5	7.6	7.8	7.6	7.7	8.0	7.7	7.8	8.2	8.0	8.1
8	7.8	7.5	7.7	7.8	7.6	7.7	8.0	7.7	8.0	8.2	7.9	8.1
9	7.8	7.6	7.7	7.7	7.5	7.6	8.0	7.8	7.9	8.2	8.0	8.1
10	7.7	7.4	7.6	7.8	7.5	7.7	8.0	7.8	7.9	8.2	8.0	8.1
11	7.6	7.4	7.5	7.8	7.7	7.8	8.0	7.8	7.9	8.2	7.7	8.0
12	7.6	7.5	7.5	7.8	7.7	7.7	7.8	7.7	7.8	8.0	7.7	7.9
13	7.6	7.4	7.5	7.7	7.5	7.6	8.1	7.7	7.9	---	---	---
14	7.7	7.4	7.5	7.6	7.5	7.6	8.0	7.7	7.8	---	---	---
15	7.6	7.5	7.6	7.6	7.5	7.5	8.0	7.7	7.8	---	---	---
16	7.8	7.5	7.7	7.6	7.6	7.6	8.0	7.8	7.9	7.9	7.4	7.7
17	7.8	7.6	7.7	7.6	7.4	7.5	8.0	7.8	7.9	7.9	7.7	7.8
18	7.8	7.7	7.8	7.6	7.4	7.5	8.0	7.6	7.9	7.9	7.7	7.8
19	7.8	7.6	7.7	7.6	7.4	7.4	7.8	7.6	7.7	7.9	7.7	7.8
20	7.6	7.3	7.5	7.8	7.4	7.6	7.8	7.5	7.7	7.9	7.7	7.8
21	7.6	7.3	7.5	7.7	7.6	7.7	7.8	7.4	7.7	8.0	7.8	8.0
22	7.6	7.3	7.5	7.6	7.5	7.6	8.0	7.6	7.8	8.0	7.8	8.0
23	7.6	7.6	7.6	7.7	7.5	7.6	8.0	7.8	7.9	8.0	7.7	7.8
24	7.6	7.5	7.6	7.7	7.6	7.6	7.9	7.5	7.8	---	---	---
25	7.5	7.4	7.4	7.7	7.5	7.6	7.9	7.7	7.8	---	---	---
26	7.4	7.2	7.3	7.7	7.5	7.6	7.8	7.6	7.7	7.8	7.5	7.7
27	7.3	7.1	7.2	7.7	7.4	7.6	7.8	7.7	7.8	7.8	7.4	7.6
28	7.4	7.2	7.4	7.6	7.4	7.5	7.7	7.4	7.6	---	---	---
29	7.4	7.2	7.3	7.6	7.3	7.5	8.0	7.4	7.6	---	---	---
30	7.4	7.2	7.3	7.7	7.5	7.6	8.0	7.5	7.7	---	---	---
31	7.6	7.4	7.5	---	---	---	8.0	7.7	7.8	---	---	---
MONTH	7.8	7.1	7.5	7.8	7.3	7.6	8.1	7.4	7.8	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	7.5	7.3	7.4	7.3	7.1	7.2	6.8	6.6	6.7
2	---	---	---	7.5	7.3	7.4	7.2	7.1	7.2	6.8	6.6	6.7
3	---	---	---	7.3	7.0	7.1	7.3	7.0	7.2	6.8	6.6	6.7
4	---	---	---	7.5	7.2	7.3	7.3	7.1	7.2	6.8	6.7	6.8
5	---	---	---	7.3	7.1	7.2	7.2	7.1	7.1	6.9	6.8	6.8
6	---	---	---	7.3	6.9	7.0	7.3	7.0	7.2	6.8	6.7	6.8
7	---	---	---	7.5	7.1	7.3	7.3	7.1	7.2	6.8	6.6	6.7
8	---	---	---	7.4	7.2	7.3	7.2	7.1	7.2	6.8	6.6	6.7
9	---	---	---	7.3	7.1	7.2	---	---	---	6.9	6.7	6.8
10	---	---	---	7.5	7.0	7.2	7.5	7.3	7.4	6.9	6.7	6.8
11	---	---	---	7.3	7.1	7.3	7.4	7.2	7.3	6.9	6.6	6.7
12	---	---	---	7.3	7.1	7.2	7.3	7.2	7.3	6.9	6.6	6.7
13	---	---	---	7.2	7.0	7.1	7.3	7.1	7.2	7.1	6.8	6.9
14	---	---	---	7.5	7.0	7.3	7.2	7.2	7.2	7.1	6.8	6.9
15	---	---	---	7.5	7.3	7.4	7.2	7.1	7.1	6.9	6.7	6.8
16	---	---	---	7.3	7.2	7.3	7.1	7.0	7.0	6.9	6.7	6.8
17	---	---	---	7.3	7.1	7.2	7.1	7.0	7.0	6.9	6.8	6.8
18	---	---	---	7.4	7.2	7.3	7.2	7.1	7.1	7.0	6.8	7.0
19	7.5	7.3	7.5	7.4	7.1	7.2	7.2	7.1	7.1	7.1	7.0	7.1
20	7.5	7.2	7.3	7.3	7.0	7.1	7.2	6.9	7.1	7.1	7.0	7.1
21	---	---	---	7.3	6.8	7.0	7.0	6.9	6.9	7.1	6.9	7.0
22	7.1	6.9	7.0	7.2	6.8	7.0	6.9	6.8	6.9	7.0	6.9	7.0
23	---	---	---	7.1	6.8	6.9	6.9	6.6	6.7	7.1	6.9	6.9
24	---	---	---	7.0	6.9	6.9	6.7	6.6	6.7	7.0	6.9	7.0
25	7.5	7.1	7.4	6.9	6.7	6.8	6.7	6.6	6.7	6.9	6.8	6.8
26	7.5	7.3	7.4	6.8	6.7	6.8	6.7	6.6	6.7	6.8	6.7	6.8
27	7.4	7.3	7.3	6.8	6.7	6.7	6.7	6.7	6.7	6.8	6.8	6.8
28	7.4	7.1	7.3	7.2	6.7	6.8	6.7	6.7	6.7	6.8	6.6	6.7
29	---	---	---	7.2	6.7	7.1	6.8	6.6	6.7	6.7	6.6	6.6
30	---	---	---	7.2	6.7	7.0	6.7	6.6	6.6	6.8	6.6	6.7
31	---	---	---	7.3	7.0	7.2	---	---	---	6.8	6.5	6.7
MONTH	---	---	---	7.5	6.7	7.1	---	---	---	7.1	6.5	6.8

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.9	6.5	6.6	6.5	6.5	6.5	6.4	6.0	6.3	6.6	6.4	6.5
2	6.9	6.8	6.8	6.5	6.4	6.5	6.5	5.9	6.2	6.5	6.3	6.4
3	6.9	6.7	6.8	6.6	6.3	6.5	6.5	6.2	6.4	6.6	6.4	6.5
4	6.8	6.6	6.7	6.7	6.5	6.6	6.3	6.0	6.2	6.6	6.4	6.5
5	6.8	6.6	6.7	6.6	6.4	6.5	6.4	6.0	6.2	6.6	6.3	6.5
6	6.8	6.7	6.7	6.6	6.3	6.5	6.3	6.0	6.2	6.6	6.5	6.6
7	6.7	6.5	6.7	6.6	6.4	6.5	6.4	5.9	6.2	6.8	6.6	6.7
8	6.7	6.5	6.6	6.6	6.2	6.5	6.4	6.2	6.3	7.0	6.8	6.8
9	6.7	6.6	6.7	6.7	6.5	6.6	6.4	5.8	6.2	7.1	6.8	7.0
10	6.7	6.6	6.7	6.7	6.6	6.6	6.4	5.8	6.0	7.1	7.0	7.1
11	6.7	6.6	6.7	6.8	6.4	6.6	6.4	5.9	6.1	7.2	7.1	7.2
12	6.7	6.5	6.6	6.8	6.7	6.7	6.3	5.9	6.1	7.3	7.2	7.2
13	6.6	6.4	6.5	6.8	6.6	6.7	6.3	5.8	6.0	7.2	7.0	7.1
14	6.6	6.4	6.5	6.8	6.5	6.7	6.2	5.8	6.2	7.2	7.0	7.2
15	6.7	6.4	6.6	6.7	6.5	6.6	6.2	6.2	6.2	---	---	---
16	6.8	6.5	6.6	6.7	6.3	6.5	6.2	5.6	5.9	---	---	---
17	7.0	6.6	6.8	6.6	6.2	6.5	6.1	5.6	5.9	---	---	---
18	7.0	6.7	6.8	6.6	6.4	6.5	6.5	5.9	6.2	---	---	---
19	6.7	6.6	6.7	6.7	6.1	6.4	6.4	6.1	6.2	---	---	---
20	6.8	6.5	6.7	6.6	6.5	6.6	6.5	6.3	6.5	---	---	---
21	6.8	6.5	6.6	6.6	6.3	6.5	6.5	6.3	6.4	---	---	---
22	6.9	6.4	6.7	6.6	6.2	6.4	6.4	5.8	6.2	7.2	7.1	7.2
23	6.8	6.6	6.7	6.6	6.4	6.6	6.3	5.5	6.0	7.2	7.1	7.1
24	6.8	6.6	6.7	6.7	6.4	6.6	6.5	6.1	6.2	7.2	6.9	7.1
25	6.7	6.4	6.6	6.6	6.4	6.5	6.6	6.3	6.6	7.0	6.8	6.9
26	6.5	6.1	6.3	6.5	6.3	6.4	6.6	6.0	6.3	6.8	6.8	6.8
27	6.4	6.2	6.4	6.6	6.1	6.3	6.3	6.0	6.2	6.8	6.8	6.8
28	6.5	6.3	6.4	6.5	5.9	6.3	6.6	5.8	6.3	6.8	6.7	6.8
29	6.6	6.4	6.5	6.6	6.1	6.4	6.6	6.0	6.4	7.0	6.7	6.9
30	6.6	6.5	6.5	6.5	6.1	6.4	6.5	6.1	6.3	7.1	6.8	7.0
31	---	---	---	6.6	6.2	6.3	6.6	6.3	6.4	---	---	---
MONTH	7.0	6.1	6.6	6.8	5.9	6.5	6.6	5.5	6.2	---	---	---

PAMLICO RIVER BASIN

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	25.9	24.6	25.0	15.5	14.3	15.0	9.3	8.4	8.8	8.7	7.7	8.2
2	26.5	25.0	25.5	14.6	13.6	14.0	8.4	7.2	8.0	---	---	---
3	27.1	25.5	25.9	14.0	13.4	13.6	8.3	7.5	8.0	---	---	---
4	27.0	25.9	26.3	14.2	13.4	13.6	7.5	6.6	6.7	9.6	9.0	9.3
5	27.7	26.0	26.6	13.7	13.3	13.5	6.7	6.3	6.6	9.0	8.1	8.7
6	27.2	25.8	26.3	14.2	13.6	14.0	6.5	5.6	6.1	9.2	7.8	8.7
7	26.5	25.3	25.8	13.9	13.2	13.6	6.1	5.3	5.7	8.8	7.3	8.0
8	26.1	24.5	25.2	14.1	13.1	13.6	6.0	5.4	5.8	7.3	6.5	6.7
9	24.5	23.9	24.2	14.0	13.2	13.6	6.1	5.6	5.9	7.4	6.6	7.0
10	24.1	23.6	23.8	15.1	13.8	14.4	6.2	5.8	6.0	8.0	7.3	7.6
11	23.8	23.5	23.7	16.4	15.0	15.7	6.6	6.2	6.4	7.8	6.8	7.2
12	23.7	23.4	23.5	17.1	16.2	16.6	7.2	6.4	6.6	7.0	6.0	6.4
13	23.9	22.7	23.3	17.0	15.4	16.5	7.3	6.7	6.9	---	---	---
14	23.8	21.9	22.9	15.4	14.2	14.8	7.7	7.2	7.4	---	---	---
15	21.9	21.0	21.5	14.9	13.5	14.2	7.9	7.2	7.4	---	---	---
16	21.1	20.7	20.8	15.3	14.8	15.0	7.6	7.1	7.3	6.0	5.1	5.4
17	20.8	19.9	20.5	15.4	15.0	15.3	7.6	6.9	7.2	5.3	4.7	5.1
18	20.4	19.3	19.8	15.0	13.4	14.3	7.5	6.8	7.1	4.7	3.9	4.3
19	19.8	18.5	19.2	14.2	13.0	13.8	8.3	6.9	7.5	4.3	3.5	3.9
20	20.6	19.0	19.6	14.3	13.6	13.8	9.2	8.0	8.7	4.1	3.2	3.6
21	20.2	19.1	19.6	14.1	13.6	13.7	9.1	8.7	8.9	4.0	3.6	3.8
22	19.1	18.3	18.6	14.3	13.5	13.9	9.1	8.4	8.7	3.9	3.1	3.6
23	18.4	17.6	17.9	13.5	12.1	12.6	9.1	8.4	8.8	3.4	1.7	2.6
24	18.5	17.6	18.0	12.4	11.7	12.1	9.0	8.5	8.7	---	---	---
25	18.3	17.8	18.1	14.0	11.5	12.1	9.0	8.1	8.7	---	---	---
26	18.8	18.2	18.5	12.5	12.2	12.4	8.1	7.3	7.5	1.3	0.3	0.9
27	19.0	18.4	18.7	12.4	11.2	11.8	7.3	6.3	6.9	1.3	0.6	0.9
28	18.7	18.4	18.6	11.3	9.6	10.4	6.9	5.5	6.3	2.2	0.6	1.0
29	18.5	18.1	18.3	10.0	9.0	9.4	7.0	6.0	6.5	2.1	1.1	1.6
30	18.1	17.2	17.8	9.6	8.3	9.2	7.3	6.0	6.8	2.5	1.9	2.3
31	17.2	15.4	16.3	---	---	---	7.9	7.0	7.3	3.1	2.4	2.8
MONTH	27.7	15.4	21.6	17.1	8.3	13.6	9.3	5.3	7.3	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.4	2.9	3.1	10.2	7.8	8.6	14.4	13.4	14.0	23.0	22.1	22.5
2	4.1	3.0	3.5	10.3	9.3	10	15.6	13.5	14.4	23.3	22.1	22.6
3	5.6	3.7	4.4	10.6	9.7	10	16.9	14.9	15.6	23.0	20.8	22.1
4	6.2	4.4	5.2	10.3	9.1	9.7	17.2	15.6	16.5	20.8	19.4	20.2
5	6.6	5.6	6.2	11.6	10.2	10.8	17.9	16.8	17.3	19.6	18.8	19.2
6	6.6	6.1	6.3	11.9	11.1	11.5	17.7	17.0	17.4	20.7	19.3	19.8
7	6.3	5.8	6.2	11.3	10.1	10.5	17.0	16.1	16.5	22.8	20.5	21.4
8	7.0	5.5	6.0	12.2	9.3	9.7	16.1	15.0	15.4	24.7	21.9	23.2
9	7.2	5.3	6.2	12.9	9.1	10.6	15.0	13.8	14.4	25.2	23.7	24.4
10	6.3	5.8	6.0	11.7	10.7	11.2	13.8	13.2	13.4	27.5	24.1	24.9
11	6.4	5.4	5.9	10.7	10.2	10.3	13.2	12.6	13.0	25.9	24.8	25.3
12	6.5	5.8	6.2	11.6	9.8	10.5	13.8	12.3	12.8	25.6	24.1	24.9
13	6.2	5.6	6.0	12.3	10.8	11.5	14.9	13.1	13.9	24.1	22.7	23.2
14	6.7	5.8	6.2	12.2	10.7	11.3	15.7	13.6	14.6	23.1	21.5	22.5
15	6.9	6.4	6.6	11.3	10.4	10.8	16.6	14.7	15.3	22.7	22.3	22.5
16	6.7	6.4	6.5	12.6	11.2	11.7	18.3	15.5	16.6	24.6	21.9	23.1
17	6.6	6.0	6.4	14.2	11.8	12.6	19.1	17.3	17.9	24.1	21.8	22.6
18	6.2	5.4	5.8	12.7	12.1	12.4	17.8	17.2	17.4	21.8	20.5	21.2
19	6.7	5.9	6.2	12.7	12.2	12.4	17.8	17.2	17.5	20.5	19.6	20.0
20	7.8	6.2	6.9	13.3	12.5	12.9	17.5	16.4	16.9	21.4	19.2	19.8
21	7.5	6.6	7.0	15.1	13.3	14.1	19.4	16.8	17.4	21.6	19.4	20.3
22	8.8	7.0	7.9	17.2	14.4	15.0	20.8	17.9	18.8	21.7	20.8	21.3
23	---	---	---	18.7	15.6	17.3	20.0	18.8	19.4	21.1	20.3	20.6
24	---	---	---	16.6	14.8	15.6	20.4	19.0	19.4	21.0	19.9	20.2
25	10.2	9.8	10	16.7	14.8	15.7	19.5	18.9	19.2	23.0	20.4	21.2
26	9.8	9.0	9.3	16.6	15.4	16.0	20.4	18.9	19.3	23.6	21.1	22.2
27	9.0	8.8	8.9	16.7	15.8	16.2	19.8	19.1	19.4	23.5	21.6	22.5
28	8.8	8.2	8.5	16.9	15.5	16.2	21.4	18.8	19.6	21.8	20.9	21.4
29	---	---	---	17.8	16.6	17.1	21.2	19.6	20.5	22.5	21.5	21.9
30	---	---	---	17.8	15.8	17.2	22.7	20.8	21.7	23.4	21.8	22.5
31	---	---	---	15.8	14.2	14.8	---	---	---	23.3	22.2	22.7
MONTH	---	---	---	18.7	7.8	12.7	22.7	12.3	16.9	27.5	18.8	22.0

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.3	21.6	22.0	29.5	28.6	28.9	29.7	28.9	29.3	31.2	29.6	30.1
2	23.8	21.2	21.8	28.7	26.9	27.8	29.4	28.9	29.2	30.6	29.7	30.1
3	22.6	21.3	22.0	27.6	26.8	27.2	29.1	28.7	28.9	30.7	29.7	30.0
4	23.0	22.3	22.6	28.3	26.7	27.5	28.7	28.3	28.5	30.0	29.3	29.6
5	24.9	22.9	23.7	28.8	27.5	28.3	28.7	27.9	28.2	29.6	28.6	29.1
6	26.7	24.1	24.9	29.5	28.5	28.9	28.8	28.0	28.2	28.6	26.9	27.5
7	25.1	24.7	24.8	29.3	28.7	29.1	28.0	27.3	27.7	26.9	26.2	26.5
8	25.3	24.7	24.9	30.0	28.8	29.3	27.5	27.2	27.3	26.2	25.4	25.7
9	28.7	25.0	25.9	30.8	28.8	29.8	27.5	27.0	27.2	25.4	25.0	25.2
10	27.3	26.0	26.5	31.2	29.6	30.1	27.1	26.5	26.8	25.0	23.7	24.4
11	27.5	26.4	26.9	29.8	29.2	29.5	27.0	26.3	26.6	23.7	23.0	23.2
12	28.2	27.1	27.6	29.8	28.5	28.9	27.6	26.5	27.0	24.3	22.4	23.1
13	28.2	27.6	27.9	28.8	27.9	28.3	28.0	26.9	27.4	23.5	23.2	23.4
14	28.1	27.4	27.7	28.0	27.3	27.6	28.7	27.9	28.2	24.2	23.1	23.4
15	28.8	27.6	28.0	30.4	27.1	27.7	29.7	27.9	28.4	---	---	---
16	28.4	27.5	27.9	28.9	28.0	28.4	29.1	28.2	28.5	---	---	---
17	27.6	26.6	27.0	30.2	28.1	28.6	28.8	27.6	28.2	---	---	---
18	27.7	26.4	26.9	29.6	28.2	28.7	29.4	28.0	28.2	---	---	---
19	28.2	26.9	27.4	28.7	27.8	28.3	28.4	27.6	28.0	---	---	---
20	28.8	27.2	27.7	28.8	27.5	28.0	29.0	27.7	28.2	---	---	---
21	28.1	26.8	27.5	28.8	27.8	28.2	30.9	27.8	28.4	---	---	---
22	26.8	26.0	26.4	29.0	28.3	28.6	29.6	28.4	29.0	23.8	23.1	23.6
23	27.6	25.6	26.4	28.4	27.4	27.9	30.7	28.9	29.5	24.0	23.6	23.9
24	29.4	26.2	27.3	27.6	26.8	27.2	29.9	28.3	29.1	24.7	23.6	24.1
25	30.8	27.4	28.8	28.6	27.0	27.3	29.8	28.2	28.9	24.2	23.5	23.8
26	28.8	27.7	28.2	28.4	27.1	27.7	30.2	28.3	29.1	24.8	23.7	24.1
27	29.2	27.8	28.6	28.9	27.6	28.2	31.0	28.8	29.8	24.7	23.8	24.3
28	29.5	28.3	28.7	29.3	28.1	28.7	31.5	29.4	30.1	25.3	24.2	24.6
29	30.1	28.5	29.0	31.1	28.7	29.2	31.0	30.1	30.4	25.2	23.7	24.4
30	30.6	28.8	29.1	31.1	28.9	29.4	30.8	29.8	30.3	24.0	22.5	22.9
31	---	---	---	30.4	29.0	29.3	31.3	29.7	30.1	---	---	---
MONTH	30.8	21.2	26.5	31.2	26.7	28.5	31.5	26.3	28.5	---	---	---

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.0	24.6	24.7	15.2	13.7	14.3	9.3	8.5	8.8	7.7	7.4	7.5
2	24.9	24.6	24.7	14.6	13.5	13.9	8.7	8.2	8.5	---	---	---
3	25.5	24.8	25.2	14.3	13.4	13.8	8.7	7.6	8.2	---	---	---
4	26.2	24.9	25.3	14.0	13.6	13.8	7.6	6.7	7.1	---	---	---
5	26.0	25.0	25.4	14.0	13.5	13.7	7.5	6.5	7.0	9.0	8.6	8.9
6	26.4	25.6	26.1	14.2	13.8	14.0	6.5	5.9	6.3	---	---	---
7	25.9	25.3	25.5	13.8	13.4	13.5	6.9	5.8	6.5	---	---	---
8	25.8	24.5	25.2	13.7	13.3	13.6	6.8	6.4	6.6	7.4	6.6	6.9
9	24.5	24.0	24.2	13.8	13.4	13.6	6.8	6.0	6.6	7.6	6.7	7.0
10	24.1	23.6	23.9	15.0	13.7	14.3	6.6	6.3	6.5	8.1	7.4	7.8
11	24.1	23.7	23.9	16.4	15.0	15.6	6.8	6.3	6.5	8.3	7.2	7.8
12	23.8	23.5	23.6	17.1	16.1	16.4	6.9	6.4	6.7	8.0	7.0	7.6
13	23.6	23.3	23.4	17.0	15.6	16.4	6.9	6.6	6.8	---	---	---
14	23.4	21.9	22.8	16.0	14.2	15.1	7.7	6.9	7.3	---	---	---
15	22.6	21.0	21.8	14.8	14.2	14.6	7.6	7.0	7.2	---	---	---
16	21.1	20.7	20.9	14.9	14.7	14.8	7.6	7.1	7.4	6.7	5.4	6.1
17	20.9	20.2	20.4	15.2	14.8	15.0	7.7	7.4	7.6	6.0	4.9	5.3
18	20.3	18.5	19.5	15.1	13.9	14.3	7.5	7.4	7.5	4.9	4.0	4.3
19	19.9	19.0	19.7	14.3	14.1	14.2	7.8	7.5	7.6	4.3	3.7	4.0
20	19.9	19.4	19.7	14.1	13.6	13.9	9.4	7.6	8.3	4.1	3.0	3.6
21	19.7	19.2	19.4	14.0	13.8	13.9	9.4	8.7	8.9	4.5	3.8	4.3
22	19.6	19.3	19.5	14.2	13.5	14.0	9.1	8.7	8.9	4.4	3.4	4.1
23	19.4	18.8	19.1	13.5	12.5	12.8	9.0	8.6	8.9	4.2	1.7	2.9
24	19.0	18.7	18.8	12.7	11.9	12.2	9.1	8.7	8.9	---	---	---
25	19.0	18.8	18.9	12.3	11.6	12.0	9.1	8.2	8.8	---	---	---
26	18.9	18.6	18.8	12.4	12.0	12.1	8.2	6.6	7.5	1.6	1.2	1.4
27	19.0	18.6	18.8	12.5	11.8	12.3	7.4	6.4	6.9	1.9	0.8	1.4
28	18.8	18.7	18.7	12.6	12.1	12.4	7.5	7.3	7.4	---	---	---
29	18.8	18.7	18.8	12.4	9.6	11.7	7.4	6.6	7.2	---	---	---
30	18.8	17.1	18.0	9.6	8.3	9.2	7.3	7.1	7.2	---	---	---
31	17.1	14.8	16.1	---	---	---	7.4	7.1	7.2	---	---	---
MONTH	26.4	14.8	21.6	17.1	8.3	13.7	9.4	5.8	7.5	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	8.6	8.3	8.5	14.4	13.8	14.1	18.1	17.0	17.3
2	---	---	---	8.4	8.3	8.3	14.6	13.6	13.9	18.7	17.3	17.8
3	---	---	---	9.0	8.4	8.8	15.2	13.8	14.6	21.4	17.8	19.4
4	---	---	---	9.2	8.8	8.9	16.7	15.1	15.8	20.4	19.7	20.0
5	---	---	---	9.0	8.8	8.9	17.0	16.2	16.6	20.0	19.4	19.8
6	---	---	---	10.9	9.0	9.3	17.6	16.5	17.2	19.7	19.3	19.4
7	---	---	---	11.0	9.8	10.4	17.0	16.3	16.7	20.1	19.2	19.5
8	---	---	---	10.0	9.7	9.9	16.4	15.4	15.9	21.9	19.4	20.5
9	---	---	---	9.8	9.5	9.6	16.0	13.8	14.6	24.7	20.6	22.0
10	---	---	---	10.5	9.6	10.1	13.8	13.2	13.4	24.5	23.4	24.0
11	---	---	---	10.4	10.3	10.3	13.4	12.6	13.1	25.5	23.4	24.2
12	---	---	---	10.3	10.2	10.3	13.5	12.4	12.6	25.6	24.2	24.9
13	---	---	---	10.3	10.3	10.3	13.8	13.4	13.5	24.3	22.8	23.3
14	---	---	---	11.6	10.3	11.1	13.9	13.4	13.6	22.9	21.8	22.2
15	---	---	---	11.0	10.6	10.8	13.7	13.4	13.5	22.6	21.5	22.1
16	---	---	---	11.2	10.8	10.9	14.2	13.6	13.9	22.5	21.9	22.2
17	---	---	---	11.3	11.0	11.1	17.3	14.1	15.0	22.6	21.8	22.3
18	---	---	---	11.6	11.2	11.4	17.6	16.9	17.2	21.9	20.5	21.3
19	6.3	6.0	6.2	12.4	11.5	11.7	17.8	17.2	17.5	20.6	19.7	20.1
20	6.3	6.0	6.1	13.3	11.9	12.3	17.2	16.4	16.8	19.9	19.3	19.5
21	---	---	---	13.6	12.1	13.0	16.6	15.7	16.0	19.7	19.5	19.6
22	7.1	6.4	6.5	14.0	12.9	13.3	16.2	15.8	15.9	19.9	19.6	19.7
23	---	---	---	14.2	13.1	13.6	17.9	16.0	16.8	20.5	19.7	20.1
24	---	---	---	14.1	13.6	13.9	17.4	16.2	16.6	20.3	19.6	20.0
25	10.2	9.6	9.9	14.1	13.8	13.9	16.4	16.1	16.2	20.6	19.9	20.1
26	9.7	9.1	9.3	14.1	13.8	13.9	16.7	16.2	16.4	21.3	20.3	20.6
27	9.2	8.8	9.0	15.0	14.0	14.4	16.9	16.4	16.6	21.7	20.8	21.2
28	8.8	8.5	8.6	16.7	14.4	15.1	16.9	16.5	16.6	21.7	20.7	21.0
29	---	---	---	17.7	15.2	16.8	17.1	16.6	16.8	22.1	21.1	21.6
30	---	---	---	17.7	15.9	16.9	17.8	16.8	17.2	22.1	21.2	21.5
31	---	---	---	15.9	13.4	14.6	---	---	---	22.5	21.3	21.9
MONTH	---	---	---	17.7	8.3	11.7	17.9	12.4	15.5	25.6	17.0	20.9

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.2	21.6	21.9	27.3	26.7	27.0	29.7	28.9	29.2	30.2	29.2	29.7
2	21.9	21.4	21.7	27.0	26.5	26.7	29.5	28.9	29.1	30.0	29.7	29.8
3	22.5	21.4	21.8	27.4	26.6	27.0	29.0	28.5	28.9	30.0	29.4	29.7
4	22.9	21.8	22.4	27.5	26.7	27.0	28.7	28.3	28.5	29.9	29.3	29.5
5	23.0	22.5	22.8	28.7	27.0	27.6	28.3	27.8	28.0	29.6	28.2	28.9
6	23.1	22.3	22.7	29.1	28.1	28.5	28.2	27.8	28.1	28.5	26.9	27.5
7	24.9	22.3	23.3	29.1	28.6	28.9	28.0	27.4	27.7	26.9	26.2	26.5
8	25.1	24.0	24.7	29.0	28.4	28.6	27.5	27.1	27.3	26.2	25.4	25.7
9	25.0	23.9	24.5	30.1	28.6	29.1	27.5	26.9	27.1	25.9	25.0	25.3
10	24.9	24.0	24.4	30.3	29.4	29.8	27.1	26.5	26.8	25.0	23.7	24.4
11	25.6	24.1	24.6	29.9	29.2	29.5	26.8	26.2	26.5	23.8	23.0	23.3
12	27.9	24.7	26.6	29.3	28.3	28.8	27.3	26.5	26.8	23.2	22.4	22.9
13	28.1	27.2	27.7	28.6	28.0	28.3	27.1	26.9	27.0	23.3	23.1	23.2
14	28.1	27.2	27.6	28.0	27.0	27.4	27.0	26.7	26.8	23.4	23.2	23.3
15	28.2	27.3	27.7	27.3	26.9	27.1	26.9	26.7	26.8	---	---	---
16	28.1	27.4	27.6	28.5	26.9	27.2	28.2	26.8	27.4	---	---	---
17	27.6	26.7	27.1	28.7	27.3	27.8	28.4	27.6	27.9	---	---	---
18	26.7	26.5	26.6	28.9	28.2	28.3	28.3	27.7	27.9	---	---	---
19	27.5	26.4	26.7	28.7	28.0	28.4	28.0	27.5	27.7	---	---	---
20	27.4	26.4	26.7	28.0	27.2	27.5	27.7	27.4	27.6	---	---	---
21	27.3	26.5	26.8	28.5	27.1	27.5	27.8	27.5	27.6	---	---	---
22	26.8	24.8	25.7	29.1	28.4	28.6	28.2	27.5	27.7	23.5	23.1	23.2
23	25.8	25.2	25.5	28.5	27.4	27.9	29.2	27.5	28.7	23.8	23.2	23.6
24	26.3	25.3	25.6	27.5	26.6	27.0	29.0	28.2	28.5	24.0	23.6	23.8
25	26.0	25.1	25.4	27.2	26.9	27.0	28.4	27.9	28.1	23.8	23.7	23.7
26	27.0	25.2	25.8	27.3	26.7	27.0	28.7	27.9	28.2	23.9	23.7	23.7
27	28.3	27.0	27.6	28.7	26.9	27.5	29.1	28.1	28.6	24.0	23.7	23.8
28	28.6	27.5	27.9	28.9	27.8	28.4	29.8	28.8	29.3	24.6	23.8	24.0
29	27.8	26.9	27.2	29.0	28.4	28.6	30.3	29.2	29.6	24.5	23.8	24.1
30	27.2	26.9	27.0	29.6	28.4	29.0	30.3	29.6	29.9	24.1	22.1	23.0
31	---	---	---	29.2	28.8	29.0	30.2	29.5	29.8	---	---	---
MONTH	28.6	21.4	25.5	30.3	26.5	28.0	30.3	26.2	28.0	---	---	---

PAMLICO RIVER BASIN

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.1	6.0	6.9	8.3	7.4	7.8	10.1	9.6	9.9	11.7	10.0	10.7
2	8.5	6.3	7.3	8.7	7.9	8.4	10.3	9.8	10	---	---	---
3	8.6	6.7	7.3	9.0	8.2	8.4	10.4	9.8	10.1	---	---	---
4	7.8	6.4	7.2	9.2	8.3	8.7	10.8	10.3	10.5	10.9	9.9	10.4
5	8.3	6.1	6.8	9.0	8.5	8.7	10.9	10.4	10.7	11.1	10.1	10.7
6	7.5	5.9	6.5	8.8	8.3	8.5	11.4	10.6	11.0	11.5	10.3	10.7
7	8.1	5.9	6.8	9.3	8.2	8.7	12.2	10.8	11.2	10.8	10.0	10.4
8	7.5	6.3	6.8	9.7	8.5	9.1	11.9	10.8	11.5	10.5	9.9	10.3
9	7.0	6.3	6.5	10.6	9.0	9.6	12.0	11.2	11.6	10.7	10.3	10.5
10	6.8	6.0	6.4	9.9	9.3	9.6	11.6	10.9	11.3	10.8	10.0	10.5
11	6.4	6.0	6.2	9.5	8.6	9.1	11.4	10.8	11.1	11.2	10.3	10.7
12	7.2	6.0	6.5	9.2	8.4	8.7	11.8	10.9	11.3	11.1	10.8	10.9
13	8.8	6.3	7.1	8.6	7.9	8.1	11.6	10.8	11.2	---	---	---
14	7.7	6.6	7.1	8.7	7.9	8.2	11.2	10.7	11.0	---	---	---
15	7.4	7.0	7.2	8.9	8.3	8.5	11.8	10.8	11.2	---	---	---
16	7.8	7.0	7.2	8.8	7.9	8.4	12.1	11.2	11.6	11.8	10.9	11.3
17	9.0	6.8	7.3	8.3	7.6	8.0	12.7	11.4	12.0	11.3	10.9	11.1
18	8.7	7.6	8.0	8.8	7.7	8.2	12.5	10.7	11.7	11.9	11.0	11.3
19	9.5	7.4	8.1	8.9	7.9	8.2	11.7	10.3	10.8	11.7	10.8	11.3
20	9.8	7.7	8.4	8.4	7.6	8.1	10.5	8.8	9.7	11.9	11.4	11.6
21	9.1	7.5	8.2	8.8	7.8	8.3	10.2	9.5	9.8	11.8	11.5	11.6
22	7.6	7.0	7.3	8.2	7.7	8.0	10.2	9.6	9.9	11.8	11.3	11.6
23	8.2	7.2	7.5	8.8	8.0	8.4	10.3	9.8	10.0	11.8	11.2	11.6
24	7.7	7.1	7.3	9.1	8.5	8.7	10.2	9.7	10.0	---	---	---
25	7.6	6.8	7.1	10.1	8.6	9.1	9.8	9.3	9.6	---	---	---
26	7.7	6.8	7.2	9.2	8.5	9.0	10.0	9.4	9.7	12.6	12.0	12.4
27	8.1	7.2	7.6	9.1	8.4	8.8	10.3	9.7	9.9	12.6	11.9	12.3
28	8.0	7.2	7.6	9.6	8.7	9.1	12.8	9.7	11.2	12.6	12.2	12.4
29	7.5	6.5	7.0	9.7	9.0	9.4	11.4	10.2	10.8	12.6	12.3	12.4
30	7.0	6.6	6.8	9.9	9.2	9.6	12.1	10.7	11.4	12.5	12.0	12.2
31	7.7	6.9	7.3	---	---	---	12.0	10.0	11.4	12.0	11.7	11.8
MONTH	9.8	5.9	7.2	10.6	7.4	8.6	12.8	8.8	10.7	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.9	11.6	11.8	12.3	10.1	11.0	8.6	8.2	8.4	8.3	6.8	7.6
2	12.0	11.6	11.8	12.0	10.1	11.3	8.8	8.3	8.5	7.2	6.4	6.7
3	12.4	11.6	12.0	11.8	10.7	11.2	9.2	8.0	8.5	6.6	6.1	6.3
4	11.7	10.2	11.0	11.9	10.7	11.3	8.5	8.2	8.4	6.7	6.3	6.5
5	11.6	10.9	11.2	11.6	10.3	11.0	8.4	8.1	8.3	6.6	6.3	6.5
6	11.6	11.2	11.3	11.1	9.8	10.6	8.4	8.0	8.2	6.8	6.4	6.6
7	11.2	10.6	10.8	10.0	9.2	9.6	8.4	8.0	8.2	7.3	6.5	6.9
8	12.5	10.7	11.2	11.3	9.2	9.6	8.4	8.1	8.3	6.8	6.4	6.6
9	13.6	10.7	11.5	11.8	9.4	10.3	8.8	8.2	8.5	7.2	6.3	6.7
10	12.5	10.8	11.5	10.9	10.1	10.3	9.3	8.8	9.1	6.7	5.9	6.3
11	11.4	10.5	10.9	10.4	9.9	10.2	9.2	8.9	9.1	6.3	5.4	6.1
12	11.2	10.7	11.0	10.7	9.5	10.0	9.3	9.1	9.2	6.7	5.8	6.4
13	11.2	10.7	11.0	10.7	9.9	10.4	9.3	8.7	9.0	6.9	6.4	6.7
14	11.6	10.8	11.1	10.5	9.2	9.6	8.7	8.2	8.5	6.8	6.7	6.8
15	11.6	10.9	11.3	9.8	9.2	9.5	8.4	7.9	8.2	6.8	6.6	6.7
16	10.9	10.3	10.6	10.3	9.1	9.6	8.3	7.7	8.0	6.6	6.2	6.5
17	10.7	10.1	10.5	10.1	8.8	9.4	8.2	7.6	7.8	6.6	6.1	6.3
18	11.8	10.5	11.0	9.4	8.8	9.1	7.9	7.7	7.8	6.7	6.4	6.5
19	11.3	10.3	10.9	9.3	8.6	9.0	8.2	7.7	7.9	7.1	6.6	6.9
20	11.2	9.8	10.8	9.0	8.5	8.7	8.2	7.9	8.0	7.2	6.8	7.0
21	11.5	10.0	10.6	9.7	8.3	8.8	9.8	7.7	8.1	7.1	6.6	6.8
22	11.1	9.6	10.5	11.3	8.4	9.0	9.6	7.9	8.4	6.8	6.6	6.7
23	---	---	---	11.1	8.2	9.8	8.4	7.6	8.1	6.8	6.6	6.7
24	---	---	---	9.1	7.3	8.2	8.7	7.3	7.7	7.1	6.7	6.8
25	10.4	9.6	10.0	9.7	7.9	8.5	8.4	7.6	8.0	7.0	6.6	6.8
26	10.4	9.8	10.0	8.8	8.2	8.5	9.1	7.7	8.1	6.8	6.3	6.5
27	10.2	9.8	10	8.3	7.7	8.0	8.5	7.2	7.9	6.9	6.4	6.7
28	10.7	9.7	10.1	8.2	7.6	7.9	9.4	6.5	7.9	6.6	6.2	6.4
29	---	---	---	8.0	7.5	7.7	8.4	7.6	7.9	6.6	6.2	6.4
30	---	---	---	7.8	7.2	7.5	9.0	7.5	8.1	6.8	6.2	6.5
31	---	---	---	8.6	7.7	8.1	---	---	---	6.8	6.3	6.6
MONTH	---	---	---	12.3	7.2	9.5	9.8	6.5	8.3	8.3	5.4	6.6

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.3	6.7	7.1	5.6	5.3	5.4	5.6	5.1	5.4	6.1	5.8	5.9
2	7.3	6.8	7.1	5.6	5.2	5.4	5.9	5.1	5.6	6.0	5.7	5.9
3	7.0	6.8	6.9	6.3	5.6	6.1	5.9	5.7	5.8	6.0	5.6	5.8
4	7.0	6.8	6.9	6.4	6.1	6.3	6.1	5.6	5.8	5.9	5.6	5.7
5	7.2	7.0	7.1	6.2	5.7	6.0	6.3	5.9	6.1	6.0	5.6	5.8
6	7.2	6.8	7.0	6.1	5.9	6.0	6.3	5.9	6.1	6.2	5.8	6.0
7	7.0	6.4	6.8	6.3	6.0	6.1	6.3	5.7	6.1	6.3	5.9	6.1
8	6.9	6.5	6.8	6.2	5.9	6.1	6.3	6.0	6.2	6.7	6.2	6.5
9	6.8	6.4	6.7	6.2	5.6	5.9	6.2	5.5	6.0	7.0	6.6	6.8
10	6.6	6.1	6.4	5.8	5.5	5.6	6.3	5.3	5.7	7.2	6.9	7.1
11	6.3	5.7	6.0	6.2	5.6	5.9	6.4	5.6	6.0	7.4	7.2	7.3
12	6.1	5.6	6.0	6.2	5.9	6.1	6.2	5.6	6.0	7.5	7.2	7.3
13	6.2	5.9	6.1	6.2	6.0	6.1	5.6	4.8	5.2	7.3	7.1	7.2
14	6.4	6.1	6.2	6.4	5.9	6.1	5.2	4.8	5.0	7.1	6.9	7.0
15	6.4	6.1	6.3	6.2	5.9	6.1	5.1	4.3	4.7	---	---	---
16	6.2	6.0	6.1	6.1	5.9	6.0	4.9	4.1	4.6	---	---	---
17	6.4	6.0	6.2	6.0	5.4	5.8	5.6	4.5	5.1	---	---	---
18	6.5	6.0	6.2	6.0	5.8	5.9	5.6	5.2	5.4	---	---	---
19	6.1	5.9	6.0	6.0	5.3	5.8	5.6	5.3	5.4	---	---	---
20	6.0	5.7	5.8	6.0	5.7	5.9	5.5	5.1	5.3	---	---	---
21	6.0	5.7	5.8	5.8	5.4	5.6	5.5	5.1	5.3	---	---	---
22	6.1	5.8	6.0	6.1	5.5	5.8	5.3	5.1	5.2	6.3	5.7	6.0
23	6.4	6.0	6.2	6.4	6.1	6.3	5.6	4.7	5.2	6.7	5.8	6.3
24	6.2	6.0	6.2	6.5	6.0	6.2	5.6	5.1	5.3	6.3	5.6	6.0
25	6.2	5.7	6.0	6.0	5.6	5.8	5.3	4.7	5.0	6.0	5.3	5.6
26	5.8	5.4	5.6	5.9	5.6	5.7	5.3	4.6	5.1	5.5	4.7	5.3
27	5.8	5.3	5.6	5.7	4.9	5.4	5.6	5.3	5.4	5.5	4.5	5.1
28	5.9	5.6	5.8	6.1	5.4	5.8	5.7	4.9	5.4	5.9	5.0	5.5
29	5.8	5.3	5.6	6.2	5.8	6.0	5.9	5.3	5.6	6.4	5.5	6.0
30	5.7	5.4	5.5	6.1	5.2	5.8	6.0	5.6	5.9	7.4	6.0	6.5
31	---	---	---	5.6	5.2	5.4	6.1	5.8	6.0	---	---	---
MONTH	7.3	5.3	6.3	6.5	4.9	5.9	6.4	4.1	5.5	---	---	---

PAMLICO RIVER BASIN

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.4	4.0	5.6	8.1	7.6	7.8	9.6	9.2	9.3	7.6	6.0	6.6
2	5.6	3.5	4.1	8.5	7.6	8.1	9.7	8.8	9.3	---	---	---
3	6.2	3.1	4.7	8.7	7.6	8.2	9.7	8.4	9.2	---	---	---
4	5.8	1.9	3.3	8.4	7.3	7.7	9.9	9.3	9.7	---	---	---
5	5.5	1.6	2.6	8.7	7.3	7.9	10.0	9.2	9.7	9.2	5.4	7.3
6	6.2	2.1	5.4	8.4	7.5	8.1	10.2	9.9	10.1	10.3	5.2	7.3
7	6.0	4.6	5.2	9.1	8.0	8.5	10.2	9.2	9.8	10.1	9.3	9.7
8	6.5	4.5	6.0	9.3	7.9	8.6	9.8	9.2	9.6	9.9	9.2	9.6
9	6.3	5.4	5.9	8.8	7.2	7.9	10.2	8.8	9.1	10.0	8.9	9.5
10	5.9	3.7	5.0	9.4	6.6	8.9	10.0	9.0	9.4	9.7	8.7	9.4
11	5.9	3.6	4.5	9.2	8.6	8.8	10.0	8.6	9.4	9.9	7.1	8.9
12	6.3	5.3	5.8	8.6	8.1	8.3	10.0	8.2	8.8	9.2	7.1	8.2
13	6.2	5.2	5.9	8.2	7.3	7.8	10.1	8.2	9.3	---	---	---
14	7.2	5.2	6.3	7.7	7.2	7.4	9.9	9.0	9.5	---	---	---
15	7.0	5.8	6.4	8.0	6.8	7.2	10.3	9.6	9.8	---	---	---
16	7.0	5.9	6.6	7.8	6.8	7.2	10.6	9.0	9.9	11.3	8.2	10.2
17	6.8	5.6	6.2	7.9	6.4	6.9	10.3	9.5	9.9	11.5	9.9	10.9
18	7.5	6.0	6.9	8.2	6.6	7.7	10.1	9.2	9.6	11.6	10.8	11.3
19	6.6	5.3	6.1	8.1	6.8	7.2	9.3	8.2	8.8	11.9	10.8	11.5
20	6.3	3.6	4.8	7.8	6.7	7.1	9.4	7.5	8.5	12.0	11.4	11.7
21	6.4	3.8	5.0	7.4	6.5	6.9	9.7	7.1	8.6	11.9	11.0	11.5
22	5.8	3.6	4.8	8.0	6.3	6.8	9.8	8.3	9.4	11.7	10.4	10.8
23	5.8	5.0	5.4	8.4	7.9	8.1	9.9	8.6	9.4	12.1	9.8	11.4
24	5.8	4.2	5.0	8.7	7.9	8.2	9.6	7.0	9.0	---	---	---
25	4.5	3.6	4.0	8.6	7.2	8.0	9.5	8.8	9.1	---	---	---
26	5.4	2.9	3.8	8.3	7.0	7.7	10.2	9.1	9.4	12.1	10.9	11.7
27	4.7	2.0	3.1	8.6	7.0	7.7	10.2	8.8	9.6	12.8	10.3	11.9
28	4.8	3.0	4.4	7.6	6.2	6.9	8.8	7.7	8.4	---	---	---
29	4.9	3.2	3.8	8.9	6.0	6.7	10.6	7.0	8.4	---	---	---
30	6.8	3.0	4.9	9.3	8.8	9.2	9.4	7.7	8.8	---	---	---
31	8.0	6.8	7.2	---	---	---	9.2	7.1	8.3	---	---	---
MONTH	8.0	1.6	5.1	9.4	6.0	7.8	10.6	7.0	9.3	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	11.1	10.2	10.6	8.7	7.8	8.3	0.4	0.0	0.0
2	---	---	---	10.6	9.6	10.1	8.5	7.5	8.2	1.0	0.0	0.2
3	---	---	---	9.9	8.2	8.8	---	---	---	5.9	0.0	1.4
4	---	---	---	10.6	9.2	9.7	---	---	---	3.7	1.9	2.7
5	---	---	---	9.4	8.2	8.9	---	---	---	6.1	2.4	3.7
6	---	---	---	9.5	7.0	7.8	---	---	---	6.1	2.6	3.6
7	---	---	---	10.4	8.4	10.0	---	---	---	5.1	2.5	3.8
8	---	---	---	10.0	9.2	9.7	---	---	---	5.8	3.0	4.2
9	---	---	---	9.7	8.6	9.2	---	---	---	6.4	3.2	4.9
10	---	---	---	10.7	8.4	9.3	---	---	---	6.2	4.8	5.6
11	---	---	---	9.4	8.3	8.9	---	---	---	5.5	4.0	4.8
12	---	---	---	8.4	6.9	7.7	---	---	---	6.4	5.4	6.0
13	---	---	---	7.7	5.8	6.8	---	---	---	6.6	5.6	6.4
14	---	---	---	9.8	6.0	9.1	---	---	---	6.6	4.7	5.7
15	---	---	---	9.7	8.8	9.3	---	---	---	6.6	4.2	5.7
16	---	---	---	9.2	8.0	8.7	---	---	---	6.1	4.1	4.8
17	---	---	---	8.5	7.3	7.9	---	---	---	6.6	4.6	5.8
18	---	---	---	8.4	7.5	8.0	---	---	---	6.8	5.8	6.5
19	12.4	11.0	11.8	8.7	6.4	7.3	---	---	---	7.1	6.7	6.8
20	11.8	10.1	10.8	8.5	5.5	6.7	---	---	---	7.2	6.1	6.7
21	---	---	---	8.5	4.4	6.5	---	---	---	6.1	5.2	5.7
22	9.0	7.6	8.5	8.3	4.0	6.2	---	---	---	5.4	4.9	5.1
23	---	---	---	7.9	4.0	6.1	---	---	---	6.6	4.0	5.0
24	---	---	---	6.8	5.3	5.9	2.7	0.2	0.9	6.9	6.4	6.7
25	11.3	9.1	10.6	5.4	3.4	4.7	0.4	0.0	0.2	6.5	5.1	5.8
26	11.1	10.5	10.8	4.4	2.9	3.6	0.2	0.0	0.1	6.0	4.5	5.3
27	11.0	10.1	10.6	5.2	3.0	3.5	0.4	0.0	0.1	5.6	5.0	5.2
28	11.0	10.3	10.7	8.0	2.7	4.4	0.1	0.0	0.0	6.3	5.0	5.9
29	---	---	---	8.2	3.4	7.1	0.2	0.0	0.1	6.2	4.6	5.4
30	---	---	---	7.8	3.3	6.8	0.4	0.0	0.1	6.5	5.9	6.2
31	---	---	---	8.7	7.8	8.2	---	---	---	6.8	5.2	6.1
MONTH	---	---	---	11.1	2.7	7.7	---	---	---	7.2	0.0	4.9

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.1	6.6	6.9	3.6	2.0	2.8	5.3	4.6	5.1	5.8	5.2	5.5
2	6.9	5.8	6.5	4.5	1.3	1.9	5.6	4.9	5.3	5.9	5.5	5.7
3	6.9	5.6	6.3	6.0	1.2	4.6	5.6	5.3	5.5	6.0	5.1	5.6
4	6.9	5.4	6.5	6.0	3.8	4.8	5.8	5.2	5.6	5.7	5.2	5.5
5	7.0	5.4	6.4	6.1	4.9	5.8	6.0	5.5	5.8	5.7	5.1	5.5
6	6.1	3.8	5.3	6.1	5.7	6.0	6.1	5.5	5.9	5.9	5.5	5.7
7	6.4	4.4	5.3	6.2	5.8	6.1	6.6	5.5	6.1	5.9	5.6	5.7
8	6.6	5.4	6.3	6.2	5.5	5.9	6.6	6.1	6.4	6.1	5.7	5.9
9	6.5	4.8	5.7	6.0	5.0	5.6	6.5	5.7	6.2	6.3	2.5	5.5
10	6.0	4.5	5.1	5.8	5.5	5.7	6.5	5.4	5.9	6.7	6.2	6.5
11	4.7	2.4	4.0	6.1	5.6	5.9	6.6	5.7	6.2	---	---	---
12	5.7	2.2	4.7	6.2	5.6	6.0	6.4	5.4	6.1	---	---	---
13	5.8	4.2	5.6	6.2	5.6	6.0	5.9	4.3	5.2	---	---	---
14	6.0	5.6	5.8	6.4	5.8	6.1	4.8	4.3	4.6	---	---	---
15	6.0	5.4	5.8	6.1	5.1	5.8	4.6	3.4	4.2	---	---	---
16	5.9	5.0	5.6	5.9	4.9	5.4	4.7	2.2	3.4	---	---	---
17	5.9	5.2	5.7	6.0	3.9	5.2	5.5	4.5	5.0	---	---	---
18	6.3	5.3	5.7	6.0	5.0	5.6	5.5	4.6	5.3	---	---	---
19	5.9	4.5	5.3	6.2	5.3	5.9	5.4	4.8	5.1	---	---	---
20	5.6	3.5	4.6	6.1	5.6	5.9	5.3	4.1	4.7	---	---	---
21	6.0	4.7	5.4	5.7	4.6	5.2	4.8	3.7	4.5	---	---	---
22	6.6	5.7	6.2	6.4	5.7	6.0	4.2	3.0	3.6	5.7	4.4	5.2
23	6.5	5.6	6.2	6.7	6.3	6.5	5.4	2.9	4.5	6.1	4.0	5.1
24	6.1	4.9	5.6	6.8	5.8	6.3	5.6	4.0	5.0	5.7	3.5	5.1
25	5.9	4.5	5.0	6.0	5.2	5.7	4.8	0.7	2.1	5.0	3.6	4.2
26	5.2	2.9	4.2	5.7	4.6	5.1	4.9	0.7	3.0	3.9	3.0	3.4
27	6.0	4.9	5.7	5.8	4.2	5.0	5.3	4.3	4.8	3.1	2.3	2.7
28	6.2	5.2	5.7	6.1	5.4	5.8	5.5	4.7	5.2	4.8	2.1	3.2
29	5.3	3.5	4.3	6.2	5.6	5.9	5.8	3.8	5.2	6.2	2.1	5.4
30	4.1	2.9	3.5	6.1	4.5	5.4	6.0	5.5	5.8	7.0	5.8	6.5
31	---	---	---	5.3	4.9	5.1	6.0	5.6	5.8	---	---	---
MONTH	7.1	2.2	5.5	6.8	1.2	5.5	6.6	0.7	5.1	---	---	---

PAMLICO RIVER BASIN

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	100	72	84	82	74	78	87	83	85	98	85	91
2	106	76	90	85	78	81	87	82	85	---	---	---
3	108	82	91	87	79	82	88	83	86	---	---	---
4	98	79	90	90	80	84	88	84	86	96	86	91
5	106	76	85	87	81	84	89	85	87	96	87	92
6	95	73	81	85	81	82	91	85	88	100	88	92
7	99	72	83	90	79	84	98	86	89	93	85	88
8	93	76	83	94	81	88	96	86	92	86	81	85
9	84	75	78	103	86	92	96	90	93	89	84	86
10	81	71	76	98	90	94	93	87	91	91	83	88
11	76	71	73	97	88	92	93	88	90	94	85	89
12	85	71	77	95	86	90	98	89	92	91	87	89
13	105	74	83	89	80	83	95	90	93	---	---	---
14	91	77	83	86	78	82	94	89	91	---	---	---
15	84	79	81	88	80	83	100	90	93	---	---	---
16	88	78	81	87	79	83	101	93	97	95	86	90
17	101	76	81	83	76	80	106	95	100	89	86	87
18	96	83	88	86	76	80	104	89	97	92	84	87
19	104	80	88	85	77	79	98	87	91	89	82	86
20	109	84	92	82	74	79	89	75	83	91	86	88
21	101	81	89	85	76	80	89	82	85	90	87	88
22	82	75	78	80	75	78	89	82	85	90	85	88
23	87	76	80	83	76	79	89	84	86	88	83	85
24	81	75	77	85	78	81	88	83	86	---	---	---
25	81	72	76	98	79	85	85	80	82	---	---	---
26	83	72	78	87	80	84	84	78	81	89	84	87
27	87	77	81	84	78	81	85	80	81	89	83	87
28	86	77	81	84	79	81	102	80	90	92	86	87
29	80	69	75	85	79	83	94	83	88	92	87	89
30	74	69	72	86	81	84	100	88	93	91	87	89
31	77	72	74	---	---	---	101	83	95	89	86	88
MONTH	109	69	82	103	74	83	106	75	89	---	---	---
DAY	MAX	MIN	MEAN									
1	89	86	88	110	85	95	84	79	82	96	79	88
2	92	86	89	107	88	100	88	80	83	83	75	78
3	98	89	92	106	95	99	94	80	86	77	70	73
4	91	79	87	106	93	100	88	84	86	74	70	72
5	95	87	91	107	93	100	89	84	86	72	69	71
6	95	90	92	102	90	98	88	83	86	76	70	72
7	91	86	88	92	82	86	87	82	84	85	73	78
8	103	85	90	106	82	85	84	81	83	82	74	78
9	113	86	93	112	82	93	86	81	84	87	76	80
10	101	87	92	101	91	94	89	84	87	85	71	77
11	93	83	88	93	88	91	88	85	87	77	66	74
12	91	86	89	99	84	90	89	85	87	81	71	77
13	91	85	88	100	90	95	89	83	87	81	76	79
14	95	87	90	98	84	88	85	81	84	80	76	78
15	96	89	92	89	82	86	86	79	82	79	76	77
16	89	84	86	96	83	88	88	77	82	80	72	76
17	87	82	85	99	82	89	89	80	83	78	72	74
18	95	83	88	89	82	86	83	80	82	76	72	74
19	92	84	88	88	80	84	86	81	83	78	73	76
20	93	80	89	85	81	83	85	82	83	80	75	77
21	96	82	87	96	80	86	107	80	85	81	72	76
22	94	80	89	116	83	90	108	84	91	77	74	76
23	---	---	---	116	85	102	92	82	88	76	74	75
24	---	---	---	94	73	83	97	79	84	79	74	76
25	93	85	89	100	78	86	92	82	87	81	74	77
26	91	86	87	90	82	86	101	83	89	80	73	75
27	88	85	86	85	78	81	93	79	86	80	74	77
28	91	83	87	83	78	80	106	70	86	75	70	73
29	---	---	---	84	77	80	95	83	88	76	70	73
30	---	---	---	80	76	78	104	84	92	80	71	75
31	---	---	---	85	77	80	---	---	---	79	73	77
MONTH	---	---	---	116	73	89	108	70	85	96	66	76

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	84	77	81	74	69	71	74	67	70	81	76	79
2	83	78	81	72	66	69	78	67	73	80	76	78
3	81	78	80	80	70	77	77	74	75	80	74	77
4	82	79	80	81	78	79	79	72	75	78	73	75
5	87	82	84	81	72	77	81	76	78	78	74	76
6	90	82	85	80	76	79	81	76	79	78	74	76
7	85	77	82	83	78	80	81	73	77	78	74	76
8	84	79	82	82	77	79	80	76	78	82	77	80
9	86	80	82	81	74	78	79	69	76	86	81	83
10	82	76	79	78	73	75	79	66	72	87	83	85
11	79	72	75	82	73	78	80	70	74	87	84	86
12	78	71	76	81	77	79	78	71	75	87	84	86
13	80	75	78	81	77	79	71	61	65	86	84	85
14	82	78	80	81	75	77	67	62	64	84	81	82
15	83	78	80	81	75	77	66	55	61	---	---	---
16	80	76	78	79	76	77	64	53	59	---	---	---
17	80	76	78	79	69	75	73	57	66	---	---	---
18	81	75	78	78	75	76	72	67	70	---	---	---
19	78	75	76	78	68	74	72	68	70	---	---	---
20	77	72	75	77	73	75	70	66	68	---	---	---
21	76	72	74	74	70	72	74	65	68	---	---	---
22	76	73	75	80	71	75	69	66	68	75	67	71
23	80	75	78	82	78	80	75	61	68	80	69	75
24	81	75	78	82	76	79	73	66	69	75	66	72
25	80	74	78	77	71	74	69	61	65	72	63	67
26	75	69	72	76	71	73	71	59	67	67	56	63
27	76	68	73	74	63	69	75	69	72	66	54	61
28	78	72	75	79	70	75	77	64	72	72	60	66
29	76	69	73	84	75	79	79	71	75	77	66	72
30	76	70	72	83	68	77	81	74	79	87	70	76
31	---	---	---	74	68	70	83	77	80	---	---	---
MONTH	90	68	78	84	63	76	83	53	71	---	---	---

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	78	48	68	80	74	77	82	79	81	64	50	56
2	68	42	50	82	75	78	83	76	79	---	---	---
3	76	38	57	85	73	80	82	72	79	---	---	---
4	72	23	41	81	71	74	82	78	80	---	---	---
5	68	19	32	84	71	77	82	77	80	79	47	63
6	77	26	67	82	73	79	83	80	82	89	45	63
7	74	56	63	88	77	82	83	76	80	87	79	83
8	79	55	73	89	76	83	80	76	78	82	75	79
9	76	64	70	84	70	76	82	72	75	83	73	78
10	70	44	60	93	64	87	81	74	77	82	73	79
11	70	43	53	92	86	89	81	71	77	84	60	75
12	75	63	68	88	82	85	82	67	72	76	60	69
13	73	61	69	85	74	80	83	68	76	---	---	---
14	83	61	74	77	71	74	83	74	79	---	---	---
15	80	67	73	79	67	71	86	79	81	---	---	---
16	79	66	74	77	67	71	89	75	82	90	67	82
17	76	62	69	79	64	68	86	80	83	90	79	86
18	83	67	76	80	66	75	84	77	81	90	84	87
19	72	58	67	79	66	70	78	69	74	91	83	88
20	69	40	53	75	65	69	82	63	72	92	86	88
21	70	42	55	72	63	67	84	61	74	92	85	88
22	63	39	53	77	61	66	85	72	81	89	80	83
23	62	54	59	80	75	77	86	75	82	89	75	85
24	62	45	54	81	74	77	83	61	78	---	---	---
25	49	39	43	81	67	74	82	76	79	---	---	---
26	58	31	41	77	65	72	84	76	79	86	78	83
27	50	22	33	80	66	72	83	73	79	90	74	85
28	52	32	47	71	58	64	73	64	70	---	---	---
29	53	34	41	78	56	62	88	58	70	---	---	---
30	71	32	52	82	77	80	78	64	73	---	---	---
31	79	70	73	---	---	---	76	59	69	---	---	---
MONTH	83	19	58	93	56	75	89	58	77	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	95	88	90	85	76	81	4	0	0
2	---	---	---	90	82	86	83	73	80	11	0	2
3	---	---	---	86	71	76	---	---	---	67	0	16
4	---	---	---	92	79	84	---	---	---	41	21	30
5	---	---	---	81	71	77	---	---	---	66	26	41
6	---	---	---	86	61	68	---	---	---	66	28	40
7	---	---	---	94	75	90	---	---	---	56	27	42
8	---	---	---	89	81	86	---	---	---	66	33	47
9	---	---	---	85	76	81	---	---	---	77	36	57
10	---	---	---	96	74	83	---	---	---	75	57	67
11	---	---	---	84	74	80	---	---	---	67	48	57
12	---	---	---	75	62	69	---	---	---	77	66	72
13	---	---	---	69	52	61	---	---	---	77	67	75
14	---	---	---	89	54	83	---	---	---	77	54	65
15	---	---	---	88	80	84	---	---	---	76	48	66
16	---	---	---	84	73	79	---	---	---	71	47	55
17	---	---	---	78	66	72	---	---	---	76	53	67
18	---	---	---	77	69	73	---	---	---	76	66	73
19	101	89	95	82	59	67	---	---	---	78	74	76
20	95	82	87	81	51	63	---	---	---	78	67	73
21	---	---	---	82	41	62	---	---	---	67	57	62
22	74	62	69	81	38	59	---	---	---	59	54	56
23	---	---	---	77	38	59	---	---	---	74	44	55
24	---	---	---	66	52	57	28	2	9	76	70	73
25	101	80	94	53	33	46	4	0	2	72	57	64
26	98	91	94	43	28	35	2	0	0	68	50	59
27	95	88	92	52	29	34	4	0	1	64	56	59
28	94	89	92	82	26	44	1	0	0	71	57	66
29	---	---	---	86	34	73	2	0	0	71	52	61
30	---	---	---	82	34	70	4	0	1	74	68	71
31	---	---	---	86	77	81	---	---	---	78	59	70
MONTH	---	---	---	96	26	70	---	---	---	78	0	55

0208455560 PUNGO RIVER AT CHANNEL LIGHT 18—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	82	76	79	46	25	35	70	60	66	77	69	73
2	79	66	74	56	16	23	74	64	69	78	73	75
3	80	63	72	75	15	58	73	69	71	80	67	74
4	81	62	75	76	48	60	75	67	72	75	68	72
5	82	63	74	78	62	73	77	70	74	75	66	72
6	71	44	62	79	74	77	78	71	75	75	70	73
7	78	51	62	81	75	79	84	70	77	74	70	71
8	80	65	76	80	71	77	83	77	81	75	70	73
9	79	57	68	78	65	73	82	72	78	77	31	67
10	73	54	62	77	72	75	82	68	75	80	75	78
11	56	29	48	80	73	77	83	71	77	---	---	---
12	73	27	59	81	72	78	80	68	76	---	---	---
13	74	53	71	80	72	77	74	54	65	---	---	---
14	77	71	74	81	74	78	60	54	58	---	---	---
15	77	68	74	77	64	73	58	43	53	---	---	---
16	75	64	71	76	62	68	60	28	43	---	---	---
17	74	66	72	78	49	66	71	57	64	---	---	---
18	79	66	72	77	64	72	71	59	68	---	---	---
19	74	56	66	80	68	76	69	61	65	---	---	---
20	71	44	58	78	71	75	67	52	59	---	---	---
21	76	59	68	74	58	67	61	47	57	---	---	---
22	80	70	76	84	74	78	53	38	46	67	52	61
23	80	69	76	85	81	84	70	37	59	72	47	61
24	76	60	69	86	73	79	73	52	65	68	42	60
25	73	55	61	76	65	72	62	9	28	59	43	50
26	65	35	52	72	58	64	63	9	39	46	36	40
27	77	62	73	75	53	64	69	56	63	37	27	32
28	80	66	73	79	69	75	73	62	68	57	25	38
29	68	44	54	80	72	77	77	50	69	75	25	65
30	52	36	44	79	58	70	80	73	76	81	68	76
31	---	---	---	69	64	67	80	74	77	---	---	---
MONTH	82	27	67	86	15	70	84	9	65	---	---	---

02084557 VAN SWAMP NEAR HOKE, NC

LOCATION.--Lat 35°43'50", long 76°44'48", Washington County, Hydrologic Unit 03020104, on left bank at upstream side of culvert on State Highway 32, and 4.8 mi east of Hoke.

DRAINAGE AREA.--23 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.19	8.7	4.1	6.4	4.2	83	39	44	104	2.6	53	20
2	0.20	9.3	3.6	12	4.2	84	35	40	99	2.9	50	16
3	0.33	11	3.1	12	4.0	85	31	40	94	6.4	43	14
4	0.35	12	2.9	11	3.9	76	27	43	89	8.5	38	12
5	0.23	13	10	9.7	3.5	67	23	41	83	6.6	32	19
6	0.11	14	19	8.6	3.2	79	20	56	72	4.6	27	20
7	0.13	16	17	7.7	7.8	94	18	73	60	3.2	36	18
8	0.16	17	15	7.1	15	95	21	65	50	2.3	70	15
9	0.17	18	14	6.4	14	92	55	54	43	1.6	85	13
10	0.14	18	13	5.6	17	88	106	45	36	1.0	87	10
11	0.17	19	13	4.7	26	82	119	40	41	0.74	106	8.8
12	0.01	31	11	4.0	23	72	127	34	40	1.2	118	9.7
13	0.00	51	12	3.6	20	61	123	29	35	1.5	116	21
14	0.01	49	16	3.3	17	50	117	25	29	7.3	112	20
15	0.00	41	15	3.1	16	40	110	21	24	10	110	17
16	0.00	25	13	2.8	19	37	104	18	23	8.2	106	14
17	1.5	39	10	3.0	79	35	99	16	21	6.7	102	11
18	2.0	49	8.5	2.9	87	33	95	14	18	6.0	97	57
19	3.4	31	7.4	2.7	82	30	94	19	17	4.9	95	145
20	4.7	22	7.3	2.6	72	30	91	26	18	4.0	103	149
21	5.5	19	8.4	2.6	60	86	86	24	21	3.0	106	147
22	6.2	16	7.6	2.4	51	99	79	21	19	2.2	100	143
23	6.4	14	6.7	2.3	76	95	70	52	16	1.7	94	140
24	6.9	12	6.2	2.0	77	90	59	112	13	2.9	89	137
25	7.2	9.4	9.3	1.8	67	85	51	112	11	3.4	81	130
26	7.6	7.7	9.7	1.8	55	76	50	119	8.4	4.8	70	122
27	6.0	6.6	8.5	1.8	48	63	68	123	6.4	17	58	115
28	7.4	5.8	7.6	1.7	77	50	65	123	5.0	14	47	127
29	6.2	5.1	6.8	1.8	---	40	57	118	4.0	11	38	124
30	8.1	4.8	6.0	2.1	---	37	50	114	3.2	22	30	115
31	8.1	---	5.3	3.2	---	42	---	109	---	45	24	---
TOTAL	89.40	594.4	297.0	142.7	1,028.8	2,076	2,089	1,770	1,103.0	217.24	2,323	1,909.5
MEAN	2.88	19.8	9.58	4.60	36.7	67.0	69.6	57.1	36.8	7.01	74.9	63.6
MAX	8.1	51	19	12	87	99	127	123	104	45	118	149
MIN	0.00	4.8	2.9	1.7	3.2	30	18	14	3.2	0.74	24	8.8
CFSM	0.13	0.86	0.42	0.20	1.60	2.91	3.03	2.48	1.60	0.30	3.26	2.77
IN.	0.14	0.96	0.48	0.23	1.66	3.36	3.38	2.86	1.78	0.35	3.76	3.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2003, BY WATER YEAR (WY)

MEAN	18.9	15.2	15.6	40.1	45.9	56.1	41.2	25.0	10.8	5.70	12.8	21.2
MAX	166	121	56.6	124	122	142	101	122	43.8	55.2	74.9	189
(WY)	(2000)	(1978)	(1990)	(1978)	(1998)	(1983)	(1983)	(1978)	(2001)	(1989)	(2003)	(1999)
MIN	0.018	0.011	0.033	0.72	9.76	8.78	4.68	0.58	0.29	0.011	0.000	0.034
(WY)	(1979)	(2002)	(2002)	(1989)	(2002)	(1992)	(1985)	(1985)	(1985)	(1997)	(1997)	(1995)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

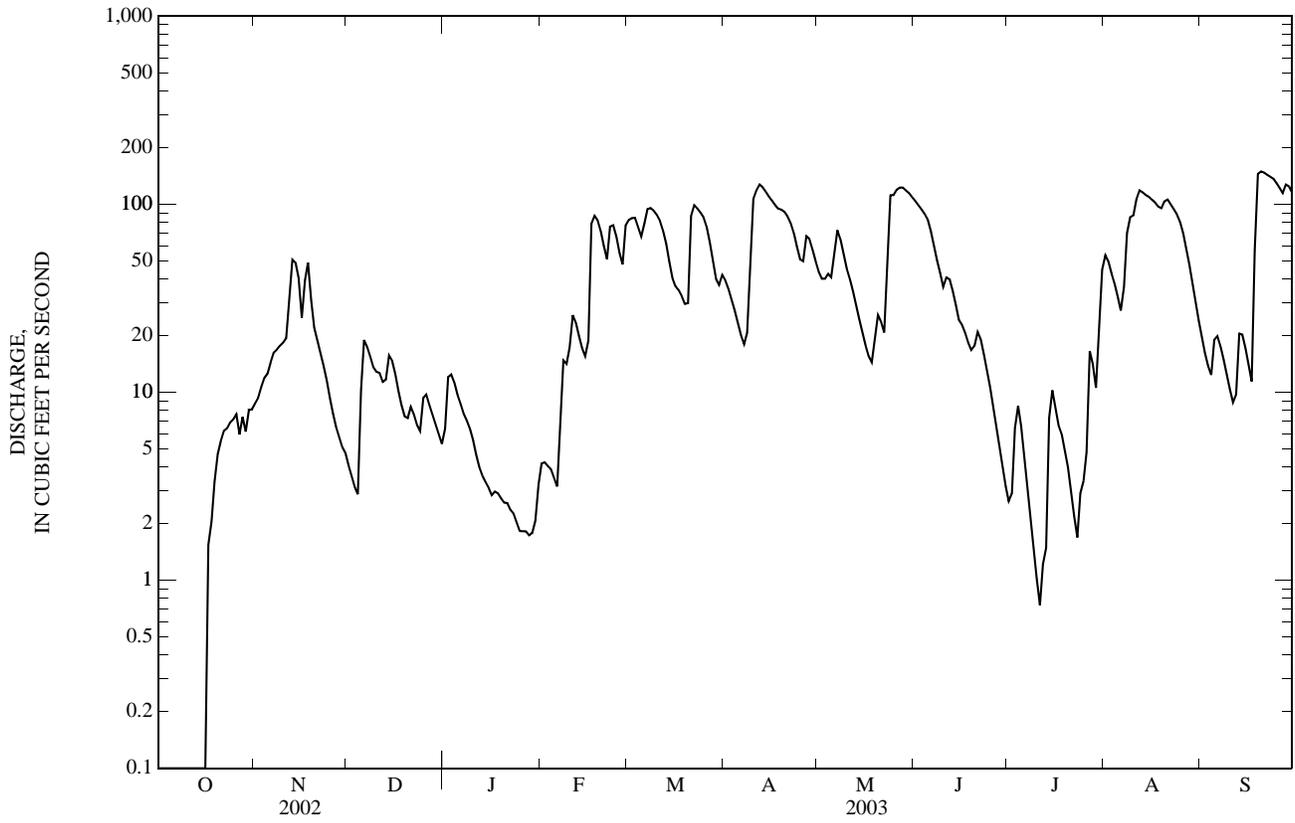
FOR 2003 WATER YEAR

WATER YEARS 1977 - 2003

ANNUAL TOTAL	3,499.79	13,640.04	
ANNUAL MEAN	9.59	37.4	25.8
HIGHEST ANNUAL MEAN			51.7
LOWEST ANNUAL MEAN			6.91
HIGHEST DAILY MEAN	68	Apr 4	385
LOWEST DAILY MEAN	0.00	Jul 3	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 3	0.05
MAXIMUM PEAK FLOW			150
MAXIMUM PEAK STAGE			4.41
INSTANTANEOUS LOW FLOW			0.00
ANNUAL RUNOFF (CFSM)	0.42		1.62
ANNUAL RUNOFF (INCHES)	5.66		22.06
10 PERCENT EXCEEDS	26		102
50 PERCENT EXCEEDS	5.1		19
90 PERCENT EXCEEDS	0.00		2.6

PAMLICO RIVER BASIN

02084557 VAN SWAMP NEAR HOKE, NC—Continued



02084557 VAN SWAMP NEAR HOKE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1993-96, 2002 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 2002 to current year.

WATER TEMPERATURE: April 2002 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from April 2002 to current year.

REMARKS.--Station operated as part of the NAWQA program April 2002 to current year. Station was operated March 1993 to September 1996 as part of the Albemarle-Pamlico NAWQA program.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	205, November 21, 22, 2002	55, July 25, 2002
WATER TEMPERATURE, °C	27.2, August 24, 2002	2.3, January 24, 2003

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	205, November 21, 22	80, October 12
WATER TEMPERATURE, °C	24.4, July 9	2.3, January 24

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)
OCT 23...	0930	9	6.4	770	4.6	45	4.0	137	14.6	9.14	26.4	1.7	0.51
NOV 08...	0900	9	17	768	5.9	53	3.9	155	11.0	15.8	29.0	1.1	0.17
DEC 11...	0930	9	13	760	8.2	72	3.6	190	9.2	10.8	38.6	0.92	0.10
JAN 23...	0930	9	2.4	760	11.8	90	3.7	126	4.1	9.14	34.8	1.0	0.06
FEB 13...	0930	9	20	765	9.0	73	3.6	193	6.7	11.0	36.0	0.88	0.05
MAR 19...	0930	9	30	763	6.5	61	3.6	176	12.7	8.69	30.2	1.1	0.10
APR 04...	0930	9	28	756	6.5	64	3.7	166	14.3	8.05	25.5	1.1	0.07
MAY 06...	1000	9	49	760	7.8	78	3.7	143	15.3	7.75	23.2	1.4	0.16
JUN 06...	0900	9	74	762	4.5	46	3.4	151	16.9	7.02	17.9	1.4	0.25
JUL 17...	0915	9	7.3	--	6.3	--	3.6	155	22.9	7.99	31.5	1.2	0.28
AUG 07...	1030	D	30	--	7.8	--	3.1	117	22.5	--	--	--	--
20...	0930	9	103	755	6.5	76	3.0	118	22.3	6.24	15.2	1.4	--
SEP 03...	1000	9	14	763	5.2	59	3.4	142	21.7	7.41	22.6	2.0	0.41

02084557 VAN SWAMP NEAR HOKE, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitro- gen, water, unfltrd mg/L (00605)	Ortho- phos- phate, water, fltrd, mg/L (00660)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
OCT 23...	0.39	0.15	<0.008	1.3	--	E.01	0.11	0.049	1.8	1.4	<0.1	1.4	47.4
NOV 08...	0.13	0.25	<0.008	1.0	--	<0.02	0.06	0.029	1.4	0.8	<0.1	0.8	39.0
DEC 11...	0.08	0.91	<0.008	0.84	--	<0.02	0.02	0.015	1.8	0.4	<0.1	0.4	29.7
JAN 23...	0.05	0.29	<0.008	0.97	--	<0.02	<0.02	0.013	1.3	0.2	<0.1	0.2	31.7
FEB 13...	0.04	1.44	<0.008	0.83	--	<0.02	0.03	0.010	2.3	0.6	<0.1	0.5	26.0
MAR 19...	0.08	1.23	<0.008	1.0	--	<0.02	0.03	0.016	2.3	0.5	<0.1	E.5	33.9
APR 04...	0.06	0.81	E.004	1.0	--	E.01	0.05	0.018	1.9	0.7	<0.1	0.7	37.8
MAY 06...	0.12	0.28	<0.008	1.3	--	E.01	0.32	0.060	1.7	5.2	0.2	5.0	34.6
JUN 06...	0.20	0.22	<0.008	1.2	0.055	0.02	0.05	0.037	1.7	0.8	<0.1	0.8	39.0
JUL 17...	0.21	0.06	<0.008	1.0	--	<0.02	0.25	0.044	1.3	4.7	<0.1	4.7	29.7
AUG 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
20...	<0.41	<0.60	<0.080	--	--	<0.18	0.09	0.045	--	1.7	<0.1	1.7	48.0
SEP 03...	0.32	<0.06	E.005	1.7	0.064	0.02	0.11	0.053	--	2.3	<0.1	2.3	64.1

Date	Biomass peri- phyton, ashfree drymass g/m2 (49954)	Peri- phyton biomass ash weight, g/m2 (00572)	Peri- phyton biomass dry weight, g/m2 (00573)	Biomass chloro- phyll ratio, peri- phyton, number (70950)	Pheo- phytin a, peri- phyton, mg/m2 (62359)	Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957)	Suspnd. sedim- ent, sieve diametr percent <.063mm (70331)	Sus- pended sedim- ent concentr- ation mg/L (80154)	Sus- pended sedim- ent load, tons/d (80155)
OCT 23...	--	--	--	--	--	--	--	--	--
NOV 08...	--	--	--	--	--	--	87	14	0.64
DEC 11...	--	--	--	--	--	--	67	8	0.28
JAN 23...	--	--	--	--	--	--	86	2	0.01
FEB 13...	--	--	--	--	--	--	71	6	0.32
MAR 19...	--	--	--	--	--	--	68	6	0.49
APR 04...	--	--	--	--	--	--	83	7	0.53
MAY 06...	--	--	--	--	--	--	95	42	5.6
JUN 06...	--	--	--	--	--	--	--	--	--
JUL 17...	--	--	--	--	--	--	82	34	0.67
AUG 07...	7.4	28	35.10	49,300	1.1	0.1	--	--	--
20...	--	--	--	--	--	--	53	43	12
SEP 03...	--	--	--	--	--	--	90	18	0.68

Remark codes used in this table:

< -- Less than
E -- Estimated value

Medium codes used in this table:

9 -- Surface water
D -- Plant tissue

02084557 VAN SWAMP NEAR HOKE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	98	97	98	137	132	135	190	186	188	192	181	187
2	97	93	95	136	134	135	187	185	186	188	179	182
3	95	94	95	138	135	137	186	185	185	190	186	188
4	95	94	95	138	136	138	185	182	184	191	187	189
5	94	94	94	138	136	137	182	164	171	191	188	189
6	94	93	94	138	134	137	180	164	175	192	188	189
7	94	92	93	135	129	132	185	180	182	192	188	189
8	93	92	93	146	135	143	188	185	186	196	187	189
9	93	92	92	142	136	139	190	188	188	193	188	190
10	92	91	92	138	136	137	190	188	189	191	186	190
11	93	87	91	137	132	135	189	186	188	191	187	189
12	115	80	102	138	101	127	192	189	190	191	187	188
13	123	115	118	133	99	117	192	186	190	189	186	187
14	128	123	126	151	133	141	192	185	188	190	186	187
15	130	126	128	161	151	157	193	191	192	189	186	187
16	133	130	132	163	156	161	195	192	193	187	184	186
17	135	133	134	157	152	154	196	194	195	188	184	187
18	135	133	134	169	151	159	197	194	195	188	185	187
19	135	134	134	178	169	174	197	194	196	189	186	187
20	136	134	136	198	178	185	198	192	195	189	187	188
21	137	134	136	205	198	202	194	190	192	189	186	188
22	137	131	135	205	200	204	195	192	193	188	186	187
23	135	131	133	203	201	202	194	190	192	188	183	185
24	136	134	135	201	199	200	194	187	191	185	183	184
25	134	133	134	200	199	200	189	183	186	187	184	185
26	134	131	132	200	197	198	191	187	189	187	185	186
27	133	131	132	198	195	196	190	188	189	186	184	185
28	133	129	132	195	192	193	191	187	189	186	183	184
29	129	126	127	192	191	191	191	187	189	187	184	186
30	126	119	122	191	189	190	191	188	190	187	183	185
31	132	116	123	---	---	---	192	189	190	185	182	184
MONTH	137	80	117	205	99	162	198	164	189	196	179	187
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	190	184	188	184	176	180	168	165	166	152	149	151
2	190	187	188	184	177	181	170	166	168	152	147	149
3	188	185	186	184	177	180	170	168	169	150	147	148
4	187	184	185	185	179	182	171	168	169	151	146	148
5	185	181	183	184	180	182	170	168	169	148	146	147
6	182	179	181	183	167	176	169	167	168	149	137	144
7	180	173	177	173	167	169	169	164	167	138	130	133
8	184	178	181	176	168	172	167	163	165	143	136	139
9	183	181	182	181	173	177	167	143	154	145	142	144
10	183	174	179	186	178	181	149	128	138	145	143	144
11	184	178	182	186	181	183	147	138	143	145	141	143
12	185	182	183	187	182	184	153	145	149	145	143	144
13	185	183	184	186	180	183	160	152	157	146	144	145
14	185	183	184	183	180	181	168	160	164	147	145	146
15	186	182	184	184	178	180	171	167	169	148	145	147
16	183	169	180	182	176	178	171	169	170	149	146	148
17	177	159	169	180	175	177	172	169	171	148	147	147
18	183	168	175	178	174	176	174	170	172	148	144	147
19	188	180	184	176	172	174	173	163	169	144	133	137
20	189	186	188	175	161	171	171	167	169	141	136	138
21	189	185	188	165	147	156	172	168	170	139	137	138
22	190	109	162	165	155	159	172	168	170	141	137	140
23	181	138	165	170	162	166	171	168	170	141	119	131
24	189	178	182	174	168	171	171	168	170	122	115	118
25	188	184	186	176	171	173	170	166	168	126	119	123
26	188	185	186	177	172	174	167	154	163	129	121	125
27	187	180	184	176	172	174	159	146	153	128	124	125
28	180	174	177	176	172	174	151	146	148	131	127	129
29	---	---	---	174	172	173	152	148	150	133	130	132
30	---	---	---	174	165	170	154	149	151	136	133	134
31	---	---	---	165	162	163	---	---	---	140	135	137
MONTH	190	109	181	187	147	175	174	128	163	152	115	139

PAMLICO RIVER BASIN

02084557 VAN SWAMP NEAR HOKE, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	141	137	139	144	143	143	115	111	112	137	136	136
2	144	139	141	144	137	141	113	111	112	137	136	137
3	147	143	145	137	131	134	116	113	115	137	136	137
4	150	146	148	134	130	131	119	115	117	138	125	136
5	152	149	150	135	133	134	122	119	121	133	124	127
6	153	151	152	135	134	135	125	122	123	131	126	128
7	154	152	153	136	134	135	122	110	118	133	130	132
8	154	151	152	135	133	134	118	108	112	135	133	134
9	152	150	151	134	132	133	114	110	112	136	134	135
10	152	140	149	133	130	132	119	114	117	137	135	137
11	140	109	116	131	122	130	121	98	111	139	137	138
12	124	114	119	135	124	129	109	104	107	139	120	135
13	130	123	127	134	126	131	115	109	111	146	121	136
14	135	130	133	166	124	143	119	115	117	139	134	136
15	137	132	135	169	162	165	121	117	118	135	134	135
16	137	132	134	165	154	157	123	120	121	137	135	136
17	139	136	137	155	145	149	124	122	123	138	137	137
18	141	139	140	147	145	146	127	123	125	138	99	123
19	142	136	140	148	146	148	127	118	122	110	105	106
20	137	134	136	148	145	147	120	104	112	109	107	108
21	135	133	134	146	144	145	109	107	108	110	109	109
22	138	135	137	145	143	144	115	109	112	112	110	111
23	139	138	138	144	136	142	119	114	117	115	111	113
24	141	139	140	141	134	137	125	119	122	117	115	115
25	142	140	141	157	141	149	130	125	127	119	116	118
26	143	141	142	159	113	147	133	130	131	122	119	120
27	144	142	143	122	111	116	135	133	134	126	122	124
28	144	143	144	139	122	133	136	134	135	127	123	125
29	145	143	144	146	139	142	136	135	136	126	123	124
30	145	143	144	146	119	128	136	135	136	128	125	126
31	---	---	---	129	115	119	136	135	136	---	---	---
MONTH	154	109	140	169	111	139	136	98	120	146	99	127

02084557 VAN SWAMP NEAR HOKE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	20.9	20.4	20.6	12.2	11.0	11.5	10.6	8.4	9.3	12.7	11.3	12.0
2	20.6	20.4	20.5	11.1	10.4	10.8	8.9	7.1	8.0	12.2	11.6	11.8
3	20.6	20.5	20.5	10.6	9.9	10.3	9.2	8.1	8.8	12.2	11.5	11.8
4	20.8	20.6	20.7	11.1	10.2	10.6	8.1	7.1	7.5	11.9	10.0	11.0
5	21.0	20.8	20.9	11.7	10.9	11.2	7.9	7.2	7.6	10.0	8.6	9.3
6	21.4	21.0	21.1	13.2	11.7	12.4	8.3	7.3	7.8	10.0	8.6	9.3
7	21.3	21.1	21.2	13.1	11.5	12.5	8.0	7.0	7.6	9.6	8.2	8.7
8	21.1	20.6	20.9	11.5	11.0	11.1	8.5	6.9	7.8	9.6	8.2	8.8
9	20.6	19.8	20.0	12.0	10.9	11.5	8.8	8.2	8.5	11.2	9.6	10.3
10	19.9	19.7	19.8	13.4	12.0	12.8	9.2	8.6	8.9	11.5	10.1	11.2
11	20.4	19.8	19.9	14.0	13.2	13.6	9.5	9.2	9.3	10.1	8.2	9.0
12	21.0	20.1	20.9	17.9	14.0	15.5	10.3	9.3	9.8	8.2	7.1	7.5
13	20.9	20.0	20.3	17.7	13.9	15.7	10.8	9.9	10.2	8.1	6.7	7.3
14	20.3	18.2	19.6	13.9	12.3	12.9	11.1	10.6	10.8	8.3	7.2	7.7
15	18.2	17.2	17.5	13.2	11.8	12.5	10.7	9.7	10.1	8.0	7.0	7.7
16	18.0	17.5	17.7	14.9	13.2	14.1	10.6	9.2	9.9	7.3	5.9	6.6
17	17.9	17.0	17.2	15.3	14.5	15.1	10.1	8.9	9.4	7.5	6.3	7.1
18	17.0	14.9	16.2	14.5	12.8	13.5	10.0	9.0	9.5	6.3	5.1	5.6
19	14.9	14.0	14.4	12.8	11.6	12.2	11.6	9.3	10.2	5.5	4.4	5.0
20	14.9	14.0	14.4	12.8	11.8	12.3	13.3	11.6	12.6	7.4	5.1	6.2
21	15.8	14.9	15.5	13.8	12.6	13.1	12.2	10.2	10.9	7.2	6.4	6.8
22	15.6	15.3	15.4	14.3	13.2	13.9	10.6	9.2	10	6.4	5.4	5.9
23	15.4	14.6	14.9	13.2	11.3	12.1	10.6	9.6	10.2	5.8	3.1	4.5
24	15.0	14.6	14.8	12.0	10.4	11.2	10.1	9.7	9.8	3.8	2.3	3.1
25	15.5	15.0	15.2	12.4	10.6	11.5	10.4	9.3	10.1	4.7	2.6	3.7
26	15.9	15.5	15.7	12.4	11.2	11.8	9.3	8.4	8.8	5.6	4.1	4.9
27	16.5	15.9	16.2	12.1	10.5	11.4	8.6	7.5	8.1	5.3	4.2	4.9
28	16.2	15.9	16.1	10.5	8.7	9.4	8.2	7.0	7.8	4.7	2.9	3.9
29	16.2	15.8	15.9	9.0	7.5	8.3	9.0	7.5	8.2	7.4	4.7	6.0
30	15.8	14.2	15.1	10.8	9.0	10	9.8	7.8	8.8	7.5	7.0	7.3
31	14.2	12.2	13.2	---	---	---	11.3	9.6	10.4	7.2	6.8	7.0
MONTH	21.4	12.2	17.8	17.9	7.5	12.2	13.3	6.9	9.2	12.7	2.3	7.5
DAY	MAX	MIN	MEAN									
1	7.6	6.9	7.3	10.2	8.8	9.4	12.9	10.9	12.0	16.9	16.3	16.6
2	8.0	6.4	7.3	11.2	10.1	10.6	14.5	12.5	13.5	17.1	16.4	16.7
3	9.2	6.7	7.8	10.8	9.9	10.4	15.3	13.6	14.5	17.0	16.0	16.6
4	11.0	9.1	10.1	10.7	9.1	10	15.4	14.1	14.8	16.0	14.6	15.3
5	9.8	8.0	8.7	12.3	10.7	11.6	15.6	14.6	15.2	14.6	13.6	14.0
6	8.3	7.3	7.7	12.5	11.9	12.2	15.2	14.0	14.8	17.0	14.4	15.7
7	7.8	7.0	7.5	11.9	9.6	10.6	14.0	12.8	13.2	18.0	16.6	17.1
8	7.4	6.1	6.8	10.9	9.2	10.0	12.8	12.0	12.3	18.7	17.5	18.0
9	7.7	6.2	7.0	11.8	10.1	10.9	12.0	11.4	11.6	18.8	17.7	18.3
10	7.3	6.8	7.1	11.7	10.6	11.2	11.6	11.0	11.3	18.8	18.0	18.4
11	8.0	6.3	7.1	10.6	9.8	10.2	11.6	11.3	11.5	19.5	18.5	19.0
12	8.9	7.1	7.9	11.8	10.1	10.9	13.1	11.2	11.9	19.4	18.2	18.9
13	8.3	6.8	7.6	12.6	11.0	11.8	13.8	12.3	13.0	18.2	16.7	17.2
14	8.5	6.9	7.8	12.5	11.1	12.0	13.9	12.6	13.3	16.7	15.6	16.2
15	9.2	8.5	8.8	11.8	10.6	11.2	14.3	12.8	13.6	16.6	16.0	16.3
16	8.8	8.0	8.4	13.2	11.8	12.5	15.0	13.8	14.3	17.3	16.1	16.6
17	8.0	7.4	7.7	13.4	13.0	13.2	14.9	14.1	14.5	17.1	15.8	16.4
18	7.8	7.1	7.4	13.6	13.1	13.3	14.5	13.9	14.0	15.8	14.9	15.3
19	8.6	7.1	7.8	13.3	12.6	12.9	14.2	13.8	13.9	15.3	14.6	14.9
20	9.4	8.3	8.8	13.7	12.6	13.0	14.2	13.2	13.7	16.4	14.9	15.6
21	9.6	8.4	9.0	14.7	13.7	14.2	14.5	13.6	14.0	16.8	15.9	16.4
22	11.9	9.6	10.7	15.0	13.5	14.2	15.1	14.4	14.7	16.9	16.8	16.9
23	12.2	10.9	11.9	14.3	13.5	13.9	15.0	14.2	14.5	16.9	16.7	16.8
24	11.0	9.6	10.4	14.5	13.1	13.8	14.3	13.2	13.8	17.1	16.4	16.7
25	10.9	10.1	10.5	14.2	12.6	13.4	14.2	13.7	13.9	17.7	16.6	17.1
26	10.1	9.3	9.5	14.6	12.9	13.8	15.2	14.2	14.6	18.5	17.5	18.0
27	9.3	9.1	9.2	14.4	13.7	14.0	15.6	14.8	15.1	18.4	17.5	17.9
28	9.2	8.8	8.9	15.0	13.1	14.1	15.8	14.4	15.1	17.7	16.9	17.3
29	---	---	---	15.4	14.1	14.8	16.4	14.9	15.6	17.6	17.0	17.3
30	---	---	---	15.3	12.6	14.3	16.8	15.7	16.3	17.8	17.1	17.4
31	---	---	---	12.6	11.5	12.1	---	---	---	17.7	17.3	17.4
MONTH	12.2	6.1	8.5	15.4	8.8	12.3	16.8	10.9	13.8	19.5	13.6	16.8

PAMLICO RIVER BASIN

02084557 VAN SWAMP NEAR HOKE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	17.4	16.9	17.2	21.5	20.5	20.8	23.4	22.8	23.2	22.3	21.7	22.0
2	17.2	16.5	16.8	20.8	20.1	20.3	23.4	23.0	23.2	22.2	21.6	21.9
3	17.1	16.4	16.7	21.3	20.3	20.7	23.4	22.9	23.0	22.3	21.6	21.9
4	17.3	17.0	17.1	22.3	20.6	21.3	22.9	22.6	22.7	22.6	21.6	22.1
5	17.6	17.2	17.4	23.4	21.6	22.3	22.7	22.2	22.5	22.1	21.5	21.8
6	17.6	16.9	17.1	23.8	22.3	23.0	22.6	22.3	22.5	21.5	20.2	20.7
7	17.4	17.0	17.2	23.7	22.8	23.3	23.2	22.2	22.6	20.5	20.0	20.3
8	17.8	17.4	17.6	23.8	22.8	23.3	23.3	22.6	22.9	20.7	20.3	20.5
9	18.4	17.8	18.1	24.4	23.1	23.8	23.0	22.6	22.8	21.1	20.3	20.7
10	18.7	18.1	18.4	24.2	23.4	23.8	22.7	22.4	22.5	20.8	19.7	20.4
11	20.8	18.6	20.1	24.0	23.2	23.6	23.4	22.2	22.7	19.7	18.6	19.1
12	20.3	19.8	20.1	23.6	22.9	23.2	23.5	22.9	23.2	20.7	19.2	19.7
13	20.0	19.6	19.8	23.2	22.0	22.8	23.4	22.9	23.2	20.8	20.5	20.6
14	19.8	19.3	19.5	22.3	21.7	22.0	23.1	22.7	22.9	21.1	20.0	20.5
15	19.8	19.2	19.5	23.0	21.4	22.1	23.0	22.6	22.8	21.2	20.5	20.9
16	19.8	19.3	19.5	23.7	22.0	22.7	23.0	22.6	22.8	21.2	20.5	20.8
17	19.4	18.8	19.0	23.6	22.7	23.0	22.6	22.3	22.4	20.5	19.3	19.7
18	19.4	18.6	18.9	23.0	22.2	22.6	22.4	22.0	22.1	21.5	19.8	20.6
19	19.9	19.0	19.4	22.9	22.4	22.6	22.6	22.0	22.3	21.9	20.7	21.2
20	19.8	19.6	19.7	22.5	21.6	22.1	23.1	22.3	22.6	21.7	20.9	21.3
21	19.6	18.9	19.2	23.1	22.2	22.6	23.3	22.6	22.9	21.9	21.1	21.5
22	18.9	17.9	18.3	23.8	23.0	23.4	23.4	22.9	23.1	21.8	21.2	21.5
23	19.2	17.9	18.4	23.6	22.8	23.2	23.2	22.8	22.9	21.8	21.5	21.6
24	19.6	18.1	18.8	22.9	22.3	22.6	22.9	22.0	22.4	21.5	20.6	21.0
25	20.4	18.5	19.3	23.0	22.7	22.9	22.0	21.1	21.5	20.9	20.2	20.6
26	20.9	19.2	20.0	23.4	22.6	22.9	22.0	21.5	21.7	20.7	20.0	20.4
27	21.4	20.0	20.6	23.4	22.3	22.7	22.3	21.8	22.0	20.8	20.3	20.6
28	20.9	20.4	20.7	23.3	22.6	22.8	22.5	22.0	22.3	21.2	20.7	20.9
29	21.2	19.9	20.5	22.9	22.2	22.5	22.6	22.1	22.3	21.0	19.6	20.2
30	21.5	20.2	20.9	23.2	22.3	22.7	22.8	22.2	22.5	19.6	18.5	18.9
31	---	---	---	23.4	22.5	23.0	22.7	22.3	22.5	---	---	---
MONTH	21.5	16.4	18.9	24.4	20.1	22.6	23.5	21.1	22.6	22.6	18.5	20.8

02084909 SEVENMILE CREEK NEAR EFLAND, NC

LOCATION.--Lat 36°03'57", long 79°08'38", Orange County, Hydrologic Unit 03020201, at upstream side of culvert on I-85, 1 mi upstream from mouth, and 1.5 mi southeast of Efland.

DRAINAGE AREA.--14.1 mi².

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

REVISED RECORDS.--WRD NC-96-1: 1988-95(M).

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. Maximum discharge for period of record from rating curve extended above 1,000 ft³/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.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	4.3	e4.6	21	25	94	33	16	23	7.8	4.8	6.2
2	2.3	2.3	e4.4	32	14	142	23	14	16	121	5.9	3.9
3	2.2	1.6	e4.2	21	9.6	56	16	12	14	49	5.6	3.1
4	1.9	2.9	e4.0	17	9.2	26	12	12	29	19	16	9.8
5	2.1	4.3	129	10	8.9	22	11	14	38	11	9.5	28
6	2.3	44	31	8.0	6.8	107	8.7	20	16	7.9	34	5.0
7	2.4	12	21	6.7	112	52	268	18	109	7.5	9.4	3.5
8	2.5	4.4	11	6.4	69	23	117	16	138	6.9	7.5	3.4
9	2.5	4.0	10	5.9	28	16	365	14	86	5.9	16	3.5
10	4.7	13	10	4.3	24	11	602	13	39	6.1	157	3.2
11	475	24	57	2.8	22	7.4	207	12	24	7.0	24	2.9
12	54	70	34	2.6	14	6.6	97	11	28	7.2	11	2.7
13	14	42	163	2.6	12	6.7	63	11	78	6.1	8.0	2.8
14	13	12	106	2.5	10	11	40	10	27	51	23	2.9
15	4.6	4.7	28	2.1	12	6.5	32	30	20	10	12	2.9
16	72	7.7	14	1.8	14	163	27	53	42	6.5	7.9	3.0
17	16	115	9.8	1.9	15	65	23	9.9	34	5.2	5.9	2.7
18	4.4	50	7.2	1.8	27	23	20	18	22	4.7	5.1	20
19	e3.0	14	7.0	1.8	55	12	22	61	26	4.3	5.0	59
20	e2.8	6.9	19	1.8	38	620	19	19	21	4.1	4.6	12
21	e2.8	7.6	17	1.7	25	142	17	23	15	4.1	4.5	5.0
22	2.9	8.5	10	1.7	139	66	16	290	12	6.9	4.2	3.7
23	e2.8	13	7.3	1.6	122	36	12	168	8.9	60	4.1	79
24	e2.6	6.3	51	1.6	38	23	10	69	7.4	11	9.7	26
25	e2.4	5.1	188	1.6	19	17	11	105	6.3	6.0	5.2	9.8
26	e3.0	4.8	54	1.6	13	13	17	158	5.9	4.5	4.3	11
27	e2.6	5.8	23	1.7	e80	11	21	39	5.7	4.0	3.7	4.9
28	e80	4.3	14	1.7	174	8.7	12	28	5.4	3.9	3.3	4.2
29	e50	5.2	11	2.1	---	9.0	9.5	25	5.4	3.5	2.9	3.5
30	28	4.9	7.7	58	---	126	9.3	28	5.4	6.2	2.7	3.4
31	10	---	6.4	82	---	75	---	24	---	5.2	6.4	---
TOTAL	871.1	504.6	1,063.6	309.3	1,135.5	1,996.9	2,140.5	1,340.9	907.4	463.5	423.2	331.0
MEAN	28.1	16.8	34.3	9.98	40.6	64.4	71.3	43.3	30.2	15.0	13.7	11.0
MAX	475	115	188	82	174	620	602	290	138	121	157	79
MIN	1.9	1.6	4.0	1.6	6.8	6.5	8.7	9.9	5.4	3.5	2.7	2.7
CFSM	1.99	1.19	2.43	0.71	2.88	4.57	5.06	3.07	2.15	1.06	0.97	0.78
IN.	2.30	1.33	2.81	0.82	3.00	5.27	5.65	3.54	2.39	1.22	1.12	0.87

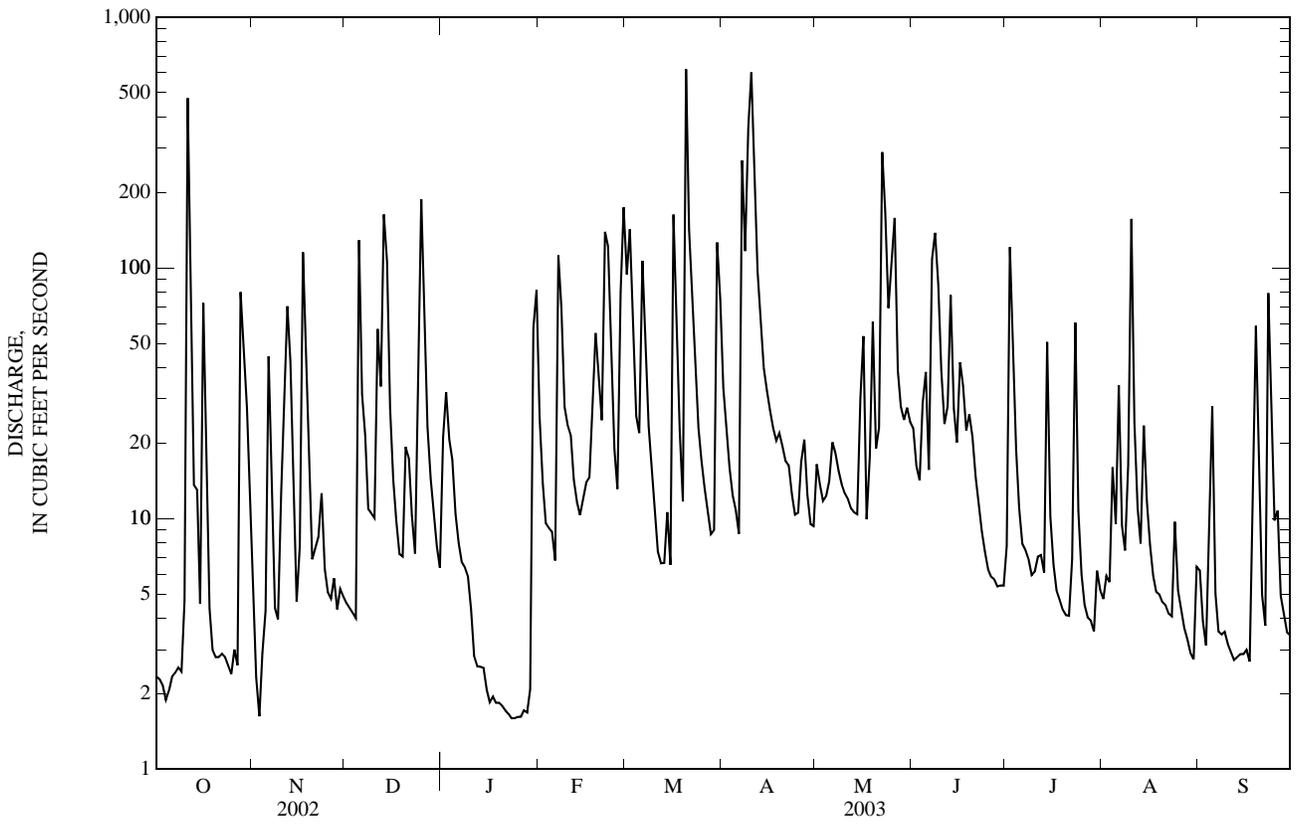
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, @ BY WATER YEAR (WY)

MEAN	7.64	8.20	10.5	22.7	24.8	32.0	21.7	11.3	8.90	4.51	3.55	9.44
MAX	28.1	28.9	34.3	58.2	62.9	76.6	71.3	43.3	30.6	15.0	13.7	54.4
(WY)	(2003)	(1996)	(2003)	(1991)	(1998)	(1998)	(2003)	(2003)	(1995)	(2003)	(2003)	(1996)
MIN	0.065	0.064	1.65	5.06	4.20	2.88	0.99	0.79	0.038	0.009	0.016	0.027
(WY)	(1999)	(1999)	(2002)	(2001)	(2002)	(2002)	(1995)	(2002)	(2002)	(2002)	(2002)	(1990)

02084909 SEVENMILE CREEK NEAR EFLAND, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003 [®]	
ANNUAL TOTAL	3,129.93		11,487.5		13.7	
ANNUAL MEAN	8.58		31.5		2.14	
HIGHEST ANNUAL MEAN					31.5	2003
LOWEST ANNUAL MEAN					2.14	2002
HIGHEST DAILY MEAN	475	Oct 11	620	Mar 20	1,080	Sep 6, 1996
LOWEST DAILY MEAN	0.00	Jun 25	1.6	Nov 3	0.00	Aug 3, 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 13	1.6	Jan 21	0.00	Aug 13, 1988
MAXIMUM PEAK FLOW			1,440	Apr 10	3,440*	Sep 6, 1996
MAXIMUM PEAK STAGE			10.80	Apr 10	15.47*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		0.00*	Aug 6, 1987
ANNUAL RUNOFF (CFSM)	0.61		2.23		0.97	
ANNUAL RUNOFF (INCHES)	8.26		30.31		13.20	
10 PERCENT EXCEEDS	15		78		26	
50 PERCENT EXCEEDS	1.6		11		4.5	
90 PERCENT EXCEEDS	0.00		2.8		0.22	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



02085000 ENO RIVER AT HILLSBOROUGH, NC

LOCATION.--Lat 36°04'19", long 79°05'48", 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 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORD.--WDR NC-96-1: 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 487.44 ft above NGVD of 1929. Telephone and satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station of 1.4 ft³/s by Orange-Alamance Water System, Inc. and 1.7 ft³/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, 21.13 ft, from high-water mark in gage shelter. No flow for part of Sept. 13, 2002. Minimum discharge for current water year also occurred Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.84	48	13	82	137	505	164	54	73	52	31	155
2	0.65	29	12	148	85	723	111	46	54	539	37	59
3	0.79	20	11	109	64	399	91	40	50	323	31	35
4	0.84	16	12	98	60	175	81	36	87	120	50	139
5	1.6	16	575	76	65	136	80	35	174	76	60	306
6	2.3	170	298	63	52	397	87	47	73	54	109	92
7	1.8	90	233	54	376	318	1,090	46	315	49	44	54
8	1.4	46	134	49	336	146	666	37	663	44	38	44
9	0.99	29	106	46	131	108	1,700	32	445	36	77	36
10	9.3	22	90	41	99	90	2,070	30	171	35	970	31
11	1,560	23	220	35	91	76	1,100	28	103	36	193	25
12	189	245	245	33	72	69	354	25	85	32	99	23
13	53	382	567	31	55	66	205	19	197	33	70	24
14	46	138	720	31	49	84	149	17	96	579	169	24
15	24	68	207	30	56	73	121	58	77	99	93	24
16	224	53	112	28	65	579	105	179	266	57	66	24
17	85	532	82	30	74	482	89	56	601	58	72	19
18	31	422	66	28	76	196	81	70	208	42	51	69
19	18	145	56	27	170	119	86	190	137	33	40	246
20	12	81	81	26	132	2,590	79	99	114	28	34	94
21	9.1	57	91	26	95	995	73	88	84	24	31	51
22	9.5	42	68	27	427	437	71	894	62	60	31	35
23	9.5	30	54	29	653	194	60	755	53	337	35	535
24	7.9	26	143	26	234	131	51	365	43	139	39	229
25	7.7	23	757	23	124	102	51	373	37	70	28	96
26	11	20	307	24	94	90	67	1,100	33	42	23	65
27	7.3	19	124	25	343	83	91	265	31	32	20	47
28	123	17	88	22	785	72	59	150	29	25	19	38
29	246	15	73	25	---	69	50	115	30	22	16	31
30	192	14	61	140	---	455	45	99	35	37	14	26
31	94	---	53	382	---	418	---	81	---	32	142	---
TOTAL	2,979.51	2,838	5,659	1,814	5,000	10,377	9,127	5,429	4,426	3,145	2,732	2,676
MEAN	96.1	94.6	183	58.5	179	335	304	175	148	101	88.1	89.2
MAX	1,560	532	757	382	785	2,590	2,070	1,100	663	579	970	535
MIN	0.65	14	11	22	49	66	45	17	29	22	14	19
CFSM	1.46	1.43	2.77	0.89	2.71	5.07	4.61	2.65	2.24	1.54	1.34	1.35
IN.	1.68	1.60	3.19	1.02	2.82	5.85	5.14	3.06	2.49	1.77	1.54	1.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2003,® BY WATER YEAR (WY)

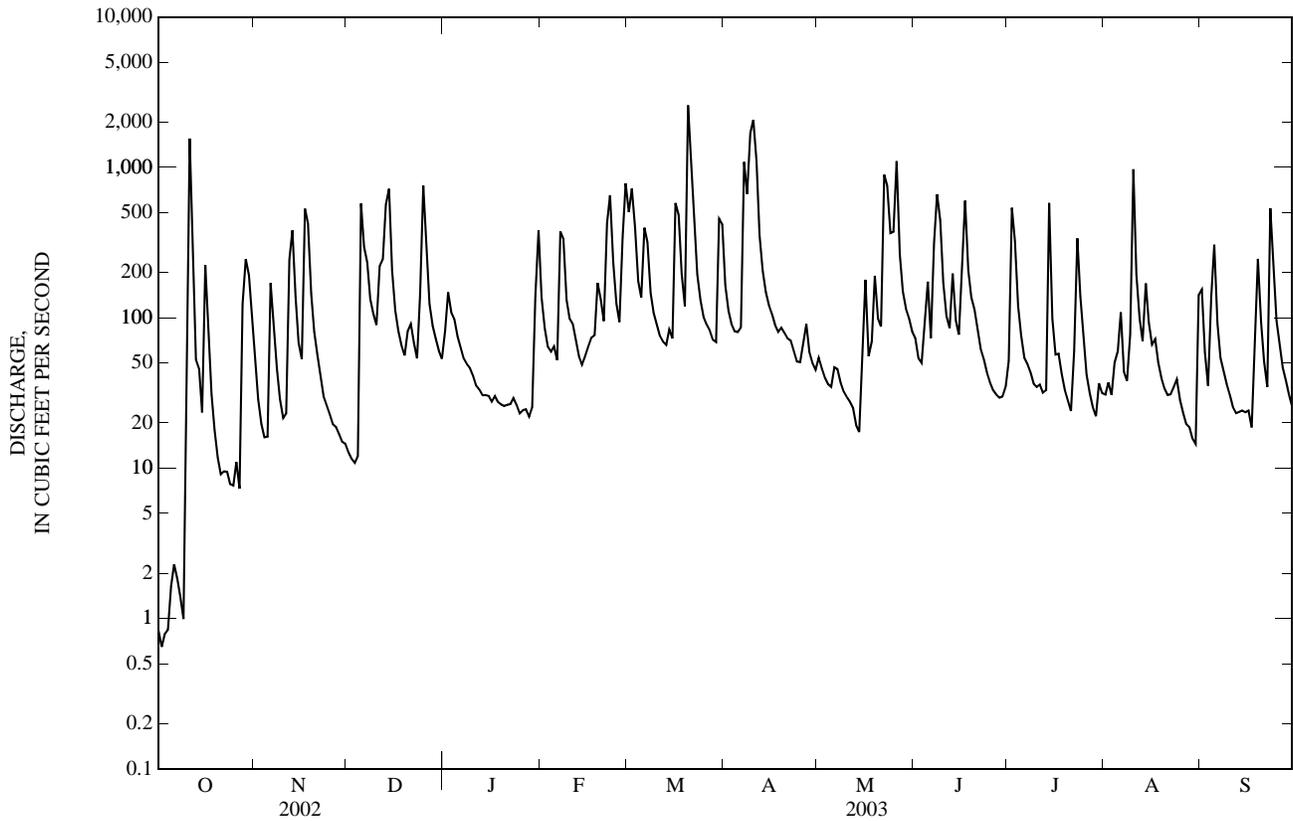
MEAN	29.4	43.8	56.1	90.0	112	122	96.4	51.7	39.2	37.8	32.6	37.8
MAX	181	213	183	326	311	354	304	175	210	359	256	342
(WY)	(1930)	(1986)	(2003)	(1936)	(1998)	(1998)	(2003)	(2003)	(1995)	(1938)	(1939)	(1945)
MIN	0.63	0.82	3.64	5.16	17.2	22.4	12.4	4.17	1.75	1.28	0.85	0.28
(WY)	(1987)	(1942)	(1942)	(1942)	(2002)	(2002)	(2002)	(2002)	(1986)	(1986)	(1987)	(1954)

02085000 ENO RIVER AT HILLSBOROUGH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1928 - 2003 [@]	
ANNUAL TOTAL	14,662.80		56,202.51		62.1	
ANNUAL MEAN	40.2		154		154	
HIGHEST ANNUAL MEAN					154	2003
LOWEST ANNUAL MEAN					9.67	2002
HIGHEST DAILY MEAN	1,560	Oct 11	2,590	Mar 20	4,600	Sep 6, 1996
LOWEST DAILY MEAN	0.03	Sep 13	0.65	Oct 2	0.02	Jul 10, 1986
ANNUAL SEVEN-DAY MINIMUM	0.26	Sep 8	1.3	Oct 1	0.10	Oct 6, 1954
MAXIMUM PEAK FLOW			4,580	Mar 20	10,800	Sep 6, 1996
MAXIMUM PEAK STAGE			16.61	Mar 20	21.13*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.49*	Oct 2	0.00*	Sep 13, 2002
ANNUAL RUNOFF (CFSM)	0.61		2.33		0.94	
ANNUAL RUNOFF (INCHES)	8.26		31.68		12.78	
10 PERCENT EXCEEDS	89		388		118	
50 PERCENT EXCEEDS	8.0		68		26	
90 PERCENT EXCEEDS	1.2		20		4.0	

[@] See PERIOD OF RECORD.

* See REMARKS.



02085000 ENO RIVER AT HILLSBOROUGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, unfltrd recover- able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT					
11...	<3	<0.3	<25	546	4,480
31...	<3	<0.3	<25	13	3.7
DEC					
16...	--	--	--	13	3.9
FEB					
20...	--	--	--	16	6.3
MAR					
20...	<3	<0.3	36	406	4,170
APR					
14...	<3	<0.3	<25	13	5.4
JUN					
30...	--	--	--	4	0.02
AUG					
21...	--	--	--	6	0.49

0208500600 CATES CREEK NEAR HILLSBOROUGH, NC

LOCATION.--Lat 36°03'56", long 79°05'13", Orange County, Hydrologic Unit 03020201, at bridge on U.S. Highway 70A, .7 mi upstream of mouth, and 1.4 mi southeast of Hillsborough.

DRAINAGE AREA.--4.18 mi².

GAGE-HEIGHT RECORDS

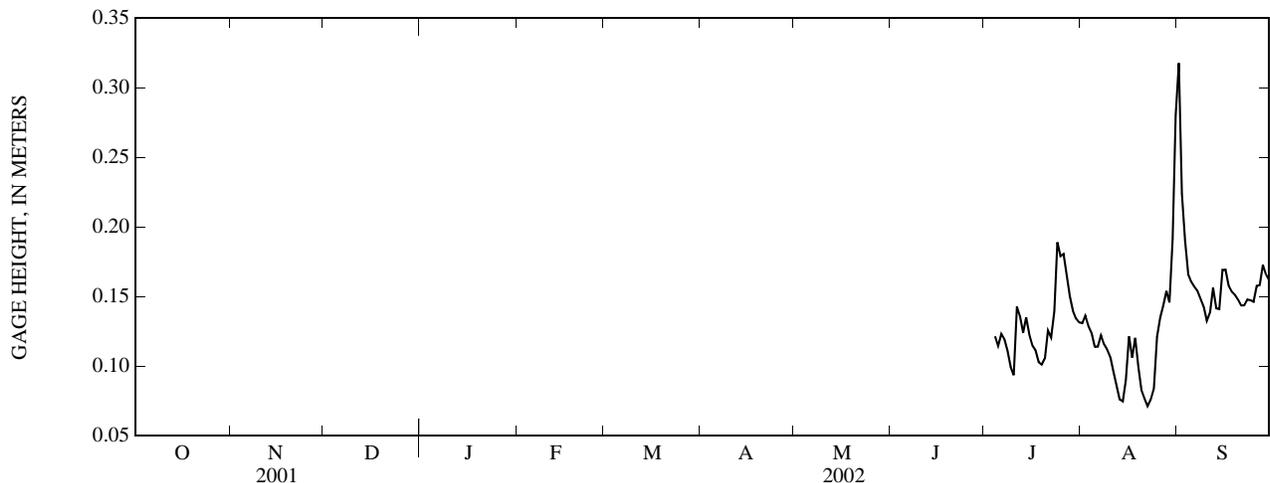
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 510 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 1.61 m, Aug. 5, 2003; minimum gage height recorded, 0.05 m, Aug. 22-24, 2002.

GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

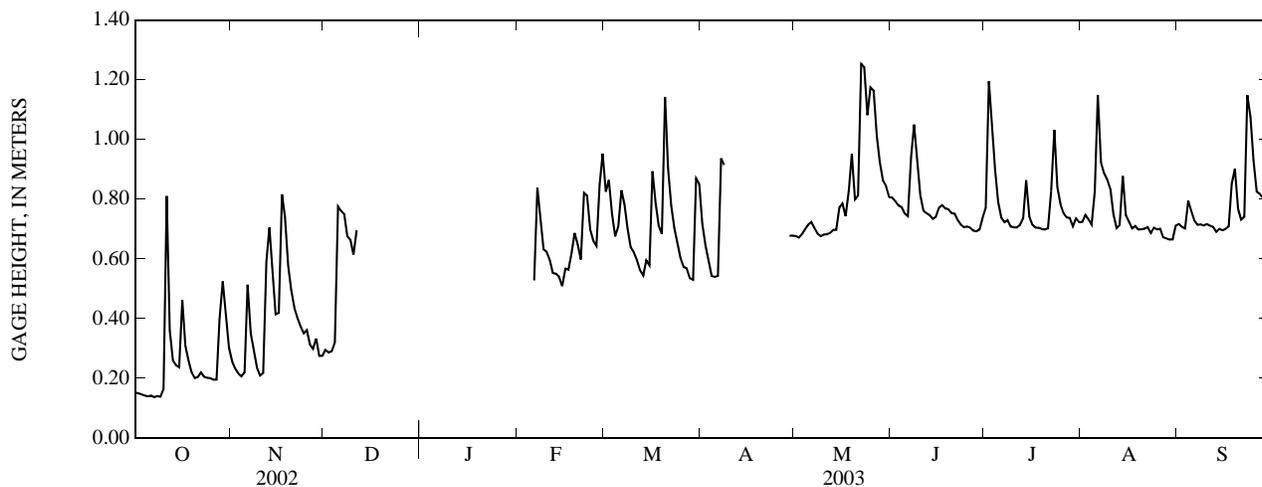
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.13	0.32
2	---	---	---	---	---	---	---	---	---	---	0.14	0.22
3	---	---	---	---	---	---	---	---	---	---	0.13	0.19
4	---	---	---	---	---	---	---	---	---	0.12	0.12	0.17
5	---	---	---	---	---	---	---	---	---	0.11	0.11	0.16
6	---	---	---	---	---	---	---	---	---	0.12	0.11	0.16
7	---	---	---	---	---	---	---	---	---	0.12	0.12	0.15
8	---	---	---	---	---	---	---	---	---	0.11	0.12	0.15
9	---	---	---	---	---	---	---	---	---	0.10	0.11	0.14
10	---	---	---	---	---	---	---	---	---	0.09	0.11	0.13
11	---	---	---	---	---	---	---	---	---	0.14	0.10	0.14
12	---	---	---	---	---	---	---	---	---	0.14	0.09	0.16
13	---	---	---	---	---	---	---	---	---	0.12	0.08	0.14
14	---	---	---	---	---	---	---	---	---	0.14	0.07	0.14
15	---	---	---	---	---	---	---	---	---	0.12	0.09	0.17
16	---	---	---	---	---	---	---	---	---	0.11	0.12	0.17
17	---	---	---	---	---	---	---	---	---	0.11	0.11	0.16
18	---	---	---	---	---	---	---	---	---	0.10	0.12	0.15
19	---	---	---	---	---	---	---	---	---	0.10	0.10	0.15
20	---	---	---	---	---	---	---	---	---	0.11	0.08	0.15
21	---	---	---	---	---	---	---	---	---	0.13	0.08	0.14
22	---	---	---	---	---	---	---	---	---	0.12	0.07	0.14
23	---	---	---	---	---	---	---	---	---	0.14	0.08	0.15
24	---	---	---	---	---	---	---	---	---	0.19	0.08	0.15
25	---	---	---	---	---	---	---	---	---	0.18	0.12	0.15
26	---	---	---	---	---	---	---	---	---	0.18	0.13	0.16
27	---	---	---	---	---	---	---	---	---	0.17	0.14	0.16
28	---	---	---	---	---	---	---	---	---	0.15	0.15	0.17
29	---	---	---	---	---	---	---	---	---	0.14	0.15	0.17
30	---	---	---	---	---	---	---	---	---	0.13	0.19	0.16
31	---	---	---	---	---	---	---	---	---	0.13	0.28	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.12	0.16
MAX	---	---	---	---	---	---	---	---	---	---	0.28	0.32
MIN	---	---	---	---	---	---	---	---	---	---	0.07	0.13



0208500600 CATES CREEK NEAR HILLSBOROUGH, NC—Continued

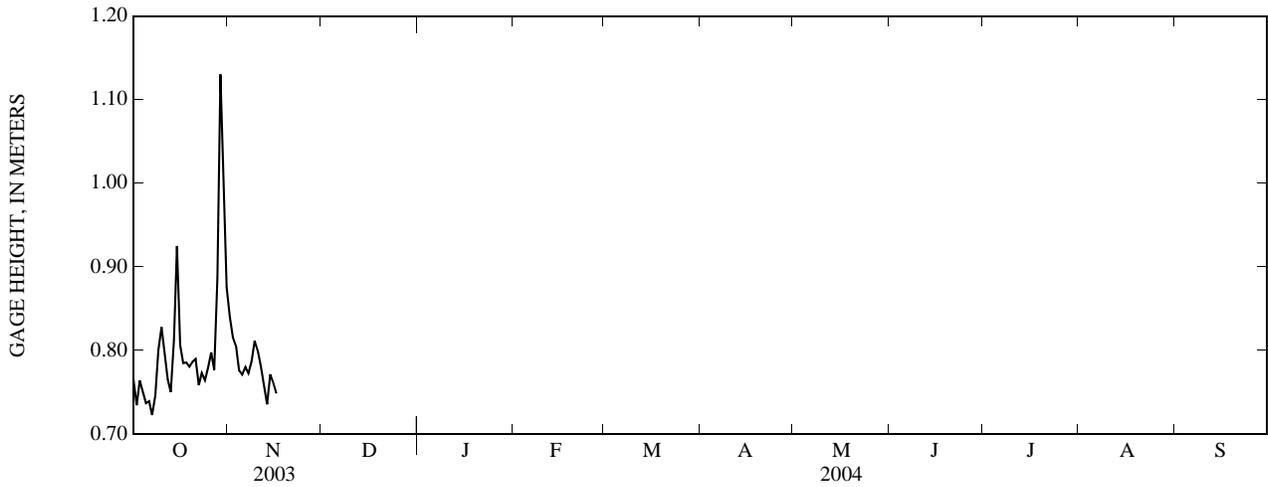
GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.15	0.26	0.29	---	---	0.83	0.72	0.68	0.81	0.77	0.72	0.72
2	0.15	0.23	0.29	---	---	0.86	0.64	0.67	0.79	1.20	0.75	0.71
3	0.15	0.22	0.29	---	---	0.75	0.59	0.68	0.78	1.07	0.73	0.70
4	0.14	0.21	0.32	---	---	0.68	0.54	0.70	0.77	0.90	0.71	0.80
5	0.14	0.22	0.78	---	---	0.71	0.54	0.71	0.75	0.79	0.83	0.76
6	0.14	0.51	0.76	---	0.53	0.83	0.54	0.72	0.74	0.74	1.15	0.73
7	0.14	0.35	0.75	---	0.84	0.78	0.94	0.70	0.94	0.72	0.92	0.71
8	0.14	0.29	0.68	---	0.74	0.70	0.92	0.68	1.05	0.73	0.89	0.72
9	0.14	0.24	0.66	---	0.63	0.64	---	0.68	0.94	0.71	0.87	0.71
10	0.16	0.21	0.61	---	0.62	0.62	---	0.68	0.81	0.71	0.83	0.72
11	0.81	0.22	0.70	---	0.60	0.60	---	0.68	0.76	0.71	0.75	0.71
12	0.36	0.59	---	---	0.55	0.56	---	0.69	0.75	0.71	0.70	0.71
13	0.26	0.71	---	---	0.55	0.54	---	0.70	0.75	0.74	0.71	0.69
14	0.24	0.55	---	---	0.54	0.60	---	0.70	0.73	0.86	0.88	0.70
15	0.24	0.41	---	---	0.51	0.58	---	0.77	0.74	0.74	0.75	0.70
16	0.46	0.42	---	---	0.57	0.89	---	0.79	0.77	0.71	0.72	0.70
17	0.31	0.82	---	---	0.56	0.79	---	0.74	0.78	0.70	0.70	0.71
18	0.26	0.74	---	---	0.62	0.71	---	0.83	0.77	0.70	0.71	0.85
19	0.22	0.58	---	---	0.69	0.68	---	0.95	0.77	0.70	0.70	0.90
20	0.20	0.50	---	---	0.65	1.14	---	0.80	0.75	0.70	0.70	0.77
21	0.20	0.44	---	---	0.60	0.90	---	0.81	0.75	0.70	0.70	0.73
22	0.22	0.40	---	---	0.82	0.78	---	1.25	0.73	0.83	0.71	0.74
23	0.20	0.37	---	---	0.81	0.70	---	1.24	0.72	1.03	0.69	1.15
24	0.20	0.35	---	---	0.70	0.65	---	1.08	0.71	0.84	0.70	1.07
25	0.20	0.36	---	---	0.66	0.60	---	1.17	0.71	0.78	0.70	0.93
26	0.20	0.31	---	---	0.64	0.57	---	1.16	0.70	0.75	0.70	0.83
27	0.20	0.30	---	---	0.85	0.57	---	1.01	0.69	0.74	0.67	0.82
28	0.40	0.33	---	---	0.95	0.54	---	0.92	0.69	0.74	0.67	0.80
29	0.52	0.28	---	---	---	0.53	0.68	0.86	0.70	0.71	0.66	0.79
30	0.41	0.28	---	---	---	0.87	0.68	0.84	0.74	0.74	0.67	0.84
31	0.30	---	---	---	---	0.85	---	0.81	---	0.72	0.71	---
MEAN	0.25	0.39	---	---	---	0.71	---	0.83	0.77	0.78	0.75	0.78
MAX	0.81	0.82	---	---	---	1.14	---	1.25	1.05	1.20	1.15	1.15
MIN	0.14	0.21	---	---	---	0.53	---	0.67	0.69	0.70	0.66	0.69



GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.77	0.84	---	---	---	---	---	---	---	---	---	---
2	0.73	0.82	---	---	---	---	---	---	---	---	---	---
3	0.76	0.81	---	---	---	---	---	---	---	---	---	---
4	0.75	0.78	---	---	---	---	---	---	---	---	---	---
5	0.74	0.77	---	---	---	---	---	---	---	---	---	---
6	0.74	0.78	---	---	---	---	---	---	---	---	---	---
7	0.72	0.77	---	---	---	---	---	---	---	---	---	---
8	0.75	0.79	---	---	---	---	---	---	---	---	---	---
9	0.80	0.81	---	---	---	---	---	---	---	---	---	---
10	0.83	0.80	---	---	---	---	---	---	---	---	---	---
11	0.80	0.78	---	---	---	---	---	---	---	---	---	---
12	0.77	0.76	---	---	---	---	---	---	---	---	---	---
13	0.75	0.74	---	---	---	---	---	---	---	---	---	---
14	0.81	0.77	---	---	---	---	---	---	---	---	---	---
15	0.92	0.76	---	---	---	---	---	---	---	---	---	---
16	0.81	0.75	---	---	---	---	---	---	---	---	---	---
17	0.79	---	---	---	---	---	---	---	---	---	---	---
18	0.79	---	---	---	---	---	---	---	---	---	---	---
19	0.78	---	---	---	---	---	---	---	---	---	---	---
20	0.79	---	---	---	---	---	---	---	---	---	---	---
21	0.79	---	---	---	---	---	---	---	---	---	---	---
22	0.76	---	---	---	---	---	---	---	---	---	---	---
23	0.77	---	---	---	---	---	---	---	---	---	---	---
24	0.76	---	---	---	---	---	---	---	---	---	---	---
25	0.78	---	---	---	---	---	---	---	---	---	---	---
26	0.80	---	---	---	---	---	---	---	---	---	---	---
27	0.78	---	---	---	---	---	---	---	---	---	---	---
28	0.89	---	---	---	---	---	---	---	---	---	---	---
29	1.13	---	---	---	---	---	---	---	---	---	---	---
30	0.97	---	---	---	---	---	---	---	---	---	---	---
31	0.88	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.80	---	---	---	---	---	---	---	---	---	---	---
MAX	1.13	---	---	---	---	---	---	---	---	---	---	---
MIN	0.72	---	---	---	---	---	---	---	---	---	---	---



0208500600 CATES CREEK NEAR HILLSBOROUGH, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2002 to November 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.8°C, Aug. 23, 2002; minimum recorded, 0.7°C, Feb. 17, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
OCT 15...	1100	9	1.2	748	8.5	86	7.2	142	14.9	13.1	21.3	0.26	<0.04	
DEC 18...	1030	9	3.2	759	8.5	68	6.4	103	5.4	11.9	9.0	0.16	<0.04	
FEB 25...	1200	9	E8.0	758	11.4	98	7.2	133	8.4	22.5	7.9	0.21	<0.04	
APR 15...	1030	9	5.4	753	10.7	107	7.1	85	14.9	9.02	5.7	0.15	<0.04	
MAY 19...	1100	D	E7.5	--	9.2	--	--	127	14.4	--	--	--	--	
JUN 12...	1200	9	--	--	7.5	--	7.2	80	21.6	--	--	--	--	
JUL 07...	0830	9	E1.6	749	7.5	88	6.7	122	22.6	10.0	5.5	0.22	<0.04	
JUL 08...	0900	9	--	--	--	--	--	--	--	--	--	--	--	
AUG 28...	0900	9	E.52	751	7.2	86	6.3	153	23.2	14.1	5.5	0.21	<0.04	
OCT 15...	0.11	<0.008	<0.02	0.04	0.021	0.37	0.4	<0.1	0.4	6.6	--	--	--	
DEC 18...	0.07	<0.008	<0.02	<0.02	0.012	0.23	0.2	<0.1	0.2	3.5	--	--	--	
FEB 25...	0.08	<0.008	<0.02	0.08	0.033	0.29	0.6	<0.1	0.6	2.8	--	--	--	
APR 15...	0.07	<0.008	<0.02	<0.02	0.015	0.23	0.2	<0.1	0.2	2.9	--	--	--	
MAY 19...	--	--	--	--	--	--	--	--	--	--	3.500	30	33.80	
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 07...	0.13	<0.008	<0.02	<0.02	0.017	0.35	0.3	<0.1	0.3	3.8	--	--	--	
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 28...	0.12	<0.008	<0.02	0.04	0.014	0.33	0.4	--	--	2.8	--	--	--	

0208500600 CATES CREEK NEAR HILLSBOROUGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Biomass chloro- phyll ratio, peri- phyton, number (70950)	Pheo- phytin a, peri- phyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/ 100 mL (90902)	Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957)	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	2-[(2- Et-6-Me -Ph)- -amino] propan- 1-ol, ug/L (61615)	2Chloro -2,6'- diethyl acet- anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3,4-Di- chloro- aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)
OCT 15...	--	--	270	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
DEC 18...	--	--	55	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
FEB 25...	--	--	53	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
APR 15...	--	--	69	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
MAY 19...	463	3.3	--	7.6	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	E.002	<0.004	<0.004	<0.006	<0.006
AUG 08...	--	--	93	--	--	--	--	--	--	--	--	--	--
AUG 28...	--	--	84	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
Date	Ala- chlor, water, fltrd, ug/L (46342)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Cyflu- thrin, water, fltrd, ug/L (61585)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipronil, water, fltrd, ug/L (62170)
OCT 15...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
DEC 18...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
FEB 25...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
APR 15...	<0.004	<0.007	<0.02	<0.050	<0.010	E.017	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	<0.004	<0.007	<0.02	<0.050	<0.010	E.009	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
Date	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	Dicro- tophos, water, fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
OCT 15...	--	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
DEC 18...	--	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
FEB 25...	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
APR 15...	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005

0208500600 CATES CREEK NEAR HILLSBOROUGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)
OCT 15...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
DEC 18...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
FEB 25...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
APR 15...	<0.008	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	<0.007	<0.002	<0.003	0.017	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.007	<0.002	<0.003	E.010	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013

Date	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)
OCT 15...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	M	<0.005	<0.004	<0.005	E.01	<0.07
DEC 18...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07
FEB 25...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	M	<0.005	<0.004	<0.005	<0.02	<0.07
APR 15...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	0.040	0.02	<0.07
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	E.004	0.03	<0.07

0208500600 CATES CREEK NEAR HILLSBOROUGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 15...	<0.02	<0.01	<0.009	<0.01	82	4	0.01
DEC 18...	<0.02	<0.01	<0.009	<0.01	80	4	0.04
FEB 25...	<0.02	<0.01	<0.009	<0.01	86	21	--
APR 15...	<0.02	<0.01	<0.009	<0.01	93	9	0.13
MAY 19...	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--
JUL 07...	<0.02	<0.01	<0.009	<0.01	78	7	--
08...	--	--	--	--	--	--	--
AUG 28...	<0.02	<0.01	<0.009	<0.01	83	8	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value
- M-- Presence verified, not quantified

Medium codes used in this table:

- 9 - Surface water
- D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	27.0	22.9	24.7	20.8	20.0	20.3			
2	---	---	---	---	---	---	25.9	22.6	24.2	21.2	19.7	20.2			
3	---	---	---	---	---	---	26.6	21.9	23.8	23.4	18.6	20.8			
4	---	---	---	26.6	22.3	24.1	26.4	21.5	23.6	24.6	20.2	22.3			
5	---	---	---	26.6	21.7	24.0	26.3	21.8	23.8	24.0	20.9	22.3			
6	---	---	---	25.9	22.6	23.8	26.0	22.5	23.7	22.8	18.7	20.8			
7	---	---	---	24.1	19.9	22.0	23.6	19.4	21.0	22.8	19.0	20.6			
8	---	---	---	24.4	20.4	22.1	23.1	17.7	19.8	22.3	18.2	20.1			
9	---	---	---	24.8	21.1	22.7	22.9	17.4	19.7	22.9	18.8	20.5			
10	---	---	---	25.5	22.6	23.9	24.0	17.7	20.2	24.1	20.1	21.5			
11	---	---	---	24.0	20.7	22.2	25.4	19.0	21.4	24.1	19.5	21.4			
12	---	---	---	22.6	19.7	20.8	26.6	20.5	22.8	22.1	17.5	19.5			
13	---	---	---	22.5	19.2	20.9	27.0	21.7	23.6	21.8	16.4	18.9			
14	---	---	---	24.4	21.5	22.6	24.9	21.4	23.2	21.2	19.4	20.4			
15	---	---	---	24.3	21.6	22.7	25.9	23.0	23.8	22.0	20.8	21.3			
16	---	---	---	25.8	21.6	23.3	25.2	22.7	23.8	23.0	20.9	21.7			
17	---	---	---	25.2	21.7	23.3	27.4	23.0	24.3	23.1	20.4	21.7			
18	---	---	---	25.3	22.4	23.8	27.1	22.9	24.5	22.1	20.8	21.6			
19	---	---	---	25.9	22.8	24.2	27.8	23.0	24.7	23.0	21.1	21.9			
20	---	---	---	24.4	22.6	23.4	27.7	23.1	24.8	23.2	20.3	21.6			
21	---	---	---	25.4	21.2	23.1	28.6	22.9	24.9	23.5	20.0	21.6			
22	---	---	---	25.6	21.9	23.4	28.8	23.8	25.4	24.5	20.8	22.2			
23	---	---	---	25.9	22.4	23.6	29.8	23.9	25.8	22.1	20.3	21.6			
24	---	---	---	24.8	22.6	23.6	29.1	24.2	25.7	21.5	18.3	19.8			
25	---	---	---	23.8	22.6	23.3	26.2	22.8	24.4	20.1	18.6	19.4			
26	---	---	---	24.8	22.4	23.5	24.3	22.0	23.1	20.1	18.9	19.5			
27	---	---	---	26.4	22.8	24.2	22.0	21.1	21.6	23.9	20.1	21.9			
28	---	---	---	27.0	22.3	24.5	21.1	20.3	20.6	22.9	20.6	21.8			
29	---	---	---	28.0	23.8	25.6	20.8	19.9	20.3	22.5	18.7	20.3			
30	---	---	---	27.9	23.8	25.6	21.5	19.8	20.2	20.8	17.2	19.1			
31	---	---	---	26.9	23.6	25.0	20.6	20.0	20.2	---	---	---			
MONTH	---	---	---	---	---	---	29.8	17.4	23.0	24.6	16.4	20.9			

0208500600 CATES CREEK NEAR HILLSBOROUGH, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.8	18.9	20.4	11.0	9.3	10.3	6.8	4.1	5.6	---	---	---
2	23.5	19.3	21.2	10.9	8.5	9.5	6.2	2.9	4.5	---	---	---
3	24.7	20.1	22.0	11.3	8.8	9.7	7.4	4.4	5.6	---	---	---
4	24.0	20.4	22.1	12.6	10.0	11.0	4.4	1.1	3.0	---	---	---
5	25.5	21.4	22.9	11.5	11.1	11.2	4.2	1.1	2.6	---	---	---
6	22.2	19.0	20.7	12.6	11.2	11.8	5.3	4.2	4.5	---	---	---
7	22.7	18.9	20.5	11.2	9.8	10.5	4.7	2.8	3.9	---	---	---
8	20.0	17.1	17.9	11.3	8.6	9.9	5.5	3.2	4.4	---	---	---
9	18.3	16.2	17.1	13.1	9.8	11.2	5.7	4.8	5.2	---	---	---
10	19.4	16.1	17.4	15.1	11.7	13.4	5.2	4.4	4.8	---	---	---
11	19.8	18.7	19.4	16.2	14.6	15.6	6.0	4.1	5.3	---	---	---
12	20.7	19.5	20.1	16.0	14.3	15.4	---	---	---	---	---	---
13	20.2	19.5	19.9	14.3	11.9	13.5	---	---	---	---	---	---
14	19.6	16.4	17.8	12.1	10.2	11.3	---	---	---	---	---	---
15	16.4	14.9	15.3	12.4	9.9	11.2	---	---	---	---	---	---
16	16.7	15.0	15.9	12.8	12.0	12.5	---	---	---	---	---	---
17	16.2	14.6	15.4	12.5	11.2	12.2	---	---	---	---	---	---
18	15.1	12.7	13.9	11.2	9.4	10.3	---	---	---	---	---	---
19	15.5	12.5	13.8	10.3	7.9	9.2	---	---	---	---	---	---
20	16.2	13.9	14.9	10.6	7.9	9.3	---	---	---	---	---	---
21	15.8	14.3	15.3	11.1	9.2	10.1	---	---	---	---	---	---
22	14.7	13.7	14.1	11.2	8.5	10	---	---	---	---	---	---
23	15.6	12.4	13.8	9.5	6.9	8.0	---	---	---	---	---	---
24	14.1	13.3	13.7	10.2	6.4	8.0	---	---	---	---	---	---
25	13.9	13.2	13.5	11.0	7.1	8.7	---	---	---	---	---	---
26	15.6	13.0	14.1	10.4	7.2	8.6	---	---	---	---	---	---
27	14.9	13.5	14.3	9.2	6.6	8.1	---	---	---	---	---	---
28	15.2	14.4	14.7	7.3	4.7	5.7	---	---	---	---	---	---
29	14.4	12.8	13.6	7.0	3.2	4.9	---	---	---	---	---	---
30	12.8	11.7	12.3	9.3	5.4	7.1	---	---	---	---	---	---
31	11.7	10.8	11.3	---	---	---	---	---	---	---	---	---
MONTH	25.5	10.8	16.8	16.2	3.2	10.3	---	---	---	---	---	---
	MAX	MIN	MEAN									
1	---	---	---	7.9	5.9	6.8	13.5	9.1	11.3	20.8	17.3	18.8
2	---	---	---	10.6	7.5	8.7	17.0	11.4	14.2	21.9	17.1	19.1
3	---	---	---	10.2	6.9	8.6	18.6	13.4	16.0	19.9	17.1	18.3
4	---	---	---	10.3	6.4	8.5	18.4	14.7	16.7	17.1	14.8	16.0
5	---	---	---	13.0	9.6	11.1	17.6	15.6	16.5	14.8	13.8	14.1
6	6.5	4.3	5.5	12.9	11.6	12.2	17.8	13.9	15.9	16.6	13.7	15.2
7	6.5	4.2	5.3	11.8	7.3	9.2	15.9	11.0	12.3	19.7	15.8	17.4
8	6.4	4.3	5.3	10.9	5.8	8.4	11.2	10.2	10.7	22.3	17.7	19.6
9	6.4	4.0	5.1	13.9	9.5	11.5	10.3	9.2	9.8	22.8	18.4	20.2
10	6.4	5.3	5.7	12.4	9.4	10.8	9.8	8.9	9.2	23.4	19.3	21.2
11	7.0	4.0	5.5	9.7	7.6	8.6	10.7	9.1	9.5	21.5	19.7	20.6
12	7.9	4.8	6.1	12.5	6.6	9.5	---	---	---	21.6	17.3	18.9
13	6.8	3.6	5.2	14.7	9.9	12.3	---	---	---	20.5	15.6	17.5
14	6.3	4.5	5.5	14.0	11.4	12.8	---	---	---	20.2	13.9	16.7
15	7.3	6.0	6.7	11.5	9.7	10.3	---	---	---	17.8	16.0	16.9
16	6.0	1.4	3.9	11.4	9.5	10.5	---	---	---	19.0	16.3	17.5
17	2.7	0.7	1.9	13.4	11.4	12.3	---	---	---	17.9	15.7	16.9
18	5.9	2.7	4.1	14.1	12.3	13.1	---	---	---	15.7	14.4	14.9
19	7.2	3.7	5.4	13.3	11.3	12.4	---	---	---	15.1	13.8	14.3
20	8.2	6.2	7.1	11.3	9.2	9.7	---	---	---	17.4	13.6	15.6
21	7.7	6.4	7.2	13.2	9.6	11.2	---	---	---	17.4	16.1	16.7
22	8.7	7.6	7.9	14.7	10.9	12.8	---	---	---	16.8	15.4	16.0
23	10.3	8.1	9.3	14.9	10.7	12.9	---	---	---	16.2	15.7	15.9
24	10.4	6.4	8.4	15.9	11.6	13.8	---	---	---	17.7	15.6	16.5
25	9.6	7.6	8.8	16.6	11.5	14.1	---	---	---	18.8	16.3	17.4
26	8.5	5.8	6.9	17.8	13.3	15.4	---	---	---	19.8	17.5	18.5
27	5.8	4.5	5.0	17.3	13.7	15.4	---	---	---	18.6	16.8	17.7
28	6.4	4.9	5.6	17.6	13.2	15.3	---	---	---	18.4	15.0	16.8
29	---	---	---	19.1	16.1	17.3	19.8	15.6	17.5	18.4	16.2	17.2
30	---	---	---	17.7	10.7	13.3	20.7	16.1	18.1	19.1	15.7	17.5
31	---	---	---	12.5	8.8	10.7	---	---	---	18.9	16.9	18.0
MONTH	---	---	---	19.1	5.8	11.6	---	---	---	23.4	13.6	17.4

LOCATION.--Lat 36°05'16", long 79°03'52", Orange County, Hydrologic Unit 03020201, at St. Marys Road bridge, .3 mi upstream of mouth, and 3 mi northeast of Hillsborough.

DRAINAGE AREA.--8.78 mi².

GAGE-HEIGHT RECORDS

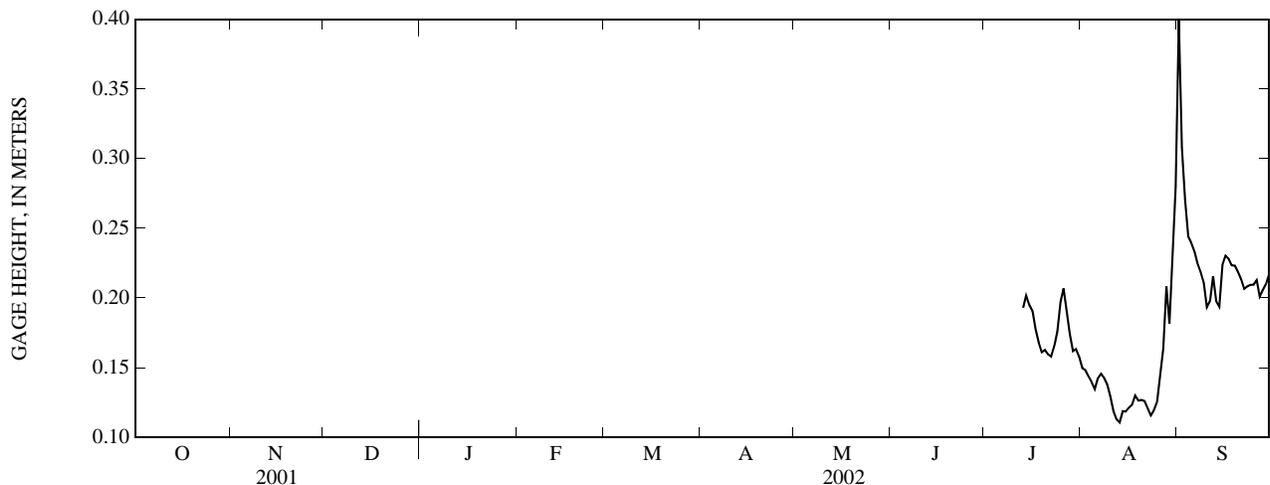
PERIOD OF RECORD.--July 2002 to October 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 485 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 1.95 m, May 26, 2003; minimum gage height recorded, 0.09 m, Aug. 11-13, 2002.

GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

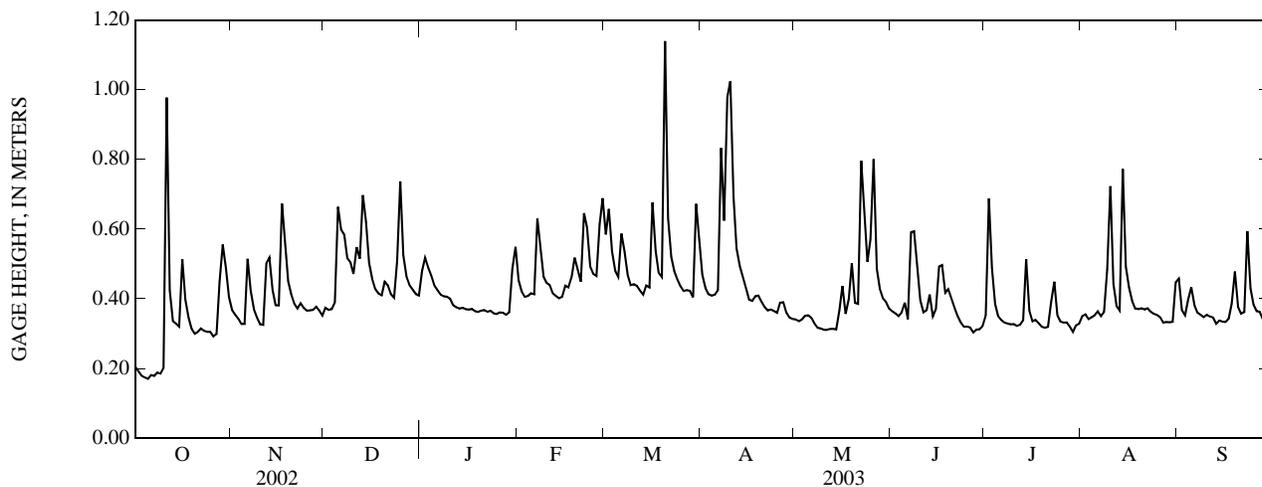
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.15	0.40
2	---	---	---	---	---	---	---	---	---	---	0.15	0.31
3	---	---	---	---	---	---	---	---	---	---	0.14	0.27
4	---	---	---	---	---	---	---	---	---	---	0.14	0.24
5	---	---	---	---	---	---	---	---	---	---	0.13	0.24
6	---	---	---	---	---	---	---	---	---	---	0.14	0.23
7	---	---	---	---	---	---	---	---	---	---	0.15	0.22
8	---	---	---	---	---	---	---	---	---	---	0.14	0.22
9	---	---	---	---	---	---	---	---	---	---	0.14	0.21
10	---	---	---	---	---	---	---	---	---	---	0.13	0.19
11	---	---	---	---	---	---	---	---	---	---	0.12	0.20
12	---	---	---	---	---	---	---	---	---	---	0.11	0.22
13	---	---	---	---	---	---	---	---	---	0.19	0.11	0.20
14	---	---	---	---	---	---	---	---	---	0.20	0.12	0.19
15	---	---	---	---	---	---	---	---	---	0.19	0.12	0.22
16	---	---	---	---	---	---	---	---	---	0.19	0.12	0.23
17	---	---	---	---	---	---	---	---	---	0.18	0.12	0.23
18	---	---	---	---	---	---	---	---	---	0.17	0.13	0.22
19	---	---	---	---	---	---	---	---	---	0.16	0.13	0.22
20	---	---	---	---	---	---	---	---	---	0.16	0.13	0.22
21	---	---	---	---	---	---	---	---	---	0.16	0.13	0.21
22	---	---	---	---	---	---	---	---	---	0.16	0.12	0.21
23	---	---	---	---	---	---	---	---	---	0.17	0.12	0.21
24	---	---	---	---	---	---	---	---	---	0.18	0.12	0.21
25	---	---	---	---	---	---	---	---	---	0.20	0.13	0.21
26	---	---	---	---	---	---	---	---	---	0.21	0.14	0.21
27	---	---	---	---	---	---	---	---	---	0.19	0.16	0.20
28	---	---	---	---	---	---	---	---	---	0.17	0.21	0.21
29	---	---	---	---	---	---	---	---	---	0.16	0.18	0.21
30	---	---	---	---	---	---	---	---	---	0.16	0.23	0.22
31	---	---	---	---	---	---	---	---	---	0.16	0.28	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.14	0.23
MAX	---	---	---	---	---	---	---	---	---	---	0.28	0.40
MIN	---	---	---	---	---	---	---	---	---	---	0.11	0.19



0208501535 STROUDS CREEK AT ST. MARYS ROAD NEAR HILLSBOROUGH, NC—Continued

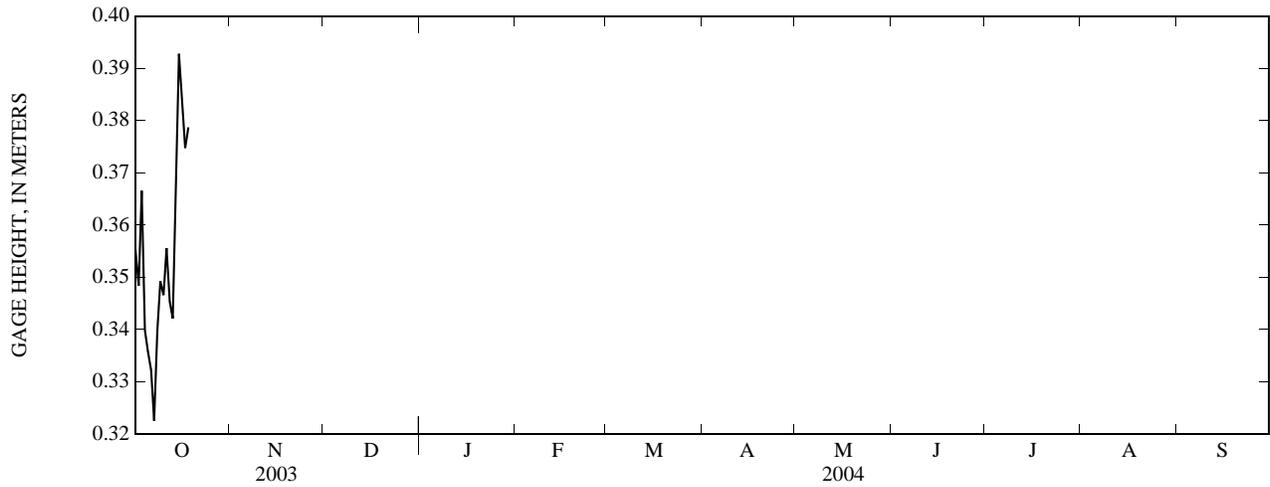
GAGE HEIGHT, ABOVE DATUM, METERS
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.20	0.37	0.37	0.48	0.45	0.58	0.47	0.34	0.36	0.35	0.35	0.46
2	0.19	0.35	0.37	0.52	0.42	0.66	0.43	0.34	0.36	0.69	0.35	0.37
3	0.18	0.34	0.37	0.49	0.41	0.54	0.41	0.34	0.35	0.49	0.34	0.35
4	0.17	0.33	0.39	0.47	0.41	0.48	0.41	0.35	0.36	0.38	0.35	0.40
5	0.17	0.33	0.66	0.44	0.42	0.46	0.41	0.35	0.39	0.35	0.35	0.43
6	0.18	0.51	0.60	0.42	0.41	0.59	0.42	0.34	0.34	0.34	0.36	0.38
7	0.18	0.42	0.58	0.41	0.63	0.54	0.83	0.33	0.59	0.33	0.35	0.36
8	0.19	0.37	0.52	0.41	0.54	0.47	0.62	0.32	0.59	0.33	0.36	0.35
9	0.18	0.35	0.50	0.41	0.46	0.44	0.98	0.31	0.49	0.33	0.48	0.35
10	0.20	0.33	0.47	0.40	0.45	0.44	1.02	0.31	0.40	0.33	0.72	0.35
11	0.98	0.32	0.55	0.38	0.44	0.44	0.69	0.31	0.36	0.32	0.44	0.35
12	0.42	0.50	0.52	0.38	0.42	0.42	0.54	0.31	0.37	0.33	0.38	0.35
13	0.34	0.52	0.70	0.37	0.41	0.41	0.49	0.31	0.41	0.34	0.37	0.33
14	0.33	0.43	0.62	0.37	0.40	0.44	0.46	0.31	0.35	0.51	0.77	0.34
15	0.32	0.38	0.50	0.37	0.41	0.43	0.43	0.37	0.37	0.37	0.49	0.33
16	0.51	0.38	0.46	0.37	0.44	0.68	0.40	0.44	0.49	0.34	0.43	0.33
17	0.40	0.67	0.43	0.37	0.43	0.54	0.39	0.36	0.50	0.34	0.39	0.34
18	0.35	0.55	0.41	0.36	0.46	0.47	0.41	0.40	0.42	0.33	0.37	0.39
19	0.31	0.45	0.41	0.36	0.52	0.46	0.41	0.50	0.43	0.32	0.37	0.48
20	0.30	0.41	0.45	0.37	0.48	1.14	0.39	0.39	0.40	0.32	0.37	0.38
21	0.30	0.39	0.44	0.37	0.45	0.63	0.38	0.38	0.37	0.32	0.37	0.36
22	0.31	0.37	0.41	0.36	0.65	0.52	0.37	0.80	0.35	0.39	0.37	0.36
23	0.31	0.39	0.40	0.37	0.60	0.48	0.37	0.67	0.33	0.45	0.36	0.59
24	0.30	0.37	0.51	0.36	0.49	0.46	0.36	0.51	0.32	0.35	0.36	0.43
25	0.30	0.37	0.74	0.36	0.47	0.44	0.36	0.57	0.32	0.33	0.35	0.38
26	0.29	0.37	0.52	0.36	0.47	0.42	0.39	0.80	0.32	0.33	0.35	0.36
27	0.30	0.37	0.46	0.36	0.61	0.42	0.39	0.49	0.30	0.33	0.33	0.36
28	0.45	0.38	0.44	0.35	0.69	0.42	0.36	0.43	0.31	0.32	0.33	0.34
29	0.56	0.37	0.43	0.36	---	0.40	0.35	0.40	0.31	0.30	0.33	0.34
30	0.49	0.35	0.41	0.49	---	0.67	0.34	0.39	0.32	0.32	0.33	0.36
31	0.40	---	0.41	0.55	---	0.57	---	0.37	---	0.33	0.45	---
MEAN	0.33	0.40	0.49	0.40	0.48	0.52	0.48	0.41	0.39	0.36	0.40	0.38
MAX	0.98	0.67	0.74	0.55	0.69	1.14	1.02	0.80	0.59	0.69	0.77	0.59
MIN	0.17	0.32	0.37	0.35	0.40	0.40	0.34	0.31	0.30	0.30	0.33	0.33



GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.36	---	---	---	---	---	---	---	---	---	---	---
2	0.35	---	---	---	---	---	---	---	---	---	---	---
3	0.37	---	---	---	---	---	---	---	---	---	---	---
4	0.34	---	---	---	---	---	---	---	---	---	---	---
5	0.34	---	---	---	---	---	---	---	---	---	---	---
6	0.33	---	---	---	---	---	---	---	---	---	---	---
7	0.32	---	---	---	---	---	---	---	---	---	---	---
8	0.34	---	---	---	---	---	---	---	---	---	---	---
9	0.35	---	---	---	---	---	---	---	---	---	---	---
10	0.35	---	---	---	---	---	---	---	---	---	---	---
11	0.36	---	---	---	---	---	---	---	---	---	---	---
12	0.35	---	---	---	---	---	---	---	---	---	---	---
13	0.34	---	---	---	---	---	---	---	---	---	---	---
14	0.37	---	---	---	---	---	---	---	---	---	---	---
15	0.39	---	---	---	---	---	---	---	---	---	---	---
16	0.38	---	---	---	---	---	---	---	---	---	---	---
17	0.37	---	---	---	---	---	---	---	---	---	---	---
18	0.38	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



0208501535 STROUDS CREEK AT ST. MARYS ROAD NEAR HILLSBOROUGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ter- buthyl- azine, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
FEB 19...	<0.01	<0.009	<0.01	95	5	0.24
MAY 19...	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--
JUL 07...	--	--	--	93	5	--
08...	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 - Surface water
- D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	28.8	22.2	25.4	20.3	19.5	19.9			
2	---	---	---	---	---	---	28.1	22.0	24.8	20.5	19.5	19.9			
3	---	---	---	---	---	---	28.4	21.1	24.5	22.3	18.6	20.5			
4	---	---	---	---	---	---	28.6	20.4	24.4	24.3	20.2	22.1			
5	---	---	---	---	---	---	28.8	20.8	24.7	24.1	20.4	22.1			
6	---	---	---	---	---	---	27.5	21.5	24.3	23.2	18.5	20.7			
7	---	---	---	---	---	---	24.6	17.2	21.0	22.7	18.2	20.3			
8	---	---	---	---	---	---	24.8	15.4	19.9	22.3	17.4	19.8			
9	---	---	---	---	---	---	24.0	15.4	19.5	22.0	18.0	20.0			
10	---	---	---	---	---	---	25.4	15.2	20.1	23.8	19.6	21.4			
11	---	---	---	---	---	---	27.4	16.7	21.7	23.5	18.6	21.1			
12	---	---	---	---	---	---	28.6	19.0	23.6	21.2	16.5	19.0			
13	---	---	---	25.0	19.5	22.3	29.0	20.4	24.6	21.8	15.3	18.7			
14	---	---	---	25.5	22.5	23.6	27.2	19.6	23.3	21.5	18.9	20.2			
15	---	---	---	26.3	22.4	24.0	27.6	22.6	24.1	22.1	20.3	21.0			
16	---	---	---	27.1	21.8	24.4	27.3	22.0	24.2	22.9	20.7	21.5			
17	---	---	---	27.2	21.7	24.6	29.3	21.8	24.7	23.4	19.9	21.6			
18	---	---	---	27.8	22.6	25.3	28.9	22.0	24.7	22.4	20.4	21.4			
19	---	---	---	27.9	22.8	25.5	29.3	21.5	25.0	23.3	20.8	21.9			
20	---	---	---	26.6	22.1	24.1	28.9	21.4	25.0	23.6	19.8	21.6			
21	---	---	---	27.4	20.8	24.0	28.6	21.3	24.8	23.7	19.2	21.6			
22	---	---	---	27.6	21.4	24.2	29.0	22.6	25.5	24.4	20.1	22.1			
23	---	---	---	27.3	22.2	24.1	30.8	22.2	26.2	22.3	20.0	21.3			
24	---	---	---	26.1	22.5	24.1	30.7	22.6	25.7	21.0	17.6	19.5			
25	---	---	---	25.3	23.7	24.5	28.6	21.2	24.5	20.2	17.9	19.2			
26	---	---	---	26.3	23.2	24.6	23.4	21.4	22.4	19.6	18.4	19.1			
27	---	---	---	28.0	23.6	25.2	21.7	20.5	21.0	23.5	19.6	21.5			
28	---	---	---	28.5	22.5	25.5	20.7	20.0	20.3	21.9	19.7	21.0			
29	---	---	---	28.8	23.9	26.3	20.7	19.3	19.9	21.1	17.6	19.4			
30	---	---	---	29.0	23.4	26.2	20.0	19.2	19.7	20.4	15.8	18.4			
31	---	---	---	28.3	23.2	25.6	19.9	19.5	19.7	---	---	---			
MONTH	---	---	---	---	---	---	30.8	15.2	23.2	24.4	15.3	20.6			

0208501535 STROUDS CREEK AT ST. MARYS ROAD NEAR HILLSBOROUGH, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.2	18.1	20.0	10.6	9.2	10.0	7.1	4.9	6.1	11.4	8.4	10.1
2	23.3	18.2	20.7	9.8	8.4	9.2	5.6	3.9	4.9	9.9	8.5	9.1
3	23.7	18.9	21.2	10.3	8.8	9.5	6.8	4.8	5.6	9.3	7.9	9.0
4	23.9	19.1	21.6	11.5	9.8	10.7	5.1	2.1	3.8	7.9	5.8	6.7
5	24.8	20.4	22.4	11.3	11.1	11.2	3.3	0.9	2.0	5.8	4.3	5.1
6	22.1	18.0	20.0	12.1	10.8	11.4	4.9	3.3	4.1	6.0	4.8	5.4
7	23.4	17.9	20.0	10.8	9.6	10.3	4.7	2.6	3.7	5.1	3.3	4.0
8	18.9	16.2	17.1	10.5	8.5	9.7	5.5	3.0	4.2	5.9	3.9	4.8
9	17.9	15.2	16.4	11.9	9.6	10.8	5.6	4.7	5.2	8.0	5.6	6.8
10	17.8	14.9	16.5	14.4	11.9	13.1	5.3	4.4	4.8	8.2	6.6	7.6
11	19.1	17.8	18.7	16.0	14.4	15.4	5.5	5.0	5.3	6.6	4.4	5.3
12	20.2	18.8	19.4	15.8	13.8	15.1	7.4	5.4	6.3	4.4	3.0	3.7
13	19.7	18.9	19.2	13.8	11.6	13.0	6.8	5.7	6.1	3.7	2.1	3.1
14	19.0	16.0	17.4	11.6	9.8	10.8	7.8	5.9	6.8	4.6	2.6	3.6
15	16.0	14.4	14.9	11.8	9.8	10.9	7.0	5.4	6.4	4.8	3.2	4.0
16	15.9	14.5	15.2	12.4	11.8	12.1	7.5	5.8	6.6	3.3	2.3	2.9
17	15.5	14.0	14.7	12.3	10.6	11.7	7.0	5.5	6.1	4.0	2.4	3.1
18	14.4	12.4	13.4	10.6	9.1	9.8	6.9	5.5	6.1	2.8	1.0	1.8
19	14.2	12.1	13.2	9.8	7.7	8.9	8.0	6.8	7.2	2.3	0.4	1.4
20	15.2	13.5	14.3	10.0	8.1	9.1	11.1	8.0	9.8	3.7	1.3	2.6
21	15.1	13.9	14.7	10.7	9.2	9.9	9.2	6.7	7.5	3.5	3.0	3.3
22	14.1	13.4	13.7	10.5	9.0	9.9	7.4	5.6	6.6	3.8	1.8	2.8
23	14.0	12.4	13.3	9.0	7.4	8.2	7.4	6.0	6.8	3.1	0.5	1.8
24	13.7	13.1	13.4	8.8	6.9	8.0	6.9	6.5	6.7	1.8	0.0	0.6
25	13.3	12.9	13.0	9.4	7.4	8.6	6.5	5.1	6.0	2.4	0.0	1.2
26	14.4	12.5	13.5	9.1	7.7	8.6	5.7	4.4	5.1	2.6	0.9	1.8
27	14.3	13.1	13.8	8.7	7.2	8.2	5.1	3.4	4.4	2.8	1.2	1.9
28	14.4	13.8	14.1	7.2	5.3	6.3	4.9	3.0	4.1	2.3	0.3	1.4
29	13.8	12.2	13.0	5.9	4.1	5.1	5.9	3.9	5.0	4.3	2.3	3.2
30	12.2	11.2	11.7	7.6	5.7	6.8	6.3	4.5	5.5	4.4	2.5	4.0
31	11.3	10.2	10.8	---	---	---	8.4	5.7	6.9	3.8	2.5	3.2
MONTH	24.8	10.2	16.2	16.0	4.1	10.1	11.1	0.9	5.7	11.4	0.0	4.0
DAY	MAX	MIN	MEAN									
1	5.6	3.8	4.6	7.7	5.6	6.5	13.6	8.6	11.0	19.6	17.5	18.6
2	5.9	3.8	4.9	10.1	7.2	8.4	16.6	11.2	14.0	20.2	17.3	18.8
3	7.5	4.5	6.0	10.1	7.2	8.7	17.8	13.2	15.8	19.5	17.7	18.5
4	10.2	7.5	8.9	10.5	6.5	8.6	17.7	14.7	16.5	17.7	15.3	16.3
5	8.4	5.8	7.0	13.2	9.7	11.3	17.2	15.6	16.3	15.3	13.7	14.1
6	6.7	4.9	5.9	12.8	11.6	12.2	17.0	13.9	15.6	16.0	13.7	14.7
7	6.1	4.3	5.2	11.8	7.6	9.3	16.0	9.9	11.8	18.8	15.6	17.0
8	6.2	4.2	5.2	11.2	6.0	8.6	10.4	9.9	10.1	21.0	18.0	19.4
9	6.4	3.8	5.1	13.7	9.5	11.7	10.0	8.6	9.4	21.4	18.9	20.2
10	6.3	5.5	5.9	12.6	9.4	10.9	9.6	8.5	8.9	22.2	19.8	21.0
11	6.9	4.2	5.7	10.2	7.7	8.7	10.4	8.9	9.5	21.4	19.9	20.6
12	7.5	5.1	6.3	12.0	7.0	9.6	15.6	9.7	12.2	20.1	18.0	19.1
13	6.5	4.3	5.6	13.9	10.2	12.2	16.7	11.2	13.8	19.0	16.7	17.9
14	6.3	5.0	5.7	13.8	11.9	13.0	17.3	11.8	14.6	18.6	15.2	17.0
15	7.5	6.3	6.9	11.9	9.8	10.3	18.1	13.6	16.0	17.8	16.4	17.2
16	6.6	1.8	4.5	11.0	9.4	10.1	18.6	14.5	16.7	18.9	16.2	17.3
17	2.8	0.9	1.8	13.4	11.0	12.1	18.5	14.9	16.8	18.6	15.7	17.0
18	6.8	2.8	4.7	14.0	12.2	13.0	16.8	12.2	13.5	15.7	14.2	14.8
19	7.2	3.8	5.4	13.4	11.2	12.2	12.6	11.6	12.1	15.1	13.8	14.3
20	8.2	6.0	7.1	11.2	8.5	9.2	15.0	12.0	13.4	17.5	13.7	15.5
21	7.9	6.6	7.3	13.0	9.2	10.9	15.0	13.2	14.2	17.3	16.0	16.4
22	8.2	7.5	7.8	14.7	10.9	12.8	16.5	14.5	15.4	16.6	15.1	15.5
23	10.1	8.2	9.1	15.0	10.6	13.0	15.8	12.4	14.2	15.8	15.1	15.4
24	10.6	6.4	8.5	15.7	11.6	13.9	15.2	12.0	13.9	17.2	15.2	16.0
25	10.0	7.8	9.0	16.1	11.4	14.0	14.8	13.8	14.1	17.7	15.8	16.7
26	8.9	6.1	7.3	17.2	13.3	15.3	16.0	14.0	14.7	19.4	17.1	18.0
27	6.1	4.4	5.3	16.7	13.7	15.3	17.5	13.4	15.2	18.3	16.3	17.0
28	6.2	4.4	5.2	17.3	13.2	15.3	17.9	14.2	16.3	18.3	14.5	16.3
29	---	---	---	18.7	15.9	17.2	18.8	15.7	17.3	17.8	15.8	16.9
30	---	---	---	17.9	9.8	13.0	19.2	16.4	18.0	19.4	15.2	17.2
31	---	---	---	12.2	8.2	10.1	---	---	---	18.7	16.5	17.7
MONTH	10.6	0.9	6.1	18.7	5.6	11.5	19.2	8.5	14.0	22.2	13.7	17.2

02085070 ENO RIVER NEAR DURHAM, NC

LOCATION.--Lat 36°04'21", long 78°54'29", 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 mi²

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. Elevation of gage is 270 ft above NGVD of 1929, 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, 23.58 ft, from floodmark. Minimum discharge for period of record also occurred on Aug. 15, 1977.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	84	28	159	322	851	407	100	130	161	57	307
2	2.0	55	26	288	178	977	248	107	108	1,280	82	104
3	2.8	40	24	231	126	701	186	95	93	932	73	67
4	e1.9	33	24	209	111	363	157	89	107	315	63	75
5	e1.2	31	869	149	110	283	143	89	263	157	116	467
6	e0.86	222	791	119	102	697	148	100	135	112	377	154
7	e0.63	171	591	103	644	626	1,400	105	242	92	147	86
8	e0.50	80	350	93	626	327	1,330	91	1,030	86	196	71
9	e0.45	55	258	88	287	223	3,780	80	800	76	412	65
10	26	42	200	81	211	174	3,220	75	356	71	1,740	56
11	3,890	38	328	71	192	140	2,650	72	172	71	753	49
12	961	236	531	64	143	126	852	69	145	74	304	44
13	111	662	961	60	114	118	522	59	255	297	170	42
14	65	245	1,320	58	99	133	355	52	154	945	442	44
15	46	112	499	57	102	124	263	62	157	230	229	44
16	414	83	240	54	114	845	213	332	226	114	120	47
17	225	591	159	54	128	804	180	123	813	91	108	40
18	73	763	119	53	163	403	157	120	398	85	94	80
19	42	271	107	50	334	247	158	427	261	70	78	374
20	29	132	166	49	296	4,120	156	226	220	62	71	159
21	23	92	184	49	212	2,200	138	134	146	55	65	87
22	24	75	127	48	620	758	136	1,300	107	97	60	67
23	21	59	102	50	1,080	421	127	1,540	90	715	65	867
24	17	50	204	48	470	270	117	852	80	272	63	487
25	13	46	1,130	47	260	203	115	797	69	132	63	166
26	11	41	675	45	188	175	200	1,470	63	86	52	104
27	14	37	300	47	671	152	343	619	59	70	49	82
28	99	34	184	44	1,390	134	152	321	56	61	45	71
29	491	32	140	46	---	163	118	212	55	54	42	64
30	393	31	115	234	---	e1,210	106	181	71	58	38	54
31	165	---	101	742	---	e944	---	145	---	68	40	---
TOTAL	7,165.14	4,443	10,853	3,490	9,293	18,912	18,077	10,044	6,861	6,989	6,214	4,424
MEAN	231	148	350	113	332	610	603	324	229	225	200	147
MAX	3,890	763	1,320	742	1,390	4,120	3,780	1,540	1,030	1,280	1,740	867
MIN	0.45	31	24	44	99	118	106	52	55	54	38	40
CFSM	1.64	1.05	2.48	0.80	2.35	4.33	4.27	2.30	1.62	1.60	1.42	1.05
IN.	1.89	1.17	2.86	0.92	2.45	4.99	4.77	2.65	1.81	1.84	1.64	1.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2003, BY WATER YEAR (WY)

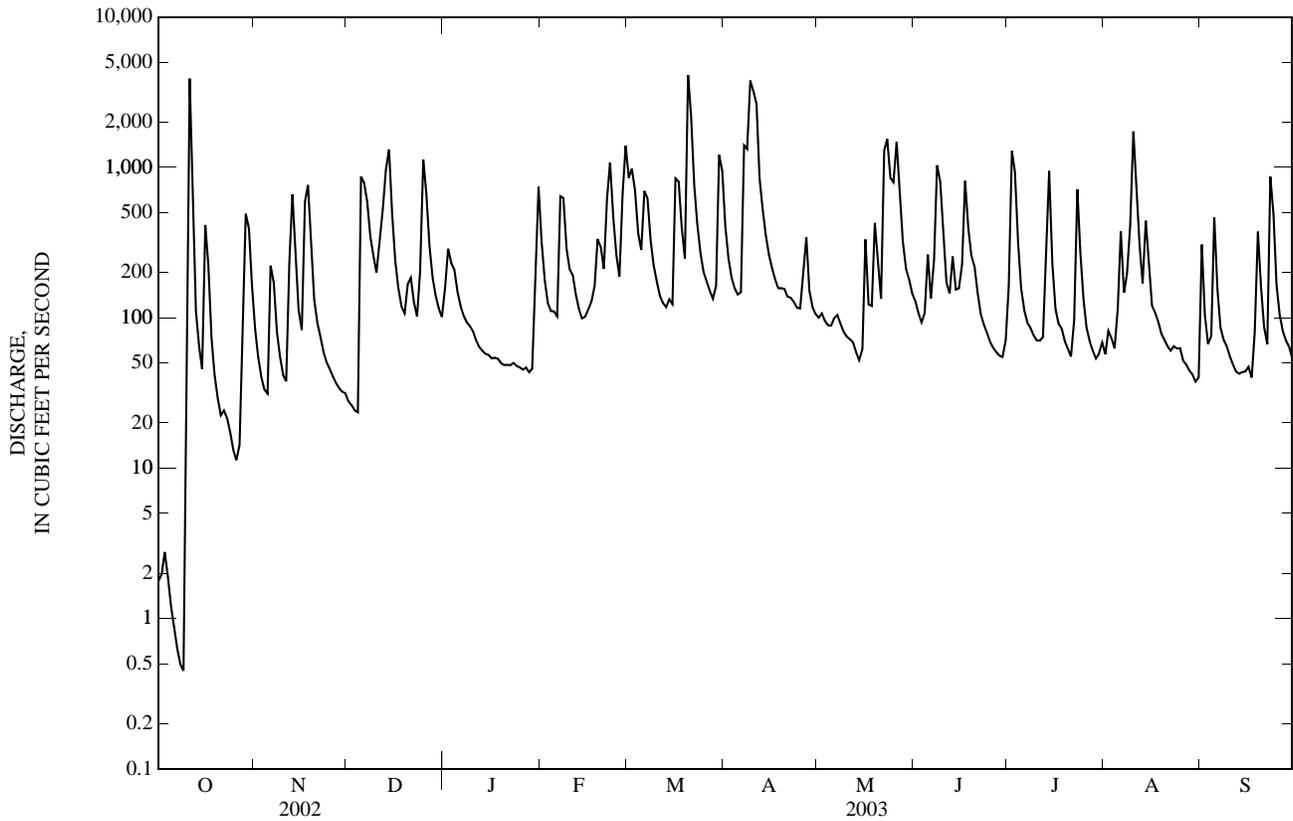
	60.8	75.6	110	200	246	285	191	123	89.2	72.9	53.7	71.8
MEAN	60.8	75.6	110	200	246	285	191	123	89.2	72.9	53.7	71.8
MAX	456	462	406	517	638	767	603	429	411	452	282	606
(WY)	(1972)	(1986)	(1973)	(1998)	(1998)	(1998)	(2003)	(1978)	(1982)	(1975)	(1985)	(1999)
MIN	4.77	7.27	11.3	21.4	47.1	61.5	34.9	10.2	5.28	6.01	3.34	0.84
(WY)	(1964)	(2002)	(2002)	(1981)	(2002)	(2002)	(1995)	(2002)	(2002)	(2002)	(1977)	(1968)

02085070 ENO RIVER NEAR DURHAM, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1963 - 2003	
ANNUAL TOTAL	31,336.56		106,765.14		131	
ANNUAL MEAN	85.9		293		293	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					26.7	
HIGHEST DAILY MEAN	3,890	Oct 11	4,120	Mar 20	9,900	Sep 6, 1996
LOWEST DAILY MEAN	0.45	Oct 9	0.45	Oct 9	0.08	Aug 14, 1977
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 3	1.2	Oct 3	0.20	Aug 8, 1977
MAXIMUM PEAK FLOW			7,850	Oct 11	14,700	Sep 6, 1996
MAXIMUM PEAK STAGE			17.51	Oct 11	23.58*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			NOT DETERMINED		0.06*	Aug 14, 1977
ANNUAL RUNOFF (CFSM)	0.61		2.07		0.93	
ANNUAL RUNOFF (INCHES)	8.27		28.17		12.64	
10 PERCENT EXCEEDS	180		774		268	
50 PERCENT EXCEEDS	26		124		52	
90 PERCENT EXCEEDS	1.9		42		6.9	

* See REMARKS.

e Estimated.



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

LOCATION.--Lat 36°08'31", long 78°55'09", Durham County, Hydrologic Unit 03020201, on right bank, 5 feet downstream from bridge on Secondary Road 1461, and 1.8 mi northwest of Orange Factory.

DRAINAGE AREA.--78.2 mi².

PERIOD OF RECORD.--October 1987 to current year. Prior to October 1987, equivalent records published as "Little River near Orange Factory, NC" (02085220), September 1961 to September 1987.

GAGE.--Water-stage recorder. Datum of gage is 380 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for period of record from extension of rating curve above 2,300 ft³/s, based on contracted-opening measurement of peak flow; maximum gage height, 13.26 ft, from high-water mark in gage shelter. No flow occurs periodically.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.74	92	29	109	161	454	201	65	70	196	38	351
2	0.79	65	26	209	108	739	141	67	59	1,430	77	80
3	0.85	51	25	141	87	325	118	56	56	824	41	42
4	0.65	41	24	129	84	182	103	50	149	218	35	61
5	0.51	36	582	97	98	161	100	49	223	128	39	592
6	0.44	284	390	84	78	392	104	54	88	90	34	121
7	0.36	148	313	73	427	284	1,530	56	350	75	56	70
8	0.29	83	198	67	335	162	871	48	864	63	43	54
9	0.26	60	170	63	154	130	2,650	42	637	52	213	50
10	0.43	48	140	57	127	110	1,540	40	192	51	1,420	43
11	3,770	44	259	50	122	96	937	39	110	45	261	39
12	825	251	305	45	99	90	332	35	89	46	116	34
13	113	401	678	43	82	86	205	31	241	43	72	33
14	69	146	767	43	74	99	155	28	115	133	277	34
15	46	94	218	41	77	95	129	31	86	80	125	34
16	386	76	136	39	89	600	116	87	222	49	185	33
17	192	573	102	40	99	407	105	57	634	74	195	29
18	82	430	85	38	113	188	95	51	183	46	84	60
19	51	152	78	39	240	138	97	183	146	37	54	450
20	36	102	105	36	186	3,270	95	104	112	33	44	135
21	30	83	120	36	133	1,250	89	66	89	30	38	72
22	37	72	87	35	568	286	86	936	75	50	34	52
23	48	58	72	36	664	186	77	1,070	64	234	41	703
24	33	49	151	49	213	143	69	448	58	115	37	296
25	26	46	811	41	141	120	68	344	52	59	29	109
26	24	40	287	34	115	105	78	1,550	49	39	26	75
27	21	36	144	35	366	97	83	282	44	32	24	57
28	177	35	112	40	797	89	75	147	42	28	22	49
29	396	33	96	34	---	98	64	103	41	27	20	43
30	344	31	83	141	---	796	59	88	44	27	18	38
31	157	---	74	414	---	522	---	78	---	29	177	---
TOTAL	6,868.32	3,660	6,667	2,338	5,837	11,700	10,372	6,285	5,184	4,383	3,875	3,839
MEAN	222	122	215	75.4	208	377	346	203	173	141	125	128
MAX	3,770	573	811	414	797	3,270	2,650	1,550	864	1,430	1,420	703
MIN	0.26	31	24	34	74	86	59	28	41	27	18	29
CFSM	2.83	1.56	2.75	0.96	2.67	4.83	4.42	2.59	2.21	1.81	1.60	1.64
IN.	3.27	1.74	3.17	1.11	2.78	5.57	4.93	2.99	2.47	2.09	1.84	1.83

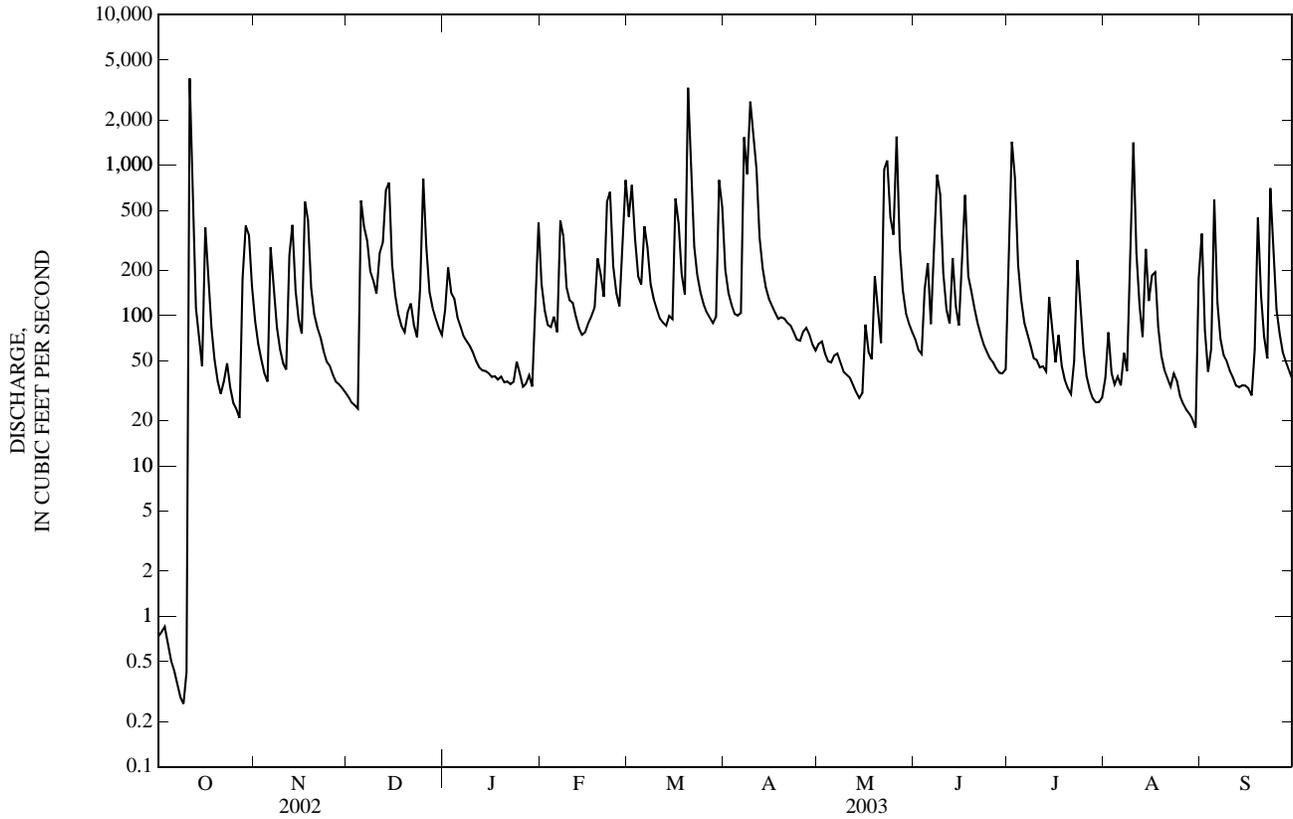
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

MEAN	41.4	42.1	63.7	123	132	189	121	61.1	44.8	35.4	27.2	54.9
MAX	222	122	215	257	379	456	346	203	194	141	125	329
(WY)	(2003)	(2003)	(2003)	(1998)	(1998)	(1993)	(2003)	(2003)	(1995)	(2003)	(2003)	(1996)
MIN	0.14	1.33	5.06	24.2	22.4	30.9	17.1	7.48	2.08	0.31	0.37	1.27
(WY)	(1994)	(1999)	(2002)	(2001)	(2002)	(1988)	(1995)	(2002)	(2002)	(2002)	(1999)	(1990)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003	
ANNUAL TOTAL	22,338.99		71,008.32			
ANNUAL MEAN	61.2		195		77.7	
HIGHEST ANNUAL MEAN					195	2003
LOWEST ANNUAL MEAN					14.8	2002
HIGHEST DAILY MEAN	3,770	Oct 11	3,770	Oct 11	6,500	Sep 6, 1996
LOWEST DAILY MEAN	0.00	Aug 7	0.26	Oct 9	0.00	Aug 19, 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 7	0.42	Oct 4	0.00	Aug 19, 1988
MAXIMUM PEAK FLOW			8,420	Oct 11	11,600*	Sep 6, 1996
MAXIMUM PEAK STAGE			8.81	Oct 11	13.26*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.22	Oct 10	0.00*	Aug 19, 1998
ANNUAL RUNOFF (CFSM)	0.78		2.49		0.99	
ANNUAL RUNOFF (INCHES)	10.63		33.78		13.51	
10 PERCENT EXCEEDS	138		428		158	
50 PERCENT EXCEEDS	13		84		25	
90 PERCENT EXCEEDS	0.16		33		1.8	

* See REMARKS.



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.

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. Samples for October 1994 and April 1995 were collected by the North Carolina Department of Environment, Health, and Natural Resources. A GC/FID scan for trace organic compounds was performed on these samples by the U.S. Geological Survey National Water Quality Lab. Results may be obtained from the District office in Raleigh, NC.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Color, water, fltrd, Pt-Co units (00080)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 16...	1045	493	100	742	9.2	95	6.7	69	15.5	21	4.96	2.18	2.39
MAR 20...	1400	5,320	300	759	10.2	88	6.4	35	8.7	13	2.93	1.28	1.55
Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., field, mg/L as CaCO3 (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (99440)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat fltrd, mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)
OCT 16...	3.78	13	16	4.92	10.3	5.8	68	0.86	0.021	0.48	0.006	0.025	--
MAR 20...	1.70	11	13	2.16	4.7	3.6	40	1.1	0.048	0.15	0.004	0.045	0.27
Date	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, ug/L (01105)	Arsenic, water, unfltrd ug/L (01002)	Cadmium, water, unfltrd ug/L (01027)	Chromium, water, unfltrd recoverable, ug/L (01034)	Cobalt, water, unfltrd recoverable, ug/L (01037)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, unfltrd recoverable, ug/L (01045)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, unfltrd recoverable, ug/L (01055)	Mercury, water, unfltrd recoverable, ug/L (71900)	Molybdenum, water, unfltrd recoverable, ug/L (01062)	Nickel, water, unfltrd recoverable, ug/L (01067)
OCT 16...	12.1	520	<2	<0.2	E.6	<3.4	3.1	1,140	1	153	E.01	<2	<2.0
MAR 20...	18.3	1,610	M	<0.2	1.8	E2.7	4.6	3,270	4	404	<0.02	<2	2.5
Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recoverable, ug/L (01077)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)								
OCT 16...	<3	E.1	<25	62	82								
MAR 20...	<3	<0.3	E23	120	1,730								

0208524090 MOUNTAIN CREEK AT SECONDARY ROAD 1617 NEAR BAHAMA, NC

LOCATION.--Lat 36°08'59", long 78°53'48", 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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 370 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum gage height for period of record from floodmarks. Maximum gage height for period of record occurred Sept. 6, 1996, discharge not determined. No flow occurred on many days during the period.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.17	8.7	3.9	23	13	30	17	5.1	e6.0	12	1.8	12
2	0.17	6.8	3.8	22	9.2	48	13	5.3	4.9	107	6.0	4.0
3	0.16	5.1	3.8	19	7.4	23	11	4.2	4.7	29	3.2	2.5
4	0.16	5.6	3.7	15	8.6	16	9.2	3.9	38	12	2.0	9.3
5	0.16	6.2	77	12	7.6	16	10	4.2	22	7.2	2.2	14
6	0.14	33	36	11	6.7	41	8.9	5.6	9.2	5.4	1.9	5.0
7	0.13	13	25	9.3	46	22	139	4.5	25	4.9	9.9	3.5
8	0.11	8.2	17	9.0	22	16	43	3.7	50	4.2	6.4	3.2
9	0.13	6.6	14	8.6	13	14	297	3.2	54	3.7	35	3.0
10	0.39	5.8	12	8.1	13	15	128	2.9	15	3.7	48	2.5
11	740	7.1	22	7.2	11	11	50	2.8	9.2	3.1	41	2.0
12	31	36	18	6.6	9.1	9.3	25	2.5	7.5	3.0	9.1	1.6
13	9.7	27	77	6.4	7.4	9.1	17	1.9	7.2	2.9	5.6	1.7
14	6.6	13	40	6.2	7.2	10	13	1.8	6.3	3.9	4.3	1.9
15	5.1	9.1	18	5.6	7.9	9.3	12	3.0	5.6	3.1	4.1	1.7
16	45	10	12	4.6	9.6	36	10	5.2	7.3	2.6	4.0	1.5
17	15	43	9.8	4.8	9.1	22	9.3	3.4	8.1	2.9	3.7	1.3
18	7.8	25	8.7	4.3	18	15	8.7	5.9	6.5	2.1	3.0	12
19	5.0	13	8.8	4.0	21	13	9.1	15	9.6	1.9	2.6	22
20	4.1	10	17	4.3	17	e400	8.4	6.8	6.6	1.8	2.4	6.5
21	4.3	8.5	12	4.3	13	e90	7.7	5.5	5.1	1.6	2.2	3.5
22	6.7	7.6	10	3.7	66	e30	7.3	57	4.2	3.5	2.0	3.0
23	5.3	6.9	12	4.1	40	e19	6.6	60	3.7	9.6	1.8	56
24	3.6	5.7	27	5.4	18	e14	5.5	24	3.3	3.8	1.5	12
25	3.3	5.5	70	3.6	13	e12	5.8	28	3.0	2.4	1.4	6.3
26	3.4	5.1	24	4.0	12	9.7	7.4	144	2.7	1.7	1.3	4.3
27	2.9	4.8	15	4.0	64	9.0	6.9	21	2.6	1.6	1.2	3.8
28	37	4.7	13	3.3	55	8.3	5.5	13	2.4	1.4	1.1	3.3
29	37	4.6	11	4.1	---	12	5.1	9.2	2.4	1.2	1.0	2.8
30	32	4.4	10	24	---	79	5.1	7.7	4.8	1.7	0.95	2.4
31	14	---	9.4	26	---	31	---	6.8	---	1.7	30	---
TOTAL	1,020.52	350.0	640.9	277.5	544.8	1,089.7	901.5	467.1	336.9	246.6	240.65	208.6
MEAN	32.9	11.7	20.7	8.95	19.5	35.2	30.1	15.1	11.2	7.95	7.76	6.95
MAX	740	43	77	26	66	400	297	144	54	107	48	56
MIN	0.11	4.4	3.7	3.3	6.7	8.3	5.1	1.8	2.4	1.2	0.95	1.3
CFSM	4.12	1.46	2.58	1.12	2.43	4.39	3.76	1.88	1.40	0.99	0.97	0.87
IN.	4.75	1.63	2.98	1.29	2.53	5.07	4.19	2.17	1.57	1.15	1.12	0.97

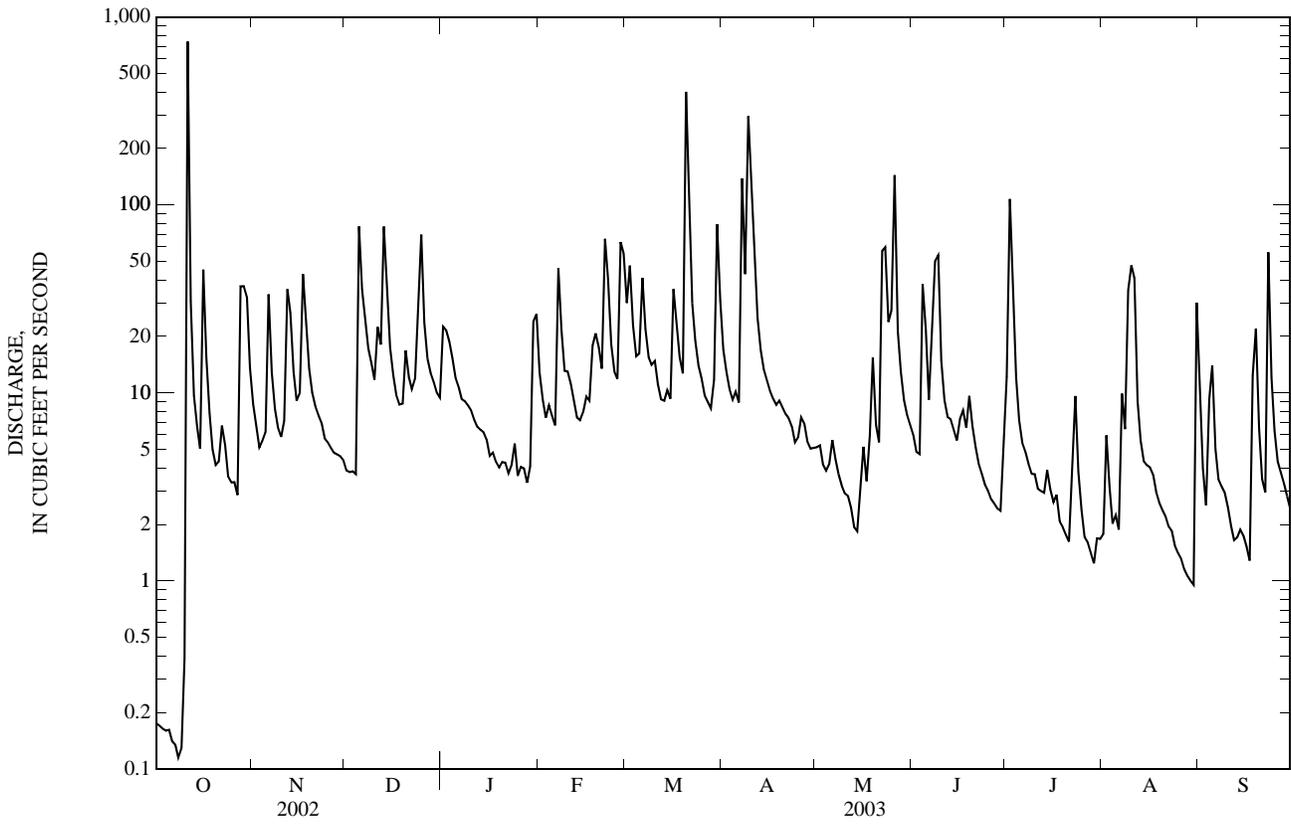
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	5.81	3.96	5.72	11.0	13.1	18.1	11.6	5.09	6.38	3.22	2.23	14.6
MAX	32.9	11.7	20.7	27.3	36.2	49.9	30.0	15.1	29.7	7.95	7.76	74.0
(WY)	(2003)	(2003)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(1995)	(2003)	(2003)	(1996)
MIN	0.035	0.061	0.26	1.51	1.55	2.74	1.14	0.19	0.29	0.097	0.015	0.18
(WY)	(1999)	(1999)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(1999)	(2002)	(1999)	(1995)

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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL TOTAL	2,609.10		6,324.77		8.35	
ANNUAL MEAN	7.15		17.3		17.3	
HIGHEST ANNUAL MEAN					1.67	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	740	Oct 11	740	Oct 11	1,000	Sep 6, 1996
LOWEST DAILY MEAN	0.00	Jun 13	0.11	Oct 8	0.00	Aug 3, 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 13	0.14	Oct 3	0.00	Aug 3, 1999
MAXIMUM PEAK FLOW			2,680		NOT DETERMINED*	
MAXIMUM PEAK STAGE			12.07		12.56	
INSTANTANEOUS LOW FLOW			0.10		0.00	
ANNUAL RUNOFF (CFSM)	0.89		2.17		1.04	
ANNUAL RUNOFF (INCHES)	12.13		29.41		14.19	
10 PERCENT EXCEEDS	13		36		14	
50 PERCENT EXCEEDS	0.85		7.3		2.3	
90 PERCENT EXCEEDS	0.03		1.9		0.09	

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 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	
Date		Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)
OCT 16...	1330													
DEC 17...	1300													
JAN 31...	1215													
FEB 27...	1530													
MAR 20...	1300													
MAY 16...	1215													
MAY 22...	1300													
JUN 25...	1315													
JUL 30...	1415													
AUG 21...	1330													
SEP 04...	1230													
OCT 16...	0.011	0.56	0.87	0.05	0.06	0.14	1.2	1.5	--	--	--	--	--	--
DEC 17...	<0.008	--	--	<0.02	E.02	E.02	0.76	0.78	--	--	--	--	--	--
JAN 31...	E.005	0.29	0.43	E.01	E.03	0.06	0.79	0.93	270	<2	<0.2	<0.8	<3.4	
FEB 27...	<0.008	0.25	0.70	0.06	0.13	0.23	0.75	1.2	--	--	--	--	--	
MAR 20...	E.005	0.41	1.0	0.05	0.07	0.27	0.70	1.3	1,110	<2	<0.2	E.6	E2.4	
MAY 16...	E.006	--	--	E.01	E.02	0.04	0.65	0.72	--	--	--	--	--	
MAY 22...	E.007	0.52	1.1	0.03	0.04	0.20	0.94	1.5	890	<2	<0.2	E.6	E2.8	
JUN 25...	<0.008	--	--	<0.02	E.02	E.03	0.66	0.68	--	--	--	--	--	
JUL 30...	<0.008	--	--	<0.02	<0.04	E.03	0.53	0.63	59	<2	<0.2	<0.8	<3.4	
AUG 21...	E.004	--	--	<0.18	<0.04	E.02	--	--	--	--	--	--	--	
SEP 04...	<0.008	--	--	<0.02	<0.04	E.04	0.69	0.69	--	--	--	--	--	

0208524845 LITTLE RIVER RESERVOIR AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°06'54", long 78°52'09", 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 mi².

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

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. 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 2002 TO SEPTEMBER 2003

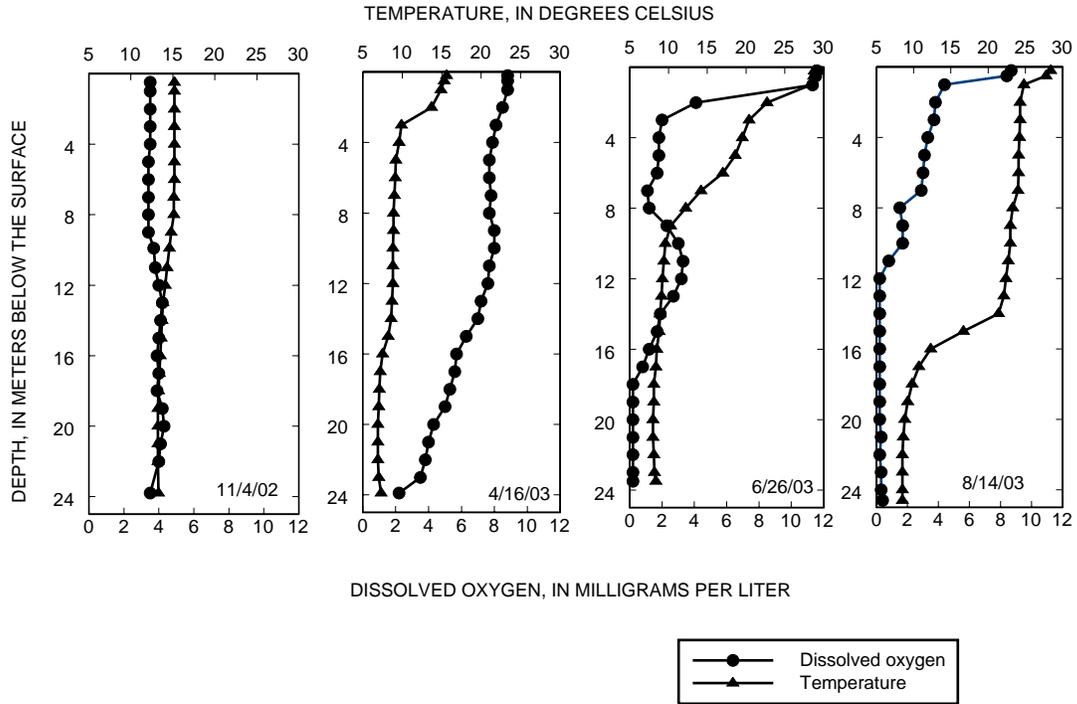
Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	
Date		Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, titr., mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat fltrd mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
NOV														
04...	0900	40	1.0	1.10	756	3.5	35	6.3	70	15.2	21	4.93	2.09	
04...	0905	--	11.0	--	756	3.8	38	6.3	74	14.3	--	--	--	
04...	0910	--	23.8	--	756	3.5	34	6.5	83	13.3	--	--	--	
APR														
16...	1130	100	1.0	0.50	757	8.8	87	6.1	45	14.9	15	3.41	1.46	
16...	1135	--	12.0	--	757	7.6	66	5.8	45	8.8	--	--	--	
16...	1140	--	23.9	--	757	2.2	18	6.0	82	7.3	--	--	--	
JUN														
26...	0930	52	1.0	1.10	757	11.3	147	8.7	67	28.3	23	5.39	2.25	
26...	0935	--	11.0	--	757	3.3	29	5.4	46	9.4	--	--	--	
26...	0940	--	23.0	--	757	0.2	2	6.1	101	8.2	--	--	--	
AUG														
14...	1200	75	1.0	1.10	765	4.4	53	5.8	59	24.8	22	5.46	2.05	
14...	1205	--	12.0	--	765	0.2	2	5.7	63	22.4	--	--	--	
14...	1210	--	24.0	--	765	0.4	3	6.2	144	8.5	--	--	--	

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
NOV													
04...	--	10.8	1.4	<0.1	140	<2	<0.2	<0.8	<3.4	1.8	400	<1	237
04...	--	--	--	--	--	--	--	--	--	--	610	--	363
04...	--	--	--	--	--	--	--	--	--	--	800	--	513
APR													
16...	0.082	8.8	E1.7	<0.1	310	<2	<0.2	<0.8	<3.4	1.8	540	M	55.5
16...	0.104	--	--	--	--	--	--	--	--	--	710	--	86.8
16...	0.28	--	--	--	--	--	--	--	--	--	3,540	--	893
JUN													
26...	0.048	12.4	7.5	0.4	--	--	--	--	--	--	510	--	21.1
26...	0.21	--	--	--	--	--	--	--	--	--	770	--	456
26...	0.071	--	--	--	--	--	--	--	--	--	5,770	--	2,860
AUG													
14...	0.057	10.1	E8.6	<0.1	--	--	--	--	--	--	450	--	180
14...	0.053	--	--	--	--	--	--	--	--	--	610	--	751
14...	0.073	--	--	--	--	--	--	--	--	--	6,120	--	5,350

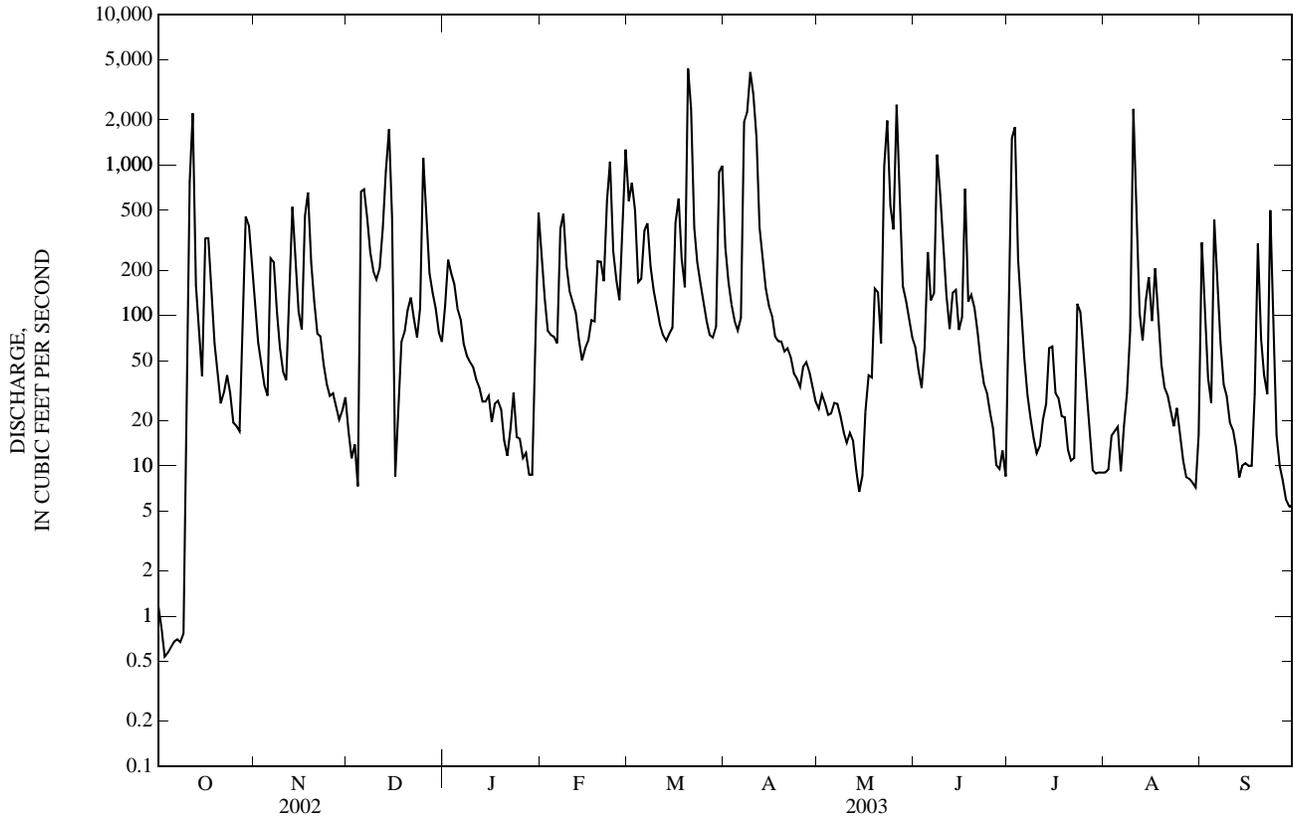
Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
NOV						
04...	0.04	<2	<2.0	<3	<0.3	<25
04...	--	--	--	--	--	--
04...	--	--	--	--	--	--
APR						
16...	0.02	<2	<2.0	<3	<0.3	35
16...	--	--	--	--	--	--
16...	--	--	--	--	--	--
JUN						
26...	--	--	--	--	--	--
26...	--	--	--	--	--	--
26...	--	--	--	--	--	--
AUG						
14...	--	--	--	--	--	--
14...	--	--	--	--	--	--
14...	--	--	--	--	--	--



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

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL TOTAL	19,395.54		81,853.26		86.8	
ANNUAL MEAN	53.1		224		224	
HIGHEST ANNUAL MEAN					224	2003
LOWEST ANNUAL MEAN					3.39	2002
HIGHEST DAILY MEAN	2,210	Oct 12	4,370	Mar 20	10,300	Sep 6, 1996
LOWEST DAILY MEAN	0.47	Sep 7	0.54	Oct 3	0.41	Nov 22, 1998
ANNUAL SEVEN-DAY MINIMUM	0.51	Sep 7	0.65	Oct 3	0.51	Sep 7, 2002
MAXIMUM PEAK FLOW			7,830	Mar 20	16,600*	Sep 6, 1996
MAXIMUM PEAK STAGE			13.82	Mar 20	17.27*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.48	Oct 2	NOT DETERMINED*	
10 PERCENT EXCEEDS	111		492		143	
50 PERCENT EXCEEDS	3.6		68		6.6	
90 PERCENT EXCEEDS	0.70		10		1.5	

e Estimated.
 * See REMARKS.



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 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
OCT 16...	1700	514	742	9.0	101	6.4	58	19.7	0.52	0.71	0.14	0.32	0.33
DEC 17...	1145	18	751	10.4	86	5.9	95	6.6	0.39	0.43	E.04	--	0.38
JAN 31...	1200	551	764	15.0	117	6.1	82	5.0	0.39	0.47	0.07	--	0.36
FEB 27...	1430	219	756	12.1	96	6.2	65	5.3	0.41	0.56	0.06	--	0.39
MAR 20...	1215	6,450	754	12.2	109	6.3	60	9.9	0.29	0.50	E.03	--	0.27
MAY 16...	1115	13	757	9.2	90	5.5	45	14.5	0.46	0.62	0.07	--	0.35
MAY 22...	1415	919	761	9.4	102	7.1	60	19.1	0.27	0.50	<0.04	--	E.05
JUN 25...	1115	19	756	7.8	93	7.0	103	23.6	0.56	0.60	0.05	--	0.06
JUL 30...	1230	9.0	757	5.0	59	6.5	69	24.1	0.44	0.61	0.10	--	0.17
AUG 21...	1200	28	756	7.0	88	6.3	59	26.2	0.40	0.67	E.02	--	0.07
SEP 04...	1200	22	751	6.2	77	6.6	50	25.6	0.41	0.52	0.04	--	E.03

Date	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd, mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Suspended sediment concentration, mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT 16...	0.015	0.39	0.57	E.01	E.03	0.06	0.85	1.0	14	20
DEC 17...	<0.008	--	--	0.02	0.04	0.04	0.78	0.81	19	0.92
JAN 31...	E.004	0.32	0.40	0.02	E.02	0.06	0.75	0.83	7	11
FEB 27...	<0.008	0.36	0.51	0.05	0.07	0.10	0.80	0.95	24	14
MAR 20...	E.004	--	--	E.01	0.04	0.05	0.56	0.77	25	441
MAY 16...	E.005	0.39	0.56	0.03	0.06	0.10	0.81	0.97	33	1.2
MAY 22...	<0.008	--	--	<0.02	<0.04	<0.04	--	--	16	40
JUN 25...	<0.008	0.51	0.55	<0.02	E.03	E.03	0.62	0.67	9	0.45
JUL 30...	E.007	0.34	0.50	<0.02	E.02	0.05	0.61	0.77	6	0.16
AUG 21...	E.006	--	--	<0.18	<0.04	0.04	0.46	0.73	8	0.63
SEP 04...	<0.008	0.36	0.47	<0.02	<0.04	E.03	--	--	8	0.49

LOCATION.--Lat 36°14'25", long 78°53'20", Person County, Hydrologic Unit 03020201, on right bank on upstream side of bridge at Secondary Road 1734, 3.6 miles southwest of Moriah.

DRAINAGE AREA.--32.5 mi².

GAGE-HEIGHT RECORDS

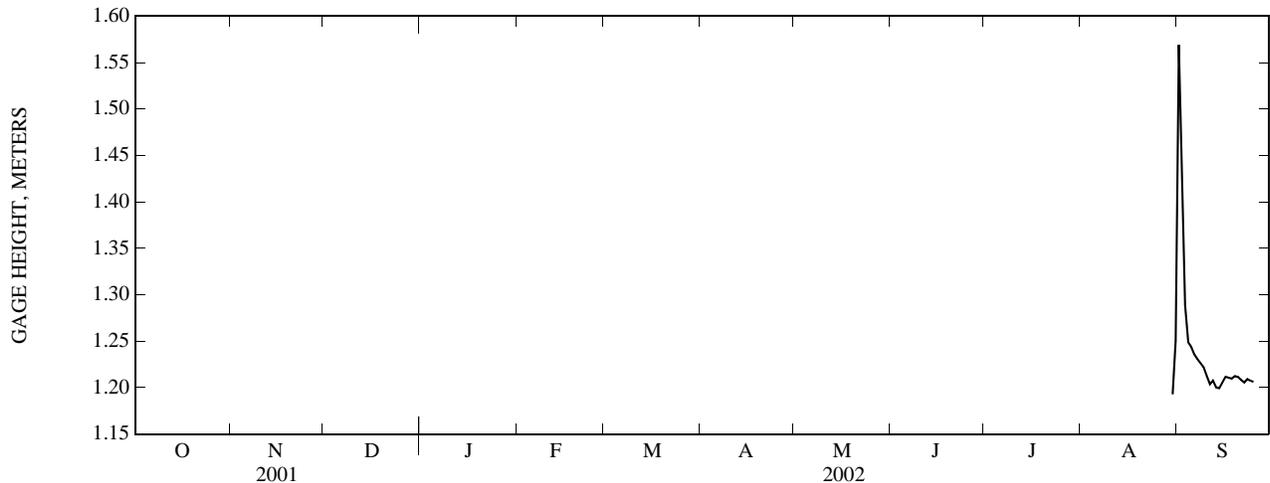
PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 4.00 m, March 20, 2003; minimum gage height recorded, 0.95 m, Aug. 28-30, Oct. 24, 2003.

GAGE HEIGHT, ABOVE DATUM, METERS
AUGUST TO SEPTEMBER 2002
DAILY MEAN VALUES

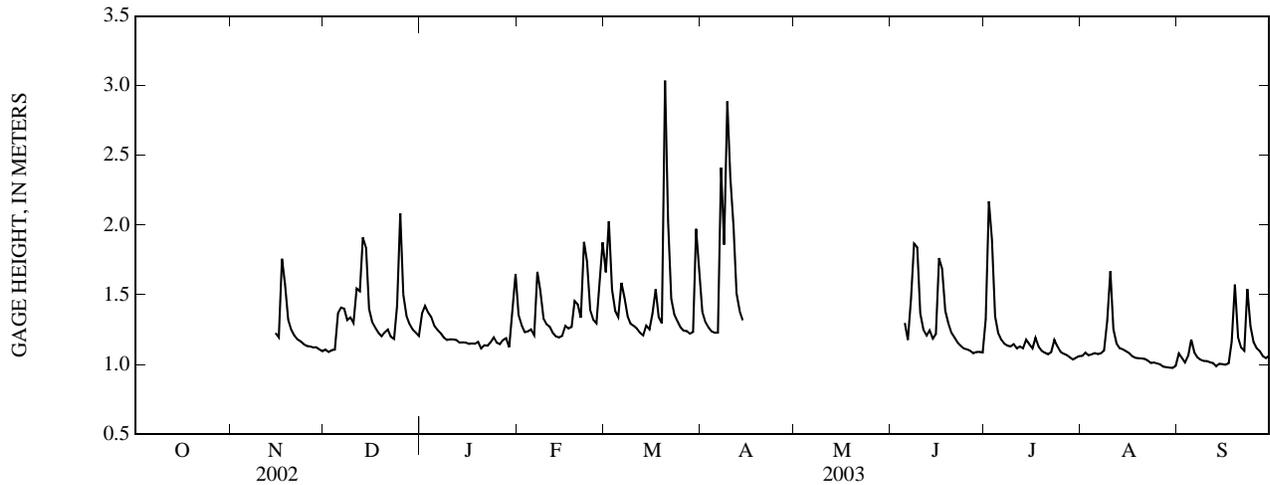
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	1.57
2	---	---	---	---	---	---	---	---	---	---	---	1.39
3	---	---	---	---	---	---	---	---	---	---	---	1.29
4	---	---	---	---	---	---	---	---	---	---	---	1.25
5	---	---	---	---	---	---	---	---	---	---	---	1.24
6	---	---	---	---	---	---	---	---	---	---	---	1.24
7	---	---	---	---	---	---	---	---	---	---	---	1.23
8	---	---	---	---	---	---	---	---	---	---	---	1.23
9	---	---	---	---	---	---	---	---	---	---	---	1.22
10	---	---	---	---	---	---	---	---	---	---	---	1.21
11	---	---	---	---	---	---	---	---	---	---	---	1.20
12	---	---	---	---	---	---	---	---	---	---	---	1.21
13	---	---	---	---	---	---	---	---	---	---	---	1.20
14	---	---	---	---	---	---	---	---	---	---	---	1.20
15	---	---	---	---	---	---	---	---	---	---	---	1.21
16	---	---	---	---	---	---	---	---	---	---	---	1.21
17	---	---	---	---	---	---	---	---	---	---	---	1.21
18	---	---	---	---	---	---	---	---	---	---	---	1.21
19	---	---	---	---	---	---	---	---	---	---	---	1.21
20	---	---	---	---	---	---	---	---	---	---	---	1.21
21	---	---	---	---	---	---	---	---	---	---	---	1.21
22	---	---	---	---	---	---	---	---	---	---	---	1.21
23	---	---	---	---	---	---	---	---	---	---	---	1.21
24	---	---	---	---	---	---	---	---	---	---	---	1.21
25	---	---	---	---	---	---	---	---	---	---	---	1.21
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	1.19	---
31	---	---	---	---	---	---	---	---	---	---	1.25	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



02085430 DEEP CREEK NEAR MORIAH, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1.11	1.37	1.36	1.66	1.38	---	---	1.32	1.06	1.08
2	---	---	1.09	1.42	1.28	2.03	1.30	---	---	2.17	1.08	1.05
3	---	---	1.10	1.37	1.23	1.54	1.26	---	---	1.90	1.06	1.01
4	---	---	1.11	1.34	1.24	1.38	1.24	---	---	1.34	1.07	1.06
5	---	---	1.37	1.27	1.25	1.34	1.23	---	1.30	1.23	1.08	1.18
6	---	---	1.41	1.25	1.21	1.59	1.23	---	1.18	1.18	1.07	1.08
7	---	---	1.40	1.22	1.66	1.48	2.41	---	1.47	1.15	1.08	1.05
8	---	---	1.32	1.19	1.53	1.35	1.86	---	1.87	1.13	1.10	1.03
9	---	---	1.34	1.18	1.33	1.29	2.89	---	1.84	1.13	1.31	1.02
10	---	---	1.30	1.18	1.29	1.28	2.34	---	1.37	1.14	1.67	1.02
11	---	---	1.54	1.18	1.27	1.26	1.99	---	1.25	1.12	1.25	1.01
12	---	---	1.52	1.18	1.23	1.23	1.51	---	1.21	1.13	1.15	1.01
13	---	---	1.91	1.16	1.20	1.21	1.38	---	1.25	1.12	1.12	0.99
14	---	---	1.84	1.16	1.19	1.28	1.32	---	1.19	1.18	1.11	1.00
15	---	1.22	1.40	1.16	1.20	1.25	---	---	1.22	1.15	1.10	1.00
16	---	1.19	1.30	1.15	1.28	1.36	---	---	1.76	1.12	1.08	1.00
17	---	1.76	1.26	1.15	1.26	1.54	---	---	1.69	1.19	1.06	1.01
18	---	1.58	1.23	1.15	1.27	1.34	---	---	1.38	1.13	1.05	1.16
19	---	1.32	1.20	1.16	1.46	1.29	---	---	1.30	1.10	1.04	1.57
20	---	1.25	1.23	1.12	1.43	3.04	---	---	1.23	1.08	1.04	1.20
21	---	1.21	1.25	1.14	1.33	2.03	---	---	1.19	1.07	1.04	1.12
22	---	1.18	1.20	1.13	1.88	1.47	---	---	1.16	1.09	1.03	1.10
23	---	1.17	1.18	1.16	1.74	1.36	---	---	1.13	1.18	1.01	1.54
24	---	1.15	1.42	1.19	1.39	1.31	---	---	1.11	1.13	1.01	1.27
25	---	1.13	2.09	1.16	1.32	1.27	---	---	1.11	1.09	1.01	1.16
26	---	1.13	1.50	1.14	1.29	1.24	---	---	1.10	1.08	1.00	1.12
27	---	1.12	1.35	1.17	1.59	1.24	---	---	1.08	1.07	0.98	1.10
28	---	1.12	1.29	1.19	1.88	1.22	---	---	1.09	1.05	0.98	1.06
29	---	1.11	1.25	1.12	---	1.23	---	---	1.09	1.03	0.98	1.04
30	---	1.09	1.23	1.39	---	1.97	---	---	1.09	1.05	0.97	1.06
31	---	---	1.20	1.65	---	1.66	---	---	---	1.06	0.99	---
MEAN	---	---	1.35	1.22	1.38	1.48	---	---	---	1.19	1.08	1.10
MAX	---	---	2.09	1.65	1.88	3.04	---	---	---	2.17	1.67	1.57
MIN	---	---	1.09	1.12	1.19	1.21	---	---	---	1.03	0.97	0.99

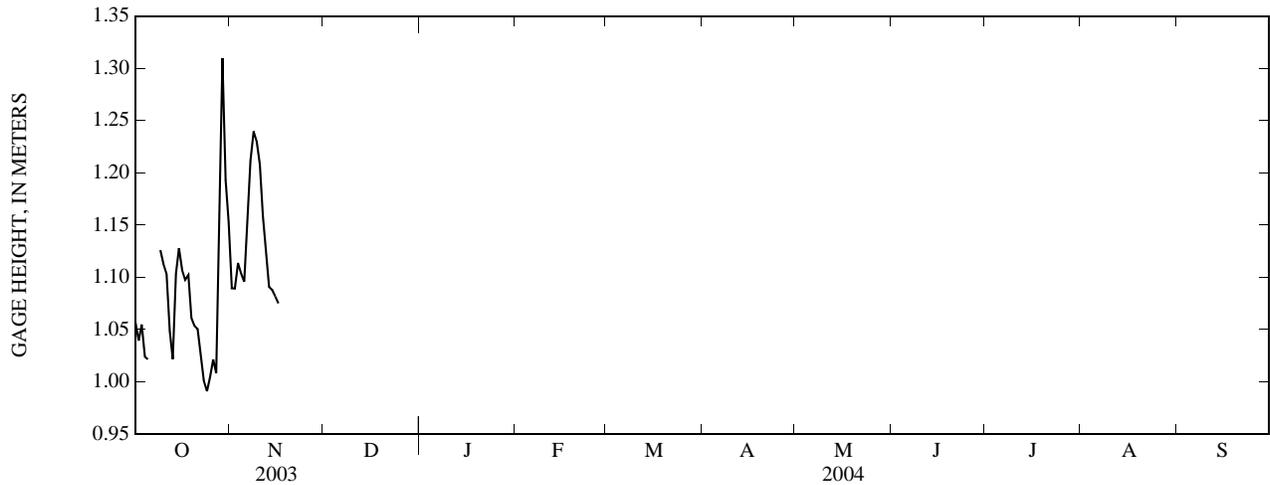


NEUSE RIVER BASIN

02085430 DEEP CREEK NEAR MORIAH, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.06	1.09	---	---	---	---	---	---	---	---	---	---
2	1.04	1.09	---	---	---	---	---	---	---	---	---	---
3	1.05	1.11	---	---	---	---	---	---	---	---	---	---
4	1.02	1.10	---	---	---	---	---	---	---	---	---	---
5	1.02	1.10	---	---	---	---	---	---	---	---	---	---
6	---	1.16	---	---	---	---	---	---	---	---	---	---
7	---	1.21	---	---	---	---	---	---	---	---	---	---
8	---	1.24	---	---	---	---	---	---	---	---	---	---
9	1.13	1.23	---	---	---	---	---	---	---	---	---	---
10	1.11	1.21	---	---	---	---	---	---	---	---	---	---
11	1.10	1.16	---	---	---	---	---	---	---	---	---	---
12	1.05	1.12	---	---	---	---	---	---	---	---	---	---
13	1.02	1.09	---	---	---	---	---	---	---	---	---	---
14	1.10	1.09	---	---	---	---	---	---	---	---	---	---
15	1.13	1.08	---	---	---	---	---	---	---	---	---	---
16	1.11	1.08	---	---	---	---	---	---	---	---	---	---
17	1.10	---	---	---	---	---	---	---	---	---	---	---
18	1.10	---	---	---	---	---	---	---	---	---	---	---
19	1.06	---	---	---	---	---	---	---	---	---	---	---
20	1.05	---	---	---	---	---	---	---	---	---	---	---
21	1.05	---	---	---	---	---	---	---	---	---	---	---
22	1.02	---	---	---	---	---	---	---	---	---	---	---
23	1.00	---	---	---	---	---	---	---	---	---	---	---
24	0.99	---	---	---	---	---	---	---	---	---	---	---
25	1.00	---	---	---	---	---	---	---	---	---	---	---
26	1.02	---	---	---	---	---	---	---	---	---	---	---
27	1.01	---	---	---	---	---	---	---	---	---	---	---
28	1.14	---	---	---	---	---	---	---	---	---	---	---
29	1.31	---	---	---	---	---	---	---	---	---	---	---
30	1.19	---	---	---	---	---	---	---	---	---	---	---
31	1.15	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 2002 to November 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to November 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 31.8°C, Aug. 30, 2003; minimum recorded, 0.0°C, Jan. 19, 23, Feb. 17, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
MAR 04...	1400	9	E77	753	11.1	95	6.2	47	8.0	4.02	6.2	0.24	<0.04
MAY 16...	1400	D	E29	--	8.6	--	7.0	60	18.4	--	--	--	--
JUN 24...	1200	9	--	--	7.9	--	6.0	60	18.9	--	--	--	--
JUL 07...	1000	9	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	0900	9	E14	750	8.8	103	6.7	65	22.5	4.39	2.1	0.36	<0.04
Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00660)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
MAR 04...	0.23	<0.008	<0.02	0.04	0.027	0.46	0.3	<0.1	0.3	4.5	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	3.700	46	50.10
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	0.20	<0.008	<0.02	0.04	0.029	0.57	0.4	<0.1	0.4	4.9	--	--	--
Date	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water fltrd, ug/L (61625)	4Chloro-2methyl-phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)
MAR 04...	--	--	K12	--	<0.09	<0.006	<0.1	<0.005	E.006	<0.004	<0.004	<0.006	<0.006
MAY 16...	621	7.0	--	6.0	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	97	--	--	--	--	--	--	--	--	--	--
JUL 16...	--	--	--	--	<0.09	<0.006	<0.3	<0.005	E.018	<0.004	<0.004	<0.006	<0.006

02085430 DEEP CREEK NEAR MORIAH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
MAR 04...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.004	0.051	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipron-il sulfide water, fltrd, ug/L (62167)	Fipron-il sulfone water, fltrd, ug/L (62168)
MAR 04...	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
Date	Fipron-il, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Malax-on, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)
MAR 04...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	E.004
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.007	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	E.007
Date	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)
MAR 04...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.002	<0.02	<0.07
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	M	<0.005	<0.004	0.032	<0.02	<0.07

02085430 DEEP CREEK NEAR MORIAH, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.6	2.9	4.9	11.2	7.9	10
2	---	---	---	---	---	---	5.6	1.5	3.8	10.8	9.4	9.8
3	---	---	---	---	---	---	7.6	2.8	4.5	9.6	8.5	9.4
4	---	---	---	---	---	---	2.8	0.3	1.8	8.5	6.0	7.3
5	---	---	---	---	---	---	3.1	0.3	1.9	6.0	4.8	5.4
6	---	---	---	---	---	---	4.4	3.1	3.8	5.8	4.6	5.2
7	---	---	---	---	---	---	3.9	2.5	3.3	4.9	3.3	4.1
8	---	---	---	---	---	---	4.4	2.7	3.6	6.1	3.9	4.9
9	---	---	---	---	---	---	5.0	4.2	4.6	8.1	5.4	6.7
10	---	---	---	---	---	---	4.7	4.0	4.4	7.9	6.0	7.1
11	---	---	---	---	---	---	5.4	4.2	5.0	6.0	3.8	5.0
12	---	---	---	---	---	---	6.7	5.2	5.9	4.0	2.4	3.3
13	---	---	---	---	---	---	6.6	6.0	6.2	3.9	1.2	2.6
14	---	---	---	---	---	---	7.4	6.1	6.8	4.5	2.2	3.3
15	---	---	---	11.4	9.5	10.6	7.0	5.8	6.4	4.5	1.9	3.3
16	---	---	---	12.2	11.4	11.8	7.3	5.6	6.5	2.8	1.1	2.0
17	---	---	---	12.2	11.4	12.0	6.7	5.6	6.2	3.7	1.3	2.3
18	---	---	---	11.4	9.5	10.4	7.1	5.7	6.4	2.2	0.1	0.7
19	---	---	---	9.7	8.1	9.1	7.9	6.7	7.2	1.2	0.0	0.4
20	---	---	---	9.8	8.0	9.0	10.9	7.9	9.7	3.8	0.3	1.7
21	---	---	---	10.3	8.9	9.6	9.4	7.0	8.1	2.8	1.5	2.1
22	---	---	---	10.4	8.6	9.7	8.0	5.8	6.9	3.6	0.4	1.8
23	---	---	---	8.8	7.2	8.0	7.7	6.2	7.0	1.9	0.0	0.7
24	---	---	---	9.0	6.2	7.7	7.2	6.6	6.9	1.1	0.1	0.3
25	---	---	---	9.8	6.7	8.2	7.2	6.5	7.0	1.9	0.1	0.5
26	---	---	---	9.4	6.8	8.2	6.5	5.5	6.0	1.2	0.2	0.5
27	---	---	---	8.6	6.0	7.6	5.5	4.2	4.8	1.5	0.2	0.5
28	---	---	---	7.2	3.6	5.1	5.0	3.3	4.3	0.8	0.2	0.4
29	---	---	---	6.6	2.3	4.4	5.9	3.9	4.9	1.9	0.4	1.0
30	---	---	---	9.1	5.0	6.7	6.3	4.3	5.3	3.5	1.9	2.8
31	---	---	---	---	---	---	7.9	5.4	6.5	4.1	3.4	3.8
MONTH	---	---	---	---	---	---	10.9	0.3	5.5	11.2	0.0	3.5
	FEBRUARY			MARCH			APRIL			MAY		
1	5.8	4.1	4.9	6.4	4.6	5.3	11.8	8.2	9.9	---	---	---
2	6.3	4.2	5.2	8.3	6.3	7.1	15.4	10.7	13.0	---	---	---
3	7.3	4.6	6.0	8.5	6.7	7.7	17.3	12.9	15.1	---	---	---
4	10.0	7.2	8.6	8.6	5.9	7.3	17.2	14.2	15.8	---	---	---
5	8.0	5.4	6.7	11.5	8.4	9.8	16.8	15.1	15.8	---	---	---
6	5.4	3.6	4.5	11.7	10.8	11.2	16.6	13.5	15.1	---	---	---
7	5.1	3.5	4.3	11.2	7.2	9.0	15.0	9.6	11.2	---	---	---
8	5.0	3.8	4.4	9.5	5.7	7.6	9.6	9.4	9.5	---	---	---
9	4.8	3.0	3.8	12.6	8.7	10.5	9.4	8.3	8.8	---	---	---
10	4.9	4.0	4.3	11.3	8.8	10.1	9.0	8.4	8.6	---	---	---
11	5.7	3.2	4.4	8.8	6.7	7.5	9.3	8.3	8.7	---	---	---
12	6.3	3.8	4.9	10.5	5.4	7.9	13.3	9.2	11.0	---	---	---
13	5.5	3.0	4.3	12.8	8.5	10.7	14.7	10.9	12.8	---	---	---
14	5.1	3.5	4.4	12.8	10.6	11.8	15.7	11.7	13.7	---	---	---
15	6.0	5.1	5.5	10.6	8.6	9.1	---	---	---	---	---	---
16	5.2	1.1	3.4	10.2	8.4	9.2	---	---	---	---	---	---
17	1.2	0.0	0.6	11.9	10.2	11.0	---	---	---	---	---	---
18	4.4	1.2	2.7	12.9	11.4	12.1	---	---	---	---	---	---
19	5.0	2.7	3.9	12.6	10.7	11.8	---	---	---	---	---	---
20	6.4	4.6	5.4	10.7	8.1	8.8	---	---	---	---	---	---
21	6.5	5.6	6.1	11.1	8.1	9.5	---	---	---	---	---	---
22	7.0	6.4	6.6	13.2	10.2	11.7	---	---	---	---	---	---
23	8.9	7.0	8.0	13.4	10.4	12.1	---	---	---	---	---	---
24	8.5	5.8	7.2	14.9	11.3	13.0	---	---	---	---	---	---
25	8.2	6.7	7.6	15.3	11.0	13.2	---	---	---	---	---	---
26	7.4	5.0	6.1	16.7	12.6	14.6	---	---	---	---	---	---
27	5.0	4.0	4.3	16.4	13.4	14.8	---	---	---	---	---	---
28	4.8	3.8	4.3	16.6	12.7	14.7	---	---	---	---	---	---
29	---	---	---	18.0	15.4	16.5	---	---	---	---	---	---
30	---	---	---	16.9	9.9	12.8	---	---	---	---	---	---
31	---	---	---	10.8	8.5	9.7	---	---	---	---	---	---
MONTH	10.0	0.0	5.1	18.0	4.6	10.6	---	---	---	---	---	---

02085500 FLAT RIVER AT BAHAMA, NC

LOCATION.--Lat 36°10'58", long 78°52'43", 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 mi².

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 NGVD of 1929. Prior to Oct. 22, 1925, nonrecording gage at present site at 346.27 ft. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. 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 from rating curve extended above 18,000 ft³/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 period of record also occurred June 26, July 22, 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.35	156	48	186	298	917	381	242	125	1,040	49	177
2	2.5	100	44	387	190	1,760	259	128	107	3,010	56	68
3	1.8	77	43	248	138	685	205	105	97	2,240	47	41
4	0.86	65	42	232	128	347	174	98	123	438	44	69
5	0.60	58	305	158	172	280	157	89	324	240	69	444
6	0.52	415	400	127	118	670	144	96	148	166	63	103
7	0.33	256	428	108	683	547	3,110	100	438	127	66	56
8	0.25	122	267	98	648	286	1,740	86	2,000	105	63	45
9	0.25	85	255	94	273	222	4,830	76	1,620	92	117	42
10	0.36	69	217	87	199	183	2,630	70	450	138	2,060	39
11	6,470	61	508	78	205	151	2,060	66	240	105	341	35
12	1,820	402	672	71	154	134	663	65	175	93	158	33
13	198	884	1,170	67	119	125	392	59	303	82	100	32
14	102	272	1,610	66	103	187	279	55	187	122	94	34
15	69	154	410	64	102	167	225	56	136	119	78	35
16	405	112	243	61	135	533	193	140	1,170	80	61	33
17	335	1,110	172	61	163	759	168	96	991	138	55	30
18	124	915	132	61	145	331	146	95	383	91	51	54
19	74	288	115	61	421	227	145	791	264	65	45	1,090
20	54	176	139	57	361	5,680	148	312	198	57	42	221
21	48	131	194	57	241	2,850	132	171	150	51	40	106
22	73	109	125	56	961	577	123	2,430	118	52	38	70
23	108	90	101	56	1,260	356	111	2,510	101	364	35	1,310
24	65	77	225	52	384	267	99	988	90	211	34	412
25	50	69	1,840	53	244	211	94	588	82	102	32	173
26	44	63	586	52	185	181	103	1,720	77	66	30	116
27	41	59	274	54	526	160	511	554	69	54	29	93
28	127	55	192	50	1,480	143	214	315	107	48	27	81
29	688	52	152	53	---	151	132	222	99	42	26	72
30	816	50	125	169	---	1,380	119	180	75	42	24	64
31	327	---	110	872	---	1,080	---	148	---	44	42	---
TOTAL												
12045.8												
2	6,532	11,144	3,896	10,036	21,547	19,687	12,651	10,447	9,624	4,016	5,178	
MEAN	389	218	359	126	358	695	656	408	348	310	130	173
MAX	6,470	1,110	1,840	872	1,480	5,680	4,830	2,510	2,000	3,010	2,060	1,310
MIN	0.25	50	42	50	102	125	94	55	69	42	24	30
CFSM	2.61	1.46	2.41	0.84	2.41	4.66	4.40	2.74	2.34	2.08	0.87	1.16
IN.	3.01	1.63	2.78	0.97	2.51	5.38	4.92	3.16	2.61	2.40	1.00	1.29

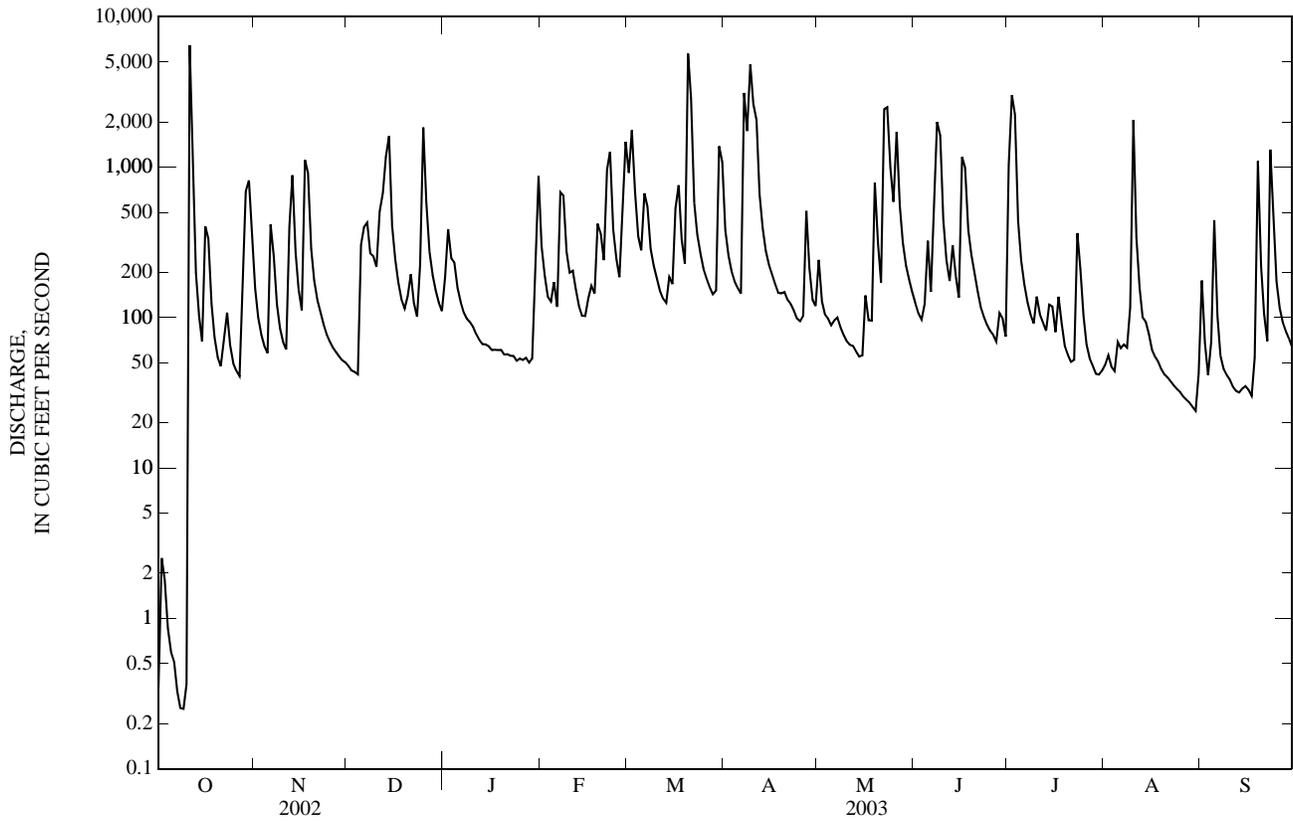
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2003, BY WATER YEAR (WY)

MEAN	68.1	94.8	131	221	271	291	226	115	81.1	86.9	73.6	86.7
MAX	561	489	421	761	758	948	656	573	551	798	431	984
(WY)	(1972)	(1986)	(1973)	(1936)	(1998)	(1998)	(2003)	(1978)	(1938)	(1975)	(1939)	(1996)
MIN	1.24	0.71	1.81	4.29	39.4	72.4	31.1	19.3	3.85	1.68	2.93	0.71
(WY)	(1942)	(1934)	(1934)	(1934)	(2002)	(1967)	(1942)	(2002)	(2002)	(2002)	(1977)	(1968)

02085500 FLAT RIVER AT BAHAMA, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1925 - 2003	
ANNUAL TOTAL	38,412.44		126,803.82		145	
ANNUAL MEAN	105		347		347	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	6,470	Oct 11	6,470	Oct 11	21,800	Sep 6, 1996
LOWEST DAILY MEAN	0.17	Jun 25	0.25	Oct 8	0.17	Jun 25, 2002
ANNUAL SEVEN-DAY MINIMUM	0.24	Jun 19	0.45	Oct 4	0.24	Jun 19, 2002
MAXIMUM PEAK FLOW			13,800	Oct 11	33,800*	Sep 6, 1996
MAXIMUM PEAK STAGE			11.07	Oct 11	17.26*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.22	Oct 10	0.15*	Jun 25, 2002
ANNUAL RUNOFF (CFSM)	0.71		2.33		0.97	
ANNUAL RUNOFF (INCHES)	9.59		31.66		13.22	
10 PERCENT EXCEEDS	206		877		283	
50 PERCENT EXCEEDS	26		127		49	
90 PERCENT EXCEEDS	0.40		43		6.9	

* 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 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Color, water, fltrd, Pt-Co units (00080)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT													
16...	1615	765	125	742	8.6	88	6.7	72	15.6	21	4.78	2.14	2.63
16...	1630	771	--	742	8.6	88	6.7	72	15.6	--	--	--	--
DEC													
17...	1345	165	--	751	12.5	101	6.3	66	5.9	--	--	--	--
JAN													
31...	1300	747	--	764	13.3	98	6.3	73	2.9	--	--	--	--
FEB													
27...	1600	380	--	756	13.1	102	6.5	57	4.7	--	--	--	--
MAR													
20...	1315	7,420	--	748	11.1	96	5.8	32	8.4	--	--	--	--
20...	1330	7,750	225	748	11.1	96	5.8	32	8.4	12	2.68	1.25	1.92
MAY													
16...	1300	180	--	754	8.7	93	6.4	56	18.2	--	--	--	--
22...	1330	2,750	--	761	10.0	100	6.2	45	15.6	--	--	--	--
JUN													
25...	1400	80	--	756	7.7	90	6.6	78	23.0	--	--	--	--
JUL													
30...	1430	41	--	757	6.7	82	6.9	78	25.0	--	--	--	--
AUG													
21...	1400	40	--	756	7.3	91	6.6	81	26.1	--	--	--	--
SEP													
04...	1300	35	--	751	6.7	84	6.6	56	25.9	--	--	--	--
Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO3 (00419)	Bicarbonate, wat unfltrd, field, mg/L (00450)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat fltrd mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
OCT													
16...	3.98	14	17	4.87	<0.17	10.6	7.2	66	--	0.76	0.022	0.50	0.51
16...	--	--	--	--	--	--	--	--	0.44	0.77	<0.04	--	0.48
DEC													
17...	--	--	--	--	--	--	--	--	0.27	0.34	E.02	--	0.42
JAN													
31...	--	--	--	--	--	--	--	--	0.49	0.76	0.05	--	0.36
FEB													
27...	--	--	--	--	--	--	--	--	0.23	0.31	<0.04	--	0.41
MAR													
20...	--	--	--	--	--	--	--	--	0.44	1.0	0.05	--	0.16
20...	1.77	--	--	1.86	<0.17	4.4	3.7	39	--	0.94	0.056	0.15	0.16
MAY													
16...	--	--	--	--	--	--	--	--	0.20	0.34	<0.04	--	0.34
22...	--	--	--	--	--	--	--	--	0.59	1.1	E.04	--	0.30
JUN													
25...	--	--	--	--	--	--	--	--	0.30	0.29	<0.04	--	0.42
JUL													
30...	--	--	--	--	--	--	--	--	0.28	0.37	<0.04	--	0.31
AUG													
21...	--	--	--	--	--	--	--	--	0.23	0.29	<0.04	--	<0.60
SEP													
04...	--	--	--	--	--	--	--	--	0.39	0.45	<0.04	--	0.31

02085500 FLAT RIVER AT BAHAMA, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)
OCT 16...	0.006	--	0.73	0.020	--	--	--	1.3	12.2	620	<2	0.6	E.7
16...	E.006	--	--	0.02	E.04	0.11	0.92	1.3	--	--	--	--	--
DEC 17...	<0.008	--	--	<0.02	E.02	E.03	0.69	0.75	--	--	--	--	--
JAN 31...	<0.008	0.44	0.71	E.01	E.03	0.11	0.85	1.1	--	--	--	--	--
FEB 27...	<0.008	--	--	E.01	0.04	0.06	0.64	0.71	--	--	--	--	--
MAR 20...	<0.008	0.39	0.97	0.04	0.06	0.24	0.60	1.2	--	--	--	--	--
20...	0.004	--	0.88	0.036	--	0.20	--	1.1	14.0	1,090	<2	<0.2	1.0
MAY 16...	<0.008	--	--	<0.02	E.03	E.03	0.54	0.67	--	--	--	--	--
22...	E.005	--	--	0.02	0.04	0.18	0.90	1.4	--	--	--	--	--
JUN 25...	<0.008	--	--	E.01	E.03	0.04	0.73	0.72	--	--	--	--	--
JUL 30...	<0.008	--	--	E.01	E.02	0.04	0.59	0.68	--	--	--	--	--
AUG 21...	E.004	--	--	<0.18	E.03	E.03	--	--	--	--	--	--	--
SEP 04...	<0.008	--	--	E.01	E.02	0.05	0.70	0.75	--	--	--	--	--

Date	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
OCT 16...	<3.4	5.1	1,490	2	203	E.01	<2	<2.0	<3	<0.3	<25	75	156
16...	--	--	--	--	--	--	--	--	--	--	--	76	158
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	10	4.5
JAN 31...	--	--	--	--	--	--	--	--	--	--	--	81	163
FEB 27...	--	--	--	--	--	--	--	--	--	--	--	31	32
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	220	4,410
20...	<3.4	3.0	1,590	3	241	0.02	<2	<2.0	<3	<0.3	<25	124	2,600
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	13	6.2
22...	--	--	--	--	--	--	--	--	--	--	--	172	1,280
JUN 25...	--	--	--	--	--	--	--	--	--	--	--	6	1.3
JUL 30...	--	--	--	--	--	--	--	--	--	--	--	6	0.70
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	6	0.63
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	8	0.72

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC

LOCATION.--Lat 36°09'03", long 78°49'48", Durham County, Hydrologic Unit 03020201, at dam 3.0 mi southeast of Bahama.

DRAINAGE AREA.--167 mi².

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

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. 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 2002 TO SEPTEMBER 2003

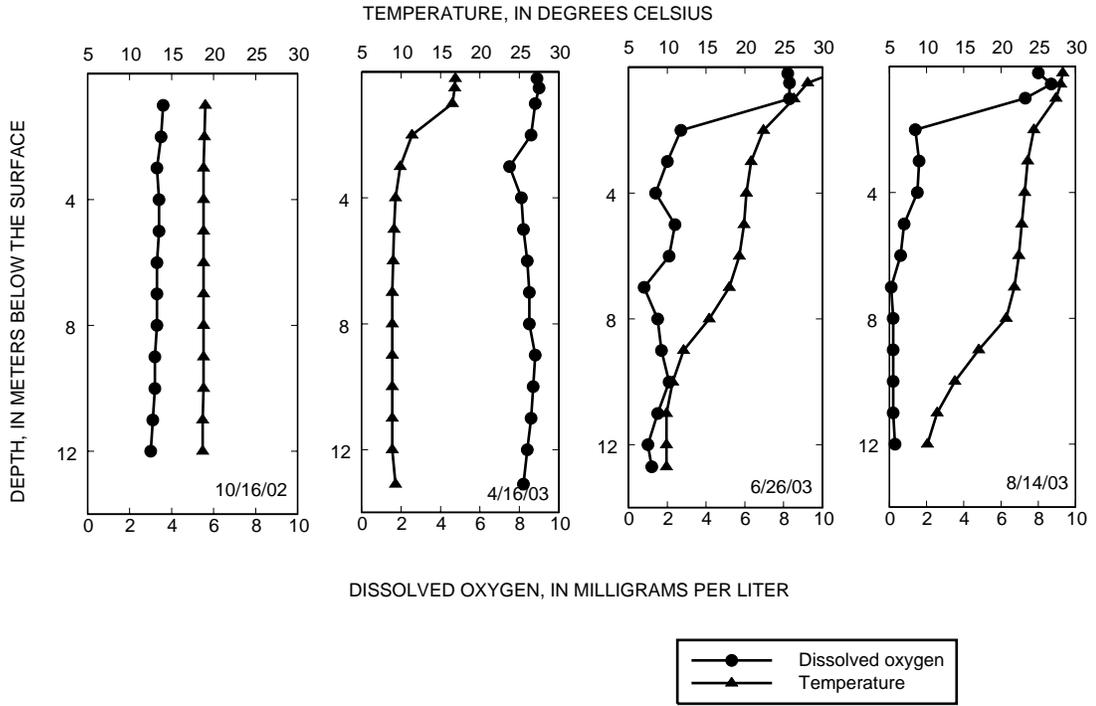
Date	Time	Color, water, fltrd, Pt-Co units (00080)	Sam-pling depth, meters (00098)	Trans-parency Secchi disc, meters (00078)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
OCT													
16...	1300	125	1.0	0.30	746	3.6	40	5.9	44	19.0	12	2.86	1.24
16...	1305	--	6.0	--	746	3.3	36	5.9	44	18.8	--	--	--
16...	1310	--	12.0	--	746	3.0	33	5.9	45	18.7	--	--	--
APR													
16...	0915	100	1.0	0.60	759	8.8	91	6.2	47	16.5	14	3.30	1.50
16...	0920	--	6.0	--	759	8.4	73	5.7	38	9.0	--	--	--
16...	0925	--	13.1	--	759	8.2	72	5.8	37	9.3	--	--	--
JUN													
26...	1315	75	1.0	1.00	758	8.3	104	6.4	55	26.3	20	4.53	2.01
26...	1320	--	6.0	--	758	2.1	23	5.6	55	19.3	--	--	--
26...	1325	--	12.0	--	758	1.0	9	5.3	46	9.9	--	--	--
AUG													
14...	0945	75	1.0	0.60	766	7.3	91	6.2	66	27.4	23	5.59	2.22
14...	0950	--	6.0	--	766	0.6	7	5.5	52	22.4	--	--	--
14...	0955	--	12.0	--	766	0.3	2	5.4	54	10.1	--	--	--
Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, field, mg/L (00450)	Chlor-ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
OCT													
16...	2.94	1.76	8	10	2.29	4.3	4.1	53	0.89	0.138	0.33	0.009	0.027
16...	--	--	--	--	--	--	--	--	0.93	0.149	0.33	0.010	0.026
16...	--	--	--	--	--	--	--	--	0.90	0.159	0.32	0.010	0.026
APR													
16...	1.20	2.68	8	10	2.42	8.5	4.8	44	0.37	<0.015	0.214	0.003	0.008
16...	--	--	--	--	--	--	--	--	0.50	0.061	0.187	0.003	0.024
16...	--	--	--	--	--	--	--	--	0.58	0.082	0.174	0.003	0.024
JUN													
26...	1.82	3.08	15	18	3.41	9.2	3.3	54	0.65	E.009	E.018	E.002	<0.007
26...	--	--	--	--	--	--	--	--	0.69	0.153	0.166	0.006	0.017
26...	--	--	--	--	--	--	--	--	0.66	0.172	0.268	<0.002	0.012
AUG													
14...	2.10	3.99	20	24	3.89	10.5	2.3	61	0.63	<0.015	E.011	E.002	<0.007
14...	--	--	--	--	--	--	--	--	0.68	0.101	0.104	0.005	0.011
14...	--	--	--	--	--	--	--	--	1.0	0.493	0.055	0.003	0.017

02086490 LAKE MICHIE AT DAM NEAR BAHAMA, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Chlorophyll b phytoplankton, fluoro, ug/L (70954)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water unfltrd ug/L (01002)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, unfltrd recover-able, ug/L (01037)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)
OCT													
16...	--	16.5	1.1	<0.1	440	<2	<0.2	E.4	<3.4	2.0	780	1	112
16...	--	--	--	--	--	--	--	--	--	--	860	--	137
16...	--	--	--	--	--	--	--	--	--	--	890	--	149
APR													
16...	0.061	7.0	E2.6	<0.1	280	<2	<0.2	<0.8	<3.4	1.5	560	M	53.4
16...	0.089	--	--	--	--	--	--	--	--	--	720	--	60.9
16...	0.120	--	--	--	--	--	--	--	--	--	1,010	--	148
JUN													
26...	0.051	12.2	3.2	E.4	--	--	--	--	--	--	760	--	35.0
26...	0.075	--	--	--	--	--	--	--	--	--	1,180	--	147
26...	0.111	--	--	--	--	--	--	--	--	--	1,670	--	551
AUG													
14...	0.052	9.1	E6.0	<0.1	--	--	--	--	--	--	660	--	50.3
14...	0.083	--	--	--	--	--	--	--	--	--	1,290	--	215
14...	0.105	--	--	--	--	--	--	--	--	--	2,380	--	1,090

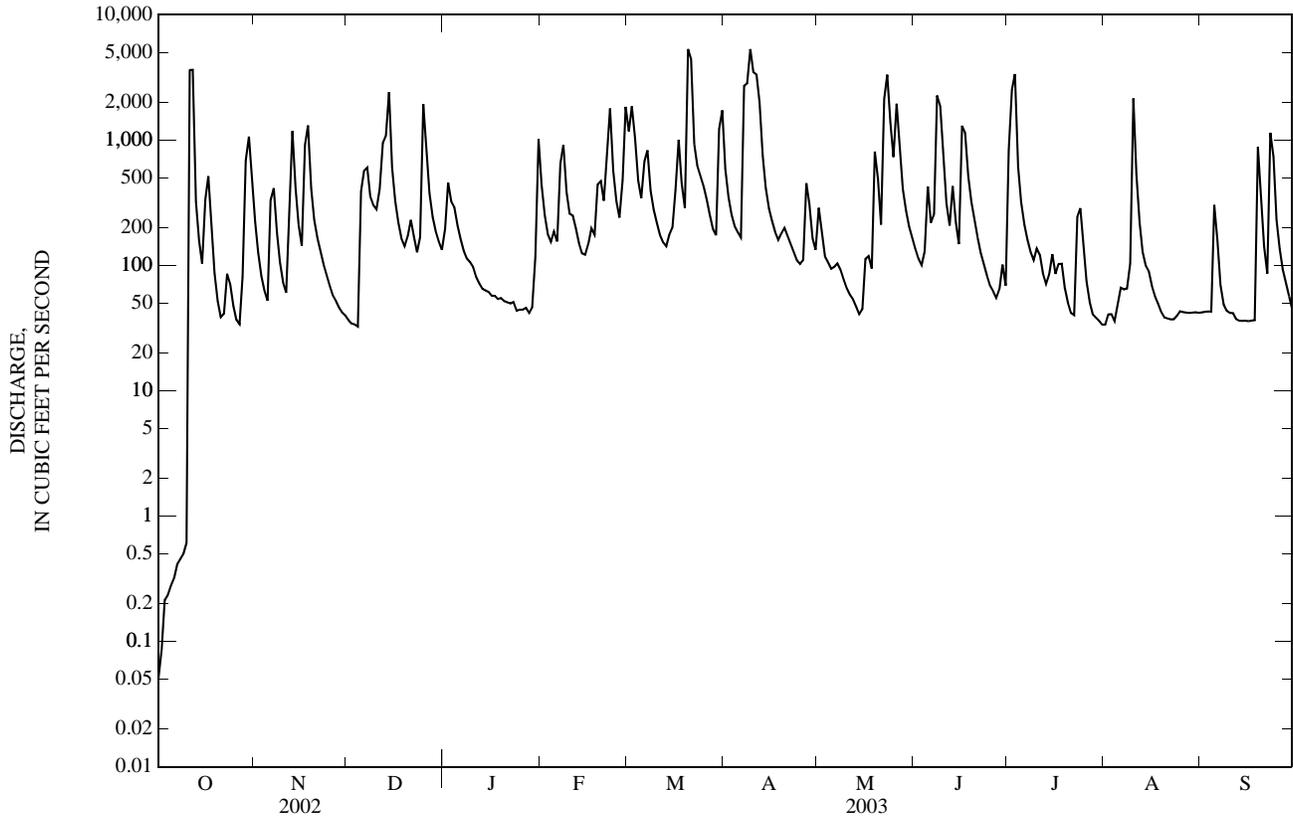
Date	Mercury water, unfltrd recover-able, ug/L (71900)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT						
16...	0.09	<2	<2.0	<3	<0.3	<25
16...	--	--	--	--	--	--
16...	--	--	--	--	--	--
APR						
16...	0.02	<2	<2.0	<3	<0.3	34
16...	--	--	--	--	--	--
16...	--	--	--	--	--	--
JUN						
26...	--	--	--	--	--	--
26...	--	--	--	--	--	--
26...	--	--	--	--	--	--
AUG						
14...	--	--	--	--	--	--
14...	--	--	--	--	--	--
14...	--	--	--	--	--	--



02086500 FLAT RIVER AT DAM NEAR BAHAMA, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1927 - 2003 [@]	
ANNUAL TOTAL	34,004.74		148,308.15		154	
ANNUAL MEAN	93.2		406		406	
HIGHEST ANNUAL MEAN					2.63	2003
LOWEST ANNUAL MEAN					10,500	Oct 2, 1929
HIGHEST DAILY MEAN	3,640	Oct 12	5,320	Mar 20	0.00	Sep 4, 1938
LOWEST DAILY MEAN	0.00	Jul 29	0.05	Oct 1	0.00	Sep 4, 1938
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 29	0.23	Oct 1	0.00	Sep 4, 1938
MAXIMUM PEAK FLOW			13,800	Oct 11	19,700	Jul 26, 1938
MAXIMUM PEAK STAGE			16.82	Oct 11	19.50	Jul 26, 1938
INSTANTANEOUS LOW FLOW			0.03	Oct 1	0.00*	Sep 4, 1938
10 PERCENT EXCEEDS	215		1,010		310	
50 PERCENT EXCEEDS	0.06		150		58	
90 PERCENT EXCEEDS	0.01		41		0.37	

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



0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC

LOCATION.--Lat 36°07'55", long 78°49'59", Durham County, Hydrologic Unit 03020201, on left bank at culvert on Secondary Road 1680, 1.5 mi southeast of Willardville.

DRAINAGE AREA.--1.14 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 270 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No flow at times during most years. Maximum discharge for period of record, from rating curve extended above 70 ft³/s, on basis of computation of flow through culvert with road overflow. Maximum gage height for period of record from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.70	0.33	2.2	1.6	4.4	2.6	0.52	0.60	0.17	0.05	0.01
2	0.00	0.53	0.28	1.7	1.1	6.1	2.0	0.44	0.50	2.4	0.08	0.01
3	0.00	0.42	0.28	1.7	0.84	2.9	1.6	0.39	0.50	3.2	0.08	0.01
4	0.00	0.45	0.30	1.3	0.84	2.0	1.5	0.39	0.69	0.33	0.06	0.08
5	0.00	0.49	7.7	1.0	0.72	2.0	1.5	0.42	0.69	0.22	0.10	0.06
6	0.00	3.2	4.8	0.89	0.69	5.8	1.4	0.48	0.44	0.17	0.10	0.03
7	0.00	1.3	3.2	0.74	8.0	3.0	20	0.38	1.0	0.16	0.21	0.02
8	0.00	0.77	2.3	0.72	2.6	2.0	9.6	0.32	1.6	0.13	0.30	0.08
9	0.00	0.59	2.1	0.66	1.5	1.7	50	0.27	4.1	0.13	4.0	0.04
10	0.00	0.52	1.6	0.59	1.6	1.4	24	0.23	0.95	0.18	3.5	0.04
11	91	0.53	3.1	0.52	1.4	1.2	10	0.20	0.56	0.23	0.59	0.03
12	14	3.6	2.3	0.48	1.1	1.1	4.7	0.19	0.45	0.18	0.32	0.04
13	0.89	3.5	16	0.48	0.93	1.1	3.0	0.18	0.40	0.14	0.23	0.09
14	0.57	1.4	5.7	0.48	0.78	1.1	2.3	0.14	0.34	0.31	0.18	0.10
15	0.52	0.93	2.1	0.44	0.77	0.97	2.0	0.36	0.31	0.13	0.14	0.10
16	3.0	0.87	1.5	0.42	0.84	3.3	1.7	0.40	0.35	0.10	0.18	0.08
17	1.1	5.5	0.94	0.45	0.84	2.5	1.5	0.21	0.39	0.12	0.14	0.02
18	0.51	2.8	0.69	0.42	1.3	1.7	1.3	0.80	0.38	0.07	0.10	0.22
19	0.38	1.4	0.73	0.40	2.5	1.3	1.3	3.5	0.47	0.07	0.09	0.07
20	0.34	0.99	1.7	0.39	2.5	49	1.2	0.84	0.34	0.06	0.09	0.01
21	0.38	0.80	1.2	0.39	1.8	15	1.1	0.51	0.26	0.05	0.07	0.01
22	0.48	0.66	0.89	0.36	11	3.3	1.0	11	0.24	0.10	0.07	0.01
23	0.37	0.56	0.71	0.39	6.2	2.3	0.85	11	0.20	0.18	0.07	1.2
24	0.32	0.49	2.6	0.39	2.5	1.8	0.77	3.1	0.18	0.11	0.07	0.07
25	0.33	0.44	8.7	0.39	1.9	1.5	0.81	3.1	0.15	0.05	0.07	0.02
26	0.38	0.41	2.4	0.39	1.7	1.3	0.86	2.9	0.13	0.04	0.07	0.01
27	0.35	0.39	1.4	0.39	12	1.2	0.76	1.5	0.11	0.04	0.05	0.01
28	2.8	0.36	1.1	0.39	11	1.1	0.64	1.0	0.12	0.04	0.04	0.01
29	3.3	0.36	0.91	0.43	---	1.4	0.56	0.81	0.12	0.04	0.04	0.01
30	2.3	0.37	0.77	4.5	---	17	0.51	0.77	0.11	0.06	0.06	0.01
31	1.1	---	0.69	4.3	---	5.2	---	0.72	---	0.05	0.02	---
TOTAL	124.42	35.33	79.02	28.30	80.55	145.67	151.06	47.07	16.68	9.26	11.17	2.50
MEAN	4.01	1.18	2.55	0.91	2.88	4.70	5.04	1.52	0.56	0.30	0.36	0.083
MAX	91	5.5	16	4.5	12	49	50	11	4.1	3.2	4.0	1.2
MIN	0.00	0.36	0.28	0.36	0.69	0.97	0.51	0.14	0.11	0.04	0.02	0.01
CFSM	3.52	1.03	2.24	0.80	2.52	4.12	4.42	1.33	0.49	0.26	0.32	0.07
IN.	4.06	1.15	2.58	0.92	2.63	4.75	4.93	1.54	0.54	0.30	0.36	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003,@ BY WATER YEAR (WY)

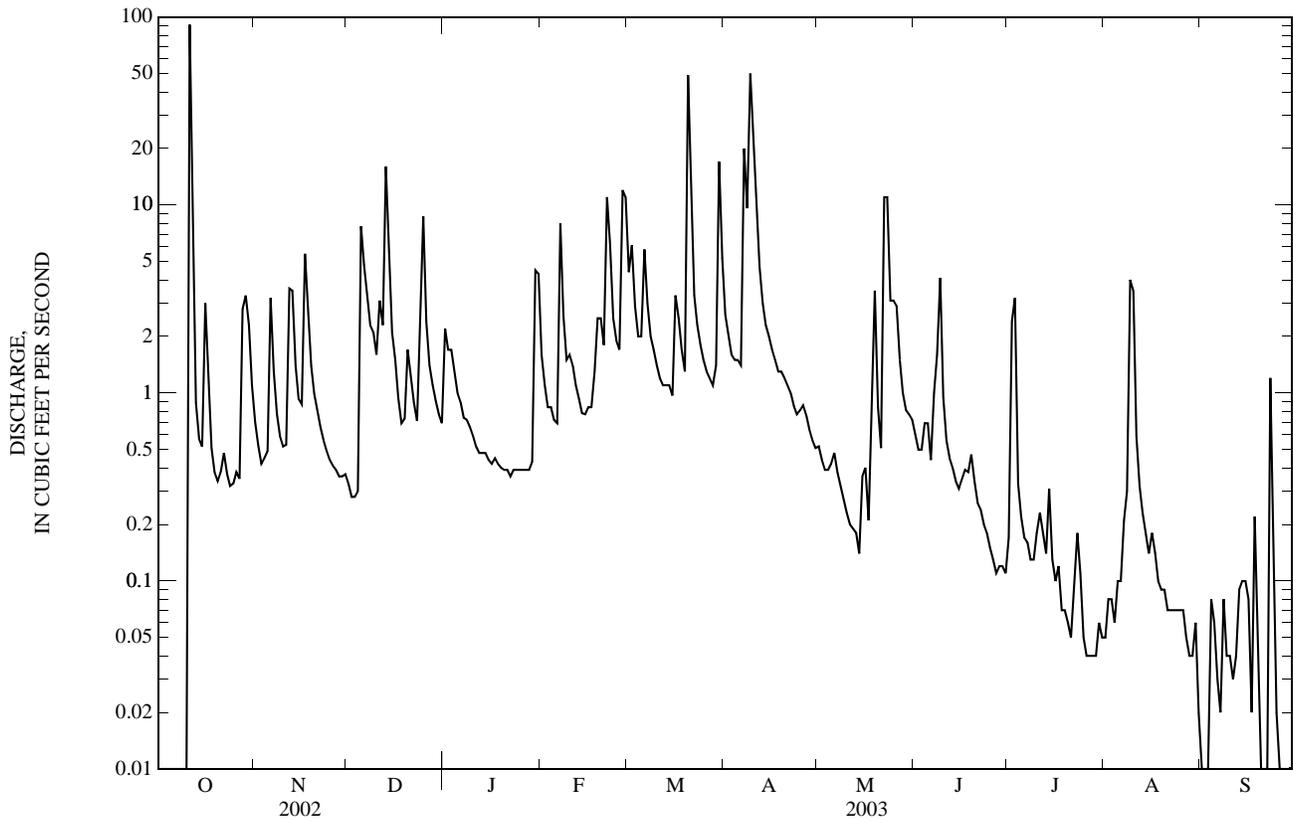
MEAN	0.66	0.46	0.87	1.71	2.18	2.55	1.62	0.69	0.53	0.27	0.13	1.34
MAX	4.01	1.27	3.26	3.17	5.41	8.30	5.04	2.20	4.07	1.26	0.50	8.60
(WY)	(2003)	(1996)	(1990)	(1998)	(1998)	(1998)	(2003)	(1989)	(1995)	(1989)	(1989)	(1996)
MIN	0.005	0.056	0.014	0.16	0.27	0.36	0.064	0.012	0.052	0.003	0.001	0.000
(WY)	(2002)	(2001)	(1989)	(2001)	(2002)	(2002)	(1995)	(2002)	(1988)	(1988)	(1988)	(1990)

0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003@	
ANNUAL TOTAL	292.51		731.03		1.11	
ANNUAL MEAN	0.80		2.00		2.00 2003	
HIGHEST ANNUAL MEAN					0.16 2002	
LOWEST ANNUAL MEAN					225 Sep 6, 1996	
HIGHEST DAILY MEAN	91	Oct 11	91	Oct 11	0.00	Jun 22, 1988
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Jul 2, 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	May 23	0.00	Oct 1	0.00	Jul 2, 1988
MAXIMUM PEAK FLOW			315	Oct 11	1,410*	Sep 6, 1996
MAXIMUM PEAK STAGE			6.38	Oct 11	7.77*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			0.00*	Oct 1	0.00*	Jun 15, 1988
ANNUAL RUNOFF (CFSM)	0.70		1.76		0.98	
ANNUAL RUNOFF (INCHES)	9.55		23.85		13.28	
10 PERCENT EXCEEDS	1.4		3.4		2.0	
50 PERCENT EXCEEDS	0.06		0.53		0.21	
90 PERCENT EXCEEDS	0.00		0.05		0.00	

@ See PERIOD OF RECORD.

* See REMARKS.



0208650112 FLAT RIVER TRIBUTARY NEAR WILLARDVILLE, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phorate water unfltrd ug/L (39023)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Pronamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Silvex, water, fltrd, ug/L (39762)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)
OCT 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 31...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	<0.02	<0.09	<0.01	<0.004	<0.010	<0.011	<0.02	<0.22	<0.12	<0.03	<0.005	<0.02	<0.034
JUN 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Toxa-phene, water, unfltrd ug/L (39400)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tribu-phos, water, unfltrd ug/L (39040)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment load, tons/d (80155)
OCT 16...	--	--	--	--	--	--	--	16	0.20
DEC 17...	--	--	--	--	--	--	--	11	0.03
JAN 31...	--	--	--	--	--	--	--	12	0.12
FEB 27...	--	--	--	--	--	--	--	24	0.18
MAR 20...	--	--	--	--	--	--	--	429	113
MAY 16...	--	--	--	--	--	--	--	7	0.01
MAY 22...	<0.02	<0.005	<1	<0.002	<0.02	<0.07	<0.009	2,110	119
JUN 26...	--	--	--	--	--	--	--	4	0.00
JUL 30...	--	--	--	--	--	--	--	4	0.00
AUG 21...	--	--	--	--	--	--	--	5	0.00
SEP 04...	--	--	--	--	--	--	--	5	0.00

02087182 FALLS LAKE ABOVE DAM NEAR FALLS, NC

LOCATION.--Lat 35°56'28", long 78°34'56", Wake County, Hydrologic Unit 03020201, on intake tower 50 ft upstream from Falls Lake dam, and 0.3 mi northwest of Falls and 235 mi upstream from mouth.

DRAINAGE AREA.--771 mi².

ELEVATION RECORDS

PERIOD OF RECORD.--February 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. U.S. Corps of Engineers satellite telemetry at station.

REMARKS.--Lake used for flood control, water supply, low-flow agumentation, and recreation. Temporary filling began May 1981 for water supply for city of Raleigh during drought condjtions. Gates were closed on Jan. 13, 1983 and normal pool elevation of 250.1 ft was recorded Dec. 7, 1983. Total capacity of reservoir is 4,998,074,000 ft³ at elevation of 250.1 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 264.34 ft, Oct. 1, 2, 1999; minimum, 242.78 ft, Nov. 26, 1993.

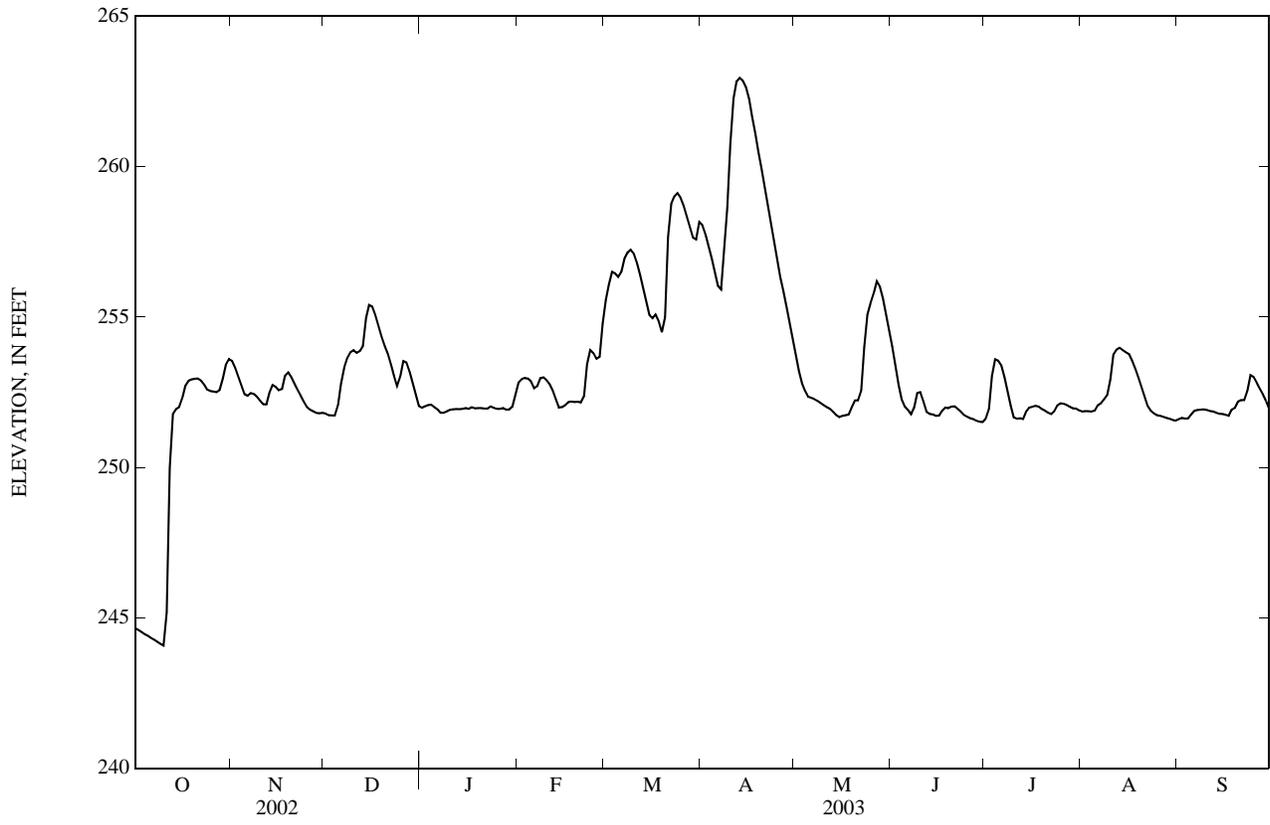
EXTREMES FOR CURRENT YEAR.--Maximum, 262.97 ft, Apr. 13; minimum, 244.04, Oct. 10.

COOPERATION.--Extremes for period of record provided by U.S. Army Corps of Engineers.

ELEVATION, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244.65	253.54	251.79	251.99	252.83	255.57	258.06	253.70	254.02	251.62	251.86	251.60
2	244.59	253.32	251.74	252.03	252.93	256.08	257.75	253.20	253.36	251.93	251.87	251.65
3	244.53	253.03	251.73	252.08	252.97	256.50	257.36	252.80	252.74	253.04	251.87	251.63
4	244.45	252.75	251.72	252.09	252.95	256.45	256.96	252.54	252.27	253.59	251.86	251.63
5	244.40	252.44	252.07	252.00	252.86	256.34	256.51	252.35	252.02	253.55	251.89	251.76
6	244.33	252.38	252.79	251.92	252.64	256.51	256.04	252.31	251.91	253.39	252.07	251.89
7	244.27	252.47	253.32	251.82	252.71	256.94	255.92	252.27	251.77	253.00	252.13	251.91
8	244.21	252.44	253.64	251.82	252.97	257.14	257.12	252.21	251.98	252.53	252.26	251.92
9	244.13	252.35	253.83	251.86	252.99	257.24	258.65	252.14	252.47	252.05	252.40	251.93
10	244.08	252.22	253.90	251.91	252.90	257.11	260.76	252.07	252.50	251.66	252.93	251.91
11	245.18	252.10	253.81	251.93	252.76	256.81	262.27	252.00	252.19	251.62	253.75	251.87
12	249.99	252.10	253.87	251.94	252.55	256.40	262.83	251.95	251.84	251.64	253.92	251.86
13	251.78	252.48	254.03	251.94	252.26	255.94	262.95	251.85	251.78	251.61	253.98	251.82
14	251.94	252.74	254.97	251.95	251.99	255.50	262.86	251.74	251.76	251.85	253.90	251.78
15	252.00	252.68	255.40	251.97	252.01	255.06	262.65	251.67	251.71	251.99	253.83	251.78
16	252.30	252.57	255.35	251.95	252.08	254.96	262.25	251.71	251.73	252.02	253.77	251.75
17	252.71	252.61	255.08	252.00	252.18	255.08	261.65	251.73	251.88	252.05	253.55	251.72
18	252.88	253.05	254.71	251.97	252.19	254.87	261.10	251.76	251.99	252.02	253.30	251.92
19	252.93	253.16	254.34	251.97	252.18	254.50	260.49	252.00	251.97	251.94	253.00	251.98
20	252.95	253.01	254.05	251.98	252.19	254.99	259.93	252.23	252.02	251.89	252.68	252.19
21	252.96	252.79	253.79	251.96	252.16	257.67	259.32	252.23	252.03	251.82	252.36	252.24
22	252.89	252.59	253.44	251.96	252.37	258.76	258.70	252.55	251.95	251.77	252.05	252.24
23	252.76	252.39	253.04	252.03	253.43	259.01	258.09	253.99	251.85	251.87	251.88	252.53
24	252.59	252.19	252.70	251.98	253.90	259.12	257.49	255.08	251.75	252.06	251.80	253.07
25	252.54	252.01	253.02	251.95	253.80	258.98	256.88	255.45	251.69	252.13	251.74	253.01
26	252.53	251.92	253.53	251.95	253.61	258.70	256.34	255.77	251.64	252.11	251.71	252.82
27	252.51	251.87	253.49	251.97	253.68	258.35	255.87	256.19	251.61	252.07	251.68	252.62
28	252.57	251.82	253.18	251.92	254.77	257.99	255.37	256.01	251.55	252.01	251.65	252.43
29	252.95	251.80	252.80	251.92	---	257.64	254.77	255.61	251.52	251.96	251.62	252.21
30	253.42	251.81	252.41	252.02	---	257.58	254.23	255.10	251.51	251.96	251.58	251.96
31	253.60	---	252.04	252.44	---	258.16	---	254.55	---	251.90	251.56	---
MEAN	249.67	252.49	253.41	251.97	252.82	256.84	258.71	253.12	252.03	252.15	252.47	252.05
MAX	253.60	253.54	255.40	252.44	254.77	259.12	262.95	256.19	254.02	253.59	253.98	253.07
MIN	244.08	251.80	251.72	251.82	251.99	254.50	254.23	251.67	251.51	251.61	251.56	251.60

02087182 FALLS LAKE ABOVE DAM NEAR FALLS, NC—Continued



PRECIPITATION RECORDS

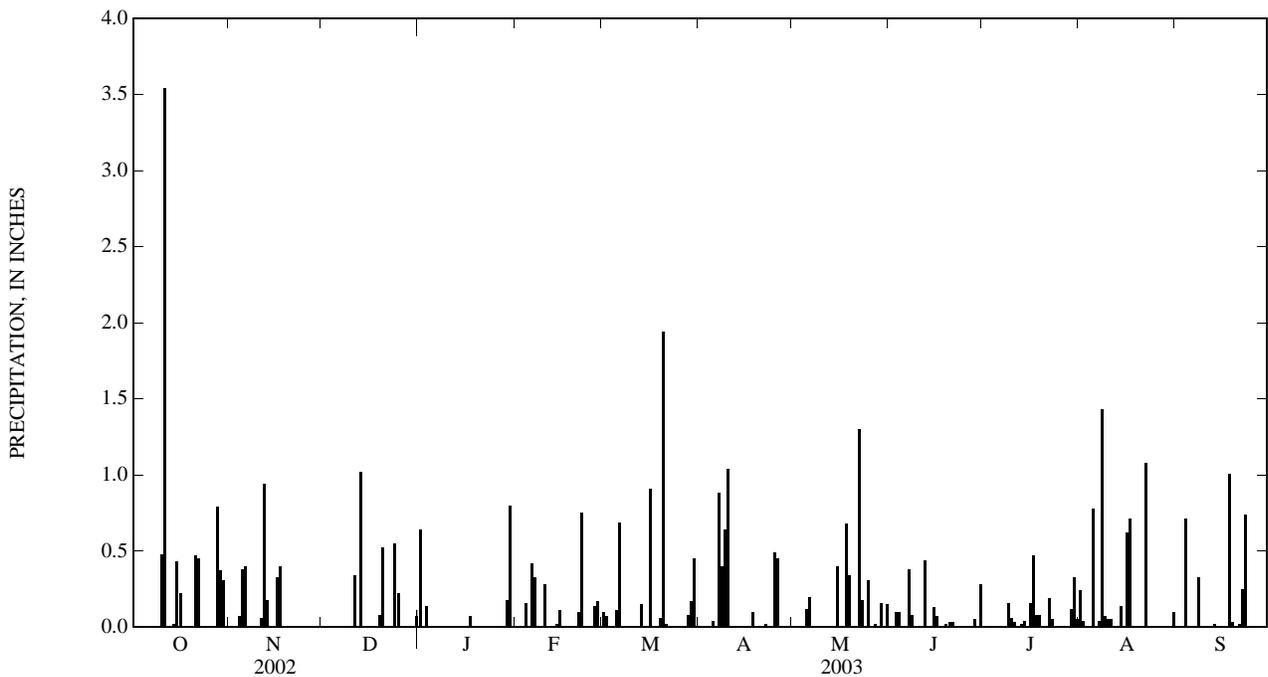
PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Tipping-bucket raingage and data collection platform. Satellite telemetry at station.

REMARKS.--Gage is operated in cooperation with the U.S. Army Corps of Engineers. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.64	0.00	0.10	0.00	0.00	0.00	0.00	0.24	0.00
2	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.01	0.04	0.00
3	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
4	0.01	0.07	0.00	0.00	0.16	0.00	0.00	0.00	0.10	0.00	0.00	0.71
5	0.00	0.38	0.00	0.00	0.00	0.11	0.04	0.12	0.00	0.00	0.78	0.00
6	0.00	0.40	0.01	0.00	0.42	0.69	0.00	0.20	0.00	0.00	0.00	0.00
7	0.00	0.00	0.01	0.00	0.33	0.00	0.88	0.00	0.38	0.00	0.04	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.08	0.00	1.43	0.33
9	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.16	0.07	0.00
10	0.48	0.00	0.00	0.00	0.28	0.00	1.04	0.00	0.00	0.06	0.05	0.00
11	3.54	0.06	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.05	0.00
12	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.01	0.00	0.00
13	0.00	0.18	1.02	0.00	0.00	0.15	0.00	0.00	0.00	0.02	0.00	0.02
14	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.04	0.14	0.00
15	0.43	0.00	0.00	0.00	0.11	0.00	0.00	0.40	0.13	0.00	0.00	0.00
16	0.22	0.33	0.00	0.00	0.01	0.91	0.00	0.01	0.07	0.16	0.62	0.00
17	0.00	0.40	0.00	0.07	0.00	0.00	0.00	0.00	0.01	0.47	0.71	0.00
18	0.00	0.00	0.00	0.00	0.00	0.01	0.10	0.68	0.00	0.08	0.00	1.01
19	0.00	0.00	0.08	0.00	0.01	0.06	0.01	0.34	0.02	0.08	0.01	0.03
20	0.00	0.00	0.52	0.00	0.00	1.94	0.00	0.00	0.03	0.00	0.00	0.00
21	0.47	0.00	0.00	0.00	0.10	0.02	0.00	0.01	0.03	0.00	0.00	0.02
22	0.45	0.00	0.00	0.00	0.75	0.00	0.02	1.30	0.00	0.19	1.08	0.25
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.05	0.00	0.74
24	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.22	0.00	0.00	0.00	0.49	0.31	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.14	0.01	0.45	0.00	0.00	0.00	0.00	0.00
27	0.01	0.00	0.00	0.00	0.17	0.01	0.00	0.02	0.00	0.00	0.00	0.00
28	0.79	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.05	0.00	0.00	0.00
29	0.37	0.00	0.00	0.18	---	0.17	0.00	0.16	0.00	0.12	0.00	0.00
30	0.31	0.00	0.00	0.80	---	0.45	0.00	0.00	0.28	0.33	0.00	0.00
31	0.00	---	0.07	0.00	---	0.01	---	0.15	---	0.05	0.10	---
TOTAL	7.10	2.76	2.82	1.83	2.50	4.79	4.07	3.88	1.72	1.86	5.36	3.11



02087183 NEUSE RIVER NEAR FALLS, NC

LOCATION.--Lat 35°56'26", long 78°34'55", 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 mi².

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

REVISED RECORDS.--WDR NC-91-1: Drainage area. WRD NC 96-1: 1991-95 (M).

GAGE.--Water-stage recorder. Datum of gage is 194.69 ft above NGVD of 1929. Prior to Oct. 1, 1990, water-stage recorder at site 0.4 mi downstream at 182.62 ft. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Falls Lake (station 02087182). June 5, 1980, to May 6, 1981, flows affected by incidental storage in Falls Lake, under construction; May 6, 1981, to Jan. 13, 1983, gates closed and Falls Lake partially filled to provide storage for City of Raleigh water supply; Jan. 13, 1983, gates closed and normal pool elevation, 250.1 ft, reached Dec. 7, 1983. The City of Raleigh diverted an average of 76.8 ft³/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 ft³/s, July 17, 1975; gage height: 25.21 ft; minimum discharge: 4.6 ft³/s, Sept. 24, 1980; gage height: 2.13 ft, at site then in use. Maximum gage-height and discharge for period of record may have been higher during period of estimated record, Aug. 27-Sept. 30, 1996. Minimum discharge for period of record not determined due to intermittent gate closure at dam. Minimum discharge for current water occurred several days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1945 reached an elevation of 216.1 ft; discharge, 23,300 ft³/s at bridge 0.4 mi upstream, from information provided by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	1,650	210	1,370	497	344	3,640	3,740	4,020	164	265	183
2	125	2,140	183	1,360	496	646	3,630	3,330	3,990	164	213	184
3	125	2,130	151	1,380	654	1,830	3,620	2,420	3,640	436	214	186
4	115	2,110	152	1,370	1,010	2,640	3,690	1,580	2,850	1,070	214	187
5	109	2,110	152	1,370	1,400	2,070	3,740	918	1,870	1,360	215	188
6	109	1,570	153	1,370	2,040	582	3,730	641	1,350	1,950	216	189
7	110	1,050	155	758	2,030	348	2,060	642	1,350	3,040	217	190
8	110	1,040	155	188	2,040	348	681	643	1,350	3,010	217	190
9	110	1,040	271	189	2,040	1,110	693	621	2,060	3,010	218	192
10	110	1,040	1,270	188	2,040	2,250	706	558	3,000	1,290	220	192
11	113	1,040	2,110	188	2,220	3,130	715	543	3,010	209	334	193
12	119	1,040	2,100	189	2,350	3,630	719	544	1,950	209	488	193
13	122	1,050	2,120	189	2,340	3,630	1,420	544	773	209	763	193
14	122	1,340	2,130	189	1,380	3,600	2,580	434	775	210	1,270	192
15	122	1,520	2,150	189	363	3,230	3,340	369	775	210	1,000	192
16	122	1,500	2,310	189	365	2,220	4,630	305	777	210	1,110	192
17	122	1,490	2,990	189	365	2,920	5,820	241	1,130	210	2,190	192
18	122	1,870	3,140	189	935	3,660	5,870	242	1,570	471	2,160	193
19	122	2,110	3,110	189	1,660	3,300	5,860	467	1,270	723	2,160	193
20	122	2,100	3,120	189	1,860	1,110	5,800	764	786	616	2,130	193
21	446	2,100	3,100	189	1,440	186	5,760	882	788	332	2,120	193
22	930	1,800	3,100	189	488	189	5,730	532	785	293	1,680	193
23	1,420	1,380	3,090	190	494	189	5,260	192	786	212	743	195
24	925	1,380	2,550	189	1,550	1,090	4,680	468	e500	212	433	1,010
25	258	1,000	2,200	189	2,390	2,550	4,600	962	395	247	288	1,830
26	155	645	2,220	189	2,120	3,140	4,610	1,840	315	333	182	1,530
27	155	484	2,690	190	1,540	3,350	4,580	2,870	248	332	182	1,400
28	155	209	3,060	189	834	3,350	4,520	3,410	248	333	182	1,400
29	155	209	3,060	189	---	3,340	4,170	3,820	248	333	183	1,400
30	544	210	3,060	190	---	2,030	3,750	4,030	196	334	183	1,230
31	1,400	---	2,120	282	---	2,310	---	4,020	---	334	183	---
TOTAL	8,899	40,357	58,382	13,607	38,941	64,322	110,604	42,572	42,805	22,066	22,173	14,188
MEAN	287	1,345	1,883	439	1,391	2,075	3,687	1,373	1,427	712	715	473
MAX	1,420	2,140	3,140	1,380	2,390	3,660	5,870	4,030	4,020	3,040	2,190	1,830
MIN	109	209	151	188	363	186	681	192	196	164	182	183
†	+1,500	-377	+16	+149	+649	+736	-1,070	+74	-620	+69	-65	+48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003,* BY WATER YEAR (WY)

MEAN	419	389	541	800	1,216	1,603	1,269	551	340	323	306	418
MAX	3,217	1,535	1,883	2,014	3,462	3,992	3,687	1,821	1,427	1,501	1,099	3,953
(WY)	(2000)	(1996)	(2003)	(1984)	(1998)	(1989)	(2003)	(1989)	(2003)	(1995)	(1989)	(1996)
MIN	72.6	65.2	63.3	66.3	67.0	68.4	118	110	126	61.7	61.0	67.8
(WY)	(1984)	(1984)	(1992)	(2002)	(2002)	(2002)	(1995)	(1995)	(1987)	(1983)	(1983)	(1985)

02087183 NEUSE RIVER NEAR FALLS, NC—Continued

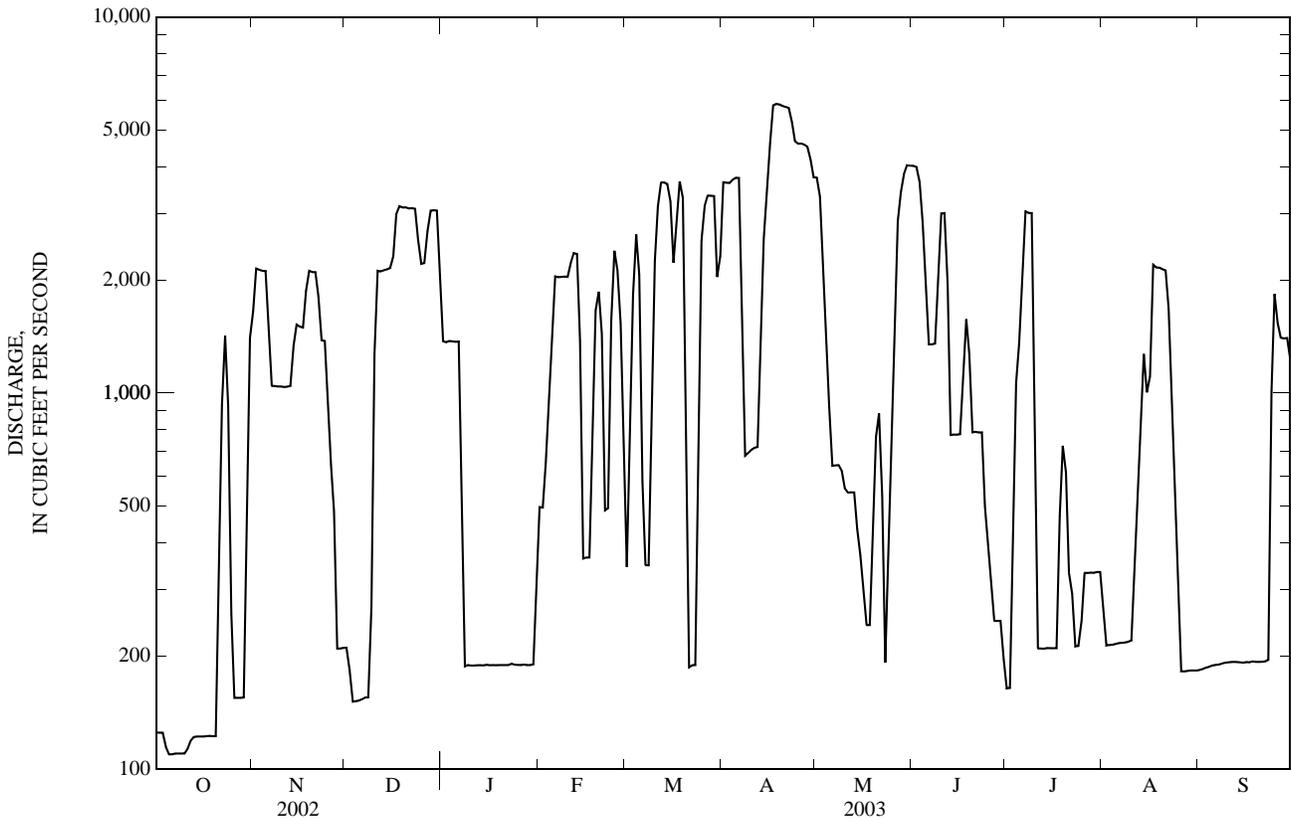
SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003*	
ANNUAL TOTAL	141,770		478,916		678 (UNADJUSTED)	
ANNUAL MEAN	388		1,312	‡1,400	1,312	2003
HIGHEST ANNUAL MEAN					123	2002
LOWEST ANNUAL MEAN					7,420	Sep 16, 1996
HIGHEST DAILY MEAN	3,140	Dec 18	5,870	Apr 18	55	Jan 10, 1995
LOWEST DAILY MEAN	65	Jan 1	109	Oct 5	56	Jan 10, 1995
ANNUAL SEVEN-DAY MINIMUM	65	Jan 4	110	Oct 5	7,650*	Sep 16, 1996
MAXIMUM PEAK FLOW			5,960*	Apr 17	8.05*	Sep 16, 1996
MAXIMUM PEAK STAGE			5.56	Apr 17	NOT DETERMINED	
INSTANTANEOUS LOW FLOW			NOT DETERMINED		NOT DETERMINED	
10 PERCENT EXCEEDS	1,410		3,340		2,290	
50 PERCENT EXCEEDS	146		775		179	
90 PERCENT EXCEEDS	67		183		85	

e Estimated.

* Regulated period only (1983-2003). 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.



0208725055 BLACK CREEK AT WESTON PARKWAY NEAR CARY, NC

LOCATION.--Lat 35°49'48", long 78°47'10", Wake County, Hydrologic Unit 03020201, at bridge on Weston Parkway, .05 mi upstream of Lake Crabtree, 4.0 mi north of Cary.

DRAINAGE AREA.--3.48 mi².

GAGE-HEIGHT RECORDS

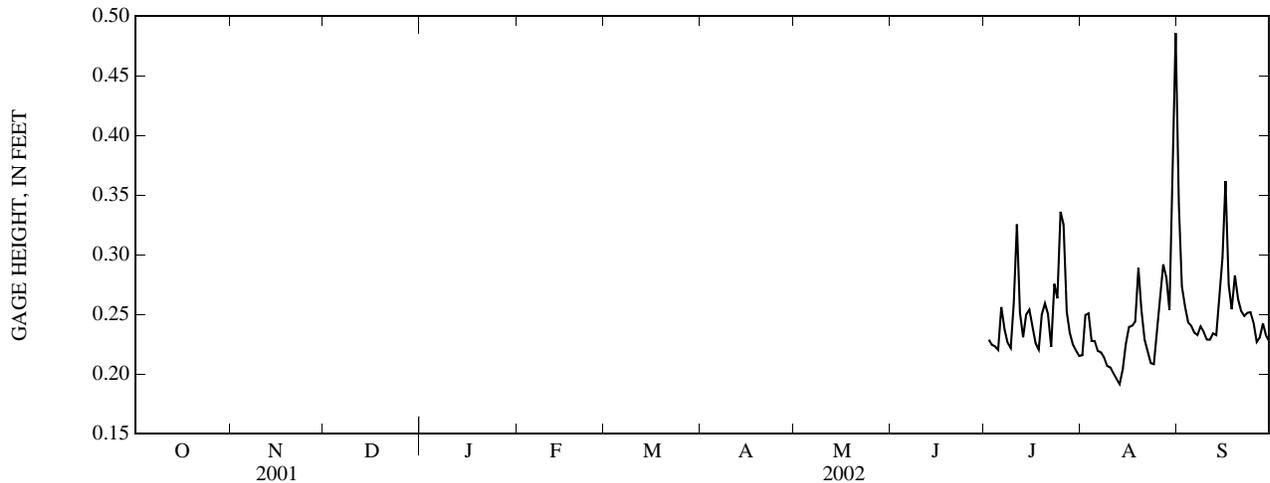
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 275 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.18 m, Oct. 11, 2003; minimum gage height recorded, 0.17 m, Aug. 13, 14, 2002.

GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

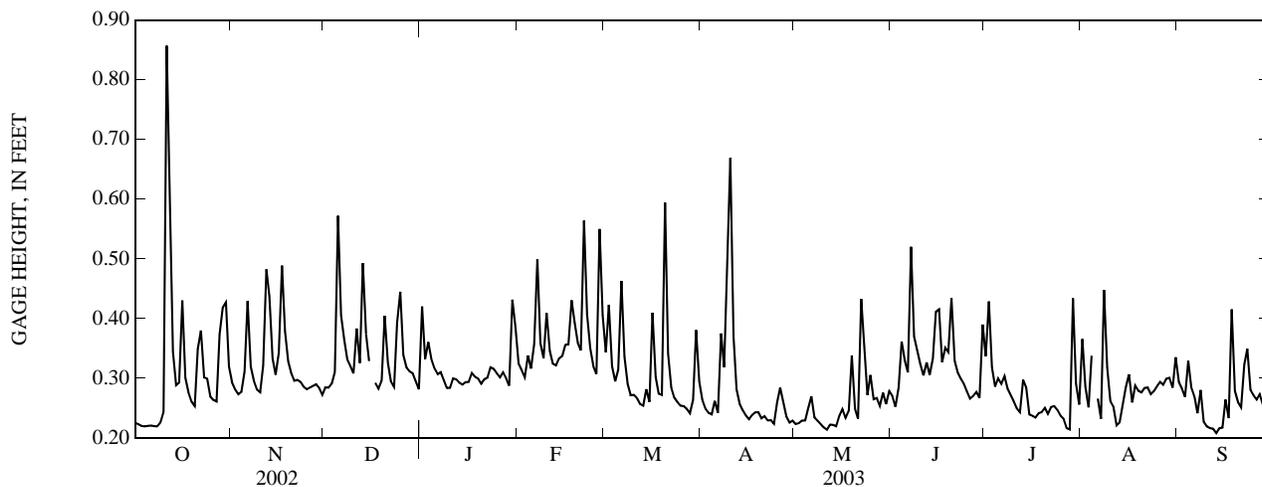
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.22	0.34
2	---	---	---	---	---	---	---	---	---	0.23	0.25	0.27
3	---	---	---	---	---	---	---	---	---	0.22	0.25	0.26
4	---	---	---	---	---	---	---	---	---	0.22	0.23	0.24
5	---	---	---	---	---	---	---	---	---	0.22	0.23	0.24
6	---	---	---	---	---	---	---	---	---	0.26	0.22	0.23
7	---	---	---	---	---	---	---	---	---	0.24	0.22	0.23
8	---	---	---	---	---	---	---	---	---	0.23	0.21	0.24
9	---	---	---	---	---	---	---	---	---	0.22	0.21	0.24
10	---	---	---	---	---	---	---	---	---	0.26	0.21	0.23
11	---	---	---	---	---	---	---	---	---	0.33	0.20	0.23
12	---	---	---	---	---	---	---	---	---	0.25	0.20	0.23
13	---	---	---	---	---	---	---	---	---	0.23	0.19	0.23
14	---	---	---	---	---	---	---	---	---	0.25	0.20	0.26
15	---	---	---	---	---	---	---	---	---	0.25	0.23	0.30
16	---	---	---	---	---	---	---	---	---	0.24	0.24	0.36
17	---	---	---	---	---	---	---	---	---	0.23	0.24	0.27
18	---	---	---	---	---	---	---	---	---	0.22	0.24	0.25
19	---	---	---	---	---	---	---	---	---	0.25	0.29	0.28
20	---	---	---	---	---	---	---	---	---	0.26	0.25	0.26
21	---	---	---	---	---	---	---	---	---	0.25	0.23	0.25
22	---	---	---	---	---	---	---	---	---	0.22	0.22	0.25
23	---	---	---	---	---	---	---	---	---	0.28	0.21	0.25
24	---	---	---	---	---	---	---	---	---	0.26	0.21	0.25
25	---	---	---	---	---	---	---	---	---	0.34	0.24	0.24
26	---	---	---	---	---	---	---	---	---	0.33	0.26	0.23
27	---	---	---	---	---	---	---	---	---	0.25	0.29	0.23
28	---	---	---	---	---	---	---	---	---	0.23	0.28	0.24
29	---	---	---	---	---	---	---	---	---	0.22	0.25	0.23
30	---	---	---	---	---	---	---	---	---	0.22	0.37	0.23
31	---	---	---	---	---	---	---	---	---	0.22	0.49	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.24	0.25
MAX	---	---	---	---	---	---	---	---	---	---	0.49	0.36
MIN	---	---	---	---	---	---	---	---	---	---	0.19	0.23



0208725055 BLACK CREEK AT WESTON PARKWAY NEAR CARY, NC—Continued

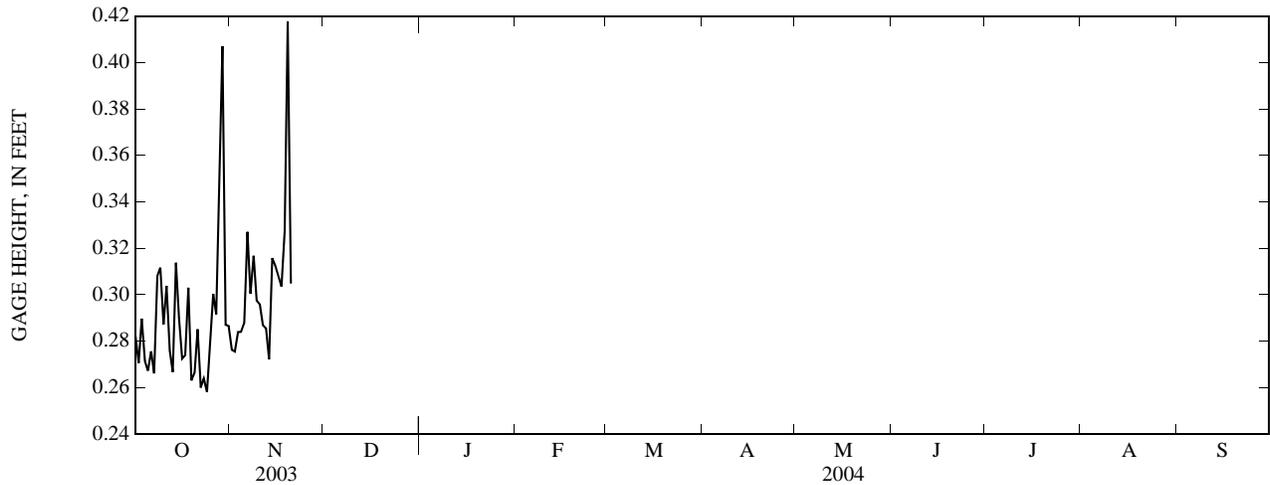
GAGE HEIGHT, ABOVE DATUM, METERS
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.23	0.29	0.28	0.42	0.32	0.34	0.26	0.22	0.27	0.34	0.37	0.29
2	0.22	0.28	0.28	0.33	0.31	0.42	0.25	0.22	0.25	0.43	0.29	0.28
3	0.22	0.27	0.29	0.36	0.30	0.32	0.24	0.23	0.28	0.32	0.25	0.27
4	0.22	0.28	0.31	0.33	0.34	0.30	0.24	0.23	0.36	0.29	0.34	0.33
5	0.22	0.31	0.57	0.32	0.32	0.31	0.26	0.25	0.33	0.30	---	0.28
6	0.22	0.43	0.41	0.31	0.36	0.46	0.24	0.27	0.31	0.29	0.27	0.27
7	0.22	0.32	0.36	0.31	0.50	0.34	0.38	0.23	0.52	0.30	0.23	0.24
8	0.22	0.30	0.33	0.30	0.36	0.29	0.32	0.23	0.37	0.28	0.45	0.28
9	0.23	0.28	0.32	0.28	0.33	0.27	0.53	0.22	0.35	0.27	0.32	0.23
10	0.24	0.28	0.31	0.28	0.41	0.27	0.67	0.22	0.32	0.26	0.26	0.22
11	0.86	0.32	0.38	0.30	0.35	0.27	0.37	0.21	0.30	0.25	0.25	0.22
12	0.66	0.48	0.33	0.30	0.32	0.26	0.28	0.22	0.33	0.24	0.22	0.22
13	0.34	0.44	0.49	0.29	0.32	0.25	0.26	0.22	0.31	0.30	0.23	0.21
14	0.29	0.33	0.37	0.29	0.33	0.28	0.25	0.22	0.33	0.29	0.26	0.22
15	0.29	0.31	0.33	0.29	0.34	0.26	0.24	0.24	0.41	0.24	0.29	0.22
16	0.43	0.34	---	0.29	0.36	0.41	0.23	0.25	0.42	0.24	0.31	0.26
17	0.30	0.49	0.29	0.31	0.36	0.30	0.24	0.23	0.33	0.23	0.26	0.23
18	0.28	0.38	0.28	0.30	0.43	0.27	0.24	0.25	0.35	0.24	0.29	0.42
19	0.26	0.33	0.30	0.30	0.39	0.27	0.24	0.34	0.34	0.24	0.28	0.28
20	0.25	0.31	0.40	0.29	0.36	0.59	0.23	0.25	0.43	0.25	0.28	0.26
21	0.35	0.30	0.33	0.30	0.35	0.34	0.24	0.23	0.33	0.24	0.28	0.25
22	0.38	0.30	0.29	0.30	0.56	0.28	0.23	0.43	0.31	0.25	0.28	0.32
23	0.30	0.29	0.29	0.32	0.41	0.27	0.23	0.35	0.30	0.25	0.27	0.35
24	0.30	0.29	0.39	0.32	0.35	0.26	0.22	0.27	0.29	0.25	0.28	0.28
25	0.27	0.28	0.45	0.31	0.32	0.25	0.26	0.31	0.28	0.24	0.29	0.27
26	0.26	0.28	0.34	0.30	0.31	0.25	0.28	0.26	0.27	0.23	0.29	0.26
27	0.26	0.29	0.32	0.31	0.55	0.25	0.26	0.27	0.27	0.22	0.29	0.27
28	0.37	0.29	0.31	0.30	0.41	0.24	0.24	0.25	0.28	0.21	0.30	0.26
29	0.42	0.28	0.31	0.29	---	0.26	0.23	0.28	0.27	0.43	0.30	0.25
30	0.43	0.27	0.29	0.43	---	0.38	0.23	0.26	0.39	0.29	0.28	0.28
31	0.32	---	0.28	0.38	---	0.29	---	0.28	---	0.26	0.34	---
MEAN	0.32	0.32	---	0.31	0.37	0.31	0.28	0.26	0.33	0.27	---	0.27
MAX	0.86	0.49	---	0.43	0.56	0.59	0.67	0.43	0.52	0.43	---	0.42
MIN	0.22	0.27	---	0.28	0.30	0.24	0.22	0.21	0.25	0.21	---	0.21



GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	0.28	---	---	---	---	---	---	---	---	---	---
2	0.27	0.28	---	---	---	---	---	---	---	---	---	---
3	0.29	0.28	---	---	---	---	---	---	---	---	---	---
4	0.27	0.28	---	---	---	---	---	---	---	---	---	---
5	0.27	0.29	---	---	---	---	---	---	---	---	---	---
6	0.28	0.33	---	---	---	---	---	---	---	---	---	---
7	0.27	0.30	---	---	---	---	---	---	---	---	---	---
8	0.31	0.32	---	---	---	---	---	---	---	---	---	---
9	0.31	0.30	---	---	---	---	---	---	---	---	---	---
10	0.29	0.30	---	---	---	---	---	---	---	---	---	---
11	0.30	0.29	---	---	---	---	---	---	---	---	---	---
12	0.28	0.29	---	---	---	---	---	---	---	---	---	---
13	0.27	0.27	---	---	---	---	---	---	---	---	---	---
14	0.31	0.32	---	---	---	---	---	---	---	---	---	---
15	0.29	0.31	---	---	---	---	---	---	---	---	---	---
16	0.27	0.31	---	---	---	---	---	---	---	---	---	---
17	0.27	0.30	---	---	---	---	---	---	---	---	---	---
18	0.30	0.33	---	---	---	---	---	---	---	---	---	---
19	0.26	0.42	---	---	---	---	---	---	---	---	---	---
20	0.27	0.30	---	---	---	---	---	---	---	---	---	---
21	0.29	---	---	---	---	---	---	---	---	---	---	---
22	0.26	---	---	---	---	---	---	---	---	---	---	---
23	0.26	---	---	---	---	---	---	---	---	---	---	---
24	0.26	---	---	---	---	---	---	---	---	---	---	---
25	0.28	---	---	---	---	---	---	---	---	---	---	---
26	0.30	---	---	---	---	---	---	---	---	---	---	---
27	0.29	---	---	---	---	---	---	---	---	---	---	---
28	0.36	---	---	---	---	---	---	---	---	---	---	---
29	0.41	---	---	---	---	---	---	---	---	---	---	---
30	0.29	---	---	---	---	---	---	---	---	---	---	---
31	0.29	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.29	---	---	---	---	---	---	---	---	---	---	---
MAX	0.41	---	---	---	---	---	---	---	---	---	---	---
MIN	0.26	---	---	---	---	---	---	---	---	---	---	---



0208725055 BLACK CREEK AT WESTON PARKWAY NEAR CARY, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2002 to November 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.1°C, July 30, 2003; minimum recorded, 0.0°C, Jan. 18, 19, 23-28, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
OCT 09...	0900	9	E.05	763	7.9	82	7.4	153	17.1	6.88	4.2	0.15	<0.04
DEC 17...	0930	9	1.5	760	7.8	62	7.2	140	5.3	8.44	11.1	0.11	<0.04
FEB 24...	1215	9	3.5	760	11.3	97	7.2	137	8.5	12.7	--	0.22	<0.04
APR 15...	1300	9	E2.0	759	12.0	125	6.9	132	17.2	7.53	8.3	0.14	<0.04
MAY 12...	0900	D	0.72	--	7.5	--	7.8	156	18.9	--	--	--	--
JUN 09...	1200	9	--	--	7.9	--	7.5	130	21.2	--	--	--	--
JUL 01...	0845	9	E2.7	754	7.3	85	6.5	92	22.3	4.92	6.1	0.50	<0.04
JUL 01...	1240	9	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	1300	9	E.45	--	8.9	--	7.0	148	23.4	7.33	4.3	0.22	<0.04
OCT 09...	--	--	<0.06	--	<0.008	<0.02	<0.02	0.023	--	0.2	<0.1	0.2	2.9
DEC 17...	--	--	0.08	--	<0.008	<0.02	0.03	0.017	0.20	<0.1	<0.1	<0.1	3.0
FEB 24...	--	--	0.22	--	<0.008	<0.02	0.05	0.043	0.44	0.5	<0.1	0.5	4.1
APR 15...	--	--	<0.06	--	<0.008	<0.02	0.03	0.022	--	0.2	<0.1	0.2	3.3
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	0.992	0.22	0.25	0.092	0.028	<0.02	0.13	0.078	0.75	0.9	<0.1	0.9	7.2
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	--	--	0.06	--	<0.008	E.01	0.04	0.026	0.28	<0.1	<0.1	<0.1	3.7

0208725055 BLACK CREEK AT WESTON PARKWAY NEAR CARY, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Ethyl-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-' diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)
OCT 09...	--	--	--	--	--	720	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
DEC 17...	--	--	--	--	--	61	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
FEB 24...	--	--	--	--	--	130	--	<0.09	<0.006	<0.1	<0.005	E.001	<0.004
APR 15...	--	--	--	--	--	110	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
MAY 12...	5.5	59	64.80	250	14	--	22.0	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	E.03	<0.006	<0.1	<0.005	<0.006	<0.004
JUL 01...	--	--	--	--	--	K4,800	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	560	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004

Date	3,4-Dichloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)
OCT 09...	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008
DEC 17...	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008
FEB 24...	<0.004	E.004	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.004	<0.06	<0.005	<0.006	<0.008
APR 15...	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.360	<0.06	<0.005	<0.006	<0.008
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008

Date	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)
OCT 09...	<0.009	<0.003	<0.004	--	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
DEC 17...	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
FEB 24...	<0.009	<0.003	E.003	<0.04	0.037	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
APR 15...	<0.009	<0.003	<0.004	<0.04	0.006	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	<0.009	<0.003	<0.004	<0.01	0.078	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03

0208725055 BLACK CREEK AT WESTON PARKWAY NEAR CARY, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Desulf- inyl- fipronil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)
OCT 09...	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
DEC 17...	<0.009	<0.005	E.007	E.011	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
FEB 24...	<0.009	E.004	E.007	E.015	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
APR 15...	<0.009	E.005	<0.005	E.009	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	<0.009	E.004	<0.008	E.019	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	<0.009	E.008	<0.005	E.016	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006

Date	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)
OCT 09...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004
DEC 17...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004
FEB 24...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004
APR 15...	<0.03	<0.006	<0.013	<0.006	<0.008	E.012	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	<0.03	<0.006	<0.013	<0.006	0.011	E.018	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004
JUL 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.04	<0.005	<0.004

0208725055 BLACK CREEK AT WESTON PARKWAY NEAR CARY, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd, 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd, 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd, 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 09...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	80	4	--
DEC 17...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	90	3	0.01
FEB 24...	0.009	<0.02	<0.07	<0.02	<0.01	E.005	<0.01	98	13	0.12
APR 15...	E.004	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	97	11	--
MAY 12...	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--
JUL 01...	<0.007	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	97	28	--
JUL 01...	--	--	--	--	--	--	--	--	--	--
AUG 25...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	83	3	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value
- K -- Counts outside the acceptable range

Medium codes used in this table:

- 9 - Surface water
- D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	1	---	---	---	---	---	---	27.2	23.9	25.6	21.4	20.7
2	---	---	---	26.5	23.1	24.7	27.0	23.2	25.2	21.1	20.1	20.6
3	---	---	---	26.8	23.3	25.1	26.2	23.0	24.7	22.1	19.2	20.7
4	---	---	---	27.6	23.5	25.4	26.2	22.8	24.6	23.8	20.9	22.3
5	---	---	---	27.5	22.8	24.9	26.5	22.8	24.7	23.2	21.2	22.4
6	---	---	---	25.7	23.3	24.4	25.6	23.1	24.4	22.0	19.2	20.8
7	---	---	---	25.1	21.1	23.2	23.9	20.2	21.9	21.2	19.2	20.4
8	---	---	---	25.1	20.8	23.1	23.1	17.8	20.5	21.5	19.0	20.2
9	---	---	---	26.5	22.2	24.2	22.3	17.5	20.0	21.6	19.8	20.8
10	---	---	---	27.5	23.9	25.4	22.9	18.1	20.4	22.9	20.4	21.6
11	---	---	---	25.6	21.5	23.4	23.9	19.1	21.5	22.7	19.8	21.4
12	---	---	---	22.0	20.5	21.2	25.1	20.7	22.8	21.2	18.2	19.6
13	---	---	---	23.1	19.8	21.4	26.2	22.2	24.1	20.5	17.1	18.9
14	---	---	---	23.3	22.1	22.7	26.2	22.0	23.6	21.5	19.7	20.5
15	---	---	---	24.0	22.3	23.1	25.4	23.0	23.9	22.1	21.1	21.6
16	---	---	---	25.9	22.5	24.1	24.7	23.0	23.6	22.9	21.4	22.3
17	---	---	---	25.7	22.2	24.1	25.3	22.9	24.0	22.8	21.4	22.1
18	---	---	---	26.0	22.9	24.6	25.8	23.3	24.4	22.2	21.1	21.7
19	---	---	---	26.0	23.5	24.7	25.2	23.2	24.2	22.2	21.1	21.6
20	---	---	---	25.7	22.9	24.1	25.5	22.8	24.2	22.6	20.4	21.5
21	---	---	---	25.6	22.7	24.1	25.5	23.2	24.4	22.3	20.1	21.4
22	---	---	---	26.4	22.9	24.6	25.7	23.3	24.6	22.5	20.5	21.4
23	---	---	---	25.3	23.3	24.3	26.8	23.7	25.2	21.3	20.1	20.6
24	---	---	---	26.2	23.7	24.8	26.9	24.1	25.2	20.4	18.9	19.8
25	---	---	---	25.8	24.3	24.9	25.5	23.0	24.3	20.0	18.7	19.3
26	---	---	---	25.0	23.6	24.3	23.6	22.5	23.1	19.9	18.5	19.2
27	---	---	---	26.3	23.8	24.8	22.5	21.2	21.9	22.6	19.9	21.2
28	---	---	---	26.6	23.4	25.0	21.9	20.9	21.4	22.2	20.5	21.3
29	---	---	---	27.7	24.8	26.2	20.9	20.4	20.6	20.5	18.8	19.7
30	---	---	---	28.1	24.7	26.4	21.2	19.7	20.6	19.6	17.3	18.6
31	---	---	---	27.6	24.2	26.0	21.2	20.8	20.9	---	---	---
MONTH	---	---	---	---	---	---	27.2	17.5	23.2	23.8	17.1	20.8

0208725055 BLACK CREEK AT WESTON PARKWAY NEAR CARY, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	20.5	18.6	19.5	10.5	8.7	9.8	6.3	2.9	4.5	13.3	9.5	12.0
2	21.5	18.7	20.2	9.7	8.0	8.9	5.5	1.6	3.7	11.3	9.7	10.4
3	21.9	19.8	20.9	9.8	8.0	8.8	6.2	3.1	4.7	10.5	8.7	10.0
4	22.3	20.0	21.3	10.8	9.1	10	3.1	0.1	1.7	8.7	5.6	7.2
5	23.0	21.2	22.0	11.2	10.3	10.6	4.3	1.2	3.0	7.0	4.2	5.5
6	21.6	18.8	20.0	12.4	10.8	11.8	5.2	4.1	4.5	7.3	5.2	6.1
7	21.0	19.0	20.0	10.8	8.9	9.8	4.7	2.5	3.7	5.2	3.1	4.1
8	19.7	16.7	17.6	10.4	7.5	9.1	5.4	2.7	4.1	7.0	4.0	5.4
9	17.7	16.0	16.8	12.4	9.4	10.8	5.3	4.2	4.8	9.5	5.8	7.5
10	18.3	16.2	17.2	14.9	11.7	13.4	4.7	3.7	4.2	9.0	5.8	7.9
11	20.4	18.2	19.5	16.5	14.7	15.8	5.5	4.3	4.9	6.0	3.5	4.9
12	20.2	19.4	19.8	16.1	13.8	15.5	7.7	5.3	6.3	4.0	1.8	2.9
13	19.8	18.8	19.2	13.8	10.9	12.7	6.8	6.0	6.3	4.7	1.0	2.9
14	19.2	15.4	17.1	11.3	9.0	10.3	8.2	6.7	7.3	5.3	1.7	3.5
15	15.4	14.0	14.5	11.9	9.2	10.6	6.9	4.8	5.9	4.3	1.5	3.2
16	16.2	15.2	15.9	13.3	11.6	12.6	---	---	---	3.5	0.8	2.0
17	15.5	13.6	14.5	12.9	10.9	12.2	7.1	5.2	6.2	3.6	1.1	2.3
18	13.9	11.4	12.7	10.9	8.6	9.8	7.3	5.1	6.2	1.6	0.0	0.6
19	14.1	11.0	12.5	10.0	7.0	8.6	9.0	6.6	7.5	1.7	0.0	0.7
20	15.6	13.1	14.3	10.4	7.4	9.0	13.2	9.0	11.4	4.7	0.7	2.5
21	16.5	14.0	15.4	10.9	8.8	9.8	9.7	7.2	8.2	3.1	2.0	2.7
22	14.2	13.1	13.7	10.6	7.9	9.7	9.1	6.0	7.5	3.5	0.3	1.9
23	14.8	12.4	13.6	8.4	6.0	7.2	8.6	6.0	7.3	2.2	0.0	0.8
24	14.0	13.4	13.7	9.5	5.4	7.4	7.9	6.8	7.4	0.9	0.0	0.4
25	13.9	13.3	13.6	10.3	6.1	8.1	8.0	6.0	7.3	1.1	0.0	0.5
26	14.8	12.8	13.8	9.7	6.2	7.9	6.5	4.9	5.6	2.5	0.0	1.0
27	14.6	13.4	14.0	8.2	6.0	7.4	5.7	3.4	4.5	1.5	0.0	0.7
28	15.6	14.2	14.7	6.0	3.4	4.6	5.4	2.5	4.0	1.5	0.0	0.8
29	14.6	12.3	13.1	5.6	1.8	3.8	6.8	3.4	5.0	3.9	1.4	2.9
30	12.4	11.0	11.6	8.5	5.1	6.7	7.7	4.0	5.9	4.6	3.8	4.2
31	11.5	10.3	11.0	---	---	---	9.5	6.0	7.8	4.6	3.9	4.3
MONTH	23.0	10.3	16.2	16.5	1.8	9.8	---	---	---	13.3	0.0	3.9
DAY	MAX	MIN	MEAN									
1	6.7	4.5	5.5	8.4	6.8	7.6	14.2	8.2	11.2	20.4	18.0	19.4
2	6.8	3.8	5.1	11.5	7.9	9.4	18.1	11.4	14.6	20.8	17.7	19.3
3	9.0	4.2	6.6	10.7	7.2	8.9	19.6	13.3	16.5	19.8	17.4	18.6
4	11.7	8.0	9.6	10.6	6.3	8.6	19.3	15.0	17.3	17.4	15.1	16.3
5	8.0	5.4	6.8	13.5	10.0	11.6	18.2	15.9	17.1	15.1	13.6	14.1
6	6.0	4.5	5.1	13.1	11.9	12.5	17.9	14.0	16.1	17.3	14.3	15.9
7	6.9	4.6	5.6	11.9	7.2	9.1	15.5	11.2	12.3	19.8	17.0	18.2
8	6.4	3.8	5.0	11.6	5.6	8.6	11.3	10.4	10.8	21.9	18.6	20.1
9	6.5	3.4	4.7	14.6	9.3	11.7	10.8	9.7	10.4	22.7	19.6	21.2
10	6.1	4.6	5.3	13.1	9.2	10.9	10.5	9.3	9.9	23.3	20.5	22.0
11	7.2	3.5	5.3	10.7	7.5	9.0	10.8	9.9	10.3	22.8	21.2	21.8
12	8.2	4.3	5.9	13.6	6.8	10.1	15.6	9.8	12.4	21.2	18.6	19.9
13	6.8	2.6	4.7	15.2	10.4	12.7	16.5	11.4	14.0	19.7	16.5	18.1
14	6.3	3.7	5.2	14.6	11.2	13.1	17.5	12.4	14.9	19.1	14.0	16.8
15	7.6	6.2	6.8	11.2	9.3	10.3	18.7	13.6	16.2	18.6	16.4	17.5
16	6.2	1.0	3.9	12.9	10.4	11.6	19.5	15.1	17.3	19.6	17.2	18.4
17	2.2	0.1	1.2	14.5	12.1	13.2	19.6	15.3	17.3	18.8	16.3	17.6
18	5.1	2.2	3.6	15.5	13.1	14.2	16.0	12.9	13.8	16.3	15.0	15.5
19	7.2	3.4	5.3	14.2	11.6	12.8	13.4	12.3	12.8	16.0	14.5	15.0
20	8.7	6.1	7.2	11.6	10.0	10.8	15.3	12.3	13.6	18.1	13.9	15.9
21	7.7	6.2	7.1	13.9	10.8	12.1	16.4	13.1	14.7	17.9	16.4	17.3
22	11.0	7.6	9.0	16.4	10.9	13.6	17.7	15.3	16.3	17.7	17.0	17.3
23	10.9	7.8	10.0	15.8	11.0	13.6	16.3	12.3	14.5	17.3	16.8	17.0
24	10.9	5.7	8.3	17.2	11.5	14.2	15.5	11.0	13.5	18.1	16.6	17.3
25	10.6	7.7	9.2	17.8	11.3	14.6	15.2	13.7	14.2	19.1	17.2	18.1
26	8.9	5.8	7.1	19.1	13.4	16.0	16.6	14.9	15.5	19.8	18.4	19.0
27	5.8	4.8	5.2	18.2	13.7	15.8	17.3	14.6	15.9	18.9	17.2	18.2
28	7.2	5.3	6.2	18.4	13.1	15.9	18.2	13.9	16.2	18.6	15.8	17.3
29	---	---	---	19.6	16.7	18.0	19.5	15.8	17.7	18.7	16.5	17.5
30	---	---	---	18.6	10.4	13.7	21.0	16.8	18.9	19.1	15.9	17.6
31	---	---	---	13.0	8.4	10.5	---	---	---	19.2	17.1	17.9
MONTH	11.7	0.1	6.1	19.6	5.6	12.1	21.0	8.2	14.5	23.3	13.6	17.9

0208726005 CRABTREE CREEK AT EBENEZER CHURCH ROAD NEAR RALEIGH, NC

LOCATION.--Lat 35°50'44", long 78°43'28", Wake County, Hydrologic Unit 03020201, on downstream side of bridge on Secondary Road 1649, 0.1 mi upstream from Sycamore Creek, and 6.6 mi northwest of Raleigh.

DRAINAGE AREA.--76 mi².

PERIOD OF RECORD.--December 1987 to September 1992, May 1997 to current year. December 1987 to September 1992, published as "Crabtree Creek at Secondary Road 1649 near Raleigh, NC".

GAGE.--Water-stage recorder. Datum of gage is 225.00 ft above NGVD of 1929, from levels. Satellite telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges, which are poor. Flow regulated by flood-control dams upstream. Minimum discharge for period of record due to regulation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	168	33	193	176	605	174	42	81	88	94	163
2	12	108	31	190	126	620	116	37	63	236	138	94
3	11	78	29	185	94	388	86	32	50	181	81	67
4	11	64	28	184	93	237	67	28	53	111	58	80
5	10	57	e615	136	92	192	58	28	51	73	184	136
6	10	278	651	107	82	636	54	43	42	52	221	78
7	11	253	498	86	504	516	211	42	107	41	152	54
8	10	166	299	73	365	309	324	38	299	34	400	63
9	10	111	189	65	219	192	1,120	34	169	28	418	80
10	12	84	134	55	203	132	1,640	29	107	25	284	58
11	1,560	78	206	43	195	99	1,370	27	72	21	166	44
12	1,510	294	222	38	137	83	818	26	57	18	101	35
13	1,190	584	536	36	101	73	426	22	55	18	66	29
14	768	352	739	34	78	75	242	18	44	66	63	25
15	429	202	435	32	75	68	159	19	52	54	69	22
16	537	138	e245	29	76	259	116	29	194	41	124	38
17	343	369	160	31	86	314	89	24	182	33	147	48
18	189	484	112	30	126	222	71	23	119	27	144	134
19	112	293	92	28	222	154	63	66	258	26	81	335
20	77	179	244	28	198	1,020	56	56	440	23	49	197
21	88	123	248	27	155	1,040	51	46	340	21	38	119
22	127	97	e170	26	609	580	48	202	184	20	87	81
23	111	77	e127	28	942	331	42	350	112	65	99	309
24	82	64	e205	25	519	190	38	237	75	47	66	253
25	65	55	e590	27	291	126	39	189	55	38	50	147
26	52	49	e380	27	175	93	69	198	44	33	37	91
27	43	45	249	27	541	73	86	144	36	27	28	63
28	91	41	158	25	1,020	60	71	102	33	22	23	47
29	322	37	111	26	---	56	59	75	38	55	18	36
30	461	35	85	80	---	151	49	74	66	137	14	26
31	295	---	73	228	---	261	---	63	---	86	144	---
TOTAL	8,561	4,963	7,894	2,149	7,500	9,155	7,812	2,343	3,478	1,747	3,644	2,952
MEAN	276	165	255	69.3	268	295	260	75.6	116	56.4	118	98.4
MAX	1,560	584	739	228	1,020	1,040	1,640	350	440	236	418	335
MIN	10	35	28	25	75	56	38	18	33	18	14	22
CFSM	3.63	2.18	3.35	0.91	3.52	3.89	3.43	0.99	1.53	0.74	1.55	1.29
IN.	4.19	2.43	3.86	1.05	3.67	4.48	3.82	1.15	1.70	0.86	1.78	1.44

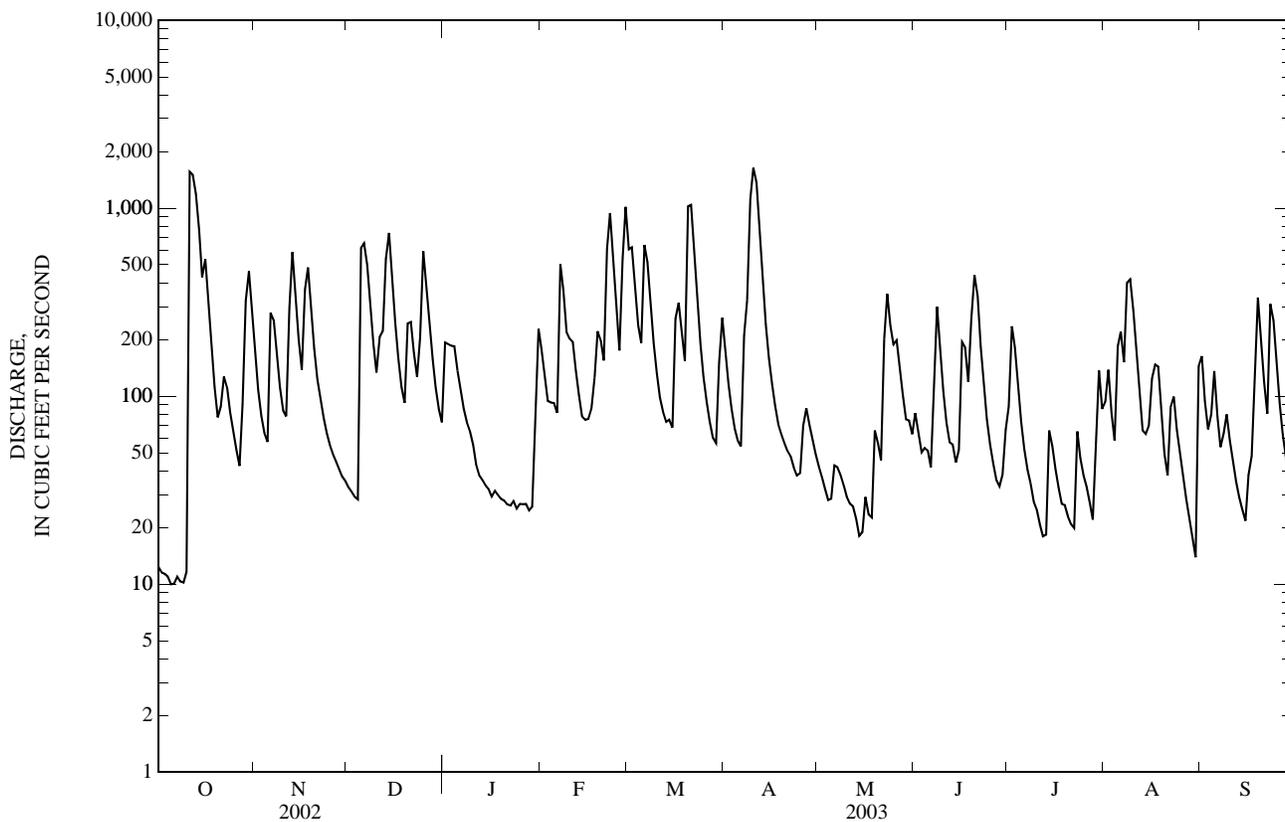
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003,[@] BY WATER YEAR (WY)

MEAN	75.0	59.4	66.9	131	138	171	100	51.6	52.7	51.8	58.4	97.7
MAX	276	165	255	370	364	393	260	144	136	113	131	743
(WY)	(2003)	(2003)	(2003)	(1998)	(1998)	(1998)	(2003)	(1989)	(2001)	(1997)	(2000)	(1999)
MIN	13.6	23.8	14.4	23.1	16.2	25.0	32.5	9.30	9.34	9.15	6.74	5.35
(WY)	(1992)	(1992)	(1991)	(2001)	(1991)	(1988)	(1992)	(2002)	(1999)	(1988)	(1990)	(1990)

0208726005 CRABTREE CREEK AT EBENEZER CHURCH ROAD NEAR RALEIGH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003 [®]	
ANNUAL TOTAL	38,649.9		62,198		92.6	
ANNUAL MEAN	106		170		170	
HIGHEST ANNUAL MEAN					46.6	2003
LOWEST ANNUAL MEAN					192	1992
HIGHEST DAILY MEAN	1,560	Oct 11	1,640	Apr 10	3,250	Sep 16, 1999
LOWEST DAILY MEAN	5.9	Jun 13	10	Oct 5	2.1	Dec 18, 1990
ANNUAL SEVEN-DAY MINIMUM	6.4	Jun 11	10	Oct 3	2.6	Dec 12, 1990
MAXIMUM PEAK FLOW			3,640	Oct 11	4,720	Sep 16, 1999
MAXIMUM PEAK STAGE			17.20	Oct 11	19.78	Sep 16, 1999
INSTANTANEOUS LOW FLOW			5.8	Oct 6	1.5*	Oct 12, 1997
ANNUAL RUNOFF (CFSM)	1.39		2.24		1.22	
ANNUAL RUNOFF (INCHES)	18.92		30.44		16.55	
10 PERCENT EXCEEDS	293		407		208	
50 PERCENT EXCEEDS	31		84		34	
90 PERCENT EXCEEDS	8.0		27		8.7	

e Estimated.
[®] See PERIOD OF RECORD.
 * See REMARKS.



0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC

LOCATION.--Lat 35°50'02", long 78°43'12", Wake County, Hydrologic Unit 03020201, at Schenk Forest, 1 mi northeast of Cary.

DRAINAGE AREA.--4.35 mi².

GAGE-HEIGHT RECORDS

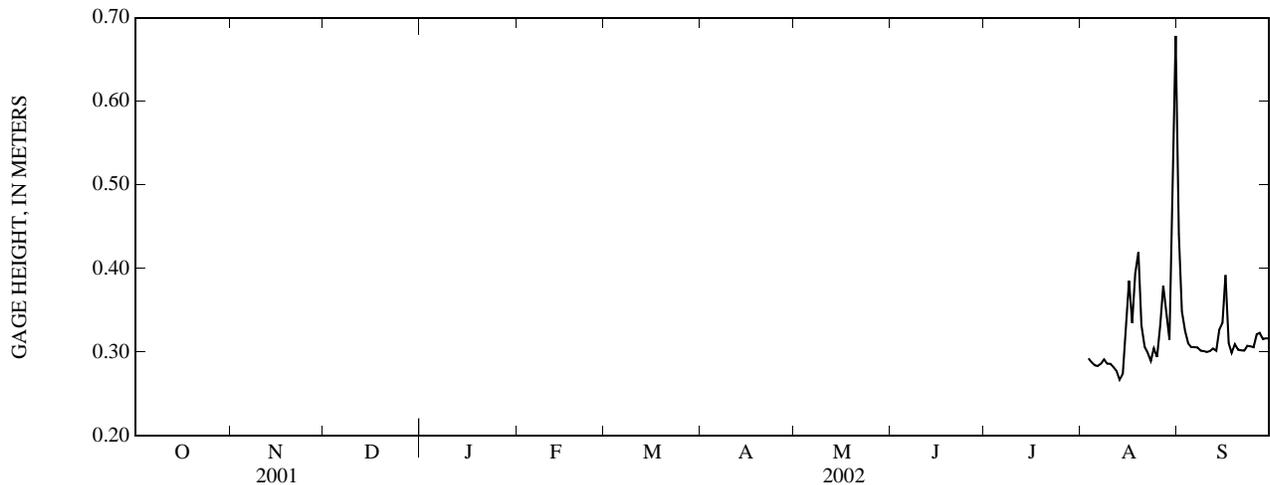
PERIOD OF RECORD.--August 2002 to September 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 310 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.55 m, Aug. 8, 2003; minimum gage height recorded, 0.22 m, Oct. 21, 2003.

GAGE HEIGHT, ABOVE DATUM, METERS
AUGUST TO SEPTEMBER 2002
DAILY MEAN VALUES

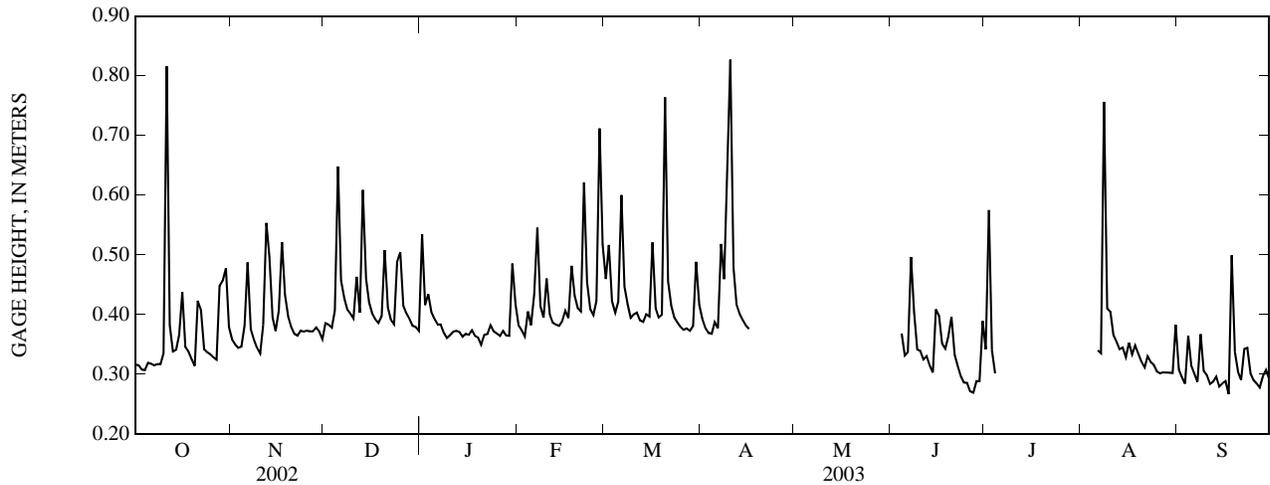
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	0.44
2	---	---	---	---	---	---	---	---	---	---	---	0.35
3	---	---	---	---	---	---	---	---	---	---	0.29	0.33
4	---	---	---	---	---	---	---	---	---	---	0.29	0.31
5	---	---	---	---	---	---	---	---	---	---	0.28	0.31
6	---	---	---	---	---	---	---	---	---	---	0.28	0.31
7	---	---	---	---	---	---	---	---	---	---	0.29	0.31
8	---	---	---	---	---	---	---	---	---	---	0.29	0.30
9	---	---	---	---	---	---	---	---	---	---	0.29	0.30
10	---	---	---	---	---	---	---	---	---	---	0.29	0.30
11	---	---	---	---	---	---	---	---	---	---	0.28	0.30
12	---	---	---	---	---	---	---	---	---	---	0.28	0.30
13	---	---	---	---	---	---	---	---	---	---	0.27	0.30
14	---	---	---	---	---	---	---	---	---	---	0.27	0.33
15	---	---	---	---	---	---	---	---	---	---	0.33	0.33
16	---	---	---	---	---	---	---	---	---	---	0.39	0.39
17	---	---	---	---	---	---	---	---	---	---	0.33	0.31
18	---	---	---	---	---	---	---	---	---	---	0.39	0.30
19	---	---	---	---	---	---	---	---	---	---	0.42	0.31
20	---	---	---	---	---	---	---	---	---	---	0.33	0.30
21	---	---	---	---	---	---	---	---	---	---	0.31	0.30
22	---	---	---	---	---	---	---	---	---	---	0.30	0.30
23	---	---	---	---	---	---	---	---	---	---	0.29	0.31
24	---	---	---	---	---	---	---	---	---	---	0.30	0.31
25	---	---	---	---	---	---	---	---	---	---	0.29	0.31
26	---	---	---	---	---	---	---	---	---	---	0.33	0.32
27	---	---	---	---	---	---	---	---	---	---	0.38	0.32
28	---	---	---	---	---	---	---	---	---	---	0.35	0.32
29	---	---	---	---	---	---	---	---	---	---	0.31	0.32
30	---	---	---	---	---	---	---	---	---	---	0.52	0.32
31	---	---	---	---	---	---	---	---	---	---	0.68	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	0.32
MAX	---	---	---	---	---	---	---	---	---	---	---	0.44
MIN	---	---	---	---	---	---	---	---	---	---	---	0.30



0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.32	0.36	0.39	0.53	0.38	0.46	0.39	---	---	0.34	---	0.31
2	0.32	0.35	0.38	0.42	0.37	0.52	0.38	---	---	0.57	---	0.30
3	0.31	0.34	0.38	0.43	0.36	0.42	0.37	---	---	0.34	---	0.28
4	0.31	0.35	0.41	0.40	0.41	0.40	0.37	---	0.37	0.30	---	0.36
5	0.32	0.38	0.65	0.39	0.38	0.42	0.39	---	0.33	---	---	0.32
6	0.32	0.49	0.46	0.38	0.43	0.60	0.38	---	0.34	---	0.34	0.30
7	0.32	0.38	0.43	0.38	0.55	0.45	0.52	---	0.50	---	0.34	0.29
8	0.32	0.36	0.41	0.37	0.41	0.42	0.46	---	0.40	---	0.76	0.37
9	0.32	0.34	0.40	0.36	0.40	0.39	0.64	---	0.34	---	0.41	0.31
10	0.34	0.33	0.39	0.37	0.46	0.40	0.83	---	0.34	---	0.40	0.30
11	0.82	0.38	0.46	0.37	0.40	0.40	0.48	---	0.33	---	0.37	0.28
12	0.38	0.55	0.40	0.37	0.39	0.39	0.42	---	0.33	---	0.35	0.29
13	0.34	0.50	0.61	0.37	0.38	0.39	0.40	---	0.32	---	0.34	0.30
14	0.34	0.40	0.46	0.36	0.38	0.40	0.39	---	0.30	---	0.34	0.28
15	0.37	0.37	0.42	0.37	0.39	0.40	0.38	---	0.41	---	0.33	0.28
16	0.44	0.41	0.40	0.37	0.41	0.52	0.38	---	0.40	---	0.35	0.29
17	0.35	0.52	0.39	0.37	0.39	0.41	---	---	0.35	---	0.33	0.27
18	0.34	0.43	0.39	0.36	0.48	0.40	---	---	0.34	---	0.35	0.50
19	0.33	0.40	0.40	0.36	0.43	0.40	---	---	0.36	---	0.33	0.34
20	0.31	0.38	0.51	0.35	0.41	0.76	---	---	0.40	---	0.32	0.30
21	0.42	0.37	0.41	0.37	0.41	0.46	---	---	0.33	---	0.31	0.29
22	0.41	0.36	0.39	0.37	0.62	0.41	---	---	0.31	---	0.33	0.34
23	0.34	0.37	0.38	0.38	0.45	0.40	---	---	0.30	---	0.32	0.34
24	0.34	0.37	0.49	0.37	0.41	0.39	---	---	0.29	---	0.32	0.30
25	0.33	0.37	0.50	0.37	0.40	0.38	---	---	0.29	---	0.30	0.29
26	0.33	0.37	0.42	0.36	0.42	0.37	---	---	0.27	---	0.30	0.28
27	0.32	0.37	0.40	0.37	0.71	0.38	---	---	0.27	---	0.30	0.28
28	0.45	0.38	0.39	0.37	0.52	0.37	---	---	0.29	---	0.30	0.30
29	0.46	0.37	0.38	0.36	---	0.38	---	---	0.29	---	0.30	0.31
30	0.48	0.36	0.38	0.49	---	0.49	---	---	0.39	---	0.30	0.29
31	0.38	---	0.37	0.42	---	0.42	---	---	---	---	0.38	---
MEAN	0.37	0.39	0.43	0.38	0.43	0.43	---	---	---	---	---	0.31
MAX	0.82	0.55	0.65	0.53	0.71	0.76	---	---	---	---	---	0.50
MIN	0.31	0.33	0.37	0.35	0.36	0.37	---	---	---	---	---	0.27



0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 2002 to September 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2002 to September 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.6°C, Aug. 19, 2002; minimum recorded, 0.3°C, Jan. 24, 25, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)
OCT 11...	1030	9	--	752	8.1	93	6.5	35	21.4	2.33	2.9	1.1	0.15
DEC 23...	1200	9	E2.5	753	10.8	91	6.6	116	7.4	9.93	6.4	0.17	--
FEB 19...	1345	9	E11	759	12.4	102	7.1	415	6.6	102	8.1	0.38	0.08
APR 17...	1100	9	E2.8	750	--	--	7.1	118	15.9	10.0	5.0	0.15	--
MAY 12...	0915	D	E1.3	--	7.5	--	6.6	119	18.8	--	--	--	--
JUN 09...	0930	9	--	--	7.3	--	7.1	115	20.4	--	--	--	--
JUN 30...	0900	9	E1.8	756	6.4	74	6.7	121	21.8	10.2	4.6	0.20	--
AUG 27...	1000	9	E.95	752	6.4	77	6.3	123	23.6	9.97	4.0	0.14	--
Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sediment total, mg/L (00694)
OCT 11...	0.12	1.16	0.26	0.27	0.026	0.008	1.0	0.527	0.17	0.28	0.61	1.4	4.3
DEC 23...	<0.04	--	--	0.34	--	<0.008	--	--	E.01	<0.02	0.028	0.50	0.2
FEB 19...	0.06	--	--	0.53	--	E.005	0.31	--	E.01	0.05	0.063	0.90	0.4
APR 17...	<0.04	--	--	0.40	--	<0.008	--	--	<0.02	<0.02	0.023	0.54	<0.1
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	<0.04	--	--	0.46	--	<0.008	--	--	<0.02	<0.02	0.031	0.67	0.2
AUG 27...	<0.04	1.51	0.34	0.36	0.066	0.020	--	--	<0.02	<0.02	0.028	0.51	0.1

0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Inorganic carbon, suspdnt sedimnt total, mg/L (00688)	Organic carbon, suspdnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Me-Ph)-amino]propan-1-ol, ug/L (61615)
OCT 11...	0.2	4.1	6.0	--	--	--	--	--	15,000	--	<0.09	<0.006	<0.1
DEC 23...	<0.1	0.2	2.6	--	--	--	--	--	64	--	<0.09	<0.006	<0.1
FEB 19...	<0.1	0.4	3.5	--	--	--	--	--	100	--	<0.09	<0.006	<0.1
APR 17...	<0.1	<0.1	2.6	--	--	--	--	--	150	--	<0.09	<0.006	<0.1
MAY 12...	--	--	--	3.100	51	53.90	692	2.9	--	4.5	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	<0.1	0.2	2.7	--	--	--	--	--	670	--	<0.09	<0.006	<0.1
AUG 27...	<0.1	<0.1	2.4	--	--	--	--	--	93	--	<0.09	<0.006	<0.1

Date	2Chloro-2,6-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water, fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl oxon, water, fltrd, ug/L (61635)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)
OCT 11...	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.238	<0.06
DEC 23...	<0.005	E.002	<0.004	<0.004	<0.006	<0.006	<0.004	E.003	<0.02	<0.050	<0.010	E.006	<0.06
FEB 19...	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.003	<0.06
APR 17...	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	E.004	<0.02	<0.050	<0.010	<0.041	<0.06
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	0.007	<0.02	<0.050	<0.010	E.010	<0.06
AUG 27...	<0.005	E.004	<0.004	<0.004	<0.006	<0.006	<0.004	0.008	<0.02	<0.050	<0.010	E.005	<0.06

Date	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Dicrotophos, water, fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)
OCT 11...	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	--	0.046	<0.08	<0.005	<0.006	<0.03	<0.004
DEC 23...	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	--	0.008	<0.08	<0.005	<0.006	<0.03	<0.004
FEB 19...	E.003	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	E.005	<0.08	<0.005	<0.006	<0.03	<0.004
APR 17...	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	<0.007	<0.08	<0.005	<0.006	<0.03	<0.004
AUG 27...	<0.005	<0.006	<0.008	<0.009	<0.003	E.003	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004

0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)
OCT 11...	<0.008	<0.03	<0.03	<0.009	E.004	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008
DEC 23...	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008
FEB 19...	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008
APR 17...	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	E.008	<0.002	<0.003	--	<1	<0.003	<0.008
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.031	<0.03	<0.03	<0.031	<0.005	<0.005	E.009	<0.002	<0.003	<0.013	<1	<0.003	<0.008
AUG 27...	<0.008	<0.03	<0.03	<0.009	E.005	0.006	E.008	<0.002	<0.003	<0.013	<1	<0.003	<0.008
Date	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)
OCT 11...	<0.027	<0.005	<0.006	<0.03	<0.006	0.053	<0.006	<0.008	0.091	<0.10	<0.011	<0.06	<0.008
DEC 23...	<0.027	E.004	<0.006	<0.03	<0.006	E.012	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008
FEB 19...	<0.027	0.011	<0.006	<0.03	<0.006	E.013	<0.006	<0.008	E.013	<0.10	<0.011	<0.06	<0.008
APR 17...	<0.027	<0.005	<0.006	<0.03	<0.006	0.021	<0.006	<0.008	0.033	<0.10	<0.011	<0.06	<0.008
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.027	<0.005	<0.006	<0.03	<0.006	0.479	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008
AUG 27...	<0.027	E.004	<0.006	<0.03	<0.006	E.007	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008

0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd, 0.7u GF ug/L (82676)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Terbuthylazine, water, fltrd, ug/L (04022)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlorvos, water, fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)
OCT 11...	0.07	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	E.004	<0.01	99	629
DEC 23...	0.04	<0.005	<0.004	0.006	<0.02	<0.07	<0.02	<0.01	E.006	<0.01	80	4
FEB 19...	0.03	<0.005	<0.004	0.006	<0.02	<0.07	<0.02	<0.01	E.004	<0.01	91	7
APR 17...	E.01	<0.005	<0.004	0.217	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	87	5
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	0.02	<0.005	<0.004	0.017	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	90	10
AUG 27...	0.02	<0.005	<0.004	0.007	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	83	6

Remark codes used in this table:

< -- Less than

E -- Estimated value

Medium codes used in this table:

9 - Surface water

D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
AUGUST TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	22.3	21.3	21.7
2	---	---	---	---	---	---	---	---	---	21.8	20.9	21.3
3	---	---	---	---	---	---	26.0	23.6	24.8	22.9	20.2	21.5
4	---	---	---	---	---	---	26.0	23.7	24.9	24.2	22.0	23.1
5	---	---	---	---	---	---	26.1	23.8	25.0	24.2	22.5	23.4
6	---	---	---	---	---	---	25.4	24.1	24.8	22.6	20.9	21.9
7	---	---	---	---	---	---	24.1	22.0	22.9	22.2	20.6	21.4
8	---	---	---	---	---	---	22.5	20.3	21.5	22.1	20.2	21.2
9	---	---	---	---	---	---	22.4	19.8	21.1	22.4	21.1	21.7
10	---	---	---	---	---	---	22.6	19.8	21.2	23.2	21.4	22.2
11	---	---	---	---	---	---	23.5	20.6	22.0	23.3	21.4	22.3
12	---	---	---	---	---	---	24.5	21.8	23.1	22.2	20.0	20.9
13	---	---	---	---	---	---	25.3	23.0	24.1	21.2	18.8	20.1
14	---	---	---	---	---	---	24.8	23.1	24.0	22.5	20.5	21.2
15	---	---	---	---	---	---	26.4	23.8	24.6	22.8	21.8	22.2
16	---	---	---	---	---	---	25.8	24.8	25.3	24.2	22.1	23.2
17	---	---	---	---	---	---	26.1	24.7	25.4	23.4	22.1	22.8
18	---	---	---	---	---	---	26.7	24.9	25.7	23.0	22.2	22.6
19	---	---	---	---	---	---	27.6	24.7	25.7	22.8	21.8	22.4
20	---	---	---	---	---	---	26.0	24.2	25.2	23.0	21.4	22.2
21	---	---	---	---	---	---	26.3	24.7	25.5	23.0	21.3	22.2
22	---	---	---	---	---	---	26.2	24.5	25.3	23.2	21.4	22.2
23	---	---	---	---	---	---	27.0	24.8	25.8	22.1	21.0	21.6
24	---	---	---	---	---	---	27.0	25.0	25.9	21.5	20.3	20.9
25	---	---	---	---	---	---	26.4	24.4	25.4	20.7	19.8	20.3
26	---	---	---	---	---	---	25.3	23.7	24.3	20.6	19.8	20.1
27	---	---	---	---	---	---	23.7	22.6	23.2	23.6	20.6	21.9
28	---	---	---	---	---	---	23.3	22.3	22.7	23.2	21.5	22.3
29	---	---	---	---	---	---	22.3	21.7	21.9	21.5	20.3	20.9
30	---	---	---	---	---	---	22.5	20.9	21.9	20.4	19.0	19.8
31	---	---	---	---	---	---	22.0	21.4	21.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	24.2	18.8	21.7

0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.2	19.6	20.4	11.8	10.0	11.1	8.2	5.5	6.5	13.8	10.3	12.5
2	21.9	20.0	20.9	11.2	9.6	10.4	6.8	4.0	5.4	11.5	10.0	10.7
3	22.6	20.9	21.7	11.0	9.6	10.3	7.5	5.8	6.6	11.0	9.3	10.5
4	22.8	21.1	21.9	12.3	10.7	11.4	5.8	2.7	4.2	9.3	6.6	7.9
5	23.3	22.0	22.5	12.3	11.6	11.9	4.7	1.7	3.4	7.7	5.1	6.4
6	22.5	20.6	21.3	13.4	11.6	12.6	5.8	4.4	5.0	8.1	6.2	7.0
7	21.9	20.4	21.1	11.6	10.1	10.8	5.7	3.1	4.4	6.5	4.2	5.2
8	21.1	18.4	19.5	11.5	9.0	10.3	6.5	3.6	5.0	7.7	5.0	6.2
9	18.9	17.9	18.4	13.0	10.5	11.7	6.3	5.4	5.8	9.9	7.0	8.3
10	19.6	17.7	18.4	15.4	12.7	13.9	6.0	4.9	5.4	9.9	7.5	9.0
11	21.1	19.4	20.5	18.1	15.4	16.8	6.3	4.5	5.8	7.5	5.2	6.2
12	21.0	20.0	20.4	16.9	14.1	16.2	8.6	6.2	7.3	5.2	3.4	4.4
13	20.4	19.4	19.9	14.1	11.8	13.3	7.4	6.1	6.8	5.7	3.1	4.4
14	20.1	17.0	18.2	12.6	10.2	11.4	8.8	7.1	7.7	6.3	3.7	5.1
15	17.0	15.5	16.0	12.9	10.3	11.6	7.9	5.7	6.8	5.9	3.7	4.8
16	17.2	16.3	16.8	14.4	12.6	13.4	9.3	5.8	7.5	4.6	2.5	3.6
17	16.4	14.6	15.5	13.4	11.3	12.7	8.0	6.0	7.0	5.1	3.1	4.0
18	15.4	13.2	14.1	11.4	9.6	10.5	8.1	6.1	7.0	3.3	1.2	2.3
19	14.8	12.8	13.9	11.2	8.1	9.6	9.9	7.6	8.4	3.1	0.9	2.0
20	16.4	14.5	15.3	11.4	8.7	10.1	13.8	9.9	12.0	5.8	2.0	3.7
21	17.7	15.2	16.5	11.7	9.8	10.8	9.9	7.8	8.7	4.9	3.8	4.2
22	15.2	13.9	14.7	11.7	9.5	10.9	9.8	6.9	8.3	4.7	2.2	3.6
23	15.5	13.3	14.4	9.5	7.7	8.7	9.2	7.3	8.3	3.9	0.5	2.3
24	15.3	14.3	14.7	10.3	7.5	8.9	8.5	7.8	8.0	1.7	0.3	0.8
25	14.9	14.4	14.7	10.8	8.0	9.5	8.3	6.3	7.6	2.8	0.3	1.5
26	15.5	14.2	14.8	10.3	8.1	9.3	7.3	5.4	6.2	4.2	1.5	2.7
27	15.5	14.7	15.1	9.4	7.9	8.9	6.6	4.3	5.4	3.3	1.5	2.5
28	16.6	15.3	15.8	7.9	5.7	6.6	6.4	3.7	5.1	3.2	0.5	1.8
29	15.5	13.0	14.0	6.7	4.3	5.6	7.8	4.6	6.1	5.9	3.1	4.5
30	13.3	11.4	12.5	9.0	6.6	7.8	8.4	5.2	6.8	6.3	4.0	5.4
31	12.8	11.6	12.2	---	---	---	10.4	7.0	8.5	5.2	4.2	4.7
MONTH	23.3	11.4	17.3	18.1	4.3	10.9	13.8	1.7	6.7	13.8	0.3	5.1
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.4	5.2	6.1	8.3	6.6	7.4	14.1	8.2	11.0	---	---	---
2	7.2	4.6	5.9	11.3	7.4	9.0	17.6	11.3	14.2	---	---	---
3	9.4	5.1	7.2	10.9	6.9	8.7	18.8	13.0	15.9	---	---	---
4	12.4	8.8	10.3	10.8	6.2	8.5	18.4	14.4	16.5	---	---	---
5	8.8	6.2	7.6	13.4	9.7	11.3	17.9	15.3	16.6	---	---	---
6	7.0	4.9	5.9	12.6	11.4	11.9	17.4	13.8	15.7	---	---	---
7	7.1	4.2	5.7	11.4	7.2	8.8	15.6	10.2	12.0	---	---	---
8	7.2	4.3	5.6	11.8	5.7	8.5	11.0	9.8	10.6	---	---	---
9	7.4	4.1	5.5	14.6	9.1	11.4	10.4	8.9	9.8	---	---	---
10	6.6	5.3	5.8	12.7	8.9	10.6	10.0	8.4	9.3	---	---	---
11	8.1	4.2	6.0	10.6	7.4	8.9	10.7	9.6	10.0	---	---	---
12	9.1	5.2	6.8	13.4	6.8	9.9	15.8	9.7	12.2	---	---	---
13	7.4	3.7	5.6	14.8	10.1	12.4	16.5	10.8	13.5	---	---	---
14	7.0	4.6	5.9	14.3	11.1	12.9	17.4	11.8	14.4	---	---	---
15	8.4	7.0	7.7	11.1	9.1	10.1	18.6	13.2	15.8	---	---	---
16	7.2	2.0	4.9	12.9	10.4	11.5	19.2	14.8	16.9	---	---	---
17	3.4	0.8	2.2	14.2	11.8	12.8	---	---	---	---	---	---
18	5.7	3.4	4.3	15.2	12.7	13.8	---	---	---	---	---	---
19	7.8	3.8	5.7	13.9	11.3	12.4	---	---	---	---	---	---
20	9.1	6.4	7.6	11.3	9.5	10.4	---	---	---	---	---	---
21	8.2	6.5	7.5	13.6	10.6	11.8	---	---	---	---	---	---
22	12.1	8.0	9.4	16.2	10.6	13.2	---	---	---	---	---	---
23	11.3	8.1	10.2	15.3	10.6	13.1	---	---	---	---	---	---
24	11.2	6.2	8.6	16.6	11.0	13.6	---	---	---	---	---	---
25	10.9	8.1	9.4	17.2	10.8	13.9	---	---	---	---	---	---
26	8.7	6.0	7.0	18.1	12.6	15.2	---	---	---	---	---	---
27	6.0	3.7	4.8	17.2	13.2	15.2	---	---	---	---	---	---
28	7.1	4.7	6.0	17.5	12.6	15.1	---	---	---	---	---	---
29	---	---	---	19.3	15.8	17.2	---	---	---	---	---	---
30	---	---	---	17.8	10.2	13.1	---	---	---	---	---	---
31	---	---	---	12.7	8.2	10.3	---	---	---	---	---	---
MONTH	12.4	0.8	6.6	19.3	5.7	11.7	---	---	---	---	---	---

0208726370 RICHLANDS CREEK AT SCHENK FOREST NEAR CARY, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	---	---	---	22.7	21.8	22.1	---	---	---	24.6	22.8	23.9
2	---	---	---	22.9	20.8	21.5	---	---	---	24.7	23.4	24.2
3	---	---	---	21.9	20.8	21.2	---	---	---	24.8	23.6	24.3
4	20.6	18.2	19.2	23.4	19.8	21.4	---	---	---	25.1	22.4	23.9
5	20.8	19.0	19.9	24.2	21.5	22.8	---	---	---	23.6	20.7	22.6
6	20.2	17.5	19.0	23.8	21.9	23.0	24.4	22.4	23.6	20.9	19.5	20.4
7	23.0	19.2	20.8	23.0	21.5	22.3	23.7	22.7	23.3	21.1	19.5	20.6
8	22.6	20.8	21.6	23.4	21.5	22.5	24.8	22.7	23.6	20.8	19.8	20.3
9	22.9	20.2	21.5	23.6	21.8	22.8	24.5	22.6	23.6	21.5	19.8	20.7
10	22.4	19.3	21.0	23.1	21.4	22.4	24.0	22.4	23.1	20.1	18.1	19.5
11	22.7	20.0	21.4	23.0	21.1	22.1	24.3	22.4	23.3	19.7	18.0	19.3
12	22.8	21.2	22.0	22.3	20.8	21.6	24.4	22.5	23.6	19.6	19.0	19.3
13	23.1	21.3	22.1	21.7	20.3	20.8	24.4	23.0	23.8	19.9	19.0	19.6
14	23.3	21.5	22.5	20.9	19.5	20.3	24.9	23.1	24.0	21.1	19.8	20.6
15	24.7	22.0	22.9	21.2	19.5	20.4	24.6	23.0	23.9	21.5	20.1	21.0
16	23.6	21.9	22.7	22.3	19.9	21.0	24.3	23.0	23.6	21.2	18.2	20.3
17	21.9	20.5	20.8	22.0	20.5	21.1	24.2	22.9	23.7	19.7	18.1	19.2
18	22.2	20.1	20.9	21.8	20.0	20.9	24.2	22.4	23.3	19.4	18.7	19.1
19	22.9	21.2	21.9	21.8	20.2	20.7	23.9	22.3	23.1	21.9	18.9	20.3
20	22.2	20.4	21.3	21.1	19.3	20.3	23.9	22.4	23.4	21.6	18.8	20.4
21	21.0	18.8	20.0	21.5	20.0	20.8	24.0	22.3	23.4	21.7	19.2	20.9
22	20.8	17.5	19.2	21.9	20.6	21.2	24.1	22.5	23.4	23.0	20.9	21.8
23	21.8	18.6	20.2	21.2	19.9	20.2	24.3	22.5	23.7	22.6	18.8	21.2
24	22.3	18.9	20.7	20.6	19.4	20.0	23.8	21.9	23.1	20.9	18.2	19.7
25	22.8	19.9	21.5	20.5	18.9	19.8	23.6	21.8	23.1	20.8	18.1	19.6
26	23.3	20.6	22.1	20.8	19.4	20.1	24.3	22.8	23.9	20.7	18.5	19.8
27	23.4	21.4	22.6	21.2	19.7	20.5	25.0	23.4	24.6	20.8	18.6	20.1
28	23.1	21.4	21.9	21.5	20.1	20.8	25.4	24.2	25.0	20.8	17.1	19.6
29	22.9	20.3	21.6	---	---	---	25.7	24.3	25.2	17.8	14.7	16.7
30	23.8	21.3	22.4	---	---	---	25.8	24.4	25.1	16.3	14.4	15.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	25.1	14.4	20.5

0208726995 HARE SNIPE CREEK AT SECONDARY ROAD 1822 NEAR LEESVILLE, NC

LOCATION.--Lat 35°52'31", long 78°41'43", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 1822, 4 mi southeast of Leesville.

DRAINAGE AREA.--3.95 mi².

GAGE-HEIGHT RECORDS

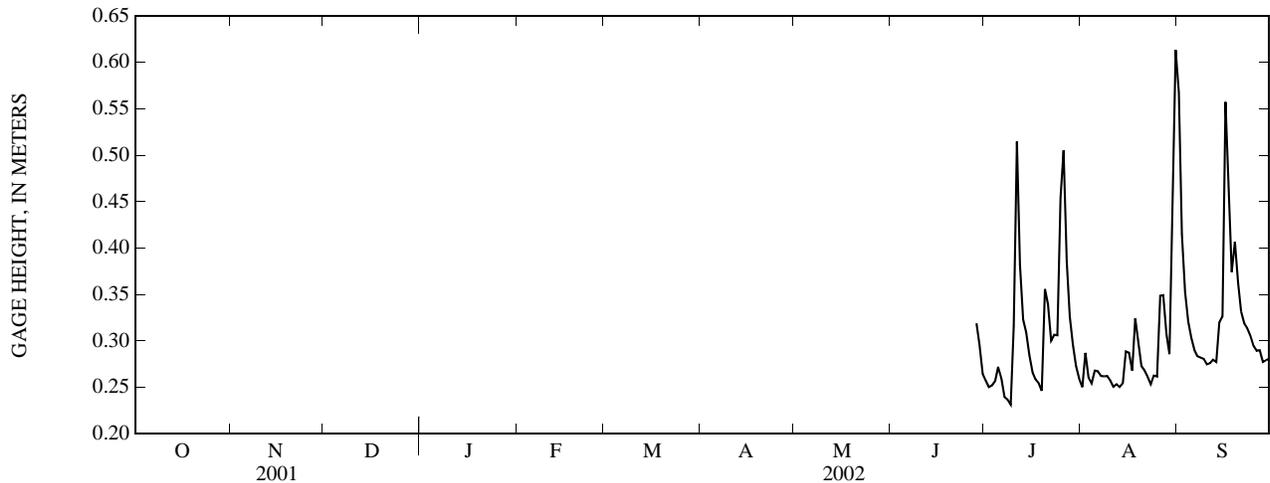
PERIOD OF RECORD.--June 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 290 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.25 m, Aug. 17, 2003; minimum gage height recorded, 0.16 m, Nov. 10, 2002.

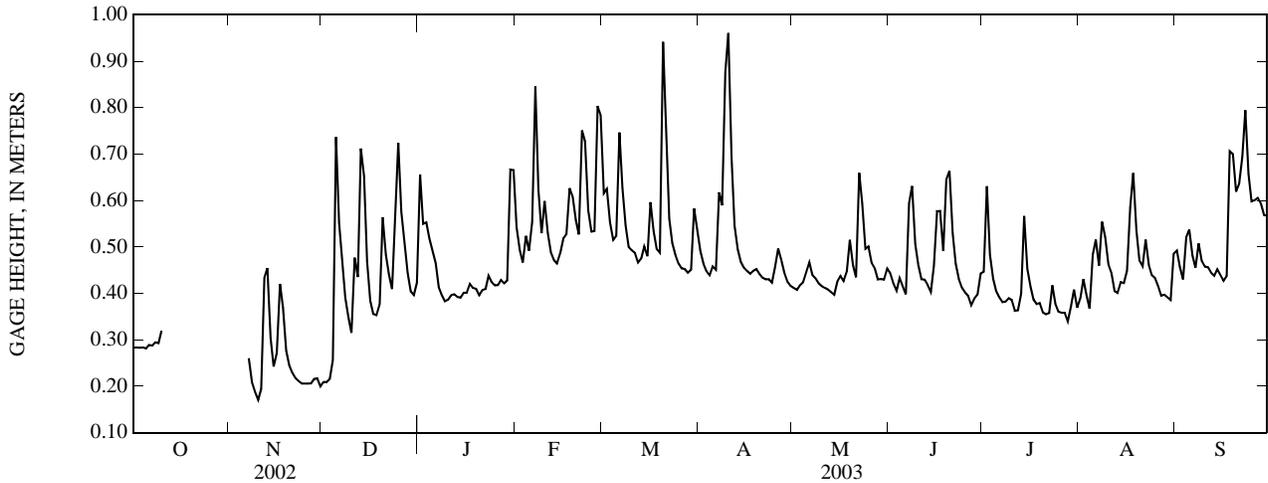
GAGE HEIGHT, ABOVE DATUM, METERS
JUNE TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	0.26	0.25	0.57
2	---	---	---	---	---	---	---	---	---	0.25	0.29	0.42
3	---	---	---	---	---	---	---	---	---	0.25	0.26	0.35
4	---	---	---	---	---	---	---	---	---	0.26	0.25	0.32
5	---	---	---	---	---	---	---	---	---	0.27	0.27	0.30
6	---	---	---	---	---	---	---	---	---	0.26	0.27	0.29
7	---	---	---	---	---	---	---	---	---	0.24	0.26	0.28
8	---	---	---	---	---	---	---	---	---	0.24	0.26	0.28
9	---	---	---	---	---	---	---	---	---	0.23	0.26	0.28
10	---	---	---	---	---	---	---	---	---	0.32	0.26	0.27
11	---	---	---	---	---	---	---	---	---	0.51	0.25	0.28
12	---	---	---	---	---	---	---	---	---	0.38	0.25	0.28
13	---	---	---	---	---	---	---	---	---	0.32	0.25	0.28
14	---	---	---	---	---	---	---	---	---	0.31	0.25	0.32
15	---	---	---	---	---	---	---	---	---	0.28	0.29	0.33
16	---	---	---	---	---	---	---	---	---	0.27	0.29	0.56
17	---	---	---	---	---	---	---	---	---	0.26	0.27	0.44
18	---	---	---	---	---	---	---	---	---	0.25	0.32	0.37
19	---	---	---	---	---	---	---	---	---	0.25	0.30	0.41
20	---	---	---	---	---	---	---	---	---	0.36	0.27	0.36
21	---	---	---	---	---	---	---	---	---	0.34	0.27	0.33
22	---	---	---	---	---	---	---	---	---	0.30	0.26	0.32
23	---	---	---	---	---	---	---	---	---	0.31	0.25	0.31
24	---	---	---	---	---	---	---	---	---	0.31	0.26	0.31
25	---	---	---	---	---	---	---	---	---	0.45	0.26	0.29
26	---	---	---	---	---	---	---	---	---	0.51	0.35	0.29
27	---	---	---	---	---	---	---	---	---	0.39	0.35	0.29
28	---	---	---	---	---	---	---	---	0.32	0.33	0.31	0.28
29	---	---	---	---	---	---	---	---	0.30	0.30	0.29	0.28
30	---	---	---	---	---	---	---	---	0.26	0.27	0.45	0.28
31	---	---	---	---	---	---	---	---	---	0.26	0.61	---
MEAN	---	---	---	---	---	---	---	---	---	0.31	0.29	0.33
MAX	---	---	---	---	---	---	---	---	---	0.51	0.61	0.57
MIN	---	---	---	---	---	---	---	---	---	0.23	0.25	0.27



GAGE HEIGHT, ABOVE DATUM, METERS
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 DAILY MEAN VALUES

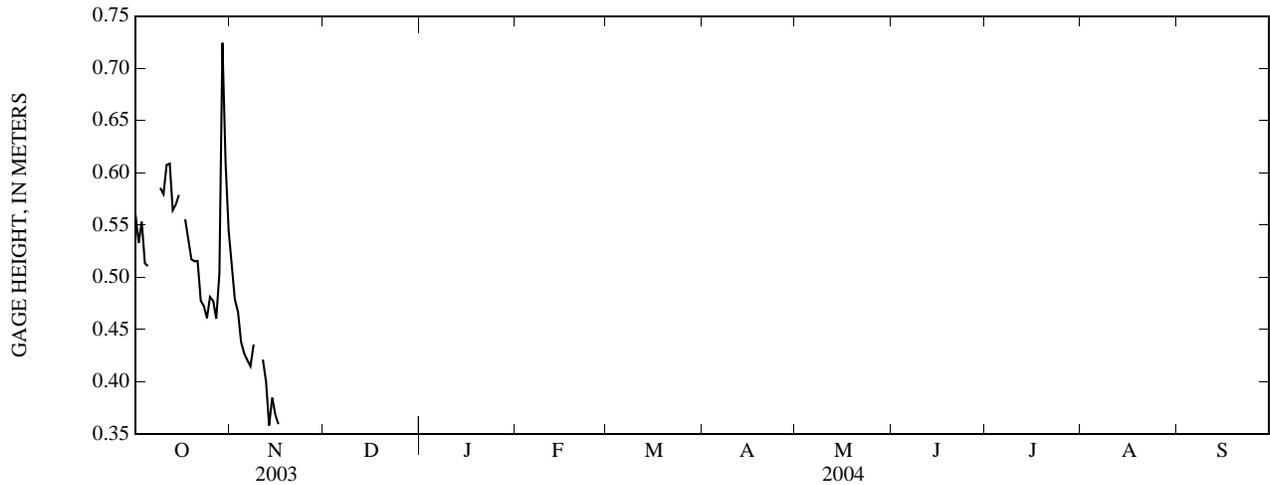
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	---	0.21	0.66	0.54	0.62	0.49	0.41	0.44	0.45	0.39	0.49
2	0.28	---	0.21	0.55	0.49	0.63	0.46	0.41	0.42	0.63	0.43	0.46
3	0.28	---	0.22	0.55	0.47	0.55	0.45	0.42	0.41	0.48	0.40	0.43
4	0.28	---	0.26	0.52	0.52	0.52	0.44	0.42	0.43	0.43	0.37	0.52
5	0.28	---	0.74	0.49	0.49	0.52	0.46	0.44	0.42	0.41	0.48	0.54
6	0.29	---	0.55	0.47	0.55	0.75	0.45	0.47	0.40	0.39	0.52	0.48
7	0.29	0.26	0.48	0.41	0.85	0.63	0.62	0.44	0.59	0.38	0.46	0.46
8	0.29	0.21	0.39	0.40	0.62	0.55	0.59	0.43	0.63	0.38	0.55	0.51
9	0.29	0.19	0.35	0.38	0.53	0.50	0.88	0.42	0.51	0.39	0.52	0.47
10	0.32	0.17	0.32	0.39	0.60	0.49	0.96	0.42	0.46	0.39	0.46	0.46
11	---	0.19	0.48	0.40	0.53	0.49	0.69	0.41	0.43	0.36	0.44	0.46
12	---	0.43	0.44	0.40	0.49	0.47	0.55	0.41	0.43	0.36	0.40	0.44
13	---	0.45	0.71	0.39	0.47	0.48	0.50	0.40	0.42	0.40	0.40	0.44
14	---	0.30	0.65	0.39	0.46	0.50	0.47	0.40	0.40	0.57	0.42	0.45
15	---	0.24	0.47	0.40	0.49	0.48	0.46	0.43	0.46	0.45	0.42	0.44
16	---	0.27	0.38	0.40	0.52	0.60	0.45	0.44	0.58	0.41	0.45	0.43
17	---	0.42	0.36	0.42	0.53	0.53	0.44	0.43	0.58	0.39	0.58	0.44
18	---	0.37	0.35	0.41	0.63	0.50	0.45	0.45	0.49	0.38	0.66	0.71
19	---	0.28	0.38	0.41	0.61	0.49	0.45	0.52	0.64	0.38	0.54	0.70
20	---	0.25	0.56	0.40	0.56	0.94	0.44	0.46	0.66	0.36	0.47	0.62
21	---	0.23	0.48	0.41	0.53	0.72	0.43	0.43	0.53	0.35	0.46	0.64
22	---	0.22	0.44	0.41	0.75	0.56	0.43	0.66	0.46	0.36	0.52	0.69
23	---	0.21	0.41	0.44	0.73	0.51	0.43	0.59	0.43	0.42	0.46	0.79
24	---	0.21	0.57	0.42	0.58	0.48	0.42	0.50	0.41	0.38	0.44	0.66
25	---	0.21	0.72	0.42	0.53	0.46	0.46	0.50	0.40	0.36	0.43	0.60
26	---	0.21	0.58	0.42	0.53	0.45	0.50	0.47	0.40	0.36	0.42	0.60
27	---	0.21	0.51	0.43	0.80	0.45	0.47	0.45	0.37	0.36	0.39	0.61
28	---	0.22	0.44	0.42	0.78	0.44	0.44	0.43	0.39	0.34	0.40	0.59
29	---	0.22	0.40	0.43	---	0.45	0.42	0.43	0.40	0.37	0.39	0.57
30	---	0.20	0.40	0.67	---	0.58	0.42	0.43	0.44	0.41	0.39	0.57
31	---	---	0.42	0.67	---	0.54	---	0.45	---	0.37	0.49	---
MEAN	---	---	0.45	0.45	0.58	0.54	0.50	0.45	0.47	0.40	0.46	0.54
MAX	---	---	0.74	0.67	0.85	0.94	0.96	0.66	0.66	0.63	0.66	0.79
MIN	---	---	0.21	0.38	0.46	0.44	0.42	0.40	0.37	0.34	0.37	0.43



0208726995 HARE SNIPE CREEK AT SECONDARY ROAD 1822 NEAR LEESVILLE, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.56	0.51	---	---	---	---	---	---	---	---	---	---
2	0.53	0.48	---	---	---	---	---	---	---	---	---	---
3	0.55	0.47	---	---	---	---	---	---	---	---	---	---
4	0.51	0.44	---	---	---	---	---	---	---	---	---	---
5	0.51	0.43	---	---	---	---	---	---	---	---	---	---
6	---	0.42	---	---	---	---	---	---	---	---	---	---
7	---	0.41	---	---	---	---	---	---	---	---	---	---
8	---	0.44	---	---	---	---	---	---	---	---	---	---
9	0.59	---	---	---	---	---	---	---	---	---	---	---
10	0.58	---	---	---	---	---	---	---	---	---	---	---
11	0.61	0.42	---	---	---	---	---	---	---	---	---	---
12	0.61	0.40	---	---	---	---	---	---	---	---	---	---
13	0.56	0.36	---	---	---	---	---	---	---	---	---	---
14	0.57	0.38	---	---	---	---	---	---	---	---	---	---
15	0.58	0.37	---	---	---	---	---	---	---	---	---	---
16	---	0.36	---	---	---	---	---	---	---	---	---	---
17	0.56	---	---	---	---	---	---	---	---	---	---	---
18	0.54	---	---	---	---	---	---	---	---	---	---	---
19	0.52	---	---	---	---	---	---	---	---	---	---	---
20	0.52	---	---	---	---	---	---	---	---	---	---	---
21	0.52	---	---	---	---	---	---	---	---	---	---	---
22	0.48	---	---	---	---	---	---	---	---	---	---	---
23	0.47	---	---	---	---	---	---	---	---	---	---	---
24	0.46	---	---	---	---	---	---	---	---	---	---	---
25	0.48	---	---	---	---	---	---	---	---	---	---	---
26	0.48	---	---	---	---	---	---	---	---	---	---	---
27	0.46	---	---	---	---	---	---	---	---	---	---	---
28	0.50	---	---	---	---	---	---	---	---	---	---	---
29	0.72	---	---	---	---	---	---	---	---	---	---	---
30	0.61	---	---	---	---	---	---	---	---	---	---	---
31	0.54	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---



0208726995 HARE SNIPE CREEK AT SECONDARY ROAD 1822 NEAR LEESVILLE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 2002 to November 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 2002 to November 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.5°C, Aug. 2, 2002; minimum recorded, 0.4°C, Jan. 24, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)
OCT 15...	1415	9	6.3	749	8.2	88	7.2	79	17.8	5.61	4.6	0.65	0.17
DEC 23...	0900	9	4.7	758	10.8	89	6.7	97	7.0	7.53	5.8	0.35	0.09
FEB 26...	0900	9	E5.5	762	11.0	92	6.5	133	7.6	19.6	6.4	0.36	--
MAR 04...	1400	9	--	--	--	--	--	--	--	--	--	--	--
APR 14...	0945	9	6.5	760	9.8	94	7.2	86	13.5	6.17	5.6	0.60	--
MAY 12...	1345	D	2.0	--	6.4	--	7.0	96	21.3	--	--	--	--
JUN 09...	1200	9	--	--	6.0	--	7.2	94	25.0	--	--	--	--
JUN 30...	1045	9	2.0	759	6.7	81	6.8	94	24.4	6.59	3.3	1.3	--
AUG 27...	0830	9	E1.8	--	6.1	--	6.6	92	24.9	6.38	2.5	0.45	0.11

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)
OCT 15...	0.13	2.72	0.61	0.64	0.079	0.024	0.52	<0.02	0.14	0.068	1.3	1.1	<0.1
DEC 23...	0.07	--	--	0.44	--	E.006	0.28	<0.02	0.04	0.039	0.79	0.5	<0.1
FEB 26...	<0.04	--	--	0.44	--	<0.008	--	<0.02	0.11	0.051	0.80	0.8	<0.1
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	E.04	--	--	0.30	--	E.006	--	<0.02	0.16	0.063	0.90	0.9	<0.1
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	<0.04	1.59	0.36	0.37	0.043	0.013	--	<0.02	0.05	0.033	1.7	0.4	<0.1
AUG 27...	0.08	1.71	0.39	0.41	0.082	0.025	0.37	<0.02	0.04	0.023	0.86	0.3	<0.1

0208726995 HARE SNIPE CREEK AT SECONDARY ROAD 1822 NEAR LEESVILLE, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic carbon, suspended sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-' diethyl acetilide wat flt ug/L (61618)
OCT 15...	1.1	8.1	--	--	--	--	--	360	--	<0.09	<0.006	<0.1	<0.005
DEC 23...	0.5	4.6	--	--	--	--	--	48	--	<0.09	<0.006	<0.1	<0.005
FEB 26...	0.8	4.0	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005
MAR 04...	--	--	--	--	--	--	--	39	--	--	--	--	--
APR 14...	0.9	5.4	--	--	--	--	--	220	--	<0.09	<0.006	<0.1	<0.005
MAY 12...	--	--	3.600	42	45.50	885	3.0	--	4.1	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	0.4	4.0	--	--	--	--	--	200	--	E.01	<0.006	<0.1	<0.005
AUG 27...	0.2	4.6	--	--	--	--	--	240	--	<0.09	<0.006	<0.1	<0.005
Date	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Dichloro-aniline water fltrd, ug/L (61625)	4Chloro-2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)
OCT 15...	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	0.011	<0.02	<0.050	<0.010	E.023	<0.06	<0.005
DEC 23...	E.002	<0.004	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	E.006	<0.06	<0.005
FEB 26...	<0.006	<0.004	<0.004	E.007	<0.006	<0.004	E.003	<0.02	<0.050	<0.010	E.005	<0.06	E.002
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	<0.006	<0.004	<0.004	E.011	<0.006	<0.004	E.006	<0.02	<0.050	<0.010	E.020	<0.06	<0.005
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	E.003	<0.004	<0.004	<0.006	<0.006	<0.004	E.006	<0.02	<0.050	<0.010	E.068	<0.06	<0.005
AUG 27...	<0.006	<0.004	<0.004	<0.006	<0.006	<0.004	E.005	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005
Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)
OCT 15...	<0.006	<0.008	<0.009	<0.003	E.001	--	0.108	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
DEC 23...	<0.006	<0.008	<0.009	<0.003	E.004	--	0.017	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
FEB 26...	<0.006	<0.008	<0.009	<0.003	E.003	<0.04	0.006	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	<0.006	<0.008	<0.009	<0.003	0.005	<0.04	0.043	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	0.011	<0.08	<0.005	<0.006	<0.03	<0.004	<0.031
AUG 27...	<0.006	<0.008	<0.009	<0.003	E.004	<0.01	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008

0208726995 HARE SNIPE CREEK AT SECONDARY ROAD 1822 NEAR LEESVILLE, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)
OCT 15...	<0.03	<0.03	<0.009	E.001	<0.005	0.011	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
DEC 23...	<0.03	<0.03	<0.009	E.004	<0.005	E.013	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
FEB 26...	<0.03	<0.03	<0.009	E.004	<0.005	E.012	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	<0.03	<0.03	<0.009	0.006	<0.011	E.021	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 30...	<0.03	<0.03	<0.031	<0.005	<0.005	E.007	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027
AUG 27...	<0.03	<0.03	<0.009	E.005	0.006	E.008	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027

Date	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)
OCT 15...	<0.005	<0.006	<0.03	<0.006	0.022	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.05
DEC 23...	E.004	<0.006	<0.03	<0.006	E.012	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.02
FEB 26...	<0.005	<0.006	<0.03	<0.006	E.009	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	<0.005	<0.006	<0.03	<0.006	E.009	<0.006	<0.008	0.029	<0.10	<0.011	<0.06	<0.008	E.01
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 30...	<0.005	<0.006	<0.03	<0.006	0.064	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01
AUG 27...	<0.005	<0.006	<0.03	<0.006	0.027	<0.006	0.010	<0.022	<0.10	<0.011	<0.06	<0.008	0.06

0208726995 HARE SNIPE CREEK AT SECONDARY ROAD 1822 NEAR LEESVILLE, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd, 0.7u GF ug/L (82676)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Terbutylazine, water, fltrd, ug/L (04022)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlorvos, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Suspended sedi-ment concen-tration mg/L (80154)	Suspended sedi-ment load, tons/d (80155)
OCT 15...	<0.005	<0.004	0.008	<0.02	<0.07	<0.02	<0.01	<0.009	E.01	96	21	0.35
DEC 23...	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	88	6	0.08
FEB 26...	<0.005	<0.004	0.062	<0.02	<0.07	<0.02	<0.01	E.004	<0.01	95	18	--
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--
APR 14...	<0.005	<0.004	0.014	<0.02	<0.07	<0.02	<0.01	E.005	M	94	16	0.28
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.005	<0.004	<0.009	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	95	6	0.03
AUG 27...	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	86	5	--

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

Medium codes used in this table:
 9 - Surface water
 D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
 JUNE TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	24.0	21.2	22.8	25.6	23.8	24.8	22.8	21.2	22.2
2	---	---	---	24.8	22.3	23.5	29.5	23.1	25.1	22.5	21.6	22.0
3	---	---	---	25.0	22.7	23.9	26.1	22.9	24.3	23.5	20.8	22.1
4	---	---	---	25.5	23.0	24.2	24.5	22.5	23.7	24.5	22.1	23.3
5	---	---	---	28.9	22.3	24.4	25.0	22.6	23.9	23.9	22.4	23.2
6	---	---	---	27.5	22.9	24.6	24.4	23.1	23.8	22.8	20.5	21.7
7	---	---	---	23.7	21.0	22.4	23.1	20.6	21.5	22.0	20.2	21.2
8	---	---	---	23.4	20.7	22.0	21.5	19.0	20.4	22.0	19.8	20.9
9	---	---	---	24.3	21.3	22.8	21.6	19.0	20.5	22.0	20.6	21.4
10	---	---	---	27.0	22.9	24.3	22.1	19.2	20.8	23.1	20.9	21.9
11	---	---	---	25.6	23.0	24.9	23.0	19.9	21.6	22.9	20.6	21.9
12	---	---	---	24.8	23.3	24.0	24.0	21.3	22.7	21.9	19.0	20.1
13	---	---	---	24.2	22.0	23.1	24.5	22.6	23.7	20.9	17.9	19.5
14	---	---	---	24.4	22.9	23.5	24.2	22.5	23.5	22.8	20.2	21.3
15	---	---	---	24.1	22.7	23.4	26.9	23.5	24.4	22.8	21.7	22.3
16	---	---	---	24.3	22.6	23.6	25.8	23.7	24.6	25.1	21.9	23.5
17	---	---	---	24.2	22.4	23.5	25.4	23.5	24.4	25.6	23.5	24.4
18	---	---	---	24.4	22.6	23.6	26.1	23.9	24.9	24.7	23.3	23.9
19	---	---	---	24.7	23.3	24.1	26.6	23.3	24.6	24.4	21.9	23.3
20	---	---	---	25.6	23.0	24.0	25.3	23.3	24.4	24.2	22.4	23.3
21	---	---	---	26.6	24.4	25.4	25.2	23.4	24.4	23.8	21.6	22.8
22	---	---	---	26.4	24.1	25.2	25.4	23.5	24.5	23.8	21.7	22.7
23	---	---	---	25.8	23.6	24.7	26.1	24.0	25.1	22.3	21.1	21.7
24	---	---	---	27.6	23.6	24.8	26.2	24.3	25.1	21.1	19.7	20.5
25	---	---	---	26.0	23.9	24.9	25.4	23.6	24.6	21.5	19.4	20.4
26	---	---	---	27.2	23.5	25.4	25.3	23.0	24.1	22.0	20.7	21.4
27	---	---	---	27.2	25.2	26.2	24.2	22.4	23.0	25.0	21.9	23.3
28	24.6	22.8	23.5	27.6	24.9	26.3	23.0	21.5	22.1	24.3	22.3	23.2
29	24.4	22.2	23.4	27.5	25.4	26.5	21.5	20.9	21.0	22.3	20.8	21.6
30	23.9	22.0	23.1	26.8	25.0	26.1	21.5	20.5	21.0	21.6	19.6	20.7
31	---	---	---	26.0	24.2	25.3	22.2	21.2	21.6	---	---	---
MONTH	---	---	---	28.9	20.7	24.3	29.5	19.0	23.4	25.6	17.9	22.1

0208726995 HARE SNIPE CREEK AT SECONDARY ROAD 1822 NEAR LEESVILLE, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.8	20.7	21.6	---	---	---	8.7	5.8	7.2	12.0	8.9	9.9
2	23.8	20.9	22.3	---	---	---	8.1	4.7	6.6	9.8	8.9	9.3
3	24.0	22.0	23.1	---	---	---	8.8	5.9	7.4	10.0	8.7	9.6
4	24.3	22.3	23.4	---	---	---	5.9	3.1	4.8	9.0	7.2	8.2
5	24.8	23.3	24.0	---	---	---	6.3	3.4	5.4	8.7	6.4	7.4
6	24.0	21.0	22.1	---	---	---	6.7	5.8	6.2	8.8	6.5	7.6
7	23.0	21.4	22.2	13.2	11.9	12.6	6.3	4.9	5.5	7.0	4.9	6.0
8	22.2	19.0	19.9	13.4	11.0	12.1	6.9	4.7	5.8	8.5	5.9	7.0
9	19.9	18.4	19.1	14.4	11.2	12.7	6.6	5.5	6.1	10.1	7.0	8.3
10	21.3	18.6	19.6	16.1	13.0	14.6	6.2	5.3	5.7	9.6	6.8	8.3
11	22.1	20.8	21.6	17.0	15.4	16.3	5.9	5.1	5.7	7.4	5.3	6.3
12	22.4	21.7	21.9	16.8	15.3	16.1	7.5	5.6	6.5	6.1	4.2	5.2
13	21.9	21.6	21.7	15.3	13.8	14.8	6.8	6.2	6.5	6.6	3.8	5.2
14	21.9	18.9	20.2	14.4	12.6	13.5	7.0	6.2	6.5	7.1	4.2	5.6
15	---	---	---	14.1	12.1	13.1	7.6	5.9	6.7	6.2	3.9	5.1
16	22.5	20.8	21.6	14.9	13.4	14.2	8.7	6.0	7.3	5.3	3.2	4.2
17	23.0	19.7	22.1	14.2	13.0	13.7	7.9	6.0	7.0	5.7	3.4	4.4
18	---	---	---	13.3	11.8	12.6	8.3	6.4	7.3	4.0	1.8	2.9
19	---	---	---	13.1	11.0	11.9	9.0	7.4	8.1	4.2	1.4	2.8
20	---	---	---	13.0	10.5	11.7	12.4	8.8	10.1	6.6	2.8	4.6
21	---	---	---	12.8	11.1	11.9	9.3	8.0	8.5	5.1	4.0	4.4
22	---	---	---	12.7	10.1	11.6	9.8	7.4	8.4	5.1	2.5	3.9
23	---	---	---	11.2	8.9	10	9.5	7.3	8.3	4.1	0.9	2.7
24	---	---	---	12.2	8.6	10.3	8.6	8.0	8.3	2.5	0.4	1.4
25	---	---	---	12.6	8.9	10.6	8.4	7.3	8.0	4.1	0.9	2.4
26	---	---	---	11.8	8.8	10.3	7.8	6.7	7.2	4.9	2.1	3.4
27	---	---	---	10.8	8.4	9.9	7.7	5.8	6.6	3.8	1.9	3.0
28	---	---	---	8.8	6.5	7.7	7.6	5.1	6.3	4.3	1.0	2.7
29	---	---	---	9.0	5.9	7.5	8.7	5.4	6.9	6.2	4.0	5.1
30	---	---	---	10.9	8.2	9.4	9.1	5.8	7.3	6.1	4.2	5.2
31	---	---	---	---	---	---	9.8	6.8	8.3	4.6	4.3	4.5
MONTH	---	---	---	---	---	---	12.4	3.1	7.0	12.0	0.4	5.4
DAY	MAX	MIN	MEAN									
1	6.3	4.6	5.2	6.9	6.0	6.3	14.6	10.4	12.3	21.6	19.4	20.5
2	6.6	4.2	5.2	9.6	6.8	7.9	17.2	11.6	14.0	21.8	18.9	20.3
3	8.6	4.6	6.4	9.7	6.9	8.3	18.7	12.8	15.5	21.1	19.1	20.2
4	10.4	7.1	8.4	10.4	6.2	8.1	18.1	14.1	16.0	19.1	17.1	17.8
5	7.7	5.8	6.7	12.2	8.3	9.9	17.6	15.2	16.3	17.1	15.6	16.2
6	6.4	5.0	5.5	11.4	9.5	10.2	17.6	14.4	15.9	19.2	16.3	17.8
7	6.3	4.8	5.7	11.1	8.5	9.7	15.3	11.7	13.4	20.7	18.2	19.3
8	6.7	4.9	5.7	11.3	7.6	9.0	13.7	10.8	12.8	22.6	19.7	21.0
9	6.9	4.7	5.5	13.9	8.4	10.9	11.7	9.5	11.2	23.6	21.3	22.5
10	6.1	5.2	5.6	13.1	9.5	11.1	11.2	9.4	10.1	23.8	21.7	22.8
11	7.4	4.5	5.6	11.2	8.3	9.6	10.2	9.7	9.9	23.4	22.1	22.8
12	8.1	4.8	6.0	13.7	7.8	10.4	13.5	9.6	11.4	22.3	19.9	20.8
13	7.4	3.8	5.5	14.5	10.0	12.1	15.9	11.1	13.4	19.9	18.0	19.0
14	6.9	4.7	5.9	13.8	10.9	12.3	16.1	12.5	14.3	19.2	16.2	17.9
15	7.2	5.9	6.7	11.4	9.8	10.6	18.6	13.1	15.7	20.4	17.5	18.6
16	5.9	1.9	4.4	12.7	10.7	11.6	19.5	15.4	17.2	21.3	18.7	19.9
17	3.8	1.9	3.1	13.9	12.2	12.9	19.9	16.0	17.6	20.8	18.3	19.6
18	5.0	3.5	4.2	15.3	12.9	14.1	16.2	14.5	15.0	18.3	16.8	17.4
19	6.3	4.2	5.1	13.9	11.8	12.8	14.8	13.8	14.3	17.9	16.1	17.1
20	7.2	5.2	6.1	11.8	9.9	10.8	16.2	13.7	14.8	19.8	16.5	18.1
21	7.1	5.8	6.6	11.1	10.4	10.7	16.8	14.6	15.7	19.8	18.1	19.0
22	9.7	6.3	7.3	15.1	10.8	12.8	18.0	15.9	16.7	19.8	18.4	19.0
23	8.5	6.6	7.7	15.6	11.4	13.2	17.2	14.2	15.8	19.2	18.5	18.8
24	9.6	6.8	8.1	16.6	12.0	14.0	16.9	13.5	15.3	20.3	18.4	19.2
25	10.3	7.7	8.8	17.2	12.0	14.3	16.6	15.0	15.8	20.4	18.9	19.5
26	8.4	6.6	7.3	17.7	12.4	14.7	18.3	16.3	16.9	21.5	18.9	20.1
27	6.6	5.0	5.9	17.3	13.3	15.0	19.3	16.5	17.9	20.4	19.3	20.0
28	6.8	6.4	6.6	17.8	13.0	15.4	20.1	16.7	18.4	20.6	18.2	19.4
29	---	---	---	18.7	15.6	16.8	20.8	17.5	19.0	20.4	18.5	19.4
30	---	---	---	16.8	13.1	14.4	22.1	19.1	20.5	21.2	18.1	19.6
31	---	---	---	14.3	11.7	12.8	---	---	---	20.8	19.1	19.9
MONTH	10.4	1.9	6.1	18.7	6.0	11.7	22.1	9.4	15.1	23.8	15.6	19.5

02087275 CRABTREE CREEK AT US HIGHWAY 70 AT RALEIGH, NC

LOCATION.--Lat 35°50'16", long 78°40'25", Wake County, Hydrologic Unit 030200201, on left bank at upstream side of bridge on U.S. Highway 70, 0.6 mi upstream from Mine Creek, 4.4 mi northwest of Raleigh.

DRAINAGE AREA.--97.6 mi².

PERIOD OF RECORD.--June 1997 to current year. Unpublished records of gage height for water years 1988 to 1997 are available in the files of U.S. Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is 203.72 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred June 16, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973, reached a stage of about 27.69 ft, discharge, about 11,700 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	216	34	311	225	711	206	52	101	136	121	194
2	8.4	146	32	250	169	741	147	46	74	337	177	118
3	8.1	107	30	236	132	481	114	39	60	222	111	89
4	7.2	87	32	227	138	295	94	33	67	140	82	118
5	6.1	84	765	173	132	249	88	38	62	103	212	167
6	5.8	364	719	140	127	766	79	62	49	76	252	104
7	5.6	298	560	114	647	637	269	55	179	59	170	76
8	5.8	201	346	96	458	388	375	48	381	46	586	102
9	5.9	139	228	86	275	247	1,310	42	196	41	474	114
10	11	104	169	76	271	179	2,040	35	129	34	324	85
11	2,460	104	269	62	252	140	1,540	32	91	28	198	66
12	1,780	395	267	55	186	117	876	30	72	23	137	52
13	1,250	681	650	51	144	105	474	24	69	24	101	44
14	833	407	820	48	115	113	280	19	53	120	95	39
15	517	241	510	45	113	99	184	26	77	86	95	35
16	659	178	313	41	114	347	138	41	236	74	165	54
17	424	442	205	45	129	398	109	28	214	58	235	70
18	248	555	152	42	191	275	88	30	142	44	242	212
19	160	334	132	39	291	199	78	100	381	49	132	374
20	113	212	344	39	256	1,350	70	76	526	35	81	214
21	155	152	309	37	207	1,180	64	59	379	30	62	141
22	202	121	210	36	759	684	60	287	203	25	134	113
23	163	94	156	39	1,040	410	52	416	135	91	139	339
24	121	77	270	36	632	242	46	271	97	67	97	260
25	95	66	670	36	368	170	58	215	72	54	75	166
26	75	56	499	37	232	130	106	222	58	47	58	115
27	61	51	297	37	704	104	115	164	47	40	46	83
28	143	46	198	34	1,160	86	91	120	40	32	37	63
29	426	41	148	36	---	e90	74	93	54	93	30	49
30	588	38	118	139	---	e200	62	91	84	180	24	37
31	366	---	102	304	---	299	---	84	---	116	143	---
TOTAL	10,912.3	6,037	9,554	2,947	9,467	11,432	9,287	2,878	4,328	2,510	4,835	3,693
MEAN	352	201	308	95.1	338	369	310	92.8	144	81.0	156	123
MAX	2,460	681	820	311	1,160	1,350	2,040	416	526	337	586	374
MIN	5.6	38	30	34	113	86	46	19	40	23	24	35
CFSM	3.61	2.06	3.16	0.97	3.46	3.78	3.17	0.95	1.48	0.83	1.60	1.26
IN.	4.16	2.30	3.64	1.12	3.61	4.36	3.54	1.10	1.65	0.96	1.84	1.41

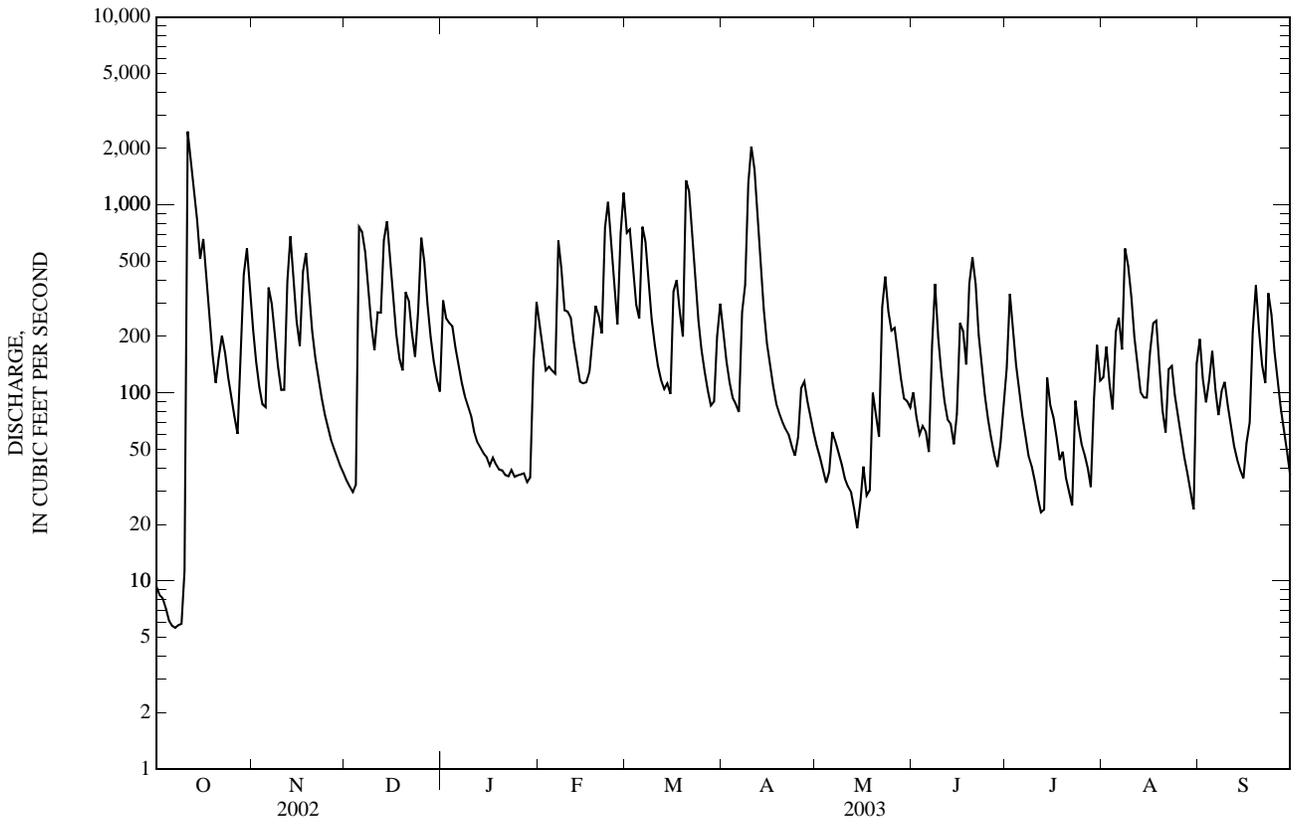
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	110	71.9	105	200	203	233	146	50.6	68.3	77.5	86.2	201
MAX	352	201	308	422	412	429	310	92.8	170	166	161	939
(WY)	(2003)	(2003)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(2001)	(1997)	(2000)	(1999)
MIN	22.2	31.5	27.1	33.7	74.0	75.4	74.4	15.6	13.1	26.0	23.7	23.3
(WY)	(2001)	(2002)	(2002)	(2001)	(2002)	(2000)	(1999)	(2002)	(1999)	(1999)	(1997)	(1997)

02087275 CRABTREE CREEK AT US HIGHWAY 70 AT RALEIGH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	48,652.6		77,880.3		131	
ANNUAL MEAN	133		213		213	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	2,460	Oct 11	2,460	Oct 11	5,030	Sep 16, 1999
LOWEST DAILY MEAN	4.9	Jun 13	5.6	Oct 7	4.9	Jun 13, 2002
ANNUAL SEVEN-DAY MINIMUM	5.6	Jun 12	6.4	Oct 3	5.6	Jun 12, 2002
MAXIMUM PEAK FLOW			5,120	Oct 11	7,080	Sep 16, 1999
MAXIMUM PEAK STAGE			18.45	Oct 11	21.50	Sep 16, 1999
INSTANTANEOUS LOW FLOW			2.1	Oct 7	1.6*	Jun 14, 2002
ANNUAL RUNOFF (CFSM)	1.37		2.19		1.34	
ANNUAL RUNOFF (INCHES)	18.54		29.68		18.27	
10 PERCENT EXCEEDS	362		488		296	
50 PERCENT EXCEEDS	46		117		53	
90 PERCENT EXCEEDS	8.4		36		14	

e Estimated.
 * See REMARKS.



02087304 SOUTHWEST PRONG BEAVERDAM CREEK AT RALEIGH, NC

LOCATION.--Lat 35°48'57", long 78°39'40", Wake County, Hydrologic Unit 03020201, at mouth, .3 mi below Lake Boone Dam, 3 mi northwest of Raleigh.

DRAINAGE AREA.--1.86 mi².

GAGE-HEIGHT RECORDS

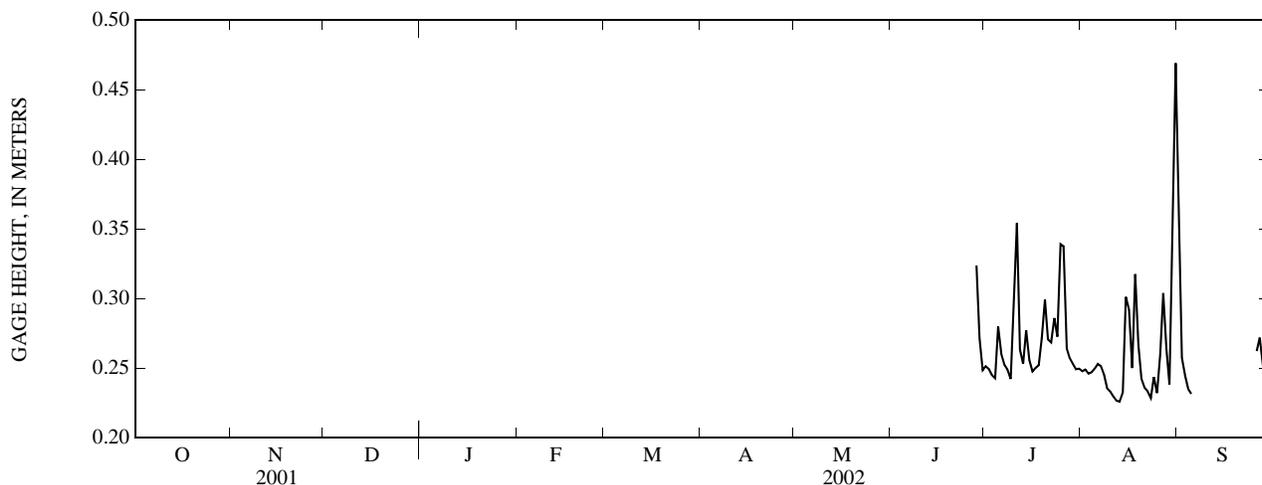
PERIOD OF RECORD.--June 2002 to August 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 240 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.37 m, October 11, 2002; minimum gage height recorded, 0.21 m, Aug. 12, 2002.

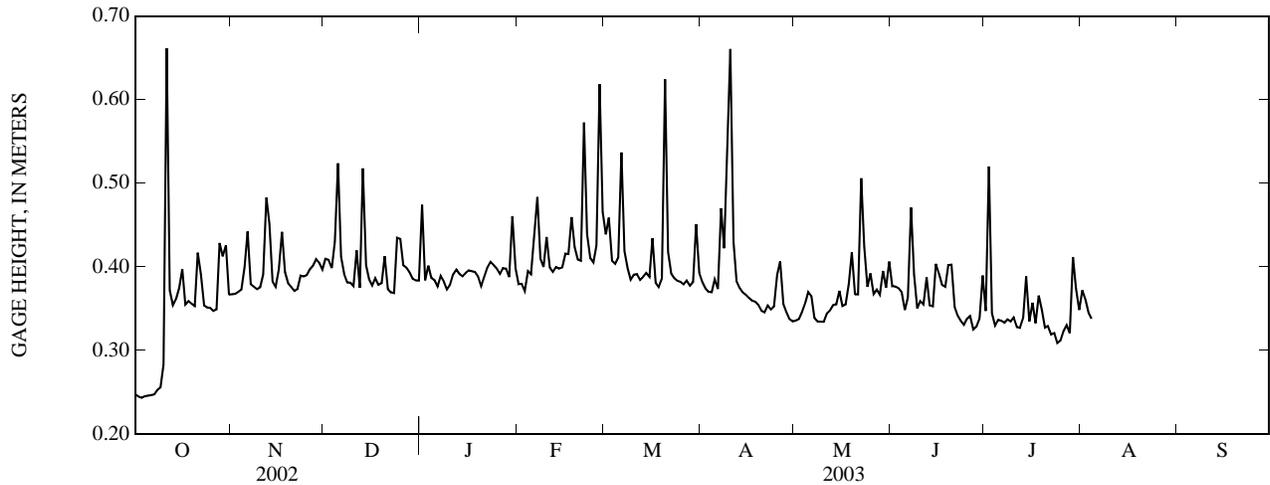
GAGE HEIGHT, ABOVE DATUM, METERS
JUNE TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	0.25	0.25	0.32
2	---	---	---	---	---	---	---	---	---	0.25	0.25	0.26
3	---	---	---	---	---	---	---	---	---	0.25	0.25	0.24
4	---	---	---	---	---	---	---	---	---	0.24	0.25	0.24
5	---	---	---	---	---	---	---	---	---	0.28	0.25	0.23
6	---	---	---	---	---	---	---	---	---	0.26	0.25	---
7	---	---	---	---	---	---	---	---	---	0.25	0.25	---
8	---	---	---	---	---	---	---	---	---	0.25	0.25	---
9	---	---	---	---	---	---	---	---	---	0.24	0.24	---
10	---	---	---	---	---	---	---	---	---	0.30	0.23	---
11	---	---	---	---	---	---	---	---	---	0.35	0.23	---
12	---	---	---	---	---	---	---	---	---	0.26	0.23	---
13	---	---	---	---	---	---	---	---	---	0.25	0.23	---
14	---	---	---	---	---	---	---	---	---	0.28	0.23	---
15	---	---	---	---	---	---	---	---	---	0.26	0.30	---
16	---	---	---	---	---	---	---	---	---	0.25	0.29	---
17	---	---	---	---	---	---	---	---	---	0.25	0.25	---
18	---	---	---	---	---	---	---	---	---	0.25	0.32	---
19	---	---	---	---	---	---	---	---	---	0.27	0.27	---
20	---	---	---	---	---	---	---	---	---	0.30	0.24	---
21	---	---	---	---	---	---	---	---	---	0.27	0.24	---
22	---	---	---	---	---	---	---	---	---	0.27	0.23	---
23	---	---	---	---	---	---	---	---	---	0.29	0.23	---
24	---	---	---	---	---	---	---	---	---	0.27	0.24	---
25	---	---	---	---	---	---	---	---	---	0.34	0.23	---
26	---	---	---	---	---	---	---	---	---	0.34	0.26	0.26
27	---	---	---	---	---	---	---	---	---	0.26	0.30	0.27
28	---	---	---	---	---	---	---	---	---	0.32	0.26	0.25
29	---	---	---	---	---	---	---	---	---	0.27	0.25	0.24
30	---	---	---	---	---	---	---	---	---	0.25	0.25	0.38
31	---	---	---	---	---	---	---	---	---	0.25	0.47	---
MEAN	---	---	---	---	---	---	---	---	---	0.27	0.26	---
MAX	---	---	---	---	---	---	---	---	---	0.35	0.47	---
MIN	---	---	---	---	---	---	---	---	---	0.24	0.23	---



GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER 2002 TO AUGUST 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.37	0.41	0.47	0.38	0.44	0.38	0.34	0.38	0.35	0.37	---
2	0.24	0.37	0.41	0.38	0.38	0.46	0.37	0.34	0.38	0.52	0.36	---
3	0.24	0.37	0.40	0.40	0.37	0.41	0.37	0.35	0.37	0.34	0.35	---
4	0.25	0.37	0.43	0.39	0.40	0.40	0.37	0.36	0.37	0.33	0.34	---
5	0.25	0.40	0.52	0.38	0.39	0.41	0.39	0.37	0.35	0.34	---	---
6	0.25	0.44	0.41	0.38	0.43	0.54	0.37	0.37	0.36	0.34	---	---
7	0.25	0.38	0.39	0.39	0.48	0.42	0.47	0.34	0.47	0.33	---	---
8	0.25	0.38	0.38	0.38	0.41	0.40	0.42	0.33	0.39	0.34	---	---
9	0.26	0.37	0.38	0.37	0.40	0.38	0.53	0.33	0.35	0.33	---	---
10	0.28	0.38	0.38	0.38	0.44	0.39	0.66	0.33	0.36	0.34	---	---
11	0.66	0.39	0.42	0.39	0.40	0.39	0.43	0.34	0.35	0.33	---	---
12	0.37	0.48	0.37	0.40	0.39	0.38	0.38	0.35	0.39	0.33	---	---
13	0.35	0.45	0.52	0.39	0.40	0.39	0.37	0.35	0.35	0.34	---	---
14	0.36	0.38	0.40	0.39	0.40	0.39	0.37	0.36	0.35	0.39	---	---
15	0.37	0.38	0.39	0.39	0.40	0.39	0.37	0.37	0.40	0.33	---	---
16	0.40	0.40	0.38	0.40	0.42	0.43	0.36	0.35	0.39	0.36	---	---
17	0.35	0.44	0.39	0.39	0.42	0.38	0.36	0.35	0.38	0.33	---	---
18	0.36	0.39	0.38	0.39	0.46	0.38	0.36	0.38	0.38	0.37	---	---
19	0.36	0.38	0.38	0.39	0.42	0.39	0.35	0.42	0.40	0.35	---	---
20	0.35	0.38	0.41	0.38	0.41	0.62	0.35	0.37	0.40	0.33	---	---
21	0.42	0.37	0.37	0.39	0.41	0.42	0.35	0.37	0.35	0.33	---	---
22	0.39	0.37	0.37	0.40	0.57	0.39	0.35	0.51	0.34	0.32	---	---
23	0.35	0.39	0.37	0.41	0.44	0.39	0.35	0.42	0.34	0.32	---	---
24	0.35	0.39	0.43	0.40	0.41	0.38	0.35	0.38	0.33	0.31	---	---
25	0.35	0.39	0.43	0.40	0.41	0.38	0.39	0.39	0.34	0.31	---	---
26	0.35	0.40	0.40	0.39	0.43	0.38	0.41	0.37	0.34	0.32	---	---
27	0.35	0.40	0.40	0.40	0.62	0.38	0.36	0.37	0.33	0.33	---	---
28	0.43	0.41	0.39	0.40	0.47	0.38	0.35	0.37	0.33	0.32	---	---
29	0.41	0.40	0.39	0.39	---	0.38	0.34	0.39	0.34	0.41	---	---
30	0.43	0.40	0.38	0.46	---	0.45	0.33	0.38	0.39	0.37	---	---
31	0.37	---	0.38	0.40	---	0.39	---	0.41	---	0.35	---	---
MEAN	0.34	0.39	0.40	0.40	0.43	0.41	0.39	0.37	0.37	0.35	---	---
MAX	0.66	0.48	0.52	0.47	0.62	0.62	0.66	0.51	0.47	0.52	---	---
MIN	0.24	0.37	0.37	0.37	0.37	0.38	0.33	0.33	0.33	0.31	---	---



02087304 SOUTHWEST PRONG BEAVERDAM CREEK AT RALEIGH, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 2002 to August 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 2002 to August 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.5°C, Aug. 24, 2002; minimum recorded, 0.5°C, Jan. 24, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)
OCT 10...	1000	9	0.32	760	8.8	94	6.8	135	18.5	11.0	4.6	0.19	<0.04	
DEC 19...	0930	9	1.8	761	9.7	83	6.6	141	8.3	11.8	7.7	0.14	E.04	
FEB 26...	1300	9	2.1	762	11.5	95	7.4	158	7.3	17.7	9.7	0.12	<0.04	
APR 14...	1115	9	2.2	762	10.4	101	7.2	135	14.0	10.3	8.1	0.18	E.03	
MAY 12...	1300	D	E1.2	--	8.2	--	7.3	126	21.4	--	--	--	--	
JUN 09...	1200	9	--	--	7.4	--	7.3	118	23.6	--	--	--	--	
JUN 30...	1100	9	--	--	--	--	--	--	--	--	--	--	--	
JUN 30...	1230	9	E1.1	760	7.6	91	6.9	137	24.3	10.6	8.6	0.22	<0.04	
AUG 26...	0845	9	E1.5	756	7.6	88	6.5	116	22.2	10.3	3.6	0.14	<0.04	

02087304 SOUTHWEST PRONG BEAVERDAM CREEK AT RALEIGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m ² (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m ² (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)
OCT 10...	--	--	930	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
DEC 19...	--	--	580	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
FEB 26...	--	--	120	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
APR 14...	--	--	67	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006
MAY 12...	654	2.5	--	3.8	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	520	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	<0.09	<0.006	<0.1	<0.005	E.004	<0.004	<0.004	<0.006	<0.006
AUG 26...	--	--	330	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.006

Date	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
OCT 10...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
DEC 19...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
FEB 26...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
APR 14...	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.004	0.018	<0.02	<0.050	<0.010	E.012	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
AUG 26...	<0.004	<0.007	<0.02	<0.050	<0.010	E.006	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	E.004

Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
OCT 10...	--	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	E.001	<0.005
DEC 19...	--	<0.005	<0.08	0.008	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	E.003	<0.005
FEB 26...	<0.04	<0.005	<0.08	0.007	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005
APR 14...	<0.04	0.005	<0.08	0.012	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	0.006	<0.009
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.01	0.008	<0.08	0.013	<0.006	<0.03	<0.004	<0.031	<0.03	<0.03	<0.031	E.004	<0.005
AUG 26...	<0.01	0.009	<0.08	0.008	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03	<0.009	E.008	E.007

02087304 SOUTHWEST PRONG BEAVERDAM CREEK AT RALEIGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)
OCT 10...	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	0.067
DEC 19...	E.006	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	0.007	<0.006	<0.03	<0.006	0.034
FEB 26...	E.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	0.032
APR 14...	E.009	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	0.027
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	E.006	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	0.197
AUG 26...	E.024	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	0.096

Date	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)
OCT 10...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	M	<0.005	<0.004	<0.005	<0.02	<0.07
DEC 19...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07
FEB 26...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	M	<0.005	<0.004	E.003	<0.02	<0.07
APR 14...	<0.006	<0.008	E.014	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.016	<0.02	<0.07
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	<0.008	<0.02	<0.07
AUG 26...	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	E.01	<0.005	<0.004	<0.005	<0.02	<0.07

02087304 SOUTHWEST PRONG BEAVERDAM CREEK AT RALEIGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 10...	<0.02	<0.01	<0.009	<0.01	92	4	0.00
DEC 19...	<0.02	<0.01	<0.009	<0.01	83	4	0.02
FEB 26...	<0.02	<0.01	E.004	<0.01	60	2	0.01
APR 14...	<0.02	<0.01	<0.009	<0.01	78	3	0.02
MAY 12...	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
30...	<0.02	<0.01	<0.009	<0.01	87	5	--
AUG 26...	<0.02	<0.01	E.006	<0.01	100	1	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value
- M-- Presence verified, not quantified

Medium codes used in this table:

- 9 - Surface water
- D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JUNE TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	27.1	22.1	24.7	27.8	24.2	26.0	21.8	20.6	21.1
2	---	---	---	27.8	23.1	25.5	27.7	23.6	25.7	21.9	20.0	20.7
3	---	---	---	28.0	23.5	25.8	27.4	22.8	25.3	23.5	19.4	21.4
4	---	---	---	28.8	23.9	26.3	27.4	23.0	25.3	25.1	20.8	22.8
5	---	---	---	28.8	23.4	25.9	27.9	23.1	25.7	24.5	21.6	22.9
6	---	---	---	27.3	23.7	25.4	26.3	23.4	24.9	---	---	---
7	---	---	---	26.8	21.7	24.4	24.9	20.9	22.9	---	---	---
8	---	---	---	26.0	21.8	24.1	24.2	19.4	22.0	---	---	---
9	---	---	---	27.4	22.6	25.1	24.0	19.1	21.8	---	---	---
10	---	---	---	28.1	24.0	26.0	24.4	19.4	22.2	---	---	---
11	---	---	---	25.3	21.6	23.1	25.7	20.1	23.2	---	---	---
12	---	---	---	23.1	20.6	21.8	26.3	21.3	24.1	---	---	---
13	---	---	---	24.7	20.3	22.4	26.7	22.5	24.8	---	---	---
14	---	---	---	24.3	22.5	23.3	26.5	22.4	24.4	---	---	---
15	---	---	---	25.8	22.4	23.8	26.8	23.3	24.6	---	---	---
16	---	---	---	27.5	22.7	25.1	26.0	23.3	24.3	---	---	---
17	---	---	---	27.7	23.0	25.4	27.0	23.1	24.8	---	---	---
18	---	---	---	28.6	23.5	25.8	27.8	23.5	25.0	---	---	---
19	---	---	---	27.9	23.9	25.9	26.6	22.9	24.4	---	---	---
20	---	---	---	27.2	23.8	25.0	27.2	22.7	24.9	---	---	---
21	---	---	---	27.1	22.7	24.7	26.4	23.4	25.0	---	---	---
22	---	---	---	28.3	23.2	25.3	27.2	23.3	25.3	---	---	---
23	---	---	---	25.8	23.3	24.3	28.3	24.0	26.2	---	---	---
24	---	---	---	27.3	23.3	24.9	29.5	24.5	25.9	---	---	---
25	---	---	---	25.6	23.4	24.3	27.4	23.4	25.5	---	---	---
26	---	---	---	25.7	23.2	24.2	25.6	22.7	23.6	21.7	20.3	20.9
27	---	---	---	27.7	23.5	25.2	23.0	21.6	22.4	25.6	21.2	22.8
28	25.9	22.8	24.2	28.1	23.4	25.7	22.3	21.2	21.8	23.5	22.1	22.9
29	26.3	22.2	24.2	29.1	24.6	26.9	21.3	20.7	21.0	23.4	20.5	21.9
30	26.8	22.5	24.7	29.3	24.8	27.1	21.0	20.1	20.7	22.2	19.2	20.7
31	---	---	---	28.3	24.6	26.6	21.0	20.6	20.8	---	---	---
MONTH	---	---	---	29.3	20.3	25.0	29.5	19.1	24.0	---	---	---

02087304 SOUTHWEST PRONG BEAVERDAM CREEK AT RALEIGH, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
OCTOBER 2002 TO AUGUST 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	23.6	20.2	21.7	12.7	10.7	11.9	8.9	6.3	7.4	13.8	10.6	12.7
2	24.2	20.4	22.3	11.9	10.4	11.2	8.1	5.2	6.7	11.8	10.2	11.0
3	24.8	21.2	23.0	12.2	10.5	11.4	9.1	6.2	7.8	11.2	9.3	10.7
4	25.0	21.6	23.3	13.4	11.6	12.4	6.2	3.4	5.0	9.3	6.7	8.0
5	25.4	22.3	23.8	13.2	12.3	12.7	5.7	2.7	4.3	8.0	5.4	6.7
6	23.3	20.7	22.1	14.2	12.3	13.3	6.9	5.5	6.2	8.4	6.5	7.4
7	23.8	20.9	22.2	12.4	10.9	11.6	6.4	4.2	5.5	6.5	4.2	5.4
8	21.5	18.7	19.5	12.4	9.6	11.2	7.6	4.6	6.2	8.3	5.3	6.7
9	20.5	18.1	19.1	13.9	10.6	12.4	7.4	6.4	7.0	10.3	7.4	8.8
10	21.1	18.3	19.4	16.4	13.2	14.9	7.2	6.0	6.6	10.4	7.7	9.3
11	22.0	20.0	21.2	18.3	16.2	17.3	7.5	5.3	6.8	7.7	5.6	6.6
12	21.9	20.6	21.1	17.6	14.8	16.8	9.7	7.3	8.5	5.8	3.8	4.9
13	21.0	19.9	20.5	14.8	12.5	14.0	8.6	7.1	8.0	6.4	3.7	5.1
14	20.6	17.1	18.7	13.2	11.1	12.3	10.0	8.4	9.1	6.9	4.4	5.7
15	17.1	15.8	16.3	13.6	11.2	12.6	8.9	7.1	8.1	6.4	4.2	5.4
16	17.8	16.7	17.3	15.2	13.4	14.2	10.3	7.2	8.7	5.4	3.2	4.2
17	17.2	15.2	16.2	14.3	12.0	13.5	8.7	6.8	7.7	5.4	3.4	4.3
18	15.9	13.7	14.9	12.0	10.3	11.2	8.4	6.5	7.4	3.7	1.8	2.7
19	16.1	13.0	14.6	11.7	8.9	10.4	10.1	8.0	8.8	3.8	1.5	2.6
20	17.7	14.6	16.1	12.4	9.7	11.2	13.4	10.1	12.0	6.5	2.7	4.5
21	18.3	15.5	16.9	12.9	11.0	12.0	10.1	8.0	8.9	5.6	4.6	4.9
22	15.8	14.6	15.3	12.9	10.1	11.8	9.8	7.0	8.5	5.5	3.1	4.3
23	16.4	13.8	15.2	10.4	8.6	9.6	9.4	7.4	8.6	4.4	1.0	2.9
24	15.7	14.9	15.3	11.3	8.4	9.9	8.5	8.1	8.3	2.2	0.5	1.2
25	15.6	15.1	15.4	11.9	9.2	10.6	8.4	6.2	7.6	3.7	0.8	2.1
26	16.8	14.9	15.8	11.4	9.2	10.5	7.4	5.6	6.4	5.1	2.2	3.5
27	16.6	15.4	16.0	10.7	8.8	10	6.8	4.7	5.8	4.3	2.0	3.2
28	17.1	16.1	16.5	8.8	6.7	7.7	6.7	4.2	5.6	3.9	1.0	2.4
29	16.1	13.7	14.5	8.0	5.5	6.9	8.2	5.0	6.6	6.9	3.7	5.5
30	13.7	11.9	12.9	10.6	7.7	9.2	9.1	5.7	7.4	6.9	4.4	5.8
31	13.3	12.2	12.8	---	---	---	11.0	7.3	8.9	5.8	4.5	5.2
MONTH	25.4	11.9	18.1	18.3	5.5	11.8	13.4	2.7	7.4	13.8	0.5	5.6
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.0	5.8	6.7	9.2	7.3	8.2	15.4	8.4	11.7	20.7	17.1	18.8
2	8.1	5.2	6.5	12.4	8.0	9.9	18.7	11.7	14.9	21.5	16.8	18.8
3	9.8	5.6	7.7	11.5	7.7	9.5	19.9	12.9	16.2	19.3	16.8	18.1
4	12.1	9.0	10.4	11.6	6.9	9.3	19.1	14.3	16.8	17.3	15.1	16.2
5	9.0	6.6	7.8	14.4	10.4	12.1	18.7	15.2	16.8	15.2	13.8	14.4
6	7.2	5.2	6.2	13.3	11.7	12.6	18.3	14.0	16.0	18.3	14.6	16.5
7	7.3	4.4	5.8	11.7	7.5	9.2	14.9	10.7	11.8	21.1	16.7	18.4
8	7.2	5.0	5.9	12.5	6.3	9.3	11.1	10.2	10.8	22.9	18.0	20.2
9	7.7	4.5	5.8	15.3	9.7	12.1	10.8	9.2	10.2	23.2	18.6	20.7
10	6.9	5.4	6.1	13.5	9.4	11.1	10.7	9.0	9.9	23.3	19.4	21.2
11	8.0	4.5	6.2	11.7	7.8	9.5	11.4	10.2	10.7	22.5	19.7	20.9
12	9.1	5.4	6.9	14.6	7.6	10.9	16.6	10.6	13.1	21.5	17.9	19.5
13	7.5	4.0	5.9	15.8	10.3	13.0	17.4	11.5	14.2	20.4	16.2	18.1
14	7.7	5.0	6.5	14.8	10.7	13.0	18.2	12.1	15.0	20.3	14.8	17.6
15	8.9	7.3	8.0	11.4	9.3	10.4	19.5	13.2	16.3	19.3	16.5	17.8
16	7.3	1.1	4.8	13.8	10.9	12.1	20.1	14.7	17.2	20.6	16.8	18.4
17	3.7	0.7	2.3	15.5	12.7	13.8	19.8	14.9	17.0	18.6	16.1	17.3
18	5.6	3.7	4.4	16.1	13.3	14.5	15.1	12.9	13.3	16.1	15.0	15.4
19	8.2	4.1	6.0	14.2	11.6	12.8	13.8	12.4	13.0	16.1	14.4	15.0
20	9.6	6.8	8.0	11.6	9.8	10.9	16.4	12.3	14.1	19.6	14.0	16.7
21	8.5	6.8	7.8	14.7	11.2	12.5	16.4	13.1	14.7	18.7	16.1	17.5
22	12.6	8.2	9.6	17.2	11.3	14.0	18.3	14.9	16.3	18.4	16.8	17.2
23	11.2	8.2	10.3	15.8	11.2	13.6	17.2	12.5	14.8	17.7	16.7	17.0
24	11.6	6.4	9.0	17.5	11.6	14.2	16.4	11.5	14.1	18.9	16.3	17.4
25	11.5	8.3	9.7	18.1	11.1	14.4	15.9	13.8	14.7	19.3	16.8	17.8
26	8.8	6.4	7.4	18.9	12.6	15.5	17.4	15.0	16.0	20.0	17.8	18.8
27	6.4	4.5	5.2	17.8	13.1	15.2	18.5	14.5	16.3	18.3	16.7	17.7
28	8.0	5.2	6.7	18.5	12.5	15.4	19.5	13.9	16.6	20.1	15.6	17.7
29	---	---	---	19.6	16.0	17.4	20.4	15.3	17.7	20.3	16.3	17.8
30	---	---	---	17.4	10.0	13.0	20.8	16.4	18.6	20.6	16.0	18.2
31	---	---	---	13.4	8.3	10.5	---	---	---	20.1	16.8	17.9
MONTH	12.6	0.7	6.9	19.6	6.3	12.3	20.8	8.4	14.6	23.3	13.8	17.9

02087304 SOUTHWEST PRONG BEAVERDAM CREEK AT RALEIGH, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
OCTOBER 2002 TO AUGUST 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.4	16.4	18.2	22.7	21.4	22.0	26.0	22.1	23.4	---	---	---
2	20.1	15.1	17.5	23.1	20.8	21.5	24.1	22.7	23.3	---	---	---
3	20.1	16.2	18.1	22.0	20.6	21.4	25.5	22.1	23.5	---	---	---
4	20.8	18.2	19.2	24.6	19.6	22.0	24.3	22.6	23.2	---	---	---
5	22.4	18.6	20.2	25.9	21.3	23.4	---	---	---	---	---	---
6	21.8	17.1	19.4	26.0	21.8	23.8	---	---	---	---	---	---
7	22.6	19.1	20.6	25.6	22.3	23.7	---	---	---	---	---	---
8	22.6	20.5	21.5	26.7	22.3	24.3	---	---	---	---	---	---
9	24.0	19.8	21.7	27.2	22.8	24.7	---	---	---	---	---	---
10	23.8	18.9	21.3	26.5	22.3	24.2	---	---	---	---	---	---
11	24.2	19.7	21.9	26.6	22.3	24.1	---	---	---	---	---	---
12	25.2	20.8	22.4	26.1	22.0	23.8	---	---	---	---	---	---
13	24.5	21.2	22.5	23.9	21.6	22.5	---	---	---	---	---	---
14	24.3	21.0	22.5	23.6	21.2	22.4	---	---	---	---	---	---
15	24.8	21.8	22.9	24.9	21.0	22.8	---	---	---	---	---	---
16	23.0	21.3	22.1	26.2	21.7	23.9	---	---	---	---	---	---
17	21.4	20.0	20.4	25.3	22.5	23.7	---	---	---	---	---	---
18	22.7	19.7	20.9	25.4	21.8	23.6	---	---	---	---	---	---
19	24.8	20.8	22.0	24.1	22.2	23.0	---	---	---	---	---	---
20	21.9	20.3	21.0	24.3	20.9	22.7	---	---	---	---	---	---
21	21.5	18.5	19.9	25.7	21.6	23.5	---	---	---	---	---	---
22	21.8	17.2	19.5	26.1	22.5	24.1	---	---	---	---	---	---
23	23.2	18.3	20.6	23.6	22.0	22.6	---	---	---	---	---	---
24	24.2	18.6	21.3	24.7	21.6	22.9	---	---	---	---	---	---
25	24.8	19.6	22.1	24.7	21.0	22.8	---	---	---	---	---	---
26	25.3	20.2	22.6	25.9	21.7	23.5	---	---	---	---	---	---
27	25.4	21.2	23.2	26.4	22.1	24.0	---	---	---	---	---	---
28	23.1	20.9	22.0	26.7	22.6	24.5	---	---	---	---	---	---
29	24.0	20.0	21.9	26.2	22.8	24.0	---	---	---	---	---	---
30	25.3	21.2	23.0	23.9	22.5	23.2	---	---	---	---	---	---
31	---	---	---	23.7	21.8	22.6	---	---	---	---	---	---
MONTH	25.4	15.1	21.1	27.2	19.6	23.3	---	---	---	---	---	---

0208731190 CRABTREE CREEK AT ANDERSON DRIVE AT RALEIGH, NC

LOCATION.--Lat 35°49'17", long 78°37'33", Wake County, Hydrologic Unit 03020201, on the downstream side of Anderson Drive bridge and 2.3 mi north of Raleigh.

DRAINAGE AREA.--111 mi².

PERIOD OF RECORD.--May 1990 to May 1991, October 1991 to April 1993, June 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage is 187.29 ft above NGVD of 1929. Satellite and telephone telemetry at station.

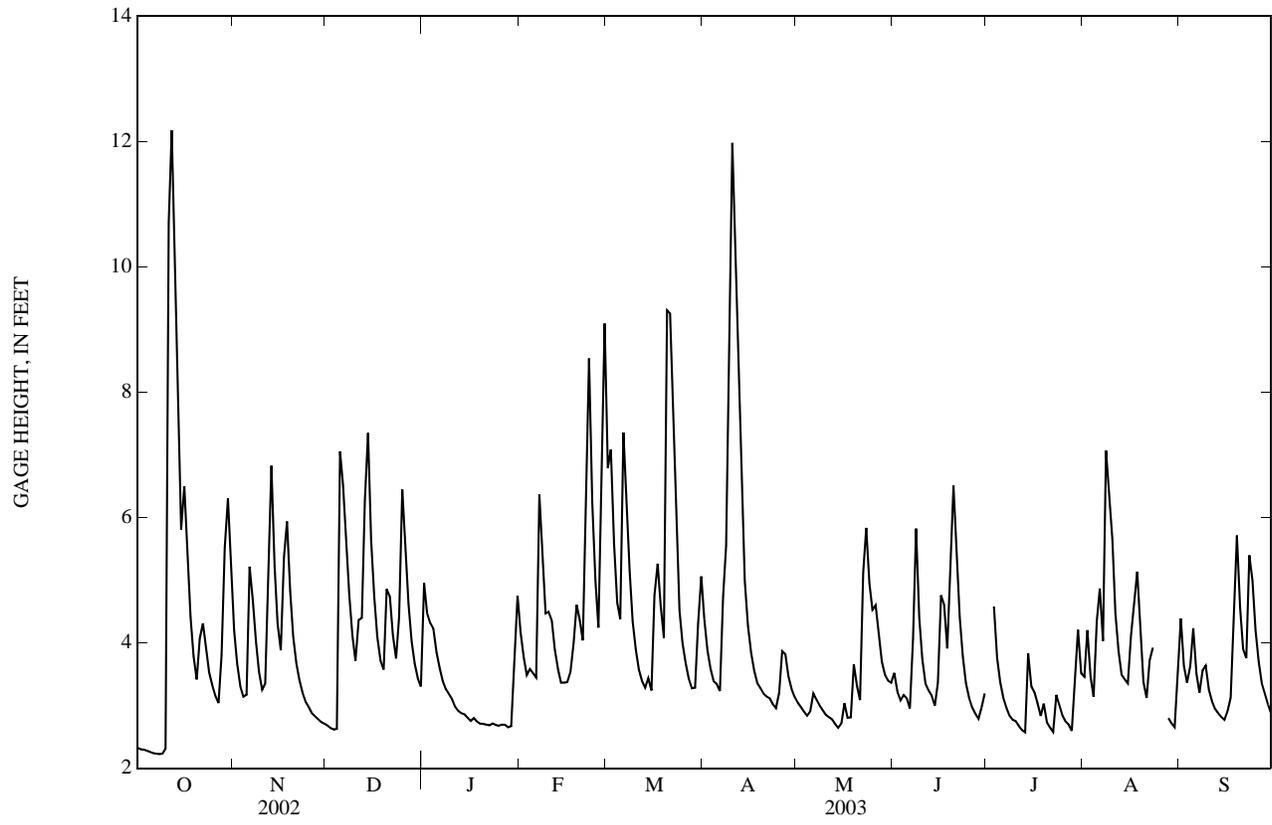
EXTREMES FOR PERIOD OF RECORD.--Maximum, 21.04 ft, Sep. 16, 1999; minimum not determined.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1996 reached a stage of 23.1 ft from flood marks.

EXTREMES FOR CURRENT YEAR.--Maximum, 18.27 ft, Oct. 11; minimum, 2.16 ft, Oct. 10.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.32	4.20	2.68	4.95	4.17	6.79	4.38	3.05	3.52	---	3.46	4.39
2	2.30	3.67	2.64	4.48	3.77	7.08	3.87	2.97	3.22	---	4.20	3.64
3	2.30	3.30	2.62	4.32	3.48	5.59	3.59	2.90	3.08	4.58	3.46	3.37
4	2.28	3.14	2.63	4.23	3.58	4.64	3.39	2.84	3.17	3.76	3.14	3.63
5	2.26	3.17	7.06	3.85	3.52	4.38	3.35	2.90	3.11	3.38	4.35	4.23
6	2.24	5.22	6.52	3.60	3.45	7.36	3.23	3.19	2.96	3.13	4.87	3.51
7	2.23	4.69	5.72	3.39	6.37	6.39	4.74	3.10	4.07	2.96	4.03	3.21
8	2.23	4.02	4.77	3.26	5.40	5.15	5.55	3.00	5.82	2.84	7.07	3.57
9	2.23	3.54	4.11	3.19	4.47	4.34	9.55	2.93	4.40	2.77	6.32	3.64
10	2.31	3.25	3.71	3.10	4.50	3.89	11.98	2.85	3.75	2.75	5.65	3.25
11	10.71	3.34	4.37	2.98	4.36	3.57	10.44	2.81	3.35	2.67	4.47	3.07
12	12.18	5.24	4.40	2.92	3.89	3.39	7.80	2.78	3.24	2.61	3.86	2.95
13	9.41	6.83	6.28	2.88	3.58	3.29	6.05	2.71	3.16	2.57	3.49	2.88
14	7.64	5.23	7.35	2.86	3.37	3.43	5.00	2.65	3.00	3.83	3.42	2.82
15	5.81	4.30	5.66	2.80	3.36	3.24	4.27	2.71	3.36	3.31	3.35	2.77
16	6.50	3.88	4.73	2.75	3.38	4.77	3.84	3.03	4.76	3.21	4.12	2.91
17	5.35	5.37	4.10	2.80	3.53	5.26	3.56	2.81	4.62	3.03	4.65	3.13
18	4.42	5.94	3.72	2.75	3.99	4.60	3.36	2.81	3.91	2.84	5.14	4.53
19	3.79	4.82	3.57	2.71	4.61	4.08	3.28	3.66	5.40	3.03	4.16	5.72
20	3.42	4.10	4.86	2.71	4.36	9.31	3.19	3.31	6.51	2.73	3.38	4.57
21	4.07	3.67	4.74	2.70	4.04	9.26	3.14	3.09	5.62	2.65	3.12	3.90
22	4.31	3.41	4.12	2.68	6.85	6.78	3.12	5.12	4.42	2.58	3.72	3.76
23	3.90	3.20	3.75	2.71	8.54	5.47	3.02	5.84	3.77	3.17	3.92	5.40
24	3.53	3.06	4.41	2.69	6.25	4.52	2.96	4.95	3.36	3.00	---	4.99
25	3.32	2.97	6.45	2.68	5.00	4.00	3.20	4.53	3.13	2.84	---	4.20
26	3.16	2.88	5.62	2.70	4.24	3.67	3.86	4.60	2.97	2.75	---	3.70
27	3.04	2.83	4.62	2.69	6.60	3.43	3.82	4.11	2.87	2.70	---	3.36
28	3.80	2.78	4.02	2.65	9.10	3.28	3.47	3.70	2.79	2.60	2.80	3.18
29	5.52	2.74	3.67	2.67	---	3.28	3.27	3.49	2.97	3.35	2.72	3.01
30	6.30	2.71	3.43	3.61	---	4.31	3.14	3.40	3.19	4.21	2.66	2.87
31	5.12	---	3.31	4.75	---	5.06	---	3.36	---	3.52	3.46	---
MEAN	4.45	3.92	4.50	3.20	4.71	4.96	4.58	3.39	3.78	---	---	3.67
MAX	12.18	6.83	7.35	4.95	9.10	9.31	11.98	5.84	6.51	---	---	5.72
MIN	2.23	2.71	2.62	2.65	3.36	3.24	2.96	2.65	2.79	---	---	2.77



02087322 CRABTREE CREEK AT OLD WAKE FOREST ROAD AT RALEIGH, NC

LOCATION.--Lat 35°48'58", long 78°37'32", Wake County, Hydrologic Unit 030200201, on right bank on upstream side of bridge at Old Wake Forest Road, 2.8 mi northeast of Raleigh.

DRAINAGE AREA.--119 mi².

PERIOD OF RECORD.--February 1988 to September 1989, discharge records, October 1989 to October 1991, discharge measurements and unpublished, fragmentary gage-height and discharge records, June 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 186.51 ft above NGVD of 1929. Satellite and telephone telemetry at station.

EXTREMES FOR PERIOD OF RECORD.-- Maximum, 19.93 ft, Sept. 16, 1999; minimum, 1.18 ft, June 13, 14, July 8, 2002.

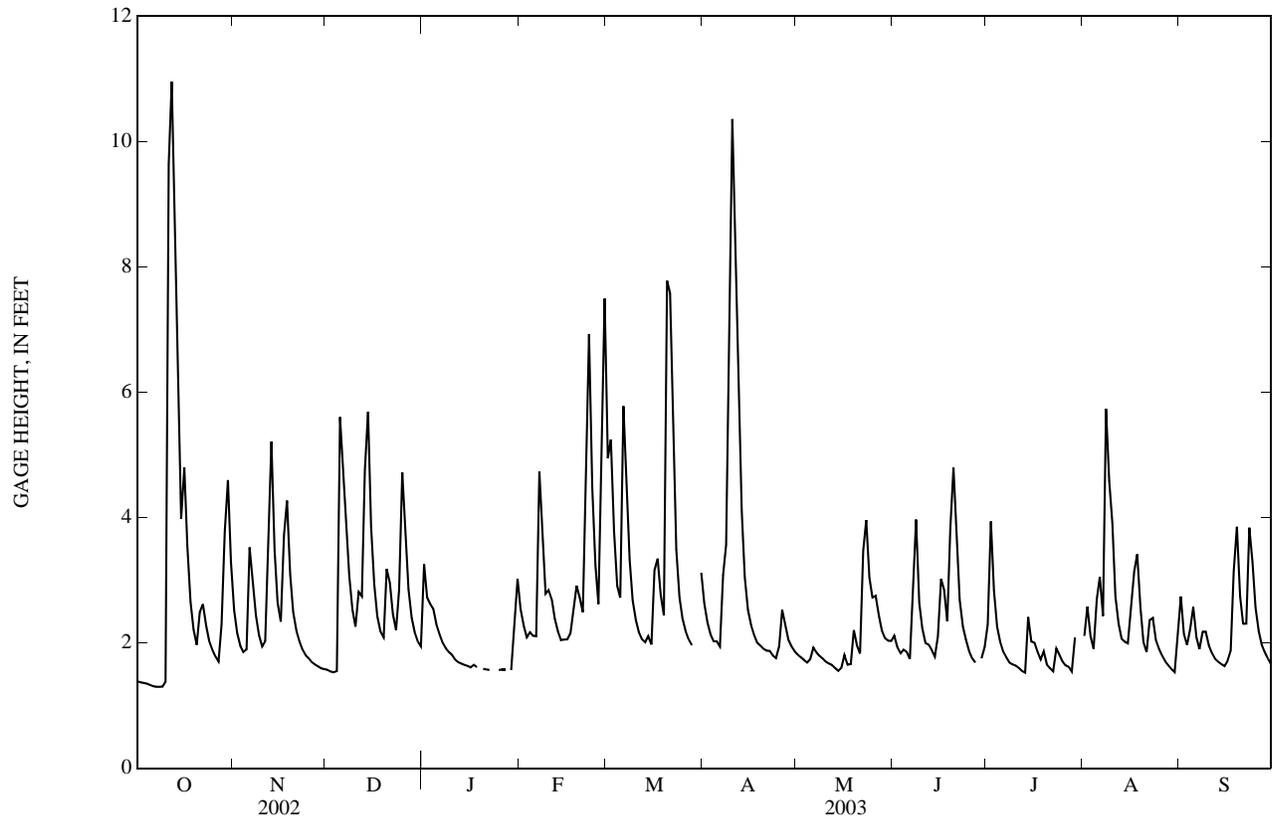
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 1996 reached a stage of 21.6 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum, 17.20 ft, Oct. 11; minimum, 1.24 ft, Oct. 10.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.39	2.52	1.57	3.26	2.54	4.95	2.63	1.81	2.11	2.29	2.11	2.74
2	1.37	2.16	1.54	2.73	2.27	5.24	2.32	1.77	1.93	3.94	2.58	2.15
3	1.36	1.95	1.53	2.62	2.09	3.78	2.14	1.73	1.83	2.84	2.11	1.97
4	1.35	1.85	1.55	2.54	2.17	2.91	2.03	1.69	1.89	2.26	1.91	2.23
5	1.33	1.90	5.60	2.29	2.11	2.72	2.02	1.74	1.85	2.02	2.69	2.57
6	1.31	3.52	4.87	2.13	2.11	5.78	1.94	1.93	1.74	1.86	3.05	2.09
7	1.30	2.93	4.02	2.00	4.74	4.58	3.08	1.85	2.73	1.76	2.43	1.90
8	1.30	2.44	3.07	1.91	3.65	3.33	3.57	1.79	3.97	1.68	5.74	2.18
9	1.30	2.12	2.53	1.85	2.78	2.68	7.84	1.75	2.64	1.66	4.59	2.18
10	1.38	1.94	2.26	1.81	2.84	2.36	10.36	1.70	2.23	1.64	3.91	1.96
11	9.64	2.03	2.81	1.73	2.69	2.17	8.86	1.67	2.00	1.60	2.74	1.83
12	10.95	3.75	2.74	1.69	2.38	2.06	6.04	1.65	1.97	1.55	2.31	1.75
13	7.91	5.21	4.77	1.67	2.18	2.01	4.11	1.60	1.89	1.53	2.07	1.70
14	5.97	3.48	5.69	1.65	2.05	2.11	3.05	1.55	1.78	2.41	2.02	1.66
15	3.98	2.64	3.86	1.63	2.05	1.97	2.53	1.61	2.10	2.02	1.99	1.63
16	4.80	2.34	2.93	1.61	2.06	3.16	2.28	1.81	3.02	2.00	2.56	1.71
17	3.54	3.72	2.43	1.65	2.15	3.35	2.13	1.65	2.85	1.86	3.14	1.87
18	2.66	4.27	2.18	1.61	2.52	2.77	2.00	1.66	2.34	1.74	3.41	3.14
19	2.21	3.09	2.09	---	2.91	2.44	1.96	2.20	3.82	1.86	2.58	3.85
20	1.97	2.49	3.18	1.59	2.72	7.78	1.91	1.96	4.79	1.65	2.02	2.75
21	2.49	2.20	2.96	1.58	2.49	7.58	1.88	1.83	3.77	1.60	1.85	2.31
22	2.62	2.03	2.46	1.57	5.36	4.87	1.87	3.47	2.68	1.55	2.36	2.31
23	2.28	1.89	2.20	---	6.93	3.49	1.80	3.96	2.26	1.91	2.40	3.84
24	2.03	1.80	2.85	---	4.49	2.73	1.76	3.04	2.05	1.82	2.05	3.29
25	1.89	1.75	4.72	1.57	3.24	2.39	1.95	2.73	1.87	1.70	1.91	2.56
26	1.79	1.69	3.81	1.58	2.62	2.19	2.53	2.75	1.76	1.64	1.79	2.19
27	1.70	1.65	2.86	1.58	5.05	2.05	2.28	2.44	1.68	1.62	1.71	1.97
28	2.30	1.62	2.40	---	7.49	1.96	2.05	2.20	---	1.54	1.64	1.85
29	3.77	1.59	2.17	1.57	---	---	1.95	2.08	1.75	2.09	1.58	1.74
30	4.60	1.58	2.02	2.28	---	---	1.87	2.04	1.94	---	1.53	1.65
31	3.29	---	1.94	3.02	---	3.12	---	2.03	---	---	2.19	---
MEAN	3.09	2.47	2.96	---	3.17	---	3.09	2.05	---	---	2.48	2.25
MAX	10.95	5.21	5.69	---	7.49	---	10.36	3.96	---	---	5.74	3.85
MIN	1.30	1.58	1.53	---	2.05	---	1.76	1.55	---	---	1.53	1.63

02087322 CRABTREE CREEK AT OLD WAKE FOREST ROAD AT RALEIGH, NC—Continued



02087324 CRABTREE CREEK AT US HIGHWAY 1 AT RALEIGH, NC

LOCATION.--Lat 35°48'41", long 78°36'42", 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 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 182.27 ft above NGVD of 1929. Prior to Aug. 8, 1999, at site 40 ft upstream at datum 183.27 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Maximum gage height for period of record from high-water mark in gage well. Minimum discharge for period of record also occurred Oct. 8, 9, 1994. Minimum discharge for current water year also occurred Oct. 10.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973, reached a stage of about 17.98 ft, discharge, about 13,500 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	232	52	391	233	749	256	76	129	192	136	286
2	21	157	49	284	173	825	182	68	93	566	258	147
3	21	115	46	256	134	503	142	62	78	315	138	112
4	21	96	50	237	152	321	120	55	86	170	97	163
5	21	108	923	178	138	283	122	64	81	119	291	244
6	20	446	728	143	140	995	104	97	65	91	368	133
7	19	324	553	119	693	676	362	80	293	74	215	97
8	19	217	357	102	463	409	470	69	552	61	1,150	159
9	20	151	240	92	283	270	1,530	62	252	54	683	152
10	34	114	179	85	297	199	2,330	55	158	54	540	107
11	2,460	133	300	73	262	159	1,850	51	111	47	276	86
12	2,720	487	294	65	190	135	1,000	48	109	41	180	73
13	1,560	806	756	62	147	123	567	43	91	37	132	66
14	1,040	451	933	59	120	145	352	37	75	204	121	61
15	593	270	526	56	122	115	237	45	139	113	113	56
16	760	198	335	53	122	374	178	76	332	120	238	65
17	472	485	221	60	142	418	143	49	303	91	351	92
18	279	610	164	54	222	287	115	51	183	69	419	370
19	178	369	143	51	308	207	106	154	527	101	249	527
20	124	233	380	51	265	1,640	96	100	737	52	120	292
21	253	166	343	50	213	1,440	91	76	501	46	91	190
22	264	131	227	49	917	738	95	436	262	40	200	186
23	188	106	167	52	1,240	451	77	540	164	94	206	454
24	133	89	305	51	651	286	71	340	118	82	127	356
25	103	81	703	48	385	206	117	266	92	66	100	225
26	83	71	514	50	254	160	253	274	77	56	82	154
27	69	65	315	49	830	132	181	203	66	55	69	114
28	198	61	209	46	1,410	115	121	145	62	44	59	92
29	496	57	155	48	---	117	100	124	76	197	52	74
30	660	54	123	185	---	273	86	112	124	251	45	61
31	393	---	109	339	---	374	---	115	---	151	178	---
TOTAL	13,245	6,883	10,399	3,438	10,506	13,125	11,454	3,973	5,936	3,653	7,284	5,194
MEAN	427	229	335	111	375	423	382	128	198	118	235	173
MAX	2,720	806	933	391	1,410	1,640	2,330	540	737	566	1,150	527
MIN	19	54	46	46	120	115	71	37	62	37	45	56
CFSM	3.53	1.90	2.77	0.92	3.10	3.50	3.16	1.06	1.64	0.97	1.94	1.43
IN.	4.07	2.12	3.20	1.06	3.23	4.04	3.52	1.22	1.82	1.12	2.24	1.60

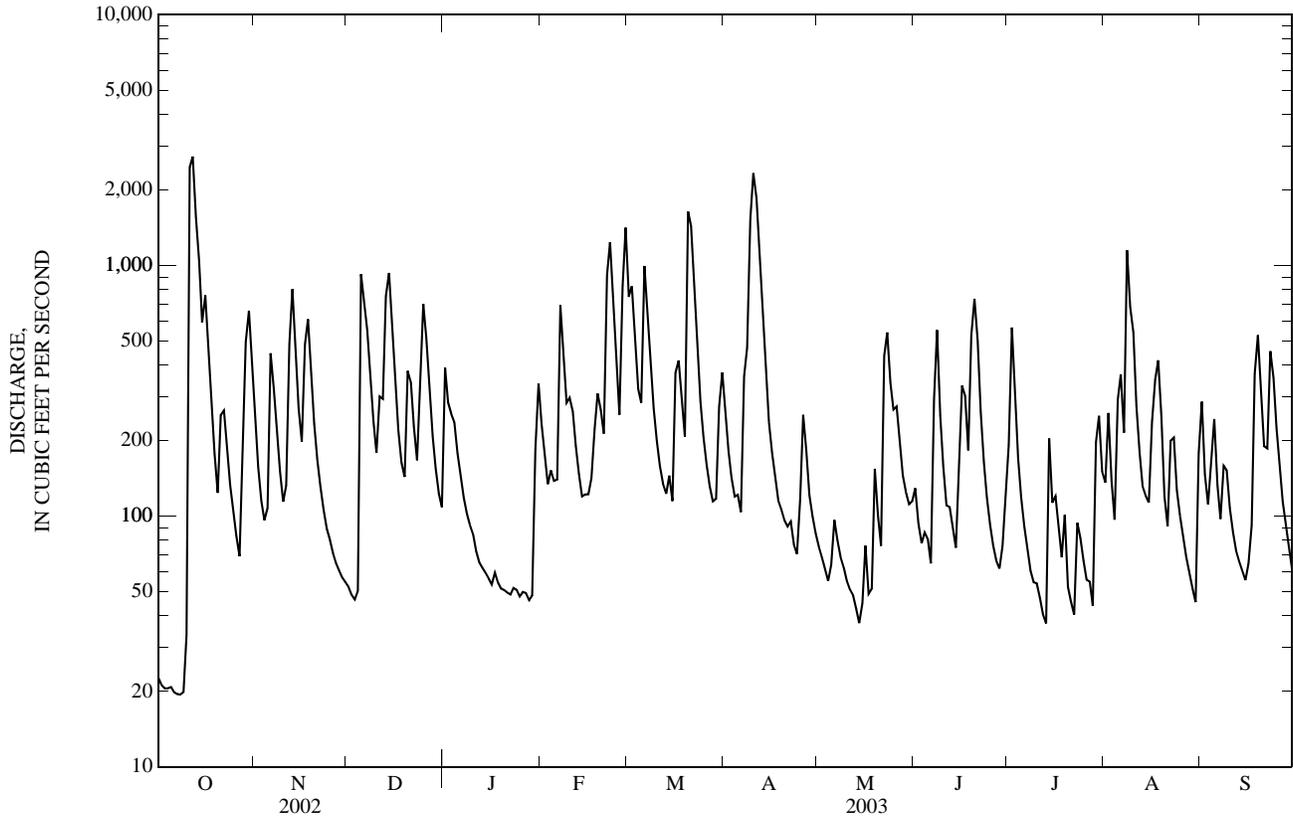
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2003, BY WATER YEAR (WY)

MEAN	140	104	115	236	205	246	159	77.1	114	92.9	94.6	217
MAX	427	255	335	495	483	494	382	128	257	198	235	1,162
(WY)	(2003)	(1993)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(1990)	(1997)	(2003)	(1999)
MIN	30.8	23.2	44.2	45.0	59.5	103	57.4	21.3	21.3	30.7	31.7	14.2
(WY)	(1992)	(1992)	(2002)	(2001)	(1991)	(2000)	(1995)	(2002)	(1999)	(1993)	(1993)	(1990)

02087324 CRABTREE CREEK AT US HIGHWAY 1 AT RALEIGH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1990 - 2003	
ANNUAL TOTAL	61,399		95,090		150	
ANNUAL MEAN	168		261		261	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					96.7	
HIGHEST DAILY MEAN	2,720	Oct 12	2,720	Oct 12	7,730	Sep 6, 1996
LOWEST DAILY MEAN	11	Jun 12	19	Oct 7	1.9	Oct 8, 1994
ANNUAL SEVEN-DAY MINIMUM	11	Jun 11	20	Oct 3	2.3	Oct 2, 1994
MAXIMUM PEAK FLOW			5,040	Oct 11	12,700	Sep 6, 1996
MAXIMUM PEAK STAGE			14.59	Oct 11	18.23*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			16*	Oct 7	1.9*	Oct 7, 1994
ANNUAL RUNOFF (CFSM)	1.39		2.15		1.24	
ANNUAL RUNOFF (INCHES)	18.88		29.23		16.89	
10 PERCENT EXCEEDS	475		558		329	
50 PERCENT EXCEEDS	56		143		70	
90 PERCENT EXCEEDS	15		51		20	

* See REMARKS.



0208732534 PIGEON HOUSE CREEK AT CAMERON VILLAGE AT RALEIGH, NC

LOCATION.--Lat 35°47'14.9", long 78°39'16.9", Wake County, Hydrologic Unit 03020201, on right bank, downstream of Cameron Village in Wells Park, on the upstream side of Forest Drive.

DRAINAGE AREA.--0.27 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1996 to current year. Fragmentary records, July 1987 to September 1996, are available in the U.S.G.S. District Office, Raleigh, NC.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 320 ft above NGVD of 1929 from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records poor. No flow occurred many days June to Oct. 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	0.02	0.05	2.0	0.25	1.1	0.05	0.06	0.09	0.25	1.3	0.06
2	0.01	0.02	0.24	0.11	0.20	0.55	0.05	0.06	0.05	5.2	0.68	0.04
3	0.01	0.02	0.33	0.65	0.18	0.06	0.05	0.06	0.12	0.26	0.16	0.04
4	0.01	0.06	1.2	0.10	0.86	0.29	0.05	0.06	0.13	0.18	0.07	0.69
5	0.01	1.0	3.8	0.09	0.06	0.45	0.50	0.27	0.05	0.13	1.4	0.05
6	0.00	1.8	0.36	0.09	1.2	4.4	0.05	0.52	0.05	0.04	0.10	0.04
7	0.00	0.02	0.17	0.08	1.7	0.13	1.8	0.06	4.7	0.05	0.05	0.04
8	0.00	0.02	0.16	0.09	0.09	0.07	0.95	0.07	0.26	0.04	11	1.3
9	0.00	0.02	0.23	0.09	0.08	0.06	2.2	0.08	0.06	0.04	0.36	0.05
10	0.36	0.02	0.14	0.10	0.94	0.05	6.4	0.07	0.04	0.04	5.2	0.04
11	16	0.40	1.7	0.09	0.09	0.06	0.41	0.06	0.10	0.18	0.21	0.04
12	0.03	3.0	0.03	0.09	0.07	0.06	0.15	0.05	0.58	0.04	0.07	0.04
13	0.02	0.82	5.6	0.09	0.07	0.36	0.11	0.05	0.05	0.06	0.06	0.05
14	0.02	0.03	0.45	0.07	0.12	0.08	0.10	0.05	0.04	0.80	0.28	0.09
15	0.43	0.02	0.23	0.05	0.30	0.04	0.13	0.45	2.2	0.04	0.05	0.04
16	0.65	0.52	0.16	0.12	0.26	1.3	0.09	0.08	1.1	0.47	0.30	0.04
17	0.01	0.94	0.13	0.14	0.29	0.06	0.09	0.05	0.17	0.06	0.05	0.03
18	0.01	0.09	0.12	0.06	1.4	0.04	0.10	0.61	0.67	2.0	0.76	3.6
19	0.03	0.02	0.47	0.06	0.26	0.06	0.10	1.2	0.65	0.20	0.05	0.31
20	0.01	0.02	1.7	0.21	0.20	6.4	0.09	0.06	1.4	0.09	0.04	0.04
21	3.0	0.02	0.13	0.12	0.28	0.24	0.18	0.05	0.06	0.04	0.04	0.04
22	0.65	0.02	0.14	0.08	4.4	0.10	0.75	3.6	0.05	0.04	1.3	1.0
23	0.02	0.02	0.14	0.13	0.25	0.07	0.09	0.90	0.05	0.05	0.05	0.81
24	0.02	0.02	2.4	0.06	0.05	0.06	0.08	0.08	0.05	0.11	0.04	0.05
25	0.01	0.02	1.3	0.13	0.04	0.06	1.4	0.59	0.05	0.04	0.04	0.05
26	0.02	0.02	0.25	0.15	0.35	0.08	0.74	0.12	0.06	0.03	0.04	0.05
27	0.01	0.02	0.23	0.10	3.9	0.05	0.13	0.09	0.05	0.03	0.04	0.07
28	2.3	0.02	0.26	0.07	0.33	0.05	0.07	0.06	0.05	0.03	0.04	0.04
29	0.75	0.02	0.24	0.18	---	0.17	0.07	0.60	0.05	17	0.04	0.04
30	0.65	0.02	0.32	1.9	---	1.2	0.06	0.07	1.1	0.63	0.04	0.04
31	0.02	---	0.40	0.32	---	0.06	---	0.72	---	0.05	2.6	---
TOTAL	25.07	9.06	23.08	7.62	18.22	17.75	17.04	10.85	14.08	28.22	26.46	8.82
MEAN	0.81	0.30	0.74	0.25	0.65	0.57	0.57	0.35	0.47	0.91	0.85	0.29
MAX	16	3.0	5.6	2.0	4.4	6.4	6.4	3.6	4.7	17	11	3.6
MIN	0.00	0.02	0.03	0.05	0.04	0.04	0.05	0.05	0.04	0.03	0.04	0.03
CFSM	3.00	1.12	2.76	0.91	2.41	2.12	2.10	1.30	1.74	3.37	3.16	1.09
IN.	3.45	1.25	3.18	1.05	2.51	2.45	2.35	1.49	1.94	3.89	3.65	1.22

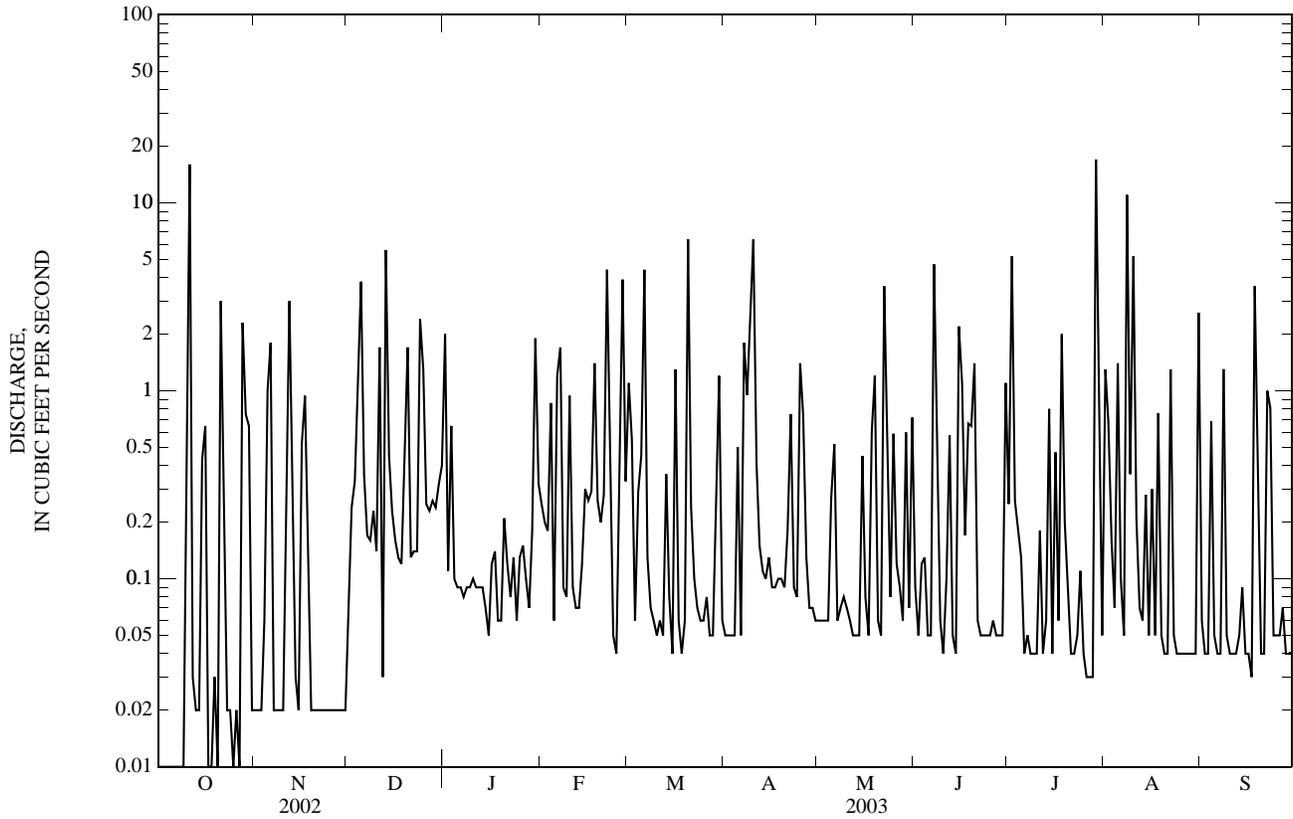
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	0.34	0.30	0.38	0.61	0.47	0.62	0.37	0.27	0.42	0.56	0.53	0.67
MAX	0.81	0.46	0.74	1.32	1.02	1.31	0.63	0.60	0.74	0.91	0.85	2.78
(WY)	(2003)	(1998)	(2003)	(1998)	(1998)	(1998)	(1997)	(1997)	(2001)	(2003)	(2003)	(1999)
MIN	0.034	0.043	0.12	0.055	0.11	0.33	0.048	0.050	0.18	0.21	0.17	0.082
(WY)	(2001)	(2002)	(2001)	(2001)	(2002)	(2002)	(2002)	(2002)	(1999)	(1999)	(2001)	(2002)

0208732534 PIGEON HOUSE CREEK AT CAMERON VILLAGE AT RALEIGH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	119.80		206.27		0.46	
ANNUAL MEAN	0.33		0.57		0.69 1998	
HIGHEST ANNUAL MEAN					0.20 2002	
LOWEST ANNUAL MEAN					0.00 Jun 24, 2002	
HIGHEST DAILY MEAN	16	Oct 11	17	Jul 29	17	Jul 29, 2003
LOWEST DAILY MEAN	0.00	Jun 24	0.00	Oct 6	0.00	Jun 24, 2002
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 5	0.00	Oct 3	0.00	Aug 5, 2002
MAXIMUM PEAK FLOW			604	Jul 29	622	Aug 21, 1999
MAXIMUM PEAK STAGE			8.11	Jul 29	8.23	Aug 21, 1999
INSTANTANEOUS LOW FLOW			0.00*	Oct 1	0.00*	Jun 24, 2002
ANNUAL RUNOFF (CFSM)	1.22		2.09		1.71	
ANNUAL RUNOFF (INCHES)	16.51		28.42		23.20	
10 PERCENT EXCEEDS	0.70		1.3		1.0	
50 PERCENT EXCEEDS	0.03		0.09		0.11	
90 PERCENT EXCEEDS	0.01		0.02		0.02	

* See REMARKS.



0208732534 PIGEON HOUSE CREEK AT CAMERON VILLAGE AT RALEIGH, NC—Continued

PRECIPITATION RECORDS

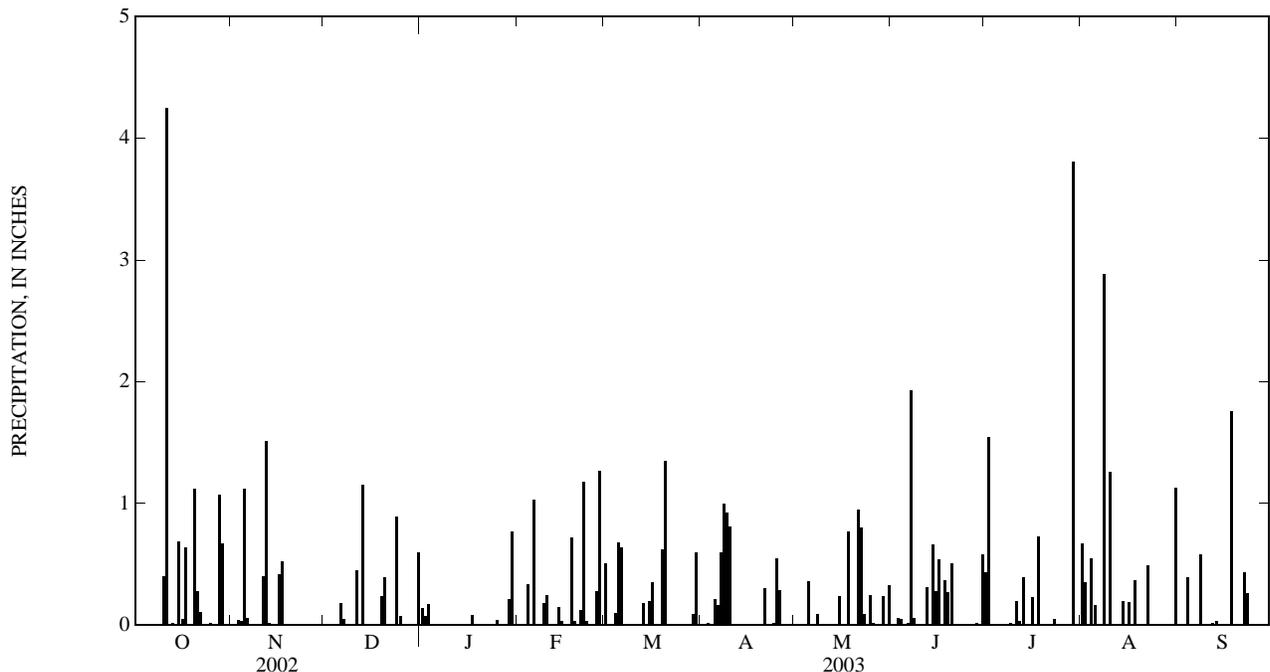
PERIOD OF RECORD.--July 1987 to current year. Records from July 1987 to January 2000 are unpublished and available in the USGS District Office in Raleigh, NC.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.14	0.00	0.51	0.00	0.00	0.00	0.43	0.67	0.00
2	0.00	0.00	0.00	0.07	0.00	0.01	0.00	0.00	0.00	1.54	0.35	0.00
3	0.00	0.04	0.00	0.17	0.00	0.00	0.02	0.00	0.06	0.00	0.00	0.00
4	0.00	0.03	0.00	0.00	0.34	0.10	0.00	0.00	0.05	0.00	0.55	0.39
5	0.00	1.12	0.00	0.00	0.00	0.68	0.21	0.36	0.00	0.00	0.16	0.00
6	0.00	0.06	0.18	0.00	1.03	0.64	0.16	0.00	0.02	0.00	0.00	0.00
7	0.00	0.00	0.05	0.00	0.00	0.00	0.60	0.00	1.93	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.09	0.06	0.00	2.88	0.58
9	0.00	0.00	0.00	0.00	0.18	0.00	0.92	0.00	0.00	0.02	0.01	0.00
10	0.40	0.00	0.00	0.00	0.25	0.00	0.81	0.00	0.00	0.00	1.26	0.00
11	4.25	0.40	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00
12	0.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.03	0.00	0.02
13	0.02	0.02	1.15	0.00	0.00	0.18	0.00	0.00	0.00	0.39	0.00	0.03
14	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.66	0.01	0.20	0.01
15	0.69	0.00	0.00	0.00	0.03	0.20	0.00	0.24	0.28	0.00	0.00	0.01
16	0.05	0.42	0.00	0.00	0.00	0.35	0.00	0.00	0.54	0.23	0.19	0.00
17	0.64	0.52	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.72	0.00	0.01	0.77	0.37	0.73	0.37	1.76
19	0.00	0.00	0.24	0.00	0.03	0.62	0.00	0.00	0.27	0.00	0.00	0.00
20	1.12	0.00	0.39	0.00	0.01	1.35	0.00	0.00	0.51	0.00	0.00	0.00
21	0.28	0.00	0.00	0.01	0.12	0.00	0.30	0.95	0.00	0.00	0.00	0.00
22	0.11	0.00	0.00	0.00	1.18	0.00	0.00	0.80	0.00	0.00	0.49	0.43
23	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.09	0.00	0.05	0.00	0.26
24	0.01	0.00	0.89	0.01	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00
25	0.02	0.00	0.07	0.04	0.00	0.00	0.55	0.25	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.28	0.00	0.29	0.02	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	1.27	0.00	0.01	0.00	0.00	0.00	0.00	0.01
28	1.07	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.00
29	0.67	0.00	0.00	0.21	---	0.09	0.00	0.24	0.00	3.81	0.00	0.00
30	0.01	0.00	0.00	0.77	---	0.60	0.00	0.00	0.58	0.01	0.00	0.00
31	0.00	---	0.60	0.00	---	0.00	---	0.33	---	0.00	1.13	---
TOTAL	9.34	4.12	4.02	1.50	5.63	5.33	4.90	4.15	5.66	7.45	8.26	3.50



0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC

LOCATION.--Lat 35°48'25", long 78°36'50", Wake County, Hydrologic Unit 03020201, at bridge on Crabtree Boulevard, and 2 mi northeast of Raleigh.

DRAINAGE AREA.--3.78 mi².

GAGE-HEIGHT RECORDS

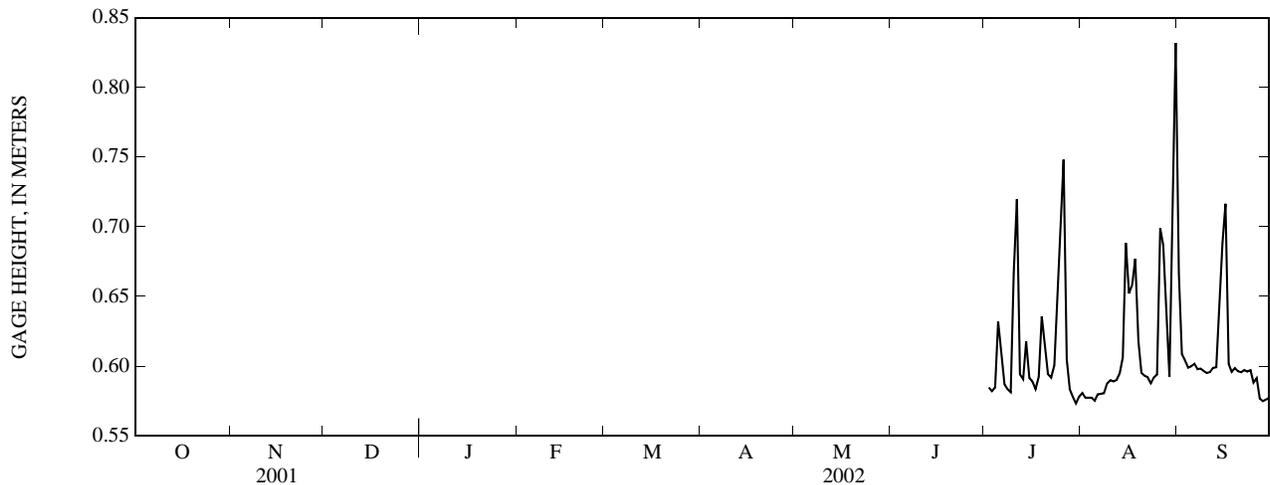
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 200 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 3.64 m, Oct. 11, 2002; minimum gage height recorded, 0.43 m, Nov. 13, 2003.

GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

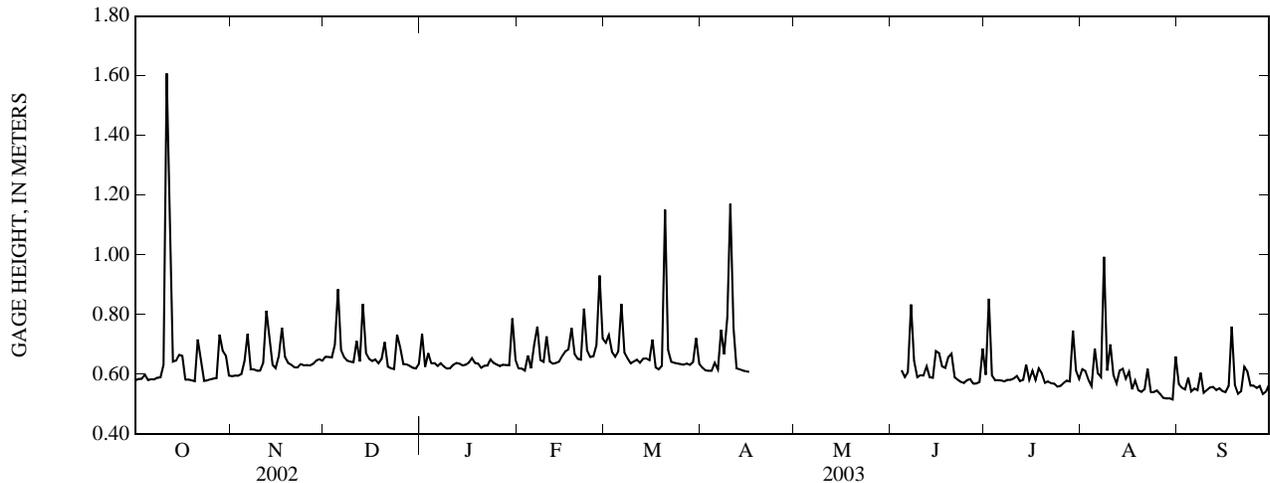
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.58	0.67
2	---	---	---	---	---	---	---	---	---	0.58	0.58	0.61
3	---	---	---	---	---	---	---	---	---	0.58	0.58	0.60
4	---	---	---	---	---	---	---	---	---	0.58	0.58	0.60
5	---	---	---	---	---	---	---	---	---	0.63	0.58	0.60
6	---	---	---	---	---	---	---	---	---	0.61	0.58	0.60
7	---	---	---	---	---	---	---	---	---	0.59	0.58	0.60
8	---	---	---	---	---	---	---	---	---	0.58	0.58	0.60
9	---	---	---	---	---	---	---	---	---	0.58	0.59	0.60
10	---	---	---	---	---	---	---	---	---	0.67	0.59	0.59
11	---	---	---	---	---	---	---	---	---	0.72	0.59	0.60
12	---	---	---	---	---	---	---	---	---	0.59	0.59	0.60
13	---	---	---	---	---	---	---	---	---	0.59	0.59	0.60
14	---	---	---	---	---	---	---	---	---	0.62	0.61	0.64
15	---	---	---	---	---	---	---	---	---	0.59	0.69	0.69
16	---	---	---	---	---	---	---	---	---	0.59	0.65	0.72
17	---	---	---	---	---	---	---	---	---	0.58	0.66	0.60
18	---	---	---	---	---	---	---	---	---	0.59	0.68	0.60
19	---	---	---	---	---	---	---	---	---	0.64	0.62	0.60
20	---	---	---	---	---	---	---	---	---	0.61	0.60	0.60
21	---	---	---	---	---	---	---	---	---	0.59	0.59	0.60
22	---	---	---	---	---	---	---	---	---	0.59	0.59	0.60
23	---	---	---	---	---	---	---	---	---	0.60	0.59	0.60
24	---	---	---	---	---	---	---	---	---	0.64	0.59	0.60
25	---	---	---	---	---	---	---	---	---	0.69	0.59	0.59
26	---	---	---	---	---	---	---	---	---	0.75	0.70	0.59
27	---	---	---	---	---	---	---	---	---	0.60	0.69	0.58
28	---	---	---	---	---	---	---	---	---	0.58	0.64	0.57
29	---	---	---	---	---	---	---	---	---	0.58	0.59	0.58
30	---	---	---	---	---	---	---	---	---	0.57	0.75	0.58
31	---	---	---	---	---	---	---	---	---	0.58	0.83	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.62	0.61
MAX	---	---	---	---	---	---	---	---	---	---	0.83	0.72
MIN	---	---	---	---	---	---	---	---	---	---	0.58	0.57



0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

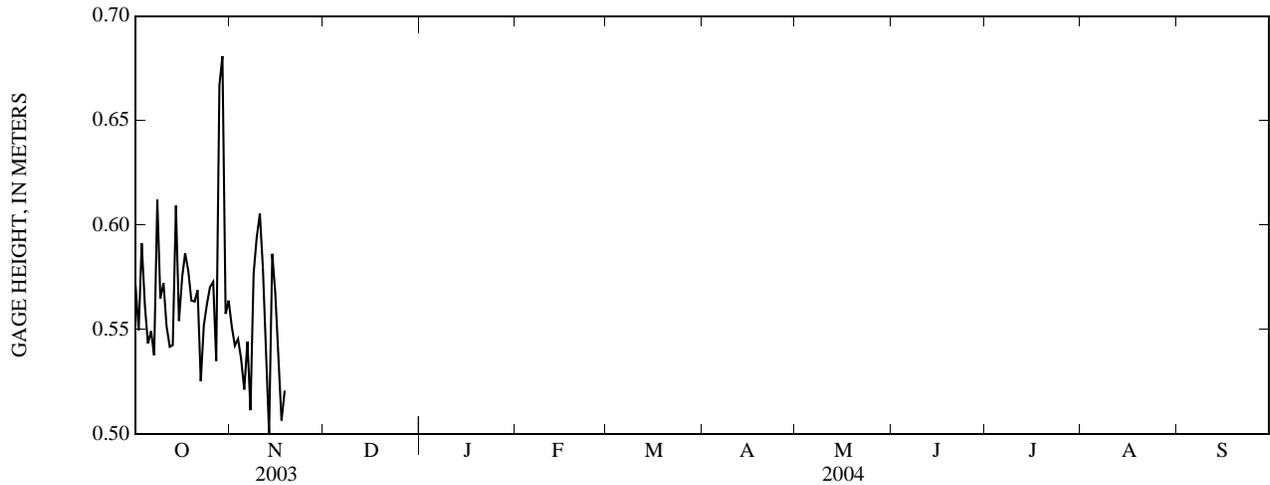
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.58	0.59	0.66	0.74	0.62	0.71	0.62	---	---	0.60	0.62	0.57
2	0.58	0.60	0.66	0.63	0.62	0.73	0.61	---	---	0.85	0.61	0.56
3	0.58	0.60	0.66	0.67	0.61	0.67	0.61	---	---	0.60	0.58	0.55
4	0.60	0.60	0.70	0.64	0.66	0.66	0.61	---	0.61	0.58	0.56	0.59
5	0.58	0.65	0.89	0.64	0.62	0.68	0.64	---	0.59	0.58	0.69	0.54
6	0.58	0.74	0.68	0.63	0.70	0.84	0.62	---	0.61	0.58	0.60	0.55
7	0.58	0.62	0.66	0.64	0.76	0.67	0.75	---	0.83	0.58	0.59	0.55
8	0.59	0.62	0.65	0.63	0.65	0.65	0.67	---	0.65	0.58	0.99	0.61
9	0.59	0.61	0.64	0.62	0.64	0.64	0.79	---	0.59	0.58	0.61	0.54
10	0.63	0.61	0.64	0.62	0.73	0.64	1.17	---	0.60	0.59	0.70	0.55
11	1.61	0.64	0.71	0.63	0.64	0.65	0.76	---	0.60	0.59	0.60	0.56
12	1.16	0.81	0.64	0.64	0.64	0.64	0.62	---	0.63	0.58	0.57	0.56
13	0.64	0.73	0.84	0.64	0.64	0.65	0.62	---	0.59	0.58	0.61	0.55
14	0.65	0.63	0.67	0.63	0.64	0.65	0.61	---	0.59	0.63	0.62	0.55
15	0.67	0.62	0.65	0.63	0.66	0.65	0.61	---	0.68	0.58	0.59	0.54
16	0.66	0.66	0.64	0.64	0.68	0.72	0.61	---	0.67	0.61	0.61	0.54
17	0.58	0.76	0.65	0.65	0.68	0.62	---	---	0.63	0.58	0.55	0.56
18	0.58	0.66	0.64	0.64	0.75	0.62	---	---	0.62	0.62	0.58	0.76
19	0.58	0.64	0.65	0.64	0.67	0.63	---	---	0.66	0.60	0.55	0.56
20	0.58	0.63	0.71	0.62	0.65	1.15	---	---	0.67	0.57	0.54	0.53
21	0.72	0.62	0.63	0.63	0.65	0.68	---	---	0.59	0.58	0.55	0.54
22	0.65	0.62	0.62	0.63	0.82	0.64	---	---	0.58	0.57	0.62	0.63
23	0.58	0.63	0.62	0.65	0.68	0.64	---	---	0.57	0.57	0.54	0.61
24	0.58	0.63	0.73	0.64	0.66	0.64	---	---	0.57	0.56	0.54	0.56
25	0.58	0.63	0.69	0.63	0.66	0.63	---	---	0.58	0.56	0.55	0.56
26	0.59	0.63	0.63	0.63	0.70	0.63	---	---	0.58	0.57	0.53	0.55
27	0.59	0.63	0.63	0.63	0.93	0.64	---	---	0.57	0.58	0.52	0.56
28	0.73	0.65	0.63	0.63	0.72	0.63	---	---	0.57	0.58	0.52	0.53
29	0.68	0.65	0.62	0.63	---	0.64	---	---	0.57	0.75	0.52	0.54
30	0.66	0.65	0.62	0.79	---	0.72	---	---	0.69	0.61	0.52	0.57
31	0.60	---	0.64	0.65	---	0.63	---	---	---	0.58	0.66	---
MEAN	0.66	0.65	0.67	0.64	0.68	0.68	---	---	---	0.60	0.59	0.57
MAX	1.61	0.81	0.89	0.79	0.93	1.15	---	---	---	0.85	0.99	0.76
MIN	0.58	0.59	0.62	0.62	0.61	0.62	---	---	---	0.56	0.52	0.53



0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.57	0.55	---	---	---	---	---	---	---	---	---	---
2	0.55	0.54	---	---	---	---	---	---	---	---	---	---
3	0.59	0.55	---	---	---	---	---	---	---	---	---	---
4	0.56	0.54	---	---	---	---	---	---	---	---	---	---
5	0.54	0.52	---	---	---	---	---	---	---	---	---	---
6	0.55	0.54	---	---	---	---	---	---	---	---	---	---
7	0.54	0.51	---	---	---	---	---	---	---	---	---	---
8	0.61	0.58	---	---	---	---	---	---	---	---	---	---
9	0.56	0.59	---	---	---	---	---	---	---	---	---	---
10	0.57	0.61	---	---	---	---	---	---	---	---	---	---
11	0.55	0.58	---	---	---	---	---	---	---	---	---	---
12	0.54	0.53	---	---	---	---	---	---	---	---	---	---
13	0.54	0.50	---	---	---	---	---	---	---	---	---	---
14	0.61	0.59	---	---	---	---	---	---	---	---	---	---
15	0.55	0.57	---	---	---	---	---	---	---	---	---	---
16	0.58	0.54	---	---	---	---	---	---	---	---	---	---
17	0.59	0.51	---	---	---	---	---	---	---	---	---	---
18	0.58	0.52	---	---	---	---	---	---	---	---	---	---
19	0.56	---	---	---	---	---	---	---	---	---	---	---
20	0.56	---	---	---	---	---	---	---	---	---	---	---
21	0.57	---	---	---	---	---	---	---	---	---	---	---
22	0.53	---	---	---	---	---	---	---	---	---	---	---
23	0.55	---	---	---	---	---	---	---	---	---	---	---
24	0.56	---	---	---	---	---	---	---	---	---	---	---
25	0.57	---	---	---	---	---	---	---	---	---	---	---
26	0.57	---	---	---	---	---	---	---	---	---	---	---
27	0.53	---	---	---	---	---	---	---	---	---	---	---
28	0.67	---	---	---	---	---	---	---	---	---	---	---
29	0.68	---	---	---	---	---	---	---	---	---	---	---
30	0.56	---	---	---	---	---	---	---	---	---	---	---
31	0.56	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.57	---	---	---	---	---	---	---	---	---	---	---
MAX	0.68	---	---	---	---	---	---	---	---	---	---	---
MIN	0.53	---	---	---	---	---	---	---	---	---	---	---



0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2002 to November 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 30.1°C, July 30, 2002; minimum recorded, 0.0°C, Jan. 24, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)
OCT 10...	1330	9	1.1	760	9.3	101	7.4	284	19.4	26.1	21.6	0.17	--
DEC 19...	1100	9	2.6	761	10.4	90	7.2	264	8.9	26.1	19.2	0.16	0.07
FEB 26...	1115	9	E2.9	762	11.2	94	7.2	305	7.6	36.0	23.1	0.43	0.06
APR 14...	1300	9	4.0	763	9.8	99	7.2	255	16.1	21.3	20.1	0.24	0.12
MAY 13...	1000	D	E2.2	--	7.2	--	7.3	247	17.6	--	--	--	--
JUN 13...	1200	9	--	--	7.1	--	7.4	86	25.2	--	--	--	--
30...	1100	9	--	--	--	--	--	--	--	--	--	--	--
30...	1345	9	E2.7	760	8.5	103	7.6	249	25.0	21.1	18.1	0.22	--
AUG 26...	1015	9	E2.9	756	7.4	88	7.1	229	23.6	20.4	18.1	0.18	--

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)
OCT 10...	<0.04	4.76	1.08	1.08	0.030	0.009	--	<0.02	<0.02	0.021	1.3	0.2	<0.1
DEC 19...	0.06	7.71	1.74	1.75	0.026	0.008	0.11	E.01	<0.02	0.033	1.9	0.2	<0.1
FEB 26...	0.05	--	--	1.82	--	<0.008	0.38	E.01	<0.02	0.027	2.2	<0.1	<0.1
APR 14...	0.09	6.48	1.46	1.48	0.036	0.011	0.15	E.01	0.04	0.033	1.7	0.3	<0.1
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.04	6.00	1.36	1.38	0.062	0.019	--	<0.02	0.05	0.031	1.6	0.3	<0.1
AUG 26...	E.02	--	--	1.63	--	E.006	--	E.02	0.03	0.031	1.8	0.2	<0.1

0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic carbon, suspended sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-' diethyl acetanilide wat flt ug/L (61618)
Date	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)
Date	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyber-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd 0.7u GF ug/L (82662)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)
OCT 10...	E.011	<0.004	<0.004	<0.006	<0.006	<0.004	<0.007	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005
DEC 19...	E.008	<0.004	E.002	<0.006	<0.006	<0.004	E.005	<0.02	<0.050	<0.010	E.004	<0.06	<0.005
FEB 26...	E.008	<0.004	<0.004	<0.006	<0.006	<0.004	E.005	<0.02	<0.050	<0.010	E.004	<0.06	<0.005
APR 14...	E.008	<0.004	<0.004	<0.006	<0.006	<0.004	E.006	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	E.014	<0.004	<0.004	<0.006	<0.006	<0.004	0.014	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005
AUG 26...	E.011	<0.004	<0.004	<0.006	<0.006	<0.004	0.012	<0.02	<0.050	<0.010	E.008	<0.06	E.004
OCT 10...	<0.006	<0.008	<0.009	<0.003	<0.004	--	<0.005	<0.08	<0.005	<0.006	<0.03	<0.004	<0.008
DEC 19...	<0.006	<0.008	<0.009	<0.003	<0.004	--	<0.005	<0.08	0.008	<0.006	<0.03	<0.004	<0.008
FEB 26...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	0.007	<0.006	<0.03	<0.004	<0.008
APR 14...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	<0.08	0.006	<0.006	<0.03	<0.004	<0.008
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	0.009	<0.006	<0.03	<0.004	<0.031
AUG 26...	<0.006	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	<0.08	0.005	<0.006	<0.03	<0.004	<0.008

0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)
OCT 10...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
DEC 19...	<0.03	<0.03	<0.009	<0.005	<0.005	E.005	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
FEB 26...	<0.03	<0.03	<0.009	<0.005	<0.005	E.010	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
APR 14...	<0.03	<0.03	<0.009	<0.005	<0.009	E.009	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.03	<0.03	<0.031	<0.005	<0.005	<0.007	<0.002	<0.003	0.102	<1	<0.003	<0.008	<0.027
AUG 26...	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.002	<0.003	0.132	<1	<0.003	<0.008	<0.027
Date	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)
OCT 10...	<0.005	<0.006	<0.03	<0.006	0.066	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.02
DEC 19...	<0.005	<0.006	<0.03	<0.006	0.054	<0.006	<0.008	<0.045	<0.10	<0.011	<0.06	<0.008	E.01
FEB 26...	<0.005	<0.006	<0.03	<0.006	0.089	<0.006	<0.008	<0.035	<0.10	<0.011	<0.06	<0.008	E.01
APR 14...	<0.005	<0.006	<0.03	<0.006	0.057	<0.006	<0.008	<0.041	<0.10	<0.011	<0.06	<0.008	E.01
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.005	<0.006	<0.03	<0.006	0.197	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.02
AUG 26...	<0.005	<0.006	<0.03	<0.006	0.051	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	0.02

0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd, 0.7u GF ug/L (82676)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Terbutylazine, water, fltrd, ug/L (04022)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlorvos, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Suspended sedi-ment concentration mg/L (80154)	Suspended sedi-ment load, tons/d (80155)
OCT 10...	<0.005	<0.004	<0.005	0.09	<0.07	<0.02	<0.01	<0.009	<0.01	50	4	0.01
DEC 19...	<0.005	<0.004	0.006	E.05	<0.07	<0.02	<0.01	<0.009	<0.01	83	2	0.01
FEB 26...	<0.005	<0.004	0.010	0.06	<0.07	<0.02	<0.01	<0.009	<0.01	64	4	--
APR 14...	<0.005	<0.004	0.013	0.07	<0.07	<0.02	<0.01	<0.009	<0.01	91	3	0.03
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
30...	<0.005	<0.004	<0.008	0.08	<0.07	<0.02	<0.01	<0.009	<0.01	94	5	--
AUG 26...	<0.005	<0.004	<0.005	E.10	<0.07	<0.02	<0.01	<0.009	<0.01	75	2	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

K -- Counts outside the acceptable range.

Medium codes used in this table:

9 - Surface water

D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	28.9	25.8	27.3	22.0	20.4	21.0			
2	---	---	---	28.3	24.6	26.3	28.5	25.2	26.7	22.1	20.1	20.9			
3	---	---	---	28.7	25.2	26.8	28.0	24.0	25.9	24.4	19.8	21.8			
4	---	---	---	29.3	25.5	27.2	28.2	24.4	26.2	26.1	21.9	23.7			
5	---	---	---	29.2	25.1	26.9	28.7	24.6	26.4	25.8	22.4	23.8			
6	---	---	---	28.2	24.9	26.3	26.9	25.0	26.0	24.3	20.8	22.4			
7	---	---	---	27.7	23.6	25.4	25.0	21.8	23.4	24.1	20.5	21.9			
8	---	---	---	26.8	23.4	25.0	24.5	20.5	22.3	23.2	20.5	21.7			
9	---	---	---	27.9	23.9	25.8	24.5	20.1	22.1	23.9	21.0	22.2			
10	---	---	---	28.7	25.2	26.6	24.9	20.2	22.3	24.7	21.2	22.7			
11	---	---	---	26.1	22.5	23.9	25.9	21.0	23.2	25.0	21.2	22.9			
12	---	---	---	23.6	21.4	22.4	26.5	22.1	24.1	23.1	19.7	21.2			
13	---	---	---	25.3	21.5	23.2	27.0	23.1	24.8	22.9	18.6	20.6			
14	---	---	---	25.7	23.7	24.5	26.0	23.0	24.4	22.8	20.6	21.6			
15	---	---	---	26.7	23.8	25.0	27.3	23.7	24.7	23.8	21.6	22.5			
16	---	---	---	28.8	24.5	26.2	25.8	23.5	24.4	24.0	21.9	22.9			
17	---	---	---	28.6	24.7	26.5	28.1	23.6	25.4	24.8	21.9	23.1			
18	---	---	---	28.6	25.2	26.8	27.8	24.2	25.5	23.3	22.1	22.7			
19	---	---	---	28.3	25.1	26.6	26.9	23.5	24.9	23.6	21.5	22.4			
20	---	---	---	27.8	25.1	26.2	27.6	23.8	25.4	23.8	21.1	22.3			
21	---	---	---	28.0	23.9	25.7	27.0	24.2	25.4	23.9	20.9	22.3			
22	---	---	---	28.6	24.7	26.4	27.5	24.0	25.5	25.1	21.1	22.6			
23	---	---	---	26.9	24.6	25.8	28.9	24.6	26.4	22.6	21.0	21.8			
24	---	---	---	28.2	24.8	26.2	28.5	25.3	26.4	22.4	19.7	20.9			
25	---	---	---	26.6	25.0	25.6	27.6	24.3	25.7	22.5	19.6	21.0			
26	---	---	---	27.0	23.6	25.1	25.7	23.0	23.9	22.3	21.0	21.6			
27	---	---	---	27.6	24.8	26.1	23.0	21.9	22.5	25.4	22.1	23.5			
28	---	---	---	28.4	25.0	26.6	22.5	21.5	22.0	24.7	23.1	23.9			
29	---	---	---	30.0	26.3	27.9	21.5	20.8	21.1	24.4	21.4	22.7			
30	---	---	---	30.1	26.7	28.2	21.0	19.6	20.5	23.3	20.6	21.8			
31	---	---	---	29.5	26.4	27.8	20.9	20.5	20.7	---	---	---			
MONTH	---	---	---	---	---	---	28.9	19.6	24.4	26.1	18.6	22.2			

0208732610 PIGEON HOUSE BRANCH AT CRABTREE BOULEVARD AT RALEIGH, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	24.3	21.2	22.5	12.8	10.4	11.7	9.6	6.7	7.7	15.3	11.9	14.0
2	25.4	21.6	23.2	12.1	10.0	10.8	8.2	5.5	6.9	13.4	11.5	12.1
3	25.8	22.7	24.0	11.9	10.0	10.8	9.3	6.9	8.0	11.9	9.9	11.3
4	25.9	23.0	24.3	13.3	11.0	12.1	6.9	3.6	5.4	9.9	7.2	8.2
5	26.7	23.6	24.8	13.7	11.9	12.6	5.6	2.3	4.0	8.4	5.7	7.0
6	24.8	21.6	23.1	15.1	12.7	13.8	8.3	5.6	6.6	8.7	6.8	7.7
7	24.9	22.2	23.3	13.3	11.1	12.0	7.2	4.5	5.8	6.8	4.1	5.2
8	23.1	19.3	20.5	13.7	10.1	11.7	8.0	5.0	6.5	8.4	5.4	6.7
9	21.0	18.7	19.6	15.2	11.1	13.0	7.8	6.7	7.3	11.3	7.9	9.3
10	21.9	19.1	20.2	17.6	13.9	15.7	7.2	6.2	6.7	10.8	8.5	10.1
11	22.1	21.1	21.7	19.2	17.4	18.4	7.2	5.2	6.7	8.5	6.0	6.9
12	22.4	21.8	22.0	18.4	14.7	17.5	10.2	7.0	8.4	6.0	3.8	4.9
13	22.1	21.1	21.5	14.7	12.9	13.9	9.1	7.0	8.2	6.6	3.8	5.1
14	21.7	19.4	20.5	13.9	11.2	12.5	10.3	8.5	9.3	7.4	4.5	5.9
15	19.4	17.3	18.1	14.4	11.3	12.9	9.4	7.3	8.3	6.8	4.2	5.4
16	18.1	17.3	17.9	15.7	14.0	14.8	10.9	7.6	9.1	5.2	3.4	4.3
17	18.1	17.6	17.8	15.2	12.2	14.0	9.5	7.4	8.2	6.0	3.8	4.8
18	17.9	17.1	17.4	12.4	10.2	11.3	9.0	7.1	8.0	4.0	1.7	2.8
19	17.3	16.6	16.9	12.3	9.2	10.7	10.9	8.7	9.5	4.4	1.6	2.7
20	17.8	17.0	17.2	13.2	10.0	11.6	15.0	10.9	13.3	7.5	2.9	4.7
21	18.6	16.6	17.6	13.2	11.5	12.4	11.3	8.7	9.6	6.0	4.6	5.3
22	16.6	14.6	15.8	13.0	10.2	12.1	10.7	7.4	9.0	5.9	3.0	4.3
23	17.1	14.9	16.0	10.9	8.6	9.6	10.2	8.2	9.2	4.9	0.8	3.1
24	16.3	15.9	16.2	12.1	8.6	10.1	9.2	8.3	8.7	2.3	0.0	0.8
25	16.2	15.8	16.0	12.8	9.5	11.0	8.6	6.2	7.9	4.6	0.8	2.3
26	17.1	15.4	16.2	12.1	9.7	10.9	7.4	5.3	6.2	5.8	2.8	4.0
27	16.9	15.8	16.3	11.0	9.1	10.4	7.2	4.9	6.0	4.7	2.4	3.4
28	17.9	16.4	17.0	9.1	7.3	8.0	7.2	4.6	5.9	4.8	1.3	2.8
29	16.7	13.5	14.7	8.5	5.9	7.1	9.0	5.5	7.1	7.8	4.3	5.9
30	14.0	12.2	13.0	11.0	8.1	9.3	9.6	6.3	8.0	8.2	4.0	6.4
31	13.2	11.9	12.6	---	---	---	12.0	8.0	9.6	6.0	4.3	5.2
MONTH	26.7	11.9	19.0	19.2	5.9	12.1	15.0	2.3	7.8	15.3	0.0	5.9
DAY	MAX	MIN	MEAN									
1	8.3	6.0	7.0	9.4	7.6	8.4	15.0	9.0	11.7	---	---	---
2	8.6	5.8	6.9	13.0	8.1	10.3	18.8	12.3	15.2	---	---	---
3	10.7	6.2	8.4	12.6	8.1	10.2	20.3	14.2	17.0	---	---	---
4	13.6	10.4	11.7	12.4	6.8	9.6	19.5	15.6	17.6	---	---	---
5	10.4	7.3	8.7	15.2	11.0	12.8	19.0	16.4	17.7	---	---	---
6	8.0	5.2	6.8	14.1	12.5	13.4	18.1	14.7	16.4	---	---	---
7	7.3	4.0	5.7	12.7	8.1	9.6	15.7	10.2	11.9	---	---	---
8	8.2	5.0	6.3	12.9	6.7	9.6	11.0	10.1	10.5	---	---	---
9	8.8	5.2	6.6	15.9	10.4	12.8	10.3	8.4	9.6	---	---	---
10	7.3	5.8	6.6	14.2	10.4	12.1	10.5	8.3	9.4	---	---	---
11	9.0	4.9	6.7	11.8	8.6	10.2	11.4	10.1	10.6	---	---	---
12	10.1	6.2	7.6	15.0	8.4	11.5	16.7	10.7	13.2	---	---	---
13	8.5	4.6	6.4	16.4	11.6	14.0	17.8	12.5	15.0	---	---	---
14	8.2	5.8	7.1	15.3	11.9	13.8	19.0	13.2	16.1	---	---	---
15	9.5	7.9	8.7	11.9	9.7	10.8	20.3	14.3	17.4	---	---	---
16	7.9	2.8	5.5	14.3	11.2	12.6	21.1	15.7	18.4	---	---	---
17	4.4	1.6	3.0	15.7	13.4	14.5	---	---	---	---	---	---
18	6.0	4.4	5.1	16.4	14.1	15.2	---	---	---	---	---	---
19	9.3	4.6	6.8	15.3	12.1	13.5	---	---	---	---	---	---
20	10.6	8.2	9.2	12.1	9.5	10.8	---	---	---	---	---	---
21	9.5	8.0	8.9	14.9	11.6	12.9	---	---	---	---	---	---
22	13.6	9.3	10.9	17.6	12.1	14.7	---	---	---	---	---	---
23	12.6	9.8	11.8	16.2	12.2	14.4	---	---	---	---	---	---
24	12.7	7.4	10.0	17.9	12.6	15.0	---	---	---	---	---	---
25	11.9	9.6	10.7	18.2	12.2	15.1	---	---	---	---	---	---
26	9.8	6.6	7.8	18.9	13.7	16.1	---	---	---	---	---	---
27	6.6	4.0	4.8	17.5	13.8	15.6	---	---	---	---	---	---
28	8.1	4.5	6.5	17.8	13.4	15.7	---	---	---	---	---	---
29	---	---	---	20.0	16.8	18.2	---	---	---	---	---	---
30	---	---	---	19.0	9.6	13.5	---	---	---	---	---	---
31	---	---	---	12.5	7.6	9.9	---	---	---	---	---	---
MONTH	13.6	1.6	7.6	20.0	6.7	12.8	---	---	---	---	---	---

0208732885 MARSH CREEK NEAR NEW HOPE, NC

LOCATION.--Lat 35°49'01", long 78°35'35", Wake County, Hydrologic Unit 03020201, at right upstream wingwall, on bridge at Stoneybrook Road, 0.2 mi downstream of U.S. Highway 401, and 2.9 mi southwest of New Hope.

DRAINAGE AREA.--6.84 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1984 to current year.

REVISED RECORDS.--WDR NC-95-1: 1995(M).

GAGE.--Water-stage recorder. Datum of gage is 196.63 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for period of record from rating curve extension above 1,300 ft³/s, on basis of indirect measurement of peak flow. No flow also occurred Aug. 5, 1999. Minimum discharge for current water year also occurred Oct. 3, 4, 5, 6.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	4.9	2.6	42	7.1	16	6.6	4.9	8.5	7.4	12	10
2	1.3	3.7	2.6	9.9	4.8	44	5.6	4.5	4.5	86	13	4.1
3	1.3	2.8	2.6	16	4.1	10	5.0	4.0	3.9	17	6.6	3.2
4	1.3	3.4	5.8	7.5	12	7.1	4.7	4.0	6.0	6.8	3.9	17
5	1.3	13	115	5.0	6.1	15	11	7.0	3.9	5.1	56	9.2
6	1.3	60	18	4.4	16	101	6.3	12	3.3	4.1	16	3.7
7	1.5	7.2	9.9	3.9	62	12	55	5.7	64	3.6	5.5	3.1
8	1.6	4.2	6.1	3.9	9.7	7.2	20	4.5	37	3.1	275	17
9	1.6	3.0	4.5	3.6	6.1	5.7	91	3.9	7.2	4.3	22	5.9
10	12	2.7	4.0	3.5	26	4.8	130	3.8	4.5	4.6	21	3.4
11	523	16	26	3.2	9.5	4.4	23	3.7	3.8	4.1	9.5	2.9
12	20	80	8.9	3.1	6.1	4.3	11	3.2	10	4.4	5.6	2.6
13	6.4	56	93	3.1	4.8	9.4	7.6	2.9	5.1	3.3	4.1	2.9
14	8.6	9.0	21	3.1	4.6	10	6.3	2.8	3.5	35	4.4	2.3
15	7.7	4.9	7.8	3.0	8.5	4.9	5.7	8.0	42	6.7	4.5	2.1
16	31	9.4	5.5	3.3	8.7	50	5.3	8.8	40	9.8	47	1.9
17	6.4	47	4.6	5.3	9.7	9.6	4.9	4.4	24	13	58	1.9
18	3.8	17	4.0	3.8	34	6.4	4.7	7.6	9.0	6.6	19	70
19	2.7	6.5	5.2	3.4	15	5.4	5.9	28	71	11	7.0	23
20	2.3	4.7	31	3.4	9.4	224	4.8	6.3	69	4.4	4.6	4.8
21	51	4.0	8.8	3.1	7.4	23	4.8	4.6	15	3.5	3.7	3.4
22	36	3.3	5.3	3.7	126	11	11	77	7.0	2.7	20	15
23	7.2	2.8	4.1	4.1	24	7.8	5.1	29	5.5	2.7	8.0	24
24	4.4	2.8	40	3.4	8.7	6.2	4.5	7.9	4.5	2.9	4.1	5.2
25	3.3	2.8	34	3.1	6.1	5.7	27	14	3.9	2.4	3.3	3.4
26	2.8	2.7	9.0	3.5	7.6	5.4	129	7.0	3.6	2.1	2.9	3.0
27	2.3	2.6	5.6	3.6	112	4.9	29	5.4	3.3	2.1	2.7	2.7
28	38	2.5	4.6	3.3	36	5.2	8.4	4.5	8.1	1.9	2.4	2.9
29	41	2.6	4.1	4.0	---	8.9	6.5	12	10	8.5	2.3	2.2
30	44	2.6	3.8	47	---	34	5.3	7.4	12	10	2.2	2.0
31	8.2	---	5.0	21	---	11	---	13	---	15	33	---
MEAN	28.2	12.8	16.2	7.55	21.1	21.8	21.5	10.1	16.4	9.49	21.9	8.49
MAX	523	80	115	47	126	224	130	77	71	86	275	70
MIN	1.3	2.5	2.6	3.0	4.1	4.3	4.5	2.8	3.3	1.9	2.2	1.9
IN.	4.76	2.09	2.73	1.27	3.22	3.67	3.51	1.70	2.68	1.60	3.69	1.39

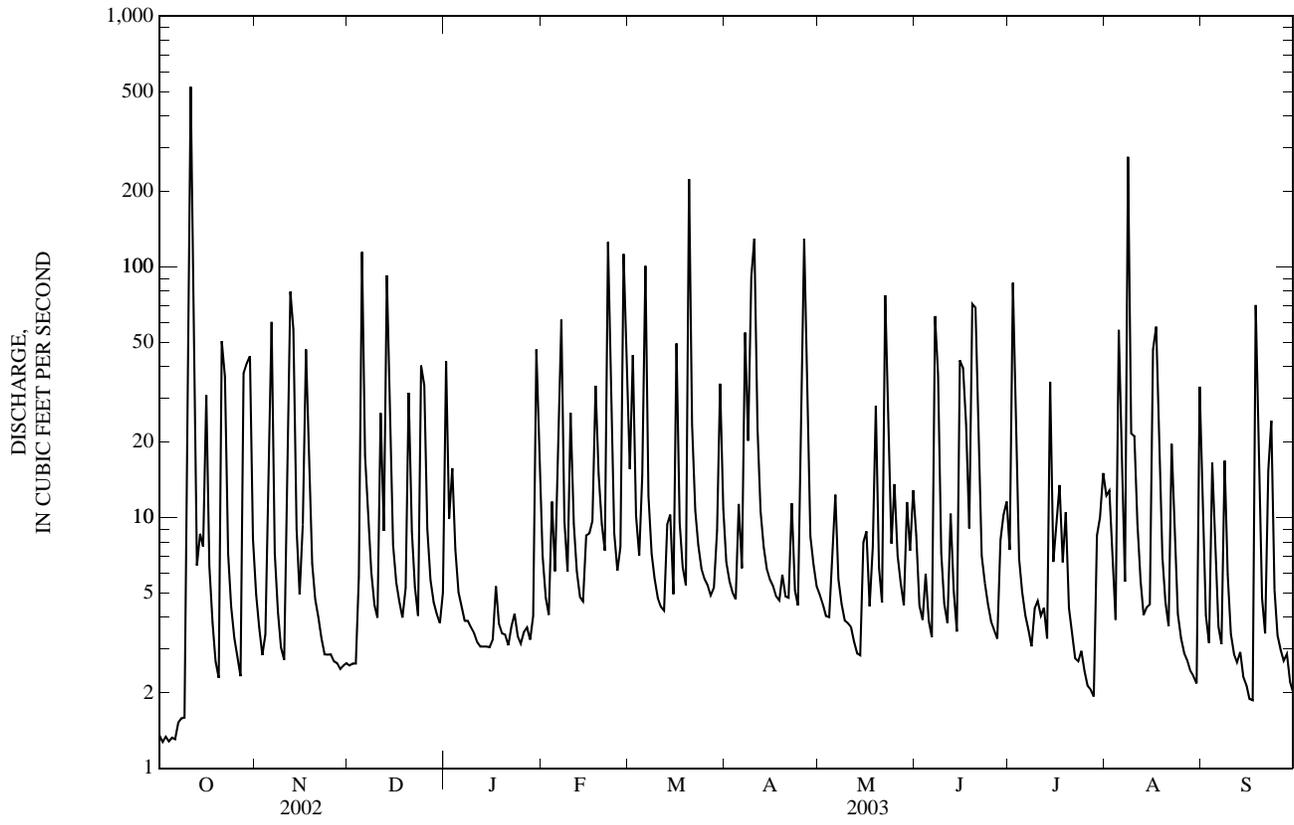
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2003, BY WATER YEAR (WY)

MEAN	8.03	7.63	7.16	12.3	11.5	14.4	9.94	8.17	8.68	9.07	10.5	12.3
MAX	28.2	15.7	16.2	30.3	22.0	31.9	21.5	25.9	20.3	25.0	38.0	67.4
(WY)	(2003)	(1996)	(2003)	(1998)	(1998)	(1998)	(2003)	(1984)	(1989)	(1997)	(1986)	(1999)
MIN	1.39	1.72	2.02	3.62	2.77	4.54	2.08	2.05	1.29	2.44	2.07	1.86
(WY)	(2001)	(1992)	(1995)	(2001)	(1991)	(1986)	(1986)	(2002)	(1993)	(1987)	(1993)	(1990)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1984 - 2003
ANNUAL MEAN	12.3	16.3	10.0
HIGHEST ANNUAL MEAN			16.3
LOWEST ANNUAL MEAN			5.87
HIGHEST DAILY MEAN	523	Oct 11	890
LOWEST DAILY MEAN	0.41	Jul 9	0.00
ANNUAL SEVEN-DAY MINIMUM	0.49	Jun 12	0.05
MAXIMUM PEAK FLOW			3,900*
MAXIMUM PEAK STAGE			11.83
INSTANTANEOUS LOW FLOW			1.1*
ANNUAL RUNOFF (INCHES)	24.44		32.30
10 PERCENT EXCEEDS	27		39
50 PERCENT EXCEEDS	2.9		5.7
90 PERCENT EXCEEDS	0.66		2.7

* See REMARKS.



0208732885 MARSH CREEK NEAR NEW HOPE, NC—Continued

PRECIPITATION RECORDS

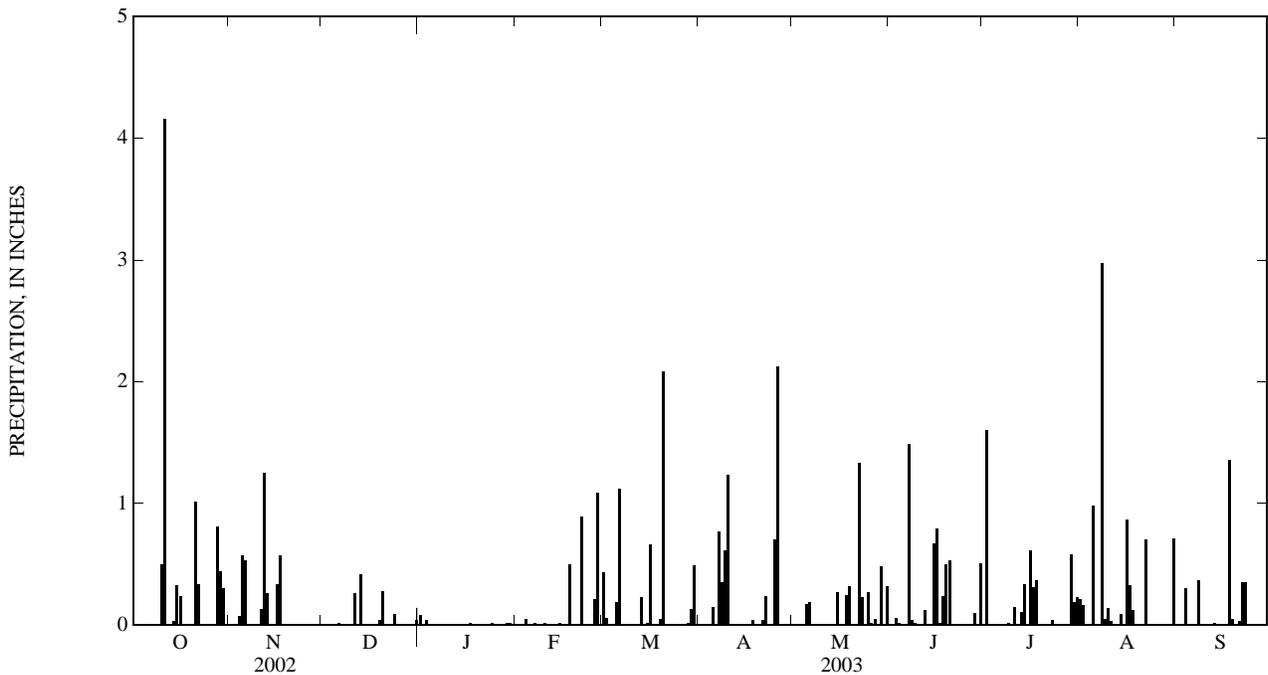
PERIOD OF RECORD.--September 1985 to current year. Records from September 1985 to September 1999 are unpublished and available in the USGS District Office in Raleigh, NC.

GAGE.--Tipping-bucket raingage and data collection platform.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.08	0.00	0.43	0.00	0.00	0.01	0.01	0.21	0.00
2	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	1.60	0.16	0.00
3	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.06	0.00	0.01	0.00
4	0.00	0.07	0.00	0.00	0.05	0.00	0.00	0.00	0.02	0.00	0.00	0.30
5	0.00	0.57	0.00	0.00	0.01	0.19	0.15	0.17	0.00	0.00	0.98	0.01
6	0.00	0.53	0.02	0.00	0.01	1.12	0.00	0.19	0.00	0.00	0.01	0.00
7	0.00	0.00	0.00	0.00	0.02	0.00	0.77	0.00	1.49	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.04	0.00	2.97	0.37
9	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.02	0.02	0.05	0.00
10	0.50	0.00	0.00	0.00	0.02	0.00	1.23	0.00	0.00	0.01	0.14	0.00
11	4.16	0.13	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.03	0.00
12	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.01	0.00
13	0.00	0.26	0.42	0.00	0.00	0.23	0.00	0.00	0.00	0.11	0.00	0.02
14	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.09	0.00
15	0.33	0.00	0.00	0.00	0.02	0.02	0.00	0.27	0.67	0.00	0.00	0.00
16	0.24	0.34	0.00	0.00	0.00	0.66	0.00	0.00	0.79	0.61	0.87	0.00
17	0.00	0.57	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.31	0.33	0.00
18	0.00	0.00	0.00	0.00	0.50	0.00	0.04	0.25	0.24	0.37	0.12	1.36
19	0.00	0.00	0.04	0.00	0.00	0.05	0.01	0.32	0.50	0.01	0.00	0.05
20	0.00	0.00	0.28	0.00	---	2.08	0.00	0.00	0.53	0.00	0.00	0.00
21	1.01	0.00	0.00	0.00	---	0.01	0.04	0.01	0.00	0.00	0.00	0.03
22	0.34	0.00	0.00	0.00	0.89	0.00	0.24	1.33	0.00	0.00	0.70	0.35
23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.23	0.00	0.04	0.00	0.35
24	0.00	0.00	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.27	0.00	0.00	0.00	0.00
26	0.01	0.00	0.00	0.00	0.21	0.00	2.12	0.02	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.05	0.00	0.00	0.00	0.01
28	0.81	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.10	0.01	0.00	0.00
29	0.44	0.00	0.00	0.02	---	0.13	0.00	0.48	0.01	0.58	0.00	0.00
30	0.30	0.00	0.00	0.02	---	0.49	0.00	0.00	0.51	0.19	0.00	0.00
31	0.00	---	0.04	0.00	---	0.00	---	0.32	---	0.23	0.71	---
TOTAL	8.17	3.72	1.15	0.20	---	5.49	6.26	3.91	5.13	4.59	7.39	2.85



0208735012 ROCKY BRANCH BELOW PULLEN DRIVE AT RALEIGH, NC

LOCATION.--Lat 35°46'49", long 78°39'58", Wake County, Hydrologic Unit 03020201, on right bank, 0.1 mi below Pullen Drive at Pullen Park and 1.5 mi north of Raleigh.

DRAINAGE AREA.--1.17 mi².

PERIOD OF RECORD.--October 1996 to current year. Fragmentary records, June 1992 to September 1996, are unpublished and available in the files of the USGS District Office, Raleigh, NC.

GAGE.--Water-stage recorder. Elevation of gage is 315 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. No flow also occurred May 6, July 3, 1999, due to diversion by City of Raleigh.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	0.95	0.64	15	0.24	4.9	0.21	0.35	0.34	2.0	9.4	2.1
2	0.21	0.96	0.76	1.2	0.22	5.1	0.21	0.22	0.21	28	5.4	1.8
3	0.20	1.1	0.75	3.1	0.21	0.52	0.21	0.21	0.44	3.1	2.3	1.6
4	0.23	1.3	2.7	0.23	3.1	0.33	0.21	0.21	0.41	1.7	1.7	6.1
5	0.21	5.5	20	0.21	0.21	2.3	1.7	0.95	0.21	1.6	9.5	2.5
6	0.20	13	3.1	0.20	5.2	27	0.21	2.0	0.20	1.6	2.7	1.9
7	0.20	1.6	1.1	0.20	9.8	0.67	9.0	0.21	21	1.5	2.2	1.8
8	0.20	0.98	0.77	0.20	0.31	0.28	5.1	0.22	4.0	1.1	101	7.9
9	0.20	0.91	0.73	0.20	0.22	0.24	14	0.21	2.0	1.2	6.8	2.2
10	1.7	1.2	1.3	0.21	5.2	0.22	36	0.21	1.5	1.2	48	2.0
11	90	3.3	4.5	0.20	0.54	0.21	3.0	0.21	1.0	1.8	4.6	1.8
12	1.7	19	1.0	0.20	0.49	0.22	0.87	0.21	2.9	1.1	2.8	1.9
13	0.21	7.5	20	0.20	0.45	1.3	0.40	0.20	0.62	1.2	2.4	2.0
14	0.20	1.6	2.8	0.20	0.63	0.41	0.30	0.20	0.83	6.6	3.8	2.3
15	2.4	0.93	1.3	0.20	1.5	0.21	0.23	1.3	11	1.4	2.5	1.9
16	3.8	3.9	1.3	0.33	e1.2	7.4	0.35	0.29	8.4	2.2	4.3	1.9
17	0.20	8.4	1.2	0.45	e1.5	0.27	0.24	0.20	2.6	1.5	2.3	1.8
18	0.20	2.1	1.0	0.20	e8.0	0.22	0.23	1.7	4.3	8.0	3.1	23
19	0.20	0.87	2.4	0.20	1.9	0.22	0.23	5.1	4.9	3.3	2.5	5.6
20	0.20	0.74	8.3	0.20	0.73	34	0.23	0.21	10	1.1	2.1	2.2
21	16	0.59	1.1	0.21	0.88	1.4	0.43	0.21	1.9	1.0	2.0	2.1
22	4.9	0.50	0.78	0.21	30	0.35	2.4	16	1.4	0.97	3.6	4.9
23	0.80	0.49	0.78	0.35	2.1	0.22	0.22	4.7	1.3	1.7	2.1	7.5
24	0.69	0.49	10	0.23	0.54	0.22	0.21	0.30	1.1	1.5	1.8	2.1
25	0.48	0.49	6.6	0.28	0.31	0.22	5.5	2.4	1.0	0.80	1.9	2.0
26	0.45	0.49	1.6	0.25	1.6	0.21	2.8	0.31	1.1	0.88	1.8	1.9
27	0.34	0.49	1.2	0.21	24	0.21	0.41	0.23	1.8	0.85	1.7	2.0
28	12	0.49	0.96	0.21	2.8	0.21	0.22	0.22	2.3	0.85	1.9	1.7
29	6.9	0.50	0.96	0.71	---	0.70	0.21	2.0	1.2	92	1.7	1.7
30	6.9	0.52	0.91	8.8	---	6.5	0.21	0.23	5.9	8.3	1.4	e2.5
31	1.3	---	1.6	0.94	---	0.30	---	3.1	---	2.4	12	---
TOTAL	153.43	80.89	102.14	35.53	103.88	96.56	85.54	44.11	95.86	182.45	251.3	102.7
MEAN	4.95	2.70	3.29	1.15	3.71	3.11	2.85	1.42	3.20	5.89	8.11	3.42
MAX	90	19	20	15	30	34	36	16	21	92	101	23
MIN	0.20	0.49	0.64	0.20	0.21	0.21	0.21	0.20	0.20	0.80	1.4	1.6
CFSM	4.23	2.30	2.82	0.98	3.17	2.66	2.44	1.22	2.73	5.03	6.93	2.93
IN.	4.88	2.57	3.25	1.13	3.30	3.07	2.72	1.40	3.05	5.80	7.99	3.27

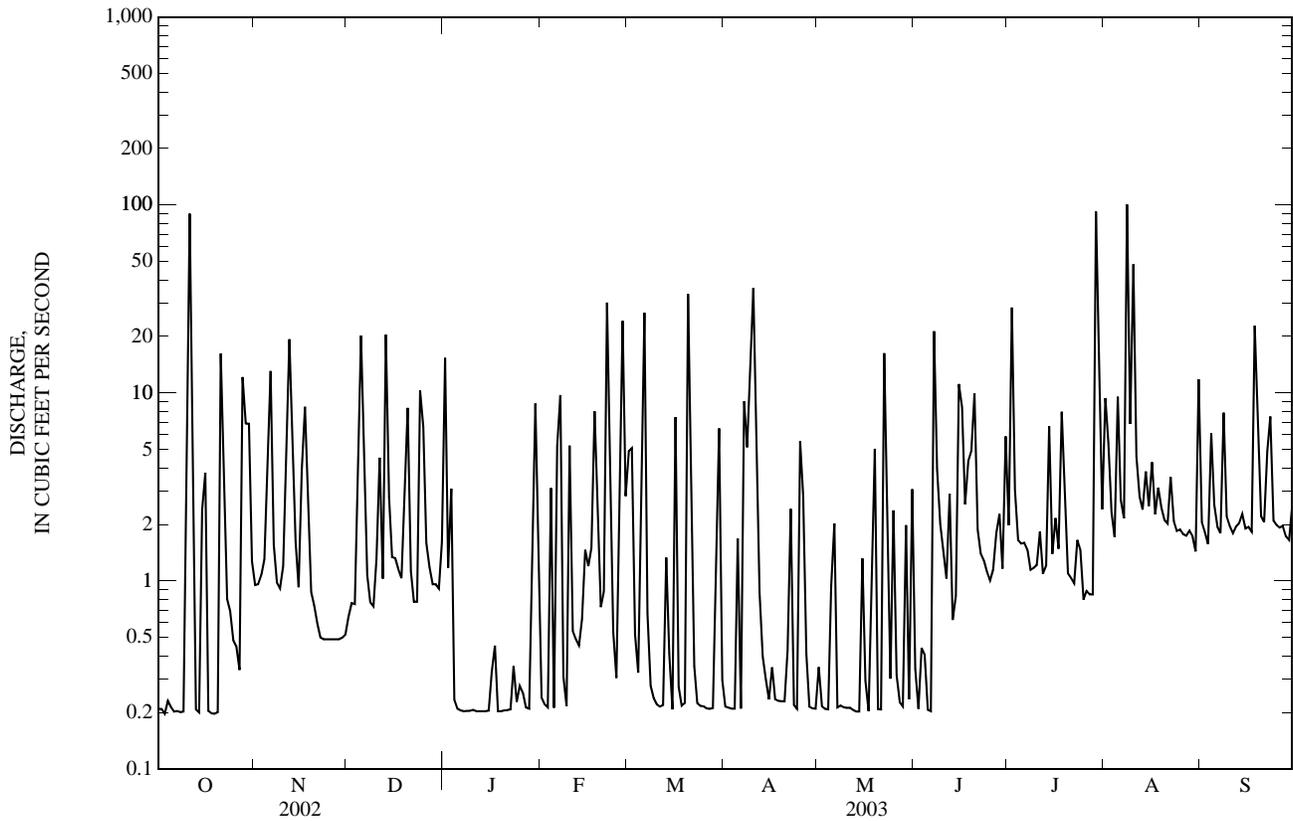
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	2.16	1.51	1.71	2.97	2.44	3.07	1.90	1.10	2.25	3.01	3.18	4.40
MAX	4.95	2.70	3.29	6.08	5.45	6.58	2.85	1.71	5.96	5.89	8.11	17.8
(WY)	(2003)	(2003)	(2003)	(1998)	(1998)	(1998)	(2003)	(1997)	(2001)	(2003)	(2003)	(1999)
MIN	0.64	0.49	0.98	0.77	1.17	1.52	0.66	0.49	0.71	1.16	0.71	0.82
(WY)	(2001)	(2002)	(2001)	(2001)	(1999)	(2000)	(2002)	(2000)	(1999)	(1999)	(1997)	(2002)

0208735012 ROCKY BRANCH BELOW PULLEN DRIVE AT RALEIGH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL TOTAL	796.75		1,334.39		2.48	
ANNUAL MEAN	2.18		3.66		3.66	
HIGHEST ANNUAL MEAN					1.52	2003
LOWEST ANNUAL MEAN					1.52	2002
HIGHEST DAILY MEAN	90	Oct 11	101	Aug 8	119	Jul 24, 1997
LOWEST DAILY MEAN	0.02	May 29	0.20	Oct 3	0.00	Oct 6, 1998
ANNUAL SEVEN-DAY MINIMUM	0.14	Aug 4	0.20	Jan 6	0.01	Apr 30, 2000
MAXIMUM PEAK FLOW			2,580	Jul 29	2,590	Jul 24, 1997
MAXIMUM PEAK STAGE			9.22	Jul 29	9.23	Jul 24, 1997
INSTANTANEOUS LOW FLOW			0.06	Jun 11	0.00*	Oct 6, 1998
ANNUAL RUNOFF (CFSM)	1.87		3.12		2.12	
ANNUAL RUNOFF (INCHES)	25.33		42.43		28.75	
10 PERCENT EXCEEDS	4.6		7.9		4.8	
50 PERCENT EXCEEDS	0.60		1.2		0.64	
90 PERCENT EXCEEDS	0.20		0.21		0.23	

e Estimated.
 * See REMARKS.



02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, NC

LOCATION.--Lat 35°45'31", long 78°34'57", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 2544, 0.9 mi upstream from Big Branch, and 3.5 mi southeast of Raleigh.

DRAINAGE AREA.--29.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 190.8 ft above NGVD of 1929. Satellite and telephone telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Maximum discharge for period of record from computation of peak flow through culvert; maximum gage height, 17.03 ft, from high-water mark in gage shelter. Minimum discharge for period of record also occurred Aug. 5, 6, 7, 8, 1999, Oct. 6, 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	30	12	140	36	94	34	18	43	75	39	146
2	2.9	21	11	73	24	233	26	16	23	246	111	38
3	2.7	16	11	57	19	81	24	15	18	371	59	24
4	5.8	17	12	38	36	48	22	14	19	59	28	23
5	4.9	26	284	27	27	70	32	17	17	31	148	41
6	2.3	187	130	22	32	389	27	36	15	23	49	26
7	2.2	56	54	20	220	170	128	24	59	19	29	18
8	2.6	29	e36	18	70	56	94	19	382	16	352	44
9	3.2	21	e23	16	35	39	345	16	97	14	879	38
10	8.1	17	e19	16	84	33	608	14	36	13	194	23
11	582	21	61	16	50	28	511	13	24	14	249	17
12	708	166	42	14	32	25	106	12	29	24	55	14
13	65	242	165	13	24	28	54	10	30	14	36	13
14	26	66	221	13	21	39	35	8.6	20	33	50	14
15	20	35	54	13	28	26	30	8.3	62	31	36	14
16	76	e28	32	13	28	125	26	19	191	20	39	13
17	38	e56	23	18	40	73	24	13	94	29	29	11
18	22	e69	20	14	85	42	21	19	41	15	47	98
19	15	42	21	13	76	31	21	91	73	41	54	175
20	12	30	86	13	52	476	20	34	91	19	34	44
21	202	25	59	13	36	372	21	21	54	13	25	26
22	102	22	32	12	127	76	31	180	30	11	30	45
23	46	19	23	14	291	45	21	150	22	8.9	24	115
24	27	16	91	14	64	34	18	59	18	9.4	18	42
25	19	16	117	13	31	29	42	51	15	7.8	16	26
26	17	14	58	13	24	26	82	39	14	6.8	16	20
27	14	13	33	13	175	24	57	29	12	6.4	14	16
28	100	12	25	12	361	22	32	22	12	6.1	12	15
29	132	11	21	12	---	e28	24	23	15	69	12	13
30	146	11	19	70	---	e54	20	34	30	382	10	11
31	53	---	18	94	---	e65	---	37	---	55	160	---
TOTAL	2,459.8	1,334	1,813	847	2,128	2,881	2,536	1,061.9	1,586	1,682.4	2,854	1,163
MEAN	79.3	44.5	58.5	27.3	76.0	92.9	84.5	34.3	52.9	54.3	92.1	38.8
MAX	708	242	284	140	361	476	608	180	382	382	879	175
MIN	2.2	11	11	12	19	22	18	8.3	12	6.1	10	11

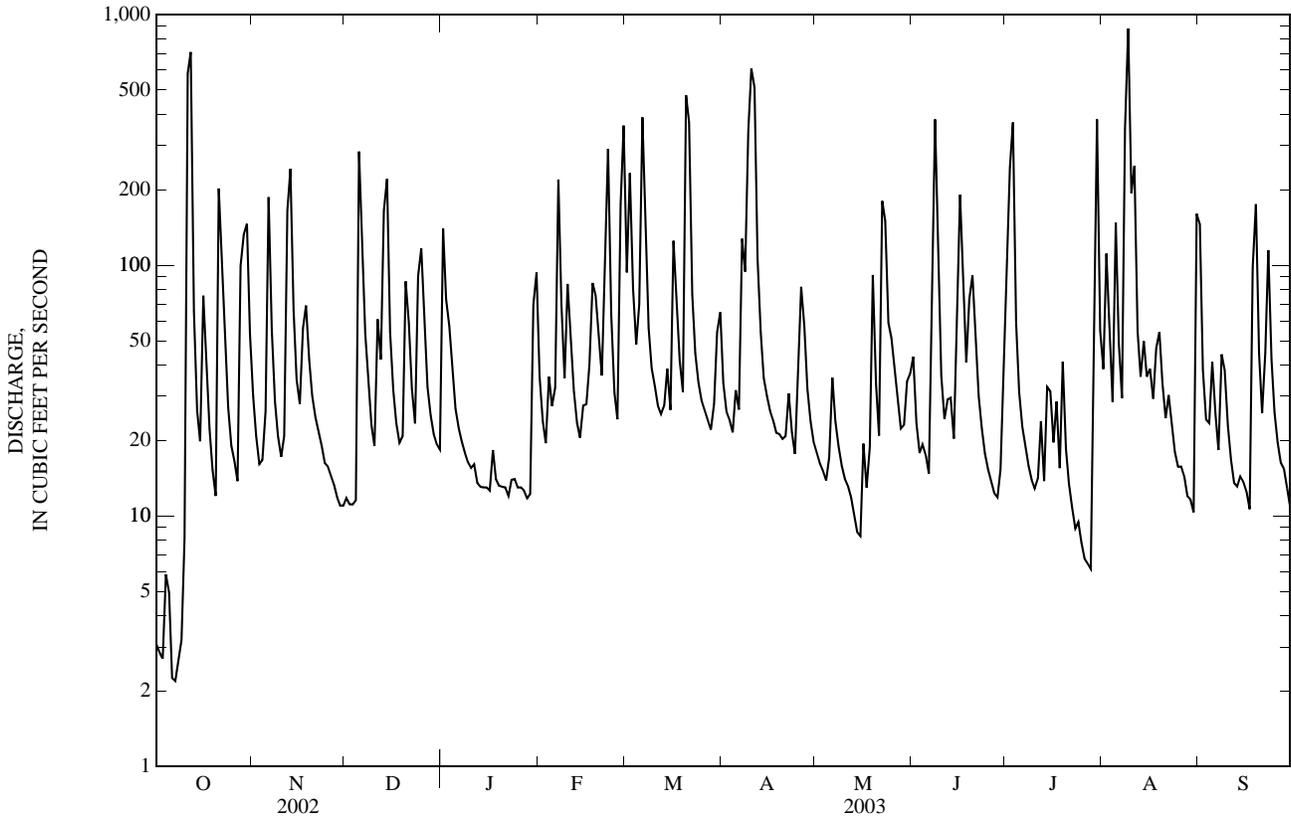
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	32.4	22.4	29.9	53.4	46.6	59.9	44.4	18.8	33.8	34.4	32.8	80.1
MAX	79.3	44.5	58.5	106	98.0	123	84.5	34.3	81.9	54.3	92.1	263
(WY)	(2003)	(2003)	(2003)	(1998)	(1998)	(1998)	(2003)	(2003)	(2001)	(2003)	(2003)	(1999)
MIN	9.04	5.69	15.2	13.9	21.9	26.0	20.9	3.03	11.9	11.3	8.00	10.6
(WY)	(2001)	(2002)	(2001)	(2001)	(1999)	(2002)	(1999)	(2002)	(2002)	(1999)	(1997)	(2001)

02087359 WALNUT CREEK AT SUNNYBROOK DRIVE AT RALEIGH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL TOTAL	12,984.65		22,346.1		39.4	
ANNUAL MEAN	35.6		61.2		61.2	
HIGHEST ANNUAL MEAN					23.4	2003
LOWEST ANNUAL MEAN					23.4	2002
HIGHEST DAILY MEAN	708	Oct 12	879	Aug 9	3,600	Sep 6, 1996
LOWEST DAILY MEAN	0.50	Aug 8	2.2	Oct 7	0.50	Aug 8, 2002
ANNUAL SEVEN-DAY MINIMUM	0.50	Aug 8	3.3	Oct 2	0.50	Aug 8, 2002
MAXIMUM PEAK FLOW			1,750	Oct 11	6,760*	Sep 6, 1996
MAXIMUM PEAK STAGE			10.97	Oct 11	17.03*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			2.0	Oct 6	2.0*	Aug 4, 1999
10 PERCENT EXCEEDS	84		146		71	
50 PERCENT EXCEEDS	14		28		16	
90 PERCENT EXCEEDS	1.8		12		6.1	

e Estimated.
 * See REMARKS.



PRECIPITATION RECORDS

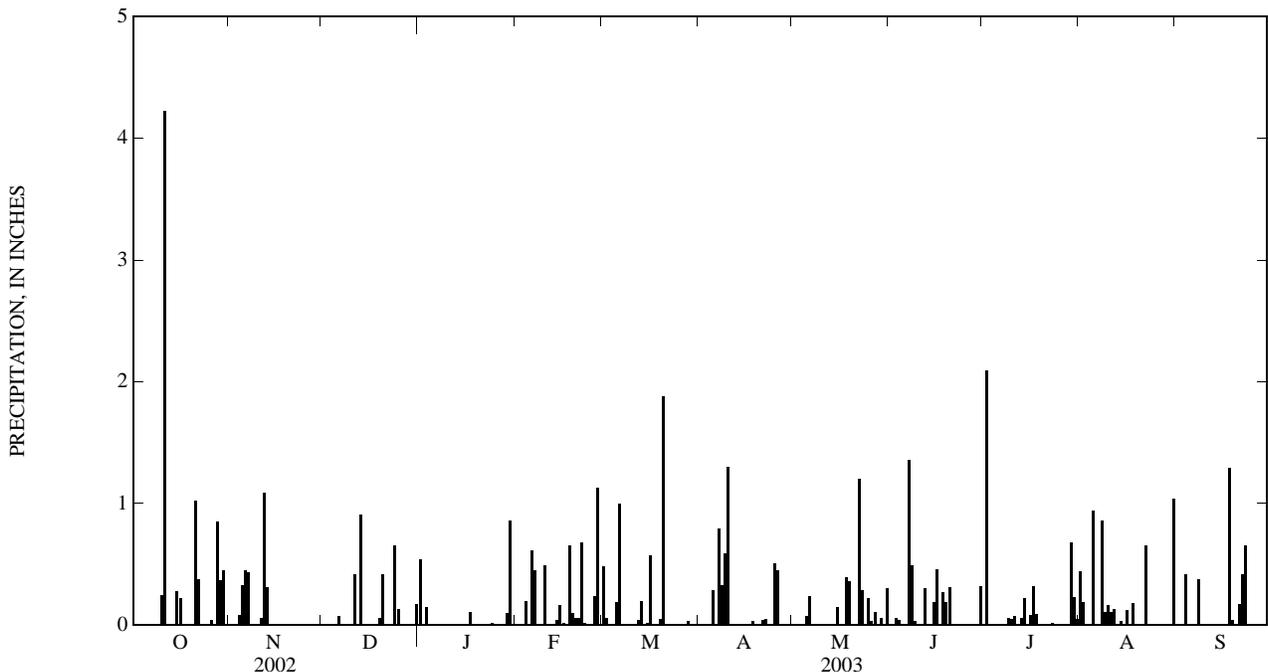
PERIOD OF RECORD.--July 1996 to current year. Records from July 1996 to September 1998 are unpublished and available in the USGS District Office, Raleigh, NC.

GAGE.--Tipping bucket raingage and data collection platform. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.54	0.00	0.48	0.00	0.00	0.00	0.01	0.44	0.01
2	0.00	0.00	0.00	0.01	0.00	0.06	0.00	0.00	0.00	2.09	0.19	0.00
3	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
4	0.00	0.08	0.00	0.00	0.20	0.00	0.00	0.00	0.04	0.00	0.01	0.42
5	0.00	0.33	0.00	0.00	0.00	0.19	0.29	0.07	0.00	0.00	0.94	0.01
6	0.00	0.45	0.07	0.00	0.61	1.00	0.00	0.24	0.00	0.00	0.01	0.00
7	0.00	0.43	0.00	0.00	0.45	0.00	0.79	0.00	1.36	0.00	0.01	0.00
8	0.00	0.00	---	0.00	0.00	0.00	0.33	0.00	0.49	0.00	0.86	0.38
9	0.00	0.00	---	0.00	0.00	0.00	0.59	0.00	0.03	0.06	0.11	0.00
10	0.25	0.00	---	0.00	0.49	0.00	1.30	0.00	0.00	0.05	0.16	0.00
11	4.22	0.06	0.42	0.00	0.01	0.01	0.00	0.00	0.00	0.07	0.11	0.00
12	0.00	1.09	0.00	0.00	0.00	0.04	0.00	0.00	0.30	0.01	0.13	0.00
13	0.00	0.31	0.91	0.00	0.00	0.20	0.00	0.00	0.01	0.06	0.00	0.01
14	0.00	0.00	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.22	0.03	0.00
15	0.28	---	0.00	0.00	0.16	0.02	0.00	0.15	0.19	0.00	0.00	0.00
16	0.22	---	0.00	0.00	0.02	0.57	0.00	0.01	0.46	0.08	0.12	0.00
17	0.00	---	0.00	0.11	0.00	0.00	0.00	0.00	0.01	0.32	0.01	0.00
18	0.01	---	0.00	0.00	0.65	0.00	0.03	0.39	0.27	0.09	0.18	1.29
19	0.00	0.00	0.06	0.00	0.10	0.05	0.00	0.36	0.19	0.01	0.00	0.04
20	0.00	0.00	0.42	0.00	0.06	1.88	0.00	0.00	0.31	0.00	0.00	0.00
21	1.02	0.00	0.00	0.01	0.06	0.01	0.04	0.00	0.00	0.00	0.00	0.17
22	0.38	0.00	0.00	0.00	0.68	0.00	0.05	1.20	0.00	0.00	0.65	0.42
23	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.29	0.00	0.02	0.00	0.65
24	0.00	0.00	0.65	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.13	0.00	0.00	0.00	0.51	0.22	0.00	0.00	0.00	0.00
26	0.04	0.00	0.00	0.00	0.24	0.00	0.45	0.03	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	1.13	0.01	0.00	0.11	0.00	0.00	0.00	0.01
28	0.85	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.01	0.00	0.00	0.00
29	0.37	0.00	0.00	0.10	---	---	0.00	0.06	0.00	0.68	0.00	0.00
30	0.45	0.00	0.00	0.86	---	---	0.00	0.00	0.32	0.23	0.00	0.00
31	0.00	---	0.17	0.01	---	---	---	0.30	---	0.05	1.04	---
TOTAL	8.09	---	---	1.81	4.93	---	4.38	3.43	4.05	4.05	5.00	3.41



02087500 NEUSE RIVER NEAR CLAYTON, NC

LOCATION.--Lat 35°38'51", long 78°24'21", 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 mi².

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 NGVD of 1929. 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 fair. Flow regulated by Falls Lake (station 02087182), since Dec. 7, 1983. The City of Raleigh diverted an average of 76.8 ft³/s upstream from station, most of which was returned upstream from station as treated effluent. Prior to regulation, maximum discharge: 22,900 ft³/s, Sept. 19, 1945; gage height: 22.12 ft; minimum discharge: 44 ft³/s, Sept. 15, 1932; gage height: 0.28 ft, at site then in use. Minimum discharge for the current water year also occurred Oct. 8, 10.

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 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	1,900	485	2,930	1,080	2,660	3,640	4,420	4,720	705	1,070	1,190
2	229	2,180	479	2,680	1,030	2,850	4,250	4,250	4,590	1,230	2,440	649
3	227	2,300	449	2,180	941	2,440	4,280	3,750	4,500	2,290	888	525
4	224	2,270	411	2,090	1,250	3,110	4,240	2,510	4,160	1,380	616	486
5	218	2,250	1,580	1,930	1,520	3,330	4,300	1,740	3,100	1,680	950	733
6	204	3,030	2,310	1,850	2,030	4,190	4,430	1,230	1,860	1,680	1,110	585
7	198	2,160	1,380	1,760	3,520	3,240	4,640	1,100	1,730	2,550	822	485
8	194	1,600	1,010	826	3,400	1,630	3,230	1,030	3,850	3,130	1,810	463
9	192	1,450	796	579	2,770	1,290	3,460	999	2,750	3,150	4,130	673
10	195	1,380	851	549	2,820	2,260	5,650	936	2,990	3,100	1,790	517
11	1,450	1,360	2,290	523	2,880	2,870	6,140	866	3,310	982	1,720	454
12	7,560	1,830	2,890	500	2,830	3,640	3,200	845	3,250	509	1,410	427
13	3,470	3,370	3,020	491	2,750	4,120	2,170	821	1,860	462	1,090	419
14	1,650	2,450	4,910	485	2,670	4,340	2,720	803	1,160	701	1,490	411
15	1,020	2,210	3,480	477	1,300	4,220	3,340	663	1,200	835	1,770	412
16	1,100	2,040	2,910	469	889	4,150	3,890	737	1,570	542	1,450	396
17	1,020	2,350	2,950	491	984	3,570	4,810	611	1,870	937	2,910	408
18	686	2,980	3,410	484	1,010	3,880	5,850	544	1,960	664	3,150	501
19	514	2,850	3,530	461	2,410	4,360	6,250	894	2,230	1,020	2,880	1,700
20	425	2,660	3,770	459	2,470	5,720	6,310	1,110	2,550	1,030	2,500	911
21	897	2,530	4,070	457	2,570	7,590	6,280	1,180	2,230	783	2,370	653
22	1,440	2,450	3,720	450	2,010	2,440	6,300	1,840	1,520	575	2,350	540
23	1,580	1,960	3,550	447	4,130	1,480	6,210	1,950	1,290	513	2,210	1,070
24	1,750	1,730	3,580	434	2,230	1,150	5,940	1,240	1,170	486	1,060	1,180
25	939	1,690	3,840	442	2,970	2,320	5,440	1,280	855	449	808	1,890
26	542	1,130	3,380	460	3,000	3,190	5,590	1,980	700	474	578	2,080
27	418	970	e3,150	456	2,970	3,590	6,080	2,640	556	543	472	1,710
28	452	700	e3,150	423	5,480	3,800	5,520	3,310	496	530	446	1,650
29	1,210	498	e3,300	449	---	e3,850	5,270	3,750	569	536	423	1,620
30	1,720	491	e3,400	573	---	e4,120	4,960	4,280	511	1,190	402	1,580
31	1,960	---	e3,250	1,360	---	e2,950	---	4,550	---	881	416	---
TOTAL	33,917	58,769	81,301	28,165	65,914	104,350	144,390	57,859	65,107	35,537	47,531	26,318
MEAN	1,094	1,959	2,623	909	2,354	3,366	4,813	1,866	2,170	1,146	1,533	877
MAX	7,560	3,370	4,910	2,930	5,480	7,590	6,310	4,550	4,720	3,150	4,130	2,080
MIN	192	491	411	423	889	1,150	2,170	544	496	449	402	396

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003 *, BY WATER YEAR (WY)

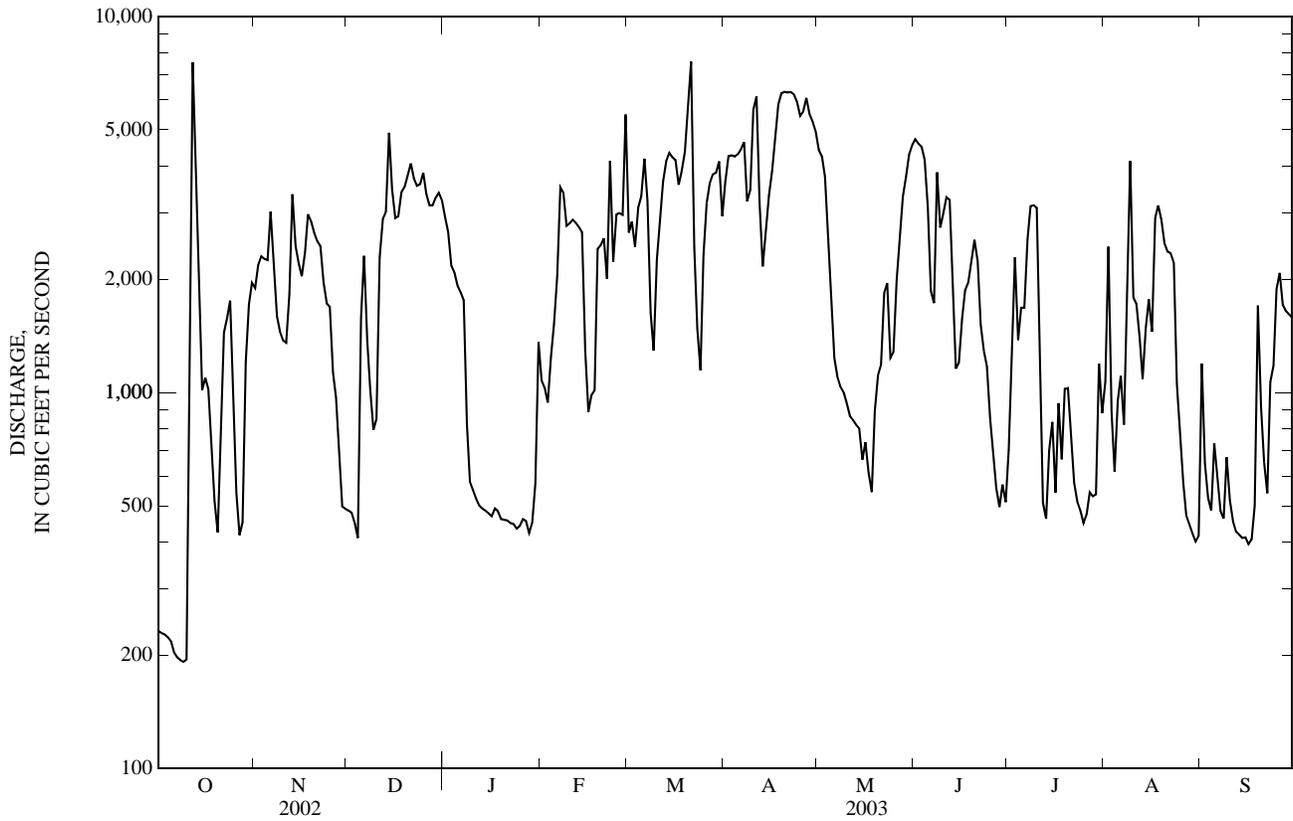
MEAN	729	699	899	1,392	1,854	2,335	1,843	927	671	621	641	894
MAX	3,822	2,201	2,623	2,821	4,961	5,688	4,813	2,864	2,170	1,841	1,539	6,620
(WY)	(2000)	(1996)	(2003)	(1984)	(1998)	(1998)	(2003)	(1989)	(2003)	(1995)	(1989)	(1996)
MIN	212	215	237	375	452	422	290	292	267	234	204	136
(WY)	(1984)	(1992)	(1995)	(2001)	(2002)	(2002)	(1986)	(2002)	(1999)	(1983)	(1983)	(1985)

02087500 NEUSE RIVER NEAR CLAYTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003 *	
ANNUAL TOTAL	301,144		749,158		1,121	
ANNUAL MEAN	825		2,052		2,052	
HIGHEST ANNUAL MEAN					425	2003
LOWEST ANNUAL MEAN					202	2002
HIGHEST DAILY MEAN	7,560	Oct 12	7,590	Mar 21	19,700	Sep 17, 1999
LOWEST DAILY MEAN	192	Oct 9	192	Oct 9	105	Sep 16, 1985
ANNUAL SEVEN-DAY MINIMUM	204	Oct 4	204	Oct 4	117	Sep 12, 1985
MAXIMUM PEAK FLOW			8,720	Mar 21	20,500	Sep 17, 1999
MAXIMUM PEAK STAGE			12.57	Mar 21	20.67	Sep 17, 1999
INSTANTANEOUS LOW FLOW			176*	Oct 7	78	Sep 18, 1985
10 PERCENT EXCEEDS	2,300		4,230		3,240	
50 PERCENT EXCEEDS	379		1,700		466	
90 PERCENT EXCEEDS	233		460		255	

e Estimated.

* Regulated period only (1983-2003). See REMARKS.



0208755215 NEUSE RIVER ABOVE U.S. HIGHWAY 70 AT SMITHFIELD, NC

LOCATION.--Lat 35°31'13", long 78°20'57", Johnston County, Hydrologic Unit 03020201, at water supply intake, 0.8 mi above U.S. Highway 70 and 0.9 mi northwest of Smithfield.

DRAINAGE AREA.--1,200 mi².

PERIOD OF RECORD.--October 2002 to September 2003

REMARKS.--Station operated as part of NAWQA program from October 2002 to present.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Organic carbon, water, fltrd, mg/L (00681)	E coli, modif. m-TEC, water, col/100 mL (90902)	1,4-Dichlorobenzene water, fltrd, ug/L (34572)	1-Methylnaphthalene, water, fltrd, ug/L (62054)	1-Naphthol, water, fltrd, 0.7u GF ug/L (49295)		
Date			2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-DB water, fltrd, 0.7u GF ug/L (38746)	2,6-Diethyl-aniline water, fltrd, 0.7u GF ug/L (82660)	2,6-Dimethylnaphthalene, water, fltrd, ug/L (62055)	2-[(2-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	2-Ethyl-6-methylaniline water, fltrd, ug/L (61620)	OIET, water, fltrd, ug/L (50355)	2-Methylnaphthalene, water, fltrd, ug/L (62056)	3,4-Dichloroaniline water, fltrd, ug/L (61625)	
OCT 24...	1030	9	769	7.8	80	7.0	153	17.6	6.4	220	<0.5	<0.5	<0.09		
NOV 13...	1030	9	758	7.8	78	6.9	100	15.4	7.4	2,000	<0.5	<0.5	E.01		
DEC 12...	1100	9	763	10.3	86	6.4	108	7.5	7.6	250	<0.5	<0.5	<0.09		
JAN 16...	1300	9	764	12.6	96	7.4	155	4.2	5.1	34	<0.5	<0.5	<0.09		
JAN 31...	1030	9	764	12.0	94	7.0	192	5.0	5.1	--	<0.5	<0.5	<0.09		
FEB 11...	1330	9	760	11.8	94	7.0	95	5.4	6.3	97	<0.5	<0.5	<0.09		
MAR 20...	1100	9	755	9.8	90	6.9	92	10.9	6.2	83	<0.5	<0.5	<0.09		
APR 09...	1100	9	757	8.9	83	6.7	91	11.9	6.6	330	<0.5	<0.5	E.01		
MAY 07...	1100	9	760	6.8	73	5.8	116	18.4	6.4	E220	<0.5	<0.5	<0.09		
JUN 04...	1000	9	755	7.5	85	6.0	78	20.9	6.6	K42	<0.5	<0.5	<0.09		
JUL 22...	1130	9	755	6.6	85	5.8	132	28.1	6.0	90	<0.5	<0.5	<0.09		
AUG 21...	1000	9	760	7.1	90	6.8	94	27.1	6.6	100	<0.5	<0.5	<0.09		
SEP 09...	1000	9	749	6.8	80	7.5	138	22.6	4.9	--	<0.5	<0.5	<0.09		
OCT 24...			<0.009	0.04	<0.02	<0.006	<0.5	<0.1	<0.005	E.004	E.01	<0.004	E.026	<0.5	0.017
NOV 13...			<0.009	0.05	<0.02	<0.006	<0.5	<0.1	<0.005	<0.006	<0.04	<0.004	<0.008	<0.5	<0.006
DEC 12...			<0.009	0.03	<0.02	<0.006	<0.5	<0.1	<0.005	<0.006	<0.04	<0.004	<0.008	<0.5	<0.004
JAN 16...			<0.009	<0.02	<0.02	<0.006	<0.5	<0.1	<0.005	E.003	<0.04	<0.004	<0.008	<0.5	0.048
JAN 31...			<0.009	<0.02	<0.02	<0.006	<0.5	<0.1	<0.005	E.004	<0.04	<0.004	<0.008	<0.5	0.056
FEB 11...			<0.009	0.03	<0.02	<0.006	<0.5	<0.1	<0.005	E.003	<0.04	<0.004	<0.008	<0.5	0.012
MAR 20...			<0.009	0.02	<0.02	<0.006	<0.5	<0.1	<0.005	E.003	<0.04	<0.004	E.009	<0.5	0.007
APR 09...			<0.009	0.18	<0.02	<0.006	<0.5	<0.1	<0.005	<0.006	E.03	<0.004	<0.008	<0.5	0.024
MAY 07...			<0.009	0.10	<0.02	<0.006	<0.5	<0.1	<0.005	<0.006	E.02	<0.004	E.022	<0.5	0.029
JUN 04...			<0.009	0.04	<0.02	<0.006	<0.5	<0.1	<0.005	E.008	<0.04	<0.004	<0.008	<0.5	0.010
JUL 22...			<0.009	<0.02	<0.02	<0.006	<0.5	<0.1	<0.005	E.018	E.01	<0.004	E.036	<0.5	0.026
AUG 21...			<0.009	0.03	<0.02	<0.006	<0.5	<0.1	<0.005	E.017	<0.04	<0.004	<0.008	<0.5	0.015
SEP 09...			<0.009	0.09	<0.02	<0.006	<0.5	<0.1	<0.005	E.010	E.01	<0.004	E.029	<0.5	0.049

0208755215 NEUSE RIVER ABOVE U.S. HIGHWAY 70 AT SMITHFIELD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	3-beta-Copros-tanol, water, fltrd, ug/L (62057)	3-Hydroxy-carbo-furan, wat flt 0.7u GF ug/L (49308)	3-Keto-carbo-furan, water, fltrd, ug/L (50295)	3-Methyl-1H-indole, water, fltrd, ug/L (62058)	3-tert-Butyl-4-hydroxy-anisole wat flt ug/L (62059)	4Chloro-2methyl phenol, water, fltrd, ug/L (61633)	4-Cumyl-phenol, water, fltrd, ug/L (62060)	4-Octyl-phenol, water, fltrd, ug/L (62061)	4-Nonyl-phenol, water, fltrd, ug/L (62085)	4-tert-Octyl-phenol, water, fltrd, ug/L (62062)	5-Meth-yl-1H-benzo-tri-azole, wat flt ug/L (62063)	9,10-Anthra-quinone water, fltrd, ug/L (62066)	Aceto-chlor ESA, water, fltrd 0.7u GF ug/L (61029)
OCT 24...	M	<0.006	<2	<1	<5	<0.006	<1	<1	<5	<1	<2	<0.5	<0.05
NOV 13...	M	<0.006	<2	<1	<5	<0.006	<1	<1	<5	<1	<2	<0.5	<0.05
DEC 12...		<2	<0.006	<2	<1	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
JAN 16...		<2	<0.006	<2	<1	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
JAN 31...		<2	<0.006	<2	<1	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
FEB 11...		<2	<0.006	<2	<1	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
MAR 20...		<2	<0.006	<2	<1	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
APR 09...		<2	<0.006	<2	<1	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
MAY 07...	M	<0.006	<2	<1	<5	<0.006	<1	<1	E1	<1	<2	E.1	<0.05
JUN 04...		<2	<0.006	<2	M	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
JUL 22...		<2	<0.006	<2	<1	<5	<0.006	<1	<1	E2	<1	<2	<0.05
AUG 21...		<2	<0.006	<2	<1	<5	<0.006	<1	<5	<1	<2	<0.5	<0.05
SEP 09...	M	<0.006	<2	<1	<5	<0.006	<1	<1	<5	<1	<2	<0.5	<0.05

Date	Aceto-chlor OA, water, fltrd 0.7u GF ug/L (61030)	Aceto-chlor, water, fltrd, ug/L (49260)	Aceto-phenone water, fltrd, ug/L (62064)	AHTN, water, fltrd, ug/L (62065)	Acifluor-fen, water, fltrd 0.7u GF ug/L (49315)	Ala-chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala-chlor OA, water, fltrd 0.7u GF ug/L (61031)	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF ug/L (49314)	Aldi-carb, water, fltrd 0.7u GF ug/L (49312)	Anthra-cene, water, fltrd, ug/L (34221)	Atra-zine, water, fltrd, ug/L (39632)
OCT 24...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	0.008
NOV 13...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	<0.007
DEC 12...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	<0.007
JAN 16...	<0.05	<0.006	<0.5	E.2	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	E.003
JAN 31...	<0.05	<0.006	<0.5	E.2	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	<0.007
FEB 11...	<0.05	<0.006	<0.5	<0.5	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	<0.007
MAR 20...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	E.004
APR 09...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	0.018
MAY 07...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	0.040
JUN 04...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	0.083
JUL 22...	<0.05	<0.006	E.1	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	0.150
AUG 21...	<0.05	<0.006	<0.5	<0.5	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	0.148
SEP 09...	<0.05	<0.006	<0.5	E.1	<0.007	<0.05	<0.05	<0.004	<0.02	<0.008	<0.04	<0.5	0.060

0208755215 NEUSE RIVER ABOVE U.S. HIGHWAY 70 AT SMITHFIELD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd 0.7u GF ug/L (38711)	Benzo-[a]-pyrene, water, fltrd, ug/L (34248)	Benzo-phenone water, fltrd, ug/L (62067)	beta-Sitosterol, water, fltrd, ug/L (62068)	beta-Stigma-stanol, water, fltrd, ug/L (62086)	Bispheno-nol A, water, fltrd, ug/L (62069)	Broma-cil, water, fltrd, ug/L (04029)
OCT 24...	<0.02	<0.050	<0.03	<0.010	0.007	<0.02	<0.01	<0.5	<0.5	M	M	<1	<0.03
NOV 13...	<0.02	<0.050	<0.03	<0.010	0.009	<0.02	<0.01	<0.5	<0.5	E1	E1	<1	<0.03
DEC 12...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	<0.5	<2	<2	<1	<0.03
JAN 16...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	M	<2	<2	<1	<0.03
31...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	<0.5	<2	<2	<1	<0.03
FEB 11...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	<0.5	<2	<2	<1	<0.03
MAR 20...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	<0.5	<2	<2	<1	<0.03
APR 09...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	<0.5	<2	<2	<1	<0.03
MAY 07...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	M	<2	E1	<1	<0.03
JUN 04...	<0.03	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	<0.5	<2	<2	<1	<0.03
JUL 22...	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02	<0.01	<0.5	E.1	E2	E2	M	<0.03
AUG 21...	<0.02	<0.050	<0.03	<0.010	0.004	<0.02	<0.01	<0.5	<0.5	<2	<2	<1	<0.03
SEP 09...	<0.03	<0.050	<0.03	<0.010	0.011	<0.02	E.02	<0.5	<0.5	M	M	<1	<0.03
Date	Brom-oxynil, water, fltrd 0.7u GF ug/L (49311)	Caf-feine, water, fltrd, ug/L (50305)	Camphor water, fltrd, ug/L (62070)	Car-baryl, water, fltrd 0.7u GF ug/L (49310)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carba-zole, water, fltrd, ug/L (62071)	Carbo-furan, water, fltrd 0.7u GF ug/L (49309)	Chlor-amben methyl ester, water, fltrd, ug/L (61188)	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di-amino-s-tri-azine, wat flt ug/L (04039)	Chloro-thalo-nil, water, fltrd 0.7u GF ug/L (49306)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)
OCT 24...	<0.02	M	<0.5	<0.03	E.017	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
NOV 13...	<0.02	E.1	<0.5	E.01	E.019	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
DEC 12...	<0.02	E.1	<0.5	E.01	E.014	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
JAN 16...	<0.02	M	<0.5	<0.03	E.006	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
31...	<0.02	E.2	<0.5	<0.03	E.007	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
FEB 11...	<0.02	<0.5	<0.5	<0.03	E.006	<0.5	<0.006	<0.02	<0.010	E.01	<0.04	<0.06	<0.005
MAR 20...	<0.02	M	<0.5	<0.03	<0.041	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
APR 09...	<0.02	M	<0.5	E.01	E.016	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
MAY 07...	<0.02	E.1	<0.5	<0.03	E.009	<0.5	0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
JUN 04...	<0.02	E.1	M	<0.03	<0.041	<0.5	E.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
JUL 22...	<0.02	E.1	<0.5	<0.03	<0.041	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
AUG 21...	<0.02	<0.5	<0.5	M	E.010	<0.5	<0.006	<0.02	<0.010	<0.01	<0.04	<0.06	<0.005
SEP 09...	<0.02	M	<0.5	<0.03	E.012	<0.5	<0.006	<0.02	<0.010	M	<0.04	<0.06	<0.005

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Cholesterol, water, fltrd, ug/L (62072)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cotinine, water, fltrd, ug/L (62005)	Cycloate, water, fltrd, ug/L (04031)	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin water, fltrd, ug/L (61586)	Dacthal mono-acid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	DEET, water, fltrd, ug/L (62082)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)
Date	Dicamba water fltrd 0.7u GF (38442)	Di-chlor-prop, water, fltrd 0.7u GF (49302)	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Di-ethoxy-nonyl-phenol, water, fltrd, ug/L (62083)	Di-ethoxy-octyl-phenol, water, fltrd, ug/L (61705)	Dimeth-enamid ESA, water, fltrd, ug/L (61951)	Dimeth-enamid OA, water, fltrd, ug/L (62482)	Dimeth-oate, water, fltrd 0.7u GF (82662)	Dinoseb water, fltrd 0.7u GF (49301)	Diphen-amid, water, fltrd, ug/L (04033)	Diuron, water, fltrd 0.7u GF (49300)	D-Limo-nene, water, fltrd, ug/L (62073)
OCT 24...	M	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	--	0.013
NOV 13...	E1	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	E.003	--	0.015
DEC 12...	<2	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.04	0.014
JAN 16...	<2	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	M	E.003	<0.04	0.008
JAN 31...	<2	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.04	0.006
FEB 11...	M	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.04	E.004
MAR 20...	<2	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.04	0.005
APR 09...	<2	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.04	0.010
MAY 07...	E1	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.01	0.005
JUN 04...	<2	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.01	0.006
JUL 22...	E1	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.2	0.005	<0.01	0.007
AUG 21...	<2	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	E.1	<0.004	<0.01	E.004
SEP 09...	M	<0.006	<0.01	<1	<0.01	<0.008	<0.009	<0.01	<0.003	M	0.005	<0.01	0.008
OCT 24...	<0.01	<0.01	<0.08	<0.005	E1	M	<0.05	<0.05	<0.006	<0.01	<0.03	<0.01	<0.5
NOV 13...	<0.01	<0.01	<0.08	<0.005	<5	M	<0.05	<0.05	<0.006	<0.01	<0.03	<0.01	<0.5
DEC 12...	--	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	<0.01	<0.5
JAN 16...	<0.01	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	<0.01	<0.5
JAN 31...	<0.01	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	<0.01	<0.5
FEB 11...	<0.01	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	<0.01	<0.5
MAR 20...	<0.01	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	<0.01	<0.5
APR 09...	<0.01	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	0.44	<0.5
MAY 07...	<0.01	<0.01	<0.08	<0.005	E2	<1	<0.05	<0.05	<0.006	<0.01	<0.03	0.16	<0.5
JUN 04...	<0.01	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	E.03	<0.5
JUL 22...	<0.01	<0.01	<0.08	<0.005	E4	M	<0.05	<0.05	<0.006	<0.01	<0.03	0.02	<0.5
AUG 21...	<0.01	<0.01	<0.08	<0.005	<5	<1	<0.05	<0.05	<0.006	<0.01	<0.03	E.01	<0.5
SEP 09...	<0.01	<0.01	<0.08	<0.005	E2	M	<0.05	<0.05	<0.006	<0.01	<0.03	0.02	<0.5

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoxy-octyl-phenol, water, fltrd, ug/L (61706)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Fenuron water, fltrd, 0.7u GF ug/L (49297)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Flufen-acet ESA, water, fltrd, ug/L (61952)	Flufe-nacet OA, water, fltrd, ug/L (62483)
OCT 24...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	E.005	<0.005	0.009	<0.05	<0.05
NOV 13...	<0.03	<0.004	M	<0.008	<0.03	<0.03	<0.03	<0.009	E.004	<0.005	E.014	<0.05	<0.05
DEC 12...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05
JAN 16...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	E.004	<0.005	E.010	<0.05	<0.05
JAN 31...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	<0.005	<0.005	E.011	<0.05	<0.05
FEB 11...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	<0.005	<0.005	E.009	<0.05	<0.05
MAR 20...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	<0.005	<0.005	E.007	<0.05	<0.05
APR 09...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	<0.005	<0.005	E.009	<0.05	<0.05
MAY 07...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	<0.005	<0.007	E.010	<0.05	<0.05
JUN 04...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.031	<0.005	<0.005	E.007	<0.05	<0.05
JUL 22...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	0.005	<0.007	E.012	<0.05	<0.05
AUG 21...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	E.004	<0.006	E.008	<0.05	<0.05
SEP 09...	<0.03	<0.004	<1	<0.008	<0.03	<0.03	<0.03	<0.009	0.005	<0.005	E.015	<0.05	<0.05

Date	Flumet-sulam, water, fltrd, ug/L (61694)	Fluo-meturon water fltrd 0.7u GF ug/L (38811)	Fluor-anthene water, fltrd, ug/L (34377)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	HHCB, water, fltrd, ug/L (62075)	Hexa-zinone, water, fltrd, ug/L (04025)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	Indole, water, fltrd, ug/L (62076)	Ipro-dione, water, fltrd, ug/L (61593)	Isobor-neol, water, fltrd, ug/L (62077)
OCT 24...	<0.01	<0.03	<0.5	<0.002	<0.003	M	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
NOV 13...	<0.01	<0.03	<0.5	<0.002	<0.003	M	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
DEC 12...	<0.01	<0.03	<0.5	<0.002	<0.003	M	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
JAN 16...	<0.01	<0.03	<0.5	<0.002	<0.003	E.1	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
JAN 31...	<0.01	<0.03	<0.5	<0.002	<0.003	M	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
FEB 11...	<0.01	<0.03	<0.5	<0.002	<0.003	<0.5	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
MAR 20...	<0.01	<0.03	<0.5	<0.002	<0.003	<0.5	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
APR 09...	<0.01	<0.03	<0.5	<0.002	<0.003	M	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
MAY 07...	<0.01	<0.03	<0.5	<0.002	<0.003	E.1	--	<0.02	<0.02	<0.007	<0.5	<1	<0.5
JUN 04...	<0.01	<0.03	<0.5	<0.002	<0.003	M	E.007	<0.02	<0.02	<0.007	<0.5	<1	<0.5
JUL 22...	<0.01	<0.03	M	<0.002	<0.003	E.1	0.018	<0.02	<0.02	<0.007	M	<1	<0.5
AUG 21...	<0.01	<0.03	<0.5	<0.002	<0.003	<0.5	E.011	<0.02	<0.02	<0.007	<0.5	<1	<0.5
SEP 09...	<0.01	<0.03	<0.5	<0.002	<0.003	M	E.010	<0.02	<0.02	<0.052	<0.5	<1	<0.5

0208755215 NEUSE RIVER ABOVE U.S. HIGHWAY 70 AT SMITHFIELD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Isofen-phos, water, fltrd, ug/L (61594)	Iso-phorone water, fltrd, ug/L (34409)	Iso-propyl-benzene water, fltrd, ug/L (62078)	Iso-quin-oline, water, fltrd, ug/L (62079)	Linuron water fltrd 0.7u GF ug/L (38478)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Menthol water, fltrd, ug/L (62080)	Meta-laxyl, water, fltrd, ug/L (50359)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)
OCT 24...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	<0.02	<0.005	<0.006
NOV 13...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	<0.02	<0.005	<0.006
DEC 12...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	<0.02	<0.005	<0.006
JAN 16...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	<0.02	<0.005	<0.006
JAN 31...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	E.01	<0.01	<0.5	<0.02	<0.005	<0.006
FEB 11...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	0.06	<0.01	<0.5	<0.02	<0.005	<0.006
MAR 20...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	<0.02	<0.005	<0.006
APR 09...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	0.05	<0.01	<0.5	<0.02	<0.005	<0.006
MAY 07...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	E.07	<0.01	<0.5	<0.02	<0.005	<0.006
JUN 04...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	E.2	<0.02	<0.005	<0.006
JUL 22...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	<0.02	<0.005	<0.006
AUG 21...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	<0.02	0.006	<0.006
SEP 09...	<0.003	<0.5	<0.5	<0.5	<0.01	<0.008	<0.027	<0.02	<0.01	<0.5	E.01	<0.025	<0.006

Date	Methio-carb, water, fltrd 0.7u GF ug/L (38501)	Meth-omyl, water, fltrd 0.7u GF ug/L (49296)	Methyl acetate water unfltrd ug/L (77032)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Methyl salicy-late, water, fltrd, ug/L (62081)	Metola-chlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metola-chlor OA, water, fltrd 0.7u GF ug/L (61044)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Metsul-furon, water, fltrd, ug/L (61697)	Myclo-butanyl water, fltrd, ug/L (61599)	N-(4-Chloro-phenyl)-N-methyl-urea, ug/L (61692)
OCT 24...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	E.011	<0.006	<0.03	<0.008	<0.02
NOV 13...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	0.059	<0.006	<0.03	<0.008	<0.02
DEC 12...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	0.033	<0.006	<0.03	<0.008	<0.02
JAN 16...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	0.05	<0.05	E.006	<0.006	<0.03	<0.008	<0.02
JAN 31...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	E.008	<0.006	<0.03	<0.008	<0.02
FEB 11...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	E.011	<0.006	<0.03	<0.008	<0.02
MAR 20...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	E.005	<0.006	<0.03	<0.008	<0.02
APR 09...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	E.012	<0.006	<0.03	<0.008	<0.02
MAY 07...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	0.029	<0.006	<0.03	<0.008	<0.02
JUN 04...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	0.027	<0.006	<0.03	<0.008	<0.02
JUL 22...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	0.041	<0.006	<0.03	<0.008	<0.02
AUG 21...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	0.028	<0.006	<0.03	<0.008	<0.02
SEP 09...	<0.008	<0.004	<0.4	<0.03	<0.006	<0.5	<0.05	<0.05	0.034	<0.006	<0.03	<0.008	<0.02

0208755215 NEUSE RIVER ABOVE U.S. HIGHWAY 70 AT SMITHFIELD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Naphthalene, water, fltrd, ug/L (34443)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p-Cresol, water, fltrd, ug/L (62084)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Pentachlorophenol, water, fltrd, ug/L (34459)	Phenanthrene, water, fltrd, ug/L (34462)	Phenol, water, fltrd, ug/L (34466)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)
OCT 24...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	M	<0.5	E.4	<0.10	<0.011
NOV 13...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	M	<0.5	E.4	<0.10	<0.011
DEC 12...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	E.016	<2	<0.5	E.2	<0.10	<0.011
JAN 16...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	<2	<0.5	<0.5	<0.10	<0.011
JAN 31...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	<2	<0.5	E.2	<0.10	<0.011
FEB 11...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	<2	<0.5	E.2	<0.10	<0.011
MAR 20...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	<2	<0.5	E.4	<0.10	<0.011
APR 09...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	<2	<0.5	<0.5	<0.10	<0.011
MAY 07...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	<2	<0.5	E.2	<0.10	<0.011
JUN 04...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	M	<0.022	<2	<0.5	E.5	<0.10	<0.011
JUL 22...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	M	<0.022	<2	M	E.4	<0.10	<0.011
AUG 21...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	<2	<0.5	<0.5	<0.10	<0.011
SEP 09...	<0.5	<0.01	<0.01	<0.02	<0.02	<0.01	<1	<0.022	M	<0.5	<0.5	<0.10	<0.011

Date	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd 0.7u GF ug/L (82676)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Pyrene, water, fltrd, ug/L (34470)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometuron, water, fltrd, ug/L (50337)
OCT 24...	<0.06	<0.008	<0.02	0.02	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.072	<0.009
NOV 13...	<0.06	<0.008	<0.02	0.02	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.055	<0.009
DEC 12...	<0.06	<0.008	<0.02	E.01	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.050	<0.009
JAN 16...	<0.06	<0.008	<0.02	E.01	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.156	<0.009
JAN 31...	<0.06	<0.008	<0.02	E.01	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.081	<0.009
FEB 11...	<0.06	<0.008	<0.02	E.01	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.209	<0.009
MAR 20...	<0.06	<0.008	<0.02	E.01	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.158	<0.009
APR 09...	<0.06	<0.008	<0.02	E.01	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.211	0.024
MAY 07...	<0.06	<0.008	<0.02	E.01	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.048	E.006
JUN 04...	<0.06	<0.008	<0.02	E.01	<0.005	0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.041	<0.009
JUL 22...	<0.06	<0.008	<0.02	0.02	<0.005	<0.004	<0.010	<0.02	<0.008	M	<0.02	0.045	<0.009
AUG 21...	<0.06	<0.008	<0.02	0.03	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.036	<0.009
SEP 09...	<0.06	<0.008	<0.02	0.03	<0.005	<0.004	<0.010	<0.02	<0.008	<0.5	<0.02	0.018	<0.009

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd, ug/L (04032)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	tert- Amyl alcohol water unfltrd ug/L (77073)	tert- Butyl- alcohol water unfltrd ug/L (77035)	Tetra- chloro- ethene, water, fltrd, ug/L (34476)	Tri- bromo- methane water, fltrd, ug/L (34288)	Tri- butyl phos- phate, water, fltrd, ug/L (62089)	Tri- clopyr, water, fltrd 0.7u GF (49235)	Triclo- san, water, fltrd, ug/L (62090)	Tri- ethyl citrate water, fltrd, ug/L (62091)
OCT 24...	<0.02	<0.010	<0.07	<0.02	M	<0.43	<1	<0.5	<0.5	<0.5	<0.02	<1	<0.5
NOV 13...	<0.02	<0.010	<0.07	<0.02	M	<0.4	E.22	<0.5	<0.5	<0.5	<0.02	<1	<0.5
DEC 12...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.43	M	<0.5	<0.5	<0.5	<0.02	<1	<0.5
JAN 16...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.4	<1.00	<0.5	<0.5	E.1	<0.02	<1	<0.5
31...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.4	E.15	<0.5	<0.5	<0.5	<0.02	<1	<0.5
FEB 11...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.4	E.20	<0.5	<0.5	<0.5	0.02	<1	<0.5
MAR 20...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.4	E.60	<0.5	<0.5	<0.5	<0.02	<1	<0.5
APR 09...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.4	E.15	<0.5	<0.5	<0.5	<0.02	<1	<0.5
MAY 07...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.4	<1.00	<0.5	<0.5	M	<0.02	<1	<0.5
JUN 04...	<0.02	<0.010	<0.07	<0.02	<0.01	<0.4	<1.00	<0.5	<0.5	<0.5	<0.02	<1	<0.5
JUL 22...	<0.02	<0.010	<0.07	<0.02	E.01	<0.4	<1.00	<0.5	<0.5	E.1	<0.02	<1	E.1
AUG 21...	E.01	<0.010	<0.07	<0.02	M	<0.4	<1.00	<0.5	<0.5	<0.5	<0.02	<1	<0.5
SEP 09...	<0.02	<0.010	<0.07	<0.02	M	<0.4	<1.00	<0.5	<0.5	M	<0.02	M	M

Date	Tri- flu- alin, water, fltrd 0.7u GF (82661)	Tri- phenyl phos- phate, water, fltrd, ug/L (62092)	Tris(2- butoxy- ethyl) phos- phate, wat flt ug/L (62093)	Tris(2- chloro- ethyl) phos- phate, wat flt ug/L (62087)	Tris(di- chloro- i-Pr) phos- phate, wat flt ug/L (62088)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)
OCT 24...	<0.009	M	<0.5	M	M	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
NOV 13...	<0.009	M	E.2	E.1	E.1	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
DEC 12...	<0.009	<0.5	<0.5	M	M	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
JAN 16...	<0.009	<0.5	<0.5	E.1	<0.5	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
31...	<0.009	<0.5	<0.5	<0.5	<0.5	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
FEB 11...	<0.009	<0.5	<0.5	<0.5	<0.5	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
MAR 20...	<0.009	<0.5	<0.5	<0.5	<0.5	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
APR 09...	<0.009	<0.5	<0.5	E.1	<0.5	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
MAY 07...	<0.009	<0.5	0.6	E.1	E.1	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
JUN 04...	<0.009	<0.5	<0.5	E.1	E.1	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
JUL 22...	<0.009	<0.5	E.2	E.1	E.1	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
AUG 21...	<0.009	<0.5	<0.5	<0.5	<0.5	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05
SEP 09...	<0.009	<0.5	<0.5	E.1	E.1	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	1,2,3,4 Tetra- methyl- benzene water unfltrd ug/L (49999)	1,2,3,5 Tetra- methyl- benzene water unfltrd ug/L (50000)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,3- Tri- methyl- benzene water unfltrd ug/L (77221)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)	1,2,4- Tri- methyl- benzene water unfltrd ug/L (77222)	Dibromo- chloro- propane water unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3,5- Tri- methyl- benzene water unfltrd ug/L (77226)
OCT 24...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
NOV 13...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
DEC 12...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	E.02	<0.04
JAN 16...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
JAN 31...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
FEB 11...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
MAR 20...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
APR 09...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
MAY 07...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
JUN 04...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
JUL 22...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
AUG 21...	<0.2	<0.2	<0.3	<0.16	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04
SEP 09...	<0.2	<0.2	<0.3	<0.16	M	<0.1	0.16	<0.5	<0.04	<0.03	<0.1	<0.03	E.05

Date	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,3-Di- chloro- propane water unfltrd ug/L (77173)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	2,2-Di- chloro- propane water unfltrd ug/L (77170)	2- Chloro- toluene water unfltrd ug/L (77275)	2- Ethyl- toluene water unfltrd ug/L (77220)	3- Chloro- propene water unfltrd ug/L (78109)	4- Chloro- toluene water unfltrd ug/L (77277)	4-Iso- propyl- toluene water unfltrd ug/L (77356)	Acetone water unfltrd ug/L (81552)	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)
OCT 24...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
NOV 13...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
DEC 12...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
JAN 16...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
JAN 31...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.02	<0.04
FEB 11...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.01	<0.04
MAR 20...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
APR 09...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
MAY 07...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
JUN 04...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04
JUL 22...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.03	<0.04
AUG 21...	<0.03	<0.1	<0.05	<0.05	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.03	<0.04
SEP 09...	<0.03	<0.1	<0.05	<0.05	<0.04	E.04	<0.12	<0.05	<0.12	<7	<1	0.13	<0.04

0208755215 NEUSE RIVER ABOVE U.S. HIGHWAY 70 AT SMITHFIELD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-ethene, water, unfltrd ug/L (50002)	Bromo-methane water unfltrd ug/L (34413)	Carbon di-sulfide water unfltrd ug/L (77041)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)
OCT 24...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
NOV 13...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
DEC 12...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
JAN 16...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
JAN 31...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
FEB 11...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
MAR 20...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
APR 09...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
MAY 07...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	E.1	<0.04	<0.09	<0.2	<0.05	<0.18
JUN 04...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
JUL 22...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
AUG 21...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18
SEP 09...	<0.12	<0.05	<0.1	<0.3	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18

Date	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl methac-rylate, water, unfltrd ug/L (73570)	Ethyl methyl ketone, water, unfltrd ug/L (81595)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Hexa-chloro-ethane, water, unfltrd ug/L (34396)	Iodo-methane water unfltrd ug/L (77424)	Iso-butyl methyl ketone, water, unfltrd ug/L (78133)	Iso-propyl-benzene water unfltrd ug/L (77223)	Methyl acrylo-nitrile water unfltrd ug/L (81593)	Methyl acrylate, water, unfltrd ug/L (49991)
OCT 24...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
NOV 13...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
DEC 12...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
JAN 16...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
JAN 31...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
FEB 11...	M	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
MAR 20...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
APR 09...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
MAY 07...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
JUN 04...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
JUL 22...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
AUG 21...	<0.2	<0.2	<0.10	<0.2	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0
SEP 09...	<0.2	<0.2	<0.10	<0.2	<5.0	E.08	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0

0208755215 NEUSE RIVER ABOVE U.S. HIGHWAY 70 AT SMITHFIELD, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Methyl methacrylate, water, unfltrd ug/L (81597)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta- + para-Xylene, water, unfltrd ug/L (85795)	Naphthalene, water, unfltrd ug/L (34696)	Methyl n-butyl ketone, water, unfltrd ug/L (77103)	n-Butyl benzene, water, unfltrd ug/L (77342)	n-propyl-benzene, water, unfltrd ug/L (77224)	o-Xylene, water, unfltrd ug/L (77135)	sec-Butyl-benzene, water, unfltrd ug/L (77350)	Styrene, water, unfltrd ug/L (77128)	t-Butyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene, water, unfltrd ug/L (77353)
OCT 24...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
NOV 13...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
DEC 12...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
JAN 16...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
31...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
FEB 11...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
MAR 20...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	0.2	<0.10
APR 09...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
MAY 07...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
JUN 04...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	0.3	<0.10
JUL 22...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	E.1	<0.10
AUG 21...	<0.3	<0.08	<0.06	<0.5	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	0.2	<0.10
SEP 09...	<0.3	<0.08	0.26	<0.5	<0.7	<0.2	E.03	0.11	<0.06	<0.04	<0.05	<0.2	<0.10

Date	Tetrachloroethene, water, unfltrd ug/L (34475)	Tetrachloroethane, water, unfltrd ug/L (32102)	Tetrahydrofuran, water, unfltrd ug/L (81607)	Toluene, water, unfltrd ug/L (34010)	trans-1,2-Dichloroethene, water, unfltrd ug/L (34546)	trans-1,3-Dichloropropene, water, unfltrd ug/L (34699)	trans-1,4-Dichloro-2-butene, water, unfltrd ug/L (73547)	Tri-bromoethane, water, unfltrd ug/L (32104)	Tri-chloroethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane, water, unfltrd ug/L (34488)	Tri-chloro-methane, water, unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Di-chloro-vos, water, unfltrd ug/L (38775)
OCT 24...	<0.03	<0.06	<2	<0.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.02	<0.1	<0.01
NOV 13...	<0.03	<0.06	<2	<0.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.03	<0.1	<0.01
DEC 12...	E.01	<0.06	<2	E.02	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.04	<0.1	<0.01
JAN 16...	E.01	<0.06	<2	<0.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.05	<0.1	<0.01
31...	E.02	<0.06	<2	E.03	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.05	<0.1	<0.01
FEB 11...	E.01	<0.06	<2	<0.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.03	<0.1	<0.01
MAR 20...	<0.03	<0.06	<2	<0.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.04	<0.1	<0.01
APR 09...	E.01	<0.06	<2	E.03	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.03	<0.1	<0.01
MAY 07...	E.03	<0.06	<2	E.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.04	<0.1	<0.01
JUN 04...	<0.03	<0.06	<2	<0.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.02	<0.1	<0.01
JUL 22...	<0.03	<0.06	<2	E.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.03	<0.1	<0.01
AUG 21...	<0.03	<0.06	<2	E.05	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.02	<0.1	<0.01
SEP 09...	<0.03	<0.06	<2	0.35	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.02	<0.1	<0.01

Remark codes used in this table:

- < -- Less than
- E -- Estimated value
- M -- Presence verified, not quantified
- K -- Counts outside the acceptable range

Medium codes used in this table:

- 9 -- Surface water

02087570 NEUSE RIVER AT SMITHFIELD, NC

LOCATION.--Lat 35°30'47", long 78°20'59", 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 mi².

PERIOD OF RECORD.--October 1959 to September 1990, October 1998 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 99.26 ft above NGVD of 1929. Prior to Dec. 21, 1971, nonrecording gage on upstream side of bridge near center of span at same datum. U.S. Army Corps of Engineers satellite telemetry at station.

REMARKS.--Records good.

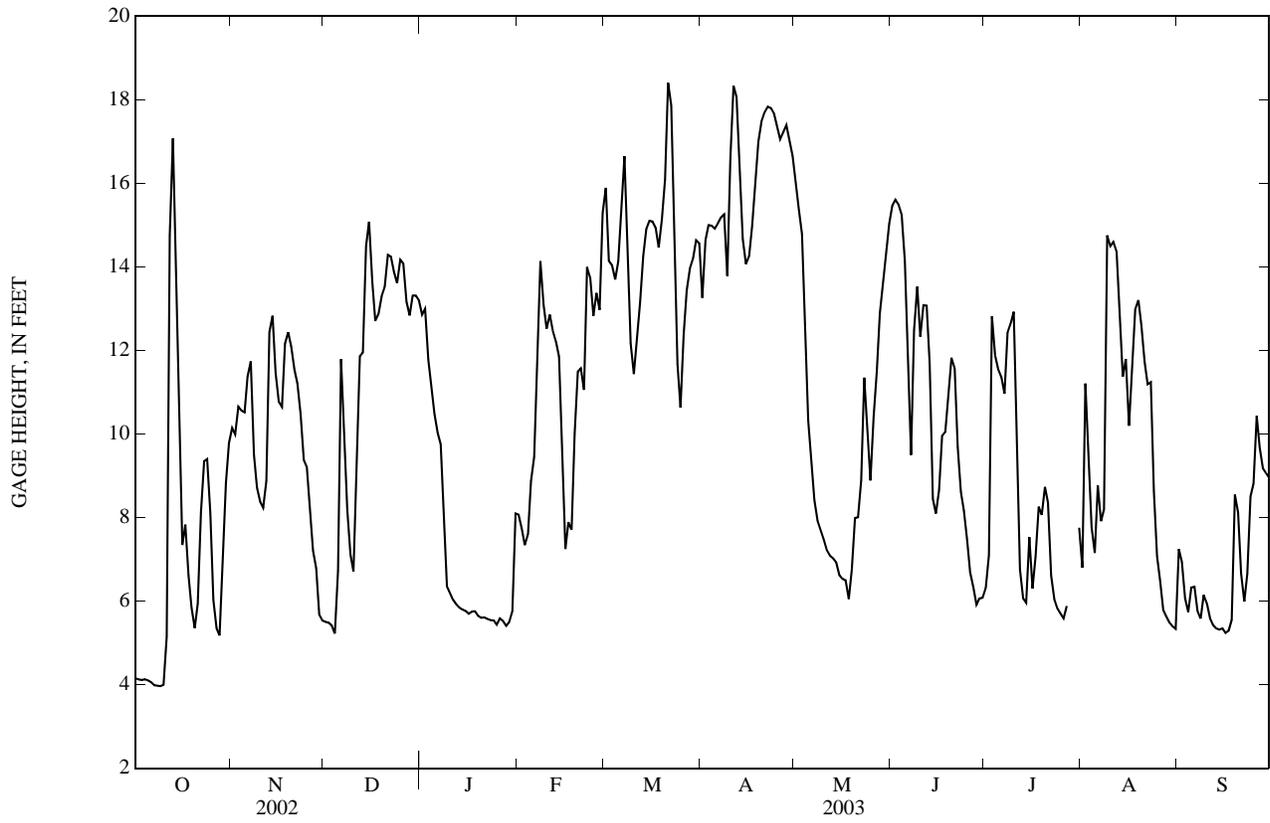
EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 26.72 ft, Sept. 18, 1999; minimum gage height not determined.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 19.10 ft, Mar. 21; minimum gage height, 3.91 ft, Oct. 9.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.15	10.15	5.50	12.85	8.07	15.89	13.26	16.04	15.46	6.31	6.80	7.24
2	4.12	9.99	5.49	12.99	7.74	14.14	14.64	15.35	15.60	7.10	11.21	6.94
3	4.11	10.66	5.42	11.78	7.34	14.04	15.00	14.79	15.49	12.82	9.29	6.07
4	4.13	10.56	5.22	11.18	7.59	13.70	14.99	12.99	15.26	11.88	7.77	5.74
5	4.10	10.52	6.73	10.47	8.87	14.13	14.92	10.33	14.15	11.56	7.15	6.32
6	4.06	11.38	11.79	10.03	9.45	15.27	15.04	9.45	11.37	11.37	8.77	6.35
7	3.99	11.74	9.62	9.75	12.24	16.65	15.19	8.41	9.50	10.97	7.91	5.77
8	3.98	9.50	8.19	8.12	14.13	14.24	15.26	7.92	12.49	12.42	8.20	5.58
9	3.97	8.72	7.11	6.35	13.09	12.17	13.78	7.69	13.53	12.65	14.75	6.15
10	4.00	8.38	6.71	6.19	12.52	11.44	16.58	7.48	12.33	12.93	14.50	5.95
11	5.15	8.24	9.08	6.03	12.86	12.29	18.34	7.21	13.08	10.48	14.60	5.59
12	14.75	8.88	11.86	5.92	12.47	13.14	18.07	7.09	13.07	6.76	14.37	5.43
13	17.08	12.45	11.95	5.84	12.21	14.26	16.16	7.02	11.69	6.07	12.80	5.35
14	13.58	12.83	14.50	5.80	11.86	14.90	14.67	6.93	8.45	5.96	11.37	5.32
15	9.81	11.46	15.08	5.76	9.87	15.10	14.07	6.62	8.10	7.53	11.79	5.35
16	7.34	10.77	13.65	5.70	7.25	15.09	14.26	6.53	8.65	6.30	10.20	5.24
17	7.83	10.65	12.71	5.75	7.89	14.93	14.98	6.50	9.96	7.06	11.78	5.29
18	6.62	12.16	12.87	5.76	7.71	14.46	16.08	6.05	10.05	8.26	12.98	5.55
19	5.84	12.43	13.29	5.65	10.0	15.13	17.00	6.76	10.87	8.06	13.20	8.55
20	5.36	12.10	13.52	5.60	11.49	16.10	17.48	7.99	11.83	8.73	12.59	8.12
21	5.94	11.55	14.29	5.61	11.57	18.40	17.70	8.01	11.58	8.35	11.72	6.66
22	8.12	11.21	14.25	5.57	11.05	17.86	17.83	8.89	9.69	6.61	11.19	5.99
23	9.34	10.48	13.87	5.54	14.00	14.45	17.80	11.35	8.62	6.04	11.24	6.66
24	9.40	9.38	13.61	5.54	13.74	11.68	17.68	10.12	8.16	5.83	8.64	8.51
25	8.10	9.21	14.17	5.44	12.83	10.63	17.35	8.89	7.47	5.70	7.07	8.81
26	6.03	8.25	14.08	5.59	13.37	12.38	17.05	10.41	6.69	5.59	6.47	10.44
27	5.36	7.21	13.16	5.53	12.97	13.43	17.23	11.50	6.34	5.89	5.79	9.66
28	5.18	6.78	12.84	5.41	15.29	13.96	17.39	12.89	5.91	---	5.63	9.18
29	7.05	5.68	13.32	5.49	---	14.20	17.02	13.73	6.06	---	5.49	9.06
30	8.84	5.53	13.31	5.75	---	14.64	16.66	14.40	6.08	---	5.40	8.96
31	9.78	---	13.20	8.10	---	14.56	---	15.04	---	7.76	5.34	---
MEAN	7.00	9.96	11.30	7.13	11.05	14.30	16.12	9.82	10.58	---	9.87	6.86
MAX	17.08	12.83	15.08	12.99	15.29	18.40	18.34	16.04	15.60	---	14.75	10.44
MIN	3.97	5.53	5.22	5.41	7.25	10.63	13.26	6.05	5.91	---	5.34	5.24

02087570 NEUSE RIVER AT SMITHFIELD, NC—Continued



02087580 SWIFT CREEK NEAR APEX, NC

LOCATION.--Lat 35°43'08", long 78°45'08", Wake County, Hydrologic Unit 03020201, on right bank at downstream side of bridge on Secondary Road 1152, 2.8 mi downstream from Williams Creek, and 6 mi east of Apex, NC.

DRAINAGE AREA.--21.0 mi²

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional discharge measurements, water years 1953-69. March 2002 to current year.

REVISED RECORDS.--WDR NC-02-1A.

GAGE.--Water-stage recorder. Datum of gage is 306.22 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. No flow occurred several days in Aug. 2002. Minimum discharge for current water year also occurred Oct. 7, 8, 9, 10.

REVISIONS.--Revised figures of discharge for the water year 2002, superseding those published in the report for 2002 are given below.

DISCHARGE, CUBIC FEET PER SECOND
FOR PERIOD MARCH TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	2.4	549	0.89	2.6	0.83	e0.02	122
2	---	---	---	---	---	28	49	0.93	5.2	0.35	e0.01	31
3	---	---	---	---	---	65	26	0.91	1.4	0.17	0.00	15
4	---	---	---	---	---	22	17	9.3	0.92	0.16	0.00	8.6
5	---	---	---	---	---	10	11	8.6	0.74	18	0.00	4.8
6	---	---	---	---	---	7.6	9.0	2.3	0.66	28	0.00	2.2
7	---	---	---	---	---	6.8	6.4	1.4	7.4	2.0	0.00	1.3
8	---	---	---	---	---	5.5	5.7	1.2	1.5	0.66	0.00	0.93
9	---	---	---	---	---	5.3	6.0	0.96	0.75	0.25	0.00	0.85
10	---	---	---	---	---	7.0	48	0.77	0.44	0.16	0.00	1.1
11	---	---	---	---	---	3.9	20	0.77	0.25	6.4	0.00	0.78
12	---	---	---	---	---	3.7	9.7	0.73	0.14	0.98	0.00	0.53
13	---	---	---	---	---	9.3	7.8	2.1	0.08	0.85	0.00	0.47
14	---	---	---	---	---	9.9	6.2	11	0.06	15	0.00	1.8
15	---	---	---	---	---	7.5	5.4	1.7	0.09	4.5	3.7	12
16	---	---	---	---	---	6.1	4.1	0.79	0.10	1.1	22	57
17	---	---	---	---	---	22	2.9	0.57	0.24	0.54	28	23
18	---	---	---	---	---	21	2.6	1.8	0.39	e0.22	7.0	9.1
19	---	---	---	---	---	10	2.3	2.0	0.11	e6.0	22	4.0
20	---	---	---	---	---	11	2.1	0.92	0.10	1.4	15	2.3
21	---	---	---	---	---	36	1.9	0.60	0.08	0.83	2.0	1.4
22	---	---	---	---	---	24	2.5	0.47	0.08	0.46	0.66	0.89
23	---	---	---	---	---	8.4	1.5	0.41	0.05	4.3	0.30	0.67
24	---	---	---	---	---	5.8	1.2	0.41	e0.10	5.2	0.14	0.66
25	---	---	---	---	---	5.3	1.2	0.36	e0.02	55	0.09	0.46
26	---	---	---	---	---	25	1.1	0.32	0.01	23	3.0	0.58
27	---	---	---	---	---	100	1.1	0.27	5.3	6.1	21	3.3
28	---	---	---	---	---	23	1.2	0.24	1.1	1.6	20	3.0
29	---	---	---	---	---	12	1.3	0.26	19	e0.60	7.9	1.1
30	---	---	---	---	---	9.3	0.98	0.27	2.0	e0.30	101	0.61
31	---	---	---	---	---	181	---	0.34	---	e0.03	420	---
TOTAL	---	---	---	---	---	693.8	804.18	53.59	50.91	184.99	673.82	311.43
MEAN	---	---	---	---	---	22.4	26.8	1.73	1.70	5.97	21.7	10.4
MAX	---	---	---	---	---	181	549	11	19	55	420	122
MIN	---	---	---	---	---	2.4	0.98	0.24	0.01	0.03	0.00	0.46
CFSM	---	---	---	---	---	1.15	1.37	0.09	0.09	0.31	1.11	0.53
IN.	---	---	---	---	---	1.32	1.53	0.10	0.10	0.35	1.29	0.59

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD MARCH TO SEPTEMBER 2002

MEAN	---	---	---	---	---	22.4	26.8	1.73	1.70	5.97	21.7	10.4
MAX	---	---	---	---	---	22.4	26.8	1.73	1.70	5.97	21.7	10.4
(WY)	---	---	---	---	---	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)
MIN	---	---	---	---	---	22.4	26.8	1.73	1.70	5.97	21.7	10.4
(WY)	---	---	---	---	---	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

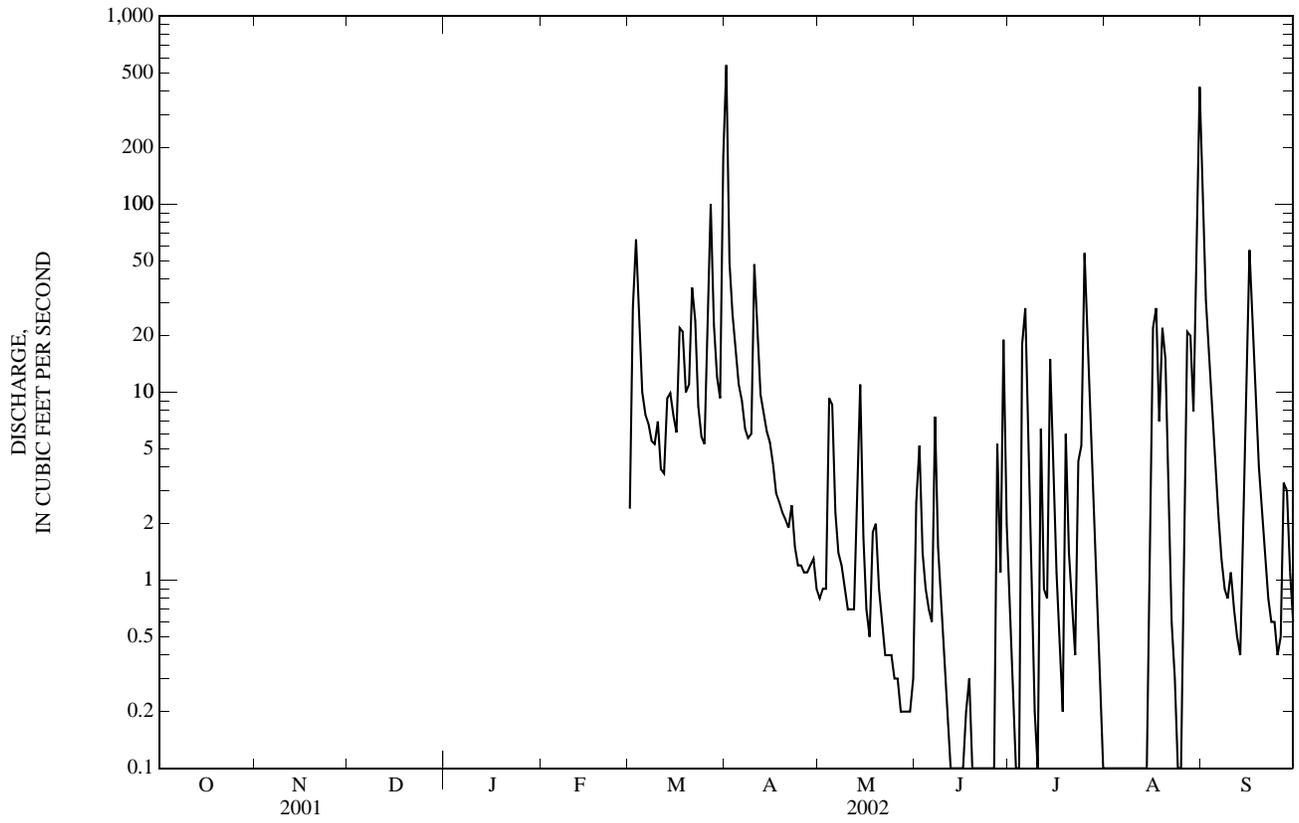
SUMMARY STATISTICS

FOR PERIOD
MARCH TO SEPTEMBER 2002

INSTANTANEOUS PEAK FLOW	1,560	Apr 1
INSTANTANEOUS PEAK STAGE	10.24	Apr 1
INSTANTANEOUS LOW FLOW	0.00*	Aug 3

e Estimated.
* See REMARKS.

02087580 SWIFT CREEK NEAR APEX, NC—Continued



NEUSE RIVER BASIN

02087580 SWIFT CREEK NEAR APEX, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.43	21	4.8	123	19	52	19	6.9	35	57	21	46
2	0.46	15	3.1	52	11	170	13	5.9	9.4	258	60	13
3	0.36	10	3.2	45	10	44	11	5.1	4.4	101	19	7.0
4	0.26	11	3.6	28	18	24	9.2	4.0	9.8	23	9.7	24
5	0.24	18	228	15	16	36	12	6.0	9.1	13	120	40
6	0.12	163	71	12	16	388	12	21	2.7	9.3	31	9.7
7	0.11	37	44	9.3	172	68	87	14	88	5.9	16	4.9
8	0.09	20	22	5.5	39	30	52	8.3	171	3.3	914	45
9	0.09	14	13	6.3	17	21	321	5.1	40	2.6	273	26
10	0.12	11	8.4	6.0	62	16	865	3.5	17	2.6	131	10
11	836	21	56	3.5	34	12	147	2.7	6.5	3.3	60	5.8
12	107	154	34	2.8	17	12	47	2.4	18	6.0	20	4.0
13	26	152	212	2.0	9.2	13	27	1.9	15	2.3	11	3.3
14	19	40	101	2.2	7.4	34	21	1.3	3.4	13	30	2.6
15	9.8	23	31	2.8	15	14	17	1.7	108	8.7	20	2.1
16	96	26	18	1.8	17	146	16	8.4	257	3.7	8.8	26
17	31	141	9.7	5.8	26	48	14	3.7	41	13	7.5	11
18	16	76	7.8	3.1	61	25	11	5.5	18	5.2	31	154
19	8.4	29	13	2.1	58	18	12	54	65	8.0	39	98
20	4.6	19	123	1.9	39	571	12	15	61	3.7	12	19
21	157	15	47	1.8	25	111	12	6.8	31	2.1	6.5	10
22	66	15	19	1.8	460	39	17	162	14	1.3	5.7	14
23	32	11	12	4.6	177	24	10	92	10	1.4	6.3	65
24	18	8.2	81	3.7	37	18	7.0	31	6.5	1.5	2.9	19
25	14	7.4	136	1.3	21	14	17	27	4.0	1.0	1.7	9.7
26	12	6.8	41	1.7	16	13	48	25	2.8	0.80	1.3	7.1
27	9.3	6.7	19	2.0	260	11	47	15	2.4	0.67	1.0	4.8
28	60	4.8	13	1.2	233	9.0	17	11	2.8	0.52	0.89	4.0
29	92	2.9	10	1.5	---	17	11	12	4.4	41	0.68	3.6
30	105	3.2	8.0	43	---	88	8.6	25	29	143	0.51	2.1
31	38	---	7.3	60	---	46	---	20	---	19	161	---
TOTAL	1,759.38	1,082.0	1,399.9	452.7	1,892.6	2,132.0	1,919.8	603.2	1,086.2	754.89	2,022.48	690.7
MEAN	56.8	36.1	45.2	14.6	67.6	68.8	64.0	19.5	36.2	24.4	65.2	23.0
MAX	836	163	228	123	460	571	865	162	257	258	914	154
MIN	0.09	2.9	3.1	1.2	7.4	9.0	7.0	1.3	2.4	0.52	0.51	2.1
CFSM	2.91	1.85	2.32	0.75	3.47	3.53	3.28	1.00	1.86	1.25	3.35	1.18
IN.	3.36	2.06	2.67	0.86	3.61	4.07	3.66	1.15	2.07	1.44	3.86	1.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

	2002	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003
MEAN	56.8	36.1	45.2	14.6	67.6	45.6	45.4	10.6	19.0	15.2	43.5	16.7
MAX	56.8	36.1	45.2	14.6	67.6	68.8	64.0	19.5	36.2	24.4	65.2	23.0
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	56.8	36.1	45.2	14.6	67.6	22.4	26.8	1.73	1.70	5.97	21.7	10.4
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS

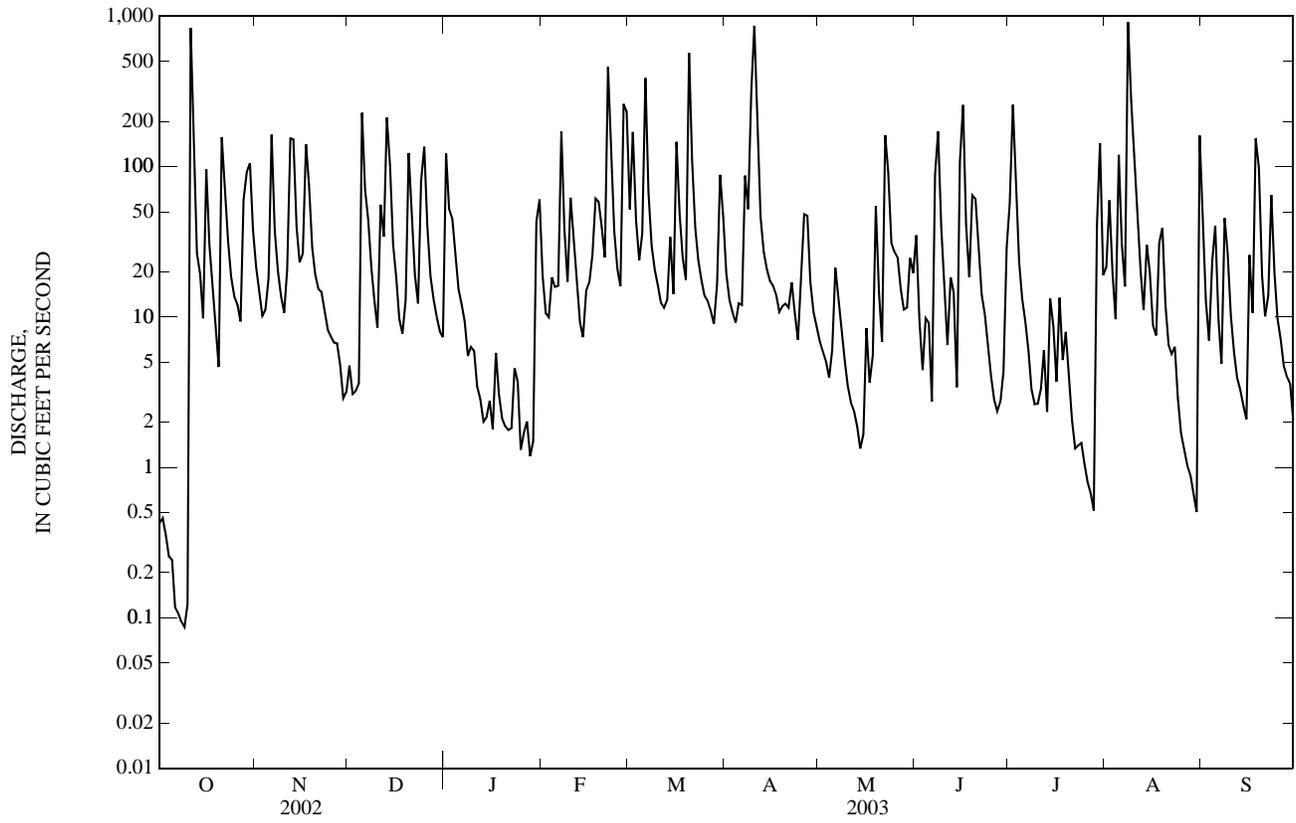
FOR 2003 WATER YEAR

WATER YEARS 2002 - 2003

ANNUAL TOTAL	95.85	
ANNUAL MEAN	43.3	43.3
HIGHEST ANNUAL MEAN		43.3
LOWEST ANNUAL MEAN		43.3
HIGHEST DAILY MEAN	14	914
LOWEST DAILY MEAN	0.09	0.00
ANNUAL SEVEN-DAY MINIMUM	0.15	0.00
MAXIMUM PEAK FLOW	20	2,720
MAXIMUM PEAK STAGE	11.71	11.71
INSTANTANEOUS LOW FLOW	0.09*	0.00*
ANNUAL RUNOFF (CFSM)	2.22	2.22
ANNUAL RUNOFF (INCHES)	30.13	30.15
10 PERCENT EXCEEDS	07	107
50 PERCENT EXCEEDS	14	14
90 PERCENT EXCEEDS	2.1	2.1

* See REMARKS.

02087580 SWIFT CREEK NEAR APEX, NC—Continued



02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2002 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 2002 to current year.

WATER TEMPERATURE: March 2002 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from March 2002 to current year.

REMARKS.--Station operated as part of NAWQA program from March 2002 to current year. Station was operated from October 1989 to June 1995 as part of a six county regional surface-water quality assessment.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	172, December 5, 2002	26, August 8, 2003
WATER TEMPERATURE, °C	31.9, August 27, 2003	0.0, January 23, 24, 2003

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	172, December 5, 2002	26, August 8, 2003
WATER TEMPERATURE, °C	31.9, August 27	0.0, January 23, 24

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 deg C (00095)	Temperature, water, deg C (00010)	Alkalinity, wat fltrd inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltrd incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)
OCT													
17...	1330	9	27	752	7.9	84	6.8	66	17.5	15	18	4.45	5.0
23...	1330	9	30	--	6.6	--	7.5	70	16.1	--	--	--	--
NOV													
08...	1330	9	19	--	9.7	--	6.5	75	11.4	17	20	5.54	6.4
26...	1015	9	6.6	760	9.4	80	7.3	101	8.2	--	--	--	--
DEC													
12...	1445	9	29	763	11.2	93	6.6	81	7.0	15	18	7.78	6.6
30...	1015	9	8.1	760	10.7	84	7.6	78	4.9	--	--	--	--
JAN													
16...	0900	9	1.7	762	12.4	90	7.6	98	2.0	21	25	6.94	6.3
29...	1030	9	1.4	757	13.5	100	7.0	123	2.8	--	--	--	--
FEB													
11...	0845	9	36	756	12.0	94	6.8	93	4.7	19	23	8.67	6.9
27...	1100	9	122	752	11.0	90	6.7	109	6.2	--	--	16.1	6.8
MAR													
04...	1230	9	23	--	--	--	--	--	--	--	--	--	--
05...	1330	9	50	749	9.8	92	7.0	95	11.7	--	--	--	--
21...	1100	9	105	747	10.1	95	7.1	81	11.9	16	20	8.10	6.4
APR													
07...	1030	9	81	755	8.4	81	6.9	87	13.1	22	27	5.88	5.2
18...	1000	9	9.9	756	7.3	74	6.9	86	15.4	--	--	6.12	4.9
MAY													
08...	0930	9	8.1	752	6.8	77	6.9	85	20.5	24	29	5.68	4.1
13...	1230	D	1.7	--	6.1	--	7.1	168	--	--	--	--	--
JUN													
04...	1300	9	8.6	748	7.2	82	6.8	87	20.8	31	38	5.76	3.9
25...	1200	9	3.8	--	7.5	--	6.5	98	22.9	--	--	--	--
JUL													
09...	0945	9	2.9	--	--	--	--	--	--	--	--	--	--
14...	1130	9	25	757	7.8	93	7.0	96	23.9	39	47	5.69	3.6
AUG													
25...	1000	9	1.7	756	7.5	90	6.8	84	23.9	22	26	4.95	2.4
SEP													
05...	1300	9	29	752	7.6	96	7.0	61	26.4	10	13	3.33	3.4

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L (00660)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)
OCT 17...	0.54	0.08	0.07	1.48	0.33	0.34	0.033	0.010	0.47	--	E.01	0.18	0.073
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	0.46	--	<0.04	--	--	0.25	--	E.007	--	--	<0.02	0.14	0.053
26...	0.31	--	E.02	--	--	0.14	--	E.005	--	--	E.01	--	0.034
DEC 12...	0.48	--	<0.04	--	--	0.21	--	<0.008	--	--	<0.02	0.16	0.064
30...	0.32	--	<0.04	--	--	0.23	--	<0.008	--	--	<0.02	--	0.043
JAN 16...	0.28	--	<0.04	--	--	0.12	--	<0.008	--	--	<0.02	0.05	0.037
29...	0.30	--	<0.04	--	--	0.09	--	<0.008	--	--	<0.02	--	0.030
FEB 11...	0.50	--	<0.04	--	--	0.24	--	E.004	--	--	<0.02	0.09	0.051
27...	E.74	--	E.06	--	--	E.29	--	E.006	--	--	E.01	0.33	E.140
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	0.50	--	<0.04	--	--	0.26	--	E.005	--	--	<0.02	--	0.065
21...	0.65	0.07	0.06	--	--	0.19	--	E.004	0.59	--	E.01	0.18	0.080
APR 07...	1.0	0.07	0.06	0.629	0.14	0.15	0.026	0.008	0.98	0.058	0.02	0.51	0.199
18...	0.34	--	<0.04	--	--	0.09	--	<0.008	--	--	<0.02	0.08	0.041
MAY 08...	0.60	--	E.04	--	--	0.13	--	E.005	--	--	<0.02	0.16	0.057
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	E.51	--	E.04	0.854	0.19	0.20	0.030	0.009	--	--	E.01	0.07	E.047
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	0.45	--	<0.04	--	--	0.21	--	E.004	--	--	E.01	0.08	0.054
AUG 25...	0.40	--	<0.04	--	--	0.09	--	<0.008	--	--	E.01	0.05	0.045
SEP 05...	0.76	--	<0.04	--	--	0.07	--	<0.008	--	--	<0.02	0.34	0.069

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	1-Naphthol, water, fltrd 0.7u GF (49295)	2-(4-t-Butylphenoxy)cyclohexanol wat flt ug/L (61637)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF (38746)	2,5-Di-chloro-aniline water, fltrd, ug/L (61614)	2,6-Di-ethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Amino-N-iso-propyl-benzamide, wat flt ug/L (61617)	2Chloro-2,6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)
OCT 17...	E.01	<0.01	<0.009	0.08	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	E.05	<0.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.09	<0.01	<0.009	0.06	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.009	E.16	<0.004
26...	<0.09	<0.01	<0.009	0.03	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.006	E.04	<0.004
DEC 12...	M	<0.01	<0.009	0.13	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.018	E.11	<0.004
30...	<0.09	<0.01	<0.009	0.04	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.006	E.04	<0.004
JAN 16...	<0.09	<0.01	<0.009	0.03	<0.02	<0.03	--	<0.1	<0.005	<0.005	<0.03	E.03	<0.004
29...	<0.09	<0.01	<0.009	0.02	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.007	E.03	<0.004
FEB 11...	<0.09	<0.01	<0.009	E.08	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.014	E.03	<0.004
27...	<0.09	<0.01	E.074	E.26	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.011	E.05	<0.004
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.09	<0.01	<0.009	0.16	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.005	E.03	<0.004
21...	<0.09	<0.01	0.077	0.45	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.009	E.06	<0.004
APR 07...	<0.09	<0.01	0.136	E1.77	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.007	E.03	<0.004
18...	<0.09	<0.01	<0.009	0.08	<0.02	<0.03	<0.006	--	<0.005	<0.005	E.004	E.02	<0.004
MAY 08...	<0.09	<0.01	0.041	0.16	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.005	E.05	<0.004
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	--	<0.01	<0.009	0.07	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	E.007	E.01	<0.004
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.09	<0.01	<0.009	<0.02	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.04	<0.004
AUG 25...	<0.09	<0.01	<0.009	0.07	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.04	<0.004
SEP 05...	<0.09	<0.01	<0.009	0.26	<0.02	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.04	<0.004

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	OIET, water, fltrd, ug/L (50355)	3-(Tri- fluoro- methyl) aniline water, fltrd, ug/L (61630)	3,4-Di- chloro- aniline water, fltrd, ug/L (61625)	3,5-Di- chloro- aniline water, fltrd, ug/L (61627)	3- Hydroxy- carbo- furan, wat flt 0.7u GF ug/L (49308)	3-Keto- carbo- furan, water, fltrd, ug/L (50295)	3-Phen- oxy- benzyl alcohol water, fltrd, ug/L (61629)	4- (MeOH)- pendi- meth- alin, wat flt ug/L (61665)	4,4-Di' chloro- benzo- phen- one, wat flt ug/L (61631)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	4Chloro phenyl- methyl sulfone water, fltrd, ug/L (61634)	Aceto- chlor, water, fltrd, ug/L (49260)	Aci- fluor- fen, water, fltrd 0.7u GF ug/L (49315)
OCT 17...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
26...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
DEC 12...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
30...	E.013	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
JAN 16...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	--	<0.007
29...	E.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
FEB 11...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
27...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	E.009	<0.03	<0.006	<0.007
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	E.011	<0.03	<0.006	<0.007
21...	E.013	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	E.013	<0.03	<0.006	<0.007
APR 07...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	--	<0.003	E.007	<0.03	<0.006	<0.007
18...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	--	--	<0.003	E.005	<0.03	<0.006	<0.007
MAY 08...	E.024	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	E.004	<0.03	<0.006	<0.007
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	E.021	<0.01	0.007	<0.005	<0.006	<2	<0.05	<0.1	<0.003	<0.006	<0.03	<0.006	<0.007
AUG 25...	E.015	<0.01	0.008	<0.005	<0.006	<2	--	--	<0.003	<0.006	<0.03	<0.006	<0.007
SEP 05...	<0.008	<0.01	<0.004	<0.005	<0.006	<2	--	--	<0.003	<0.006	<0.03	<0.006	<0.007

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ala-chlor, water, fltrd, ug/L (46342)	Aldi-carb sulfone water, fltrd 0.7u GF (49313)	Aldi-carb sulf-oxide, wat flt 0.7u GF (49314)	Aldi-carb, water, fltrd 0.7u GF (49312)	alpha-Endo-sulfan, water, fltrd, ug/L (34362)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF (82686)	Bendio-carb, water, fltrd, ug/L (50299)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Benomyl water, fltrd, ug/L (50300)	Bensul-furon, water, fltrd, ug/L (61693)
OCT 17...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	E.006	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.269	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
26...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.055	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
DEC 12...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.277	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
30...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.048	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
JAN 16...	--	<0.02	<0.008	<0.04	<0.005	--	0.018	<0.02	--	<0.03	--	<0.004	<0.02
29...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.034	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
FEB 11...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.089	<0.12	<0.050	<0.03	<0.010	<0.004	<0.02
27...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	E.035	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.022	<0.02	<0.050	<0.03	E.006	<0.004	<0.02
21...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.035	<0.02	<0.050	<0.03	E.004	<0.004	<0.02
APR 07...	E.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.024	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
18...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.014	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
MAY 08...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.020	<0.02	<0.050	<0.03	<0.010	<0.004	<0.02
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	0.025	<0.03	<0.050	<0.03	<0.010	<0.004	<0.02
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	<0.007	<0.02	<0.050	<0.03	<0.010	E.041	<0.02
AUG 25...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	E.006	<0.02	<0.050	<0.03	<0.010	E.025	<0.02
SEP 05...	<0.004	<0.02	<0.008	<0.04	<0.005	<0.005	E.004	<0.02	<0.050	<0.03	<0.010	0.075	<0.02

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ben- tazon, water, fltrd 0.7u GF (38711)	beta- Endo- sulfan, water, fltrd, ug/L (34357)	Bifen- thrin, water, fltrd, ug/L (61580)	Broma- cil, water, fltrd, ug/L (04029)	Brom- oxynil, water, fltrd 0.7u GF (49311)	Butyl- ate, water, fltrd, ug/L (04028)	Caf- feine, water, fltrd, ug/L (50305)	Car- baryl, water, fltrd 0.7u GF (49310)	Car- baryl, water, fltrd 0.7u GF (82680)	Carbo- furan, water, fltrd 0.7u GF (49309)	Carbo- furan, water, fltrd 0.7u GF (82674)	Chlor- amben methyl ester, water, fltrd, ug/L (61188)	Chlori- muron, water, fltrd, ug/L (50306)
OCT 17...	E.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.123	E.11	E.197	<0.006	<0.020	<0.02	<0.010
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	0.034	E.02	E.037	<0.006	<0.020	<0.02	<0.010
26...	E.01	<0.01	<0.005	<0.03	<0.02	<0.002	0.018	E.01	E.013	<0.006	<0.020	<0.02	<0.010
DEC 12...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	<0.010	E.01	E.013	<0.006	<0.020	<0.02	<0.010
30...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	0.045	M	E.005	<0.006	<0.020	<0.02	<0.010
JAN 16...	<0.01	<0.01	<0.005	<0.03	<0.02	--	<0.010	<0.0035	--	<0.006	--	<0.02	<0.010
29...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.038	E.01	E.038	<0.006	<0.020	<0.02	<0.010
FEB 11...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.026	<0.03	E.009	<0.006	<0.020	<0.02	<0.010
27...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.069	M	E.009	<0.006	<0.020	<0.02	<0.010
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	<0.010	M	E.011	<0.006	<0.020	<0.02	<0.010
21...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.041	E.01	E.020	<0.006	<0.020	<0.02	<0.010
APR 07...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.086	<0.03	E.034	<0.006	<0.020	<0.02	<0.010
18...	<0.01	<0.01	<0.005	E.02	<0.02	<0.002	E.015	M	E.008	<0.006	<0.020	<0.02	<0.010
MAY 08...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.048	E.01	E.019	<0.006	<0.020	<0.02	<0.010
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	<0.010	E.02	E.034	<0.006	<0.020	<0.02	<0.010
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	E.093	E.04	E.041	<0.006	<0.020	<0.02	<0.010
AUG 25...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	0.023	<0.03	<0.041	<0.006	<0.020	<0.02	<0.010
SEP 05...	<0.01	<0.01	<0.005	<0.03	<0.02	<0.002	0.045	E.01	E.057	<0.006	<0.020	<0.02	<0.010

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chloro- di- amino- s-tri- azine, wat flt ug/L (04039)	Chloro- thalo- nil, water, fltrd 0.7u GF ug/L (49306)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	cis- Propi- cona- zole, water, fltrd, ug/L (79846)	Clopyr- alid, water, fltrd 0.7u GF ug/L (49305)	Cyana- zine, water, fltrd, ug/L (04041)	Cyclo- ate, water, fltrd, ug/L (04031)	Cyflu- thrin, water, fltrd, ug/L (61585)	lambda- Cyhalo- thrin, water, fltrd, ug/L (61595)	Cyper- methrin water, fltrd, ug/L (61586)	Dacthal mono- acid, water, fltrd 0.7u GF ug/L (49304)
OCT 17...	E.02	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
26...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
DEC 12...	E.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
30...	<0.01	<0.04	<0.06	0.007	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
JAN 16...	<0.01	<0.04	<0.06	--	--	<0.008	<0.01	--	<0.005	<0.008	<0.009	<0.009	<0.01
29...	<0.01	<0.04	<0.06	E.008	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
FEB 11...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
27...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.01	<0.04	<0.06	0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
21...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
APR 07...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
18...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
MAY 08...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	0.03	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
AUG 25...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01
SEP 05...	<0.01	<0.04	<0.06	<0.005	<0.006	<0.008	<0.01	<0.018	<0.005	<0.008	<0.009	<0.009	<0.01

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	DCPA, water fltrd 0.7u GF (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Dicamba water fltrd 0.7u GF (38442)	Di- chlor- prop, water, fltrd 0.7u GF (49302)	Dicro- tophos, water fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- oate, water, fltrd 0.7u GF (82662)	Dinoseb water, fltrd 0.7u GF (49301)	Diphen- amid, water, fltrd, ug/L (04033)	Disulf- oton sulfone water, fltrd, ug/L (61640)	Disulf- oton sulf- oxide, water, fltrd, ug/L (61641)	Disul- foton, water, fltrd 0.7u GF (82677)
OCT 17...	<0.003	0.005	0.081	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.003	0.004	0.055	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
26...	<0.003	0.004	E.023	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
DEC 12...	<0.003	0.005	0.074	--	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
30...	<0.003	<0.004	0.068	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
JAN 16...	--	--	--	<0.01	<0.01	<0.08	--	<0.006	<0.01	<0.0028	<0.02	<0.002	--
29...	<0.003	<0.004	0.045	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
FEB 11...	<0.003	0.005	0.044	<0.01	E.03	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
27...	<0.003	<0.004	E.025	<0.01	E.07	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.003	0.005	0.072	0.10	0.06	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
21...	<0.003	0.005	0.075	<0.01	0.05	<0.08	<0.005	<0.006	<0.01	M	<0.02	<0.002	<0.02
APR 07...	<0.003	0.006	0.033	0.10	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
18...	<0.003	0.005	0.022	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
MAY 08...	<0.003	0.008	0.022	0.05	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.003	0.005	0.016	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.003	<0.004	<0.010	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
AUG 25...	<0.003	0.006	E.004	<0.01	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02
SEP 05...	<0.003	0.007	0.011	<0.05	<0.01	<0.08	<0.005	<0.006	<0.01	<0.03	<0.02	<0.002	<0.02

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Diuron, water, fltrd 0.7u GF (49300)	e-Di- metho- morph, water, fltrd, ug/L (79844)	Endo- sulfan ether, water, fltrd, ug/L (61642)	Endo- sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Etho- prop, water, fltrd 0.7u GF (82672)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos- water, fltrd, ug/L (61591)	Fen- thion sulf- oxide, water, fltrd, ug/L (61647)
OCT 17...	E.05	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	E.01	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
26...	0.03	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
DEC 12...	0.02	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
30...	E.02	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
JAN 16...	0.01	<0.02	<0.004	<0.006	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	<0.008
29...	<0.01	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
FEB 11...	<0.01	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	0.326	<0.008	--	<0.03	<0.008
27...	<0.01	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	E.352	<0.008	<0.03	<0.03	<0.008
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	0.03	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	0.114	<0.008	<0.03	<0.03	<0.008
21...	0.02	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	0.025	<0.008	<0.03	<0.03	<0.008
APR 07...	<0.01	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	0.012	<0.008	<0.03	<0.03	<0.008
18...	0.02	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
MAY 08...	E.02	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.01	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	--	<0.03	<0.008
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	E.12	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
AUG 25...	0.05	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008
SEP 05...	0.05	<0.02	<0.004	<0.006	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fen- thion, water, fltrd, ug/L (38801)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Flume- tralin, water, fltrd, ug/L (61592)	Flumet- sulam, water, fltrd, ug/L (61694)	Fluo- meturon water fltrd 0.7u GF ug/L (38811)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Imaza- quin, water, fltrd, ug/L (50356)
OCT 17...	<0.02	<0.03	<0.009	<0.005	0.006	E.027	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.02	<0.03	<0.009	<0.005	0.006	E.019	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
26...	<0.02	<0.03	<0.009	0.005	0.006	E.019	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
DEC 12...	<0.02	<0.03	<0.009	0.005	0.005	E.020	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
30...	<0.02	<0.03	<0.009	<0.005	<0.005	E.016	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
JAN 16...	<0.02	<0.03	--	--	--	--	<0.004	<0.01	<0.03	<0.002	--	<0.013	<0.02
29...	<0.02	<0.03	E.002	<0.005	<0.005	E.011	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
FEB 11...	<0.02	<0.03	<0.009	0.006	0.009	E.025	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
27...	<0.02	<0.03	<0.009	<0.005	E.007	E.052	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.02	<0.03	<0.009	0.005	0.009	E.035	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
21...	<0.02	<0.03	<0.009	0.005	0.009	E.042	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
APR 07...	<0.02	<0.03	<0.009	0.005	0.008	E.032	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
18...	<0.02	<0.03	<0.009	<0.005	0.006	E.022	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
MAY 08...	<0.02	<0.03	<0.009	E.004	0.008	E.020	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.02	<0.03	E.004	<0.005	<0.005	E.013	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.02	<0.03	<0.009	<0.005	<0.005	E.015	<0.004	<0.01	<0.03	<0.002	<0.003	0.015	<0.02
AUG 25...	<0.02	<0.07	<0.009	0.007	0.009	E.015	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02
SEP 05...	<0.02	<0.03	<0.009	0.007	0.008	E.017	<0.004	<0.01	<0.03	<0.002	<0.003	<0.013	<0.02

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Imaze- thapyr, water, fltrd, ug/L (50407)	Imida- cloprid water, fltrd, ug/L (61695)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF (38478)	Linuron water fltrd 0.7u GF (82666)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF (38482)	MCPB, water, fltrd 0.7u GF (38487)	Meta- laxyl, water, fltrd, ug/L (50359)	Meta- laxyl, water, fltrd, ug/L (61596)
OCT 17... 23...	<0.02 --	E.041 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	<0.02 --	<0.01 --	<0.02 --	<0.005 --
NOV 08... 26...	<0.02 --	<0.007 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	<0.02 --	<0.01 --	<0.02 --	<0.005 --
DEC 12... 30...	<0.02 --	<0.007 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	0.02 --	<0.01 --	<0.02 --	<0.005 --
JAN 16... 29...	<0.02 --	<0.007 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	E.01 E.01	<0.01 --	<0.02 --	<0.005 --
FEB 11... 27...	<0.02 --	<0.007 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	E.08 E.65	<0.01 --	<0.02 --	<0.005 --
MAR 04... 21...	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
APR 07... 18...	<0.02 --	<0.007 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	0.10 0.05	<0.01 --	E.01 --	<0.005 --
MAY 08... 13...	<0.02 --	<0.007 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	E.09 --	<0.01 --	<0.02 --	<0.005 --
JUN 04... 25...	<0.02 --	<0.007 --	<1 --	<0.003 --	<0.004 --	<0.01 --	<0.035 --	<0.008 --	<0.027 --	0.03 --	<0.01 --	<0.02 --	<0.005 --
JUL 09... 14...	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
AUG 25...	<0.02	<0.023	<1	<0.003	<0.004	<0.01	<0.035	<0.008	<0.027	<0.02	<0.01	<0.02	<0.005
SEP 05...	<0.02	<0.020	<1	<0.003	<0.004	<0.01	<0.035	<0.008	<0.027	0.04	<0.01	E.01	<0.005

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Methi- althion water, fltrd, ug/L (61598)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Meth- omyl, water, fltrd 0.7u GF ug/L (49296)	c-Per- methric acid methyl ester, wat flt ug/L (79842)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	t-Per- methric acid methyl ester, wat flt ug/L (79843)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Metsul- furon, water, fltrd, ug/L (61697)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Myclo- butanil water, fltrd, ug/L (61599)	N-(4- Chloro- phenyl) -N- methyl- urea, ug/L (61692)
OCT 17...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.005	<0.006	<0.03	<0.002	0.161	<0.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.004	<0.006	<0.03	<0.002	0.086	<0.02
26...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.008	<0.006	<0.03	<0.002	0.019	<0.02
DEC 12...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	<0.013	<0.006	<0.03	<0.002	0.080	<0.02
30...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	<0.013	<0.006	<0.03	<0.002	0.022	<0.02
JAN 16...	<0.006	<0.008	<0.004	<0.04	<0.03	--	<0.03	--	--	<0.03	--	0.022	<0.02
29...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	<0.013	<0.006	<0.03	<0.002	0.016	<0.02
FEB 11...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	<0.013	<0.006	<0.03	<0.002	0.037	<0.02
27...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	<0.013	<0.006	<0.03	<0.002	E.029	<0.02
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.004	<0.006	<0.03	<0.002	<0.008	<0.02
21...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	0.017	<0.006	<0.03	<0.002	0.018	<0.02
APR 07...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.012	<0.006	<0.03	<0.002	<0.008	<0.02
18...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.011	<0.006	<0.03	<0.002	<0.008	<0.02
MAY 08...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.010	<0.006	<0.03	<0.002	<0.008	<0.02
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.008	<0.006	<0.03	<0.002	<0.008	<0.02
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	<0.013	<0.006	<0.03	<0.002	0.025	<0.02
AUG 25...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.005	<0.006	<0.03	<0.002	0.016	<0.02
SEP 05...	<0.006	<0.008	<0.004	<0.04	<0.03	<0.006	<0.03	E.002	<0.006	<0.03	<0.002	0.021	<0.02

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Naprop- amide, water, fltrd 0.7u GF (82684)	Neburon water, fltrd 0.7u GF (49294)	Nico- sul- furon, water, fltrd, ug/L (50364)	Norflur azon, water, fltrd 0.7u GF (49293)	O-Et-O- Me-S-Pr -phos- pho- thioate wat flt ug/L (61660)	Ory- zalin, water, fltrd 0.7u GF (49292)	Oxamyl, water, fltrd 0.7u GF (38866)	Oxy- fluor- fen, water, fltrd, ug/L (61600)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- oxon, water, fltrd, ug/L (61663)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF (82669)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)
OCT 17...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
26...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
DEC 12...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
30...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
JAN 16...	--	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	--	<0.008	--	--	--
29...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
FEB 11...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
27...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	E.021
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	0.026
21...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	0.051
APR 07...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	0.026
18...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
MAY 08...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
AUG 25...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022
SEP 05...	<0.007	<0.01	<0.01	<0.02	<0.008	<0.02	<0.01	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Phoste- bupirim water, fltrd, ug/L (61602)	Pic- loram, water, fltrd 0.7u GF ug/L (49291)	Pro- fenofos water, fltrd, ug/L (61603)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)
OCT 17...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.09	<0.005	<0.010	<0.010	<0.011	<0.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.06	<0.005	<0.004	<0.010	<0.011	<0.02
26...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.04	<0.005	<0.004	<0.010	<0.011	<0.02
DEC 12...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.03	<0.005	<0.004	<0.010	<0.011	<0.02
30...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.02	<0.005	<0.004	<0.010	<0.011	<0.02
JAN 16...	<0.10	--	<0.06	<0.008	<0.005	<0.02	<0.006	--	<0.005	--	--	--	--
29...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	E.01	<0.005	<0.007	<0.010	<0.011	<0.02
FEB 11...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.02	<0.005	0.030	<0.010	<0.011	<0.02
27...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	E.01	<0.005	E.025	<0.010	<0.011	<0.02
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	E.01	<0.005	0.013	<0.010	<0.011	<0.02
21...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	E.01	<0.005	0.124	<0.010	<0.011	<0.02
APR 07...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	E.01	<0.005	0.052	<0.010	<0.011	<0.02
18...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.06	<0.005	0.031	<0.010	<0.011	<0.02
MAY 08...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.07	<0.005	0.042	<0.010	<0.011	<0.02
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.04	<0.005	0.033	<0.010	<0.011	<0.02
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.02	<0.005	<0.004	<0.010	<0.011	<0.02
AUG 25...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.02	<0.005	<0.004	<0.010	<0.011	<0.02
SEP 05...	<0.10	<0.011	<0.06	<0.008	<0.005	<0.02	<0.006	0.02	<0.005	<0.015	<0.010	<0.011	<0.02

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Propet- amphos, water, fltrd, ug/L (61604)	Propham water fltrd 0.7u GF ug/L (49236)	Propi- cona- zole, water, fltrd, ug/L (50471)	Pro- poxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Sima- zine, water, fltrd, ug/L (04035)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Sulfo- tepp, water, fltrd, ug/L (61605)	Sulpro- fos, water, fltrd, ug/L (38716)	Tebu- pirim- phos oxon, water, fltrd, ug/L (61669)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Teflu- thrin metab- olite R119365 wat flt ug/L (61671)	Teflu- thrin metab- olite R152913 wat flt ug/L (61672)
OCT 17...	<0.004	<0.010	<0.02	<0.008	E.05	0.864	<0.009	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.004	<0.010	<0.02	<0.008	<0.02	1.29	<0.009	<0.003	<0.02	<0.006	E.01	<0.02	<0.01
26...	<0.004	<0.010	<0.02	<0.008	<0.02	0.229	<0.009	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
DEC 12...	<0.004	<0.010	<0.02	<0.008	0.02	1.31	<0.009	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
30...	<0.004	<0.010	<0.02	<0.008	M	0.488	<0.009	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
JAN 16...	<0.004	<0.010	<0.02	<0.008	<0.02	--	<0.009	<0.003	<0.02	<0.006	<0.006	<0.02	<0.01
29...	0.007	<0.010	<0.02	<0.008	<0.02	0.348	<0.009	<0.003	<0.02	<0.006	M	<0.02	<0.01
FEB 11...	<0.004	<0.010	<0.02	<0.008	<0.02	1.20	E.012	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
27...	<0.004	<0.010	<0.02	<0.008	<0.02	E1.07	E.044	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.004	<0.010	<0.02	<0.008	<0.02	0.822	0.033	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
21...	<0.004	<0.010	<0.02	<0.008	0.02	0.938	0.032	<0.003	<0.02	<0.006	<0.02	<0.02	<0.01
APR 07...	<0.004	<0.010	<0.02	<0.008	E.02	0.322	<0.009	<0.003	<0.02	<0.006	<0.02	--	--
18...	<0.004	<0.010	<0.02	<0.008	E.01	0.181	<0.009	<0.003	<0.02	<0.006	<0.02	--	--
MAY 08...	<0.004	<0.010	<0.02	<0.008	<0.02	0.188	E.008	<0.003	<0.02	<0.006	<0.02	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.004	<0.010	<0.02	<0.008	<0.02	0.089	<0.009	<0.003	<0.02	<0.006	<0.02	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.004	<0.010	<0.02	<0.008	<0.02	0.011	<0.009	<0.003	<0.02	<0.006	<0.02	--	--
AUG 25...	<0.004	<0.010	<0.02	<0.008	<0.02	0.009	<0.009	<0.003	<0.02	<0.006	E.01	--	--
SEP 05...	<0.004	<0.010	<0.02	<0.008	0.02	0.010	<0.009	<0.003	<0.02	<0.006	E.02	--	--

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Teflu- thrin, water, fltrd, ug/L (61606)	Teme- phos, water, fltrd, ug/L (61607)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terba- cil, water, fltrd, ug/L (04032)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	trans- Propi- cona- zole, water, fltrd, ug/L (79847)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tribu- phos, water, fltrd, ug/L (61610)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
OCT 17...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	0.03	<0.009
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.02	E.004
26...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.02	<0.009
DEC 12...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.02	<0.009
30...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	E.02	<0.009
JAN 16...	<0.008	<0.3	--	<0.010	<0.07	--	<0.01	--	<0.01	--	<0.004	E.02	--
29...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.02	<0.009
FEB 11...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	E.02	<0.009
27...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	E.15	<0.009
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	0.08	0.064
21...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	0.09	E.008
APR 07...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	0.15	E.005
18...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.02	<0.009
MAY 08...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	0.03	<0.009
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.008	--	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.02	<0.009
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.008	--	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	0.05	<0.009
AUG 25...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.02	<0.009
SEP 05...	<0.008	<0.3	<0.034	<0.010	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	0.12	<0.009

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	z-Di- metho- morph, water, fltrd, ug/L (79845)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3,4 Tetra- methyl- benzene water unfltrd ug/L (49999)	1,2,3,5 Tetra- methyl- benzene water unfltrd ug/L (50000)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)
OCT 17...	<0.05	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
NOV 08...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
26...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
DEC 12...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
30...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
JAN 16...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
29...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
FEB 11...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
27...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
21...	<0.05	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
18...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
MAY 08...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
AUG 25...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16
SEP 05...	<0.05	<0.03	<0.03	<0.09	<0.06	<0.06	<0.04	<0.04	<0.05	<0.2	<0.2	<0.3	<0.16

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	1,2,3-Tri-methyl-benzene water unfltrd ug/L (77221)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
NOV 08...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
26...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	E.03	<0.04	<0.03	<0.1	<0.05	<0.05
DEC 12...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	E.02	<0.04	<0.03	<0.1	<0.05	<0.05
30...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
JAN 16...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
29...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
FEB 11...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
27...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
18...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
MAY 08...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
AUG 25...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05
SEP 05...	<0.1	<0.1	<0.06	<0.5	<0.04	<0.03	<0.1	<0.03	<0.04	<0.03	<0.1	<0.05	<0.05

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	2-Chloro- toluene water unfltrd ug/L (77275)	2-Ethyl- toluene water unfltrd ug/L (77220)	3-Chloro- propene water unfltrd ug/L (78109)	4-Chloro- toluene water unfltrd ug/L (77277)	4-Iso- propyl- toluene water unfltrd ug/L (77356)	Acetone water unfltrd ug/L (81552)	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)	Bromo- chloro- methane water unfltrd ug/L (77297)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Bromo- ethene, water, unfltrd ug/L (50002)	Bromo- methane water unfltrd ug/L (34413)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
NOV 08...	<0.04	<0.06	<0.12	<0.05	E.01	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
26...	<0.04	<0.06	<0.12	<0.05	E.02	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
DEC 12...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
30...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.02	<0.04	<0.12	<0.05	<0.1	<0.3
JAN 16...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
29...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.01	<0.04	<0.12	<0.05	<0.1	<0.3
FEB 11...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
27...	<0.04	<0.06	<0.12	<0.05	<0.12	E2	<1	E.01	<0.04	<0.12	<0.05	<0.1	<0.3
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<0.04	<0.06	<0.12	<0.05	E.01	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
18...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
MAY 08...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	<0.04	<0.04	<0.12	<0.05	<0.1	<0.3
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.02	<0.04	<0.12	<0.05	<0.1	<0.3
AUG 25...	<0.04	<0.06	<0.12	<0.05	<0.12	E1	<1	E.02	<0.04	<0.12	<0.05	<0.1	<0.3
SEP 05...	<0.04	<0.06	<0.12	<0.05	<0.12	<7	<1	E.04	<0.04	<0.12	<0.05	<0.1	<0.3

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Carbon di-sulfide water unfltrd ug/L (77041)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl methac-rylate, water, unfltrd ug/L (73570)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
NOV 08...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
26...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
DEC 12...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
30...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
JAN 16...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
29...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
FEB 11...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
27...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
18...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
MAY 08...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
AUG 25...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2
SEP 05...	<0.07	<0.03	<0.1	<0.2	<0.04	<0.09	<0.2	<0.05	<0.18	<0.2	<0.2	<0.10	<0.2

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ethyl methyl ketone, water, unfltrd ug/L (81595)	Ethylbenzene water unfltrd ug/L (34371)	Hexachlorobutadiene, water, unfltrd ug/L (39702)	Hexachloroethane, water, unfltrd ug/L (34396)	Iodomethane water unfltrd ug/L (77424)	Iso-butyl methyl ketone, water, unfltrd ug/L (78133)	Iso-propylbenzene water unfltrd ug/L (77223)	Methyl acrylonitrile water unfltrd ug/L (81593)	Methyl acrylate, water, unfltrd ug/L (49991)	Methyl methacrylate, water, unfltrd ug/L (81597)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta+ para-Xylene, water, unfltrd ug/L (85795)	Naphthalene, water, unfltrd ug/L (34696)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
NOV 08...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
26...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
DEC 12...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
30...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
JAN 16...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
29...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
FEB 11...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
27...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
18...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
MAY 08...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
AUG 25...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5
SEP 05...	<5.0	<0.03	<0.1	<0.2	<0.35	<0.4	<0.06	<0.6	<2.0	<0.3	<0.08	<0.06	<0.5

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Methyl n-butyl ketone, water, unfltrd ug/L (77103)	n-Butyl benzene water unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)	o- Xylene, water, unfltrd ug/L (77135)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Tetra- hydro- furan, water, unfltrd ug/L (81607)	Toluene water unfltrd ug/L (34010)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.02
NOV 08...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.02
26...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	M	<0.10	<0.03	<0.06	<2	E.05
DEC 12...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.03
30...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	M	<0.10	<0.03	<0.06	<2	E.06
JAN 16...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.08
29...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.09
FEB 11...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.04
27...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.03
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.02
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.09
18...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.08
MAY 08...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	0.11
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 04...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	0.11
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.09
AUG 25...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.08
SEP 05...	<0.7	<0.2	<0.04	<0.07	<0.06	<0.04	<0.05	<0.2	<0.10	<0.03	<0.06	<2	E.07

02087580 SWIFT CREEK NEAR APEX, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	trans-1,4-Di-chloro-2-butene, wat unfltrd ug/L (73547)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chlor-ide, water, unfltrd ug/L (39175)	Di-chlor-vo-s, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment load, tons/d (80155)
OCT												
17...	--	--	--	--	--	--	--	--	E.02	96	10	0.73
23...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	--	--	--	--
NOV												
08...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	M	94	12	0.62
26...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.01	<0.1	<0.01	89	6	0.11
DEC												
12...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	96	8	0.63
30...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.02	<0.1	<0.01	92	9	0.20
JAN												
16...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	95	15	0.07
29...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.01	<0.1	<0.01	94	6	0.02
FEB												
11...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	87	14	1.4
27...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	76	121	40
MAR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.02	<0.1	<0.01	94	17	2.3
21...	--	--	--	--	--	--	--	--	E.01	89	25	7.1
APR												
07...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.01	<0.1	<0.01	84	131	29
18...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	90	9	0.24
MAY												
08...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	94	11	0.24
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	E.02	<0.1	<0.01	87	11	0.26
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	--
14...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	94	14	0.95
AUG												
25...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	<0.01	84	7	0.03
SEP												
05...	<0.03	<0.09	<0.7	<0.10	<0.04	<0.09	<0.02	<0.1	E.01	97	11	0.86

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

Medium codes used in this table:

9 - Surface water

D - Plant tissue

02087580 SWIFT CREEK NEAR APEX, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	106	94	100	76	67	71	---	---	---	---	---	---
2	113	102	105	70	53	62	---	---	---	---	---	---
3	139	110	122	78	58	70	---	---	---	---	---	---
4	149	110	122	78	68	73	---	---	---	87	61	75
5	130	105	114	99	76	89	---	---	---	73	61	67
6	121	111	117	95	88	92	74	70	72	---	---	---
7	---	---	---	98	90	94	79	71	75	---	---	---
8	---	---	---	102	89	96	80	26	61	---	---	---
9	---	---	---	99	94	97	51	41	47	69	62	65
10	---	---	---	96	90	93	56	49	52	77	67	72
11	82	77	80	109	89	96	71	51	61	82	73	77
12	94	69	84	97	80	88	82	71	77	81	75	79
13	85	75	79	89	80	85	81	72	77	86	78	81
14	88	84	86	99	78	89	82	71	75	90	86	88
15	---	---	---	79	75	76	85	73	79	92	88	90
16	---	---	---	87	79	83	73	65	68	100	68	79
17	---	---	---	87	77	81	71	65	67	87	76	80
18	---	---	---	96	82	88	78	71	74	---	---	---
19	---	---	---	105	90	97	80	73	77	---	---	---
20	---	---	---	107	85	90	74	60	66	73	69	71
21	81	73	77	91	86	88	64	59	61	76	73	75
22	85	80	83	97	91	94	67	62	65	84	68	78
23	97	83	90	101	97	99	73	67	70	72	63	66
24	102	97	99	101	98	99	74	72	73	71	66	69
25	101	96	98	103	98	101	76	55	65	77	66	75
26	101	92	97	109	100	103	59	55	57	83	77	81
27	92	77	82	110	104	107	59	56	57	86	82	85
28	80	69	78	117	106	111	60	55	57	93	85	89
29	78	70	76	124	84	108	59	43	51	96	90	93
30	77	71	76	96	62	67	48	34	42	102	89	93
31	---	---	---	74	70	72	---	---	---	---	---	---
MONTH	---	---	---	124	53	89	---	---	---	---	---	---

02087580 SWIFT CREEK NEAR APEX, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.3	19.8	21.0	27.3	25.8	26.7	---	---	---	---	---	---
2	21.9	18.3	20.1	25.8	23.4	24.7	---	---	---	---	---	---
3	21.6	18.7	20.2	25.3	24.6	24.9	---	---	---	---	---	---
4	22.2	20.4	21.1	27.2	23.3	25.2	---	---	---	26.9	25.2	25.9
5	24.1	21.2	22.4	28.3	24.7	26.4	---	---	---	27.0	25.5	26.4
6	23.4	19.5	21.4	28.2	25.0	26.6	27.3	25.4	26.2	25.5	22.4	23.5
7	---	---	---	27.9	25.3	26.5	26.4	25.6	26.0	23.4	21.2	22.3
8	---	---	---	29.0	25.2	26.9	26.0	23.5	25.2	23.5	21.2	22.3
9	---	---	---	29.5	25.7	27.4	26.6	24.8	25.7	24.2	22.7	23.4
10	---	---	---	28.7	25.3	26.8	26.1	24.2	25.5	23.2	21.2	22.0
11	26.4	22.6	24.5	28.7	24.8	26.4	26.7	24.9	25.5	22.0	19.6	20.9
12	25.8	23.7	24.7	28.4	24.9	26.4	29.2	23.5	25.8	21.3	20.3	20.7
13	26.7	24.4	25.4	26.3	24.1	25.0	29.5	23.2	25.6	20.9	20.1	20.5
14	27.0	24.1	25.4	25.3	23.0	24.2	29.5	23.3	26.3	22.8	20.5	21.5
15	---	---	---	26.9	24.0	25.4	31.3	24.1	27.4	23.6	20.7	22.0
16	---	---	---	27.7	24.0	25.8	28.0	22.5	24.9	23.6	21.5	22.5
17	---	---	---	27.7	25.2	26.4	29.5	23.1	25.1	22.3	20.3	21.4
18	---	---	---	27.5	24.7	26.1	30.2	21.7	25.5	21.6	19.9	20.6
19	---	---	---	26.3	24.8	25.5	27.1	23.8	25.9	22.7	20.5	21.4
20	---	---	---	27.3	23.4	25.3	29.4	22.6	25.0	23.3	20.6	22.0
21	24.4	22.5	23.4	27.6	24.1	25.8	30.3	21.3	25.2	23.4	20.8	22.2
22	24.0	20.7	22.4	28.1	25.1	26.4	30.0	21.9	24.6	23.2	22.1	22.7
23	25.3	20.9	23.0	26.2	24.1	24.8	30.0	21.7	25.4	24.4	22.6	23.5
24	26.0	21.3	23.7	26.1	23.5	24.6	28.2	21.1	24.3	23.5	21.5	22.6
25	26.6	22.0	24.3	26.1	22.8	24.4	28.3	19.1	23.6	22.7	20.0	21.5
26	27.0	22.5	24.8	27.2	23.3	25.1	30.8	20.6	25.0	22.5	19.8	21.3
27	27.3	23.5	25.4	28.3	24.0	26.0	31.9	21.7	26.2	22.3	19.7	21.1
28	25.5	23.2	24.4	28.8	24.8	26.5	31.6	22.9	26.7	22.5	20.6	21.4
29	26.1	22.6	24.3	28.6	24.8	26.5	31.5	23.2	26.7	20.6	18.0	19.0
30	27.3	23.8	25.4	28.2	27.1	27.7	31.0	23.4	26.6	18.1	15.7	16.9
31	---	---	---	27.2	25.8	26.5	---	---	---	---	---	---
MONTH	---	---	---	29.5	22.8	25.9	---	---	---	---	---	---

0208758440 DUTCHMANS BRANCH AT SECONDARY ROAD 1386 NEAR MCCULLERS CROSSROADS, NC

LOCATION.--Lat 35°41'32", long 78°44'07", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 1386, .9 mi above mouth, and 2.8 mi northwest of McCullers Crossroads.

DRAINAGE AREA.--4.58 mi².

GAGE-HEIGHT RECORDS

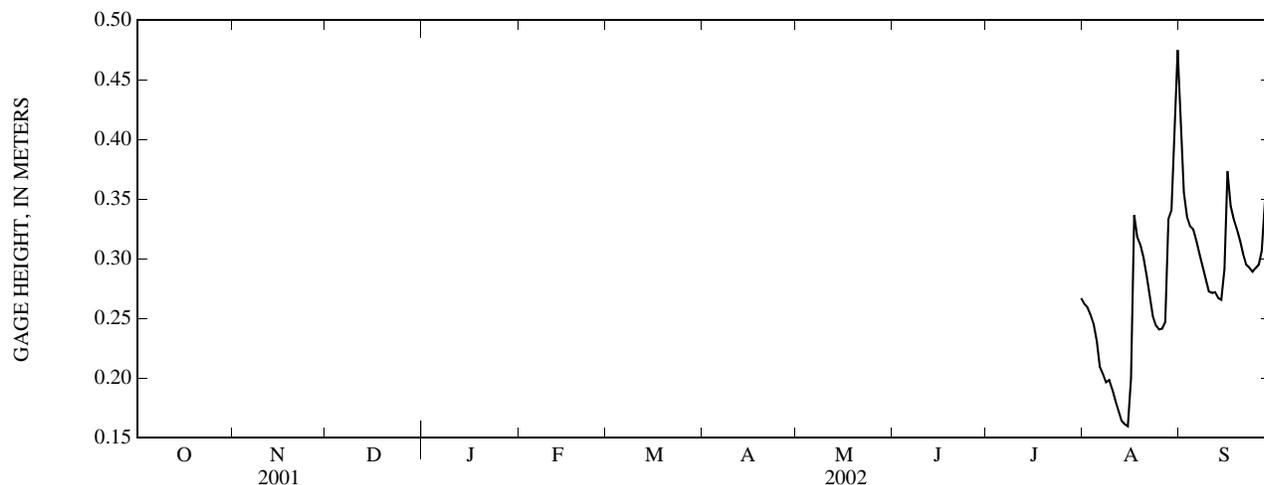
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 310 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.39 m, Aug. 8, 2003; minimum gage height recorded, 0.15 m, Aug. 13-16, 2002.

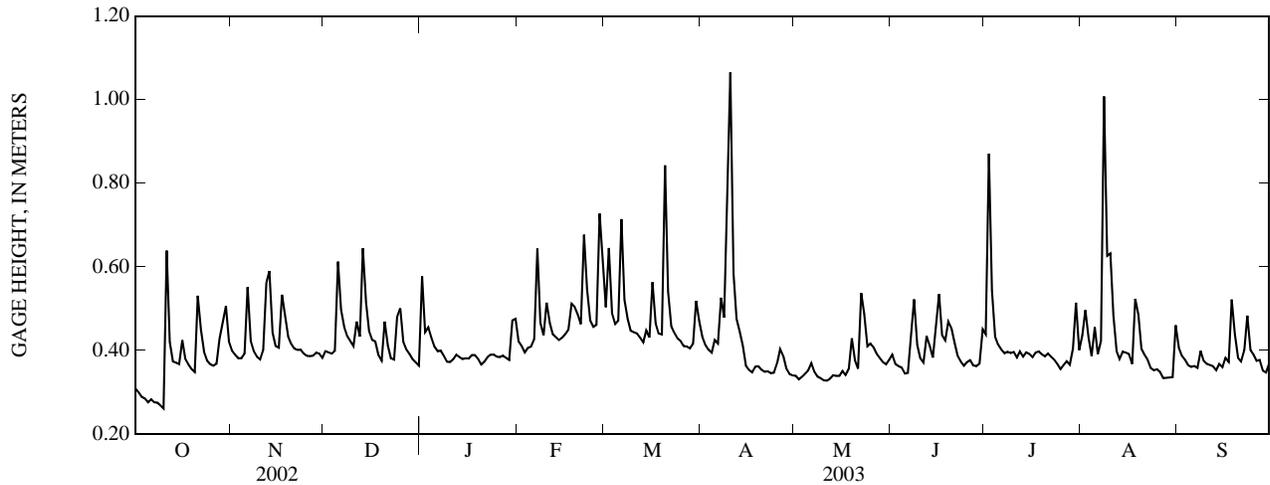
GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.26	0.41
2	---	---	---	---	---	---	---	---	---	---	0.26	0.36
3	---	---	---	---	---	---	---	---	---	---	0.25	0.34
4	---	---	---	---	---	---	---	---	---	---	0.25	0.33
5	---	---	---	---	---	---	---	---	---	---	0.23	0.32
6	---	---	---	---	---	---	---	---	---	---	0.21	0.31
7	---	---	---	---	---	---	---	---	---	---	0.20	0.30
8	---	---	---	---	---	---	---	---	---	---	0.20	0.29
9	---	---	---	---	---	---	---	---	---	---	0.20	0.28
10	---	---	---	---	---	---	---	---	---	---	0.19	0.27
11	---	---	---	---	---	---	---	---	---	---	0.18	0.27
12	---	---	---	---	---	---	---	---	---	---	0.17	0.27
13	---	---	---	---	---	---	---	---	---	---	0.16	0.27
14	---	---	---	---	---	---	---	---	---	---	0.16	0.27
15	---	---	---	---	---	---	---	---	---	---	0.16	0.29
16	---	---	---	---	---	---	---	---	---	---	0.20	0.37
17	---	---	---	---	---	---	---	---	---	---	0.34	0.34
18	---	---	---	---	---	---	---	---	---	---	0.32	0.33
19	---	---	---	---	---	---	---	---	---	---	0.31	0.32
20	---	---	---	---	---	---	---	---	---	---	0.30	0.32
21	---	---	---	---	---	---	---	---	---	---	0.29	0.30
22	---	---	---	---	---	---	---	---	---	---	0.27	0.29
23	---	---	---	---	---	---	---	---	---	---	0.25	0.29
24	---	---	---	---	---	---	---	---	---	---	0.24	0.29
25	---	---	---	---	---	---	---	---	---	---	0.24	0.29
26	---	---	---	---	---	---	---	---	---	---	0.24	0.29
27	---	---	---	---	---	---	---	---	---	---	0.25	0.31
28	---	---	---	---	---	---	---	---	---	---	0.33	0.35
29	---	---	---	---	---	---	---	---	---	---	0.34	0.34
30	---	---	---	---	---	---	---	---	---	---	0.40	0.32
31	---	---	---	---	---	---	---	---	---	0.27	0.47	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.25	0.31
MAX	---	---	---	---	---	---	---	---	---	---	0.47	0.41
MIN	---	---	---	---	---	---	---	---	---	---	0.16	0.27



GAGE HEIGHT, ABOVE DATUM, METERS
 WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 DAILY MEAN VALUES

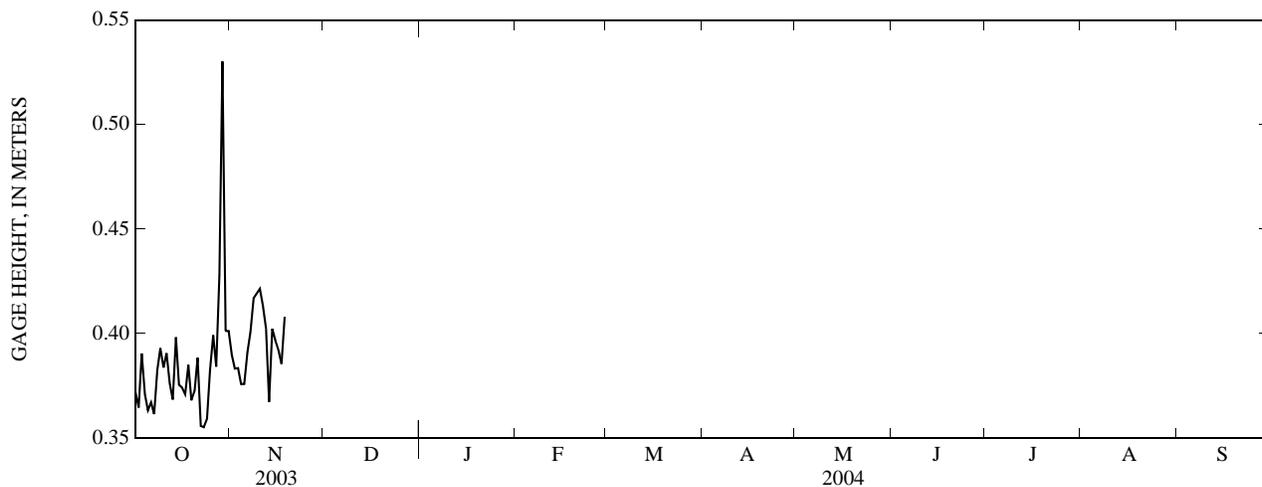
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.31	0.40	0.40	0.58	0.42	0.50	0.43	0.34	0.39	0.44	0.44	0.41
2	0.30	0.39	0.40	0.44	0.41	0.65	0.41	0.33	0.37	0.87	0.50	0.39
3	0.29	0.38	0.39	0.46	0.40	0.49	0.40	0.34	0.36	0.54	0.43	0.38
4	0.29	0.38	0.40	0.43	0.41	0.46	0.39	0.34	0.36	0.43	0.39	0.36
5	0.28	0.39	0.61	0.41	0.41	0.47	0.43	0.35	0.34	0.41	0.46	0.36
6	0.28	0.55	0.50	0.40	0.43	0.71	0.42	0.37	0.35	0.40	0.39	0.36
7	0.28	0.42	0.46	0.40	0.64	0.52	0.53	0.35	0.43	0.39	0.42	0.36
8	0.28	0.40	0.43	0.39	0.47	0.48	0.48	0.34	0.52	0.40	1.01	0.40
9	0.27	0.38	0.42	0.37	0.44	0.45	0.73	0.33	0.41	0.39	0.63	0.38
10	0.26	0.38	0.41	0.37	0.51	0.44	1.07	0.33	0.38	0.40	0.63	0.37
11	0.64	0.40	0.47	0.38	0.47	0.44	0.58	0.33	0.37	0.38	0.48	0.37
12	0.42	0.56	0.43	0.39	0.44	0.43	0.48	0.33	0.43	0.40	0.40	0.36
13	0.37	0.59	0.64	0.38	0.43	0.42	0.44	0.34	0.41	0.39	0.38	0.35
14	0.37	0.44	0.52	0.38	0.42	0.45	0.41	0.34	0.38	0.40	0.40	0.37
15	0.37	0.41	0.45	0.38	0.43	0.43	0.36	0.34	0.45	0.39	0.39	0.36
16	0.42	0.41	0.43	0.38	0.44	0.56	0.35	0.35	0.53	0.38	0.39	0.38
17	0.38	0.53	0.42	0.39	0.45	0.46	0.35	0.34	0.44	0.39	0.37	0.37
18	0.37	0.48	0.39	0.39	0.51	0.44	0.36	0.36	0.42	0.40	0.52	0.52
19	0.36	0.43	0.38	0.38	0.50	0.44	0.36	0.43	0.47	0.39	0.49	0.44
20	0.35	0.42	0.47	0.37	0.49	0.84	0.35	0.38	0.45	0.39	0.40	0.38
21	0.53	0.40	0.41	0.37	0.46	0.54	0.35	0.36	0.42	0.39	0.39	0.37
22	0.45	0.40	0.38	0.38	0.68	0.46	0.35	0.54	0.39	0.38	0.38	0.40
23	0.40	0.40	0.38	0.39	0.55	0.44	0.35	0.49	0.37	0.38	0.36	0.48
24	0.38	0.39	0.48	0.39	0.47	0.43	0.35	0.41	0.36	0.37	0.35	0.40
25	0.37	0.39	0.50	0.39	0.46	0.42	0.37	0.42	0.37	0.35	0.35	0.39
26	0.36	0.39	0.42	0.38	0.46	0.41	0.40	0.41	0.38	0.36	0.35	0.37
27	0.37	0.39	0.40	0.39	0.73	0.41	0.39	0.39	0.36	0.37	0.33	0.38
28	0.43	0.39	0.39	0.38	0.62	0.40	0.36	0.38	0.36	0.37	0.33	0.35
29	0.47	0.39	0.38	0.38	---	0.42	0.34	0.37	0.37	0.40	0.34	0.35
30	0.51	0.38	0.37	0.47	---	0.52	0.34	0.37	0.45	0.51	0.34	0.37
31	0.42	---	0.36	0.48	---	0.47	---	0.38	---	0.40	0.46	---
MEAN	0.37	0.42	0.44	0.40	0.48	0.48	0.43	0.37	0.40	0.41	0.44	0.38
MAX	0.64	0.59	0.64	0.58	0.73	0.84	1.07	0.54	0.53	0.87	1.01	0.52
MIN	0.26	0.38	0.36	0.37	0.40	0.40	0.34	0.33	0.34	0.35	0.33	0.35



0208758440 DUTCHMANS BRANCH AT SECONDARY ROAD 1386 NEAR MCCULLERS CROSSROADS, NC—Continued

GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.37	0.39	---	---	---	---	---	---	---	---	---	---
2	0.36	0.38	---	---	---	---	---	---	---	---	---	---
3	0.39	0.38	---	---	---	---	---	---	---	---	---	---
4	0.37	0.38	---	---	---	---	---	---	---	---	---	---
5	0.36	0.38	---	---	---	---	---	---	---	---	---	---
6	0.37	0.39	---	---	---	---	---	---	---	---	---	---
7	0.36	0.40	---	---	---	---	---	---	---	---	---	---
8	0.38	0.42	---	---	---	---	---	---	---	---	---	---
9	0.39	0.42	---	---	---	---	---	---	---	---	---	---
10	0.38	0.42	---	---	---	---	---	---	---	---	---	---
11	0.39	0.41	---	---	---	---	---	---	---	---	---	---
12	0.38	0.40	---	---	---	---	---	---	---	---	---	---
13	0.37	0.37	---	---	---	---	---	---	---	---	---	---
14	0.40	0.40	---	---	---	---	---	---	---	---	---	---
15	0.38	0.40	---	---	---	---	---	---	---	---	---	---
16	0.37	0.39	---	---	---	---	---	---	---	---	---	---
17	0.37	0.39	---	---	---	---	---	---	---	---	---	---
18	0.38	0.41	---	---	---	---	---	---	---	---	---	---
19	0.37	---	---	---	---	---	---	---	---	---	---	---
20	0.37	---	---	---	---	---	---	---	---	---	---	---
21	0.39	---	---	---	---	---	---	---	---	---	---	---
22	0.36	---	---	---	---	---	---	---	---	---	---	---
23	0.36	---	---	---	---	---	---	---	---	---	---	---
24	0.36	---	---	---	---	---	---	---	---	---	---	---
25	0.38	---	---	---	---	---	---	---	---	---	---	---
26	0.40	---	---	---	---	---	---	---	---	---	---	---
27	0.38	---	---	---	---	---	---	---	---	---	---	---
28	0.43	---	---	---	---	---	---	---	---	---	---	---
29	0.53	---	---	---	---	---	---	---	---	---	---	---
30	0.40	---	---	---	---	---	---	---	---	---	---	---
31	0.40	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.38	---	---	---	---	---	---	---	---	---	---	---
MAX	0.53	---	---	---	---	---	---	---	---	---	---	---
MIN	0.36	---	---	---	---	---	---	---	---	---	---	---



0208758440 DUTCHMANS BRANCH AT SECONDARY ROAD 1386 NEAR MCCULLERS CROSSROADS, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 2002 to November 2003.

INSTRUMENTATION.--Logging pressure transducer with water temperature probe.

REMARKS.--Station operated as part of NAWQA Urban Land Use Gradient study.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.7°C, Aug. 15, 2002; minimum recorded, 0.3°C, Jan. 23, 2003.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
FEB 20...	1345	9	11	757	12.0	98	6.7	90	6.5	13.6	5.7	0.35	<0.04
21...	0840	9	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	1445	D	E.50	--	7.5	--	7.1	81	19.3	--	--	--	--
JUN 10...	1200	9	--	--	8.8	--	7.3	101	21.4	--	--	--	--
JUL 01...	1500	9	2.7	757	7.5	86	6.5	67	21.7	4.82	3.5	0.46	<0.04
09...	0925	9	--	--	--	--	--	--	--	--	--	--	--

Date	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
FEB 20...	--	--	0.08	--	<0.008	<0.02	0.05	0.028	0.43	0.4	<0.1	0.4	6.7
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	0.252	0.06	0.07	0.026	0.008	<0.02	0.13	0.066	0.52	1.2	<0.1	1.1	7.5
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	E coli, modif. m-TEC, water, col/100 mL (90902)	Chlorophyll a periphyton, chromofluoro, mg/m2 (70957)	1-Naphthol, water, fltrd ug/L (49295)	2,6-Diethyl-aniline water fltrd ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6'-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)
FEB 20...	--	--	--	--	--	--	--	<0.09	<0.006	<0.1	<0.005	<0.006	<0.004
21...	--	--	--	--	--	75	--	--	--	--	--	--	--
MAY 13...	3.200	22	25.50	419	3.3	--	7.6	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	E.01	<0.006	<0.1	<0.005	<0.006	<0.004
09...	--	--	--	--	--	240	--	--	--	--	--	--	--

0208758440 DUTCHMANS BRANCH AT SECONDARY ROAD 1386 NEAR MCCULLERS CROSSROADS, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
FEB										
20...	0.006	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	88	8	0.23
21...	--	--	--	--	--	--	--	--	--	--
MAY										
13...	--	--	--	--	--	--	--	--	--	--
JUN										
10...	--	--	--	--	--	--	--	--	--	--
JUL										
01...	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	99	33	0.24
09...	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 - Surface water
- D - Plant tissue

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	26.4	24.7	25.5	21.9	21.4	21.6
2	---	---	---	---	---	---	26.0	24.1	25.0	21.6	20.9	21.3
3	---	---	---	---	---	---	25.6	23.3	24.4	22.5	19.9	21.2
4	---	---	---	---	---	---	25.6	23.2	24.4	23.8	21.1	22.3
5	---	---	---	---	---	---	26.0	23.2	24.5	23.6	21.9	22.9
6	---	---	---	---	---	---	25.8	23.5	24.3	22.2	20.1	21.3
7	---	---	---	---	---	---	24.4	21.5	22.6	21.8	20.2	21.1
8	---	---	---	---	---	---	23.6	19.8	21.2	21.4	20.0	20.7
9	---	---	---	---	---	---	23.6	19.2	20.9	21.9	20.7	21.3
10	---	---	---	---	---	---	24.0	19.0	21.0	22.8	21.2	21.8
11	---	---	---	---	---	---	25.3	19.4	21.7	22.8	21.1	22.0
12	---	---	---	---	---	---	26.3	20.3	22.7	22.1	20.3	21.0
13	---	---	---	---	---	---	27.2	21.5	23.8	20.7	19.1	20.0
14	---	---	---	---	---	---	26.3	21.8	23.5	21.0	20.0	20.5
15	---	---	---	---	---	---	27.7	23.3	24.4	21.9	20.9	21.3
16	---	---	---	---	---	---	26.0	23.2	24.2	22.5	21.3	21.9
17	---	---	---	---	---	---	25.4	23.2	24.3	23.1	21.6	22.3
18	---	---	---	---	---	---	25.9	23.7	24.5	22.9	21.5	22.2
19	---	---	---	---	---	---	25.1	23.4	24.3	22.9	21.5	22.2
20	---	---	---	---	---	---	25.3	23.5	24.4	22.6	20.8	21.8
21	---	---	---	---	---	---	25.4	24.0	24.8	22.3	20.9	21.7
22	---	---	---	---	---	---	25.9	24.1	24.8	22.4	21.0	21.7
23	---	---	---	---	---	---	26.5	24.4	25.3	21.5	20.7	21.1
24	---	---	---	---	---	---	26.8	24.7	25.3	21.2	20.3	20.7
25	---	---	---	---	---	---	26.0	23.9	24.9	21.1	20.1	20.6
26	---	---	---	---	---	---	24.9	23.7	24.2	21.4	20.4	20.8
27	---	---	---	---	---	---	23.7	22.8	23.1	23.2	21.1	22.1
28	---	---	---	---	---	---	22.8	21.8	22.3	23.0	21.8	22.4
29	---	---	---	---	---	---	21.8	21.4	21.5	21.9	20.6	21.3
30	---	---	---	---	---	---	21.6	20.9	21.3	20.9	19.6	20.4
31	---	---	---	26.9	25.1	26.0	21.9	21.3	21.6	---	---	---
MONTH	---	---	---	---	---	---	27.7	19.0	23.6	23.8	19.1	21.4

0208758440 DUTCHMANS BRANCH AT SECONDARY ROAD 1386 NEAR MCCULLERS CROSSROADS, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.7	20.1	20.8	11.9	10.4	11.2	7.9	5.1	6.5	12.3	9.3	11.3
2	22.2	20.3	21.2	11.2	10.0	10.5	6.3	4.0	5.3	11.1	9.9	10.4
3	22.5	20.9	21.7	11.0	9.8	10.3	7.5	5.3	6.3	10.7	9.2	10.2
4	23.8	21.1	22.2	12.0	10.5	11.2	5.3	3.1	4.2	9.2	6.2	7.6
5	23.9	22.2	22.9	12.1	11.3	11.6	5.5	3.7	4.6	7.0	4.9	6.0
6	22.9	21.0	21.8	13.8	12.1	13.2	6.2	5.2	5.6	7.4	5.9	6.6
7	22.8	20.8	21.6	12.4	10.6	11.3	5.6	3.9	4.8	6.2	4.2	4.8
8	21.6	19.1	20.1	11.0	9.2	10.3	6.3	4.1	5.2	6.8	4.5	5.6
9	20.0	18.5	19.1	12.4	10.2	11.4	6.3	5.7	6.0	8.8	6.4	7.5
10	19.6	18.4	19.0	15.0	12.4	13.7	6.2	5.3	5.7	9.0	7.1	8.4
11	21.8	19.5	20.6	16.6	15.0	16.1	7.0	5.9	6.5	7.1	4.7	5.7
12	21.3	20.8	21.1	17.0	15.2	16.4	8.4	6.8	7.6	4.7	3.2	3.8
13	20.9	20.0	20.4	15.2	12.6	14.2	7.9	7.3	7.5	4.6	2.6	3.7
14	20.5	16.9	18.6	12.7	11.1	12.0	8.9	7.7	8.2	5.1	3.3	4.3
15	16.9	15.8	16.1	12.8	10.8	11.8	7.7	6.3	7.1	4.8	2.9	3.9
16	17.3	16.3	16.9	14.1	12.7	13.4	8.3	6.1	7.2	3.7	2.2	3.0
17	16.6	15.1	15.8	14.0	12.4	13.5	7.6	6.0	6.7	3.9	2.7	3.2
18	15.2	13.4	14.2	12.4	10.0	11.1	7.2	5.9	6.5	2.7	0.9	1.6
19	14.9	12.4	13.6	10.7	8.5	9.7	9.1	7.2	7.8	1.9	0.4	1.1
20	16.1	13.7	14.9	11.3	9.1	10.3	12.4	9.1	11.0	4.0	1.4	2.7
21	17.9	15.8	16.9	11.8	10.2	11.0	9.9	7.6	8.5	3.9	3.2	3.5
22	15.8	14.9	15.4	11.6	9.9	11.0	8.8	6.5	7.7	3.4	1.9	2.7
23	15.6	14.1	15.0	9.9	8.2	8.9	8.3	6.7	7.6	2.9	0.3	1.5
24	15.3	14.7	15.0	9.5	7.4	8.5	8.3	7.2	7.7	0.8	0.4	0.5
25	15.2	14.9	15.1	10.1	8.0	9.1	8.4	6.6	7.9	1.1	0.4	0.6
26	15.8	14.7	15.3	9.9	8.1	9.1	6.6	5.4	6.0	2.2	0.6	1.4
27	16.1	15.2	15.6	9.5	8.0	8.9	5.6	4.1	4.9	2.1	0.4	1.4
28	16.4	15.7	16.0	8.0	5.5	6.7	5.3	3.5	4.5	1.7	0.4	0.9
29	16.2	14.1	14.9	6.3	4.4	5.4	6.3	4.0	5.1	4.7	1.6	3.2
30	14.1	13.0	13.5	8.8	6.1	7.5	7.2	4.6	6.0	4.9	4.3	4.6
31	13.0	11.9	12.5	---	---	---	9.3	6.4	7.6	5.0	4.3	4.7
MONTH	23.9	11.9	17.7	17.0	4.4	11.0	12.4	3.1	6.6	12.3	0.3	4.4
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	4.9	5.6	7.7	6.4	7.0	13.4	8.0	10.7	18.9	17.4	18.3
2	6.4	4.4	5.4	10.5	7.4	8.7	16.3	11.2	13.8	19.1	17.0	18.2
3	8.3	4.8	6.5	9.8	6.9	8.4	17.5	12.8	15.3	18.6	17.1	17.9
4	10.5	8.2	9.2	10.0	6.1	8.1	17.5	14.1	16.0	17.1	15.2	16.1
5	8.2	5.8	6.8	12.2	9.3	10.6	17.0	15.0	16.1	15.2	13.7	14.1
6	6.3	4.9	5.4	12.5	11.0	11.7	16.3	13.7	15.2	16.7	14.1	15.4
7	7.0	5.2	6.0	11.4	7.1	8.9	15.0	11.2	12.2	18.4	16.3	17.3
8	6.2	4.4	5.3	10.7	5.6	8.1	11.2	10.3	10.6	20.2	18.0	19.1
9	6.2	3.9	4.9	13.0	8.5	10.6	10.5	9.9	10.2	21.2	19.1	20.2
10	6.3	4.9	5.5	11.3	8.8	10.1	10.0	9.2	9.6	22.0	20.0	21.0
11	6.9	4.1	5.5	9.4	7.1	8.3	10.3	9.5	9.9	21.8	20.4	20.9
12	7.3	4.7	5.9	11.8	6.6	9.2	14.7	9.3	11.7	20.5	18.4	19.5
13	6.0	3.5	5.0	13.5	9.6	11.6	15.5	11.0	13.2	19.0	16.5	17.8
14	6.4	4.2	5.3	13.1	10.5	12.0	16.2	11.7	13.9	18.2	14.6	16.6
15	8.0	6.4	7.1	10.5	8.8	9.5	17.2	12.9	15.1	17.6	16.0	16.8
16	6.9	1.3	4.5	12.4	9.9	11.0	17.7	14.2	16.1	18.1	16.2	17.1
17	2.9	0.6	1.9	13.8	11.5	12.5	17.7	14.6	16.3	17.7	16.2	17.1
18	5.6	2.9	4.0	14.4	12.4	13.3	16.1	12.8	13.6	16.2	14.8	15.4
19	6.9	3.7	5.1	13.4	11.2	12.1	13.1	12.2	12.7	15.3	14.4	14.8
20	8.1	5.8	6.7	11.3	10.0	10.8	14.3	12.1	13.2	16.8	14.1	15.5
21	7.5	5.9	6.8	13.5	10.8	11.9	14.9	12.8	13.9	17.3	16.0	16.8
22	10.9	7.4	9.0	15.4	10.8	13.0	16.5	14.5	15.4	17.3	16.8	17.0
23	10.9	8.3	10.2	14.7	10.9	12.9	15.5	12.8	14.2	17.1	16.5	16.8
24	10.5	6.2	8.4	15.4	11.2	13.4	14.2	11.4	13.2	17.8	16.4	17.0
25	9.9	8.1	9.0	15.8	10.8	13.4	14.2	13.3	13.7	18.2	16.7	17.3
26	8.3	5.6	6.7	16.7	12.3	14.6	15.8	14.1	14.8	18.8	17.5	18.1
27	5.6	5.0	5.3	15.9	13.2	14.6	16.7	14.3	15.4	18.4	17.1	17.6
28	7.1	5.1	6.0	16.5	12.5	14.7	17.0	13.7	15.5	17.8	15.6	16.8
29	---	---	---	18.4	15.5	16.7	18.1	15.2	16.7	17.5	16.3	16.9
30	---	---	---	17.1	10.5	13.5	18.7	16.5	17.8	17.9	15.6	16.9
31	---	---	---	12.0	8.6	10.2	---	---	---	17.7	16.7	17.1
MONTH	10.9	0.6	6.2	18.4	5.6	11.3	18.7	8.0	13.9	22.0	13.7	17.3

0208758850 SWIFT CREEK NEAR MCCULLARS CROSSROADS, NC

LOCATION.--Lat 35°41'34", long 78°41'33", 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 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 251.46 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation by Lake Wheeler (station 02087588). Maximum gage height for period of record from floodmarks. No flow also occurred part of each day, June 27, 28, 29, 1993.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.32	43	18	111	59	150	53	25	38	64	31	260
2	0.32	28	18	128	38	240	35	24	28	289	85	62
3	0.31	21	17	83	29	127	28	20	21	572	72	28
4	0.32	20	18	67	31	68	25	19	20	105	33	19
5	0.47	20	173	45	31	58	27	18	20	46	82	33
6	0.27	123	174	36	28	390	28	26	18	27	61	23
7	0.19	91	102	29	171	282	57	29	25	20	35	16
8	0.18	46	65	25	119	92	102	25	192	16	732	21
9	0.18	30	45	23	59	57	397	23	113	14	1,090	39
10	0.21	24	35	22	65	41	890	20	49	14	289	24
11	326	25	47	21	77	33	778	21	29	15	224	17
12	738	100	68	19	51	30	156	18	29	13	75	14
13	104	280	141	19	34	29	82	11	44	11	38	12
14	42	115	326	18	27	40	53	7.4	29	12	29	12
15	27	61	102	18	29	37	43	6.2	52	15	35	11
16	56	43	58	17	33	119	36	12	266	14	26	15
17	50	94	38	20	44	123	31	13	159	15	21	16
18	30	124	29	19	47	67	28	14	65	14	33	63
19	22	e70	26	19	87	45	29	37	77	15	130	231
20	17	e40	81	19	77	421	29	39	70	12	54	83
21	130	e28	108	16	59	591	28	27	67	9.3	29	34
22	104	e26	58	17	144	129	32	104	38	6.8	21	23
23	64	e25	37	19	635	67	29	158	26	3.1	18	78
24	36	e24	52	18	129	45	25	87	21	1.6	16	70
25	26	e23	164	16	63	36	27	52	18	0.79	13	33
26	22	22	109	17	43	31	53	49	16	1.1	11	20
27	19	22	e68	17	135	26	76	35	14	1.0	8.8	16
28	29	20	40	16	589	24	52	29	14	0.43	7.4	14
29	82	21	31	17	---	27	36	23	17	8.4	5.8	11
30	117	21	27	29	---	60	29	27	20	141	4.8	7.5
31	81	---	25	85	---	92	---	26	---	63	172	---
TOTAL	2,124.77	1,630	2,300	1,025	2,933	3,577	3,294	1,024.6	1,595	1,539.52	3,481.8	1,305.5
MEAN	68.5	54.3	74.2	33.1	105	115	110	33.1	53.2	49.7	112	43.5
MAX	738	280	326	128	635	591	890	158	266	572	1,090	260
MIN	0.18	20	17	16	27	24	25	6.2	14	0.43	4.8	7.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	27.0	26.2	25.4	62.6	57.9	72.6	43.2	22.6	29.9	25.2	24.9	46.5
MAX	106	69.4	74.2	183	159	183	110	75.7	91.5	130	112	323
(WY)	(1996)	(1996)	(2003)	(1998)	(1998)	(1998)	(2003)	(1989)	(2001)	(2001)	(2003)	(1999)
MIN	4.38	0.99	7.46	12.1	14.4	15.1	10.7	4.95	0.061	1.16	0.61	0.11
(WY)	(1992)	(2002)	(2002)	(2001)	(1991)	(1988)	(1995)	(2000)	(2002)	(1988)	(1997)	(1990)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

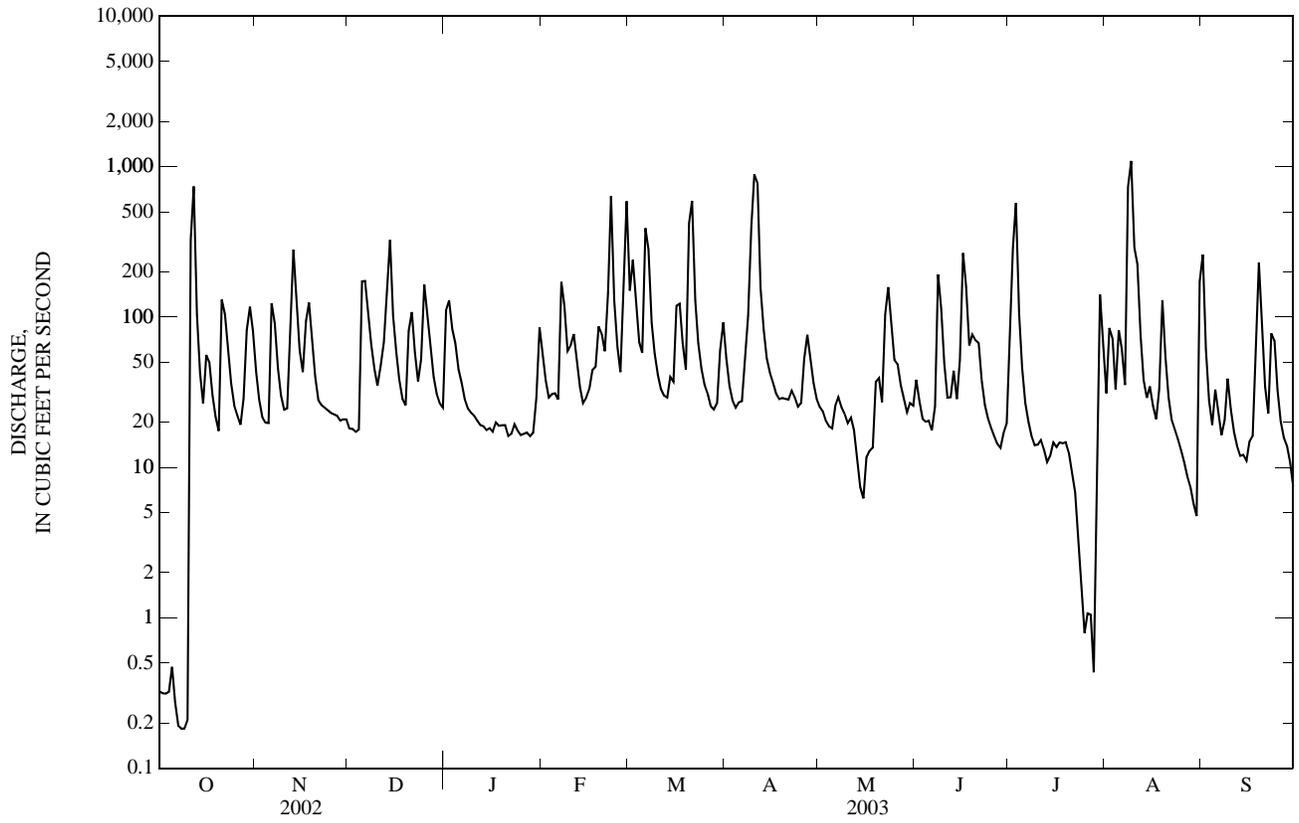
WATER YEARS 1988 - 2003

ANNUAL TOTAL	12,725.43	25,830.19	
ANNUAL MEAN	34.9	70.8	39.8
HIGHEST ANNUAL MEAN			70.8
LOWEST ANNUAL MEAN			18.4
HIGHEST DAILY MEAN	821	Apr 1	2,700
LOWEST DAILY MEAN	0.02	Jun 23	0.01
ANNUAL SEVEN-DAY MINIMUM	0.02	Jun 29	0.02
MAXIMUM PEAK FLOW		1,940	6,790
MAXIMUM PEAK STAGE		11.41	14.15*
INSTANTANEOUS LOW FLOW		0.13	0.00*
10 PERCENT EXCEEDS	85	137	81
50 PERCENT EXCEEDS	13	30	14
90 PERCENT EXCEEDS	0.07	13	0.41

e Estimated.

* See REMARKS.

0208758850 SWIFT CREEK NEAR MCCULLARS CROSSROADS, NC—Continued



0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC

LOCATION.--Lat 34°43'55", long 78°40'32", Wake County, Hydrologic Unit 03020201, 0.4 mi east of Secondary Road 1371 and approximately 1 mi northeast of Yates Mill Pond.

DRAINAGE AREA.--0.21 mi².

PERIOD OF RECORD.--May 2002 to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records poor. Minimum discharge for period of record occurred many days during period May 2002 to September 2002, Oct. 9, 2003.

DISCHARGE, CUBIC FEET PER SECOND
FOR PERIOD MAY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	0.03	0.02	0.01	0.02	0.18
2	---	---	---	---	---	---	---	e0.03	0.02	0.01	0.02	0.05
3	---	---	---	---	---	---	---	0.04	0.02	0.01	0.02	0.03
4	---	---	---	---	---	---	---	0.05	0.02	0.01	0.02	0.03
5	---	---	---	---	---	---	---	0.04	0.02	0.01	0.02	0.03
6	---	---	---	---	---	---	---	0.03	0.02	0.01	0.02	0.03
7	---	---	---	---	---	---	---	0.03	0.02	0.01	0.02	0.03
8	---	---	---	---	---	---	---	0.03	0.03	0.01	0.02	0.03
9	---	---	---	---	---	---	---	0.03	0.03	0.02	0.02	0.03
10	---	---	---	---	---	---	---	0.03	0.03	0.02	0.02	0.03
11	---	---	---	---	---	---	---	0.03	0.03	e0.03	0.02	0.03
12	---	---	---	---	---	---	---	0.03	0.02	e0.03	0.02	0.03
13	---	---	---	---	---	---	---	0.03	0.02	0.03	0.02	0.03
14	---	---	---	---	---	---	---	0.03	0.02	0.04	0.02	0.03
15	---	---	---	---	---	---	---	0.03	0.02	0.03	0.03	0.04
16	---	---	---	---	---	---	---	0.03	0.02	0.03	0.03	0.08
17	---	---	---	---	---	---	---	0.03	0.02	0.03	0.03	0.03
18	---	---	---	---	---	---	---	0.03	0.01	0.03	0.05	0.03
19	---	---	---	---	---	---	---	0.03	0.02	0.02	0.03	0.03
20	---	---	---	---	---	---	---	0.04	0.02	0.02	0.03	0.02
21	---	---	---	---	---	---	---	0.04	0.02	0.03	0.03	0.02
22	---	---	---	---	---	---	---	0.04	0.01	0.03	0.03	0.02
23	---	---	---	---	---	---	---	0.04	0.02	0.02	0.03	0.02
24	---	---	---	---	---	---	---	0.03	0.02	0.08	0.03	0.03
25	---	---	---	---	---	---	---	0.03	0.02	0.02	0.03	0.03
26	---	---	---	---	---	---	---	0.03	0.02	0.05	0.04	0.03
27	---	---	---	---	---	---	---	0.03	0.02	0.02	0.05	0.03
28	---	---	---	---	---	---	---	0.03	0.03	0.02	0.05	0.03
29	---	---	---	---	---	---	---	0.03	0.01	0.02	0.05	0.03
30	---	---	---	---	---	---	---	0.03	0.01	0.02	0.12	0.03
31	---	---	---	---	---	---	---	0.02	---	0.02	0.40	---
TOTAL	---	---	---	---	---	---	---	1.00	0.61	0.74	1.34	1.09
MEAN	---	---	---	---	---	---	---	0.032	0.020	0.024	0.043	0.036
MAX	---	---	---	---	---	---	---	0.05	0.03	0.08	0.40	0.18
MIN	---	---	---	---	---	---	---	0.02	0.01	0.01	0.02	0.02

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD MAY 2002 TO SEPTEMBER 2002

MEAN	---	---	---	---	---	---	---	0.032	0.020	0.024	0.043	0.036
MAX	---	---	---	---	---	---	---	0.032	0.020	0.024	0.043	0.036
(WY)	---	---	---	---	---	---	---	(2002)	(2002)	(2002)	(2002)	(2002)
MIN	---	---	---	---	---	---	---	0.032	0.020	0.024	0.043	0.036
(WY)	---	---	---	---	---	---	---	(2002)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS

FOR PERIOD
MAY TO SEPTEMBER 2002

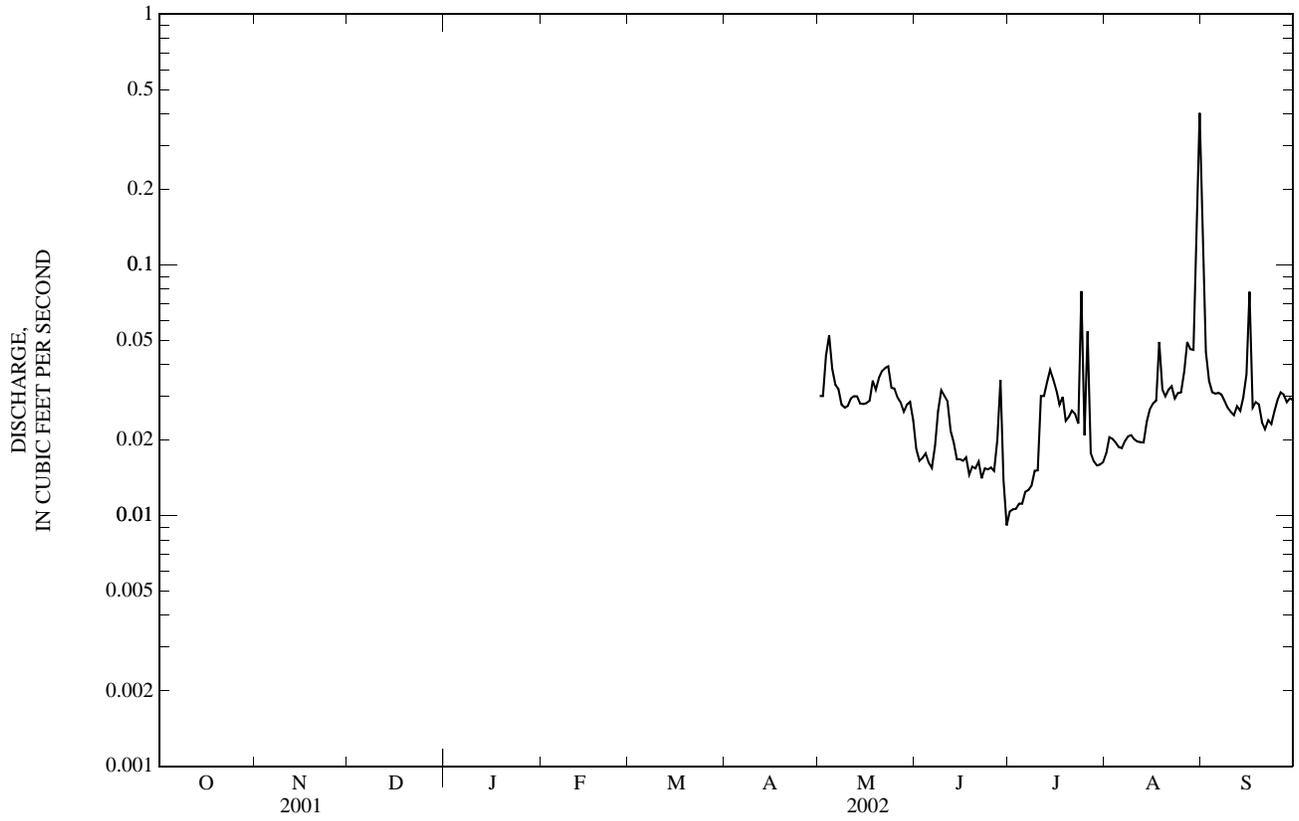
MAXIMUM PEAK FLOW
MAXIMUM PEAK STAGE
INSTANTANEOUS LOW FLOW

1.3 Jul 24
1.49 Jul 24
0.01* May 31

e Estimated.

* See REMARKS.

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued



0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	0.28	e0.29	0.91	0.25	0.55	0.17	0.17	0.20	0.47	0.32	0.46
2	0.03	0.24	e0.26	0.51	0.18	1.0	0.15	0.17	0.22	4.3	0.44	0.24
3	0.03	0.08	e0.54	0.52	0.15	0.34	0.14	0.19	0.30	0.77	0.13	0.22
4	0.03	0.14	0.86	e0.29	0.18	0.28	0.14	0.21	0.18	e0.42	0.06	0.23
5	0.03	0.23	1.6	e0.20	0.09	0.31	0.20	0.22	0.15	e0.33	0.37	0.26
6	0.03	0.74	0.76	e0.17	0.26	1.8	0.16	0.28	0.27	e0.27	0.07	0.25
7	0.02	0.36	0.60	e0.16	1.1	0.23	0.40	0.23	0.60	e0.23	0.08	0.23
8	0.03	0.32	0.52	e0.15	0.43	0.19	0.28	0.22	0.76	e0.21	4.6	0.33
9	0.03	0.31	0.49	e0.16	0.30	0.17	0.88	0.18	0.36	e0.20	0.91	0.22
10	0.02	0.33	0.50	e0.18	0.66	0.16	1.9	0.16	0.22	e0.20	1.2	0.22
11	4.2	0.36	0.61	0.15	0.41	0.16	0.64	0.15	0.18	e0.32	0.55	0.20
12	0.29	1.4	0.50	0.14	0.31	0.14	0.35	0.12	0.27	e0.23	0.30	0.22
13	0.14	1.6	1.8	0.17	0.22	0.16	0.28	0.12	0.21	e0.25	0.22	0.24
14	0.10	0.50	0.66	0.17	0.21	0.15	0.26	0.11	0.17	e0.98	1.2	0.25
15	0.11	0.44	0.49	0.16	0.28	0.15	0.25	0.13	0.49	e0.17	0.34	0.22
16	0.21	0.53	0.44	0.17	0.29	0.40	0.22	0.15	1.5	0.09	0.25	0.21
17	0.06	0.91	0.44	0.21	0.31	0.21	0.20	0.16	0.73	0.10	0.22	0.20
18	0.04	e0.56	0.46	0.15	0.66	0.20	0.23	0.21	0.82	0.10	0.24	0.73
19	0.04	e0.41	0.50	0.16	0.54	0.16	0.28	0.30	1.0	0.10	0.24	0.59
20	0.04	e0.35	0.63	0.17	0.47	1.3	0.28	0.16	0.89	0.09	0.19	0.37
21	1.1	e0.28	0.44	0.16	0.41	0.32	0.29	0.15	0.60	0.09	0.17	0.34
22	0.45	e0.24	0.37	0.18	1.2	0.20	0.28	0.66	0.51	0.08	0.21	0.43
23	0.26	e0.22	0.36	0.18	0.65	0.18	0.22	0.47	0.43	0.09	0.22	0.82
24	0.21	e0.20	0.69	0.11	0.42	0.16	0.23	0.25	0.39	0.10	0.18	0.37
25	0.17	e0.23	0.71	0.14	0.37	0.15	0.36	0.32	0.36	0.08	0.18	0.34
26	0.16	e0.21	0.49	0.17	0.39	0.15	0.35	0.24	0.33	0.07	0.17	0.33
27	0.14	e0.20	0.42	0.14	1.7	0.15	0.22	0.23	0.31	0.07	0.16	0.33
28	0.39	e0.20	0.39	0.16	0.76	0.15	0.19	0.19	0.35	0.07	0.16	0.32
29	0.46	e0.22	0.37	0.17	---	0.16	0.19	0.20	0.42	0.29	0.15	0.27
30	0.94	e0.26	0.35	0.51	---	0.26	0.18	0.19	0.46	0.57	0.14	0.25
31	0.35	---	0.36	0.38	---	0.18	---	0.26	---	0.06	4.3	---
TOTAL	10.14	12.35	17.90	7.20	13.20	10.12	9.92	6.80	13.68	11.40	17.97	9.69
MEAN	0.33	0.41	0.58	0.23	0.47	0.33	0.33	0.13	0.24	0.20	0.31	0.18
MAX	4.2	1.6	1.8	0.91	1.7	1.8	1.9	0.66	1.5	4.3	4.6	0.82
MIN	0.02	0.08	0.26	0.11	0.09	0.14	0.14	0.11	0.15	0.06	0.06	0.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

MEAN	0.33	0.41	0.58	0.23	0.47	0.33	0.33	0.13	0.24	0.20	0.31	0.18
MAX	0.33	0.41	0.58	0.23	0.47	0.33	0.33	0.22	0.46	0.37	0.58	0.32
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)
MIN	0.33	0.41	0.58	0.23	0.47	0.33	0.33	0.032	0.020	0.024	0.043	0.036
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

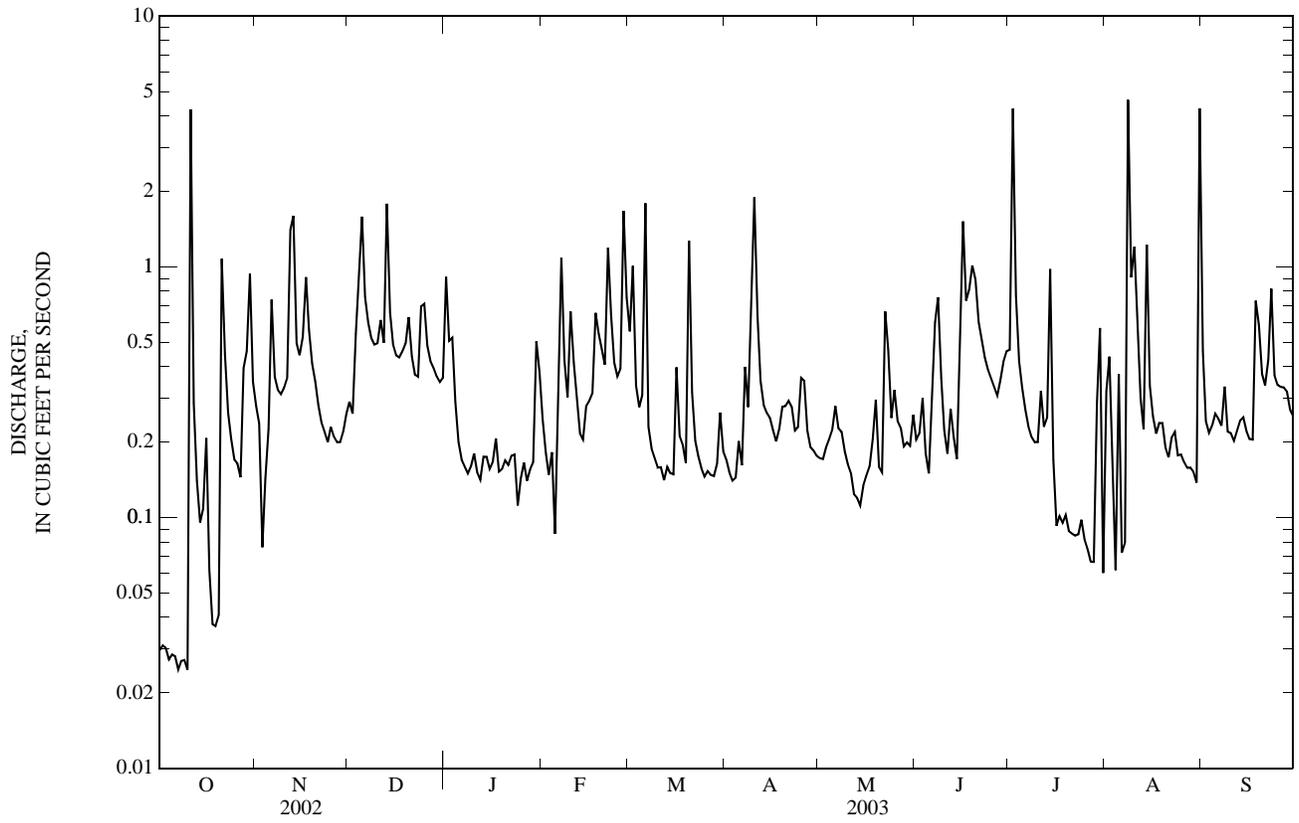
WATER YEARS 2002 - 2003

ANNUAL TOTAL								140.37				
ANNUAL MEAN								0.38			0.38	
HIGHEST ANNUAL MEAN											0.38	2003
LOWEST ANNUAL MEAN											0.38	2003
HIGHEST DAILY MEAN				4.2	Oct 11			4.6	Aug 8		4.6	Aug 8, 2003
LOWEST DAILY MEAN				0.01	Jun 18			0.02	Oct 7		0.01	Jun 18, 2002
ANNUAL SEVEN-DAY MINIMUM				0.01	Jun 29			0.03	Oct 4		0.01	Jun 29, 2002
MAXIMUM PEAK FLOW								60	Aug 8		60	Aug 8, 2003
MAXIMUM PEAK STAGE								2.48	Aug 8		2.48	Aug 8, 2003
INSTANTANEOUS LOW FLOW								0.01	Oct 9		0.01*	May 31, 2002
10 PERCENT EXCEEDS								0.73			0.73	
50 PERCENT EXCEEDS								0.24			0.24	
90 PERCENT EXCEEDS								0.11			0.11	

e Estimated.

* See REMARKS.

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued



0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 2002 to current year.

pH: April 2002 to current year.

WATER TEMPERATURE: April 2002 to current year.

DISSOLVED OXYGEN: April 2002 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: April 2002 to current year.

INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from April 2002 to current year.

REMARKS.--Station operated in cooperation with North Carolina Department of Environment and Natural Resources, Water Resources Division as part of the Piedmont/Mountains ground-water project. Dissolved oxygen, percent saturation, computed using a barometric pressure of 760 mm Hg..

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	456, July 10, 2002	5, August 8, 2003
pH, standard units	6.8, June 2, 6, July 29, 2003	4.8, June 29, 2002
WATER TEMPERATURE, °C	25.8, August 14, 2003	1.8, December 5, 2002
DISSOLVED OXYGEN, mg/L	19.5, June 20, 2002	<1.0, on several days during the period
DISSOLVED OXYGEN, PERCENT SATURATION,%	218, June 20, 2002	<10.0, on several days during the period

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	341, October 3	5, August 8
pH, standard units	6.8, June 2, 6, July 29	5.0, October 2-6
WATER TEMPERATURE, °C	25.8, August 14	1.8, December 5
DISSOLVED OXYGEN, mg/L	16.2, January 25	<1.0, October 3
DISSOLVED OXYGEN, PERCENT SATURATION,%	133, January 25	<10.0, October 3

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR APRIL TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	139	88	103
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	154	91	101
4	---	---	---	---	---	---	---	---	---	95	72	84
5	---	---	---	---	---	---	---	---	---	101	75	83
6	---	---	---	---	---	---	---	---	---	132	82	94
7	---	---	---	---	---	---	---	---	---	197	86	125
8	---	---	---	---	---	---	---	---	---	200	91	135
9	---	---	---	---	---	---	---	---	---	241	123	192
10	---	---	---	---	---	---	97	69	79	249	171	221
11	---	---	---	---	---	---	90	79	83	233	88	120
12	---	---	---	---	---	---	92	81	85	235	95	166
13	---	---	---	---	---	---	95	83	87	239	77	195
14	---	---	---	---	---	---	100	84	91	186	74	100
15	---	---	---	---	---	---	139	87	101	162	86	106
16	---	---	---	---	---	---	99	86	93	165	84	117
17	---	---	---	---	---	---	106	89	95	237	120	188
18	---	---	---	---	---	---	127	89	102	230	77	146
19	---	---	---	---	---	---	176	92	116	91	77	82
20	---	---	---	---	---	---	155	92	113	106	79	87
21	---	---	---	---	---	---	181	93	119	94	78	83
22	---	---	---	---	---	---	121	99	107	103	78	85
23	---	---	---	---	---	---	141	97	105	126	80	94
24	---	---	---	---	---	---	128	89	98	151	91	110
25	---	---	---	---	---	---	121	90	99	251	90	132
26	---	---	---	---	---	---	124	88	95	261	90	151
27	---	---	---	---	---	---	153	86	105	274	114	172
28	---	---	---	---	---	---	193	92	132	275	109	192
29	---	---	---	---	---	---	215	98	129	257	127	192
30	---	---	---	---	---	---	147	87	97	276	165	212
31	---	---	---	---	---	---	---	---	---	260	109	192
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	274	138	203	108	99	103	327	310	317	128	85	115
2	271	130	217	---	---	---	331	302	315	172	125	133
3	281	229	257	---	---	---	330	311	320	304	137	214
4	295	157	235	---	---	---	341	309	324	326	229	304
5	304	268	284	---	---	---	---	---	---	336	318	327
6	306	286	297	---	---	---	---	---	---	331	308	324
7	298	233	266	---	---	---	---	---	---	335	306	321
8	257	143	208	---	---	---	---	---	---	336	322	329
9	214	108	142	445	406	422	---	---	---	339	318	328
10	240	115	173	456	425	436	---	---	---	336	319	327
11	290	160	238	---	---	---	---	---	---	332	319	326
12	312	211	273	---	---	---	---	---	---	330	306	320
13	334	221	289	384	351	370	354	339	347	322	97	213
14	327	272	305	400	367	384	356	337	346	327	319	322
15	324	222	287	400	374	386	348	328	337	331	90	261
16	286	99	192	428	379	395	344	317	332	327	62	182
17	313	137	233	420	377	392	339	293	316	314	221	287
18	293	123	214	408	341	376	309	63	234	319	308	314
19	229	109	158	368	349	360	241	102	214	322	311	317
20	154	19	103	363	348	355	---	---	---	319	308	314
21	173	19	117	372	350	361	---	---	---	324	308	315
22	104	11	64	373	314	344	---	---	---	327	319	324
23	240	11	57	326	314	321	---	---	---	328	304	317
24	225	54	185	330	38	272	342	334	339	323	251	294
25	202	52	151	290	88	231	348	338	342	323	210	281
26	70	14	47	286	46	175	347	334	341	323	235	301
27	59	16	26	309	272	289	347	212	318	330	317	323
28	92	22	69	312	292	301	331	286	317	329	316	322
29	93	29	68	313	294	302	337	305	327	332	306	320
30	104	90	100	313	301	308	338	46	173	325	253	301
31	---	---	---	326	307	314	278	47	122	---	---	---
MONTH	334	11	182	---	---	---	---	---	---	339	62	289

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR APRIL TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	5.9	5.7	5.8
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	5.8	5.6	5.8
4	---	---	---	---	---	---	---	---	---	5.9	5.8	5.8
5	---	---	---	---	---	---	---	---	---	5.9	5.7	5.8
6	---	---	---	---	---	---	---	---	---	5.9	5.6	5.8
7	---	---	---	---	---	---	---	---	---	5.8	5.5	5.6
8	---	---	---	---	---	---	---	---	---	5.7	5.5	5.6
9	---	---	---	---	---	---	---	---	---	5.5	5.3	5.4
10	---	---	---	---	---	---	6.1	5.9	6.0	5.4	5.4	5.4
11	---	---	---	---	---	---	6.1	5.9	6.0	5.8	5.4	5.6
12	---	---	---	---	---	---	6.0	5.9	6.0	5.6	5.4	5.5
13	---	---	---	---	---	---	6.0	5.9	6.0	5.7	5.4	5.4
14	---	---	---	---	---	---	6.0	5.8	5.8	5.8	5.5	5.7
15	---	---	---	---	---	---	5.9	5.6	5.8	5.7	5.5	5.6
16	---	---	---	---	---	---	6.0	5.8	5.9	5.7	5.4	5.5
17	---	---	---	---	---	---	5.9	5.7	5.8	5.5	5.3	5.4
18	---	---	---	---	---	---	5.9	5.6	5.8	5.5	5.1	5.4
19	---	---	---	---	---	---	5.9	5.5	5.7	5.6	5.4	5.5
20	---	---	---	---	---	---	5.8	5.5	5.7	5.5	5.2	5.4
21	---	---	---	---	---	---	5.8	5.5	5.7	5.4	5.2	5.3
22	---	---	---	---	---	---	5.8	5.6	5.7	5.4	5.2	5.3
23	---	---	---	---	---	---	5.7	5.5	5.6	5.6	5.2	5.3
24	---	---	---	---	---	---	5.8	5.6	5.7	5.6	5.3	5.5
25	---	---	---	---	---	---	5.9	5.7	5.8	5.5	5.2	5.4
26	---	---	---	---	---	---	5.9	5.8	5.9	5.6	5.2	5.4
27	---	---	---	---	---	---	6.0	5.6	5.8	5.4	5.2	5.3
28	---	---	---	---	---	---	5.8	5.5	5.6	5.4	5.2	5.3
29	---	---	---	---	---	---	5.8	5.5	5.6	5.3	5.2	5.2
30	---	---	---	---	---	---	6.0	5.7	5.9	5.3	5.2	5.2
31	---	---	---	---	---	---	---	---	---	5.3	5.2	5.2
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5.3	5.2	5.2	4.9	4.9	4.9	5.4	5.4	5.4	5.9	5.3	5.5
2	5.3	5.2	5.2	4.9	4.9	4.9	5.4	5.4	5.4	5.3	5.1	5.3
3	5.2	5.2	5.2	5.0	4.9	4.9	5.4	5.4	5.4	5.1	4.9	5.0
4	5.3	5.2	5.2	5.0	4.9	4.9	5.5	5.4	5.4	5.0	4.9	4.9
5	5.2	5.1	5.2	5.0	4.9	4.9	5.5	5.4	5.4	5.2	4.9	5.0
6	5.2	5.1	5.1	4.9	4.9	4.9	5.5	5.3	5.4	5.2	5.2	5.2
7	5.3	5.1	5.2	5.0	4.9	4.9	5.5	5.3	5.4	5.2	5.2	5.2
8	5.6	5.3	5.4	---	---	---	5.4	5.3	5.4	5.2	5.2	5.2
9	5.7	5.3	5.5	---	---	---	5.4	5.2	5.3	5.2	5.2	5.2
10	5.6	5.2	5.4	5.4	5.2	5.3	5.4	5.2	5.3	5.2	5.2	5.2
11	5.4	5.1	5.2	---	---	---	5.4	5.2	5.3	5.2	5.2	5.2
12	5.3	5.1	5.2	---	---	---	5.4	5.2	5.3	5.2	5.2	5.2
13	5.3	5.2	5.3	5.2	5.2	5.2	5.3	5.2	5.3	5.5	5.2	5.3
14	5.3	5.2	5.3	5.2	5.2	5.2	5.3	5.2	5.3	5.2	5.2	5.2
15	5.4	5.3	5.3	5.2	5.2	5.2	5.3	5.2	5.2	5.7	5.2	5.3
16	5.7	5.3	5.5	5.2	5.2	5.2	5.2	5.2	5.2	6.1	5.2	5.4
17	5.5	5.2	5.3	5.2	5.1	5.1	5.2	5.2	5.2	5.2	5.2	5.2
18	5.4	5.2	5.3	5.1	5.1	5.1	6.0	5.2	5.3	5.2	5.2	5.2
19	5.4	5.1	5.2	5.1	5.1	5.1	5.5	5.1	5.2	5.2	5.2	5.2
20	5.2	5.1	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.2	5.2	5.2
21	5.2	5.1	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.2	5.2	5.2
22	5.2	5.2	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.2	5.2	5.2
23	5.2	5.1	5.2	5.2	5.2	5.2	---	---	---	5.2	5.0	5.1
24	5.2	5.0	5.1	5.9	5.2	5.3	5.2	5.2	5.2	5.1	5.1	5.1
25	5.1	5.0	5.0	5.4	5.2	5.4	5.2	5.1	5.1	5.2	5.1	5.1
26	5.1	5.0	5.1	6.1	5.2	5.4	5.1	5.1	5.1	5.2	5.1	5.1
27	5.5	5.0	5.1	5.4	5.4	5.4	5.2	5.1	5.1	5.1	5.1	5.1
28	5.5	5.0	5.1	5.4	5.4	5.4	5.1	5.1	5.1	5.1	5.1	5.1
29	5.3	4.8	5.0	5.4	5.4	5.4	5.1	5.0	5.0	5.1	5.1	5.1
30	4.9	4.9	4.9	5.4	5.4	5.4	6.0	5.0	5.3	5.2	5.1	5.1
31	---	---	---	5.4	5.4	5.4	6.0	5.0	5.5	---	---	---
MONTH	5.7	4.8	5.2	---	---	---	---	---	---	6.1	4.9	5.2

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR APRIL TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	18.8	15.1	16.6
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	18.3	16.0	17.2
4	---	---	---	---	---	---	---	---	---	16.0	14.1	15.0
5	---	---	---	---	---	---	---	---	---	16.4	13.7	14.8
6	---	---	---	---	---	---	---	---	---	17.7	13.4	15.5
7	---	---	---	---	---	---	---	---	---	19.3	15.7	17.1
8	---	---	---	---	---	---	---	---	---	19.7	16.8	17.9
9	---	---	---	---	---	---	---	---	---	18.8	17.1	17.8
10	---	---	---	---	---	---	16.7	14.7	15.7	18.6	17.1	17.7
11	---	---	---	---	---	---	17.2	13.0	15.0	18.6	15.9	17.2
12	---	---	---	---	---	---	17.1	14.2	15.4	19.0	16.2	17.4
13	---	---	---	---	---	---	18.1	14.7	16.4	18.9	17.5	18.1
14	---	---	---	---	---	---	19.4	15.2	17.1	18.5	15.3	16.7
15	---	---	---	---	---	---	20.0	16.1	17.7	18.1	14.2	15.7
16	---	---	---	---	---	---	21.1	16.4	18.4	18.3	13.9	15.8
17	---	---	---	---	---	---	21.4	16.7	18.7	18.9	16.1	17.2
18	---	---	---	---	---	---	20.8	16.9	18.7	18.1	15.2	17.2
19	---	---	---	---	---	---	20.1	17.3	18.4	16.2	13.7	14.7
20	---	---	---	---	---	---	19.8	17.2	18.3	16.8	12.5	14.1
21	---	---	---	---	---	---	19.2	16.9	18.1	15.6	13.2	14.2
22	---	---	---	---	---	---	18.9	16.2	17.8	16.9	12.7	14.2
23	---	---	---	---	---	---	17.7	14.4	15.8	17.4	12.2	14.3
24	---	---	---	---	---	---	17.3	13.3	15.2	18.2	13.0	15.3
25	---	---	---	---	---	---	18.2	15.1	16.5	19.1	15.0	16.8
26	---	---	---	---	---	---	16.6	13.4	15.0	18.9	15.7	17.3
27	---	---	---	---	---	---	16.8	13.0	15.0	19.6	16.2	17.6
28	---	---	---	---	---	---	18.8	15.7	17.1	19.3	16.0	17.4
29	---	---	---	---	---	---	19.3	15.8	17.6	18.6	16.7	17.6
30	---	---	---	---	---	---	17.6	13.7	15.4	19.6	17.3	18.2
31	---	---	---	---	---	---	---	---	---	20.0	17.4	18.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	17.9	18.8	20.2	18.4	19.1	20.8	19.0	19.8	21.1	20.0	20.5
2	20.1	17.9	18.8	20.2	18.4	19.1	20.5	19.1	19.6	20.0	19.2	19.7
3	20.2	17.8	18.8	20.3	18.4	19.2	21.1	19.0	19.7	19.7	18.4	19.0
4	20.0	17.8	18.7	20.2	18.5	19.2	21.0	19.0	19.8	19.7	18.7	19.1
5	20.1	18.0	18.8	20.0	18.5	19.2	21.2	19.1	19.9	19.3	18.7	19.0
6	20.1	18.0	18.9	20.7	18.7	19.5	20.8	19.2	19.9	19.2	18.5	18.8
7	20.6	18.3	19.2	20.4	18.6	19.4	20.9	18.8	19.6	19.1	18.5	18.8
8	20.5	16.7	18.1	20.0	18.6	19.3	20.3	17.7	18.9	19.1	18.5	18.8
9	20.1	15.4	17.4	20.1	18.6	19.2	20.0	17.3	18.7	19.4	18.6	18.9
10	20.0	15.7	17.7	20.3	18.9	19.5	20.2	17.6	18.9	19.3	18.6	18.9
11	20.4	17.1	18.6	---	---	---	20.3	18.3	19.2	19.4	18.6	18.9
12	20.7	18.0	19.1	---	---	---	19.9	18.9	19.3	19.1	18.4	18.8
13	20.7	18.5	19.4	20.1	18.5	19.2	20.1	18.7	19.2	18.7	16.8	17.9
14	20.0	18.4	19.2	20.3	18.6	19.3	19.7	18.8	19.2	18.8	18.4	18.5
15	21.2	18.4	19.4	21.0	18.7	19.6	19.7	18.7	19.1	21.0	18.5	19.1
16	20.5	16.8	18.5	21.0	18.9	19.8	19.7	18.7	19.1	22.5	18.6	20.3
17	20.5	17.9	19.1	20.8	19.1	19.8	19.9	18.8	19.2	19.6	18.8	19.2
18	19.9	17.9	18.9	20.8	19.0	19.8	25.2	18.8	19.9	19.3	18.7	18.9
19	20.7	17.9	19.1	20.8	19.3	20.0	21.1	19.1	19.7	19.4	18.6	18.9
20	20.9	18.1	19.1	20.6	19.2	19.8	19.7	18.8	19.1	19.3	18.6	18.9
21	20.7	17.9	19.0	21.2	19.2	20.0	19.8	18.8	19.2	19.1	18.6	18.8
22	19.5	18.1	18.7	20.8	19.3	19.9	20.0	18.9	19.4	19.2	18.6	18.8
23	19.5	17.9	18.5	20.2	18.9	19.5	20.2	19.0	19.5	19.4	18.5	18.9
24	20.7	17.9	18.9	25.1	18.9	20.3	19.9	19.1	19.5	19.2	18.4	18.8
25	20.2	18.2	19.0	21.8	19.2	20.2	20.1	19.1	19.5	19.2	18.3	18.8
26	19.5	18.3	18.8	23.3	18.9	20.8	19.7	19.1	19.4	19.0	18.5	18.7
27	22.5	18.1	19.2	20.1	18.8	19.3	20.5	19.0	19.3	19.3	18.5	18.9
28	22.8	18.8	19.7	20.9	18.7	19.5	19.8	19.0	19.2	19.6	18.7	19.1
29	21.4	19.2	20.1	20.8	18.9	19.6	19.3	18.8	19.0	19.4	18.7	19.0
30	20.4	18.4	19.2	20.9	18.9	19.7	20.9	18.8	19.6	19.2	18.2	18.8
31	---	---	---	20.9	19.0	19.8	---	---	---	---	---	---
MONTH	22.8	15.4	18.9	---	---	---	25.2	17.3	19.4	22.5	16.8	19.0

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR APRIL TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	6.9	5.1	6.1
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	7.1	4.4	6.0
4	---	---	---	---	---	---	---	---	---	6.9	5.9	6.4
5	---	---	---	---	---	---	---	---	---	7.4	6.3	6.8
6	---	---	---	---	---	---	---	---	---	7.2	4.9	6.5
7	---	---	---	---	---	---	---	---	---	6.4	3.0	5.4
8	---	---	---	---	---	---	---	---	---	6.2	3.6	5.2
9	---	---	---	---	---	---	---	---	---	5.2	2.2	4.1
10	---	---	---	---	---	---	8.9	6.8	7.8	4.2	2.0	3.3
11	---	---	---	---	---	---	9.4	6.8	7.9	7.3	3.7	6.1
12	---	---	---	---	---	---	9.0	6.6	7.5	6.2	3.2	5.1
13	---	---	---	---	---	---	8.7	6.3	7.4	6.1	2.6	4.3
14	---	---	---	---	---	---	8.2	6.0	7.0	7.0	3.6	6.0
15	---	---	---	---	---	---	8.2	5.7	6.7	7.1	4.9	6.4
16	---	---	---	---	---	---	7.9	5.9	6.7	7.3	5.0	6.5
17	---	---	---	---	---	---	7.6	5.8	6.6	5.6	3.1	4.5
18	---	---	---	---	---	---	7.3	5.8	6.4	7.8	2.7	5.5
19	---	---	---	---	---	---	7.3	5.5	6.2	9.5	7.2	8.3
20	---	---	---	---	---	---	6.9	5.7	6.2	9.0	7.6	8.2
21	---	---	---	---	---	---	6.9	5.7	6.2	9.6	7.6	8.5
22	---	---	---	---	---	---	7.2	5.6	6.5	9.0	7.7	8.3
23	---	---	---	---	---	---	7.8	6.2	7.0	9.1	6.5	8.0
24	---	---	---	---	---	---	8.5	6.7	7.5	8.6	6.6	7.4
25	---	---	---	---	---	---	7.7	6.3	6.9	7.8	4.4	6.7
26	---	---	---	---	---	---	8.5	6.4	7.2	7.6	4.3	6.1
27	---	---	---	---	---	---	8.3	4.8	6.9	6.8	2.4	5.2
28	---	---	---	---	---	---	6.6	4.3	5.7	6.4	2.4	4.8
29	---	---	---	---	---	---	6.2	2.8	4.9	5.4	3.1	4.2
30	---	---	---	---	---	---	7.3	5.5	6.4	5.3	2.2	3.8
31	---	---	---	---	---	---	---	---	---	5.7	2.1	4.4
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.0	2.1	3.8	5.7	0.9	2.7	3.9	1.1	2.1	6.8	5.7	6.2
2	5.5	1.9	3.9	5.5	0.9	2.5	5.2	1.1	2.7	5.8	3.4	5.5
3	5.0	1.4	2.9	4.0	1.0	2.1	6.3	1.2	3.2	4.6	0.4	2.7
4	5.5	1.5	3.3	3.4	1.0	2.0	10.3	1.3	3.7	1.7	0.2	0.6
5	4.8	0.9	2.4	2.6	1.1	1.7	12.0	1.4	5.4	0.9	0.1	0.4
6	4.2	0.7	2.1	2.6	1.1	1.7	18.2	1.6	7.2	1.3	0.2	0.6
7	5.2	1.8	3.2	2.5	1.1	1.6	13.4	1.7	5.5	0.9	0.2	0.5
8	6.5	2.9	4.6	---	---	---	13.3	2.4	6.4	1.1	0.1	0.5
9	6.8	4.5	5.7	0.4	0.2	0.3	16.0	2.5	7.5	1.2	0.2	0.5
10	6.5	4.4	5.7	0.5	0.3	0.4	15.0	2.9	6.8	1.2	0.2	0.5
11	5.4	2.0	4.0	---	---	---	9.6	2.7	5.0	1.4	0.2	0.6
12	5.3	1.3	3.3	---	---	---	7.6	2.0	3.9	1.3	0.2	0.6
13	5.1	1.0	3.3	2.3	1.1	1.6	5.7	0.6	2.5	6.2	0.3	3.7
14	5.5	1.0	2.9	2.6	1.1	1.6	2.8	0.4	1.4	1.1	0.4	0.7
15	6.1	0.8	3.3	3.1	1.2	1.9	2.5	0.2	1.0	6.2	0.3	1.8
16	7.6	3.8	5.4	3.1	1.3	2.0	2.2	0.2	0.8	6.8	0.3	3.6
17	8.3	3.7	5.3	3.1	1.5	2.1	1.4	0.2	0.5	2.3	0.4	1.2
18	14.2	3.2	6.9	3.5	1.6	2.2	6.0	0.1	1.4	1.4	0.3	0.6
19	12.6	3.9	7.0	3.8	1.8	2.3	4.4	0.2	1.2	1.6	0.3	0.8
20	19.5	0.8	7.4	3.7	1.9	2.3	1.1	0.1	0.4	1.5	0.4	0.7
21	15.1	1.0	6.0	4.1	2.1	2.8	1.3	0.1	0.4	1.1	0.4	0.6
22	15.4	0.7	5.8	4.0	2.2	2.6	1.3	0.1	0.4	0.8	0.4	0.5
23	15.1	0.8	5.3	3.3	0.7	1.8	2.0	0.1	0.7	2.1	0.3	1.0
24	18.7	0.8	6.2	8.2	0.7	2.8	1.4	0.2	0.7	2.9	0.4	1.4
25	17.2	1.0	5.4	6.9	1.3	2.9	1.5	0.1	0.6	3.3	0.3	1.7
26	13.2	1.0	5.1	7.8	0.8	4.7	1.4	0.1	0.6	2.6	0.2	0.7
27	13.5	0.7	3.9	2.4	0.7	1.3	1.9	0.1	0.5	1.4	0.2	0.6
28	6.4	0.8	3.3	3.3	0.8	1.5	0.7	0.1	0.3	1.9	0.3	0.8
29	6.1	1.6	4.1	2.1	0.8	1.4	1.2	0.1	0.5	1.3	0.3	0.6
30	4.4	0.8	2.2	2.6	0.9	1.5	6.7	0.2	3.6	2.4	0.4	1.2
31	---	---	---	3.1	1.0	1.7	7.0	0.5	5.3	---	---	---
MONTH	19.5	0.7	4.5	---	---	---	18.2	0.1	2.7	6.8	0.1	1.4

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR APRIL TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	72	54	62
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	74	46	62
4	---	---	---	---	---	---	---	---	---	69	60	64
5	---	---	---	---	---	---	---	---	---	75	62	68
6	---	---	---	---	---	---	---	---	---	72	50	65
7	---	---	---	---	---	---	---	---	---	65	31	56
8	---	---	---	---	---	---	---	---	---	67	38	55
9	---	---	---	---	---	---	---	---	---	54	23	43
10	---	---	---	---	---	---	92	68	78	44	21	35
11	---	---	---	---	---	---	98	67	78	78	39	64
12	---	---	---	---	---	---	93	66	75	64	34	53
13	---	---	---	---	---	---	92	64	75	65	27	45
14	---	---	---	---	---	---	89	62	72	74	37	62
15	---	---	---	---	---	---	90	60	71	73	51	65
16	---	---	---	---	---	---	89	62	71	75	52	66
17	---	---	---	---	---	---	86	62	71	57	32	47
18	---	---	---	---	---	---	82	62	69	82	28	57
19	---	---	---	---	---	---	79	59	66	96	71	82
20	---	---	---	---	---	---	75	60	66	93	72	80
21	---	---	---	---	---	---	74	61	66	96	73	83
22	---	---	---	---	---	---	77	59	68	93	75	81
23	---	---	---	---	---	---	81	63	71	95	65	79
24	---	---	---	---	---	---	88	67	75	91	66	74
25	---	---	---	---	---	---	81	63	71	84	46	69
26	---	---	---	---	---	---	87	63	72	82	46	64
27	---	---	---	---	---	---	84	49	68	74	25	54
28	---	---	---	---	---	---	71	45	60	69	25	50
29	---	---	---	---	---	---	66	30	51	56	32	44
30	---	---	---	---	---	---	76	57	65	58	23	41
31	---	---	---	---	---	---	---	---	---	62	22	47
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	55	22	41	63	10	30	43	12	23	77	63	69
2	61	20	42	61	10	27	58	12	30	64	37	60
3	55	15	31	44	11	23	70	13	35	49	4	29
4	61	16	36	38	11	21	116	14	41	18	2	6
5	53	10	27	29	12	18	135	15	60	10	1	4
6	46	7	22	29	12	18	204	17	79	14	2	6
7	57	19	35	28	12	18	150	18	60	10	2	5
8	72	30	49	---	---	---	147	26	70	12	1	5
9	75	48	60	---	---	---	176	26	82	13	2	6
10	72	46	60	---	---	---	165	31	74	13	2	6
11	60	21	43	---	---	---	107	29	54	15	2	6
12	59	14	36	---	---	---	84	22	43	14	2	6
13	57	11	36	25	12	18	63	6	27	64	3	39
14	61	11	32	29	12	18	31	4	16	12	4	7
15	68	9	36	35	13	21	27	2	10	70	3	20
16	85	40	57	35	14	22	24	2	9	79	3	40
17	92	40	58	35	16	23	15	2	6	25	4	13
18	156	34	75	39	17	25	73	1	16	15	3	7
19	139	41	76	43	20	26	50	2	13	17	3	8
20	218	8	81	41	21	26	12	1	4	16	4	8
21	168	11	66	46	23	31	14	1	5	12	4	6
22	167	7	62	45	24	29	14	1	4	9	4	5
23	165	8	58	37	8	19	22	1	8	23	3	10
24	209	8	68	99	8	32	15	2	7	31	4	15
25	190	11	59	78	14	32	17	1	7	36	3	18
26	144	11	55	92	9	53	15	1	7	28	2	8
27	149	7	43	26	8	14	21	1	5	15	2	7
28	75	9	36	37	9	17	8	1	3	21	3	9
29	69	17	45	23	9	15	13	1	5	14	3	6
30	49	9	24	29	10	17	75	2	40	26	4	13
31	---	---	---	34	11	19	79	5	59	---	---	---
MONTH	218	7	48	---	---	---	204	1	29	79	1	15

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	328	312	323	94	92	93	74	72	73	94	47	60
2	335	312	327	94	92	93	73	71	72	70	65	68
3	341	326	331	94	92	93	72	70	71	75	64	69
4	336	324	330	93	89	91	72	68	71	74	72	73
5	339	329	334	91	79	86	72	45	62	72	71	71
6	338	248	318	88	51	71	70	64	67	71	69	71
7	336	326	331	86	80	83	72	68	71	71	68	70
8	335	94	185	87	85	86	74	72	73	71	68	70
9	254	129	188	88	85	86	74	73	73	72	68	70
10	323	189	262	88	86	87	74	73	73	71	67	70
11	337	41	190	88	84	86	75	59	70	72	65	69
12	109	107	108	87	52	70	74	72	73	71	65	69
13	113	106	109	76	57	67	76	34	57	72	65	69
14	106	101	102	82	76	79	66	53	61	71	69	70
15	101	97	99	85	82	84	71	66	69	71	66	69
16	98	87	92	90	79	85	71	70	71	71	64	68
17	98	95	96	99	70	83	71	71	71	70	62	67
18	99	95	97	89	79	81	71	70	71	71	62	67
19	104	95	98	83	82	82	71	69	71	71	63	68
20	114	95	100	83	82	82	76	56	70	71	62	68
21	114	39	81	83	81	82	76	72	75	70	65	69
22	97	75	89	82	81	82	74	71	72	72	59	67
23	99	95	97	81	79	80	73	69	72	279	68	110
24	97	95	96	79	78	79	74	45	66	87	67	73
25	97	94	95	79	77	78	66	54	61	86	65	72
26	95	92	93	78	76	77	69	65	67	82	66	72
27	95	92	93	78	76	77	72	68	70	68	67	68
28	95	65	88	76	74	75	72	71	71	70	67	68
29	104	73	94	75	73	74	74	71	72	70	66	68
30	104	43	77	75	73	74	74	71	72	75	50	65
31	92	86	89	---	---	---	74	70	72	74	65	71
MONTH	341	39	162	99	51	82	76	34	70	279	47	70
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	76	74	75	74	34	66	81	78	79	92	85	88
2	76	74	75	65	25	52	81	77	79	97	84	88
3	78	76	76	70	65	68	81	76	79	91	84	86
4	78	71	76	71	70	70	83	79	81	89	84	86
5	78	75	76	72	63	69	83	72	79	86	83	84
6	77	52	72	74	15	48	84	79	80	87	72	80
7	75	41	58	66	58	63	86	51	73	88	82	85
8	73	67	71	69	65	67	79	52	75	95	87	91
9	74	72	73	71	68	70	68	39	55	99	86	92
10	78	53	65	71	69	70	68	33	43	102	92	96
11	71	65	69	72	70	71	72	54	65	104	94	98
12	74	69	72	78	68	73	75	69	72	100	90	95
13	78	67	73	78	72	77	79	74	77	97	88	93
14	75	69	73	77	71	76	80	77	78	98	86	92
15	74	70	72	77	76	77	82	78	79	95	80	89
16	73	66	71	101	37	72	83	78	80	88	80	83
17	73	66	71	77	73	76	84	79	81	87	84	85
18	74	44	65	78	77	78	84	78	80	85	71	81
19	72	64	68	78	76	77	79	77	78	81	63	74
20	79	70	73	94	32	57	82	77	80	85	78	81
21	78	74	76	72	60	67	83	78	80	84	77	80
22	76	34	66	76	71	74	83	77	80	83	54	70
23	74	71	73	78	76	77	83	79	81	77	67	73
24	77	74	75	79	77	78	85	79	82	83	77	80
25	77	76	76	79	77	78	83	60	76	83	62	77
26	77	74	76	80	77	78	83	69	76	85	79	81
27	79	28	54	79	78	78	87	76	82	87	81	83
28	66	42	58	79	77	78	90	83	86	90	82	85
29	---	---	---	79	76	78	93	84	87	91	81	85
30	---	---	---	79	61	73	94	85	88	102	82	87
31	---	---	---	81	77	80	---	---	---	99	75	87
MONTH	79	28	71	101	15	71	94	33	77	104	54	85

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	90	78	84	93	80	89	106	67	88	87	73	80
2	130	85	95	98	32	65	94	63	81	98	85	91
3	104	71	86	80	60	73	92	78	85	102	93	96
4	90	81	83	97	80	86	97	90	92	103	94	98
5	92	83	87	101	89	94	109	61	90	101	94	96
6	114	71	86	102	92	97	99	88	92	100	95	97
7	89	47	78	104	91	97	104	87	96	99	94	96
8	82	50	71	105	94	99	99	5	52	97	65	88
9	87	72	79	107	95	102	58	24	51	97	88	93
10	96	82	87	109	95	103	---	---	---	99	93	95
11	100	86	90	104	90	99	---	---	---	100	93	97
12	103	70	86	102	87	93	---	---	---	99	92	95
13	100	83	88	98	91	94	---	---	---	95	91	93
14	103	85	91	108	90	101	---	---	---	96	88	92
15	110	54	85	106	96	100	46	36	41	97	90	93
16	82	40	63	111	98	102	49	46	47	100	93	95
17	73	62	69	109	99	103	54	49	51	100	92	95
18	101	51	76	106	96	100	58	50	54	100	69	88
19	101	69	75	106	98	101	57	50	54	88	78	83
20	96	75	85	101	97	99	64	57	60	94	86	89
21	92	84	87	103	95	99	67	63	65	97	91	94
22	97	87	91	107	98	103	68	65	67	98	86	93
23	98	88	92	107	90	99	70	67	68	113	63	84
24	101	89	95	159	90	102	74	70	73	90	83	87
25	100	88	94	122	93	101	74	70	72	93	86	89
26	102	87	92	104	95	100	118	73	95	94	89	92
27	98	83	89	105	92	97	110	101	105	94	91	92
28	93	80	87	104	93	98	110	102	105	94	90	92
29	106	79	95	136	72	97	109	99	105	95	90	92
30	106	79	94	107	67	83	109	99	105	92	89	91
31	---	---	---	91	82	87	118	53	88	---	---	---
MONTH	130	40	85	159	32	96	---	---	---	113	63	92

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	5.1	5.1	5.1	5.4	5.3	5.4	5.4	5.4	5.4	6.2	5.6	5.7
2	5.2	5.0	5.1	5.3	5.3	5.3	5.4	5.4	5.4	5.7	5.6	5.7
3	5.1	5.0	5.0	5.3	5.2	5.3	5.4	5.4	5.4	5.8	5.7	5.7
4	5.1	5.0	5.1	5.4	5.2	5.3	5.5	5.4	5.4	5.7	5.7	5.7
5	5.1	5.0	5.1	5.5	5.3	5.4	5.9	5.5	5.6	5.7	5.6	5.6
6	5.1	5.0	5.1	6.2	5.4	5.6	5.5	5.4	5.4	5.7	5.6	5.6
7	5.1	5.1	5.1	5.5	5.5	5.5	5.4	5.4	5.4	5.6	5.6	5.6
8	5.5	5.1	5.3	5.5	5.4	5.5	5.4	5.4	5.4	5.7	5.6	5.6
9	5.3	5.1	5.2	5.5	5.4	5.4	5.4	5.4	5.4	5.7	5.6	5.7
10	5.2	5.1	5.1	5.5	5.4	5.4	5.4	5.4	5.4	5.7	5.6	5.6
11	6.1	5.1	5.4	5.5	5.4	5.5	5.5	5.4	5.5	5.7	5.6	5.6
12	5.5	5.4	5.5	6.2	5.5	5.7	5.5	5.4	5.5	5.6	5.6	5.6
13	5.5	5.4	5.5	6.0	5.5	5.7	5.8	5.4	5.6	5.7	5.6	5.6
14	5.5	5.4	5.5	5.6	5.5	5.5	5.5	5.5	5.5	5.7	5.6	5.6
15	5.6	5.4	5.5	5.6	5.4	5.5	5.5	5.5	5.5	5.7	5.6	5.6
16	5.7	5.4	5.5	5.6	5.4	5.5	5.5	5.4	5.5	5.7	5.6	5.6
17	5.5	5.4	5.4	5.9	5.5	5.6	5.5	5.5	5.5	5.7	5.6	5.7
18	5.5	5.3	5.4	5.8	5.5	5.5	5.5	5.5	5.5	5.7	5.6	5.6
19	5.4	5.3	5.3	5.5	5.5	5.5	5.6	5.5	5.5	5.7	5.6	5.6
20	5.4	5.2	5.3	5.5	5.5	5.5	5.8	5.6	5.7	5.7	5.6	5.6
21	5.8	5.2	5.4	5.5	5.4	5.5	5.7	5.6	5.7	5.7	5.6	5.6
22	5.6	5.4	5.4	5.5	5.5	5.5	5.6	5.5	5.6	5.7	5.6	5.6
23	5.5	5.4	5.5	5.5	5.4	5.5	5.6	5.5	5.5	6.7	5.6	6.0
24	5.4	5.4	5.4	5.5	5.4	5.4	6.2	5.5	5.7	5.9	5.7	5.7
25	5.4	5.3	5.4	5.5	5.4	5.4	5.9	5.6	5.7	5.9	5.6	5.7
26	5.4	5.3	5.4	5.5	5.4	5.4	5.6	5.6	5.6	5.9	5.6	5.7
27	5.4	5.3	5.4	5.5	5.4	5.4	5.6	5.6	5.6	5.7	5.6	5.7
28	5.7	5.3	5.5	5.4	5.4	5.4	5.6	5.6	5.6	5.7	5.6	5.7
29	5.6	5.5	5.6	5.4	5.4	5.4	5.6	5.6	5.6	5.7	5.6	5.7
30	6.0	5.4	5.5	5.4	5.4	5.4	5.6	5.6	5.6	6.2	5.6	5.9
31	5.4	5.4	5.4	---	---	---	5.6	5.6	5.6	6.0	5.9	5.9
MONTH	6.1	5.0	5.3	6.2	5.2	5.5	6.2	5.4	5.5	6.7	5.6	5.7
DAY	MAX	MIN	MEAN									
1	5.9	5.7	5.8	6.3	5.8	5.8	6.3	6.0	6.1	5.7	5.6	5.7
2	5.7	5.5	5.6	6.3	5.8	5.9	6.2	6.0	6.1	5.7	5.6	5.7
3	5.6	5.4	5.5	5.9	5.8	5.8	6.2	6.0	6.0	5.7	5.6	5.7
4	5.7	5.6	5.6	5.9	5.8	5.8	6.1	6.0	6.0	5.7	5.7	5.7
5	5.7	5.6	5.6	6.0	5.8	5.9	6.1	6.0	6.0	5.7	5.6	5.7
6	5.8	5.6	5.7	6.2	5.9	6.0	6.1	6.0	6.1	5.8	5.7	5.7
7	6.2	5.7	5.8	5.9	5.9	5.9	6.3	6.0	6.1	5.7	5.6	5.7
8	5.8	5.7	5.7	5.9	5.9	5.9	6.1	6.1	6.1	5.8	5.7	5.7
9	5.8	5.7	5.7	6.0	5.9	5.9	6.3	6.0	6.1	5.8	5.7	5.7
10	6.2	5.7	5.8	6.0	5.9	5.9	6.5	6.0	6.3	5.8	5.7	5.8
11	5.8	5.7	5.7	6.0	5.9	6.0	6.5	6.1	6.2	5.9	5.7	5.8
12	5.8	5.7	5.7	6.0	5.9	5.9	6.1	6.0	6.1	5.8	5.7	5.8
13	5.8	5.7	5.7	6.0	6.0	6.0	6.2	6.1	6.1	5.8	5.7	5.7
14	5.8	5.7	5.7	6.0	6.0	6.0	6.2	6.1	6.2	5.8	5.6	5.7
15	5.8	5.7	5.7	6.1	6.0	6.0	6.2	6.1	6.2	5.7	5.6	5.7
16	5.8	5.7	5.7	6.6	6.0	6.2	6.2	6.1	6.2	5.7	5.7	5.7
17	5.8	5.7	5.8	6.2	6.1	6.1	6.2	5.3	5.8	5.7	5.7	5.7
18	6.3	5.7	5.8	6.2	6.1	6.1	5.6	5.5	5.6	5.8	5.7	5.7
19	5.8	5.7	5.8	6.1	6.0	6.1	5.6	5.5	5.6	5.8	5.7	5.8
20	5.9	5.8	5.8	6.7	5.9	6.2	5.7	5.6	5.6	6.0	5.7	5.9
21	5.9	5.8	5.8	6.0	5.9	5.9	5.6	5.5	5.6	6.1	6.0	6.0
22	6.2	5.8	5.9	6.0	5.9	6.0	5.6	5.6	5.6	6.3	6.0	6.2
23	5.9	5.8	5.8	6.1	6.0	6.0	5.6	5.5	5.6	6.3	6.2	6.3
24	5.8	5.8	5.8	6.1	6.0	6.0	5.7	5.5	5.6	6.2	6.1	6.2
25	5.9	5.8	5.8	6.1	6.0	6.0	5.7	5.6	5.6	6.3	6.1	6.2
26	5.9	5.8	5.8	6.2	6.0	6.1	5.8	5.6	5.7	6.2	6.1	6.2
27	6.2	5.9	6.0	6.2	6.0	6.1	5.8	5.7	5.7	6.2	6.1	6.2
28	6.0	5.8	5.8	6.2	6.0	6.0	5.7	5.7	5.7	6.2	6.0	6.1
29	---	---	---	6.2	6.0	6.1	5.7	5.6	5.7	6.1	6.0	6.1
30	---	---	---	6.2	6.1	6.1	5.7	5.6	5.7	6.2	6.1	6.1
31	---	---	---	6.3	6.1	6.2	---	---	---	6.2	6.1	6.2
MONTH	6.3	5.4	5.7	6.7	5.8	6.0	6.5	5.3	5.9	6.3	5.6	5.9

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.1	6.0	6.1	6.1	5.9	6.0	6.5	6.0	6.2	6.1	6.0	6.1
2	6.8	6.0	6.2	6.4	5.8	6.0	6.4	6.1	6.3	6.1	6.0	6.0
3	6.7	6.1	6.2	5.8	5.6	5.7	6.3	6.1	6.2	6.0	6.0	6.0
4	6.1	6.0	6.1	5.7	5.6	5.6	6.2	6.2	6.2	6.1	6.0	6.0
5	6.1	6.0	6.1	5.7	5.5	5.6	6.5	5.7	6.0	6.0	5.9	6.0
6	6.8	6.0	6.2	5.6	5.4	5.6	5.7	5.6	5.7	6.0	5.9	6.0
7	6.5	6.0	6.1	5.6	5.4	5.5	5.8	5.6	5.7	6.0	5.9	5.9
8	6.5	6.1	6.2	5.5	5.4	5.4	6.3	5.8	5.9	6.1	5.9	5.9
9	6.2	6.0	6.1	5.6	5.4	5.4	6.2	5.8	5.9	5.9	5.9	5.9
10	6.1	6.0	6.0	6.1	5.4	5.6	6.3	5.8	6.0	5.9	5.5	5.7
11	6.1	5.9	6.0	5.8	5.6	5.7	6.0	5.8	5.8	5.7	5.6	5.6
12	6.2	5.9	6.0	5.7	5.6	5.7	5.9	5.8	5.8	5.8	5.6	5.7
13	6.1	5.3	5.9	5.8	5.6	5.7	5.9	5.8	5.8	5.8	5.7	5.8
14	5.6	5.5	5.6	5.9	5.7	5.8	6.1	5.8	5.9	5.8	5.7	5.8
15	6.2	5.5	5.7	5.9	5.8	5.9	5.9	5.8	5.8	5.8	5.7	5.8
16	6.0	5.7	5.8	5.9	5.7	5.8	5.9	5.9	5.9	5.9	5.7	5.8
17	5.9	5.8	5.8	5.9	5.8	5.8	6.0	5.9	5.9	5.9	5.8	5.8
18	6.3	5.8	5.9	5.9	5.8	5.9	6.0	5.9	5.9	6.3	5.8	6.0
19	6.3	5.8	5.9	6.0	5.8	5.9	6.0	5.9	6.0	6.2	5.9	6.0
20	6.2	5.8	6.0	6.1	5.9	6.0	6.0	6.0	6.0	6.0	5.9	5.9
21	6.0	5.9	5.9	6.1	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0
22	6.0	5.9	6.0	6.1	5.9	6.0	6.1	6.0	6.1	6.1	6.0	6.0
23	6.0	5.8	5.9	6.3	6.0	6.1	6.2	6.1	6.1	6.5	6.0	6.1
24	6.0	5.8	5.9	6.5	6.0	6.2	6.2	6.1	6.2	6.5	6.0	6.3
25	6.2	5.8	6.0	6.4	6.1	6.2	6.1	6.1	6.1	6.5	6.5	6.5
26	6.2	5.9	6.1	6.2	6.1	6.2	6.4	6.0	6.1	6.5	6.5	6.5
27	6.0	5.9	5.9	6.2	6.0	6.1	6.1	5.9	6.0	6.5	6.4	6.5
28	6.0	5.9	6.0	6.2	6.0	6.1	6.1	6.0	6.0	6.5	6.4	6.5
29	6.3	6.0	6.1	6.8	6.0	6.2	6.1	5.9	6.0	6.5	6.4	6.4
30	6.1	6.0	6.0	6.6	6.1	6.3	6.0	5.8	5.9	6.4	6.3	6.3
31	---	---	---	6.2	6.1	6.1	6.4	5.8	6.0	---	---	---
MONTH	6.8	5.3	6.0	6.8	5.4	5.9	6.5	5.6	6.0	6.5	5.5	6.0

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.3	18.6	18.9	13.6	11.7	12.7	10.6	8.3	9.4	13.4	11.1	12.3
2	19.3	18.6	18.9	12.9	11.6	12.3	9.8	7.4	8.8	11.7	10.7	11.4
3	19.4	18.7	19.0	13.2	11.8	12.5	10.9	8.2	9.6	11.9	9.9	11.2
4	19.4	18.7	19.0	13.9	12.6	13.3	8.2	6.3	7.3	10.1	8.1	9.2
5	19.5	18.8	19.1	13.6	13.0	13.3	7.0	1.8	5.1	9.7	7.2	8.4
6	19.4	18.5	19.0	14.3	12.4	13.4	7.6	6.6	7.3	10.5	8.2	9.2
7	19.3	18.7	19.0	12.9	11.6	12.2	8.6	5.9	7.2	8.6	6.7	7.7
8	18.9	17.2	17.8	13.4	10.8	12.1	9.6	6.6	8.0	10.1	7.4	8.7
9	18.6	17.1	17.8	14.7	11.6	13.2	8.9	8.0	8.5	11.9	9.0	10.4
10	18.6	17.4	18.1	16.9	13.8	15.5	8.7	7.7	8.2	11.8	8.9	10.7
11	21.5	18.4	19.9	17.6	16.6	17.1	9.0	6.2	8.4	9.4	7.3	8.3
12	20.4	19.4	20.0	17.0	14.3	16.1	11.0	8.9	9.8	8.2	6.2	7.2
13	19.8	18.8	19.3	14.3	12.8	13.6	9.7	6.5	8.2	8.6	6.2	7.4
14	19.2	16.1	17.4	13.9	11.9	12.9	10.2	8.2	9.2	9.3	6.7	7.9
15	16.1	15.1	15.5	14.1	11.6	12.9	10.0	7.8	8.9	8.6	6.2	7.4
16	17.4	16.0	16.7	15.0	13.8	14.4	11.1	8.5	9.7	8.0	6.0	6.8
17	16.7	15.1	16.0	14.0	11.9	13.4	9.9	8.2	9.1	8.4	5.9	7.0
18	15.7	13.8	14.8	12.6	11.0	11.8	10.3	8.4	9.4	7.0	4.7	5.7
19	15.7	13.4	14.6	12.8	10.1	11.4	11.6	9.8	10.4	7.1	4.5	5.6
20	17.0	14.6	15.8	13.4	10.8	12.1	13.8	10.4	12.5	9.1	5.3	7.1
21	17.5	15.5	16.5	13.6	11.9	12.7	10.8	9.1	10	7.6	6.6	7.2
22	16.1	14.3	15.5	13.2	11.1	12.4	11.5	8.7	10.1	8.0	5.5	6.7
23	16.5	14.5	15.6	11.8	10.0	10.9	11.1	8.9	10.0	6.6	3.6	5.0
24	15.8	15.2	15.6	12.7	10.0	11.3	10.0	7.6	9.2	5.9	3.3	4.4
25	15.8	15.2	15.5	13.1	10.4	11.7	9.6	7.5	8.7	7.2	3.8	5.2
26	16.6	15.2	15.9	12.7	10.3	11.5	9.1	7.2	8.0	7.8	4.5	6.0
27	16.6	15.6	16.1	11.9	10.1	11.1	8.9	6.5	7.7	6.5	4.2	5.5
28	17.0	15.7	16.3	10.3	8.6	9.5	9.2	6.6	7.8	7.0	3.9	5.3
29	15.7	13.6	14.6	9.9	7.7	8.9	10.4	7.3	8.7	8.8	6.1	7.6
30	14.1	11.0	13.3	11.9	9.6	10.7	11.0	7.7	9.3	8.7	4.1	6.9
31	13.9	12.6	13.2	---	---	---	11.8	9.1	10.5	7.5	5.7	6.9
MONTH	21.5	11.0	16.9	17.6	7.7	12.6	13.8	1.8	8.9	13.4	3.3	7.6
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.6	7.5	8.3	9.5	7.4	8.5	14.3	9.1	11.6	18.8	16.0	17.4
2	9.6	7.0	8.1	11.7	7.4	9.4	16.9	11.8	14.1	18.9	15.9	17.3
3	11.6	7.4	9.4	11.7	7.9	9.5	17.6	12.5	15.0	17.7	16.0	16.9
4	12.6	9.1	11.0	11.9	7.6	9.7	17.6	13.6	15.6	16.7	14.8	15.6
5	10.3	7.6	8.9	13.7	10.4	11.8	16.7	14.4	15.5	14.8	13.8	14.3
6	8.9	5.5	7.5	13.1	11.3	12.2	16.6	13.3	14.8	17.7	14.7	16.2
7	8.1	3.9	6.3	11.3	8.1	9.3	13.9	10.5	11.8	19.2	16.2	17.4
8	8.6	5.8	7.0	12.7	7.2	9.8	11.5	10.4	11.2	20.4	17.1	18.5
9	9.1	6.0	7.3	14.7	9.8	11.8	10.7	9.1	10.1	21.0	17.4	19.0
10	7.6	5.8	6.9	13.2	9.4	10.9	10.3	8.6	9.4	20.9	17.9	19.3
11	9.3	5.6	7.3	11.4	8.5	9.7	11.3	9.9	10.4	21.0	18.4	19.4
12	10.1	6.6	8.0	14.3	8.2	11.0	15.1	10.6	12.6	19.4	16.9	18.0
13	9.3	5.6	7.4	15.3	10.6	12.8	15.8	11.5	13.6	18.6	15.5	16.8
14	9.0	6.7	8.0	13.9	10.4	12.3	16.5	11.8	14.2	18.4	14.5	16.3
15	10.2	8.2	9.2	11.6	9.6	10.6	17.4	12.7	15.1	17.6	15.7	16.5
16	8.2	3.2	6.1	13.8	10.4	11.9	17.8	13.6	15.7	18.5	15.9	17.1
17	6.3	3.3	5.2	15.1	12.4	13.5	17.7	13.9	15.6	17.2	15.7	16.6
18	7.3	4.2	6.2	15.2	13.1	13.9	14.2	12.8	13.2	15.7	14.8	15.3
19	9.0	5.7	7.2	13.3	11.6	12.6	14.0	12.7	13.3	15.8	14.5	15.0
20	10.1	7.8	8.6	12.1	9.7	11.1	15.4	12.7	13.9	18.0	14.4	16.1
21	9.2	7.6	8.6	14.4	11.6	12.7	16.1	13.1	14.5	18.0	15.5	16.8
22	13.2	8.9	10.4	16.4	11.4	13.6	17.1	14.4	15.7	17.4	16.4	16.7
23	11.7	8.5	10.8	15.6	11.4	13.4	15.7	12.6	14.2	17.0	16.4	16.6
24	12.2	7.3	9.6	16.4	11.8	13.8	15.6	11.7	13.8	17.8	16.1	16.8
25	11.6	9.0	10.1	16.9	11.1	13.8	15.1	13.8	14.2	19.0	16.3	17.2
26	9.0	7.1	8.0	17.2	12.3	14.5	16.1	14.4	15.0	18.6	17.2	17.8
27	7.1	3.8	5.3	16.2	12.6	14.1	17.0	14.2	15.5	17.6	16.4	17.1
28	8.3	4.5	6.8	16.7	12.3	14.5	17.7	13.6	15.7	18.4	15.5	16.8
29	---	---	---	18.3	15.1	16.3	18.6	14.9	16.6	17.9	15.7	16.6
30	---	---	---	16.2	10.6	12.8	19.1	15.5	17.3	18.6	15.4	16.9
31	---	---	---	13.1	9.3	10.9	---	---	---	17.7	16.0	16.8
MONTH	13.2	3.2	8.0	18.3	7.2	12.0	19.1	8.6	14.0	21.0	13.8	16.9

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	18.6	15.8	16.9	20.3	19.5	19.9	23.5	20.8	21.7	23.1	21.7	22.4
2	20.2	14.7	16.8	23.2	19.3	20.8	23.5	21.3	22.2	22.9	21.2	22.1
3	22.6	15.9	18.3	21.5	19.7	20.5	22.5	21.0	21.7	22.7	21.2	21.9
4	19.4	17.7	18.4	21.6	19.1	20.3	21.8	20.9	21.2	22.8	21.2	21.9
5	19.9	17.4	18.5	22.9	20.0	21.2	22.4	20.9	21.7	21.4	20.3	20.9
6	24.0	16.1	19.0	22.8	20.2	21.3	21.9	20.3	21.0	20.3	18.8	19.3
7	22.4	18.2	19.6	22.6	20.5	21.3	21.3	20.6	20.9	20.2	18.6	19.3
8	24.4	19.2	20.8	23.0	20.3	21.4	24.5	20.4	22.4	19.9	19.0	19.4
9	20.9	18.8	19.8	23.2	20.5	21.6	23.9	21.7	22.5	20.5	18.9	19.6
10	20.8	17.7	19.2	23.1	20.3	21.4	24.7	21.0	22.5	19.6	18.4	18.9
11	21.5	18.0	19.6	23.1	20.2	21.3	22.9	21.4	22.0	19.2	17.4	18.3
12	22.0	18.9	20.0	22.5	20.1	21.0	22.4	20.8	21.6	18.9	18.1	18.5
13	21.6	19.5	20.3	20.7	19.6	20.0	22.0	20.9	21.4	19.1	18.2	18.7
14	21.9	19.2	20.3	21.2	19.4	20.2	25.8	20.9	22.6	20.2	18.9	19.5
15	23.5	19.5	20.6	21.5	19.6	20.4	22.8	21.5	22.2	20.5	18.7	19.6
16	22.2	19.8	20.9	23.0	19.8	21.1	22.0	21.1	21.5	19.9	18.6	19.5
17	19.8	19.1	19.4	21.9	20.0	20.8	22.3	21.0	21.5	19.1	17.3	18.3
18	22.5	18.9	19.8	22.6	19.7	20.9	21.9	20.7	21.3	18.9	17.9	18.4
19	21.7	19.7	20.5	21.3	19.9	20.4	21.8	20.5	21.1	20.3	18.2	19.2
20	20.7	19.1	19.8	22.1	19.3	20.5	22.1	20.6	21.2	20.2	17.9	19.1
21	19.5	17.7	18.6	22.8	19.6	20.9	22.1	20.2	21.1	20.4	18.2	19.3
22	19.5	16.9	18.2	23.4	20.5	21.7	22.3	20.7	21.3	20.7	19.4	19.9
23	20.4	17.6	18.8	21.0	20.1	20.4	22.1	20.5	21.2	21.4	19.1	20.6
24	20.7	17.5	18.9	22.8	19.9	20.8	21.6	20.5	21.0	19.9	17.9	18.9
25	21.3	18.0	19.4	21.7	19.6	20.7	21.7	19.6	20.6	19.9	17.5	18.7
26	21.7	18.4	19.9	22.5	19.8	20.9	22.1	20.1	21.1	19.9	17.6	18.8
27	21.8	19.1	20.2	22.8	20.1	21.2	22.6	20.5	21.5	19.9	17.6	18.8
28	20.3	19.1	19.6	23.0	20.4	21.4	22.9	20.9	21.8	19.8	18.1	19.1
29	21.6	18.7	19.9	24.3	20.2	21.5	23.1	21.2	22.1	18.1	16.1	17.0
30	21.9	19.4	20.4	25.6	21.5	22.8	23.2	21.3	22.1	16.9	15.0	16.0
31	---	---	---	21.7	20.6	21.1	24.2	21.1	22.5	---	---	---
MONTH	24.4	14.7	19.4	25.6	19.1	21.0	25.8	19.6	21.6	23.1	15.0	19.4

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.5	0.4	0.7	8.0	6.6	7.6	7.1	6.1	6.6	8.4	7.4	7.7
2	1.3	0.4	0.6	7.6	6.6	7.2	7.6	6.4	7.0	8.7	7.9	8.2
3	2.1	0.1	0.8	7.6	6.0	7.0	7.2	6.4	6.8	8.2	7.8	8.0
4	2.2	0.2	0.9	7.4	6.6	7.0	8.1	6.8	7.7	9.0	8.0	8.4
5	2.3	0.2	0.9	7.6	6.8	7.2	11.2	8.0	9.0	9.4	8.2	8.7
6	3.1	0.3	1.5	8.9	6.9	7.6	8.2	7.8	8.0	9.3	7.9	8.3
7	3.9	0.3	1.6	7.3	6.6	7.0	8.2	7.5	7.9	10.4	8.2	9.0
8	6.5	0.5	4.0	7.1	6.1	6.6	7.9	7.0	7.5	10.1	8.0	8.8
9	7.9	2.2	4.5	6.9	5.6	6.3	7.9	7.0	7.4	10.9	7.9	8.7
10	5.9	1.0	2.9	6.1	5.0	5.6	7.6	7.0	7.3	11.4	7.9	8.8
11	9.4	0.6	4.7	5.4	4.8	5.0	7.8	6.9	7.2	12.2	8.6	9.8
12	7.0	5.3	6.2	6.9	4.8	5.9	7.9	6.7	7.1	13.1	9.4	10.5
13	5.5	4.2	4.7	7.7	6.5	7.0	11.8	6.7	8.9	13.8	9.2	10.6
14	5.1	4.1	4.5	6.6	6.0	6.3	10.1	9.1	9.5	14.2	9.2	10.6
15	5.8	4.6	5.0	6.3	5.3	5.9	9.4	8.8	9.1	14.4	9.1	10.6
16	6.3	5.0	5.5	5.4	4.8	5.2	9.4	8.6	8.9	14.9	9.6	11.3
17	5.6	4.6	5.1	6.1	5.2	5.5	9.8	9.2	9.5	14.6	9.7	11.0
18	6.1	4.6	5.2	6.4	6.0	6.2	9.6	8.4	9.1	14.1	10.0	11.3
19	7.3	5.2	6.3	6.5	5.7	6.1	8.6	7.8	8.2	13.5	10.3	11.2
20	7.3	5.9	6.5	6.6	5.6	6.0	7.9	7.3	7.6	12.6	9.5	10.6
21	9.3	5.8	8.2	6.1	5.5	5.8	8.6	7.8	8.1	11.2	9.6	10.2
22	8.9	7.7	8.2	6.0	5.5	5.7	8.7	7.6	8.1	12.7	10.0	10.8
23	8.1	7.2	7.7	6.2	5.7	5.9	8.9	7.7	8.2	12.0	10.1	10.9
24	7.8	7.3	7.5	6.4	5.5	5.9	9.7	7.8	8.4	15.8	10.7	12.0
25	7.9	7.4	7.6	6.4	5.6	5.9	9.1	8.2	8.5	16.2	10.3	11.8
26	---	---	---	6.3	5.5	5.9	9.0	8.4	8.6	14.7	10.0	11.4
27	---	---	---	6.5	5.7	6.0	9.2	8.2	8.7	---	---	---
28	---	---	---	7.2	6.0	6.7	9.1	8.0	8.6	---	---	---
29	---	---	---	7.3	6.4	6.9	9.2	7.8	8.4	---	---	---
30	---	---	---	6.8	6.0	6.4	9.6	7.6	8.4	---	---	---
31	8.1	7.4	7.8	---	---	---	9.9	7.2	8.1	10.7	9.2	10.1
MONTH	---	---	---	8.9	4.8	6.3	11.8	6.1	8.1	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.6	8.5	9.3	10.6	8.9	9.4	9.8	7.7	8.6	6.7	5.4	5.9
2	10.5	8.2	9.1	11.0	9.0	9.7	9.0	7.2	8.0	6.8	5.1	5.7
3	9.8	7.5	8.5	---	---	---	8.8	7.1	7.8	6.4	5.1	5.7
4	8.8	7.4	7.8	---	---	---	8.9	6.9	7.8	7.2	5.5	6.2
5	9.6	7.8	8.5	---	---	---	8.4	6.9	7.4	7.0	5.8	6.3
6	9.7	8.0	8.7	---	---	---	9.0	7.2	7.9	6.5	5.0	5.8
7	10.3	7.2	8.5	---	---	---	8.9	7.3	8.2	6.4	5.1	5.7
8	8.4	7.2	7.7	---	---	---	9.0	8.0	8.4	7.3	5.6	6.6
9	7.9	6.4	7.2	---	---	---	9.9	8.5	9.1	7.2	5.7	6.6
10	8.3	6.6	7.4	---	---	---	10.7	8.5	9.9	7.2	5.8	6.5
11	8.1	6.8	7.4	---	---	---	10.0	8.7	9.3	7.0	5.9	6.4
12	7.8	6.3	7.0	---	---	---	9.0	7.8	8.6	7.2	6.0	6.5
13	10.5	6.0	7.3	9.4	7.9	8.6	8.9	7.8	8.4	7.6	6.6	7.1
14	8.3	5.6	6.8	9.8	8.2	8.9	8.9	7.7	8.3	7.8	6.5	7.1
15	6.6	5.0	5.8	9.8	8.3	8.9	8.8	7.4	8.2	7.8	6.4	6.9
16	8.0	5.0	6.3	9.4	8.0	8.6	8.7	7.6	8.1	7.7	6.2	7.0
17	10.5	7.6	9.7	9.0	7.5	8.1	9.1	7.3	8.2	7.8	6.2	6.9
18	10.9	9.0	9.5	8.8	7.4	7.9	9.0	8.1	8.6	8.0	6.8	7.3
19	9.8	8.5	9.2	9.1	7.4	8.0	8.6	7.5	8.1	8.1	7.4	7.8
20	9.4	8.2	8.7	10.3	7.8	9.0	8.5	7.1	7.8	8.0	6.0	7.2
21	9.0	8.0	8.4	8.8	7.9	8.4	8.0	6.6	7.3	6.8	5.9	6.4
22	9.0	7.9	8.3	8.6	7.5	8.1	7.2	6.2	6.6	7.7	5.9	7.2
23	8.6	7.9	8.3	8.5	7.6	8.1	7.6	6.4	7.0	7.5	5.8	6.9
24	9.1	8.0	8.6	8.6	7.5	8.0	7.8	6.5	7.1	6.6	5.3	6.1
25	9.0	8.1	8.4	8.8	7.4	8.0	7.0	6.2	6.6	6.9	5.5	6.1
26	9.1	8.2	8.7	8.7	7.2	7.8	6.6	5.9	6.2	6.4	5.4	6.0
27	11.8	8.7	10.1	9.0	7.3	8.0	7.0	5.8	6.3	6.4	5.7	6.0
28	11.0	9.3	9.9	9.0	7.2	8.0	6.8	5.5	6.2	6.6	5.6	6.0
29	---	---	---	8.6	6.9	7.5	6.7	5.4	6.0	6.6	5.6	6.0
30	---	---	---	9.0	7.0	8.0	6.7	5.3	5.9	6.7	5.2	6.0
31	---	---	---	9.5	8.1	8.7	---	---	---	7.0	5.4	6.0
MONTH	11.8	5.0	8.3	---	---	---	10.7	5.3	7.7	8.1	5.0	6.4

0208762750 UNNAMED TRIB TO SWIFT CREEK NEAR YATES MILL POND, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	16	4	8	77	63	72	63	54	58	78	68	72
2	14	4	7	72	62	67	67	57	60	80	72	75
3	23	1	9	72	57	66	65	56	60	76	70	73
4	24	2	10	72	62	67	68	58	64	80	71	73
5	25	2	10	73	65	69	81	65	70	82	70	74
6	34	3	16	84	65	73	69	65	67	83	69	73
7	42	3	17	69	61	65	68	63	65	88	70	75
8	68	5	42	67	57	62	68	60	63	89	70	76
9	85	23	48	67	54	60	68	60	63	101	71	78
10	63	11	31	63	51	56	65	60	62	105	71	80
11	106	6	52	57	49	52	65	58	62	107	74	83
12	78	58	68	71	49	60	71	59	63	111	77	87
13	60	46	51	74	62	67	97	59	75	117	78	88
14	53	44	47	63	56	60	86	78	82	124	78	90
15	59	46	51	60	51	56	82	76	79	124	77	89
16	65	51	57	52	47	51	86	75	79	125	79	93
17	58	46	51	57	50	52	87	80	82	125	79	91
18	60	45	52	60	55	57	86	74	80	116	80	90
19	74	50	62	59	53	56	78	71	74	112	81	89
20	74	61	66	60	53	56	75	69	72	109	80	88
21	97	60	85	58	52	55	78	69	72	94	80	85
22	87	78	82	57	51	54	79	69	72	107	81	89
23	82	73	78	57	52	53	81	69	73	95	81	86
24	79	73	76	60	51	54	82	69	73	127	81	93
25	80	74	76	60	52	55	77	71	73	133	81	93
26	---	---	---	58	51	54	78	71	73	123	81	92
27	---	---	---	60	52	55	78	70	73	---	---	---
28	---	---	---	63	53	58	78	69	72	---	---	---
29	---	---	---	64	56	60	81	68	72	---	---	---
30	---	---	---	63	54	58	85	67	73	---	---	---
31	78	71	74	---	---	---	89	67	73	89	77	83
MONTH	---	---	---	84	47	59	97	54	70	---	---	---
DAY	MAX	MIN	MEAN									
1	93	72	79	88	78	80	92	72	80	72	56	62
2	92	69	77	92	81	85	92	70	78	73	53	60
3	89	68	75	---	---	---	91	70	78	67	53	59
4	83	67	71	---	---	---	93	69	78	74	56	62
5	86	67	73	---	---	---	86	69	75	68	57	62
6	84	67	73	---	---	---	92	71	78	68	51	59
7	79	60	69	---	---	---	82	71	76	69	52	59
8	70	58	64	---	---	---	82	73	77	81	59	70
9	67	54	60	---	---	---	86	76	81	81	62	71
10	67	55	61	---	---	---	93	76	87	81	63	71
11	70	56	62	---	---	---	89	79	83	78	64	70
12	68	53	59	---	---	---	87	76	81	78	64	69
13	89	51	61	92	76	82	87	76	81	81	67	73
14	71	47	57	94	76	83	89	76	81	83	67	72
15	59	43	51	89	76	81	91	75	81	82	66	71
16	60	41	51	85	75	80	91	75	81	82	65	72
17	84	58	77	89	72	78	95	74	83	81	64	71
18	85	73	77	87	71	77	86	78	82	80	68	73
19	83	72	76	87	70	76	84	72	78	82	74	77
20	83	70	75	91	72	82	84	69	76	81	62	73
21	77	70	72	83	76	79	81	66	72	72	61	66
22	83	68	74	84	73	78	75	62	67	80	61	74
23	79	73	75	84	73	78	77	62	68	77	60	71
24	81	72	75	86	72	77	78	63	69	69	55	63
25	82	71	75	88	72	78	69	61	65	75	56	64
26	78	71	73	89	70	77	66	59	62	67	57	63
27	90	72	79	91	71	78	71	59	64	67	58	63
28	85	78	81	92	72	78	71	56	63	70	58	62
29	---	---	---	90	71	77	72	56	62	69	57	62
30	---	---	---	82	71	75	73	55	61	71	54	62
31	---	---	---	90	73	79	---	---	---	73	56	62
MONTH	93	41	70	---	---	---	95	55	75	83	51	67

WATER-QUALITY DATA, APRIL TO SEPTEMBER 2003

Date	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF (82676)	Sima- zine, water, fltrd, ug/L (04035)
APR 17...	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005
SEP 17...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Tebu- thiuron water fltrd 0.7u GF (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concentr- ation mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
APR 17...	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	8	0.03
MAY 14...	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--
JUL 07...	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	16	--
JUL 09...	--	--	--	--	--	--	--	--	--
AUG 27...	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	8	--
SEP 17...	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

Medium codes used in this table:

- 9 -- Surface water
- D -- Plant tissue

0208794555 CAMP BRANCH AT SECONDARY ROAD 1390 NEAR HOLLY SPRINGS, NC

LOCATION.--Lat 35°39'45", long 78°46'11", Wake County, Hydrologic Unit 03020201, at bridge on Secondary Road 1390, and 3.7 mi east of Holly Springs.

DRAINAGE AREA.--3.13 mi².

GAGE-HEIGHT RECORDS

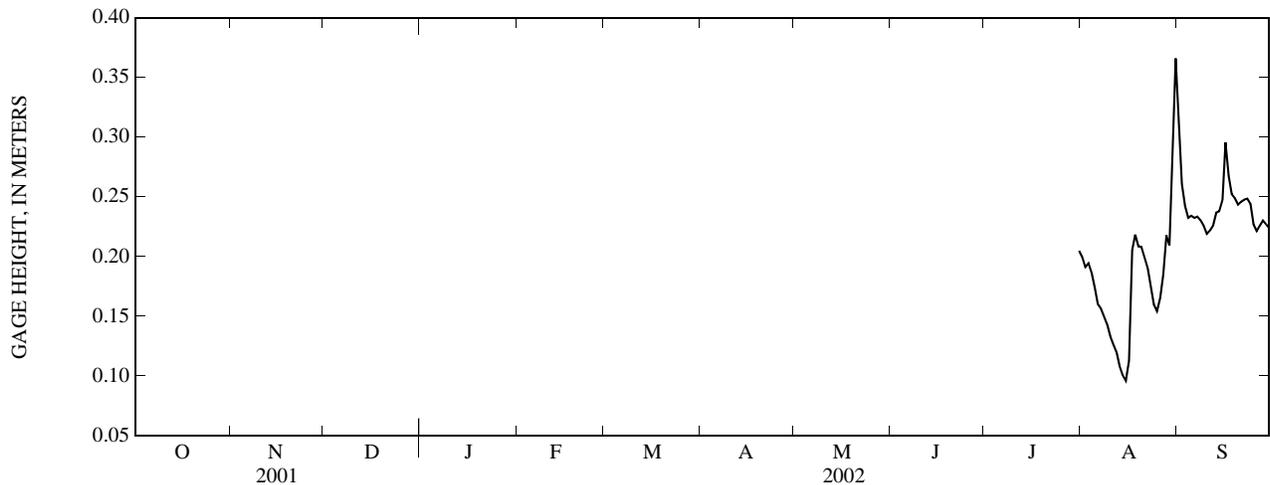
PERIOD OF RECORD.--July 2002 to November 2003 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 310 ft above NGVD of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 2.16 m, Aug. 8, 2003; minimum gage height recorded, 0.08 m, Aug. 15, 16, 2002.

GAGE HEIGHT, ABOVE DATUM, METERS
JULY TO SEPTEMBER 2002
DAILY MEAN VALUES

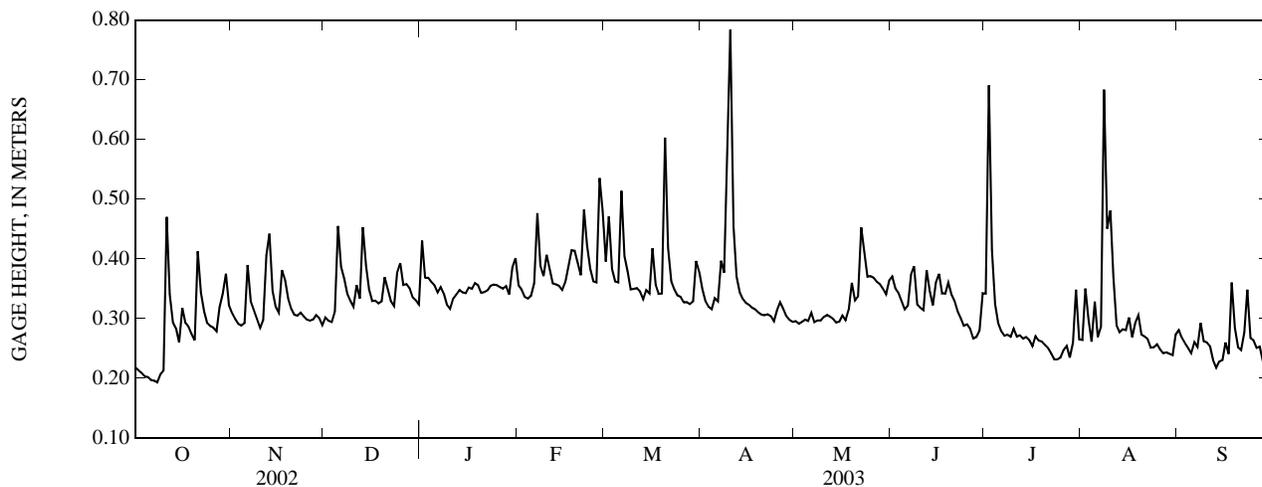
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.20	0.31
2	---	---	---	---	---	---	---	---	---	---	0.19	0.26
3	---	---	---	---	---	---	---	---	---	---	0.19	0.24
4	---	---	---	---	---	---	---	---	---	---	0.19	0.23
5	---	---	---	---	---	---	---	---	---	---	0.17	0.23
6	---	---	---	---	---	---	---	---	---	---	0.16	0.23
7	---	---	---	---	---	---	---	---	---	---	0.16	0.23
8	---	---	---	---	---	---	---	---	---	---	0.15	0.23
9	---	---	---	---	---	---	---	---	---	---	0.14	0.23
10	---	---	---	---	---	---	---	---	---	---	0.13	0.22
11	---	---	---	---	---	---	---	---	---	---	0.13	0.22
12	---	---	---	---	---	---	---	---	---	---	0.12	0.23
13	---	---	---	---	---	---	---	---	---	---	0.11	0.24
14	---	---	---	---	---	---	---	---	---	---	0.10	0.24
15	---	---	---	---	---	---	---	---	---	---	0.10	0.25
16	---	---	---	---	---	---	---	---	---	---	0.11	0.30
17	---	---	---	---	---	---	---	---	---	---	0.21	0.27
18	---	---	---	---	---	---	---	---	---	---	0.22	0.25
19	---	---	---	---	---	---	---	---	---	---	0.21	0.25
20	---	---	---	---	---	---	---	---	---	---	0.21	0.24
21	---	---	---	---	---	---	---	---	---	---	0.20	0.25
22	---	---	---	---	---	---	---	---	---	---	0.19	0.25
23	---	---	---	---	---	---	---	---	---	---	0.17	0.25
24	---	---	---	---	---	---	---	---	---	---	0.16	0.24
25	---	---	---	---	---	---	---	---	---	---	0.15	0.23
26	---	---	---	---	---	---	---	---	---	---	0.17	0.22
27	---	---	---	---	---	---	---	---	---	---	0.18	0.23
28	---	---	---	---	---	---	---	---	---	---	0.22	0.23
29	---	---	---	---	---	---	---	---	---	---	0.21	0.23
30	---	---	---	---	---	---	---	---	---	---	0.30	0.22
31	---	---	---	---	---	---	---	---	---	0.20	0.37	---
MEAN	---	---	---	---	---	---	---	---	---	---	0.18	0.24
MAX	---	---	---	---	---	---	---	---	---	---	0.37	0.31
MIN	---	---	---	---	---	---	---	---	---	---	0.10	0.22



0208794555 CAMP BRANCH AT SECONDARY ROAD 1390 NEAR HOLLY SPRINGS, NC—Continued

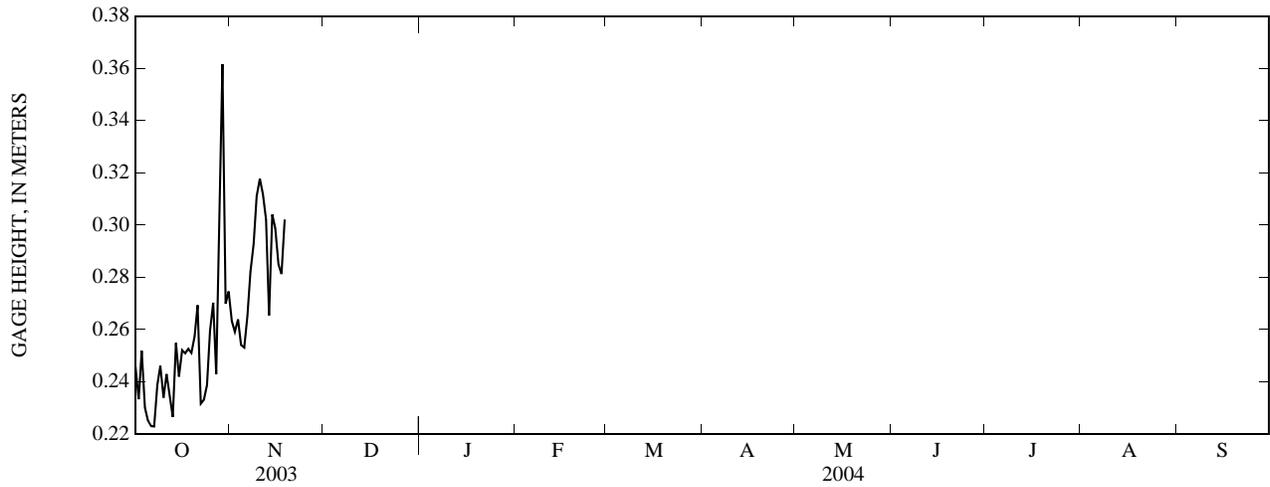
GAGE HEIGHT, ABOVE DATUM, METERS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.22	0.31	0.30	0.43	0.36	0.40	0.35	0.30	0.37	0.34	0.26	0.28
2	0.21	0.30	0.30	0.37	0.35	0.47	0.33	0.29	0.35	0.69	0.35	0.27
3	0.21	0.29	0.29	0.37	0.34	0.38	0.32	0.29	0.34	0.42	0.30	0.26
4	0.20	0.29	0.31	0.36	0.33	0.36	0.32	0.30	0.33	0.32	0.26	0.25
5	0.20	0.29	0.46	0.36	0.34	0.36	0.33	0.30	0.32	0.29	0.33	0.24
6	0.20	0.39	0.39	0.34	0.36	0.51	0.33	0.31	0.32	0.28	0.27	0.26
7	0.20	0.33	0.37	0.35	0.48	0.40	0.40	0.29	0.37	0.27	0.29	0.25
8	0.19	0.31	0.34	0.34	0.39	0.38	0.38	0.30	0.39	0.27	0.68	0.29
9	0.21	0.30	0.33	0.32	0.37	0.35	0.53	0.30	0.32	0.27	0.45	0.26
10	0.21	0.28	0.32	0.32	0.41	0.35	0.78	0.30	0.32	0.28	0.48	0.26
11	0.47	0.30	0.36	0.33	0.38	0.35	0.45	0.31	0.31	0.27	0.37	0.25
12	0.34	0.41	0.33	0.34	0.36	0.35	0.37	0.30	0.38	0.27	0.29	0.23
13	0.29	0.44	0.45	0.35	0.36	0.33	0.34	0.30	0.35	0.27	0.28	0.22
14	0.28	0.35	0.39	0.34	0.35	0.35	0.33	0.29	0.32	0.27	0.28	0.23
15	0.26	0.32	0.35	0.34	0.35	0.34	0.33	0.29	0.36	0.26	0.28	0.23
16	0.32	0.31	0.33	0.35	0.36	0.42	0.32	0.30	0.37	0.25	0.30	0.26
17	0.29	0.38	0.33	0.35	0.39	0.36	0.32	0.30	0.34	0.27	0.27	0.24
18	0.29	0.37	0.33	0.36	0.41	0.34	0.32	0.32	0.34	0.26	0.29	0.36
19	0.27	0.33	0.33	0.36	0.41	0.34	0.31	0.36	0.36	0.26	0.31	0.28
20	0.26	0.32	0.37	0.34	0.39	0.60	0.31	0.33	0.34	0.26	0.27	0.25
21	0.41	0.31	0.35	0.34	0.37	0.42	0.31	0.34	0.33	0.25	0.27	0.25
22	0.34	0.31	0.33	0.35	0.48	0.36	0.31	0.45	0.31	0.24	0.27	0.28
23	0.31	0.31	0.32	0.35	0.42	0.35	0.30	0.41	0.30	0.23	0.25	0.35
24	0.29	0.30	0.38	0.36	0.38	0.34	0.30	0.37	0.29	0.23	0.25	0.27
25	0.29	0.30	0.39	0.36	0.36	0.34	0.31	0.37	0.29	0.24	0.26	0.26
26	0.28	0.30	0.36	0.35	0.36	0.33	0.33	0.37	0.28	0.25	0.25	0.25
27	0.28	0.30	0.36	0.35	0.54	0.33	0.32	0.36	0.27	0.25	0.24	0.25
28	0.32	0.31	0.35	0.35	0.48	0.32	0.30	0.36	0.27	0.23	0.24	0.23
29	0.34	0.30	0.34	0.34	---	0.33	0.30	0.35	0.28	0.26	0.24	0.23
30	0.38	0.29	0.33	0.39	---	0.40	0.29	0.34	0.34	0.35	0.24	0.25
31	0.32	---	0.32	0.40	---	0.38	---	0.36	---	0.27	0.27	---
MEAN	0.28	0.32	0.35	0.35	0.39	0.38	0.35	0.33	0.33	0.29	0.30	0.26
MAX	0.47	0.44	0.46	0.43	0.54	0.60	0.78	0.45	0.39	0.69	0.68	0.36
MIN	0.19	0.28	0.29	0.32	0.33	0.32	0.29	0.29	0.27	0.23	0.24	0.22



GAGE HEIGHT, ABOVE DATUM, METERS
OCTOBER TO NOVEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.26	---	---	---	---	---	---	---	---	---	---
2	0.23	0.26	---	---	---	---	---	---	---	---	---	---
3	0.25	0.26	---	---	---	---	---	---	---	---	---	---
4	0.23	0.25	---	---	---	---	---	---	---	---	---	---
5	0.23	0.25	---	---	---	---	---	---	---	---	---	---
6	0.22	0.27	---	---	---	---	---	---	---	---	---	---
7	0.22	0.28	---	---	---	---	---	---	---	---	---	---
8	0.24	0.29	---	---	---	---	---	---	---	---	---	---
9	0.25	0.31	---	---	---	---	---	---	---	---	---	---
10	0.23	0.32	---	---	---	---	---	---	---	---	---	---
11	0.24	0.31	---	---	---	---	---	---	---	---	---	---
12	0.23	0.30	---	---	---	---	---	---	---	---	---	---
13	0.23	0.27	---	---	---	---	---	---	---	---	---	---
14	0.25	0.30	---	---	---	---	---	---	---	---	---	---
15	0.24	0.30	---	---	---	---	---	---	---	---	---	---
16	0.25	0.28	---	---	---	---	---	---	---	---	---	---
17	0.25	0.28	---	---	---	---	---	---	---	---	---	---
18	0.25	0.30	---	---	---	---	---	---	---	---	---	---
19	0.25	---	---	---	---	---	---	---	---	---	---	---
20	0.26	---	---	---	---	---	---	---	---	---	---	---
21	0.27	---	---	---	---	---	---	---	---	---	---	---
22	0.23	---	---	---	---	---	---	---	---	---	---	---
23	0.23	---	---	---	---	---	---	---	---	---	---	---
24	0.24	---	---	---	---	---	---	---	---	---	---	---
25	0.26	---	---	---	---	---	---	---	---	---	---	---
26	0.27	---	---	---	---	---	---	---	---	---	---	---
27	0.24	---	---	---	---	---	---	---	---	---	---	---
28	0.29	---	---	---	---	---	---	---	---	---	---	---
29	0.36	---	---	---	---	---	---	---	---	---	---	---
30	0.27	---	---	---	---	---	---	---	---	---	---	---
31	0.27	---	---	---	---	---	---	---	---	---	---	---
MEAN	0.25	---	---	---	---	---	---	---	---	---	---	---
MAX	0.36	---	---	---	---	---	---	---	---	---	---	---
MIN	0.22	---	---	---	---	---	---	---	---	---	---	---



0208794555 CAMP BRANCH AT SECONDARY ROAD 1390 NEAR HOLLY SPRINGS, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion, water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil, water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)
OCT 17...	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06
DEC 17...	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06
FEB 24...	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu-fos, water, fltrd, 0.7u GF ug/L (82675)	Ter-buthyl-azine, water, fltrd, ug/L (04022)	Tri-flur-alin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlor-vo, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)
OCT 17...	<0.008	M	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	96	28
DEC 17...	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	88	9
FEB 24...	<0.008	<0.01	<0.005	<0.004	0.007	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	95	12
JUL 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

Medium codes used in this table:

9 - Surface water

0208794555 CAMP BRANCH AT SECONDARY ROAD 1390 NEAR HOLLY SPRINGS, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
JULY TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	26.1	24.4	25.2	21.8	21.1	21.4
2	---	---	---	---	---	---	26.0	23.7	24.7	21.6	20.8	21.2
3	---	---	---	---	---	---	25.7	23.0	24.3	22.4	19.9	21.1
4	---	---	---	---	---	---	26.2	23.2	24.5	23.2	21.3	22.3
5	---	---	---	---	---	---	26.9	23.1	24.8	23.4	22.1	22.8
6	---	---	---	---	---	---	26.1	23.5	24.5	22.1	20.4	21.3
7	---	---	---	---	---	---	25.6	21.6	23.0	22.1	20.3	21.1
8	---	---	---	---	---	---	25.1	19.8	21.8	21.5	20.1	20.8
9	---	---	---	---	---	---	24.4	19.2	21.3	22.1	20.6	21.3
10	---	---	---	---	---	---	24.9	18.9	21.3	22.8	21.1	21.9
11	---	---	---	---	---	---	27.0	19.3	22.3	22.8	21.0	22.0
12	---	---	---	---	---	---	28.0	20.3	23.5	21.9	20.1	20.9
13	---	---	---	---	---	---	29.7	21.7	24.6	20.2	18.6	19.6
14	---	---	---	---	---	---	28.5	21.8	24.0	20.8	19.7	20.2
15	---	---	---	---	---	---	29.0	23.5	25.0	21.7	20.7	21.1
16	---	---	---	---	---	---	27.0	23.4	24.7	22.4	21.4	21.9
17	---	---	---	---	---	---	25.7	23.2	24.1	22.8	21.5	22.2
18	---	---	---	---	---	---	25.2	23.9	24.5	22.6	21.8	22.3
19	---	---	---	---	---	---	25.2	23.4	24.2	22.6	21.9	22.3
20	---	---	---	---	---	---	25.1	23.2	24.1	22.6	21.1	21.9
21	---	---	---	---	---	---	25.8	23.6	24.6	22.2	20.8	21.7
22	---	---	---	---	---	---	26.6	23.7	24.9	22.6	20.8	21.6
23	---	---	---	---	---	---	27.7	24.1	25.6	21.3	20.4	20.8
24	---	---	---	---	---	---	28.2	24.5	25.7	21.2	20.1	20.6
25	---	---	---	---	---	---	27.8	23.9	25.5	20.4	19.3	19.8
26	---	---	---	---	---	---	25.1	23.7	24.3	19.8	18.9	19.4
27	---	---	---	---	---	---	23.7	22.7	23.1	21.8	19.7	20.8
28	---	---	---	---	---	---	22.7	21.9	22.3	21.6	20.6	21.2
29	---	---	---	---	---	---	21.9	21.5	21.6	21.3	19.6	20.3
30	---	---	---	---	---	---	21.9	21.0	21.3	20.0	18.5	19.2
31	---	---	---	26.5	24.8	25.6	21.3	21.0	21.2	---	---	---
MONTH	---	---	---	---	---	---	29.7	18.9	23.8	23.4	18.5	21.2

0208794555 CAMP BRANCH AT SECONDARY ROAD 1390 NEAR HOLLY SPRINGS, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	21.1	19.0	19.8	11.1	9.8	10.5	5.7	4.4	5.1	12.2	8.2	11.0
2	21.6	19.0	20.1	10.1	8.9	9.5	5.5	3.6	4.7	11.8	10.4	10.7
3	21.7	19.6	20.5	10.0	8.8	9.3	5.8	4.2	5.1	10.7	10.0	10.4
4	22.5	19.8	21.0	10.4	9.4	9.9	4.2	3.1	3.6	10.0	6.9	8.4
5	23.3	20.8	21.7	10.8	10.0	10.3	4.1	2.8	3.6	6.9	5.9	6.4
6	22.4	19.9	20.9	12.4	10.8	11.9	4.8	4.1	4.4	7.2	5.9	6.5
7	22.1	19.4	20.5	11.6	9.4	10.6	4.4	3.2	3.7	6.3	5.1	5.7
8	20.2	17.8	18.6	10.0	8.5	9.4	4.6	3.4	3.9	6.3	4.8	5.5
9	19.2	17.1	17.8	10.5	8.7	9.7	5.2	4.2	4.7	7.8	5.7	6.7
10	18.3	17.0	17.7	12.6	10.4	11.4	5.1	4.5	4.8	8.7	7.5	8.0
11	20.6	18.1	19.3	14.6	12.6	13.7	5.9	4.7	5.3	7.6	5.8	6.7
12	20.2	19.6	19.9	15.8	14.3	15.0	6.9	5.9	6.3	5.8	4.2	4.9
13	19.7	19.0	19.4	14.5	12.0	13.2	7.0	6.3	6.6	5.0	3.4	4.3
14	19.4	16.2	17.7	12.0	10.2	10.8	7.8	7.0	7.4	5.2	3.5	4.3
15	16.2	14.9	15.2	10.9	9.9	10.5	7.4	5.7	6.3	4.7	3.7	4.3
16	15.9	15.1	15.6	12.5	10.6	11.6	6.4	5.4	5.9	4.4	3.2	3.8
17	15.3	14.0	14.7	12.7	11.5	12.4	6.4	5.3	5.8	4.2	3.2	3.7
18	14.4	12.6	13.4	11.5	9.0	10.2	7.1	5.1	6.2	3.3	2.1	2.8
19	13.6	11.5	12.7	9.1	8.2	8.7	8.3	6.8	7.5	2.8	1.5	2.2
20	14.8	12.8	13.7	9.7	8.0	8.8	12.2	8.3	10.8	3.8	1.9	2.7
21	16.5	14.8	15.7	10.3	8.8	9.5	11.4	7.9	9.3	3.5	2.6	3.1
22	14.8	13.9	14.3	10.3	9.1	9.7	8.3	7.2	7.7	4.0	2.6	3.3
23	14.2	13.2	13.8	9.1	7.7	8.3	8.3	6.9	7.5	3.4	1.6	2.6
24	14.1	13.4	13.7	8.2	6.8	7.6	8.3	7.2	7.6	2.4	1.1	1.6
25	14.1	13.8	14.0	8.4	6.7	7.6	8.4	7.5	8.1	2.5	1.0	1.6
26	14.7	13.7	14.2	8.5	6.8	7.7	7.5	5.8	6.4	3.0	1.3	2.0
27	14.9	14.1	14.5	8.2	6.9	7.7	5.8	4.7	5.3	2.4	1.3	1.9
28	15.5	14.7	14.9	6.9	5.3	6.2	5.3	4.1	4.6	3.0	1.2	2.0
29	14.8	13.0	13.9	5.6	4.2	5.1	5.7	4.1	4.8	3.5	2.2	2.9
30	13.0	11.9	12.2	6.6	5.2	5.8	6.7	4.6	5.6	4.5	3.4	3.8
31	11.9	10.9	11.6	---	---	---	8.2	5.9	6.9	4.9	4.5	4.7
MONTH	23.3	10.9	16.5	15.8	4.2	9.8	12.2	2.8	6.0	12.2	1.0	4.8
DAY	MAX	MIN	MEAN									
1	6.2	4.9	5.5	7.6	6.7	7.1	12.0	8.8	10.4	20.1	17.4	18.7
2	6.6	5.1	5.7	10.0	7.6	8.6	15.2	11.0	13.0	20.4	17.3	18.7
3	7.4	4.9	6.1	9.6	7.8	8.6	16.9	13.2	14.8	19.2	17.7	18.4
4	9.4	7.3	8.2	8.9	7.1	8.2	17.2	14.5	15.7	18.0	16.4	17.1
5	8.6	7.1	7.8	11.2	8.8	10.2	16.5	15.1	15.8	16.5	14.8	15.3
6	7.3	5.7	6.2	12.0	11.1	11.5	16.4	14.4	15.3	16.7	14.8	15.7
7	6.7	5.4	5.9	11.5	7.6	9.3	14.5	11.0	12.3	19.2	16.1	17.5
8	6.5	5.0	5.7	9.1	6.2	7.7	11.0	10.1	10.5	21.4	17.7	19.4
9	5.9	4.9	5.2	11.6	8.7	10.1	10.3	9.7	10.0	22.3	18.8	20.5
10	6.2	5.0	5.6	11.6	9.2	10.5	10.0	9.0	9.6	23.1	19.8	21.4
11	6.4	4.7	5.6	9.6	7.9	8.9	10.3	9.6	9.9	22.3	20.6	21.5
12	7.2	5.4	6.0	10.6	7.3	8.9	13.3	9.2	11.1	21.5	19.2	20.3
13	6.8	4.8	5.6	12.4	9.2	10.9	14.2	11.3	12.9	20.1	17.5	18.9
14	6.0	4.6	5.3	13.2	11.2	12.2	15.3	12.3	13.9	19.6	15.7	17.7
15	7.4	5.7	6.6	11.2	9.9	10.5	16.8	14.0	15.4	18.5	17.1	17.8
16	7.0	3.5	5.9	11.8	9.7	10.7	18.0	15.2	16.4	19.1	16.7	17.8
17	3.9	2.5	2.8	13.2	11.7	12.4	18.5	15.6	16.7	18.8	17.2	17.7
18	5.9	2.5	4.0	14.0	12.9	13.3	15.7	13.5	14.8	17.2	15.9	16.4
19	6.5	4.4	5.3	13.2	11.8	12.7	13.6	12.9	13.3	16.0	14.7	15.2
20	7.7	6.5	7.0	11.8	9.9	10.8	14.9	12.7	13.6	18.3	14.4	16.1
21	7.5	6.9	7.3	12.6	10.8	11.6	15.3	13.4	14.3	18.3	15.8	17.1
22	11.3	7.3	8.9	13.8	11.0	12.6	17.3	14.5	15.7	17.7	17.0	17.3
23	11.2	9.9	10.7	13.7	11.4	12.7	16.9	13.9	15.2	17.3	16.9	17.0
24	9.9	7.5	8.6	14.9	11.8	13.1	16.1	12.4	14.1	18.1	16.8	17.4
25	10.1	8.4	9.1	15.1	11.9	13.3	14.6	13.4	14.0	18.4	17.2	17.7
26	8.4	6.1	7.5	16.2	13.1	14.3	16.0	14.4	15.0	19.3	18.0	18.5
27	6.1	5.0	5.4	16.2	13.9	14.8	16.7	14.4	15.5	18.7	17.7	18.3
28	6.9	5.0	5.9	16.2	13.4	14.7	18.0	14.6	16.0	19.5	16.6	18.0
29	---	---	---	17.4	14.9	16.1	19.0	15.4	16.9	18.8	16.5	17.6
30	---	---	---	16.9	10.5	13.8	20.2	16.6	18.1	19.8	16.0	17.8
31	---	---	---	11.3	8.9	10.0	---	---	---	18.4	16.8	17.5
MONTH	11.3	2.5	6.4	17.4	6.2	11.3	20.2	8.8	14.0	23.1	14.4	17.9

02088000 MIDDLE CREEK NEAR CLAYTON, NC

LOCATION.--Lat 35°34'11", long 78°35'29", 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 mi².

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 NGVD of 1929. Nov. 1-20, 1939, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 10,000 ft³/s, by logarithmic plotting; maximum gage height for period of record, 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 current water year also occurred Oct. 10.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	84	56	165	165	803	197	81	95	73	114	206
2	14	65	53	401	96	724	131	76	88	161	951	103
3	14	55	53	250	79	663	108	72	68	890	876	65
4	13	49	52	188	79	347	98	68	62	1,010	568	52
5	12	52	155	133	83	201	92	68	64	221	300	57
6	12	119	435	107	78	667	102	82	59	120	443	57
7	12	242	363	95	313	975	130	95	63	104	210	46
8	10	102	157	86	491	627	318	80	209	94	299	42
9	9.4	73	107	82	240	269	458	70	204	91	1,550	93
10	10	62	90	79	210	192	1,100	62	105	109	1,340	70
11	215	59	93	74	332	154	1,740	61	74	159	929	50
12	691	108	147	70	203	130	1,240	57	64	118	725	42
13	681	467	165	67	148	118	540	50	217	107	320	38
14	106	580	457	67	130	155	256	45	126	e73	210	39
15	55	194	528	65	131	148	196	43	86	e71	212	38
16	56	106	171	63	139	255	163	49	109	e104	166	50
17	80	155	112	67	182	474	144	60	118	e195	165	187
18	56	316	95	68	202	270	128	55	93	1,240	137	109
19	42	212	88	65	340	170	122	89	142	1,020	147	330
20	35	119	132	63	289	406	112	105	148	554	126	469
21	131	98	274	63	223	1,070	105	75	123	160	94	150
22	307	87	161	62	311	908	132	134	96	125	80	85
23	156	77	108	61	631	356	118	402	77	108	76	172
24	86	70	115	59	664	211	95	313	67	103	76	397
25	66	68	313	56	298	171	90	145	56	101	66	170
26	58	65	328	57	148	147	141	123	48	91	57	89
27	56	65	160	59	210	124	160	113	43	75	50	72
28	54	63	112	56	613	104	127	104	40	68	45	66
29	98	61	99	55	---	109	98	87	45	67	42	61
30	135	60	91	69	---	166	87	77	43	294	40	55
31	144	---	87	181	---	309	---	71	---	224	39	---
TOTAL	3,428.4	3,933	5,357	3,033	7,028	11,423	8,528	3,012	2,832	7,930	10,453	3,460
MEAN	111	131	173	97.8	251	368	284	97.2	94.4	256	337	115
MAX	691	580	528	401	664	1,070	1,740	402	217	1,240	1,550	469
MIN	9.4	49	52	55	78	104	87	43	40	67	39	38
CFSM	1.32	1.57	2.07	1.17	3.01	4.41	3.40	1.16	1.13	3.06	4.04	1.38
IN.	1.53	1.75	2.39	1.35	3.13	5.09	3.80	1.34	1.26	3.53	4.66	1.54

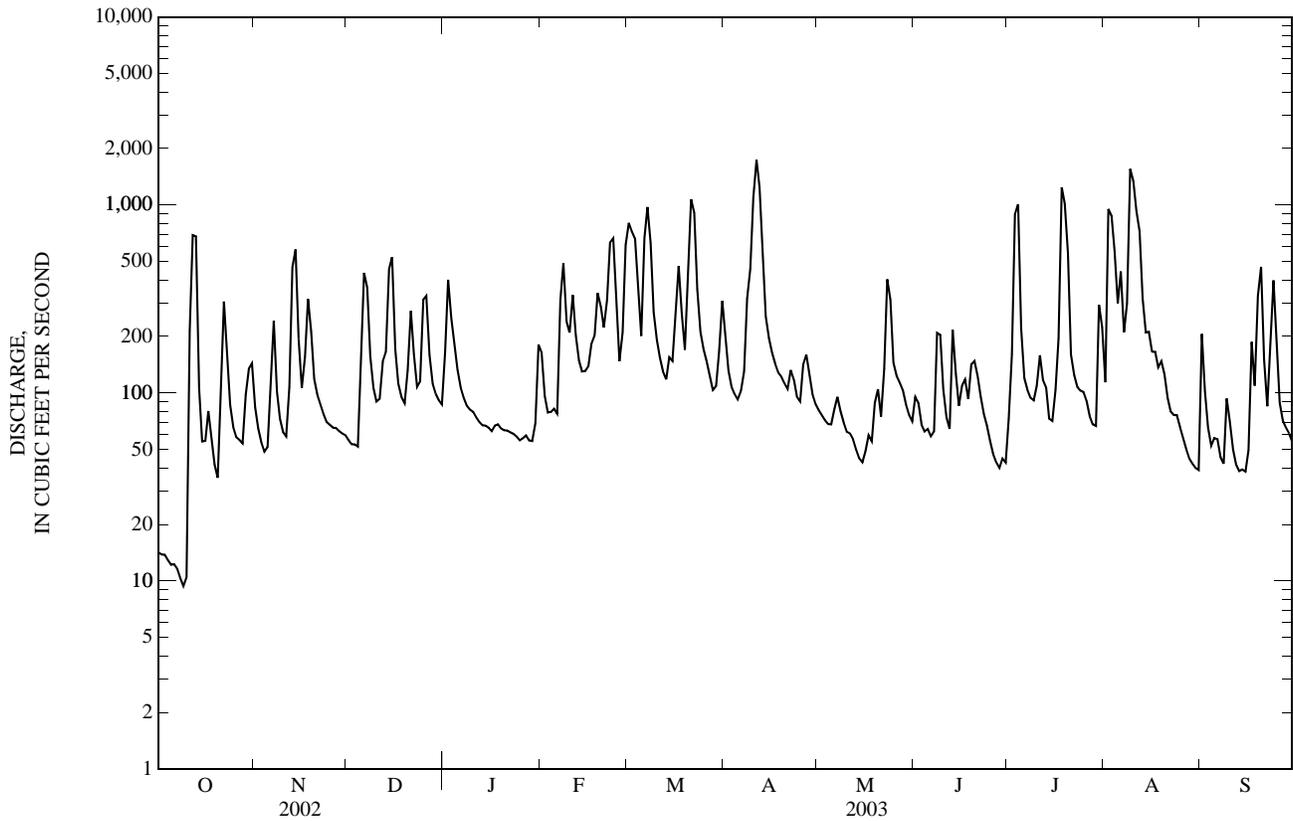
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

MEAN	53.2	65.0	85.3	139	166	172	118	70.8	54.0	60.9	61.9	62.9
MAX	275	230	254	378	450	439	319	330	203	472	340	601
(WY)	(1960)	(1996)	(1973)	(1998)	(1973)	(1998)	(1959)	(1958)	(1992)	(1965)	(1949)	(1999)
MIN	0.77	4.67	19.7	31.6	46.2	45.1	16.1	11.4	2.15	0.23	1.75	0.50
(WY)	(1987)	(1974)	(1952)	(1942)	(1941)	(1981)	(1986)	(1981)	(1986)	(1986)	(1983)	(1954)

02088000 MIDDLE CREEK NEAR CLAYTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1940 - 2003	
ANNUAL TOTAL	30,606.1		70,417.4		92.0	
ANNUAL MEAN	83.9		193		193	
HIGHEST ANNUAL MEAN					30.0	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	922	Jan 25	1,740	Apr 11	6,260	Sep 6, 1996
LOWEST DAILY MEAN	6.8	Jun 26	9.4	Oct 9	0.00	Oct 11, 1954
ANNUAL SEVEN-DAY MINIMUM	8.6	Jun 5	11	Oct 4	0.00	Jul 13, 1986
MAXIMUM PEAK FLOW			2,260	Aug 9	11,900*	Sep 6, 1996
MAXIMUM PEAK STAGE			10.52	Aug 9	14.88*	Sep 6, 1996
INSTANTANEOUS LOW FLOW			8.7*	Oct 9	0.00*	Oct 11, 1954
ANNUAL RUNOFF (CFSM)	1.00		2.31		1.10	
ANNUAL RUNOFF (INCHES)	13.64		31.37		14.96	
10 PERCENT EXCEEDS	165		457		200	
50 PERCENT EXCEEDS	55		106		46	
90 PERCENT EXCEEDS	11		52		7.8	

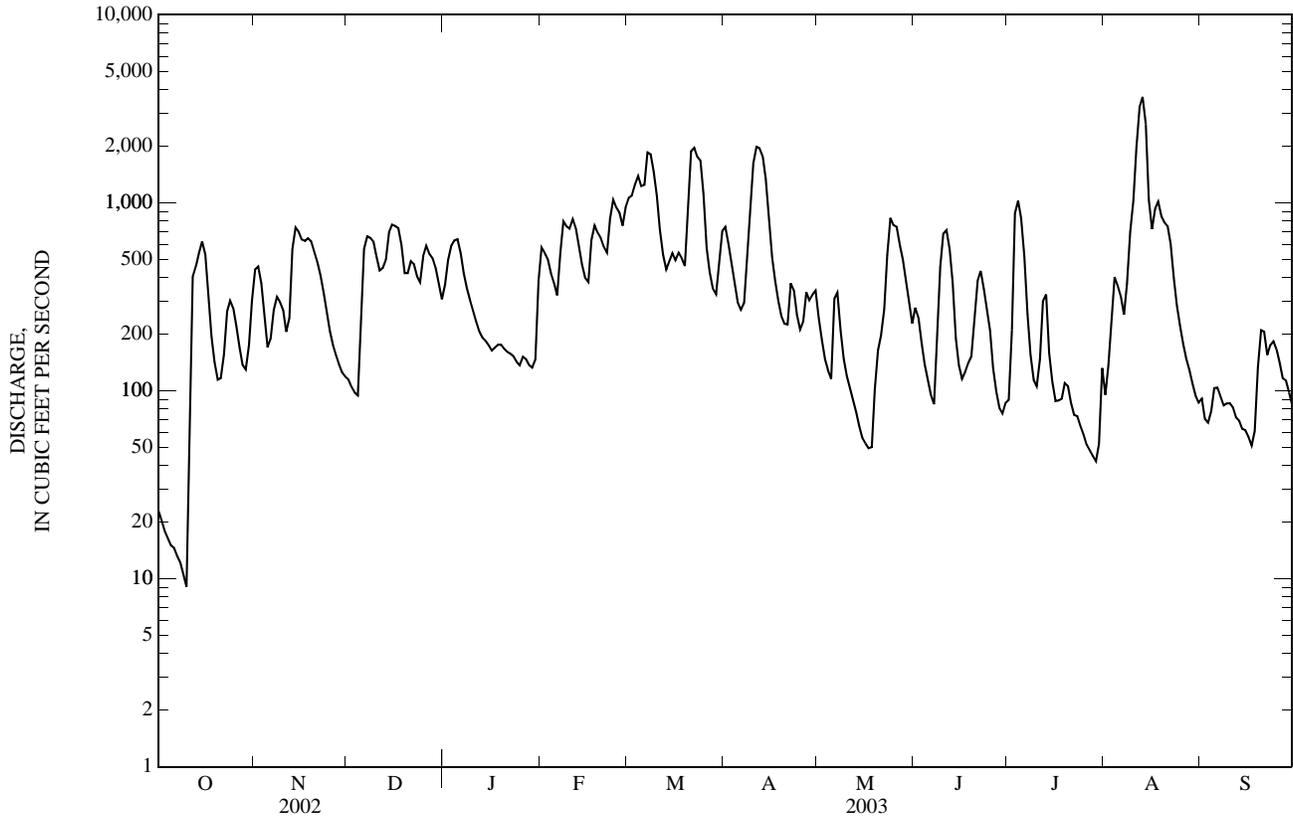
e Estimated.
 * See REMARKS.



02088500 LITTLE RIVER NEAR PRINCETON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1930 - 2003	
ANNUAL TOTAL	65,151.40		155,469.1		256	
ANNUAL MEAN	178		426		511	
HIGHEST ANNUAL MEAN					511	1960
LOWEST ANNUAL MEAN					91.8	1951
HIGHEST DAILY MEAN	1,070	Jan 26	3,650	Aug 13	17,600	Sep 17, 1999
LOWEST DAILY MEAN	0.00	Aug 12	9.1	Oct 10	0.00	Aug 12, 2002
ANNUAL SEVEN-DAY MINIMUM	0.02	Aug 11	13	Oct 4	0.02	Aug 11, 2002
MAXIMUM PEAK FLOW			3,800	Aug 13	20,700*	Sep 17, 1999
MAXIMUM PEAK STAGE			12.75	Aug 13	16.58	Sep 17, 1999
INSTANTANEOUS LOW FLOW			6.6	Oct 10	0.00*	Aug 12, 2002
ANNUAL RUNOFF (CFSM)	0.77		1.84		1.10	
ANNUAL RUNOFF (INCHES)	10.45		24.93		15.01	
10 PERCENT EXCEEDS	543		858		636	
50 PERCENT EXCEEDS	95		297		119	
90 PERCENT EXCEEDS	3.9		80		20	

* See REMARKS.



02089000 NEUSE RIVER NEAR GOLDSBORO, NC

LOCATION.--Lat 35°20'15", long 77°59'50", 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 mi².

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 NGVD of 1929. Prior to July 24, 1931, nonrecording gage at railroad bridge 1.5 mi upstream at 44.95 ft. July 24, 1931, to Aug. 31, 1948, water-stage recorder at site 2.3 mi upstream at 44.66 ft. National Weather Service telephone telemetry at station. Satellite telemetry at station.

REMARKS.--No estimated discharges. Records good. Flow regulated by Falls Lake (station 02087182). Prior to regulation, maximum discharge: 30,700 ft³/s, Sept. 27, 1945; gage height: 26.72 ft at site and datum then in use; minimum discharge: 76 ft³/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 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	388	2,290	1,220	4,910	1,990	6,310	5,780	7,140	6,560	1,060	2,250	1,020
2	376	2,660	1,160	4,960	2,510	6,550	6,060	7,000	6,590	1,390	2,180	1,280
3	357	2,670	1,110	5,030	2,460	6,920	6,140	6,760	6,670	2,640	2,960	1,720
4	343	2,700	1,070	5,140	2,250	7,290	5,950	6,440	6,800	4,720	3,550	1,590
5	335	2,700	1,300	5,240	2,100	7,580	5,700	6,070	6,810	5,600	3,660	1,550
6	325	2,710	1,890	5,160	2,350	7,910	5,560	5,830	6,580	6,180	3,380	1,380
7	316	2,780	3,470	4,750	2,720	8,220	5,600	5,310	6,200	6,140	3,420	1,460
8	295	3,090	3,980	4,070	3,390	8,350	5,850	4,060	5,660	5,630	3,390	1,280
9	284	3,070	3,840	3,070	4,150	8,690	6,510	3,150	4,630	4,960	3,530	1,160
10	273	2,520	2,980	2,140	4,690	9,120	8,470	2,770	4,350	4,380	4,410	1,170
11	333	2,130	2,490	1,860	5,100	9,190	9,150	2,310	4,520	4,370	5,600	1,250
12	396	2,190	2,560	1,700	5,360	8,640	9,860	1,930	4,670	4,910	6,930	1,130
13	2,370	3,180	3,400	1,580	5,480	7,260	10,600	1,680	4,600	5,150	7,850	1,010
14	3,140	3,910	4,080	1,490	5,330	6,490	11,400	1,520	4,400	4,440	8,990	949
15	3,530	4,500	4,460	1,430	5,050	5,740	12,000	1,410	3,640	4,400	9,960	897
16	3,860	4,840	4,800	1,390	4,530	5,560	11,800	1,320	2,640	3,900	10,300	860
17	3,390	5,130	5,100	1,360	4,260	5,670	10,700	1,160	2,290	3,760	9,670	819
18	2,240	5,220	5,350	1,360	3,740	5,960	8,690	1,170	2,690	3,780	7,960	977
19	1,700	5,020	5,470	1,380	3,790	6,180	7,460	1,290	3,030	4,280	6,860	1,420
20	1,320	4,860	5,340	1,360	3,990	6,520	6,870	1,340	3,230	4,150	6,340	1,820
21	1,050	4,760	5,200	1,320	4,370	7,480	6,350	1,750	3,570	3,780	5,800	2,210
22	964	4,660	5,090	1,300	4,480	8,300	6,370	1,910	3,860	3,480	5,520	1,950
23	1,680	4,430	5,030	1,280	4,630	9,290	6,630	2,880	3,910	2,950	5,250	1,680
24	2,190	4,040	5,050	1,240	4,750	10,200	6,900	3,870	3,060	2,650	4,780	1,510
25	2,340	3,320	5,210	1,180	5,050	10,700	7,090	4,460	2,480	2,350	3,710	1,980
26	2,110	2,780	5,380	1,140	5,470	10,500	7,260	6,390	2,000	2,020	2,390	2,190
27	1,440	2,370	5,460	1,170	5,830	8,950	7,440	6,810	1,570	1,800	1,870	2,610
28	1,070	1,900	5,470	1,160	6,180	7,180	7,500	6,860	1,330	1,650	1,510	2,700
29	974	1,690	5,440	1,140	---	5,870	7,410	6,660	1,110	1,510	1,320	2,410
30	1,160	1,400	5,300	1,140	---	5,520	7,260	6,360	1,040	1,550	1,170	2,200
31	1,790	---	5,050	1,240	---	5,520	---	6,160	---	1,850	1,080	---
TOTAL	42,339	99,520	122,750	72,690	116,000	233,660	230,360	123,770	120,490	111,080	147,590	46,182
MEAN	1,366	3,317	3,960	2,345	4,143	7,537	7,679	3,993	4,016	3,583	4,761	1,539
MAX	3,860	5,220	5,470	5,240	6,180	10,700	12,000	7,140	6,810	6,180	10,300	2,700
MIN	273	1,400	1,070	1,140	1,990	5,520	5,560	1,160	1,040	1,060	1,080	819

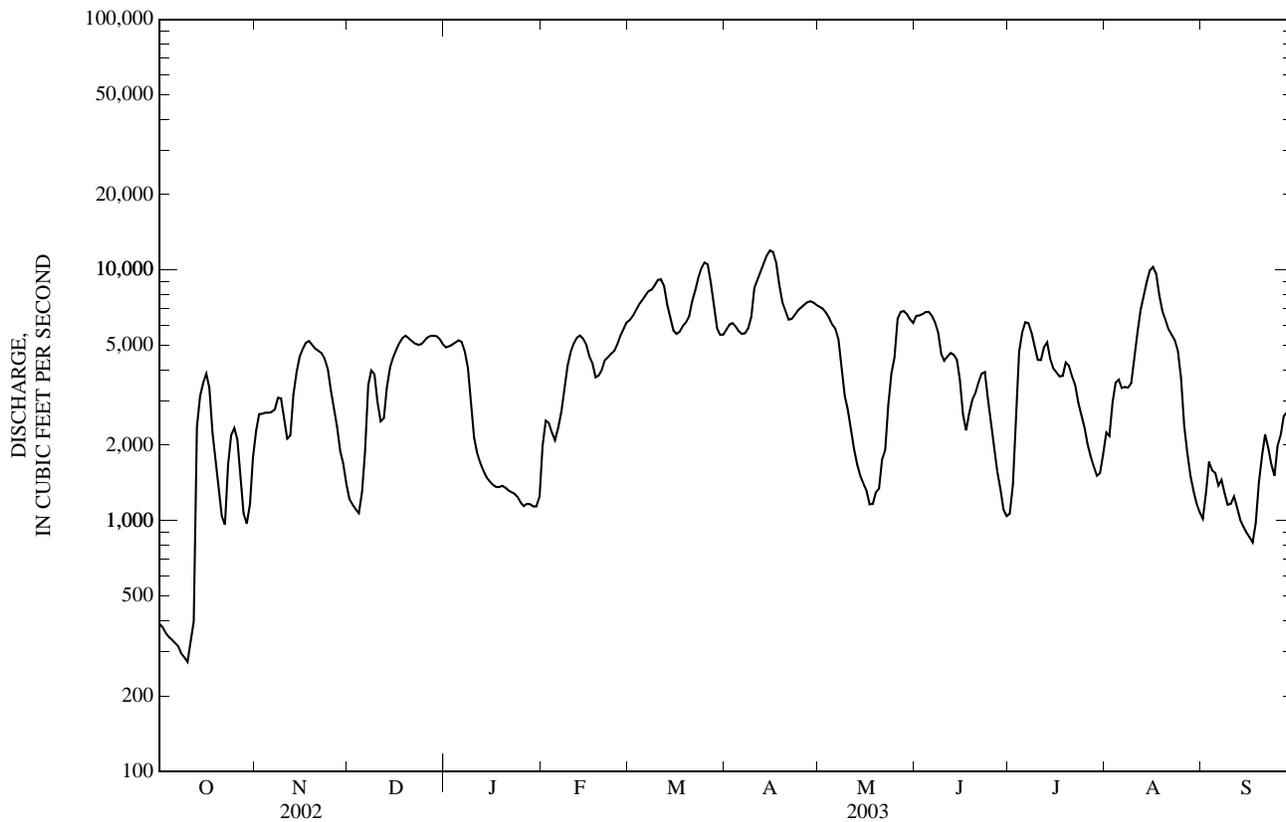
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003,* BY WATER YEAR (WY)

MEAN	1,887	1,509	2,029	3,358	4,182	5,146	4,023	2,017	1,564	1,462	1,594	2,233
MAX	11,750	5,287	4,546	6,644	12,080	11,400	7,850	7,276	5,530	4,668	4,761	14,650
(WY)	(2000)	(1996)	(1997)	(1993)	(1998)	(1998)	(1989)	(1989)	(1995)	(1989)	(2003)	(1999)
MIN	310	326	615	884	1,374	1,286	631	433	342	394	264	246
(WY)	(1984)	(1988)	(2002)	(1986)	(2001)	(2002)	(1986)	(1986)	(1986)	(1987)	(1983)	(1985)

02089000 NEUSE RIVER NEAR GOLDSBORO, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003*	
ANNUAL TOTAL	589,975		1,466,431			
ANNUAL MEAN	1,616		4,018		2,668	
HIGHEST ANNUAL MEAN					4,018	2003
LOWEST ANNUAL MEAN					1,040	2002
HIGHEST DAILY MEAN	7,100	Jan 28	12,000	Apr 15	38,200	Sep 20, 1999
LOWEST DAILY MEAN	262	Aug 14	273	Oct 10	162	Sep 10, 1983
ANNUAL SEVEN-DAY MINIMUM	278	Aug 8	309	Oct 5	172	Sep 15, 1985
MAXIMUM PEAK FLOW			12,100	Apr 15	38,500	Sep 20, 1999
MAXIMUM PEAK STAGE			20.42	Apr 15	28.85	Sep 20, 1999
INSTANTANEOUS LOW FLOW			270	Oct 10	157*	Sep 19, 1985
10 PERCENT EXCEEDS	4,440		7,260		6,890	
50 PERCENT EXCEEDS	1,080		3,780		1,400	
90 PERCENT EXCEEDS	339		1,160		406	

* Regulated period only (1983-2003). See REMARKS.



0208925200 BEAR CREEK AT MAYS STORE, NC

LOCATION.--Lat 35°16'29", long 77°47'39", 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 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for period of record from rating extension above 3,000 ft³/s on basis of slope conveyance of peak flow. Maximum gage height for period of record from floodmark. Minimum discharge for current water year also occurred Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	39	28	43	33	121	79	50	486	30	178	38
2	13	38	26	54	32	103	74	46	280	109	142	36
3	14	38	26	54	31	91	69	42	210	511	119	34
4	14	38	26	50	31	79	65	40	185	208	111	48
5	15	39	52	45	30	73	61	38	162	126	117	90
6	15	45	74	42	28	182	50	81	136	91	144	63
7	15	47	63	39	54	283	58	89	117	71	153	54
8	16	45	53	38	64	196	109	69	124	57	136	49
9	18	43	46	36	55	151	247	55	118	45	123	44
10	19	42	42	35	62	116	534	46	105	41	117	41
11	21	43	42	33	79	95	569	40	92	54	214	39
12	37	68	46	32	68	84	372	36	84	72	174	36
13	31	124	51	31	57	76	288	32	79	124	257	34
14	27	90	86	31	50	71	240	30	71	451	171	33
15	23	63	75	30	48	66	203	28	66	283	142	31
16	23	50	62	29	55	68	173	30	78	172	189	29
17	24	72	52	32	263	74	141	29	68	133	395	28
18	23	122	47	31	190	71	116	28	65	248	348	55
19	22	93	43	30	133	66	103	72	63	234	243	186
20	22	73	51	29	105	126	96	80	57	169	167	120
21	23	60	61	29	86	426	91	63	52	140	136	84
22	24	52	54	29	76	307	117	55	48	111	115	70
23	24	46	48	29	99	217	102	226	44	109	101	79
24	25	41	46	27	84	171	79	339	41	183	127	87
25	27	37	57	27	73	135	68	225	32	149	93	80
26	28	35	54	27	64	108	68	474	29	127	74	68
27	29	33	48	27	69	91	70	592	27	167	61	59
28	31	32	44	26	143	83	64	390	26	132	53	56
29	37	30	42	26	---	89	58	275	31	117	48	51
30	39	29	39	28	---	88	54	233	34	180	44	45
31	38	---	38	32	---	86	---	260	---	205	40	---
TOTAL	731	1,607	1,522	1,051	2,162	3,993	4,418	4,093	3,010	4,849	4,532	1,767
MEAN	23.6	53.6	49.1	33.9	77.2	129	147	132	100	156	146	58.9
MAX	39	124	86	54	263	426	569	592	486	511	395	186
MIN	13	29	26	26	28	66	50	28	26	30	40	28
CFSM	0.41	0.93	0.85	0.59	1.34	2.23	2.55	2.29	1.74	2.71	2.53	1.02
IN.	0.47	1.04	0.98	0.68	1.39	2.57	2.85	2.64	1.94	3.13	2.92	1.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

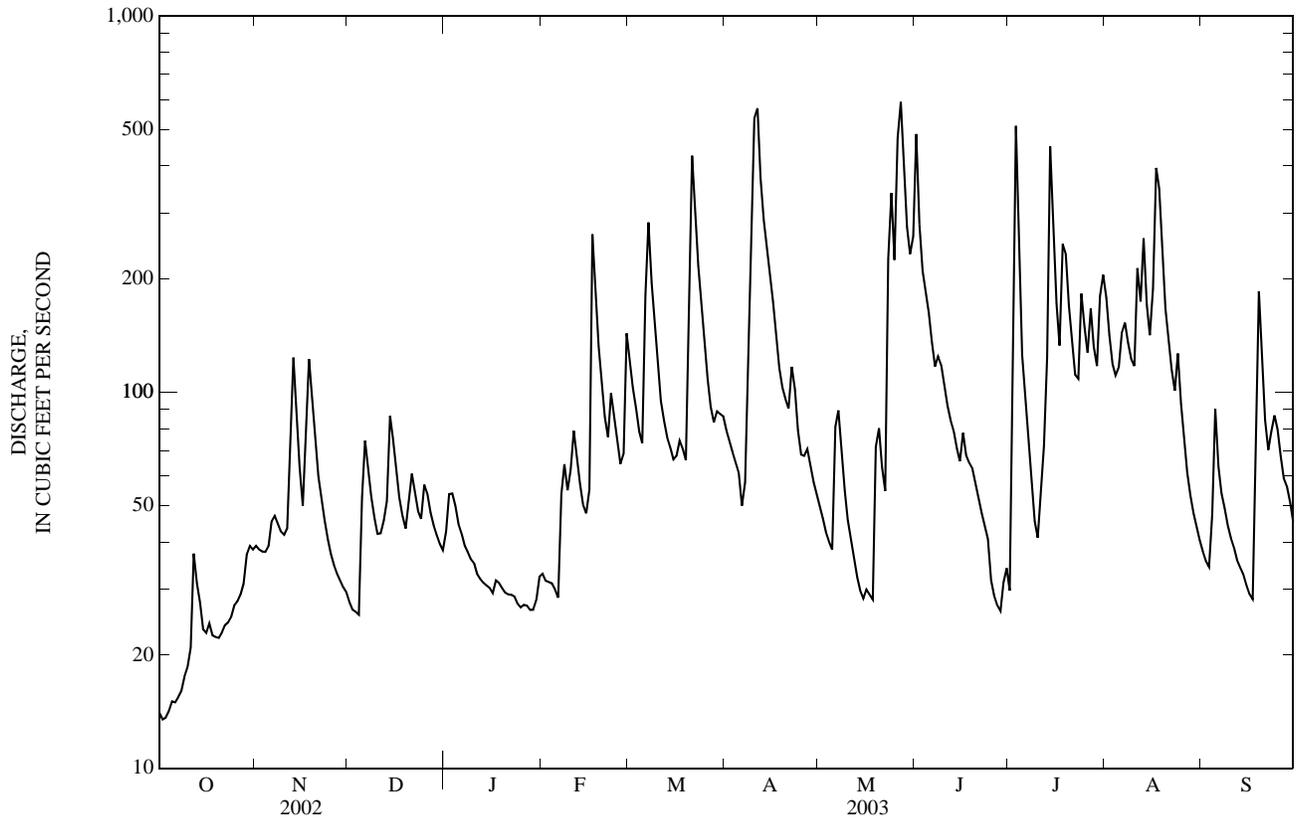
MEAN	61.9	47.3	53.4	96.7	87.5	103	77.8	60.3	57.7	48.7	62.6	139
MAX	316	119	133	266	306	230	204	216	201	156	231	1,401
(WY)	(2000)	(1993)	(1993)	(1993)	(1998)	(1998)	(1998)	(1989)	(1995)	(2003)	(1992)	(1999)
MIN	17.2	15.8	21.5	29.0	40.1	35.3	26.5	19.8	13.2	12.5	12.8	17.6
(WY)	(1995)	(1995)	(1995)	(1995)	(2001)	(1988)	(1995)	(1994)	(1994)	(1993)	(1993)	(1994)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1988 - 2003
ANNUAL TOTAL	15,475	33,735	
ANNUAL MEAN	42.4	92.4	74.5
HIGHEST ANNUAL MEAN			169
LOWEST ANNUAL MEAN			31.7
HIGHEST DAILY MEAN	367	Apr 1	592
LOWEST DAILY MEAN	10	Aug 6	13
ANNUAL SEVEN-DAY MINIMUM	11	Aug 2	14
MAXIMUM PEAK FLOW			666
MAXIMUM PEAK STAGE		8.34	Apr 10
INSTANTANEOUS LOW FLOW		13*	Apr 10
ANNUAL RUNOFF (CFSM)	0.73	1.60	1.29
ANNUAL RUNOFF (INCHES)	9.98	21.75	17.54
10 PERCENT EXCEEDS	82	199	144
50 PERCENT EXCEEDS	30	61	40
90 PERCENT EXCEEDS	14	28	17

* See REMARKS.

0208925200 BEAR CREEK AT MAYS STORE, NC—Continued



02089500 NEUSE RIVER AT KINSTON, NC

LOCATION.--Lat 35°15'30", long 77°35'08", 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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 10.90 ft above NGVD of 1929. Prior to Nov. 25, 1934, nonrecording gage at highway bridge 1 mi downstream at 10.10 ft. National Weather Service telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Falls Lake (station 02087182). Prior to regulation, maximum discharge: 26,000 ft³/s, Oct. 13, 1964; gage height: 22.86 ft, at site and datum then in use; minimum discharge: 124 ft³/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 ft³/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 ft³/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 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	1,660	1,710	5,810	1,380	6,290	7,200	7,990	7,990	1,450	2,410	1,420
2	438	2,140	1,450	5,700	1,940	6,570	6,610	7,910	8,010	1,700	2,630	1,320
3	418	2,520	1,320	5,570	2,450	6,730	6,450	7,790	7,960	3,290	2,700	1,360
4	399	2,700	1,260	5,500	2,640	6,860	6,500	7,640	7,790	4,750	2,890	1,780
5	379	2,760	1,310	5,490	2,560	7,090	6,580	7,450	7,690	4,890	3,420	1,890
6	364	2,850	1,520	5,550	2,410	7,500	6,560	e7,300	7,630	5,220	3,840	1,880
7	348	2,890	2,020	5,610	2,610	7,940	6,470	e7,200	7,570	5,720	4,000	1,680
8	340	2,900	2,950	5,590	2,960	8,350	6,430	6,940	7,500	6,220	3,970	1,660
9	325	3,030	3,480	5,370	3,330	8,620	6,730	6,460	7,290	6,470	3,990	1,540
10	315	3,160	3,880	4,830	3,810	8,810	7,350	5,360	6,840	6,420	4,010	1,400
11	361	3,000	3,910	3,550	4,280	9,020	8,260	4,330	6,180	6,030	4,210	1,350
12	368	2,680	3,450	2,570	4,770	9,280	9,270	3,460	5,630	5,600	4,660	1,410
13	468	2,700	3,080	2,170	5,170	9,440	9,880	2,720	5,400	5,440	5,370	1,340
14	1,480	3,130	3,350	1,920	5,460	9,350	10,300	2,360	5,400	5,810	6,300	1,220
15	2,660	3,580	3,820	1,770	5,670	8,830	10,700	2,060	5,340	6,190	7,330	1,140
16	3,000	3,990	4,210	1,680	5,810	8,070	11,200	1,900	5,200	6,280	8,460	1,080
17	3,330	4,470	4,560	1,640	6,030	7,270	11,800	1,770	4,700	5,910	9,510	1,030
18	3,550	4,940	4,900	1,590	5,930	6,710	12,000	1,610	e3,670	5,370	11,000	1,130
19	3,070	5,300	5,210	1,560	5,520	6,460	11,600	1,760	3,450	4,950	11,500	1,450
20	2,120	5,510	5,510	1,560	5,000	6,590	10,700	1,870	3,540	4,810	10,700	1,880
21	1,570	5,540	5,720	1,540	4,690	7,370	9,630	1,850	3,680	4,850	9,690	2,030
22	1,200	5,470	5,790	1,510	4,680	7,980	8,620	2,110	3,830	4,760	8,630	2,400
23	1,030	5,350	5,740	1,480	4,910	8,430	7,810	3,170	4,030	4,520	7,720	2,480
24	1,420	5,200	5,680	1,460	5,060	8,850	7,340	4,190	4,220	4,290	7,020	2,270
25	2,000	4,990	5,660	1,430	5,160	9,380	7,240	4,610	4,200	3,900	6,560	2,000
26	2,320	4,620	5,610	1,370	5,260	9,910	7,470	5,330	3,520	3,390	6,070	2,170
27	2,270	4,020	5,620	1,330	5,510	10,400	7,750	6,040	2,750	2,950	4,830	2,460
28	1,650	3,300	5,690	1,320	5,940	10,500	7,810	6,980	2,140	2,560	3,360	2,920
29	1,260	2,440	5,770	1,320	---	10,300	7,910	7,670	1,840	2,240	2,310	3,090
30	1,090	2,080	5,810	1,310	---	9,450	8,010	7,910	1,600	2,080	1,860	2,970
31	1,100	---	5,830	1,310	---	8,300	---	7,890	---	2,190	1,580	---
TOTAL	41,093	108,920	125,820	90,410	120,940	256,650	252,180	153,630	156,590	140,250	172,530	53,750
MEAN	1,326	3,631	4,059	2,916	4,319	8,279	8,406	4,956	5,220	4,524	5,565	1,792
MAX	3,550	5,540	5,830	5,810	6,030	10,500	12,000	7,990	8,010	6,470	11,500	3,090
MIN	315	1,660	1,260	1,310	1,380	6,290	6,430	1,610	1,600	1,450	1,580	1,030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2003,* BY WATER YEAR (WY)

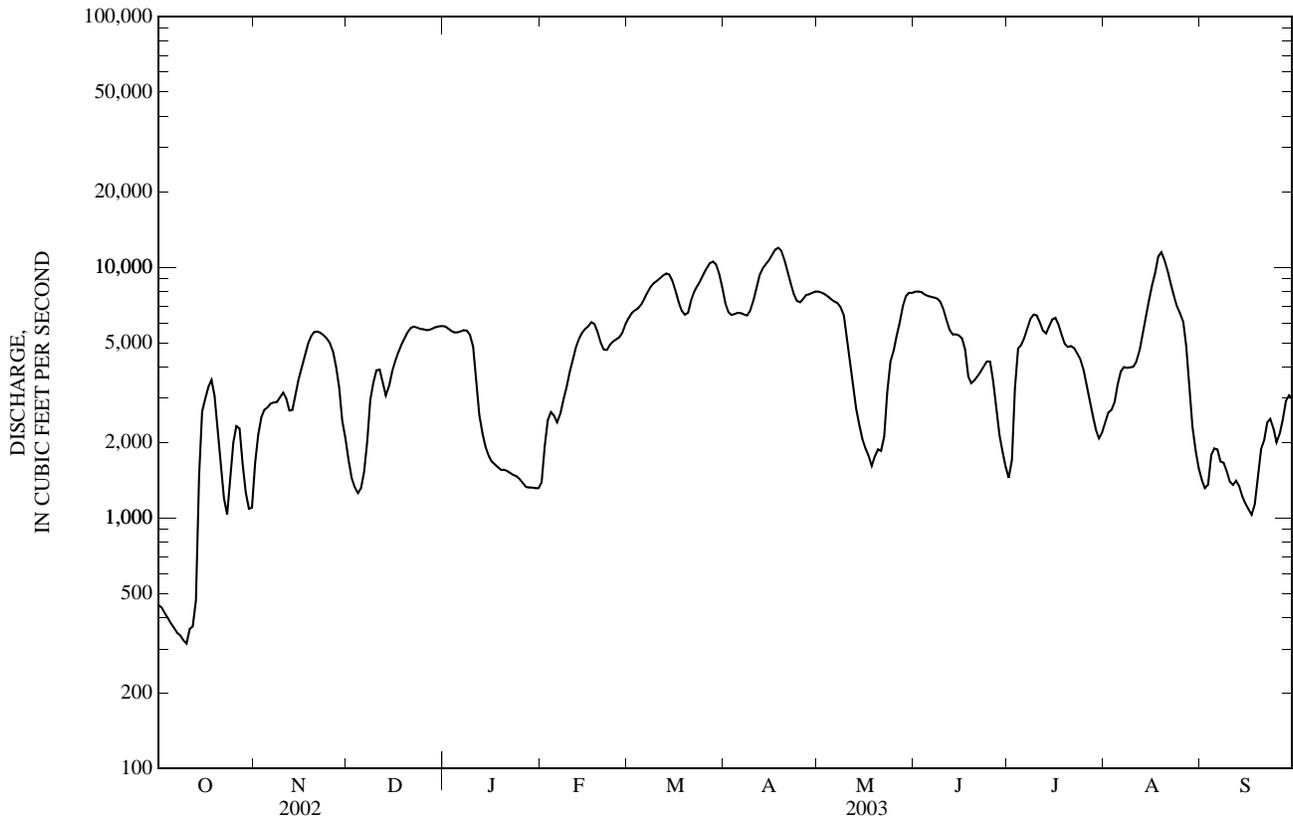
MEAN	1,997	1,707	2,323	3,608	4,589	5,685	4,665	2,318	1,880	1,671	1,895	2,535
MAX	14,280	5,643	5,097	7,560	12,600	11,410	9,582	8,773	6,062	5,223	5,565	16,430
(WY)	(2000)	(1996)	(1990)	(1993)	(1998)	(1998)	(1989)	(1989)	(1995)	(1989)	(2003)	(1999)
MIN	366	430	760	1,181	1,571	1,673	878	563	400	468	314	357
(WY)	(1984)	(1988)	(1988)	(1986)	(2001)	(1988)	(1986)	(1986)	(2002)	(1987)	(1983)	(1985)

02089500 NEUSE RIVER AT KINSTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1983 - 2003*	
ANNUAL TOTAL	661,093		1,672,763			
ANNUAL MEAN	1,811		4,583		2,846	
HIGHEST ANNUAL MEAN					4,583	2003
LOWEST ANNUAL MEAN					1,204	1988
HIGHEST DAILY MEAN	6,970	Jan 31	12,000	Apr 18	35,800	Sep 23, 1999
LOWEST DAILY MEAN	260	Aug 14	315	Oct 10	200	Sep 20, 1985
ANNUAL SEVEN-DAY MINIMUM	279	Aug 10	346	Oct 6	214	Sep 16, 1985
MAXIMUM PEAK FLOW			12,000	Apr 17	36,300	Sep 22, 1999
MAXIMUM PEAK STAGE			17.77	Apr 18	27.71	Sep 22, 1999
INSTANTANEOUS LOW FLOW			301	Oct 11	196	Sep 20, 1985
10 PERCENT EXCEEDS	4,620		8,150		7,300	
50 PERCENT EXCEEDS	1,280		4,470		1,550	
90 PERCENT EXCEEDS	369		1,380		497	

e Estimated.

* Regulated period only (1983-2003). See REMARKS.



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, March 2002 to current year.

WATER TEMPERATURE: October 1949 to September 1950, January 1955 to September 1956, July 1973 to September 1986, March 2002 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from March 2002 to current year. 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, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	248, August 17, 2002	43, March 28, 1975 (daily)
WATER TEMPERATURE, °C	36.0, July 13, 14, 19, 20, 1986	0.0, February 7, 1978, January 13, 1981 (daily)

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	244, October 14	53, August 18
WATER TEMPERATURE, °C	32.0, July 29	1.4, January 25

02089500 NEUSE RIVER AT KINSTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Suspended sediment load, tons/d (80155)
OCT 22...	87
NOV 07...	250
DEC 10...	356
JAN 22...	53
FEB 12...	359
MAR 07...	299
18...	109
APR 03...	--
21...	312
MAY 05...	--
28...	416
JUN 05...	311
27...	219
JUL 16...	187
29...	175
AUG 05...	728
19...	--
SEP 02...	75
04...	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

Medium codes used in this table:

9 -- Surface water

D -- Plant tissue

02089500 NEUSE RIVER AT KINSTON, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	199	192	195	167	144	155	126	120	124	93	92	93
2	207	199	203	166	123	140	128	125	126	94	93	93
3	211	207	209	123	111	114	130	128	129	94	93	93
4	212	211	211	125	112	120	138	130	135	94	93	94
5	213	210	211	136	125	131	138	127	134	93	90	92
6	215	213	215	140	133	138	136	133	135	91	91	91
7	221	215	219	143	139	141	134	131	133	92	91	92
8	226	219	222	142	139	141	165	131	139	93	92	93
9	229	224	226	140	125	136	165	116	136	97	93	95
10	229	226	228	125	118	120	116	110	112	100	97	98
11	230	156	214	122	118	120	110	108	109	102	100	101
12	236	227	233	124	113	121	111	110	110	108	102	105
13	237	223	232	124	121	122	116	111	113	116	108	112
14	244	181	216	121	117	119	118	107	114	118	114	116
15	181	79	102	120	114	118	107	104	105	119	115	117
16	86	79	82	114	104	108	105	101	103	119	117	118
17	91	86	89	104	103	103	101	95	97	121	119	120
18	99	91	95	106	103	105	95	93	94	123	120	122
19	111	99	104	107	106	107	93	92	92	124	121	123
20	118	111	116	108	107	108	92	92	92	126	124	125
21	120	116	118	108	105	107	94	92	93	128	125	126
22	128	120	123	106	105	105	94	93	94	127	124	126
23	132	128	131	105	104	105	95	94	95	133	125	130
24	150	131	140	105	105	105	95	93	95	136	130	134
25	157	122	141	106	105	105	94	93	94	134	130	132
26	123	122	122	107	105	106	94	93	94	135	130	133
27	134	122	128	112	107	110	93	93	93	135	131	133
28	135	132	134	114	111	112	93	92	93	136	131	134
29	138	134	137	115	113	113	92	91	91	138	131	134
30	139	137	138	120	115	118	92	91	91	154	138	148
31	145	139	144	---	---	---	93	92	92	153	144	149
MONTH	244	79	164	167	103	118	165	91	108	154	90	115
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	147	140	143	93	91	92	91	90	90	---	---	---
2	141	135	138	91	91	91	90	88	90	---	---	---
3	145	133	137	91	89	90	89	87	88	---	---	---
4	144	117	125	89	86	87	87	87	87	---	---	---
5	117	110	113	86	84	85	88	87	87	---	---	---
6	111	107	109	84	81	83	88	87	88	---	---	---
7	111	108	110	82	81	81	89	88	88	---	---	---
8	111	106	108	81	80	81	89	88	88	---	---	---
9	106	100	104	81	79	80	89	86	87	---	---	---
10	100	94	97	79	75	77	87	84	85	---	---	---
11	94	90	92	76	72	74	84	79	82	---	---	---
12	91	90	90	72	71	72	79	76	77	---	---	---
13	90	89	90	74	72	73	76	73	74	---	---	---
14	89	88	89	79	74	77	73	69	71	---	---	---
15	89	88	89	85	79	82	69	66	67	---	---	---
16	89	86	88	88	85	86	66	64	65	---	---	---
17	89	86	88	90	88	89	65	64	64	---	---	---
18	92	89	90	90	89	90	67	64	66	---	---	---
19	99	92	96	90	89	90	71	67	69	---	---	---
20	99	97	98	90	86	89	75	71	73	---	---	---
21	127	97	103	88	86	87	78	75	77	---	---	---
22	184	127	164	88	87	87	80	78	79	---	---	---
23	145	112	123	87	84	86	80	79	80	---	---	---
24	112	104	107	84	78	81	80	79	79	---	---	---
25	104	101	102	78	74	76	79	78	79	---	---	---
26	103	100	102	74	71	72	78	76	78	---	---	---
27	100	94	97	72	71	71	78	76	77	---	---	---
28	95	93	94	74	71	72	78	77	77	---	---	---
29	---	---	---	81	74	78	---	---	---	---	---	---
30	---	---	---	86	81	84	---	---	---	---	---	---
31	---	---	---	90	86	88	---	---	---	---	---	---
MONTH	184	86	107	93	71	82	---	---	---	---	---	---

NEUSE RIVER BASIN

02089500 NEUSE RIVER AT KINSTON, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	26.7	24.1	25.3	15.3	14.5	14.9	8.9	8.1	8.6	8.2	6.8	7.6
2	26.6	24.2	25.5	14.5	13.5	14.0	8.1	7.5	7.8	8.6	8.0	8.3
3	27.4	24.7	26.0	13.5	12.9	13.1	8.3	7.3	7.8	9.3	8.6	8.9
4	27.5	25.3	26.4	13.4	12.9	13.1	7.3	6.4	6.9	9.2	8.7	8.9
5	28.2	25.6	26.8	13.4	13.0	13.2	6.4	5.8	6.1	8.8	8.2	8.5
6	27.6	25.4	26.6	14.3	13.4	14.0	6.1	5.4	5.8	8.4	7.9	8.1
7	26.9	25.0	25.9	14.1	13.5	13.8	5.6	5.0	5.3	8.0	6.5	7.0
8	25.9	23.0	24.3	13.8	13.2	13.5	5.1	4.5	4.8	6.6	6.0	6.3
9	23.0	22.0	22.6	13.9	13.2	13.6	4.8	4.5	4.7	7.2	6.3	6.7
10	22.6	21.5	22.1	14.3	13.7	14.0	4.8	4.6	4.7	7.7	7.2	7.4
11	23.6	21.8	22.5	15.1	14.3	14.7	5.2	4.8	5.0	7.5	7.0	7.2
12	23.4	22.2	22.7	15.9	15.1	15.5	6.1	5.2	5.6	7.0	6.3	6.6
13	23.8	21.8	22.8	15.6	15.0	15.4	6.6	6.1	6.3	6.3	6.0	6.2
14	22.9	21.3	22.2	15.0	14.5	14.8	7.5	6.6	7.1	6.3	5.7	6.0
15	21.3	20.2	20.7	14.5	14.0	14.2	7.6	7.2	7.4	6.2	5.5	5.9
16	20.2	19.7	20.0	14.1	13.8	13.9	7.7	7.1	7.4	5.5	4.8	5.1
17	19.7	19.0	19.3	13.8	13.2	13.6	7.5	7.0	7.2	5.0	4.5	4.8
18	19.0	18.0	18.4	13.2	12.5	12.7	7.0	6.5	6.8	4.5	3.8	4.2
19	18.0	17.3	17.6	12.5	11.9	12.2	7.8	6.8	7.1	4.0	3.3	3.6
20	18.1	17.2	17.6	12.2	11.7	12.0	9.2	7.8	8.7	4.2	3.0	3.6
21	18.0	17.5	17.8	12.1	11.8	11.9	8.9	8.2	8.5	4.1	3.8	3.9
22	17.5	17.2	17.4	12.1	11.6	11.9	8.8	8.0	8.4	4.2	3.4	3.8
23	18.0	16.5	17.2	11.6	10.7	11.0	8.8	8.3	8.6	3.7	2.3	3.2
24	17.2	16.7	16.9	11.1	10.4	10.8	8.6	8.0	8.2	2.5	1.6	2.0
25	16.8	16.6	16.7	11.1	10.5	10.8	8.0	7.4	7.9	2.5	1.4	1.9
26	17.5	16.7	17.0	11.0	10.5	10.8	7.4	6.6	6.9	2.6	2.0	2.2
27	18.0	17.3	17.6	10.7	10.3	10.5	6.8	6.2	6.4	3.1	2.1	2.5
28	18.5	18.0	18.2	10.3	9.5	9.9	6.3	5.7	6.0	3.0	1.8	2.3
29	18.4	17.5	18.0	9.5	8.8	9.1	6.1	5.4	5.8	3.8	2.4	3.1
30	17.5	16.2	16.9	9.2	8.6	8.9	6.3	5.5	5.9	4.6	3.8	4.3
31	16.2	15.3	15.8	---	---	---	6.8	6.0	6.4	4.8	4.4	4.6
MONTH	28.2	15.3	20.8	15.9	8.6	12.7	9.2	4.5	6.8	9.3	1.4	5.3
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.4	4.7	5.0	8.5	7.8	8.2	14.9	13.7	14.3	20.6	19.9	20.3
2	5.8	4.9	5.3	9.1	8.3	8.6	15.6	13.9	14.7	21.2	20.2	20.6
3	6.3	5.3	5.8	9.4	8.3	8.9	16.4	14.6	15.5	21.2	20.6	20.9
4	7.5	6.3	6.9	9.8	8.4	9.1	17.2	15.6	16.4	20.6	19.3	19.8
5	7.8	7.1	7.4	11.1	9.8	10.4	18.0	16.8	17.4	19.3	18.6	18.8
6	7.5	7.2	7.3	11.5	11.0	11.2	18.2	17.4	17.8	---	---	---
7	7.2	7.0	7.1	11.5	10.1	10.7	17.7	15.9	16.7	---	---	---
8	7.2	6.6	6.9	11.0	9.6	10.3	15.9	14.5	15.1	---	---	---
9	6.8	6.2	6.5	11.9	10.7	11.2	14.5	12.9	13.6	---	---	---
10	6.2	5.7	5.9	12.1	11.2	11.6	12.9	12.1	12.3	---	---	---
11	6.2	5.3	5.7	11.7	10.9	11.1	12.1	11.2	11.6	---	---	---
12	6.6	5.6	6.1	12.0	10.6	11.2	12.3	10.9	11.5	---	---	---
13	6.6	5.6	6.1	13.0	12.0	12.4	13.4	12.1	12.7	---	---	---
14	6.4	5.9	6.2	13.0	12.4	12.8	14.2	13.1	13.6	---	---	---
15	7.1	6.4	6.7	12.4	11.7	11.9	15.2	13.9	14.5	---	---	---
16	7.0	6.3	6.6	13.7	11.8	12.7	16.4	15.1	15.7	---	---	---
17	6.3	5.5	5.9	14.0	13.4	13.7	17.4	16.4	16.8	---	---	---
18	6.0	5.2	5.6	14.3	13.6	13.9	17.4	17.1	17.2	---	---	---
19	6.3	5.2	5.8	14.1	13.6	13.8	17.2	16.9	17.1	---	---	---
20	6.7	5.9	6.3	14.7	13.7	14.1	16.9	16.4	16.7	---	---	---
21	7.3	6.3	6.7	15.3	14.6	15.0	16.7	16.2	16.5	---	---	---
22	9.6	7.3	8.2	16.1	14.7	15.4	17.2	16.4	16.7	---	---	---
23	10.2	9.5	9.9	15.9	15.4	15.7	17.3	16.3	16.9	---	---	---
24	10.3	9.1	9.7	16.4	15.2	15.8	17.6	16.5	17.1	---	---	---
25	10.8	9.9	10.4	16.9	15.7	16.3	17.5	17.1	17.3	---	---	---
26	10.5	9.4	9.9	17.2	16.2	16.7	17.8	17.0	17.4	---	---	---
27	9.4	8.8	9.1	17.3	16.7	17.0	17.9	17.3	17.6	---	---	---
28	8.8	8.2	8.4	17.6	16.6	17.1	18.6	17.3	17.9	---	---	---
29	---	---	---	18.2	17.4	17.8	19.3	18.0	18.6	---	---	---
30	---	---	---	18.1	15.8	17.3	20.3	19.0	19.5	---	---	---
31	---	---	---	15.8	14.5	14.9	---	---	---	---	---	---
MONTH	10.8	4.7	7.0	18.2	7.8	13.1	20.3	10.9	15.9	---	---	---

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC

LOCATION.--Lat 35°41'30", long 78°06'37", 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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 116.83 ft above NGVD of 1929 (levels by North Carolina Geodetic Survey). Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Since September 1976, some regulation at low flow by Buckhorn Reservoir (station 02090370) 1 mi upstream. Maximum discharge for period of record, from rating curve extended above 6,000 ft³/s, on basis of flow over dam measurement of peak flow; maximum gage height from flood marks. Minimum discharge for period of record also occurred Sept. 10-14, 1976, due to regulation.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	432	115	194	397	892	660	148	205	85	61	45
2	15	294	73	237	371	1,270	537	129	123	162	80	42
3	14	190	79	317	291	1,310	362	99	104	891	101	34
4	11	159	96	321	261	1,010	263	74	97	971	99	43
5	16	140	197	275	201	689	231	65	98	555	109	58
6	11	219	417	293	182	929	192	102	68	286	89	52
7	10	215	592	233	336	1,470	245	108	80	178	118	45
8	9.2	242	567	178	514	1,460	407	101	278	129	274	44
9	7.6	205	414	157	534	906	917	92	1,040	107	848	39
10	8.0	168	295	159	480	530	1,640	68	1,250	167	1,580	43
11	105	153	264	137	446	365	2,060	79	602	171	2,320	29
12	440	181	252	123	421	286	1,710	85	299	194	2,370	56
13	559	427	337	114	307	246	1,010	54	188	142	1,760	39
14	449	668	575	107	225	251	572	11	136	109	768	16
15	239	674	627	125	212	232	387	4.2	110	86	494	19
16	181	468	599	90	227	238	287	6.2	86	78	314	23
17	146	391	391	127	399	256	222	5.8	86	68	433	17
18	128	416	270	100	519	265	191	8.7	84	58	519	308
19	110	428	213	118	554	242	175	99	118	57	395	86
20	94	357	249	110	507	684	165	220	196	48	261	156
21	124	265	267	90	422	1,930	163	255	323	41	197	141
22	181	246	279	95	421	2,260	188	267	289	38	175	115
23	282	181	242	161	846	1,380	180	572	211	27	143	127
24	299	157	226	93	828	647	156	846	148	25	116	108
25	225	149	365	59	693	408	142	726	111	18	95	99
26	180	138	340	74	456	303	166	517	83	19	81	82
27	144	136	334	92	387	230	192	410	61	22	68	70
28	136	116	277	81	641	200	192	357	64	17	59	73
29	157	112	221	87	---	209	181	274	100	11	54	73
30	226	122	186	125	---	350	173	210	91	45	49	29
31	375	---	170	260	---	599	---	180	---	56	45	---
TOTAL	4,896.8	8,049	9,529	4,732	12,078	22,047	13,966	6,172.9	6,729	4,861	14,075	2,111
MEAN	158	268	307	153	431	711	466	199	224	157	454	70.4
MAX	559	674	627	321	846	2,260	2,060	846	1,250	971	2,370	308
MIN	7.6	112	73	59	182	200	142	4.2	61	11	45	16
CFSM	0.98	1.67	1.91	0.95	2.68	4.42	2.89	1.24	1.39	0.97	2.82	0.44
IN.	1.13	1.86	2.20	1.09	2.79	5.09	3.23	1.43	1.55	1.12	3.25	0.49

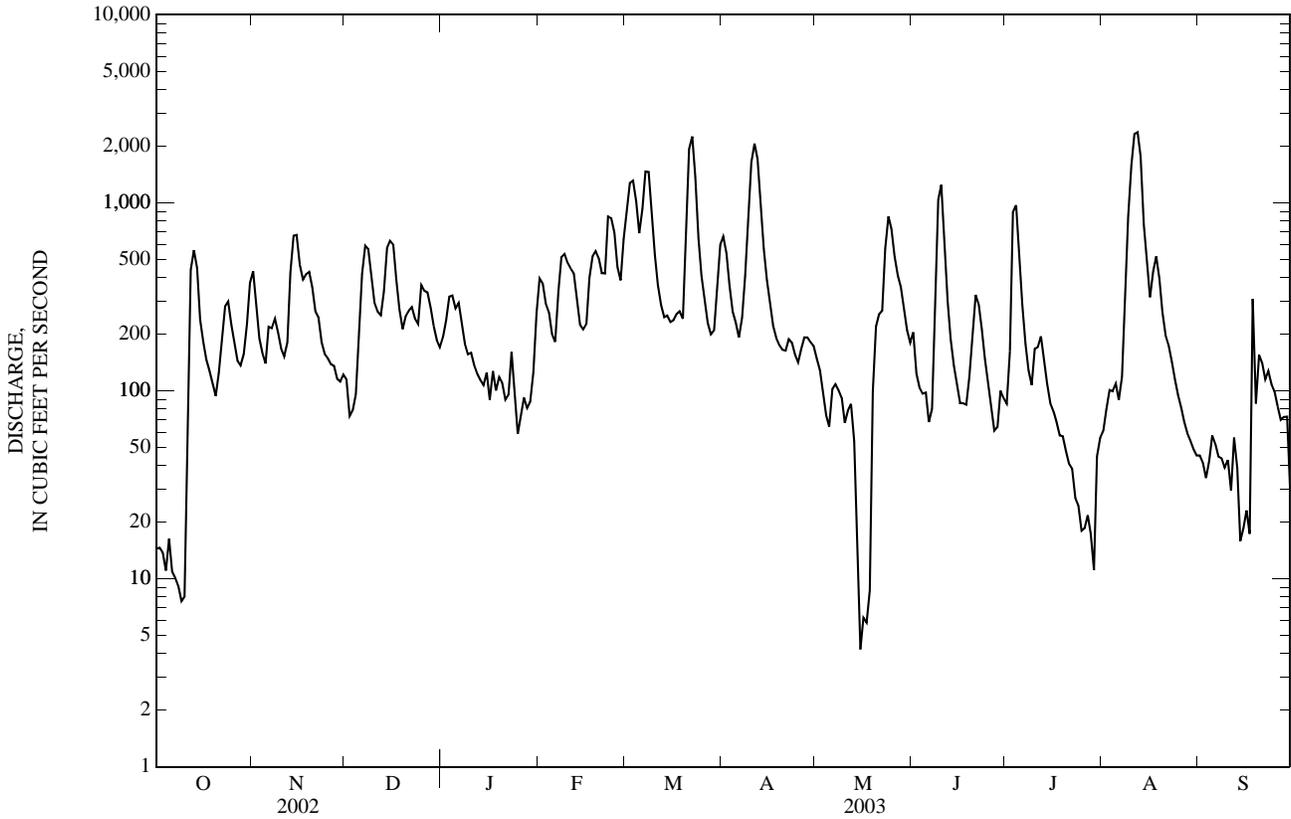
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2003, BY WATER YEAR (WY)

MEAN	84.1	90.3	137	263	306	339	205	119	96.1	88.4	108	100
MAX	644	304	404	690	633	803	701	537	359	624	512	1,326
(WY)	(1965)	(1996)	(1973)	(1987)	(1998)	(1989)	(1987)	(1989)	(1965)	(1984)	(1986)	(1999)
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)

02090380 CONTENTNEA CREEK NEAR LUCAMA, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1964 - 2003	
ANNUAL TOTAL	51,000.9		109,246.7		160	
ANNUAL MEAN	140		299		299	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	980	Jan 25	2,370	Aug 12	13,000	Sep 17, 1999
LOWEST DAILY MEAN	7.6	Oct 9	4.2	May 15	0.04	Sep 9, 1976
ANNUAL SEVEN-DAY MINIMUM	10	Oct 4	10	Oct 4	0.04	Sep 8, 1976
MAXIMUM PEAK FLOW			2,500	Aug 12	24,000*	Sep 17, 1999
MAXIMUM PEAK STAGE			12.04	Aug 12	24.82*	Sep 17, 1999
INSTANTANEOUS LOW FLOW			2.2	May 15	0.04*	Sep 9, 1976
ANNUAL RUNOFF (CFSM)	0.87		1.86		0.99	
ANNUAL RUNOFF (INCHES)	11.78		25.24		13.48	
10 PERCENT EXCEEDS	373		652		387	
50 PERCENT EXCEEDS	63		181		69	
90 PERCENT EXCEEDS	19		44		11	

* See REMARKS.



02090960 NAHUNTA SWAMP NEAR PIKEVILLE, NC

LOCATION.--Lat 35°30'50", long 77°58'52", Wayne County, Hydrologic Unit 03020203, on left downstream side of bridge on U.S. Highway 117, 0.2 mi downstream from Seaboard Coast Railroad and 1.1 mi north of Pikeville.

DRAINAGE AREA.--19.0 mi².

PERIOD OF RECORD.--Partial-record station 1953, 1964-1968. September 2000 to September 2003 (discontinued).

REVISED RECORD.--WDR NC-96-1: 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 88.48 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair. No flow for part of June 27, 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	5.3	14	32	18	78	43	17	44	9.5	13	7.5
2	1.7	4.0	13	47	15	84	32	17	27	54	10	7.7
3	1.4	3.5	13	34	14	69	26	15	21	354	9.1	8.3
4	1.4	3.3	12	27	13	48	23	15	20	86	9.7	11
5	1.4	3.6	80	23	13	45	21	14	18	26	31	12
6	1.4	17	65	20	12	400	19	117	15	17	24	10
7	1.3	11	37	18	42	374	37	63	14	13	19	9.3
8	1.2	6.8	26	17	31	121	64	30	17	11	73	9.3
9	1.2	5.6	21	16	19	74	364	21	16	9.0	40	10
10	1.4	5.2	18	15	30	58	1,050	17	13	46	62	9.4
11	6.7	5.1	19	14	33	46	713	15	11	133	109	8.4
12	15	126	21	13	22	42	139	13	9.9	159	53	8.0
13	7.5	136	45	13	16	38	71	11	9.4	43	30	8.2
14	4.4	66	67	13	13	58	50	10	8.4	69	22	9.1
15	3.2	35	39	12	13	45	39	9.6	7.7	38	18	8.0
16	3.1	28	26	12	28	72	33	10	7.4	25	29	7.3
17	3.0	77	21	14	136	161	29	9.7	7.9	23	34	6.8
18	2.7	78	18	13	86	82	26	10	8.1	24	27	36
19	2.5	44	17	12	55	53	26	35	11	20	20	63
20	2.1	30	47	12	43	383	24	22	13	17	17	29
21	4.6	25	36	12	37	879	26	15	11	14	14	19
22	4.9	24	25	11	62	273	41	17	8.2	12	13	16
23	4.4	22	21	11	100	79	27	102	7.0	12	12	23
24	3.5	19	28	10	57	54	22	98	6.1	16	15	24
25	3.3	19	46	9.9	40	42	21	66	5.4	13	11	17
26	3.2	17	33	10	34	36	30	231	5.0	11	9.7	13
27	3.0	16	24	10	53	31	39	128	4.8	9.6	8.2	16
28	3.9	15	21	9.6	126	28	27	61	4.6	8.6	7.5	20
29	8.7	15	19	10	---	31	22	41	4.7	8.0	7.1	14
30	9.3	15	18	13	---	72	19	36	6.2	27	6.9	10
31	7.3	---	18	20	---	77	---	31	---	19	7.3	---
TOTAL	121.5	877.4	908	503.5	1,161	3,933	3,103	1,297.3	361.8	1,326.7	761.5	450.3
MEAN	3.92	29.2	29.3	16.2	41.5	127	103	41.8	12.1	42.8	24.6	15.0
MAX	15	136	80	47	136	879	1,050	231	44	354	109	63
MIN	1.2	3.3	12	9.6	12	28	19	9.6	4.6	8.0	6.9	6.8
CFSM	0.21	1.54	1.54	0.85	2.18	6.68	5.44	2.20	0.63	2.25	1.29	0.79
IN.	0.24	1.72	1.78	0.99	2.27	7.70	6.08	2.54	0.71	2.60	1.49	0.88

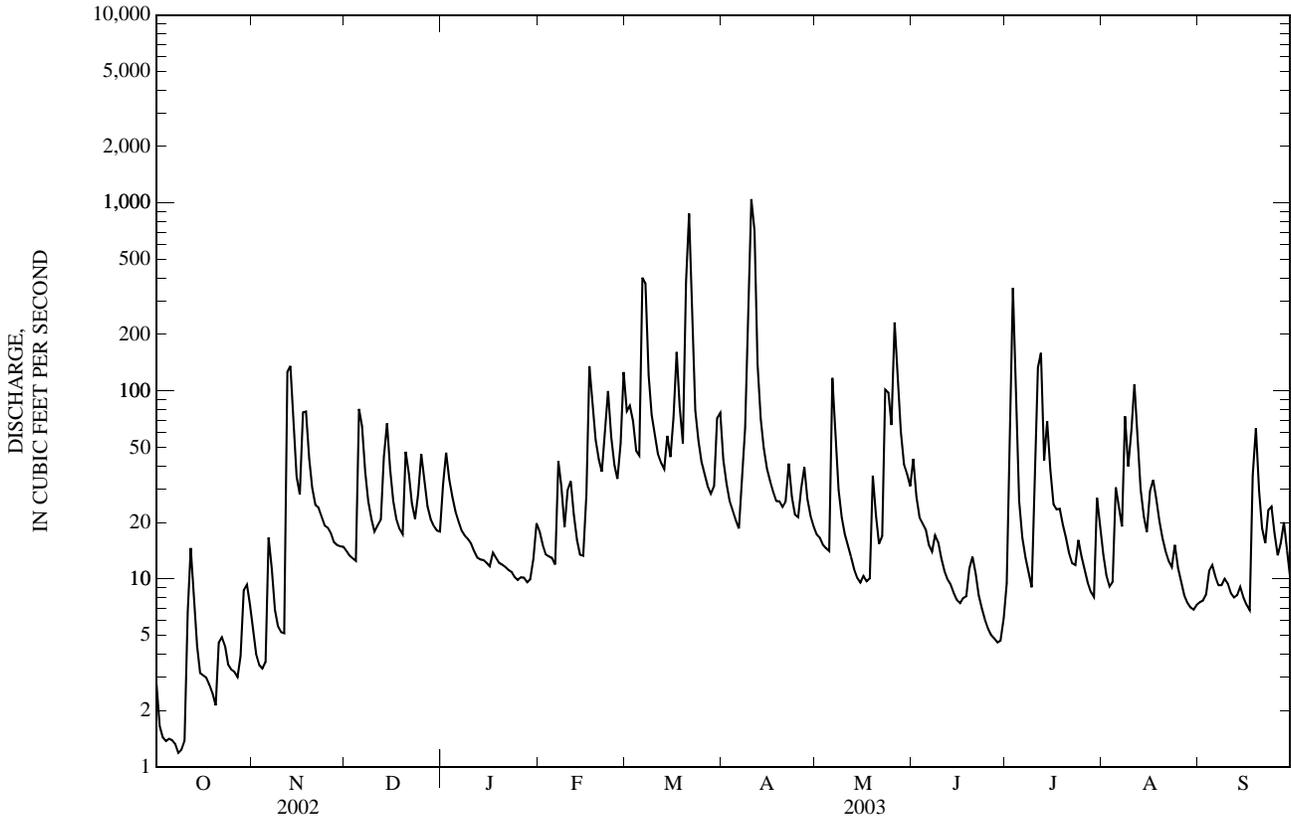
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

	5.09	14.2	13.5	14.9	22.2	61.4	47.6	18.4	7.02	16.4	13.2	17.9
MEAN	5.09	14.2	13.5	14.9	22.2	61.4	47.6	18.4	7.02	16.4	13.2	17.9
MAX	7.75	29.2	29.3	21.1	41.5	127	103	41.8	12.1	42.8	24.6	47.2
(WY)	(2001)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)
MIN	3.60	5.31	3.72	7.17	11.9	13.5	18.6	4.17	0.45	1.40	1.57	2.63
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(2002)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)

02090960 NAHUNTA SWAMP NEAR PIKEVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	4,281.93		14,805.0		20.1	
ANNUAL MEAN	11.7		40.6		40.6	
HIGHEST ANNUAL MEAN					7.56	2003
LOWEST ANNUAL MEAN					0.01	2002
HIGHEST DAILY MEAN	136	Nov 13	1,050	Apr 10	1,050	Apr 10, 2003
LOWEST DAILY MEAN	0.01	Jun 25	1.2	Oct 8	0.01	Jun 25, 2002
ANNUAL SEVEN-DAY MINIMUM	0.02	Jun 21	1.3	Oct 3	0.02	Jun 21, 2002
MAXIMUM PEAK FLOW			1,350	Apr 10	1,350	Apr 10, 2003
MAXIMUM PEAK STAGE			10.41	Apr 10	10.41	Apr 10, 2003
INSTANTANEOUS LOW FLOW			0.99	Oct 8	0.00*	Jun 27, 2002
ANNUAL RUNOFF (CFSM)	0.62		2.13		1.06	
ANNUAL RUNOFF (INCHES)	8.38		28.99		14.41	
10 PERCENT EXCEEDS	26		73		38	
50 PERCENT EXCEEDS	5.6		18		8.2	
90 PERCENT EXCEEDS	0.31		5.4		1.8	

* See REMARKS.



02091000 NAHUNTA SWAMP NEAR SHINE, NC

LOCATION.--Lat 35°29'21", long 77°48'21", Greene County, Hydrologic Unit 03020203, on right bank 10 ft downstream of bridge on Secondary Road 1058, 2 mi upstream from Appletree Swamp, 3.5 mi north of Shine, and 8 mi northwest of Snow Hill.

DRAINAGE AREA.--80.4 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 50.74 ft above NGVD of 1929. Prior to Apr. 1, 1955, nonrecording gage at same site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Maximum discharge for period of record, on basis of slope conveyances measurement of peak flow; gage height from floodmarks. Minimum discharge for period of record also occurred Oct. 8, 1954, Aug. 11-15, 2002. Minimum discharge for current water year also occurred Oct. 8.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	24	43	79	59	192	116	71	268	e18	73	30
2	7.0	20	41	112	52	169	97	59	154	e39	59	29
3	6.7	18	40	100	47	156	81	54	109	e237	50	66
4	6.7	16	38	85	45	120	74	51	99	e49	57	43
5	5.8	17	184	73	44	117	68	49	97	e26	68	102
6	6.0	48	216	66	42	362	64	245	80	e36	86	52
7	5.9	48	125	61	124	512	93	229	73	e33	87	41
8	5.7	32	90	59	133	361	194	114	97	e27	96	37
9	6.2	25	74	57	90	216	406	76	92	e21	245	38
10	6.4	23	66	55	115	162	871	60	72	35	216	37
11	25	23	70	50	147	129	1,170	51	59	271	397	33
12	83	144	79	46	104	115	865	43	54	419	261	31
13	34	365	105	45	79	104	382	36	47	285	295	31
14	23	222	226	46	68	135	199	31	47	450	175	31
15	17	121	143	45	67	120	148	29	44	337	114	29
16	15	85	102	43	89	141	122	33	46	159	166	26
17	14	174	81	50	383	255	104	32	46	114	245	24
18	13	256	71	48	234	198	93	32	45	379	259	115
19	12	155	66	45	156	135	92	238	44	162	144	317
20	11	107	107	44	120	314	88	135	47	105	102	130
21	14	84	150	45	103	682	84	79	44	79	81	74
22	20	76	102	43	106	553	143	83	38	66	69	58
23	19	67	83	41	257	345	104	489	34	151	62	62
24	17	59	81	42	159	192	79	510	e25	363	57	70
25	16	55	143	39	113	146	73	255	e22	133	51	58
26	15	52	118	39	96	123	96	875	20	105	44	49
27	14	49	91	40	106	107	138	695	19	111	40	44
28	14	45	79	37	252	95	103	321	37	69	37	51
29	25	44	76	38	---	96	82	206	e33	58	35	48
30	35	45	67	44	---	123	97	176	e23	195	31	40
31	31	---	62	61	---	156	---	156	---	108	29	---
TOTAL	530.3	2,499	3,019	1,678	3,390	6,631	6,326	5,513	1,915	4,640	3,731	1,796
MEAN	17.1	83.3	97.4	54.1	121	214	211	178	63.8	150	120	59.9
MAX	83	365	226	112	383	682	1,170	875	268	450	397	317
MIN	5.7	16	38	37	42	95	64	29	19	18	29	24
CFSM	0.21	1.04	1.21	0.67	1.51	2.66	2.62	2.21	0.79	1.86	1.50	0.74
IN.	0.25	1.16	1.40	0.78	1.57	3.07	2.93	2.55	0.89	2.15	1.73	0.83

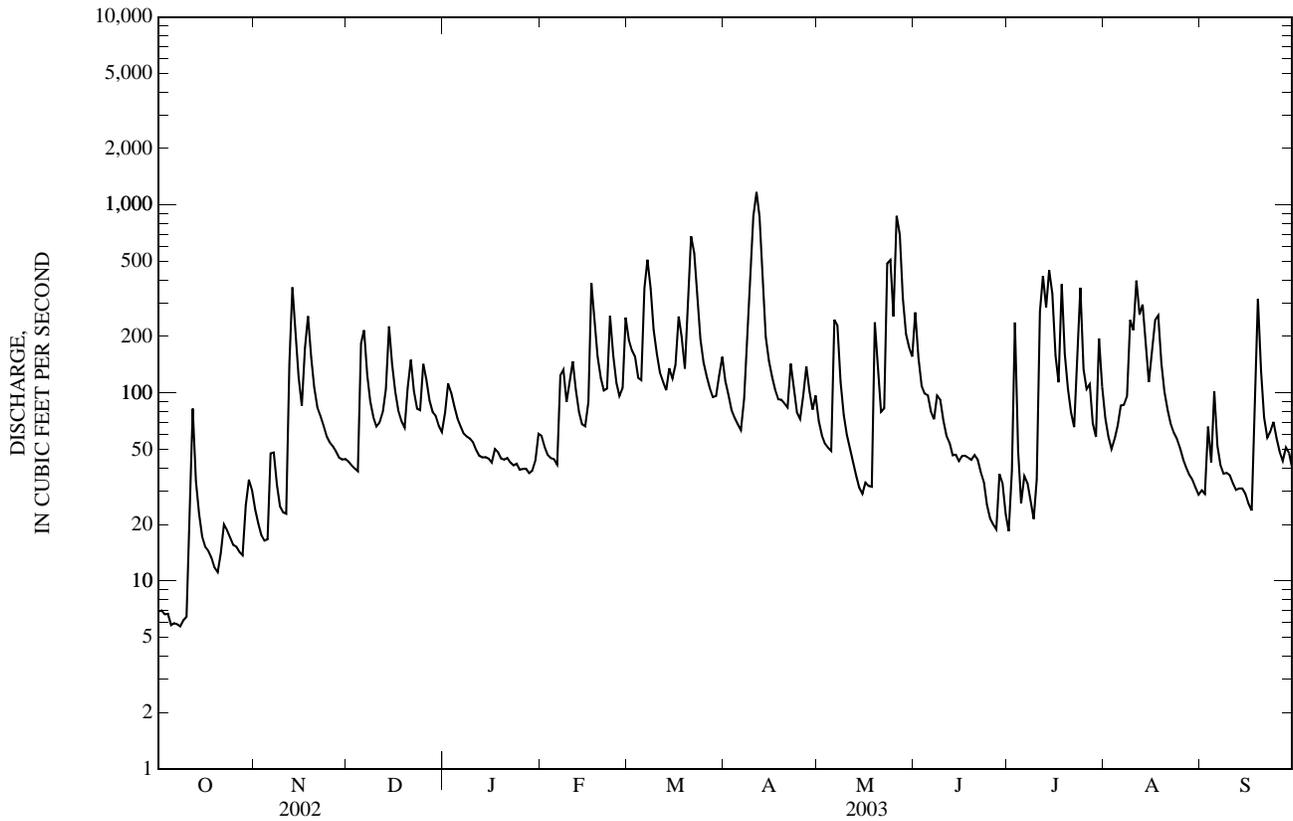
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2003, BY WATER YEAR (WY)

MEAN	53.3	55.6	69.1	118	140	144	103	60.5	51.8	59.0	68.2	80.8
MAX	473	253	184	261	327	311	252	277	243	395	360	1,083
(WY)	(1965)	(1978)	(1958)	(1993)	(1998)	(1983)	(1974)	(1989)	(1995)	(1965)	(1974)	(1999)
MIN	2.26	11.2	19.5	29.4	34.6	33.7	19.1	10.8	5.35	3.10	4.22	2.58
(WY)	(1955)	(1987)	(2002)	(2001)	(1988)	(1986)	(1986)	(1986)	(1986)	(1987)	(2002)	(1954)

02091000 NAHUNTA SWAMP NEAR SHINE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1954 - 2003	
ANNUAL TOTAL	16,988.3		41,668.3			
ANNUAL MEAN	46.5		114		84.5	
HIGHEST ANNUAL MEAN					150	1965
LOWEST ANNUAL MEAN					22.9	1986
HIGHEST DAILY MEAN	365	Nov 13	1,170	Apr 11	7,000	Sep 17, 1999
LOWEST DAILY MEAN	1.0	Aug 12	5.7	Oct 8	1.0	Oct 7, 1954
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 9	6.1	Oct 4	1.1	Aug 9, 2002
MAXIMUM PEAK FLOW			1,230	Apr 11	23,000*	Sep 17, 1999
MAXIMUM PEAK STAGE			10.26	Apr 11	21.00*	Sep 17, 1999
INSTANTANEOUS LOW FLOW			5.5*	Oct 5	1.0*	Oct 7, 1954
ANNUAL RUNOFF (CFSM)	0.58		1.42		1.05	
ANNUAL RUNOFF (INCHES)	7.86		19.28		14.28	
10 PERCENT EXCEEDS	112		253		177	
50 PERCENT EXCEEDS	26		73		44	
90 PERCENT EXCEEDS	3.6		23		11	

e Estimated.
 * See REMARKS.



02091500 CONTENTNEA CREEK AT HOOKERTON, NC

LOCATION.--Lat 35°25'45", long 77°34'58", 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 mi².

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 NGVD of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 26, 1934, nonrecording gage at site 1,400 ft upstream and Nov. 27, 1934, to Sept. 30, 1987, water-stage recorder at site 0.3 mi upstream at present datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Buckhorn Reservoir (station 02090370) since September 1976. Maximum gage height for period of record from high-water mark inside gage house.

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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	629	600	1,160	579	2,320	1,410	1,110	2,990	355	943	350
2	146	691	563	1,090	724	2,300	1,340	1,080	2,530	544	711	322
3	138	743	538	1,050	861	2,230	1,410	1,010	2,040	1,790	615	302
4	126	782	521	1,090	975	2,260	1,530	879	1,520	1,580	562	338
5	113	769	554	1,120	1,030	2,370	1,570	759	1,210	1,460	778	559
6	102	682	743	1,140	1,010	2,620	1,500	767	1,060	1,560	823	e560
7	93	613	931	1,160	1,010	3,010	1,350	1,100	856	1,860	991	e420
8	85	661	1,130	1,150	1,040	3,330	1,270	1,190	775	2,220	1,110	e370
9	78	734	1,200	1,120	1,100	3,580	1,420	1,230	764	2,320	1,170	e335
10	74	779	1,260	1,030	1,180	3,810	2,130	1,220	819	2,060	1,230	e325
11	83	774	1,320	907	1,270	3,890	3,100	1,080	882	1,650	1,440	324
12	239	782	1,360	793	1,370	3,760	3,880	856	994	1,370	1,980	308
13	596	1,060	1,330	719	1,480	3,470	4,840	669	1,120	1,360	3,020	288
14	749	1,170	1,310	657	1,540	3,090	5,300	583	1,180	1,580	4,440	276
15	899	1,250	1,290	605	1,560	2,590	5,060	510	1,210	1,770	4,910	269
16	1,030	1,360	1,290	576	1,510	2,080	4,510	469	1,020	1,870	4,910	264
17	1,110	1,630	1,330	565	1,580	1,740	3,920	432	722	1,710	4,780	247
18	1,090	1,950	1,430	569	1,590	1,570	3,360	405	600	1,530	4,560	347
19	819	2,140	1,520	577	1,610	1,540	2,800	738	529	1,480	4,130	1,000
20	574	2,170	1,550	576	1,660	1,640	2,030	1,050	489	1,380	3,520	1,090
21	466	2,130	1,480	569	1,760	2,200	1,480	1,150	484	1,000	2,980	1,150
22	413	2,070	1,340	561	1,840	2,560	1,220	1,210	518	752	2,480	1,180
23	478	1,960	1,270	549	1,860	2,910	1,200	1,490	584	648	2,060	1,220
24	554	1,780	1,260	528	1,780	3,340	1,150	1,870	660	875	1,720	1,230
25	599	1,530	1,260	510	1,720	3,700	1,100	2,240	681	1,080	1,280	1,120
26	638	1,210	1,250	520	1,750	3,780	1,040	3,120	617	960	946	967
27	658	1,050	1,240	522	1,920	3,620	1,020	3,820	519	774	702	798
28	621	836	1,230	490	2,190	3,310	1,060	4,210	437	641	599	678
29	554	725	1,230	469	---	2,870	1,110	4,100	389	551	516	599
30	520	649	1,230	473	---	2,180	1,120	3,710	386	601	446	573
31	561	---	1,210	496	---	1,640	---	3,300	---	973	390	---
TOTAL	14,361	35,309	35,770	23,341	39,499	85,310	65,230	47,357	28,585	40,304	60,742	17,809
MEAN	463	1,177	1,154	753	1,411	2,752	2,174	1,528	953	1,300	1,959	594
MAX	1,110	2,170	1,550	1,160	2,190	3,890	5,300	4,210	2,990	2,320	4,910	1,230
MIN	74	613	521	469	579	1,540	1,020	405	386	355	390	247
CFSM	0.63	1.61	1.57	1.03	1.92	3.75	2.97	2.08	1.30	1.77	2.67	0.81
IN.	0.73	1.79	1.82	1.18	2.00	4.33	3.31	2.40	1.45	2.05	3.08	0.90

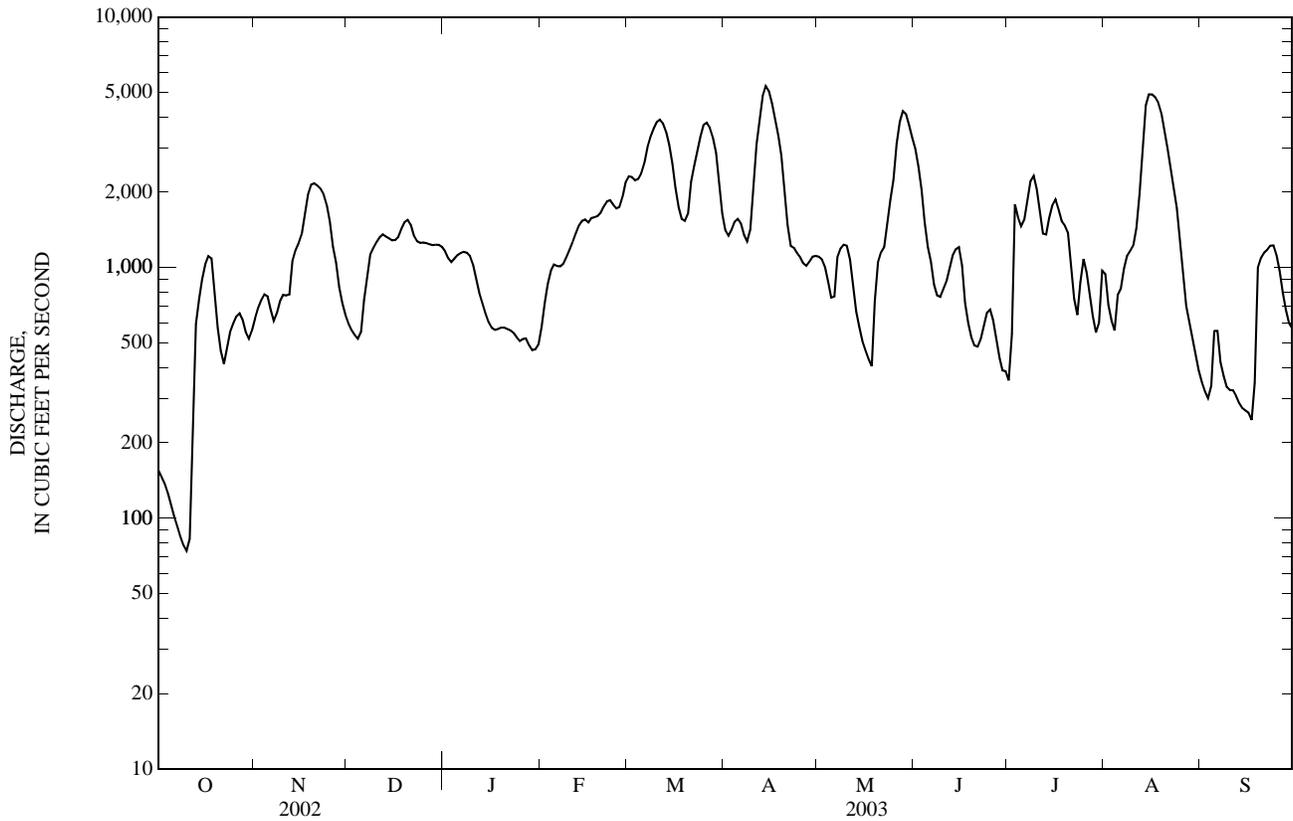
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

MEAN	507	468	678	1,119	1,384	1,455	1,042	587	464	551	637	633
MAX	4,798	2,150	2,349	2,626	4,316	3,491	2,752	3,363	1,770	2,203	2,422	8,825
(WY)	(2000)	(1948)	(1949)	(1993)	(1948)	(1989)	(1989)	(1989)	(1995)	(1929)	(1960)	(1999)
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)

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL TOTAL	218,683		493,617			
ANNUAL MEAN	599		1,352		781	
HIGHEST ANNUAL MEAN					1,422	1960
LOWEST ANNUAL MEAN					242	1951
HIGHEST DAILY MEAN	2,780	Jan 30	5,300	Apr 14	31,500	Sep 19, 1999
LOWEST DAILY MEAN	18	Aug 14	74	Oct 10	15	Oct 28, 1933
ANNUAL SEVEN-DAY MINIMUM	22	Aug 9	90	Oct 5	16	Oct 8, 1954
MAXIMUM PEAK FLOW			5,410	Apr 14	31,900	Sep 18, 1999
MAXIMUM PEAK STAGE			15.04	Apr 14	28.28*	Sep 18, 1999
INSTANTANEOUS LOW FLOW			71	Oct 11	15	Oct 28, 1933
ANNUAL RUNOFF (CFSM)	0.82		1.84		1.07	
ANNUAL RUNOFF (INCHES)	11.10		25.05		14.48	
10 PERCENT EXCEEDS	1,360		2,980		1,900	
50 PERCENT EXCEEDS	520		1,110		442	
90 PERCENT EXCEEDS	66		442		86	

e Estimated.
 * See REMARKS.



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, April 2002 to current year.

WATER TEMPERATURE: October 1949 to September 1950, March 1979 to September 1984, April 2002 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry from April 2002 to current year. 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.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	307, August 29, 2002	41, June 11, 1979 (daily)
WATER TEMPERATURE, °C	31.8, August 25, 2002	1.0, January 13, 14, 1981 (daily), January 18, 1982

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SPECIFIC CONDUCTANCE, microsiemens	188, January 30	48, August 14, 15
WATER TEMPERATURE, °C	28.4, August 30, 31	1.3, January 25, 28

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltr incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)
OCT													
22...	1430	9	408	766	5.5	57	6.5	100	16.7	14	17	11.2	8.6
NOV													
07...	1600	9	609	765	10.7	100	6.6	90	12.6	10	12	10.2	7.4
DEC													
10...	1500	9	1,270	763	10.9	84	6.2	92	4.6	8	10	11.8	7.7
JAN													
22...	1400	9	561	761	12.3	93	6.8	109	3.4	15	18	13.9	9.2
FEB													
12...	1330	9	1,380	760	10.8	87	6.4	86	5.8	5	7	11.2	7.5
MAR													
07...	1315	9	3,030	765	8.3	75	6.3	72	10.9	--	--	--	--
18...	1330	9	1,560	752	7.2	72	6.2	86	14.7	9	11	9.74	7.6
APR													
03...	1330	9	1,420	760	6.8	70	6.4	79	16.7	10	12	9.16	5.6
04...	1200	9	1,530	758	6.7	72	7.0	77	18.6	--	--	--	--
21...	1415	9	1,530	759	6.8	69	6.3	80	16.0	--	--	--	--
MAY													
05...	1445	9	746	762	5.8	62	6.4	89	18.8	13	16	9.86	6.3
28...	1100	9	4,220	758	5.0	55	5.8	62	19.6	--	--	--	--
JUN													
05...	1400	9	1,270	757	5.9	68	6.2	84	21.8	10	13	8.35	6.2
27...	1120	9	524	759	5.7	72	6.4	80	26.7	--	--	--	--
JUL													
16...	1430	9	1,880	762	5.4	66	6.2	73	25.6	8	10	8.17	5.4
29...	1045	9	554	757	5.3	67	6.2	97	26.9	--	--	--	--
AUG													
05...	1000	9	738	759	5.8	72	6.0	95	26.1	--	--	--	--
05...	1300	D	761	759	5.8	72	6.0	95	26.1	--	--	--	--
19...	1400	9	4,100	762	3.9	48	6.2	63	25.9	9	11	6.30	3.4
SEP													
02...	1415	9	321	762	4.2	54	6.4	104	27.8	14	17	11.1	7.7

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Ortho-phosphate, water, fltrd, mg/L (00660)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)
OCT 22...	0.60	--	<0.04	1.40	0.32	0.34	0.066	0.020	--	0.117	0.04	<0.02	0.122
NOV 07...	0.56	--	<0.04	1.33	0.30	0.31	0.033	0.010	--	--	E.02	0.03	0.079
DEC 10...	0.53	--	<0.04	--	--	0.50	--	<0.008	--	0.071	0.02	0.09	0.084
JAN 22...	0.47	--	E.03	--	--	0.68	--	<0.008	--	--	E.01	0.07	0.052
FEB 12...	0.52	--	<0.21	--	--	0.49	--	<0.040	--	--	<0.09	0.09	0.069
MAR 07...	0.53	--	E.03	--	--	0.45	--	<0.008	--	0.055	0.02	--	0.074
MAR 18...	0.65	0.11	0.08	2.92	0.66	0.67	0.033	0.010	0.56	0.104	0.03	0.08	0.103
APR 03...	0.60	0.07	0.06	1.95	0.44	0.45	0.046	0.014	0.54	0.113	0.04	0.09	0.116
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	0.73	0.11	0.08	--	--	0.55	--	E.007	0.65	0.120	0.04	--	0.110
MAY 05...	0.77	0.10	0.08	2.26	0.51	0.52	0.033	0.010	0.70	0.190	0.06	0.09	0.137
MAY 28...	0.89	0.07	0.05	--	--	0.46	--	E.006	0.83	0.141	0.05	--	0.160
JUN 05...	0.68	0.11	0.09	--	--	0.51	--	E.006	0.59	0.138	0.04	0.09	0.117
JUN 27...	0.63	--	<0.04	1.74	0.39	0.41	0.036	0.011	--	0.113	0.04	--	0.112
JUL 16...	0.76	--	E.03	--	--	0.50	--	<0.008	--	0.138	0.04	0.08	0.142
JUL 29...	0.58	--	<0.04	2.87	0.65	0.67	0.056	0.017	--	0.129	0.04	--	0.145
AUG 05...	0.74	--	<0.04	1.18	0.27	0.30	0.105	0.032	--	0.113	0.04	--	0.191
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	0.71	0.05	0.04	--	--	0.18	--	E.004	0.67	0.166	0.05	0.12	0.134
SEP 02...	0.72	--	<0.04	3.03	0.68	0.69	0.036	0.011	--	0.169	0.06	0.06	0.154

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspd total, mg/L (00694)	Inorganic carbon, suspd total, mg/L (00688)	Organic carbon, suspd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Periphyton biomass ash weight, g/m2 (00572)	Periphyton biomass dry weight, g/m2 (00573)	Biomass chlorophyll ratio, periphyton, number (70950)	Pheophytin a, periphyton, mg/m2 (62359)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)
OCT 22...	0.94	0.2	<0.1	0.2	12.4	--	--	--	--	--	--	<0.006	<0.006
NOV 07...	0.86	0.4	<0.1	0.4	10.8	--	--	--	--	--	--	<0.006	<0.006
DEC 10...	1.0	0.6	<0.1	0.6	10.5	--	--	--	--	--	--	<0.006	<0.006
JAN 22...	1.2	0.4	<0.1	0.4	6.7	--	--	--	--	--	--	<0.006	<0.006
FEB 12...	1.0	0.8	<0.1	0.8	8.3	--	--	--	--	--	--	<0.006	<0.006
MAR 07...	0.98	--	--	--	--	--	--	--	--	--	--	<0.006	E.002
MAR 18...	1.3	0.6	<0.1	E.6	9.8	--	--	--	--	--	--	<0.006	<0.006
APR 03...	1.1	0.8	<0.1	0.8	12.1	--	--	--	--	--	--	<0.006	E.007
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	1.3	--	--	--	--	--	--	--	--	--	--	<0.006	E.003
MAY 05...	1.3	0.7	<0.1	0.7	11.1	--	--	--	--	--	--	<0.006	E.010
MAY 28...	1.3	--	--	--	--	--	--	--	--	--	--	<0.006	E.058
JUN 05...	1.2	0.9	<0.1	0.9	10.8	--	--	--	--	--	--	<0.006	E.018
JUN 27...	1.0	--	--	--	--	--	--	--	--	--	--	<0.006	E.003
JUL 16...	1.3	0.8	<0.1	0.8	12.0	--	--	--	--	--	--	<0.006	E.008
JUL 29...	1.2	--	--	--	--	--	--	--	--	--	--	<0.006	E.004
AUG 05...	1.0	--	--	--	--	--	--	--	--	--	--	<0.006	<0.006
AUG 05...	--	--	--	--	--	5.2	33	38.30	434	5.4	12.0	--	--
AUG 19...	0.89	1.1	<0.1	1.1	16.7	--	--	--	--	--	--	<0.006	E.003
SEP 02...	1.4	0.5	<0.1	0.5	11.3	--	--	--	--	--	--	<0.006	<0.006

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Amino- methyl- phos- phonic acid, wat flt ug/L (62649)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Cyana- zine, water, fltrd, ug/L (04041)
OCT 22...	<0.006	<0.004	<0.005	<0.1	0.009	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
NOV 07...	<0.006	<0.004	<0.005	<0.1	E.006	E.024	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
DEC 10...	<0.006	<0.004	<0.005	<0.1	E.006	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
JAN 22...	<0.006	<0.004	<0.005	<0.1	0.012	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
FEB 12...	<0.006	<0.004	<0.005	<0.1	0.029	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
MAR 07...	<0.006	<0.004	<0.005	<0.1	0.020	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
MAR 18...	<0.006	<0.004	<0.005	<0.1	0.011	<0.050	<0.010	<0.002	<0.041	<0.020	0.021	<0.006	<0.018
APR 03...	<0.006	E.004	<0.005	--	0.187	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
APR 04...	--	--	--	<0.1	--	--	--	--	--	--	--	--	--
APR 21...	<0.006	0.008	<0.005	<0.1	0.054	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
MAY 05...	<0.006	0.027	<0.005	<0.1	0.154	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018
MAY 28...	<0.006	0.086	<0.005	<0.1	0.460	<0.050	<0.010	<0.002	E.013	<0.020	0.007	<0.006	<0.018
JUN 05...	<0.006	0.008	<0.005	<0.1	0.162	<0.050	<0.010	<0.002	E.004	E.008	<0.005	<0.006	<0.018
JUN 27...	<0.006	<0.004	<0.005	<0.1	0.020	<0.050	<0.010	<0.002	E.002	<0.020	<0.005	<0.006	<0.018
JUL 16...	<0.006	<0.004	<0.005	<0.1	0.033	<0.050	<0.010	<0.002	E.006	<0.020	0.006	<0.006	<0.018
JUL 29...	<0.006	<0.004	<0.005	<0.1	0.017	<0.050	<0.010	<0.002	E.008	<0.020	<0.005	<0.006	<0.018
AUG 05...	<0.006	<0.004	<0.005	0.1	0.023	<0.050	<0.010	<0.002	E.010	<0.020	<0.005	<0.006	<0.018
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	<0.006	<0.004	<0.005	<0.1	0.013	<0.050	<0.010	<0.002	E.263	<0.020	<0.005	<0.006	<0.018
SEP 02...	<0.006	<0.004	<0.005	<0.1	E.005	<0.050	<0.010	<0.002	E.009	<0.020	<0.005	<0.006	<0.018

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	DCPA, water fltrd 0.7u GF (82682)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)	Etho- prop, water, fltrd 0.7u GF (82672)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)
OCT 22...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
NOV 07...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
DEC 10...	<0.003	<0.004	<0.008	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
JAN 22...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
FEB 12...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
MAR 07...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
MAR 18...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
APR 03...	<0.003	<0.004	0.008	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
MAY 05...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
MAY 28...	<0.003	<0.004	<0.005	<0.005	<0.02	0.005	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
JUN 05...	<0.003	<0.004	E.003	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
JUN 27...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
JUL 16...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
JUL 29...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
AUG 05...	<0.003	<0.004	E.004	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	<0.003	<0.004	E.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003
SEP 02...	<0.003	<0.004	<0.005	<0.005	<0.02	<0.020	<0.009	<0.005	<0.009	<0.005	<0.005	<0.007	<0.003

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Glufosinate, water, fltrd 0.7u GF ug/L (62721)	Glyphosate, water, fltrd 0.7u GF ug/L (62722)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)
OCT 22...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	E.012	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
NOV 07...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	E.010	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
DEC 10...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.019	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
JAN 22...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	E.010	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
FEB 12...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.014	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
MAR 07...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.014	<0.006	<0.002	0.024	<0.003	<0.010	<0.004
MAR 18...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.013	<0.006	<0.004	0.013	<0.003	<0.010	<0.004
APR 03...	--	--	<0.004	<0.035	<0.027	<0.006	0.077	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
APR 04...	<0.1	<0.1	--	--	--	--	--	--	--	--	--	--	--
APR 21...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.031	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
MAY 05...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.043	<0.006	<0.002	<0.007	<0.003	<0.010	0.020
MAY 28...	<0.1	0.2	<0.004	<0.035	<0.027	<0.006	0.203	0.007	<0.002	0.008	<0.003	<0.010	<0.004
JUN 05...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.076	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
JUN 27...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.051	0.008	<0.002	<0.007	<0.003	<0.010	<0.004
JUL 16...	<0.1	0.2	<0.004	<0.035	<0.027	<0.006	0.074	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
JUL 29...	<0.1	0.1	<0.004	<0.035	<0.027	<0.006	0.038	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
AUG 05...	<0.1	0.1	<0.004	<0.035	<0.027	<0.006	0.022	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.030	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004
SEP 02...	<0.1	<0.1	<0.004	<0.035	<0.027	<0.006	0.015	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)
OCT 22...	<0.022	<0.011	0.02	<0.004	<0.010	<0.011	<0.02	<0.010	0.02	E.027	<0.02	<0.005	<0.002
NOV 07...	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.007	<0.02	<0.034	<0.02	<0.005	<0.002
DEC 10...	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.038	<0.02	<0.034	<0.02	<0.005	<0.002
JAN 22...	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.018	<0.02	<0.034	<0.02	<0.005	<0.002
FEB 12...	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.073	<0.02	<0.034	<0.02	<0.005	<0.002
MAR 07...	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.132	<0.02	<0.034	<0.02	<0.005	<0.002
MAR 18...	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.056	<0.02	<0.034	<0.02	<0.005	<0.002
APR 03...	<0.022	<0.011	0.04	<0.004	<0.010	<0.011	<0.02	0.109	<0.02	<0.034	<0.02	<0.005	<0.002
APR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	<0.022	<0.011	E.01	<0.004	<0.010	<0.011	<0.02	0.037	<0.02	<0.034	<0.02	<0.005	<0.002
MAY 05...	<0.022	<0.011	0.03	<0.004	<0.010	<0.011	<0.02	0.039	<0.02	<0.034	<0.02	<0.005	<0.002
MAY 28...	<0.022	<0.011	0.03	<0.004	<0.010	<0.011	<0.02	0.025	E.02	<0.034	<0.02	<0.005	<0.002
JUN 05...	<0.022	<0.011	0.02	<0.004	<0.010	<0.011	<0.02	0.011	<0.02	<0.034	<0.02	<0.005	<0.002
JUN 27...	<0.022	<0.011	0.02	<0.004	<0.010	<0.011	<0.02	0.038	<0.02	<0.034	<0.02	<0.005	<0.002
JUL 16...	<0.022	<0.011	0.03	<0.004	<0.010	<0.011	<0.02	0.019	E.01	E.036	<0.02	<0.005	<0.002
JUL 29...	<0.022	<0.011	0.03	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02	<0.005	<0.002
AUG 05...	<0.022	<0.011	0.03	<0.004	<0.010	<0.011	<0.02	0.013	E.03	<0.034	<0.02	<0.005	<0.002
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	<0.022	<0.011	0.03	<0.004	<0.010	<0.011	<0.02	0.006	<0.02	<0.034	<0.02	<0.005	<0.002
SEP 02...	<0.022	<0.011	0.02	<0.004	<0.010	<0.011	<0.02	<0.005	E.01	<0.034	<0.02	<0.005	<0.002

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT				
22...	<0.009	92	20	22
NOV				
07...	<0.009	85	14	23
DEC				
10...	<0.009	92	13	45
JAN				
22...	<0.009	83	4	6.1
FEB				
12...	<0.009	86	9	34
MAR				
07...	<0.009	74	14	115
18...	<0.009	94	10	42
APR				
03...	<0.009	97	10	38
04...	--	--	--	--
21...	<0.009	94	5	21
MAY				
05...	<0.009	97	10	20
28...	E.001	74	22	251
JUN				
05...	<0.009	93	8	27
27...	<0.009	93	9	13
JUL				
16...	<0.009	70	10	51
29...	<0.009	56	8	12
AUG				
05...	<0.009	94	23	46
05...	--	--	--	--
19...	<0.009	--	--	--
SEP				
02...	<0.009	96	9	7.8

Remark codes used in this table:

< -- Less than
E -- Estimated value

Medium codes used in this table:

9 - Surface water
D - Plant tissue

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	124	120	121	106	98	102	107	106	106	100	93	97
2	128	120	124	103	99	101	107	106	107	99	99	99
3	134	127	130	99	94	97	107	106	106	99	99	99
4	135	132	133	94	89	91	135	105	108	101	99	100
5	137	135	136	90	86	87	134	112	117	101	97	98
6	139	136	137	91	87	89	112	104	108	97	96	97
7	142	138	140	96	91	93	112	110	111	97	95	96
8	143	141	142	101	94	98	112	107	109	95	93	94
9	142	139	141	103	98	101	107	98	103	95	94	94
10	150	138	141	103	94	98	98	91	94	97	95	96
11	145	51	118	96	91	95	91	88	89	97	96	96
12	126	114	121	98	78	95	88	84	86	99	97	98
13	131	119	123	105	96	101	90	84	87	101	98	100
14	160	115	135	104	102	103	95	89	93	103	101	102
15	115	87	97	105	102	104	96	95	95	108	103	105
16	88	85	86	103	97	100	96	94	95	107	106	107
17	85	83	84	97	90	94	94	90	93	110	106	108
18	85	83	83	90	87	88	90	86	88	110	109	109
19	91	85	88	88	87	88	87	85	86	109	108	109
20	96	91	93	89	88	88	88	85	86	109	107	108
21	98	96	97	89	87	89	96	88	92	134	109	114
22	100	98	99	88	87	88	98	95	97	134	111	119
23	102	100	101	90	88	89	99	98	99	116	108	110
24	104	101	104	99	90	94	99	95	97	125	114	120
25	103	99	101	102	98	100	95	94	95	117	112	114
26	99	94	96	103	100	101	97	95	96	112	111	111
27	94	91	93	103	101	102	98	96	97	112	110	111
28	92	91	92	101	98	99	98	94	97	113	111	112
29	92	89	91	104	97	100	95	92	94	127	110	113
30	95	91	93	107	103	105	93	91	92	188	114	145
31	98	95	96	---	---	---	96	92	92	129	119	122
MONTH	160	51	111	107	78	96	135	84	97	188	93	107
DAY	MAX	MIN	MEAN									
1	119	115	116	78	76	77	87	86	87	84	83	83
2	124	113	115	81	78	79	86	81	84	84	83	83
3	128	103	117	81	78	80	82	78	80	86	84	86
4	103	98	99	80	78	78	79	76	77	88	86	87
5	98	94	96	78	76	77	77	76	76	91	88	89
6	95	94	94	76	74	75	79	77	78	94	90	91
7	99	94	96	74	72	73	83	79	80	92	90	91
8	99	96	98	73	71	72	85	81	83	90	82	85
9	98	97	97	71	68	70	87	84	85	83	81	82
10	99	97	99	68	64	66	85	78	82	81	81	81
11	97	91	94	64	61	62	78	64	72	85	81	83
12	92	86	89	62	61	62	66	57	61	89	85	87
13	86	84	85	65	62	63	57	55	56	96	89	93
14	84	83	83	70	65	67	55	55	55	97	96	97
15	85	83	84	77	70	73	55	54	55	100	97	98
16	88	85	87	85	77	82	60	55	57	102	99	100
17	94	88	91	90	84	87	61	59	60	103	101	102
18	94	91	93	93	86	89	65	60	62	106	87	103
19	91	89	90	89	84	86	69	64	67	100	80	93
20	90	86	88	86	81	84	76	69	72	95	87	93
21	87	83	85	91	84	87	79	75	77	100	86	92
22	84	83	83	87	78	81	82	79	80	100	86	91
23	86	83	84	79	73	76	84	81	82	86	81	83
24	89	86	87	73	68	70	85	81	83	83	82	82
25	89	87	88	68	65	66	87	85	86	82	78	80
26	87	81	84	65	63	64	87	86	87	78	73	77
27	81	78	79	63	62	62	87	87	87	73	64	67
28	78	76	76	67	63	64	87	86	87	68	64	65
29	---	---	---	75	67	70	88	87	87	71	68	69
30	---	---	---	85	73	79	87	84	86	73	71	72
31	---	---	---	88	82	85	---	---	---	76	73	74
MONTH	128	76	92	93	61	74	88	54	76	106	64	86

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	79	76	77	96	92	94	73	67	71	98	95	97
2	83	79	81	95	71	90	89	73	80	102	98	100
3	86	83	85	82	69	75	94	89	92	103	102	102
4	87	86	87	80	76	79	96	90	94	114	103	105
5	87	85	86	78	74	76	98	83	92	105	102	103
6	88	85	86	74	65	70	85	81	82	104	98	101
7	94	88	91	65	61	63	91	85	88	99	96	97
8	96	94	95	62	60	61	90	87	89	102	98	100
9	99	96	97	63	61	62	87	82	85	107	102	104
10	100	98	99	67	63	65	82	77	80	117	106	111
11	101	98	100	77	67	70	77	69	74	117	106	112
12	100	88	94	76	72	74	69	60	65	117	112	115
13	89	77	82	78	76	77	62	53	57	115	113	113
14	77	71	73	78	77	77	54	48	51	113	110	111
15	75	71	72	79	73	76	49	48	49	111	109	110
16	80	75	77	74	72	72	52	49	51	113	109	111
17	86	80	84	80	73	77	56	51	53	114	111	113
18	90	86	88	82	73	79	60	56	58	115	104	110
19	94	90	92	76	70	74	64	60	62	107	104	106
20	98	94	95	79	75	77	70	64	67	107	104	106
21	103	97	99	83	79	81	74	69	72	104	99	101
22	103	99	101	91	83	88	77	74	75	100	95	98
23	105	102	103	94	91	92	81	76	79	95	86	90
24	105	91	99	94	89	93	87	80	83	88	86	87
25	91	78	83	89	75	83	88	82	85	92	88	90
26	79	78	79	79	75	76	90	84	87	95	92	93
27	83	79	80	88	79	83	91	86	88	98	95	96
28	86	83	84	93	88	91	89	87	88	99	98	99
29	90	86	87	94	90	91	92	89	90	100	99	100
30	92	89	91	97	93	95	94	92	93	102	99	100
31	---	---	---	97	66	83	95	93	94	---	---	---
MONTH	105	71	88	97	60	79	98	48	77	117	86	103

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.7	23.4	24.0	14.8	13.6	14.1	8.4	7.4	7.9	8.2	6.6	7.5
2	24.8	23.5	24.1	13.6	12.6	13.0	7.4	6.9	7.1	9.0	8.2	8.6
3	25.3	23.9	24.5	12.6	12.1	12.3	7.6	7.0	7.3	9.9	9.0	9.5
4	25.4	24.3	24.8	12.3	12.0	12.2	7.0	6.0	6.5	9.9	9.2	9.6
5	26.1	24.6	25.2	12.2	12.0	12.1	6.0	5.5	5.7	9.2	8.3	8.7
6	25.8	24.7	25.2	13.1	12.2	12.8	5.5	5.0	5.3	8.3	7.7	8.0
7	25.3	24.0	24.6	12.9	12.3	12.5	5.0	4.4	4.6	7.7	6.3	6.9
8	24.4	22.6	23.5	12.3	11.8	12.1	4.5	4.1	4.3	6.3	6.1	6.2
9	22.6	21.6	22.0	12.4	11.8	12.2	4.6	4.4	4.5	6.7	6.2	6.4
10	21.6	21.0	21.3	13.3	12.3	12.7	4.8	4.5	4.6	7.4	6.7	7.1
11	22.1	21.0	21.4	14.5	13.3	13.9	5.2	4.8	5.0	7.2	6.8	7.0
12	22.2	21.5	21.8	15.5	14.5	15.0	6.1	5.2	5.6	6.9	6.2	6.5
13	21.9	21.4	21.6	15.5	14.9	15.2	6.5	6.1	6.2	6.2	5.7	6.0
14	21.7	20.8	21.3	14.9	14.0	14.4	7.2	6.5	6.9	5.9	5.3	5.6
15	20.8	19.8	20.2	14.0	13.2	13.4	7.2	6.9	7.1	5.6	4.9	5.3
16	19.8	19.1	19.5	13.3	13.1	13.2	7.2	6.9	7.1	4.9	4.4	4.5
17	19.1	18.4	18.6	13.4	13.0	13.3	7.3	6.7	6.9	4.7	4.3	4.5
18	18.4	17.4	17.9	13.0	12.1	12.5	6.7	6.4	6.5	4.3	3.5	3.9
19	17.4	16.7	17.0	12.1	11.6	11.7	7.2	6.5	6.7	3.5	3.0	3.2
20	17.2	16.6	16.9	11.6	11.3	11.4	8.8	7.2	8.1	3.6	2.8	3.2
21	17.4	16.9	17.2	11.4	11.2	11.3	8.8	8.4	8.6	3.6	3.3	3.5
22	16.9	16.6	16.7	11.5	11.2	11.3	8.7	8.4	8.6	3.6	3.1	3.3
23	17.0	16.2	16.6	11.2	10.2	10.6	8.8	8.6	8.7	3.3	2.3	3.0
24	16.7	16.3	16.5	10.2	9.9	10.1	8.6	8.0	8.3	2.3	1.7	2.0
25	16.4	16.1	16.3	10.1	9.8	10	8.2	7.7	8.0	2.0	1.3	1.6
26	16.9	16.2	16.6	10.1	9.8	10	7.7	7.0	7.2	1.9	1.5	1.7
27	17.0	16.6	16.8	10.1	9.9	10	7.0	6.2	6.5	2.1	1.6	1.8
28	17.3	16.9	17.1	9.9	8.9	9.3	6.2	5.4	5.7	2.0	1.3	1.7
29	17.2	16.6	16.9	8.9	8.2	8.4	5.4	5.2	5.4	3.4	1.9	2.6
30	16.6	15.6	16.1	8.5	8.1	8.3	5.8	5.3	5.5	3.9	3.4	3.8
31	15.6	14.8	15.2	---	---	---	6.6	5.8	6.2	4.3	3.9	4.1
MONTH	26.1	14.8	19.9	15.5	8.1	12.0	8.8	4.1	6.5	9.9	1.3	5.1
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.1	4.3	4.7	8.1	7.7	7.9	14.8	13.9	14.2	21.2	20.4	20.8
2	5.5	4.9	5.2	8.8	8.1	8.4	14.8	13.9	14.3	21.7	20.8	21.2
3	5.9	5.0	5.4	9.1	8.6	8.9	15.9	14.8	15.2	21.6	21.0	21.4
4	6.9	5.9	6.5	9.6	8.8	9.1	17.0	15.9	16.4	21.0	19.7	20.2
5	7.1	6.7	6.9	10.8	9.6	10.2	18.0	17.0	17.5	19.7	18.6	19.0
6	7.2	7.0	7.1	11.6	10.8	11.2	18.2	17.9	18.1	19.6	18.6	19.1
7	7.0	6.6	6.9	11.6	10.4	11.1	17.9	16.0	17.0	20.4	19.6	19.9
8	6.6	6.2	6.4	10.5	9.9	10.3	16.0	14.4	15.2	21.9	20.4	21.1
9	6.2	5.8	6.0	11.3	10.5	10.9	14.4	12.2	13.2	23.0	21.9	22.3
10	5.9	5.5	5.6	11.9	11.2	11.5	12.2	11.0	11.4	24.1	23.0	23.5
11	5.8	5.2	5.5	11.6	10.8	11.1	11.0	10.4	10.7	25.0	24.1	24.5
12	6.2	5.6	5.9	11.3	10.3	10.8	11.2	10.2	10.7	24.9	24.2	24.5
13	6.2	5.8	6.0	12.3	11.3	11.8	12.3	11.2	11.7	24.2	22.8	23.6
14	6.2	5.9	6.0	12.7	12.3	12.5	13.5	12.2	12.8	23.2	22.4	22.8
15	6.7	6.1	6.4	12.4	11.8	12.0	14.6	13.2	13.8	22.6	21.5	22.1
16	6.7	6.2	6.5	13.6	11.9	12.6	16.1	14.6	15.2	22.0	21.0	21.5
17	6.2	5.3	5.7	14.4	13.6	14.0	17.2	16.1	16.6	21.9	20.9	21.4
18	5.3	4.8	5.0	15.0	14.4	14.7	17.1	16.7	16.9	20.9	19.5	20.2
19	5.5	4.8	5.1	15.1	14.5	14.8	16.7	16.3	16.5	19.5	17.6	18.2
20	6.3	5.5	5.8	15.0	14.5	14.6	16.3	15.8	16.0	18.2	17.2	17.7
21	7.1	6.3	6.5	15.5	15.0	15.3	16.3	15.8	16.0	18.8	18.1	18.4
22	9.3	7.1	8.0	16.4	15.4	15.8	17.3	16.3	16.7	18.9	18.6	18.7
23	10.5	9.3	10.1	16.4	16.1	16.2	17.5	16.8	17.2	19.0	18.9	18.9
24	10.7	9.8	10.2	16.4	15.8	16.1	17.5	16.9	17.2	18.9	18.6	18.8
25	11.0	10.7	10.9	16.6	15.9	16.3	17.4	17.1	17.2	19.5	18.7	19.1
26	11.0	9.5	10.2	17.1	16.2	16.6	17.7	16.9	17.3	20.1	19.5	19.9
27	9.5	8.5	8.9	17.2	16.8	17.0	18.1	17.1	17.6	20.1	19.8	20.0
28	8.5	8.0	8.1	17.2	16.5	16.9	18.7	17.6	18.1	20.1	19.5	19.8
29	---	---	---	17.9	17.2	17.5	19.5	18.4	18.9	20.2	19.7	20.0
30	---	---	---	18.1	16.2	17.5	20.6	19.5	20.0	20.4	19.9	20.1
31	---	---	---	16.2	14.8	15.2	---	---	---	20.3	20.1	20.2
MONTH	11.0	4.3	6.8	18.1	7.7	13.2	20.6	10.2	15.7	25.0	17.2	20.6

NEUSE RIVER BASIN

02091500 CONTENTNEA CREEK AT HOOKERTON, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	20.2	19.7	20.0	27.5	26.2	26.7	26.4	25.9	26.2	28.0	27.1	27.6
2	20.2	19.8	20.0	26.2	23.6	25.1	27.3	26.2	26.7	28.0	26.9	27.5
3	20.7	20.0	20.3	24.2	23.3	23.6	27.3	26.8	27.0	28.0	26.8	27.4
4	21.4	20.7	21.0	25.0	23.7	24.3	27.4	26.7	26.9	27.8	26.9	27.4
5	22.4	21.3	21.7	25.5	24.8	25.1	26.7	26.1	26.4	26.9	25.8	26.3
6	22.6	21.9	22.2	26.0	25.4	25.6	26.8	26.1	26.4	25.8	24.0	24.8
7	22.8	22.5	22.6	26.3	25.8	26.0	26.8	26.3	26.5	24.0	23.3	23.6
8	23.3	22.7	22.9	27.0	26.1	26.5	26.7	26.2	26.5	23.8	23.2	23.5
9	24.6	23.1	23.8	27.7	27.0	27.3	26.4	26.0	26.2	23.9	22.9	23.4
10	25.2	24.1	24.6	27.9	27.4	27.6	26.0	25.3	25.6	23.6	22.8	23.3
11	25.8	25.0	25.4	27.7	27.2	27.5	25.3	25.0	25.2	22.9	22.1	22.4
12	26.5	25.6	26.0	27.4	26.6	26.9	25.2	24.8	25.0	22.1	21.7	21.9
13	26.7	26.2	26.4	26.7	25.5	26.2	25.2	24.8	25.0	21.7	21.4	21.5
14	26.8	26.5	26.7	25.5	25.0	25.2	25.5	25.0	25.2	22.7	21.2	21.9
15	27.0	26.6	26.8	25.1	24.5	24.8	26.0	25.3	25.6	23.7	22.3	22.9
16	27.0	26.3	26.6	25.8	24.9	25.2	26.1	25.9	26.0	24.0	22.9	23.4
17	26.3	25.3	25.7	26.1	25.6	25.9	26.1	25.8	25.9	23.5	22.6	23.0
18	25.7	25.0	25.3	26.2	25.8	26.0	26.0	25.6	25.8	22.7	20.9	21.8
19	26.1	25.1	25.5	25.8	25.4	25.5	26.0	25.6	25.8	21.8	20.4	21.1
20	25.8	25.3	25.5	26.0	25.0	25.5	26.1	25.7	25.9	22.1	21.3	21.7
21	25.3	24.6	25.0	26.6	25.7	26.1	26.4	25.9	26.1	22.5	21.7	22.1
22	24.7	23.9	24.3	27.2	26.3	26.7	26.7	26.3	26.5	22.8	22.3	22.5
23	25.0	23.8	24.4	26.9	26.1	26.6	26.9	26.3	26.6	23.4	22.8	23.0
24	25.1	24.2	24.6	26.1	25.6	25.8	26.8	26.4	26.7	23.2	22.7	23.0
25	25.9	24.8	25.3	25.7	24.9	25.2	26.6	25.9	26.2	23.1	22.5	22.8
26	26.6	25.6	26.1	25.6	25.0	25.3	26.8	26.0	26.4	22.9	22.4	22.6
27	27.4	26.2	26.8	26.5	25.2	25.8	27.3	26.4	26.8	23.0	22.4	22.6
28	27.5	26.6	27.0	27.1	26.2	26.6	27.8	26.9	27.3	23.2	22.4	22.7
29	27.1	26.1	26.7	27.9	26.5	27.1	28.2	27.1	27.6	22.7	21.6	22.1
30	27.8	26.2	27.1	27.8	26.9	27.3	28.4	27.4	27.9	21.6	20.5	20.9
31	---	---	---	27.2	25.9	26.4	28.4	27.5	28.0	---	---	---
MONTH	27.8	19.7	24.5	27.9	23.3	26.0	28.4	24.8	26.3	28.0	20.4	23.4

0209173150 UNNAMED TRIBUTARY TO SANDY RUN AT SECONDARY ROAD 1335 NEAR LIZZIE, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L (00660)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)
FEB 08...	--	E.01	0.014	0.031	5.9	5.9	--	229
18...	--	--	--	--	--	--	--	--
MAR 07...	--	E.01	0.026	0.052	3.3	3.4	22.2	420
21...	--	--	--	--	--	--	--	--
APR 08...	--	E.01	0.027	0.050	3.4	3.5	--	455
MAY 06...	0.258	0.08	0.117	0.19	5.0	5.2	--	527
20...	--	--	--	--	--	--	--	--
JUN 04...	--	E.01	0.031	0.078	4.5	4.6	15.1	788
JUL 02...	--	<0.09	0.052	0.175	7.1	7.3	--	--
AUG 22...	0.080	0.03	0.037	0.095	3.7	3.9	--	1,370

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC

LOCATION.--Lat 35°31'31", long 77°33'46", Greene County, Hydrologic Unit 03020203, approximately 6.0 mi south of Farmville.

DRAINAGE AREA.-- Approximately 0.57 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.50 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records poor. Station operated in cooperation with the U.S. Environmental Protection Agency and the North Carolina Department of Environment and Natural Resources to monitor water quality changes in an agricultural watershed. Maximum discharge for period of record from rating curve extended above 10 ft³/s by logarithmic plotting. No flow occurs on many days during most years. Discharge for period Oct. 2001 to May 2002 not published due to beaver activity affecting the accuracy of the data.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.03	e0.15	e0.65	e0.21	1.5	0.42	0.20	e1.1	0.02	0.07	0.09
2	0.00	0.03	e0.15	e0.60	e0.18	1.5	0.38	0.19	e1.1	5.7	0.06	0.07
3	0.00	0.02	e0.15	e0.50	e0.19	1.1	0.35	0.16	e0.90	4.7	0.04	0.06
4	0.00	0.03	e0.10	e0.42	0.27	0.85	0.31	0.16	e0.70	1.1	0.18	0.67
5	0.00	0.03	3.0	e0.37	0.16	0.85	0.28	0.15	e0.50	0.50	2.1	0.49
6	0.00	0.07	2.0	e0.35	0.12	5.4	0.21	5.6	e0.40	0.29	6.2	0.25
7	0.00	e0.02	e1.2	e0.30	1.00	2.9	0.62	1.7	e0.30	0.20	6.0	0.21
8	0.00	0.02	e0.85	e0.26	0.55	1.8	0.68	0.78	e0.30	0.13	5.2	0.19
9	0.00	0.02	e0.60	e0.24	0.42	1.3	5.1	1.3	e0.30	0.09	3.4	0.18
10	0.00	0.02	e0.45	e0.22	1.6	0.93	7.5	1.9	e0.30	0.14	19	0.17
11	1.7	0.03	e0.45	e0.20	1.00	0.76	4.2	0.76	e0.20	0.36	7.4	0.16
12	0.17	2.6	e0.45	e0.19	0.66	0.70	2.3	0.41	e0.20	0.75	2.9	0.17
13	0.06	e2.4	3.0	e0.19	0.50	0.65	1.3	0.28	e0.10	0.47	1.7	0.19
14	e0.04	e0.80	2.8	e0.18	0.42	0.61	0.83	0.23	e0.10	0.94	1.6	0.17
15	e0.02	0.59	e1.2	e0.18	0.41	0.54	0.64	0.20	e0.10	0.62	1.1	0.13
16	e0.02	0.84	e0.60	e0.18	2.9	0.67	0.51	0.23	e0.08	0.38	4.5	0.08
17	e0.01	3.3	0.44	e0.27	4.5	0.83	0.42	0.20	e0.06	0.27	3.9	0.06
18	0.01	1.8	0.43	e0.25	2.1	0.71	0.39	0.22	e0.08	0.23	3.2	10
19	0.01	1.1	0.41	e0.23	1.3	0.57	0.43	5.1	e0.10	0.19	1.5	4.1
20	0.01	0.76	1.0	e0.21	1.0	4.6	0.36	2.0	e0.08	0.15	0.97	1.5
21	0.02	0.68	0.99	e0.19	0.84	7.5	0.44	0.97	e0.07	0.11	0.69	0.86
22	0.02	0.70	0.50	e0.18	1.1	3.1	0.65	0.50	e0.05	0.14	0.53	0.64
23	0.02	e0.60	0.41	e0.16	1.5	1.7	0.47	7.0	e0.03	0.52	0.43	0.98
24	0.02	e0.45	0.56	e0.15	0.84	1.1	0.42	e3.6	e0.02	0.34	0.35	0.74
25	0.02	e0.35	0.75	e0.15	0.66	0.86	0.45	e3.5	e0.02	0.21	0.28	0.55
26	0.02	e0.30	e0.60	e0.14	0.56	0.70	0.58	e15	e0.05	0.16	0.23	0.44
27	0.02	e0.25	e0.50	e0.13	1.4	0.57	0.53	e15	0.02	0.12	0.19	0.47
28	0.03	e0.20	e0.42	e0.13	2.8	0.49	0.39	e8.3	0.02	0.10	0.15	0.79
29	0.05	e0.20	e0.37	e0.13	---	0.46	0.37	e2.7	0.02	0.10	0.13	0.64
30	0.06	0.22	e0.32	0.17	---	0.50	0.24	e1.3	0.02	0.14	0.11	0.45
31	0.04	---	e0.30	e0.25	---	0.51	---	e1.0	---	0.10	0.09	---
TOTAL	2.37	18.46	25.15	7.77	29.19	46.26	31.77	80.64	7.32	19.27	74.20	25.50
MEAN	0.076	0.62	0.81	0.25	1.04	1.49	1.06	2.60	0.24	0.62	2.39	0.85
MAX	1.7	3.3	3.0	0.65	4.5	7.5	7.5	15	1.1	5.7	19	10
MIN	0.00	0.02	0.10	0.13	0.12	0.46	0.21	0.15	0.02	0.02	0.04	0.06
CFSM	0.13	1.08	1.42	0.44	1.83	2.62	1.86	4.56	0.43	1.09	4.20	1.49
IN.	0.15	1.20	1.64	0.51	1.91	3.02	2.07	5.26	0.48	1.26	4.84	1.66

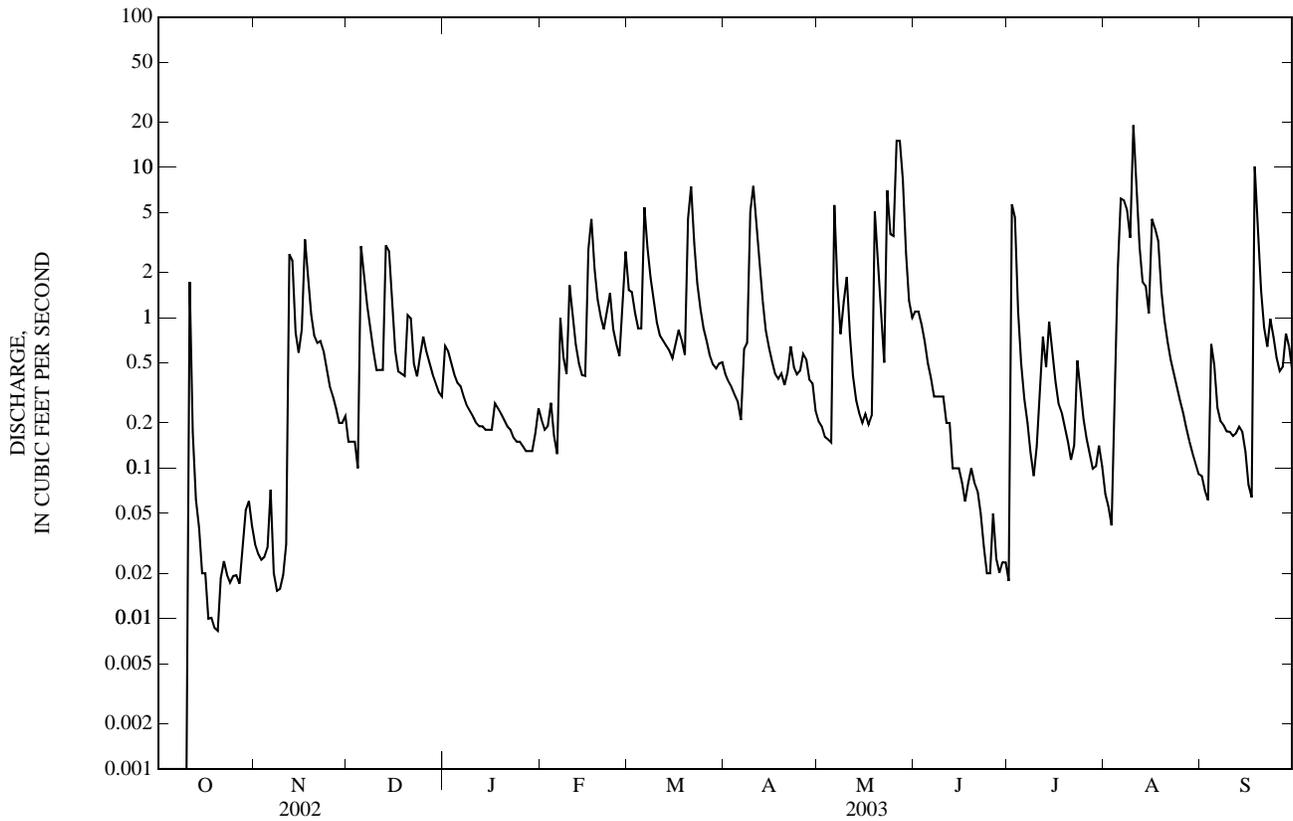
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003*, BY WATER YEAR (WY)

MEAN	0.74	0.37	0.35	0.22	0.60	0.91	0.47	0.75	0.30	0.20	0.53	3.41
MAX	2.06	0.62	0.81	0.28	1.04	1.49	1.06	2.60	1.13	0.62	2.39	15.4
(WY)	(2000)	(2003)	(2003)	(2000)	(2003)	(2003)	(2003)	(2003)	(2001)	(2003)	(2003)	(1999)
MIN	0.076	0.051	0.087	0.13	0.20	0.30	0.18	0.080	0.018	0.009	0.000	0.000
(WY)	(2003)	(2001)	(2001)	(2001)	(2001)	(2000)	(1999)	(2001)	(2000)	(2000)	(2002)	(2002)

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC—Continued

SUMMARY STATISTICS	FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003*	
ANNUAL TOTAL	67.90			
ANNUAL MEAN	1.01		0.57	
HIGHEST ANNUAL MEAN			1.01	2003
LOWEST ANNUAL MEAN			0.31	2001
HIGHEST DAILY MEAN	19	Aug 10	283	Sep 16, 1999
LOWEST DAILY MEAN	0.00	Oct 1	0.00	Jun 10, 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 1	0.00	Jul 30, 1999
MAXIMUM PEAK FLOW	16	Aug 10	500	Sep 16, 1999
MAXIMUM PEAK STAGE	3.19	Aug 10	5.18	Sep 16, 1999
INSTANTANEOUS LOW FLOW	0.00*	Oct 1	0.00*	Jun 10, 1999
ANNUAL RUNOFF (CFSM)	1.77		1.01	
ANNUAL RUNOFF (INCHES)	24.01		13.69	
10 PERCENT EXCEEDS	2.8		1.1	
50 PERCENT EXCEEDS	0.41		0.17	
90 PERCENT EXCEEDS	0.03		0.02	

e Estimated
 * See REMARKS.



0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999 to current year.

REMARKS.--Station operated in cooperation with the U.S. Environmental Protection Agency and the North Carolina Department of Environment and Natural Resources as part of a long-term project to develop a multimedia integrated modeling system (MIMS).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Flow rate, instantaneous gal/min (00059)	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
Date	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)
FEB 08...	7.35	10.2	10	31.8	--	14.6	121	1.1	1.2	0.73	6.60	0.014	0.41
FEB 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 07...	4.61	5.59	6	15.9	--	9.6	70	1.2	1.2	0.33	4.00	E.006	0.86
MAR 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 08...	5.05	7.76	10	24.4	--	10.7	90	1.3	1.4	0.72	4.31	0.018	0.58
MAY 06...	10.9	5.20	9	14.9	4.6	8.3	90	1.6	1.9	0.58	5.95	0.038	1.1
MAY 20...	--	--	--	--	--	--	--	--	--	--	4.43	--	--
JUN 04...	7.39	8.82	13	25.8	--	10.9	112	2.1	2.3	1.40	6.83	0.046	0.67
JUL 02...	--	--	--	--	--	--	--	1.6	1.7	0.58	2.80	0.031	1.1
AUG 22...	6.47	7.11	10	22.0	--	8.2	91	1.9	2.0	1.10	5.07	0.037	0.81

0209173190 UNNAMED TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic nitro- gen, water, unfltrd mg/L (00605)	Ortho- phos- phate, water, fltrd, mg/L (00660)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)
FEB 08...	0.46	--	E.01	0.013	0.030	7.7	7.8	--	265
18...	--	--	--	--	--	--	--	--	--
MAR 07...	0.84	--	E.01	0.030	0.065	5.2	5.2	18.2	431
21...	--	--	--	--	--	--	--	--	--
APR 08...	0.66	--	E.01	0.024	0.063	5.6	5.7	--	505
MAY 06...	1.3	0.319	0.10	0.136	0.28	7.6	7.9	--	371
20...	--	--	--	--	--	--	--	--	--
JUN 04...	0.95	--	--	0.032	0.096	8.9	9.2	9.5	540
JUL 02...	1.1	--	E.09	0.150	0.30	4.4	4.5	--	--
AUG 22...	0.89	0.089	0.03	0.039	0.092	7.0	7.1	--	840

353137077332801 WEATHER STATION #2 NEAR LIZZIE, NC

LOCATION.--Lat 35°31'38", long 77°33'27", Greene County, Hydrologic Unit 03020203, approximately 6.0 mi south of Farmville.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1999 to current year.

REMARKS.--Station operated in cooperation with the U.S. Environmental Protection Agency and the North Carolina Department of Environment and Natural Resources as part of a long-term project to develop a multimedia integrated modeling system (MIMS). Formerly published as station number, 0209173196. Station moved to current location on December 13, 2000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Ending time	Precipitation total, inches (00045)	Barometric pressure, mm Hg (00025)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
FEB 15-18	0245	1425	1.65	769	4.5	3	--	5.7	<0.01	<0.09	0.08	--	0.38
MAR 13-17	2300	1625	0.58	--	4.9	<1	17.5	17.7	0.06	0.14	0.27	--	0.50
APR 07-08	0215	1450	0.89	775	4.3	12	7.5	8.8	0.04	0.47	0.85	--	0.91
MAY 05-06	2145	1435	2.12	771	5.4	7	24.5	22.5	<0.01	E.08	0.12	<0.2	0.69
JUN 28- JUL 02	1930	1715	1.75	766	6.3	2	22.0	21.1	--	--	--	--	--
SEP 04-05	1800	1630	1.84	768	5.7	5	27.0	24.0	0.017	<0.10	0.09	<0.2	0.78

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
FEB 15-18	0.047	0.067	<0.002	<0.007
MAR 13-17	0.492	0.088	E.002	<0.007
APR 07-08	0.098	0.123	<0.002	<0.007
MAY 05-06	0.232	0.092	E.002	<0.007
JUN 28- JUL 02	0.224	0.083	0.003	<0.007
SEP 04-05	0.416	0.121	0.003	<0.007

PRECIPITATION RECORDS

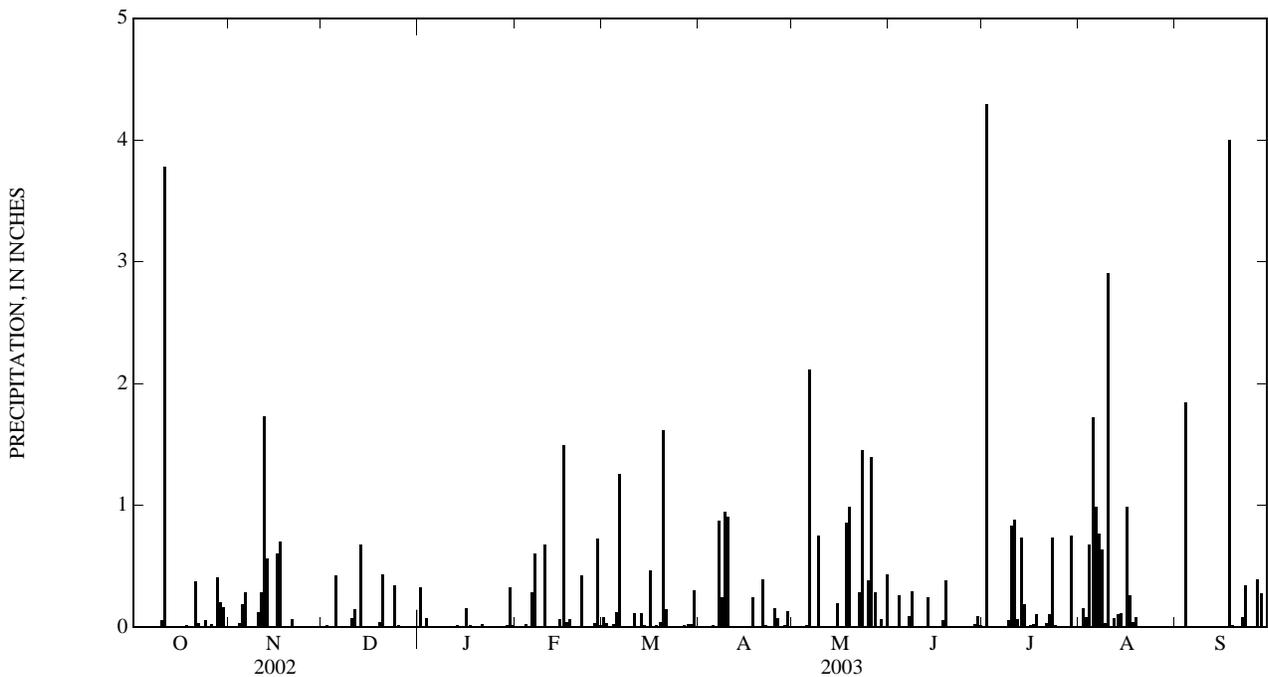
PERIOD OF RECORD.--November 2000 to current year.

GAGE.--Tipping-bucket raingage and data collection platform. Satellite telemetry at station.

REMARKS.--Precipitation gage is operated in cooperation with the U.S. Environmental Protection Agency and the North Carolina Department of Environment and Natural Resources to monitor water quality changes in an agricultural watershed. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.32	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.00	4.29	0.15	0.00
3	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00
4	0.00	0.03	0.00	0.00	0.02	0.02	0.00	0.00	0.26	0.00	0.67	1.84
5	0.00	0.18	0.42	0.00	0.00	0.12	0.01	0.01	0.00	0.00	1.72	0.00
6	0.00	0.28	0.00	0.00	0.28	1.25	0.00	2.11	0.00	0.00	0.98	0.00
7	0.00	0.00	0.00	0.00	0.60	---	0.87	0.00	0.09	0.00	0.76	0.00
8	0.00	0.00	0.00	0.00	0.00	---	0.24	0.00	0.29	0.00	0.63	0.00
9	0.00	0.00	0.00	0.00	0.00	---	0.94	0.75	0.00	0.05	0.03	0.00
10	0.05	0.12	0.07	0.00	0.67	0.00	0.90	0.00	0.00	0.83	2.90	0.00
11	3.78	0.28	0.14	0.00	0.00	0.11	0.00	0.00	0.00	0.88	0.00	0.00
12	0.00	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.07	0.00
13	0.00	0.56	0.67	0.01	0.00	0.11	0.00	0.00	0.24	0.73	0.10	0.00
14	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.18	0.11	0.00
15	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.19	0.00	0.00	0.00	0.00
16	0.00	0.60	0.00	0.15	1.49	0.46	0.00	0.00	0.00	0.01	0.98	0.00
17	0.00	0.70	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.02	0.26	0.00
18	0.01	0.00	0.00	0.00	0.06	0.01	0.24	0.85	0.05	0.10	0.04	4.00
19	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.98	0.38	0.00	0.08	0.01
20	0.00	0.00	0.43	0.00	0.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00
21	0.37	0.06	0.00	0.02	0.00	0.14	0.39	0.00	0.00	0.03	0.00	0.00
22	0.03	0.00	0.00	0.00	0.42	0.00	0.01	0.28	0.00	0.10	0.00	0.08
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.73	0.00	0.34
24	0.05	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
25	0.00	0.00	0.01	0.00	0.00	0.00	0.15	0.38	0.00	0.00	0.00	0.00
26	0.02	0.00	0.00	0.00	0.03	0.00	0.07	1.39	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.72	0.01	0.00	0.28	0.00	0.00	0.00	0.39
28	0.40	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.02	0.00	0.00	0.27
29	0.20	0.00	0.00	0.01	---	0.02	0.13	0.06	0.09	0.75	0.00	0.00
30	0.16	0.00	0.00	0.32	---	0.30	0.00	0.00	0.01	0.00	0.00	0.00
31	0.00	---	0.00	0.01	---	0.00	---	0.43	---	0.00	0.00	---
TOTAL	5.07	4.54	2.13	0.92	4.40	---	3.96	9.16	1.43	8.77	9.56	6.93



353119077332001 MIDDLE DRAINAGE DITCH (MS4-D3) NEAR WILLOW GREEN, NC

LOCATION.--Lat 35°31'18.7", long 77°33'20.0", Greene County, Hydrologic Unit 03020203, east of Secondary Road 1345 and 1.4 mi west-northwest of Willow Green.

DRAINAGE AREA.-- Indeterminate.

PERIOD OF RECORD.--February 2003 to September 2003.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources to examine nutrient loadings from field drainage ditches as part of the Lizzie research site water-quality monitoring project.

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Time	Flow rate, instantaneous gal/min (00059)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	
FEB														
08...	1435	14.3	768	8.9	75	3.9	590	--	8.3	130	34.6	10.7	19.6	
18...	1620	39.3	--	7.8	--	4.7	522	--	8.2	--	--	--	--	
MAR														
07...	1500	46.0	772	9.0	67	5.3	427	--	3.7	96	25.0	8.21	1.40	
21...	1500	115	756	5.5	57	5.5	256	--	17.0	--	--	--	--	
APR														
08...	1340	11.7	774	7.4	70	4.4	523	11.0	13.3	110	29.4	8.95	21.6	
MAY														
06...	1610	40.8	765	8.3	78	4.8	568	26.5	12.1	100	26.1	8.33	32.9	
20...	1420	12.9	772	6.3	64	4.6	487	27.0	16.8	--	--	--	--	
JUN														
04...	1630	12.7	762	6.5	68	4.7	540	26.5	17.4	110	29.7	9.78	21.0	
JUL														
02...	1430	109	763	5.5	64	5.3	339	23.5	22.0	--	--	--	--	
AUG														
22...	1045	14.5	767	3.5	40	4.7	498	30.0	23.2	120	29.2	10.3	20.6	
Date		Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)
FEB														
08...	25.7	--	73.0	--	18.6	0.49	0.43	0.14	32.4	<0.008	0.34	0.29	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR														
07...	15.9	<20	48.6	--	16.5	0.60	1.1	0.05	22.1	<0.008	0.55	1.0	0.086	--
21...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
APR														
08...	21.9	--	61.0	--	18.8	0.47	0.56	0.09	29.4	E.005	0.39	0.47	--	--
MAY														
06...	21.6	<2	52.1	5.9	15.8	0.78	1.3	0.06	30.5	E.004	0.72	1.3	0.196	--
20...	--	--	--	--	--	--	--	--	31.9	--	--	--	--	--
JUN														
04...	22.4	--	--	--	--	0.37	0.47	<4.10	E35.4	<0.800	--	--	--	--
JUL														
02...	--	--	--	--	--	1.4	1.7	0.07	20.5	0.008	1.3	1.6	--	--
AUG														
22...	19.6	--	55.8	--	17.5	0.45	0.61	0.05	27.4	E.005	0.40	0.55	0.110	--

353119077332001 MIDDLE DRAINAGE DITCH (MS4-D3) NEAR WILLOW GREEN, NC—Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)
FEB							
08...	E.01	0.015	0.023	33	33	--	20
18...	--	--	--	--	--	--	--
MAR							
07...	0.03	0.054	0.24	23	23	3.8	29
21...	--	--	--	--	--	--	--
APR							
08...	<0.02	0.015	0.044	30	30	--	57
MAY							
06...	0.06	0.109	0.33	31	32	--	31
20...	--	--	--	--	--	--	--
JUN							
04...	--	0.021	0.032	--	--	2.0	72
JUL							
02...	<0.09	0.087	0.35	22	22	--	--
AUG							
22...	0.04	0.056	0.107	28	28	--	80

353125077332501 TILE DRAIN (MS4-T2) MIDDLE SWAMP TRIBUTARY NEAR WILLOW GREEN, NC

LOCATION.--Lat 35°31'25.2", long 77°33'24.5", Greene County, Hydrologic Unit 03020203, approximately 0.1 mi west of Secondary Road 1345 and 1.5 mi west-northwest of Willow Green.

DRAINAGE AREA.-- Not applicable.

PERIOD OF RECORD.--August 2000 to August 2001, February 2003 to September 2003.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources to examine nutrient loadings from subsurface tile drains as part of the Lizzie research site water-quality monitoring project.

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Time	Flow rate, instantaneous gal/min (00059)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
FEB													
08...	1230	13.0	768	10.5	88	4.0	690	--	8.0	140	34.8	13.0	26.7
18...	1500	38.5	--	9.7	80	4.2	632	--	7.6	--	--	--	--
MAR													
07...	1615	44.5	772	8.6	69	4.7	526	--	6.4	110	27.6	10.2	32.1
21...	1555	109	756	5.7	54	4.5	414	--	12.3	--	--	--	--
APR													
08...	1145	6.7	775	9.2	86	4.3	582	8.0	13.2	110	28.2	10.5	33.6
MAY													
06...	1135	50.9	763	7.6	77	4.5	554	27.0	15.2	96	24.1	8.70	43.2
20...	1505	11.0	772	7.2	72	4.6	558	28.0	15.3	--	--	--	--
JUN													
04...	1430	5.8	763	7.1	74	4.7	570	27.0	17.0	120	30.7	11.5	29.2
JUL													
02...	1520	113	763	6.3	71	4.6	659	27.0	21.2	--	--	--	--
AUG													
22...	0900	9.5	767	3.1	35	4.4	538	28.5	22.9	100	25.0	10.1	31.6

Date	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)
FEB													
08...	27.1	--	74.1	--	15.7	0.42	0.13	42.5	<0.008	0.29	--	E.01	0.014
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	21.7	<2	57.9	--	18.6	0.66	0.07	33.9	<0.008	0.59	0.058	0.02	0.031
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
08...	25.3	--	61.4	--	15.6	0.79	0.19	34.8	E.006	0.59	0.064	0.02	0.036
MAY													
06...	22.0	--	51.1	5.6	16.1	0.83	0.08	38.2	<0.008	0.75	--	<0.09	0.047
20...	--	--	--	--	--	--	--	39.1	--	--	--	--	--
JUN													
04...	22.6	--	58.1	--	14.7	0.35	<0.04	36.8	<0.008	--	--	--	0.013
JUL													
02...	--	--	--	--	--	0.82	<0.04	45.7	<0.008	--	--	<0.09	0.027
AUG													
22...	19.0	--	51.4	--	17.9	0.42	<0.04	31.6	<0.008	--	--	E.02	0.023

353125077332501 TILE DRAIN (MS4-T2) MIDDLE SWAMP TRIBUTARY NEAR WILLOW GREEN, NC—Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Total nitro- gen, water, fltrd, mg/L (00602)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)
FEB			
08...	43	--	<10
18...	--	--	--
MAR			
07...	35	3.6	16
21...	--	--	--
APR			
08...	36	--	E10
MAY			
06...	39	--	18
20...	--	--	--
JUN			
04...	37	2.0	E8
JUL			
02...	46	--	--
AUG			
22...	32	--	34

353110077330901 TILE DRAIN (MS4-T1) MIDDLE SWAMP TRIBUTARY NEAR WILLOW GREEN, NC

LOCATION.--Lat 35°31'09.6", long 77°33'08.9", Greene County, Hydrologic Unit 03020203, approximately 0.25 mi east of Secondary Road 1345 and 1.1 mi west-northwest of Willow Green.

DRAINAGE AREA.-- Not applicable.

PERIOD OF RECORD.--August 2000 to August 2001, February 2003 to September 2003.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources to examine nutrient loadings from subsurface tile drains as part of the Lizzie research site water-quality monitoring project.

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Time	Flow rate, instantaneous gal/min (00059)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
FEB 08...	1805	3.2	768	11.0	93	4.5	190	--	8.5	52	14.3	3.88	2.47
MAR 07...	1820	22.4	762	8.3	72	4.8	201	--	10.4	64	17.6	4.89	3.74
MAR 21...	1740	34.1	756	9.2	86	4.0	222	--	12.2	--	--	--	--
APR 08...	1440	4.1	773	10.1	96	4.5	200	10.5	13.8	54	14.9	4.00	2.62
MAY 06...	1545	18.8	766	9.6	97	4.8	240	29.0	15.6	69	18.8	5.31	5.10
MAY 20...	1645	15.6	771	7.4	77	5.1	209	29.0	17.4	--	--	--	--
JUN 04...	1925	5.7	760	7.4	77	5.0	222	25.0	17.6	62	17.2	4.65	4.03
AUG 22...	1440	5.2	767	7.3	75	4.8	262	34.0	16.9	64	17.8	4.83	4.61

Date	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Total nitrogen, water, fltrd, mg/L (00602)	Organic carbon, water, fltrd, mg/L (00681)
FEB 08...	5.71	--	15.8	--	22.9	0.10	<0.04	8.40	<0.008	<0.02	<0.004	8.5	--
MAR 07...	4.36	<2	19.4	--	29.9	0.17	<0.04	10.5	<0.008	<0.02	E.003	11	1.2
MAR 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 08...	5.74	--	15.7	--	22.9	0.17	<0.04	8.43	<0.008	<0.02	<0.004	8.6	--
MAY 06...	4.31	--	22.3	7.1	25.9	0.26	<0.04	10.2	<0.008	<0.02	E.004	10	--
MAY 20...	--	--	--	--	--	--	--	11.4	--	--	--	--	--
JUN 04...	5.02	--	18.6	--	22.5	0.12	<0.04	11.1	<0.008	--	<0.004	11	1.1
AUG 22...	4.63	--	18.0	--	25.9	0.22	<0.04	10.1	<0.008	<0.02	E.003	10	--

Date	Iron, water, fltrd, ug/L (01046)
FEB 08...	<10
MAR 07...	E7
MAR 21...	--
APR 08...	<10
MAY 06...	<10
MAY 20...	--
JUN 04...	<8
AUG 22...	E7

353111077334901 TILE DRAIN (SR5-T1) TO TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC

LOCATION.--Lat 35°31'11.2", long 77°33'48.7", Greene County, Hydrologic Unit 03020203, approximately 0.25 mi north of Secondary Road 1335 and approximately 1.8 mi west-northwest of Willow Green.

DRAINAGE AREA.-- Not applicable.

PERIOD OF RECORD.--August 2000 to August 2001, February 2003 to September 2003.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources to examine nutrient loadings from subsurface tile drains as part of the Lizzie research site water-quality monitoring project.

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Time	Flow rate, instantaneous gal/min (00059)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	
FEB														
08...	1645	8.9	768	10.3	87	4.2	535	--	8.4	120	30.9	10.2	14.6	
18...	1730	17.3	--	9.2	--	4.4	442	--	7.6	--	--	--	--	
MAR														
07...	1235	16.9	772	9.0	71	4.7	405	--	6.0	89	23.0	7.71	15.1	
21...	1410	41.7	756	7.2	68	4.4	257	--	13.0	--	--	--	--	
APR														
08...	1610	10.4	772	8.8	84	4.4	495	8.0	13.6	110	27.5	9.09	18.3	
MAY														
06...	1410	39.4	764	7.8	79	4.4	527	32.0	16.2	100	25.2	8.96	40.9	
20...	1040	21.0	772	6.1	63	4.7	531	25.5	16.7	--	--	--	--	
JUN														
04...	1215	9.2	763	7.8	80	4.6	603	26.0	16.5	140	35.8	11.9	27.3	
JUL														
02...	1740	5.6	762	7.7	89	4.7	579	26.0	22.0	--	--	--	--	
AUG														
22...	1240	7.8	766	4.8	56	4.5	602	33.5	23.3	130	33.8	11.7	28.0	
Date		Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)
FEB														
08...	23.8	--	62.7	--	27.4	0.21	<0.04	27.9	<0.008	--	--	<0.02	0.004	
18...	--	--	--	--	--	--	--	--	--	--	--	--	--	
MAR														
07...	17.8	<2	43.1	--	28.8	0.39	<0.04	20.9	<0.008	--	--	<0.02	0.011	
21...	--	--	--	--	--	--	--	--	--	--	--	--	--	
APR														
08...	21.7	--	53.2	--	27.0	0.30	<0.04	26.0	<0.008	--	--	<0.02	0.007	
MAY														
06...	18.1	--	52.7	5.2	24.4	0.66	0.09	28.7	0.009	0.56	0.074	0.02	0.033	
20...	--	--	--	--	--	--	--	35.5	--	--	--	--	--	
JUN														
04...	22.7	--	61.6	--	25.1	0.26	<0.04	33.4	<0.008	--	--	--	0.010	
JUL														
02...	--	--	--	--	--	0.38	<0.04	35.4	<0.008	--	--	<0.09	0.014	
AUG														
22...	21.9	--	61.3	--	26.3	0.30	<0.04	34.0	<0.008	--	--	<0.02	0.011	

353111077334901 TILE DRAIN (SR5-T1) TO TRIBUTARY TO SANDY RUN NEAR LIZZIE, NC—Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Total nitro- gen, water, fltrd, mg/L (00602)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)
FEB			
08...	28	--	<10
18...	--	--	--
MAR			
07...	21	2.4	15
21...	--	--	--
APR			
08...	26	--	11
MAY			
06...	29	--	E8
20...	--	--	--
JUN			
04...	34	1.6	12
JUL			
02...	36	--	--
AUG			
22...	34	--	20

02091734 NORTH DRAINAGE DITCH (MS4-D2) NEAR WILLOW GREEN, NC

LOCATION.--Lat 35°31'28.9", long 77°33'05.4", Greene County, Hydrologic Unit 03020203, approximately 0.2 mi east of Secondary Road 1345 and 1.3 mi west-northwest of Willow Green.

DRAINAGE AREA.-- Indeterminate.

PERIOD OF RECORD.--August 2000 to August 2001, February 2003 to September 2003.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources to examine nutrient loadings from field drainage ditches as part of the Lizzie research site water-quality monitoring project.

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Time	Flow rate, instantaneous gal/min (00059)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	
FEB														
08...	1335	19.2	768	11.4	98	4.7	483	--	9.1	120	29.4	10.1	18.6	
18...	1545	78.9	--	10.2	--	4.5	416	--	9.5	--	--	--	--	
MAR														
07...	1715	99.5	772	8.8	73	5.1	309	--	8.5	80	20.1	7.27	16.9	
21...	1640	211	756	9.2	90	4.8	303	--	14.7	--	--	--	--	
APR														
08...	1235	21.7	775	11.0	100	5.1	244	11.0	11.9	59	14.5	5.59	9.14	
MAY														
06...	1220	107	763	8.2	93	5.6	328	27.0	20.8	71	17.9	6.28	22.8	
20...	1550	44.9	772	7.5	84	5.7	242	28.0	20.8	--	--	--	--	
JUN														
04...	1525	35.9	762	8.2	90	5.6	226	27.0	20.0	62	15.3	5.88	8.84	
JUL														
02...	1600	166	763	8.3	93	5.3	463	27.5	21.0	--	--	--	--	
AUG														
22...	0955	33.3	767	8.1	92	5.5	255	30.0	22.3	61	15.2	5.73	12.4	
Date		Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Organic nitrogen, water, fltrd, mg/L (00607)	Organic nitrogen, water, unfltrd mg/L (00605)
FEB														
08...	19.8	<2	56.5	--	15.5	--	0.51	0.50	0.17	27.6	0.008	0.34	0.34	
18...	--	--	--	--	--	--	--	--	--	--	--	--	--	
MAR														
07...	13.7	<2	39.1	--	17.1	--	0.49	0.71	0.07	20.1	<0.008	0.42	0.64	
21...	--	--	--	--	--	--	0.86	1.4	0.25	15.9	E.007	0.61	1.2	
APR														
08...	9.77	<2	28.7	--	12.4	--	0.34	0.39	0.06	12.2	E.007	0.28	0.33	
MAY														
06...	13.2	2	30.7	5.7	13.3	196	0.77	1.6	0.13	19.2	E.007	0.64	1.4	
20...	--	--	--	--	--	--	--	--	--	14.3	--	--	--	
JUN														
04...	8.92	<2	25.1	--	12.9	--	0.27	0.44	0.05	12.3	<0.008	0.22	0.39	
JUL														
02...	--	--	--	--	--	--	0.79	1.8	E.04	30.9	E.004	--	--	
AUG														
22...	9.11	<2	26.0	--	14.3	--	0.37	0.46	0.06	13.7	E.005	0.31	0.40	

02091734 NORTH DRAINAGE DITCH (MS4-D2) NEAR WILLOW GREEN, NC—Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 2003

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)
FEB							
08...	<0.02	0.009	0.026	28	28	--	84
18...	--	--	--	--	--	--	--
MAR							
07...	<0.02	0.008	0.072	21	21	2.5	54
21...	<0.02	0.009	0.167	17	17	--	--
APR							
08...	<0.02	0.005	0.024	13	13	--	104
MAY							
06...	<0.02	0.009	0.20	20	21	--	113
20...	--	--	--	--	--	--	--
JUN							
04...	--	E.003	0.056	13	13	1.5	99
JUL							
02...	<0.09	0.014	0.27	32	33	--	--
AUG							
22...	<0.02	0.006	0.032	14	14	--	81

02091736 MIDDLE SWAMP NEAR FARMVILLE, NC

LOCATION.--Lat 35°32'01", long 77°32'39", Pitt County, Hydrologic Unit 03020203, at bridge on Secondary Road 1139, 1.2 mi above mouth and 5 mi southeast of Farmville.

DRAINAGE AREA.-- 51.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 45 ft above NGVD of 1929, from topographic map. Satellite telemetry at station.

REMARKS.--Records fair. Station operated in cooperation with the U.S. Environmental Protection Agency and the North Carolina Department of Environment and Natural Resources to monitor water quality changes in an agricultural watershed. Maximum gage height for period of record probably occurred on Sept. 17, 1999, discharge not determined. Maximum gage height from floodmarks. No flow also occurred on June 10, 1999; and on several days in Sept. and Oct. 2002.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	13	9.5	47	23	159	44	23	140	0.29	94	4.5
2	0.00	9.5	8.8	51	21	145	37	31	138	35	58	3.5
3	0.00	7.0	7.9	46	18	132	31	25	107	329	45	2.8
4	0.00	5.0	7.3	47	16	113	26	20	78	195	38	6.6
5	0.00	3.9	73	45	14	103	22	17	56	70	52	250
6	0.00	7.3	152	41	13	191	18	202	43	32	280	309
7	0.00	11	130	33	57	290	22	312	34	19	257	154
8	0.00	12	90	28	100	199	97	193	36	11	496	76
9	0.00	8.7	63	27	81	164	324	115	36	7.4	545	38
10	0.00	7.9	45	25	96	142	891	123	32	5.3	467	22
11	7.6	7.7	44	22	138	122	1,110	98	25	15	658	15
12	100	60	50	19	118	104	622	53	20	226	739	12
13	196	214	73	17	88	89	327	28	16	286	473	11
14	141	217	159	16	64	81	181	17	15	210	428	9.4
15	70	144	157	15	51	71	127	11	13	338	288	6.9
16	31	103	124	14	62	76	95	9.2	10	414	260	4.8
17	15	125	96	16	234	262	67	7.9	7.5	201	387	4.2
18	8.6	187	75	16	226	181	47	7.8	9.7	115	374	176
19	5.3	170	59	15	168	140	43	143	12	80	367	849
20	3.4	119	72	15	144	202	38	279	9.9	59	288	698
21	3.2	82	107	15	123	867	36	195	7.8	43	186	373
22	2.6	60	92	14	112	667	45	126	5.5	31	129	189
23	2.2	48	77	14	140	330	42	238	3.7	30	97	136
24	2.2	46	69	12	129	206	32	504	2.4	70	64	135
25	2.9	27	86	12	112	144	25	380	1.6	173	39	122
26	3.4	20	90	12	88	113	25	545	1.1	146	25	102
27	2.9	18	79	12	86	86	26	666	0.74	87	18	80
28	2.9	15	65	11	153	61	32	414	0.59	47	13	72
29	5.0	14	53	11	---	48	28	266	0.36	31	10	61
30	10	10	43	14	---	44	25	173	0.34	33	7.4	44
31	16	---	37	21	---	46	---	128	---	89	5.2	---
TOTAL	631.20	1,772.0	2,293.5	703	2,675	5,578	4,485	5,349.9	862.23	3,427.99	7,187.6	3,966.7
MEAN	20.4	59.1	74.0	22.7	95.5	180	150	173	28.7	111	232	132
MAX	196	217	159	51	234	867	1,110	666	140	414	739	849
MIN	0.00	3.9	7.3	11	13	44	18	7.8	0.34	0.29	5.2	2.8
CFSM	0.40	1.16	1.45	0.44	1.87	3.53	2.93	3.38	0.56	2.17	4.55	2.59
IN.	0.46	1.29	1.67	0.51	1.95	4.07	3.27	3.90	0.63	2.50	5.24	2.89

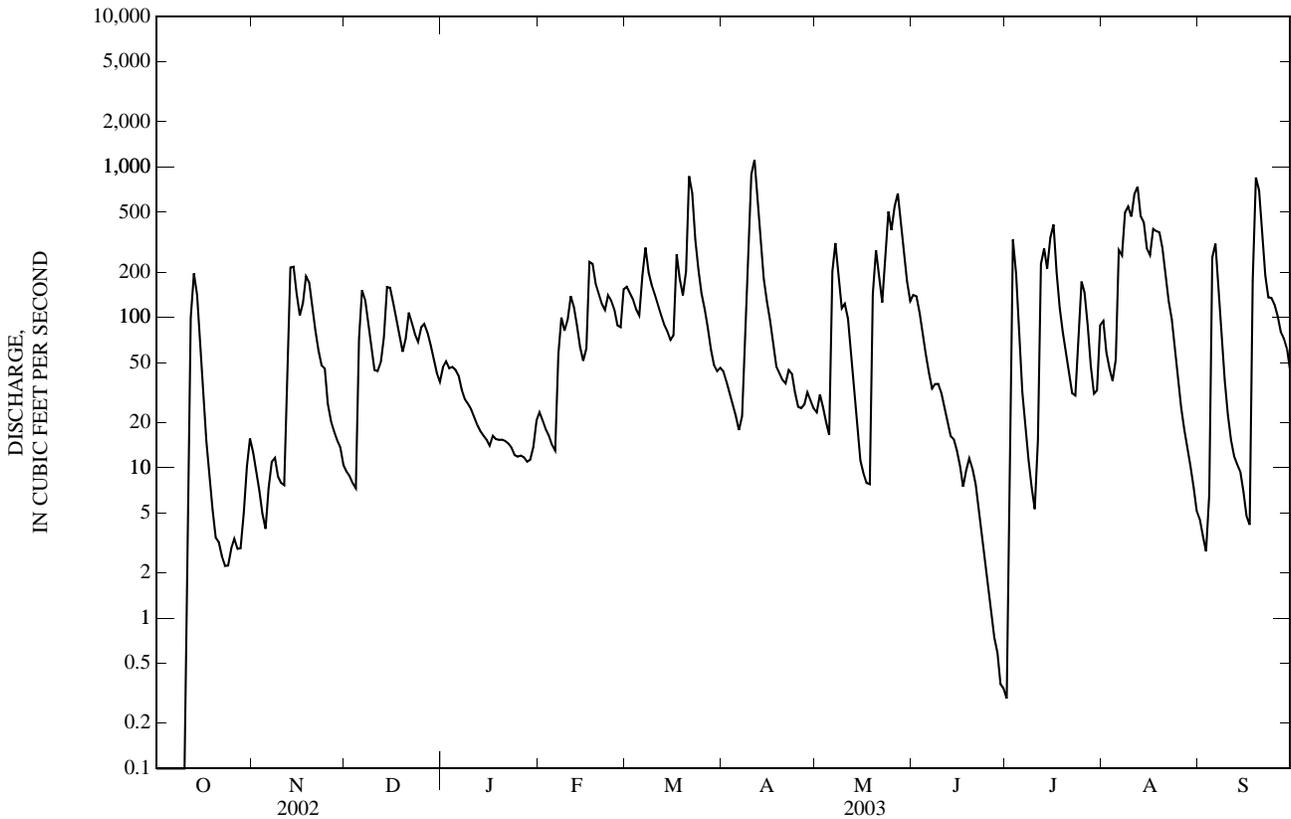
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	48.4	27.1	27.1	41.5	60.9	72.8	60.0	43.6	18.7	26.6	50.5	132
MAX	166	59.1	74.0	91.1	98.3	180	150	173	48.3	111	232	462
(WY)	(2000)	(2003)	(2003)	(2000)	(2000)	(2003)	(2003)	(2003)	(2001)	(2003)	(2003)	(1999)
MIN	0.52	0.35	0.52	9.29	22.1	21.4	20.1	2.09	0.50	1.77	0.16	0.006
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(2002)	(1999)	(2001)	(2002)	(2000)	(1999)	(2002)

02091736 MIDDLE SWAMP NEAR FARMVILLE, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	9,809.25		38,932.12		46.6	
ANNUAL MEAN	26.9		107		107	
HIGHEST ANNUAL MEAN					14.1	
LOWEST ANNUAL MEAN					3,000	
HIGHEST DAILY MEAN	283	Apr 1	1,110	Apr 11	19.03*	Sep 17, 1999
LOWEST DAILY MEAN	0.00	Sep 6	0.00	Oct 1	0.00*	Jun 9, 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 6	0.00	Oct 1	0.00	Sep 6, 2002
MAXIMUM PEAK FLOW			1,330	Apr 11	NOT DETERMINED*	
MAXIMUM PEAK STAGE			10.27	Apr 11		
INSTANTANEOUS LOW FLOW			0.00*	Oct 1		
ANNUAL RUNOFF (CFSM)	0.53		2.09		0.91	
ANNUAL RUNOFF (INCHES)	7.15		28.40		12.42	
10 PERCENT EXCEEDS	85		279		128	
50 PERCENT EXCEEDS	7.3		47		12	
90 PERCENT EXCEEDS	0.01		5.1		0.39	

*See REMARKS.



02091814 NEUSE RIVER NEAR FORT BARNWELL, NC

LOCATION.--Lat 35°18'44", long 77°18'19", Craven County, Hydrologic Unit 03020202, on left bank 0.2 mi upstream from bridge on Secondary Road 1470, 1.5 mi upstream from Core Creek and 2.0 mi east of Fort Barnwell.

DRAINAGE AREA.--3,900 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional measurements water years 1955-1995, October 1996 to current year.

REVISED RECORDS.--WDR NC-02-1A: 2001.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records good, except those for estimated daily discharges, which are fair. Maximum gage height for period of record, from floodmarks. Flow regulated by Falls Lake (station 02087182) and is affected by both astronomical and wind tides.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	795	1,830	3,070	7,500	1,820	8,800	11,900	8,430	13,200	1,820	2,920	2,340
2	725	2,270	2,590	7,470	2,010	9,290	10,200	8,600	12,800	e1,780	3,090	2,020
3	681	2,720	2,220	7,310	2,560	9,670	8,790	8,490	12,000	e2,680	3,260	1,800
4	633	3,040	1,970	7,160	3,060	9,950	8,190	8,330	11,000	e3,790	3,320	1,880
5	640	3,200	1,950	7,000	3,260	9,980	7,780	8,090	10,000	e5,700	3,520	2,270
6	599	3,340	2,070	7,020	3,290	10,300	7,600	8,030	9,250	e6,190	3,700	2,500
7	607	3,410	2,370	7,090	3,350	e10,900	7,680	7,980	8,630	e6,330	4,230	2,670
8	567	3,390	2,930	7,180	3,530	11,900	7,650	7,860	8,200	6,580	5,290	2,630
9	630	3,390	3,530	7,160	3,710	12,900	8,110	7,940	7,800	6,970	5,580	2,520
10	563	3,500	4,010	6,980	3,940	13,500	9,340	7,800	7,490	7,340	5,820	2,280
11	585	3,620	5,080	6,540	4,670	14,000	10,700	7,400	7,200	7,530	6,160	2,060
12	655	3,590	5,600	5,700	5,730	14,400	12,400	6,500	6,760	7,340	6,610	2,020
13	787	3,590	5,310	4,120	6,490	14,400	14,000	5,690	6,260	6,990	7,180	1,980
14	1,230	3,740	4,960	3,200	7,030	14,200	15,200	4,250	6,030	7,000	7,850	1,840
15	2,500	4,070	5,160	2,810	7,550	13,900	16,800	3,300	5,930	7,160	8,860	1,750
16	3,280	5,250	5,820	2,520	e7,920	13,200	17,900	2,930	5,930	7,390	10,600	1,630
17	3,650	6,270	6,280	2,350	8,650	12,000	17,900	2,560	5,890	7,590	12,200	1,510
18	3,820	6,940	6,550	2,230	e9,170	10,800	16,800	2,270	6,060	7,550	14,900	1,720
19	3,910	7,500	6,870	2,170	9,330	9,920	15,800	2,640	5,580	7,090	16,800	3,160
20	3,780	8,020	7,170	2,120	9,200	9,490	15,700	3,130	3,800	6,460	16,900	3,520
21	3,240	8,600	7,410	2,090	8,650	10,300	14,700	3,240	3,490	6,380	15,700	3,970
22	2,480	8,720	7,700	2,070	8,280	11,800	14,000	3,340	3,450	6,380	13,700	4,940
23	1,880	8,580	7,840	2,040	8,090	13,100	11,600	4,060	3,500	6,420	11,800	5,440
24	1,660	8,310	7,790	2,010	8,140	13,600	10,100	6,730	e3,610	6,310	10,200	5,670
25	2,070	8,020	7,880	1,960	8,040	13,900	9,070	8,000	3,660	6,260	8,850	5,440
26	2,550	7,610	7,710	1,910	7,950	14,500	8,410	8,770	3,740	6,170	8,020	4,270
27	2,800	7,130	7,500	1,840	8,040	15,100	8,170	10,000	3,580	5,860	7,080	3,710
28	e2,750	6,330	7,410	1,810	8,410	15,700	8,210	11,400	3,200	4,450	6,540	3,750
29	e2,350	5,510	7,360	1,800	---	15,600	8,210	12,600	2,650	3,360	6,170	4,310
30	1,970	3,830	7,470	1,780	---	e14,900	8,330	12,800	2,180	2,990	3,880	4,320
31	1,690	---	7,500	1,790	---	13,700	---	13,000	---	2,820	2,800	---
TOTAL	56,077	155,320	169,080	126,730	171,870	385,700	341,240	216,160	192,870	178,680	243,530	89,920
MEAN	1,809	5,177	5,454	4,088	6,138	12,440	11,370	6,973	6,429	5,764	7,856	2,997
MAX	3,910	8,720	7,880	7,500	9,330	15,700	17,900	13,000	13,200	7,590	16,900	5,670
MIN	563	1,830	1,950	1,780	1,820	8,800	7,600	2,270	2,180	1,780	2,800	1,510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002	2003
MEAN	5,801	2,940	3,258	5,242	7,697	6,986	6,346
MAX	23,040	6,630	6,969	8,707	19,110	15,340	11,760
(WY)	(2000)	(2000)	(1997)	(1998)	(1998)	(1998)	(1998)
MIN	938	732	952	1,501	1,988	2,715	2,739
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(2002)	(1999)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

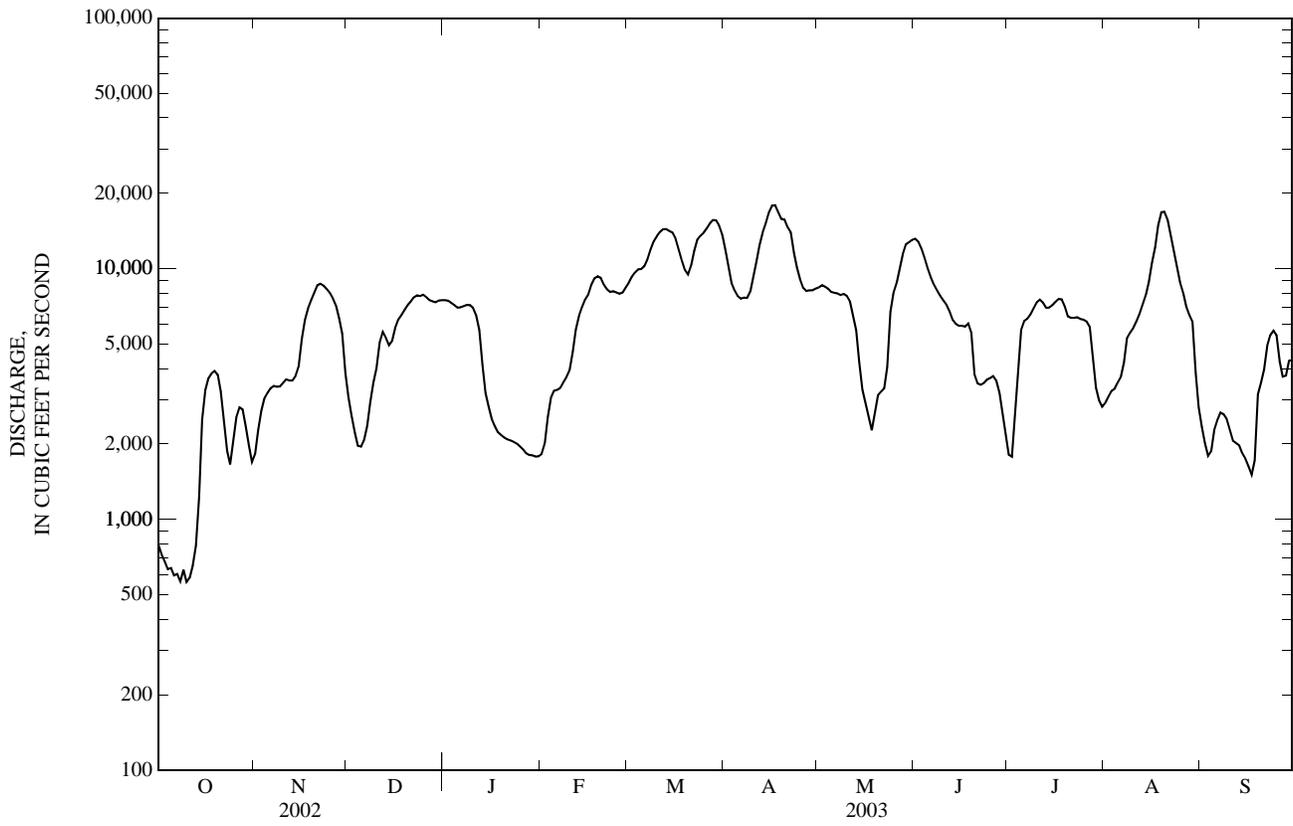
FOR 2003 WATER YEAR

WATER YEARS 1997 - 2003

ANNUAL TOTAL	944,707	2,327,177	
ANNUAL MEAN	2,588	6,376	4,525
HIGHEST ANNUAL MEAN			6,376
LOWEST ANNUAL MEAN			1,766
HIGHEST DAILY MEAN	9,300	Feb 1	17,900
LOWEST DAILY MEAN	340	Jun 27	563
ANNUAL SEVEN-DAY MINIMUM	413	Aug 12	599
MAXIMUM PEAK FLOW			18,600
MAXIMUM PEAK STAGE			12.27
INSTANTANEOUS LOW FLOW			382
10 PERCENT EXCEEDS	6,740		12,700
50 PERCENT EXCEEDS	1,940		6,260
90 PERCENT EXCEEDS	574		1,970

02091814 NEUSE RIVER NEAR FORT BARNWELL, NC—Continued

e Estimated.
* See REMARKS.



0209205053 SWIFT CREEK AT NC HIGHWAY 43 NEAR STREETS FERRY, NC

LOCATION.--Lat 35°13'57", long 77°06'51", Craven County, Hydrologic Unit 03020202, at downstream side of bridge on NC Highway 43, 0.5 mi upstream from mouth, 2 mi upstream from Little Fisher Creek, and 1.3 mi north-northeast of Streets Ferry.

DRAINAGE AREA.--269 mi².

PERIOD OF RECORD.--July 1996 to current year.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at NGVD of 1929. Prior to Oct. 1999 datum reported as 10 ft below NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records poor. This site is strongly affected by both astronomical and wind tides. The astronomical tides occur at primary harmonic periods of 12.42 hours and 24.8 hours. Mean daily discharge data for this site may be affected by aliasing due to tides and can contain fluctuations that are not representative of net downstream discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft³/s, Sept. 21, 1999, maximum gage height, 12.28 ft, Sept. 21, 1999, from flood mark; minimum discharge, -5,140 ft³/s, Aug. 30, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,310 ft³/s, Apr. 12, maximum gage height, 5.45 ft, Apr. 10; minimum discharge, -2,240 ft³/s, Sept. 18.

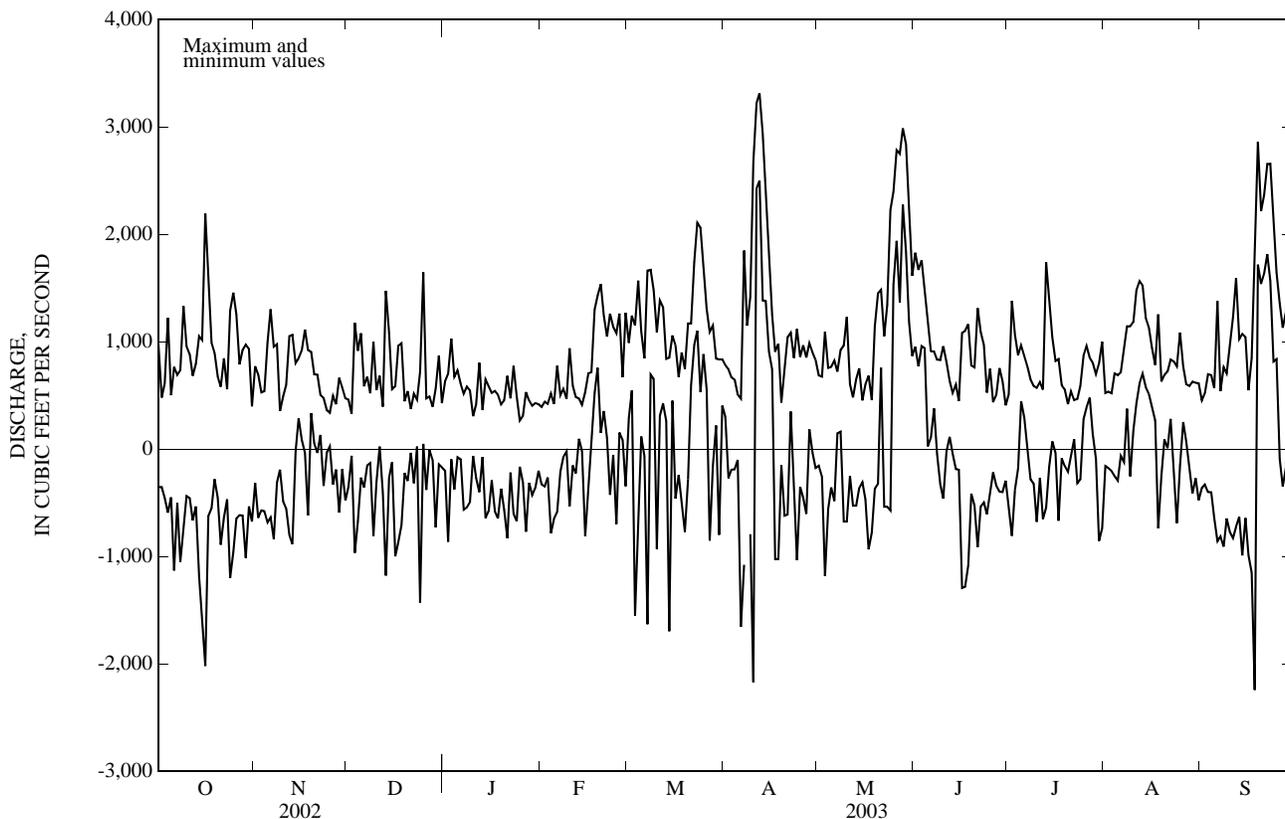
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	969	-354	772	-316	460	-349	631	-201	393	-328	989	291
2	479	-352	698	-639	329	-62	701	-862	442	-348	1,240	547
3	612	-454	528	-570	1,180	-965	1,030	-95	421	-264	1,150	-1,550
4	1,220	-590	540	-578	915	-675	673	-374	517	-781	1,570	-529
5	502	-448	998	-681	1,080	-265	731	-76	421	-648	1,090	117
6	766	-1,130	1,300	-635	584	-356	608	-94	776	-584	844	-65
7	692	-502	953	-837	672	-153	516	-563	501	-210	1,660	-1,630
8	736	-1,050	976	-310	520	-130	581	-542	562	-72	1,670	695
9	1,330	-743	356	-191	1,000	-807	546	-493	468	-20	1,480	653
10	959	-437	491	-485	550	-304	306	-63	940	-531	1,090	-930
11	885	-456	598	-552	682	24	417	-269	589	-151	1,390	311
12	682	-664	1,050	-798	395	-405	804	-400	484	-226	1,320	424
13	797	-533	1,060	-886	1,470	-1,180	365	-72	470	96	840	261
14	1,050	-1,190	801	-22	1,090	-268	650	-642	414	-20	851	-1,700
15	1,020	-1,560	846	285	558	-123	586	-575	532	-809	1,060	451
16	2,190	-2,020	920	86	587	-998	525	-290	705	-300	969	-460
17	1,510	-623	1,110	-35	961	-867	542	-579	715	142	671	-241
18	992	-552	923	-617	984	-709	507	-644	1,300	519	899	-480
19	897	-280	905	334	445	-222	416	-369	1,430	756	747	-770
20	675	-453	698	55	539	-297	454	-564	1,540	151	1,170	-279
21	580	-890	694	-35	373	-34	681	-829	1,240	353	1,170	595
22	845	-636	505	131	516	-316	472	-217	1,050	102	1,740	970
23	557	-468	475	-342	461	23	775	-600	1,260	-425	2,110	1,100
24	1,290	-1,200	362	-34	721	-1,430	489	-671	1,140	-54	2,060	532
25	1,460	-958	338	24	1,640	49	267	-164	1,080	-698	1,680	885
26	1,250	-646	496	-329	473	-379	311	-310	1,260	154	1,300	555
27	789	-615	418	-189	490	-6.1	531	-768	669	87	1,090	-851
28	923	-617	664	-591	394	-102	451	-314	1,270	-345	1,150	-154
29	973	-1,010	574	-187	565	-729	404	-428	---	---	843	220
30	933	-534	472	-478	872	-141	429	-360	---	---	836	-799
31	399	-674	---	---	428	-169	418	-202	---	---	835	405
MONTH	2,190	-2,020	1,300	-886	1,640	-1,430	1,030	-862	1,540	-809	2,110	-1,700

0209205053 SWIFT CREEK AT NC HIGHWAY 43 NEAR STREETS FERRY, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER						
1	782	302	686	-154	1,830	952	509	-555	524	-157	453	-362
2	743	-271	674	-254	1,670	770	1,380	-807	534	-176	520	-330
3	668	-190	1,090	-1,180	1,760	960	1,060	-381	519	-205	698	-399
4	646	-188	756	-558	1,500	940	872	-179	703	-251	689	-401
5	508	-100	764	-356	1,210	25	967	446	689	-293	568	-644
6	470	-1,650	824	-482	912	103	869	290	716	-61	1,380	-857
7	1,850	-1,080	722	147	910	380	767	-6.0	921	-119	539	-811
8	1,150	---	923	163	834	-45	649	-282	1,140	376	763	-908
9	1,420	-791	964	-673	830	-325	588	-323	1,140	-253	705	-645
10	2,670	-2,170	1,230	-673	958	-461	570	-677	1,180	175	950	-772
11	3,220	2,420	604	-248	811	-22	625	-267	1,480	425	1,230	-828
12	3,310	2,500	482	-525	635	114	553	-650	1,560	612	1,590	-723
13	2,940	1,380	652	-525	523	-43	1,740	-543	1,520	701	1,020	-631
14	2,420	1,380	752	-363	600	-186	1,390	-166	1,220	578	1,070	-988
15	1,880	908	453	-308	448	-192	1,040	71	1,130	515	1,040	-641
16	1,250	742	601	-468	1,080	-1,290	820	-35	940	389	549	-990
17	906	-1,020	682	-933	1,100	-1,280	838	-666	783	267	850	-1,150
18	980	-1,020	456	-777	1,160	-1,080	593	-85	1,250	-737	2,110	-2,240
19	433	-149	1,140	-368	779	-415	555	-157	629	-245	2,860	1,720
20	755	-621	1,450	-321	761	-524	420	-211	691	91	2,220	1,540
21	1,040	-610	1,480	757	1,310	-912	539	-63	724	9.7	2,360	1,630
22	1,080	350	1,050	-536	1,090	-536	456	92	834	282	2,650	1,810
23	849	-455	1,340	-536	970	-497	467	-319	817	-237	2,660	1,570
24	1,120	-1,030	2,230	-572	527	-605	590	-282	770	-688	2,090	815
25	860	-352	2,390	1,530	749	-396	869	281	1,090	-149	1,650	838
26	967	-452	2,780	1,940	437	-217	959	388	768	252	1,360	-89
27	853	-603	2,750	1,370	505	-339	850	478	604	69	1,130	-348
28	987	183	2,990	2,280	753	-395	803	138	588	-180	1,280	-171
29	900	-36	2,840	1,830	634	-400	696	-91	629	-413	1,610	346
30	831	-175	2,240	1,190	408	-294	793	-855	617	-270	1,500	802
31	---	---	1,610	867	---	---	1,000	-736	614	-475	---	---
MONTH	3,310	-2,170	2,990	-1,180	1,830	-1,290	1,740	-855	1,560	-737	2,860	-2,240



02092162 NEUSE RIVER AT NEW BERN, NC

LOCATION.--Lat 35°06'34", long 77°01'58", Craven County, Hydrologic Unit 03020204, at U.S. Coast Guard Channel Marker 38.

DRAINAGE AREA.--4,470 mi².

PERIOD OF RECORD.-- Water years 1957-67, 1996 to current year.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): June 1996 to current year.

pH (TOP AND BOTTOM): June 1996 to current year.

WATER TEMPERATURE (TOP AND BOTTOM): June 1996 to current year.

DISSOLVED OXYGEN (TOP AND BOTTOM): June 1996 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION, (TOP AND BOTTOM): June 1996 to current year.

INSTRUMENTATION.-- Water-quality monitor with satellite telemetry from June 1996 to current year.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. The monitor was relocated from the U.S. Highway 17 bridge at New Bern to channel marker 38 on August 5, 1999. Channel marker 38 is approximately 500 yards upstream of the bridge. The monitor was removed on September 16, 2003, to prevent possible destruction of equipment during Hurricane Isabel. It was reinstalled September 19, 2003. Top constituents were monitored at 8 feet above the streambed, and bottom constituents, 2 feet above the streambed. Salinity and dissolved oxygen, percent saturation are computed. The dissolved oxygen percent saturation is computed using a barometric pressure of 760mm of Hg beginning October 1, 2000. Salinity, minimum extremes are reported as <0.1 ppt. Dissolved oxygen, minimum extremes are reported as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported only as <10%. Daily records of salinity and water temperature for October 1956 to September 1967 are available in the files of the District Office in Raleigh, NC.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	21.8, August 1, 2002	<0.1, on many days during the period
SALINITY (BOTOM), ppt	22.1, August 1, 2002	<0.1, on many days during the period
pH (TOP), standard units	9.9, June 6, 7, 1999	5.7, September 29, 30, 1999, October 9, 14, 15, 1999
pH (BOTTOM), standard units	9.7, July 10, 11, 1997	4.9, October 13, 15-17, 1999
WATER TEMPERATURE (TOP), ° C	33.4, August 1, 1999	1.0, January 29, 2000
WATER TEMPERATURE (BOTTOM), ° C	31.2, August 10, 2001	1.1, January 29, 2000
DISSOLVED OXYGEN (TOP), mg/L	17.4, December 19, 1997	<1.0, on many days during the period
DISSOLVED OXYGEN (BOTTOM), mg/L	16.1, January 8, 1998	<1.0, on many days during the period

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	17.2, October 23	<0.1, on many days during the year
SALINITY (BOTTOM), ppt	17.1, October 23, 24	<0.1, on many days during the year
pH (TOP), standard units	7.8, November 4	6.1, June 3, 8
pH (BOTTOM), standard units	7.9, September 9, 10	6.2, August 20, 23
WATER TEMPERATURE (TOP), °C	30.6, July 17	1.8, January 24
WATER TEMPERATURE (BOTTOM), °C	29.7, September 3	1.7, January 24
DISSOLVED OXYGEN (TOP), mg/L	12.4, January 29	<1.0, on several days during the year
DISSOLVED OXYGEN (BOTTOM), mg/L	12.2, January 28	<1.0, on many days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	101, June 26, 27	<10, on several days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	100, February 12	<10, on many days during the year

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.5	8.0	10.0	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	8.7	3.6	6.0	---	---	---
5	11.1	7.6	9.0	---	---	---	---	---	---	---	---	---
6	13.0	5.6	10.0	---	---	---	---	---	---	---	---	---
7	13.3	8.6	11.1	6.5	3.0	4.2	---	---	---	7.1	2.3	5.0
8	13.8	8.6	11.9	---	---	---	9.4	3.0	6.1	4.5	1.2	2.3
9	14.1	10.6	12.2	5.6	1.1	2.5	8.6	2.7	6.2	2.0	0.36	0.86
10	13.4	9.4	11.8	1.4	0.65	0.85	---	---	---	2.6	0.32	0.65
11	11.7	8.8	11.1	0.82	0.55	0.71	8.8	4.5	6.4	13.6	0.40	3.6
12	11.3	9.0	10	---	---	---	---	---	---	13.9	1.2	5.2
13	12.7	10.3	11.9	2.6	0.74	1.7	---	---	---	8.1	1.6	3.6
14	12.4	8.1	10.8	4.1	0.87	1.9	---	---	---	14.4	1.5	5.6
15	13.8	10.0	11.9	5.9	0.77	2.9	---	---	---	5.1	1.7	3.2
16	13.9	6.2	11.0	---	---	---	---	---	---	9.2	1.9	3.9
17	11.5	4.3	9.4	---	---	---	---	---	---	4.5	1.8	3.0
18	14.1	4.5	10.8	---	---	---	---	---	---	4.7	1.9	3.4
19	12.2	4.2	9.5	---	---	---	---	---	---	5.8	2.8	3.9
20	13.1	3.9	9.1	---	---	---	---	---	---	5.6	1.8	3.2
21	16.0	8.8	13.4	---	---	---	---	---	---	7.1	1.9	3.4
22	16.7	14.7	15.8	---	---	---	0.39	0.06	0.22	9.5	1.8	6.1
23	17.2	14.8	16.6	---	---	---	0.39	0.10	0.21	8.0	1.7	5.3
24	---	---	---	---	---	---	9.2	0.23	1.5	6.4	4.0	5.7
25	---	---	---	---	---	---	---	---	---	5.9	3.5	5.1
26	---	---	---	---	---	---	---	---	---	6.2	1.4	4.5
27	---	---	---	---	---	---	---	---	---	6.5	2.2	4.6
28	---	---	---	---	---	---	---	---	---	5.5	3.3	4.8
29	---	---	---	---	---	---	---	---	---	4.5	1.4	2.8
30	---	---	---	---	---	---	---	---	---	5.4	0.68	2.5
31	---	---	---	---	---	---	---	---	---	9.7	2.1	6.2
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	9.8	4.7	7.4	0.06	0.05	0.05	0.04	0.03	0.04	0.05	0.04	0.05
2	11.3	4.2	7.0	0.06	0.05	0.05	0.05	0.04	0.04	0.05	0.04	0.04
3	10.8	3.7	6.0	2.2	0.05	0.30	0.05	0.04	0.04	0.05	0.04	0.05
4	5.2	2.5	3.3	0.28	0.04	0.07	0.06	0.04	0.05	0.06	0.04	0.04
5	4.7	1.7	3.0	0.06	0.04	0.05	0.06	0.04	0.05	0.05	0.04	0.04
6	8.3	0.62	2.4	0.06	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.04
7	3.9	1.5	2.8	0.46	0.04	0.08	0.05	0.04	0.05	0.06	0.04	0.05
8	8.7	1.1	2.4	0.06	0.04	0.05	0.06	0.05	0.05	0.05	0.04	0.04
9	5.8	1.5	3.0	0.05	0.04	0.04	0.05	0.04	0.05	0.05	0.04	0.05
10	12.3	0.61	5.8	0.05	0.03	0.04	0.06	0.04	0.05	0.05	0.05	0.05
11	6.0	1.9	3.7	0.04	0.03	0.04	0.06	0.04	0.05	0.06	0.05	0.05
12	4.8	0.93	2.1	0.04	0.03	0.04	0.06	0.04	0.05	0.06	0.05	0.05
13	4.1	1.1	2.2	0.04	0.03	0.03	0.06	0.04	0.04	1.1	0.06	0.47
14	1.2	0.33	0.56	0.21	0.03	0.04	0.04	0.04	0.04	1.4	0.22	0.38
15	0.58	0.23	0.40	0.03	0.03	0.03	0.04	0.04	0.04	0.42	0.08	0.17
16	2.6	0.23	0.73	0.04	0.03	0.03	0.04	0.04	0.04	0.23	0.06	0.08
17	1.9	0.60	1.2	0.04	0.03	0.03	0.04	0.03	0.04	0.43	0.10	0.23
18	1.1	0.31	0.70	0.04	0.03	0.03	0.04	0.03	0.03	0.96	0.18	0.30
19	0.45	0.20	0.32	0.04	0.03	0.03	0.03	0.03	0.03	0.57	0.23	0.36
20	0.39	0.08	0.15	0.04	0.03	0.03	0.03	0.03	0.03	0.43	0.10	0.24
21	0.44	0.07	0.11	0.05	0.04	0.04	0.04	0.03	0.03	0.26	0.07	0.10
22	0.12	0.05	0.07	0.06	0.04	0.05	0.04	0.04	0.04	0.09	0.07	0.08
23	0.44	0.05	0.09	0.05	0.04	0.04	0.05	0.04	0.04	0.11	0.06	0.08
24	0.43	0.05	0.12	0.04	0.04	0.04	0.05	0.04	0.04	0.10	0.06	0.07
25	0.08	0.06	0.07	0.04	0.04	0.04	0.05	0.04	0.04	0.07	0.04	0.06
26	0.06	0.05	0.06	0.04	0.04	0.04	0.05	0.04	0.04	0.06	0.04	0.05
27	0.06	0.05	0.06	0.04	0.03	0.04	0.05	0.04	0.05	0.05	0.04	0.05
28	0.25	0.05	0.09	0.04	0.03	0.04	0.05	0.04	0.04	0.06	0.04	0.04
29	---	---	---	---	---	---	0.06	0.04	0.05	0.05	0.03	0.04
30	---	---	---	0.05	0.03	0.03	0.05	0.04	0.05	0.05	0.04	0.04
31	---	---	---	0.04	0.03	0.03	---	---	---	0.04	0.04	0.04
MONTH	12.3	0.05	2.0	---	---	---	0.06	0.03	0.04	1.4	0.03	0.11

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	0.05	0.04	0.04	0.08	0.06	0.07	0.05	0.05	0.05	0.06	0.05	0.05
2	0.04	0.03	0.04	0.52	0.08	0.23	0.06	0.05	0.05	0.08	0.05	0.06
3	0.04	0.03	0.04	0.10	0.06	0.07	0.06	0.05	0.05	0.07	0.05	0.06
4	0.04	0.03	0.04	0.14	0.07	0.08	0.05	0.05	0.05	0.07	0.06	0.06
5	0.04	0.04	0.04	0.07	0.07	0.07	0.05	0.05	0.05	0.28	0.07	0.16
6	0.04	0.03	0.04	0.07	0.05	0.07	0.05	0.05	0.05	3.8	0.21	0.57
7	0.04	0.03	0.04	0.06	0.05	0.05	0.05	0.04	0.05	11.8	0.59	7.3
8	0.04	0.04	0.04	0.05	0.04	0.05	0.05	0.04	0.04	12.4	2.5	7.1
9	0.05	0.04	0.04	0.05	0.04	0.04	0.04	0.03	0.04	7.5	3.8	4.5
10	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04	7.0	4.1	5.8
11	0.05	0.04	0.04	0.05	0.04	0.04	0.04	0.03	0.04	6.5	5.4	6.0
12	0.05	0.04	0.04	0.04	0.04	0.04	0.06	0.04	0.05	6.1	4.1	5.4
13	0.05	0.04	0.05	0.04	0.04	0.04	0.05	0.04	0.05	5.0	3.1	4.0
14	0.06	0.04	0.05	0.06	0.04	0.05	0.05	0.04	0.04	5.5	1.6	3.6
15	0.05	0.04	0.05	0.06	0.04	0.05	0.04	0.04	0.04	6.3	1.6	4.1
16	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.04	---	---	---
17	0.05	0.04	0.05	0.04	0.04	0.04	0.04	0.03	0.03	---	---	---
18	0.05	0.04	0.05	0.05	0.04	0.04	0.05	0.03	0.03	---	---	---
19	0.06	0.04	0.05	0.05	0.04	0.04	0.04	0.03	0.03	---	---	---
20	0.06	0.05	0.06	0.05	0.04	0.04	0.03	0.03	0.03	1.5	0.24	0.61
21	0.07	0.05	0.06	0.05	0.04	0.04	0.04	0.03	0.03	0.30	0.18	0.23
22	0.06	0.06	0.06	0.05	0.04	0.04	0.04	0.03	0.03	0.28	0.10	0.17
23	0.09	0.06	0.06	0.05	0.04	0.04	0.04	0.03	0.03	0.14	0.08	0.11
24	0.28	0.06	0.09	0.05	0.04	0.04	0.04	0.03	0.03	0.14	0.07	0.10
25	0.56	0.07	0.20	0.05	0.04	0.04	0.04	0.03	0.03	0.14	0.05	0.08
26	0.53	0.14	0.22	0.05	0.04	0.05	0.04	0.04	0.04	0.12	0.05	0.08
27	0.34	0.10	0.18	0.05	0.04	0.05	0.04	0.04	0.04	0.12	0.06	0.09
28	0.21	0.06	0.12	0.05	0.04	0.04	0.04	0.04	0.04	0.15	0.07	0.09
29	0.10	0.06	0.07	0.05	0.04	0.05	0.04	0.04	0.04	1.3	0.10	0.36
30	0.06	0.05	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.33	0.11	0.22
31	---	---	---	0.05	0.05	0.05	0.05	0.05	0.05	---	---	---
MONTH	0.56	0.03	0.07	0.52	0.04	0.05	0.06	0.03	0.04	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.2	11.8	12.0	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	13.3	10.4	11.9	---	---	---
5	13.2	11.6	12.5	---	---	---	---	---	---	---	---	---
6	13.9	12.8	13.3	---	---	---	---	---	---	---	---	---
7	14.3	13.1	13.6	11.3	9.2	10.5	9.1	8.3	8.8	14.3	5.9	9.0
8	15.2	14.3	14.8	---	---	---	9.9	8.8	9.3	12.3	2.5	7.5
9	15.0	13.3	14.3	11.8	10.4	11.1	12.0	9.8	11.0	11.1	4.9	8.7
10	14.9	13.2	14.1	11.7	1.0	7.5	---	---	---	13.0	8.3	11.2
11	13.9	11.5	12.5	6.2	0.67	2.4	12.4	12.0	12.2	14.1	13.0	13.8
12	12.2	10.5	11.4	---	---	---	---	---	---	14.2	13.9	14.0
13	13.3	12.2	12.8	7.6	3.5	5.6	---	---	---	13.9	13.8	13.9
14	13.5	11.8	12.7	9.3	4.1	7.4	---	---	---	14.3	13.6	13.9
15	13.7	11.7	12.6	15.1	9.3	13.1	---	---	---	13.9	11.7	13.0
16	14.0	8.6	11.8	---	---	---	---	---	---	---	---	---
17	12.0	9.5	11.2	---	---	---	---	---	---	12.0	9.0	10.5
18	14.6	11.1	13.5	---	---	---	---	---	---	11.1	9.5	10.4
19	14.5	13.7	14.2	---	---	---	---	---	---	10.4	8.6	9.8
20	14.5	13.5	14.3	---	---	---	---	---	---	9.8	5.4	8.6
21	16.3	14.5	15.0	---	---	---	---	---	---	10.4	7.6	9.0
22	16.9	15.7	16.4	---	---	---	7.2	0.27	5.0	11.5	9.5	10.8
23	17.1	16.8	16.9	---	---	---	8.7	6.4	7.7	11.7	5.5	9.3
24	---	---	---	---	---	---	10.7	2.4	9.0	6.6	5.6	6.2
25	---	---	---	---	---	---	---	---	---	7.2	6.2	6.6
26	---	---	---	---	---	---	---	---	---	8.5	6.7	7.8
27	---	---	---	---	---	---	---	---	---	9.6	5.2	7.3
28	---	---	---	---	---	---	---	---	---	7.5	5.3	6.8
29	---	---	---	---	---	---	---	---	---	7.6	5.3	6.3
30	---	---	---	---	---	---	---	---	---	8.7	6.8	8.0
31	---	---	---	---	---	---	---	---	---	10.2	8.7	9.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	11.2	10.0	10.5	0.06	0.05	0.06	0.04	0.03	0.04	0.05	0.04	0.04
2	11.7	10.9	11.2	0.06	0.05	0.05	---	---	---	0.05	0.04	0.04
3	11.7	8.3	10.9	2.7	0.05	0.50	---	---	---	0.05	0.04	0.04
4	10	2.7	5.6	0.72	0.05	0.11	---	---	---	0.06	0.04	0.04
5	9.5	5.1	7.0	0.07	0.05	0.05	---	---	---	0.05	0.04	0.04
6	10.7	8.5	9.4	0.07	0.04	0.05	---	---	---	0.05	0.04	0.04
7	12.6	7.8	10.4	0.72	0.04	0.12	---	---	---	0.05	0.04	0.05
8	13.0	11.4	12.3	0.06	0.04	0.05	---	---	---	0.05	0.04	0.04
9	12.8	11.7	12.3	0.05	0.04	0.05	---	---	---	0.05	0.04	0.04
10	13.0	7.1	11.8	0.05	0.04	0.04	---	---	---	0.05	0.04	0.05
11	11.3	5.9	9.9	0.04	0.04	0.04	---	---	---	0.05	0.04	0.05
12	10.1	5.3	7.9	0.05	0.04	0.04	---	---	---	0.63	0.05	0.07
13	10.4	6.8	8.0	0.05	0.04	0.04	---	---	---	4.0	0.17	2.2
14	9.2	7.5	8.2	0.37	0.03	0.05	---	---	---	3.9	0.59	2.6
15	9.4	4.5	7.4	0.04	0.03	0.04	---	---	---	1.9	0.08	0.50
16	9.7	6.1	9.0	0.04	0.03	0.04	---	---	---	1.8	0.07	0.51
17	9.3	4.4	7.3	0.04	0.04	0.04	0.04	0.03	0.03	3.3	0.16	1.4
18	8.9	6.4	7.9	0.04	0.03	0.04	0.04	0.03	0.03	3.6	1.4	2.5
19	8.6	3.8	7.6	0.04	0.04	0.04	0.03	0.03	0.03	3.2	0.26	0.68
20	8.8	2.5	6.1	0.05	0.04	0.04	0.03	0.03	0.03	1.3	0.14	0.51
21	8.8	0.36	5.3	0.05	0.04	0.05	0.04	0.03	0.03	1.1	0.08	0.51
22	2.0	0.05	0.39	0.06	0.05	0.05	0.04	0.04	0.04	0.10	0.07	0.08
23	0.53	0.05	0.12	0.05	0.04	0.04	0.05	0.04	0.04	0.10	0.06	0.08
24	0.48	0.06	0.16	0.05	0.04	0.04	0.05	0.04	0.04	0.10	0.06	0.07
25	0.10	0.06	0.07	0.05	0.04	0.04	0.05	0.04	0.04	0.07	0.05	0.06
26	0.06	0.06	0.06	0.04	0.04	0.04	0.06	0.04	0.04	0.06	0.04	0.05
27	0.06	0.06	0.06	0.05	0.03	0.04	0.05	0.04	0.05	0.05	0.04	0.05
28	0.28	0.05	0.10	0.04	0.03	0.04	0.05	0.04	0.04	0.05	0.04	0.04
29	---	---	---	---	---	---	0.05	0.04	0.05	0.05	0.04	0.04
30	---	---	---	0.05	0.03	0.03	0.05	0.04	0.05	0.05	0.03	0.04
31	---	---	---	0.05	0.03	0.04	---	---	---	0.04	0.03	0.03
MONTH	13.0	0.05	6.7	---	---	---	---	---	---	4.0	0.03	0.40

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.05	0.03	0.04	1.7	0.06	0.62	0.06	0.05	0.05	9.4	0.05	1.7			
2	0.04	0.03	0.03	2.5	0.12	1.2	0.06	0.05	0.06	0.63	0.05	0.12			
3	0.04	0.03	0.03	0.12	0.06	0.07	0.06	0.05	0.06	0.14	0.06	0.08			
4	0.04	0.04	0.04	0.27	0.07	0.09	0.06	0.06	0.06	0.72	0.06	0.10			
5	0.05	0.04	0.04	0.07	0.07	0.07	0.06	0.05	0.06	10.6	0.12	5.3			
6	0.04	0.04	0.04	0.07	0.05	0.06	0.06	0.05	0.06	12.0	10.3	11.3			
7	0.04	0.04	0.04	0.06	0.05	0.05	0.06	0.05	0.06	13.0	12.0	12.7			
8	0.05	0.04	0.04	0.05	0.04	0.05	0.06	0.05	0.05	13.1	12.9	13.0			
9	0.05	0.04	0.04	0.05	0.04	0.04	0.06	0.05	0.05	13.1	12.1	12.8			
10	0.05	0.04	0.04	0.05	0.04	0.04	0.05	0.04	0.05	12.7	6.3	9.2			
11	0.05	0.04	0.04	0.05	0.04	0.04	0.06	0.05	0.05	11.8	6.1	7.2			
12	0.05	0.04	0.04	0.04	0.04	0.04	0.06	0.05	0.06	6.5	5.2	6.0			
13	0.05	0.04	0.05	0.04	0.04	0.04	0.05	0.04	0.05	5.9	5.1	5.6			
14	0.05	0.04	0.05	0.06	0.04	0.05	0.05	0.04	0.05	5.8	5.0	5.6			
15	0.05	0.04	0.05	0.06	0.04	0.05	0.04	0.04	0.04	7.0	5.3	6.2			
16	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	---	---	---			
17	0.05	0.04	0.05	0.05	0.04	0.04	0.05	0.03	0.04	---	---	---			
18	0.06	0.04	0.05	0.05	0.04	0.04	0.20	0.03	0.05	---	---	---			
19	0.06	0.05	0.05	0.05	0.04	0.04	0.07	0.03	0.03	---	---	---			
20	0.06	0.05	0.06	0.05	0.04	0.04	0.03	0.03	0.03	4.3	3.4	4.0			
21	0.07	0.06	0.06	0.04	0.04	0.04	0.04	0.03	0.03	5.2	3.9	4.3			
22	0.06	0.06	0.06	0.04	0.04	0.04	0.04	0.03	0.03	5.1	0.12	2.9			
23	0.38	0.05	0.09	0.05	0.04	0.04	0.04	0.03	0.03	0.30	0.07	0.13			
24	2.9	0.09	1.3	0.05	0.04	0.04	0.04	0.03	0.04	1.1	0.09	0.23			
25	3.0	1.3	2.6	0.05	0.04	0.04	0.04	0.03	0.04	4.2	0.12	1.8			
26	3.0	1.2	2.1	0.05	0.04	0.05	0.04	0.04	0.04	4.4	2.2	3.8			
27	3.6	0.36	1.9	0.05	0.04	0.05	0.04	0.04	0.04	4.5	0.11	3.5			
28	0.88	0.10	0.27	0.05	0.04	0.04	0.04	0.04	0.04	4.5	0.17	3.2			
29	0.40	0.06	0.11	0.05	0.04	0.05	0.04	0.04	0.04	4.6	1.2	3.1			
30	---	---	---	0.05	0.04	0.05	0.05	0.04	0.04	4.3	3.5	4.0			
31	---	---	---	0.06	0.05	0.05	0.12	0.04	0.05	---	---	---			
MONTH	---	---	---	2.5	0.04	0.10	0.20	0.03	0.05	---	---	---			

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.2	6.9	7.0	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	7.1	6.9	7.0	---	---	---
5	7.7	6.8	7.3	---	---	---	---	---	---	---	---	---
6	7.5	6.8	7.1	---	---	---	---	---	---	---	---	---
7	7.5	6.9	7.0	7.7	7.2	7.3	---	---	---	6.9	6.7	6.8
8	7.6	6.8	7.2	---	---	---	7.5	7.0	7.2	6.8	6.6	6.7
9	7.3	6.9	7.1	7.2	7.0	7.1	7.4	7.0	7.2	6.8	6.6	6.7
10	7.3	6.8	6.9	7.1	7.0	7.0	---	---	---	6.9	6.6	6.7
11	7.1	6.8	7.0	7.2	7.0	7.1	7.4	7.2	7.3	7.3	6.6	6.8
12	7.2	6.9	7.0	---	---	---	---	---	---	7.3	6.7	7.0
13	7.2	6.9	7.0	7.2	7.0	7.1	---	---	---	7.0	6.8	6.9
14	7.7	6.9	7.3	7.2	6.9	7.1	---	---	---	7.6	6.7	7.0
15	7.5	7.1	7.2	7.0	6.9	7.0	---	---	---	7.1	6.8	7.0
16	7.4	6.6	7.0	---	---	---	---	---	---	---	---	---
17	7.0	6.6	6.8	---	---	---	---	---	---	7.0	6.6	6.9
18	7.0	6.7	6.9	---	---	---	---	---	---	7.0	6.7	6.8
19	6.9	6.6	6.8	---	---	---	---	---	---	7.0	6.7	6.8
20	6.9	6.6	6.7	---	---	---	---	---	---	7.0	6.7	6.8
21	6.9	6.7	6.8	---	---	---	---	---	---	7.0	6.7	6.8
22	7.0	6.8	6.9	---	---	---	6.7	6.5	6.6	6.9	6.6	6.8
23	7.0	7.0	7.0	---	---	---	6.8	6.5	6.6	7.0	6.7	6.9
24	---	---	---	---	---	---	7.2	6.5	6.6	7.2	6.9	7.1
25	---	---	---	---	---	---	---	---	---	7.2	7.0	7.1
26	---	---	---	---	---	---	---	---	---	7.2	6.9	7.1
27	---	---	---	---	---	---	---	---	---	7.2	6.9	7.1
28	---	---	---	---	---	---	---	---	---	7.2	7.0	7.1
29	---	---	---	---	---	---	---	---	---	7.2	6.9	7.0
30	---	---	---	---	---	---	---	---	---	7.2	6.8	7.0
31	---	---	---	---	---	---	---	---	---	7.1	6.8	6.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.1	6.9	7.0	7.1	7.0	7.1	6.7	6.5	6.6	6.7	6.6	6.7
2	7.2	6.9	7.0	7.2	7.0	7.1	7.0	6.6	6.8	6.7	6.6	6.7
3	7.2	6.9	7.0	7.2	7.1	7.2	7.0	6.9	6.9	6.8	6.6	6.7
4	7.1	6.9	6.9	7.2	7.1	7.2	7.2	6.9	7.0	6.8	6.7	6.7
5	7.1	6.9	7.0	7.2	7.1	7.1	7.0	6.9	6.9	6.7	6.6	6.6
6	7.2	6.8	6.9	7.2	7.1	7.1	7.1	6.9	7.0	6.8	6.7	6.7
7	7.3	6.7	7.0	7.2	7.1	7.2	7.1	6.8	6.9	6.8	6.6	6.7
8	7.4	6.7	6.9	7.1	7.0	7.1	7.0	6.8	6.9	6.8	6.4	6.6
9	7.1	6.8	6.9	7.1	7.0	7.0	7.0	6.8	7.0	6.8	6.5	6.6
10	7.4	6.7	6.9	7.1	6.8	6.9	7.2	6.8	7.1	6.8	6.6	6.7
11	7.4	6.8	7.0	7.0	6.8	6.9	6.9	6.8	6.9	6.8	6.6	6.7
12	7.3	7.0	7.2	7.0	6.8	6.9	6.9	6.7	6.8	6.9	6.7	6.8
13	7.4	7.0	7.2	7.0	6.8	6.9	6.8	6.7	6.7	7.0	6.6	6.8
14	7.2	6.9	7.0	7.2	6.7	7.0	6.7	6.6	6.6	6.9	6.6	6.7
15	7.1	7.0	7.0	7.0	6.8	6.9	6.6	6.5	6.5	6.7	6.6	6.6
16	7.1	6.8	7.0	7.0	6.9	6.9	6.6	6.3	6.4	6.7	6.6	6.7
17	7.2	6.9	7.1	6.9	6.8	6.9	6.4	6.3	6.4	6.9	6.6	6.8
18	7.2	7.0	7.1	7.0	6.8	6.9	6.4	6.3	6.3	7.0	6.8	6.9
19	7.1	7.0	7.1	7.0	6.9	7.0	6.3	6.3	6.3	7.0	6.8	6.9
20	7.1	6.9	7.0	7.1	6.8	7.0	6.4	6.3	6.3	7.0	6.8	6.9
21	7.1	6.9	7.0	7.1	6.9	7.0	6.4	6.3	6.3	6.8	6.6	6.7
22	7.1	7.0	7.0	7.1	7.0	7.0	6.5	6.4	6.4	6.8	6.7	6.8
23	7.4	7.1	7.2	7.0	6.9	6.9	6.6	6.5	6.5	7.0	6.8	6.9
24	7.3	7.1	7.2	6.9	6.8	6.9	6.6	6.4	6.5	7.1	6.7	6.8
25	7.2	7.0	7.1	6.9	6.7	6.8	6.6	6.5	6.6	6.7	6.5	6.6
26	7.2	7.1	7.1	6.8	6.7	6.8	6.7	6.5	6.6	6.6	6.5	6.5
27	7.2	7.0	7.1	6.9	6.7	6.8	6.6	6.5	6.6	6.6	6.4	6.5
28	7.4	7.0	7.2	6.8	6.6	6.7	6.6	6.5	6.6	6.6	6.4	6.4
29	---	---	---	---	---	---	6.7	6.6	6.6	6.5	6.4	6.4
30	---	---	---	6.8	6.5	6.6	6.7	6.6	6.6	6.5	6.3	6.4
31	---	---	---	6.7	6.6	6.7	---	---	---	6.5	6.3	6.4
MONTH	7.4	6.7	7.0	---	---	---	7.2	6.3	6.7	7.1	6.3	6.7

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.6	6.3	6.4	7.3	7.0	7.1	6.8	6.6	6.6	7.0	6.8	6.9
2	6.4	6.2	6.3	7.2	7.0	7.1	6.8	6.8	6.8	7.1	6.9	7.0
3	6.4	6.1	6.3	7.2	7.0	7.1	6.9	6.8	6.8	7.2	6.9	7.1
4	6.4	6.2	6.3	7.2	7.0	7.1	7.0	6.8	6.9	7.2	7.0	7.1
5	6.3	6.2	6.3	7.1	6.9	7.0	7.1	6.9	7.0	7.3	7.0	7.1
6	6.3	6.2	6.2	7.1	6.8	6.9	7.1	6.9	7.0	7.3	6.9	7.2
7	6.4	6.2	6.3	7.0	6.7	6.7	7.1	6.9	7.0	7.6	6.9	7.4
8	6.4	6.1	6.2	6.8	6.4	6.6	7.1	7.0	7.0	7.6	7.0	7.3
9	6.3	6.2	6.2	6.6	6.4	6.5	7.1	6.9	7.0	7.0	6.8	6.9
10	6.5	6.3	6.4	6.6	6.4	6.5	7.1	6.9	7.0	7.1	7.0	7.0
11	6.6	6.3	6.4	6.7	6.5	6.5	7.1	7.0	7.0	7.1	6.8	7.0
12	6.8	6.5	6.6	6.6	6.5	6.6	7.1	6.7	6.9	7.0	6.8	7.0
13	6.8	6.6	6.7	6.6	6.5	6.5	6.8	6.6	6.7	6.9	6.7	6.8
14	6.9	6.6	6.7	6.8	6.6	6.7	6.7	6.5	6.6	6.9	6.7	6.7
15	6.9	6.7	6.8	6.8	6.5	6.6	6.6	6.5	6.6	6.9	6.6	6.7
16	7.0	6.8	6.9	6.6	6.4	6.5	6.6	6.5	6.5	---	---	---
17	7.0	6.9	6.9	6.5	6.4	6.5	6.7	6.5	6.5	---	---	---
18	7.0	6.7	6.9	6.7	6.5	6.6	6.6	6.4	6.5	---	---	---
19	6.9	6.8	6.8	6.7	6.6	6.6	6.5	6.4	6.4	---	---	---
20	7.0	6.8	6.9	6.6	6.5	6.6	6.6	6.3	6.5	6.8	6.6	6.7
21	7.1	6.9	7.0	6.7	6.5	6.6	6.8	6.6	6.6	6.6	6.5	6.6
22	7.2	7.0	7.1	6.8	6.6	6.6	6.8	6.7	6.7	6.7	6.5	6.6
23	7.1	6.7	6.9	6.8	6.6	6.7	6.8	6.7	6.7	6.7	6.5	6.6
24	6.9	6.6	6.8	6.8	6.6	6.7	6.8	6.6	6.7	6.6	6.4	6.5
25	6.9	6.6	6.7	6.7	6.6	6.6	6.7	6.6	6.7	6.5	6.4	6.5
26	7.2	6.6	6.8	6.7	6.5	6.6	6.8	6.7	6.7	6.5	6.4	6.5
27	7.3	6.9	7.0	6.7	6.6	6.6	6.8	6.7	6.7	6.6	6.5	6.5
28	7.1	6.8	7.0	6.8	6.6	6.6	6.8	6.7	6.8	6.6	6.5	6.6
29	7.3	6.9	7.0	6.6	6.5	6.6	6.8	6.6	6.7	6.8	6.6	6.7
30	7.3	6.9	7.0	6.7	6.5	6.6	6.9	6.7	6.7	6.8	6.6	6.7
31	---	---	---	6.7	6.6	6.6	6.9	6.8	6.9	---	---	---
MONTH	7.3	6.1	6.7	7.3	6.4	6.7	7.1	6.3	6.7	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.0	6.8	6.9	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	7.0	6.9	7.0	---	---	---	---	---	---	---	---	---
6	7.0	6.8	6.9	---	---	---	---	---	---	---	---	---
7	6.8	6.6	6.7	7.2	6.9	7.1	---	---	---	7.3	7.1	7.2
8	7.1	6.7	6.9	---	---	---	---	---	---	7.3	7.0	7.1
9	7.2	6.9	7.0	6.9	6.7	6.8	---	---	---	7.2	7.0	7.1
10	7.0	6.9	7.0	7.0	6.7	6.8	---	---	---	7.4	7.1	7.2
11	7.2	6.8	7.0	7.2	6.8	6.9	---	---	---	7.6	7.3	7.5
12	7.2	7.0	7.1	---	---	---	---	---	---	7.6	7.5	7.5
13	7.1	7.0	7.0	7.2	6.8	7.0	---	---	---	7.5	7.3	7.4
14	7.6	6.9	7.2	7.2	6.8	6.9	---	---	---	7.4	7.2	7.2
15	7.8	7.2	7.4	7.0	6.8	7.0	---	---	---	7.2	7.0	7.1
16	7.8	6.7	7.1	---	---	---	---	---	---	---	---	---
17	7.0	6.7	6.9	---	---	---	---	---	---	6.9	6.8	6.8
18	7.1	6.8	7.0	---	---	---	---	---	---	7.0	6.8	6.8
19	7.1	6.9	7.0	---	---	---	---	---	---	6.9	6.7	6.8
20	7.0	6.9	6.9	---	---	---	---	---	---	7.0	6.7	6.8
21	7.2	6.9	7.0	---	---	---	---	---	---	7.1	6.7	6.9
22	7.2	7.1	7.2	---	---	---	7.2	6.6	6.9	7.1	6.9	7.0
23	7.2	7.1	7.1	---	---	---	7.3	7.0	7.1	7.2	6.9	7.1
24	---	---	---	---	---	---	7.5	6.8	7.3	7.3	7.2	7.3
25	---	---	---	---	---	---	---	---	---	7.3	7.2	7.2
26	---	---	---	---	---	---	---	---	---	7.3	7.2	7.2
27	---	---	---	---	---	---	---	---	---	7.3	7.2	7.2
28	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
29	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
30	---	---	---	---	---	---	---	---	---	7.2	6.9	7.0
31	---	---	---	---	---	---	---	---	---	7.1	7.0	7.1
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.1	7.0	7.1	7.0	6.8	6.9	6.7	6.6	6.6	6.9	6.8	6.8
2	7.2	7.0	7.1	6.9	6.8	6.9	---	---	---	6.9	6.8	6.8
3	7.3	7.0	7.1	7.1	6.9	7.0	---	---	---	7.0	6.8	6.9
4	7.3	7.0	7.2	7.1	6.8	6.9	---	---	---	7.0	6.8	6.9
5	7.2	7.1	7.2	6.9	6.8	6.8	---	---	---	6.9	6.8	6.8
6	7.1	6.9	7.0	6.9	6.7	6.8	---	---	---	6.9	6.8	6.9
7	7.1	6.9	7.0	7.0	6.8	6.9	---	---	---	6.9	6.8	6.9
8	6.9	6.8	6.9	6.9	6.7	6.8	---	---	---	6.9	6.6	6.8
9	7.1	6.8	6.9	6.8	6.8	6.8	---	---	---	6.8	6.6	6.7
10	7.2	6.8	6.9	6.8	6.5	6.7	---	---	---	6.8	6.6	6.7
11	7.5	6.9	7.1	6.6	6.4	6.5	---	---	---	6.8	6.6	6.7
12	7.7	7.2	7.4	6.5	6.4	6.5	---	---	---	7.0	6.7	6.8
13	7.5	7.2	7.4	6.5	6.4	6.5	---	---	---	7.2	6.8	7.0
14	7.4	7.2	7.3	6.8	6.4	6.5	---	---	---	7.1	6.4	6.8
15	7.3	7.0	7.2	6.5	6.4	6.4	---	---	---	6.5	6.3	6.4
16	7.4	7.1	7.3	6.6	6.4	6.5	---	---	---	6.8	6.3	6.6
17	7.5	7.2	7.4	6.6	6.5	6.6	6.5	6.4	6.4	7.0	6.5	6.7
18	7.5	7.3	7.4	6.6	6.5	6.6	6.5	6.4	6.4	7.1	6.7	6.8
19	7.8	7.0	7.5	6.7	6.6	6.6	6.4	6.4	6.4	7.2	6.7	7.0
20	7.4	7.0	7.2	6.7	6.6	6.7	6.5	6.4	6.4	7.2	6.8	7.0
21	7.3	6.8	7.1	6.8	6.6	6.7	6.5	6.4	6.5	7.0	6.6	6.8
22	7.1	6.7	6.8	6.8	6.7	6.8	6.6	6.5	6.6	6.8	6.6	6.8
23	7.3	6.8	7.0	6.8	6.7	6.8	6.7	6.6	6.6	7.0	6.7	6.9
24	7.2	6.8	7.0	6.8	6.7	6.7	6.7	6.6	6.6	7.1	6.7	6.9
25	6.9	6.7	6.9	6.7	6.6	6.6	6.7	6.6	6.7	6.7	6.5	6.6
26	7.0	6.8	6.9	6.6	6.6	6.6	6.8	6.7	6.7	6.6	6.4	6.5
27	7.0	6.9	6.9	6.7	6.5	6.6	6.8	6.7	6.7	6.7	6.5	6.6
28	7.4	6.8	7.1	6.7	6.5	6.5	6.8	6.7	6.7	6.8	6.4	6.5
29	---	---	---	---	---	---	6.9	6.7	6.8	6.7	6.6	6.6
30	---	---	---	6.8	6.6	6.6	6.9	6.7	6.8	6.8	6.5	6.7
31	---	---	---	6.8	6.6	6.7	---	---	---	6.8	6.7	6.7
MONTH	7.8	6.7	7.1	---	---	---	---	---	---	7.2	6.3	6.8

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.0	6.7	6.8	7.0	6.6	6.8	6.7	6.5	6.6	7.2	6.7	6.9
2	6.8	6.7	6.7	7.2	6.6	6.9	6.7	6.6	6.7	7.0	6.9	6.9
3	6.8	6.7	6.7	7.1	6.9	7.0	6.8	6.7	6.8	7.2	6.8	7.0
4	6.8	6.7	6.8	7.1	6.9	7.0	6.8	6.7	6.8	7.1	6.8	6.9
5	6.8	6.7	6.7	7.0	6.8	6.9	6.9	6.6	6.8	7.4	6.9	7.2
6	6.8	6.6	6.7	7.0	6.7	6.8	7.0	6.7	6.9	7.5	7.4	7.5
7	6.8	6.7	6.7	6.8	6.6	6.6	7.0	6.8	6.9	7.5	7.5	7.5
8	6.9	6.7	6.8	6.7	6.4	6.6	6.9	6.8	6.8	7.6	7.5	7.5
9	6.8	6.6	6.8	6.5	6.4	6.4	6.9	6.7	6.8	7.9	7.6	7.7
10	6.8	6.6	6.7	6.5	6.4	6.5	6.9	6.7	6.8	7.9	7.0	7.4
11	6.9	6.6	6.8	6.7	6.4	6.5	6.9	6.7	6.8	7.5	6.9	7.1
12	6.9	6.8	6.8	6.6	6.4	6.5	6.9	6.7	6.8	7.3	7.1	7.2
13	6.9	6.8	6.8	6.6	6.4	6.5	6.8	6.6	6.7	7.2	7.0	7.1
14	6.9	6.8	6.8	6.7	6.5	6.6	6.7	6.5	6.6	7.1	6.9	7.0
15	7.0	6.8	6.8	6.7	6.5	6.5	6.6	6.5	6.6	7.0	6.8	6.9
16	7.1	6.9	7.0	6.5	6.4	6.5	6.6	6.4	6.5	---	---	---
17	7.0	6.9	6.9	6.5	6.4	6.5	6.7	6.4	6.5	---	---	---
18	6.9	6.7	6.8	6.7	6.4	6.6	6.7	6.3	6.5	---	---	---
19	7.0	6.8	6.8	6.6	6.5	6.6	6.4	6.3	6.4	---	---	---
20	7.0	6.9	7.0	6.6	6.5	6.5	6.4	6.2	6.3	6.7	6.6	6.6
21	7.1	7.0	7.0	6.7	6.4	6.5	6.4	6.3	6.3	6.7	6.6	6.6
22	7.1	6.9	7.0	6.7	6.6	6.6	6.4	6.3	6.3	6.7	6.5	6.6
23	7.1	6.7	6.9	6.8	6.6	6.7	6.4	6.2	6.3	6.6	6.4	6.5
24	6.8	6.7	6.8	6.8	6.6	6.6	6.3	6.3	6.3	6.6	6.4	6.5
25	6.8	6.7	6.8	6.7	6.6	6.6	6.4	6.3	6.3	6.7	6.3	6.5
26	6.8	6.7	6.8	6.7	6.6	6.6	6.4	6.3	6.3	6.7	6.6	6.7
27	7.1	6.8	6.8	6.7	6.6	6.6	6.4	6.3	6.4	6.8	6.5	6.7
28	7.2	6.9	7.0	6.8	6.5	6.6	6.5	6.3	6.3	6.8	6.5	6.7
29	7.1	6.9	7.0	6.6	6.4	6.5	6.6	6.3	6.4	6.8	6.7	6.8
30	7.1	6.7	6.9	6.6	6.4	6.5	6.8	6.5	6.6	6.8	6.7	6.7
31	---	---	---	6.7	6.5	6.6	6.8	6.6	6.7	---	---	---
MONTH	7.2	6.6	6.8	7.2	6.4	6.6	7.0	6.2	6.6	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	26.4	25.2	25.9	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	9.6	7.6	8.4	---	---	---
5	27.6	26.7	27.1	---	---	---	---	---	---	---	---	---
6	27.6	26.2	26.7	---	---	---	---	---	---	---	---	---
7	26.8	26.0	26.5	14.9	13.0	14.0	---	---	---	8.1	6.6	7.3
8	26.4	25.2	25.8	---	---	---	8.0	7.4	7.7	7.4	5.9	6.8
9	25.8	24.1	24.9	14.9	13.3	14.2	8.2	6.4	7.1	8.3	6.6	7.4
10	25.2	24.1	24.8	15.8	14.2	15.0	---	---	---	8.7	7.5	8.0
11	24.8	24.0	24.4	17.1	15.8	16.5	7.5	6.8	7.1	8.4	7.0	7.6
12	24.4	23.9	24.2	---	---	---	---	---	---	7.9	5.9	6.8
13	24.5	23.9	24.3	17.0	14.8	15.9	---	---	---	7.0	5.5	6.3
14	24.6	22.9	23.6	15.9	13.9	14.8	---	---	---	8.2	4.8	6.3
15	23.3	21.5	22.2	16.2	14.0	15.2	---	---	---	6.6	5.4	6.0
16	21.8	20.8	21.4	---	---	---	---	---	---	6.8	4.3	5.6
17	21.6	20.3	21.2	---	---	---	---	---	---	6.1	4.9	5.7
18	21.3	19.2	20.8	---	---	---	---	---	---	5.2	3.8	4.6
19	21.2	19.8	20.8	---	---	---	---	---	---	5.4	3.6	4.8
20	21.1	19.4	20.5	---	---	---	---	---	---	5.7	3.6	4.8
21	21.1	20.4	20.9	---	---	---	---	---	---	5.8	4.7	5.3
22	21.1	20.4	20.9	---	---	---	9.4	8.2	8.9	5.9	3.9	5.0
23	21.2	20.7	21.0	---	---	---	9.4	8.2	8.9	5.3	3.0	3.9
24	---	---	---	---	---	---	9.9	8.4	8.8	3.2	1.8	2.4
25	---	---	---	---	---	---	---	---	---	2.8	2.2	2.4
26	---	---	---	---	---	---	---	---	---	3.5	2.6	2.8
27	---	---	---	---	---	---	---	---	---	3.0	2.2	2.6
28	---	---	---	---	---	---	---	---	---	3.1	2.4	2.9
29	---	---	---	---	---	---	---	---	---	4.8	2.8	3.8
30	---	---	---	---	---	---	---	---	---	4.8	4.1	4.5
31	---	---	---	---	---	---	---	---	---	4.6	3.7	4.1
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	4.9	3.9	4.4	9.6	8.6	8.9	15.8	14.7	15.1	22.0	20.5	21.2
2	6.0	4.2	4.9	10.5	9.2	9.9	17.0	14.6	15.4	22.0	20.6	21.2
3	7.0	4.8	5.9	11.3	9.5	10.2	18.0	15.6	16.7	21.8	20.8	21.1
4	8.6	7.0	7.8	10.5	9.6	10.1	18.8	16.2	17.4	20.8	19.4	20.0
5	8.5	7.6	8.1	11.8	10.0	11.0	19.1	16.9	18.0	19.4	18.6	19.0
6	8.0	7.0	7.5	12.1	11.3	11.7	18.7	17.7	18.2	20.4	18.7	19.4
7	7.6	7.0	7.3	11.9	10.0	10.9	17.8	16.2	17.2	21.9	19.8	20.4
8	8.0	6.3	6.9	11.2	9.4	10.1	16.3	14.9	15.5	23.2	21.1	22.0
9	7.8	6.8	7.3	11.9	10.3	11.1	14.9	13.6	14.3	24.1	21.9	22.9
10	7.6	6.7	7.1	12.2	11.1	11.6	13.7	12.8	13.4	25.9	22.6	23.4
11	7.7	6.3	7.0	11.5	10.7	11.0	12.8	11.6	12.1	25.5	23.4	24.4
12	7.8	6.0	7.0	12.1	10.6	11.1	12.9	11.3	12.0	24.8	23.6	24.1
13	7.9	6.2	7.1	13.1	11.6	12.3	15.6	12.6	13.7	23.8	22.5	23.1
14	7.4	5.8	6.6	12.7	12.1	12.4	15.3	13.5	14.3	24.1	21.8	23.0
15	8.2	6.7	7.3	12.2	11.9	12.0	16.7	14.2	15.0	23.2	22.2	22.5
16	7.9	6.9	7.1	13.8	12.0	12.9	17.1	15.1	15.9	24.7	21.8	23.0
17	7.0	6.2	6.8	14.3	13.5	13.9	17.9	16.1	16.8	23.9	22.2	22.9
18	7.0	5.8	6.3	14.8	13.8	14.2	17.4	16.6	16.9	22.3	21.1	21.6
19	7.6	5.7	6.5	14.5	13.9	14.3	17.4	16.7	17.0	21.1	19.9	20.4
20	7.6	6.4	7.0	14.8	14.1	14.5	17.4	16.2	16.8	21.9	19.6	20.6
21	7.9	6.8	7.3	16.3	14.7	15.5	17.9	16.6	17.1	21.4	19.9	20.9
22	10.4	7.6	8.8	17.4	15.6	16.4	18.8	17.4	18.0	21.4	20.5	21.0
23	11.9	10.2	10.8	17.2	16.3	16.8	18.8	17.3	18.0	21.2	20.2	20.6
24	11.2	9.9	10.5	17.2	16.1	16.6	19.0	17.3	18.0	21.6	19.9	20.4
25	10.9	10.2	10.6	17.8	16.3	16.8	18.1	17.5	17.8	21.4	19.5	20.2
26	10.8	9.6	10.1	17.8	16.6	17.1	19.2	17.4	17.9	22.1	20.2	21.0
27	9.6	9.1	9.3	17.2	16.7	16.9	18.9	17.9	18.5	21.2	20.5	20.9
28	9.4	8.5	8.9	17.8	16.6	17.1	20.0	17.9	18.7	21.6	19.8	20.6
29	---	---	---	---	---	---	20.7	18.7	19.5	21.3	20.1	20.7
30	---	---	---	18.6	16.5	18.0	21.7	19.4	20.2	21.5	20.0	20.7
31	---	---	---	16.5	15.0	15.5	---	---	---	21.2	20.5	20.7
MONTH	11.9	3.9	7.6	---	---	---	21.7	11.3	16.5	25.9	18.6	21.4

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	21.9	19.9	20.7	29.4	28.4	28.7	29.0	27.8	28.4	30.1	28.8	29.4
2	22.5	20.1	20.9	28.4	26.5	27.4	28.6	27.8	28.2	29.8	28.6	29.2
3	21.8	20.3	21.1	27.9	26.3	27.0	28.5	27.6	28.0	29.8	28.6	29.2
4	21.6	20.7	21.1	28.7	27.0	27.6	28.5	27.6	28.0	29.6	28.6	29.1
5	23.1	21.1	21.9	28.9	27.1	28.1	28.2	27.2	27.7	29.0	28.0	28.5
6	23.6	21.9	22.5	29.0	27.2	28.2	29.1	27.5	28.2	28.0	26.1	26.9
7	22.9	22.4	22.7	28.9	27.1	28.0	28.4	27.4	27.9	27.2	25.6	26.5
8	23.8	22.6	22.9	28.6	27.2	27.8	28.2	27.1	27.6	27.2	25.0	26.2
9	26.4	23.3	24.3	29.7	27.5	28.4	27.4	26.8	27.1	26.1	24.8	25.5
10	26.5	24.3	25.1	28.9	28.2	28.5	27.1	26.4	26.7	25.9	24.3	25.0
11	26.4	24.6	25.3	29.2	27.2	28.2	27.3	26.1	26.6	24.3	23.1	23.6
12	27.1	25.1	26.0	28.7	27.6	28.1	27.3	26.2	26.7	23.8	23.3	23.5
13	26.7	25.6	26.1	28.0	26.5	27.2	28.6	26.2	27.0	23.6	23.1	23.4
14	27.7	25.5	26.5	26.5	25.8	26.0	28.7	26.7	27.2	24.5	22.5	23.4
15	28.0	26.2	27.0	28.2	25.1	26.1	28.4	26.8	27.3	24.0	23.5	23.7
16	28.3	27.0	27.5	27.3	25.8	26.4	27.7	26.8	27.1	---	---	---
17	27.5	26.0	26.6	30.6	26.3	27.2	28.0	26.3	26.9	---	---	---
18	27.1	25.7	26.2	28.0	26.3	27.0	28.0	26.1	26.7	---	---	---
19	26.3	25.6	25.9	27.3	26.3	26.7	27.1	26.1	26.6	---	---	---
20	27.7	25.7	26.2	28.2	26.0	26.6	27.9	26.0	26.6	23.2	22.6	22.8
21	26.2	25.2	25.7	28.1	26.4	27.3	28.3	26.0	26.7	24.6	23.1	23.8
22	26.3	24.8	25.4	28.7	26.9	27.6	27.7	26.1	26.8	24.8	24.0	24.4
23	27.4	24.6	25.7	27.4	26.7	27.1	27.9	26.3	27.0	24.2	23.5	23.8
24	28.3	25.5	26.5	27.1	26.2	26.6	27.7	26.5	27.1	24.8	23.3	24.0
25	27.7	25.6	26.4	28.6	26.4	27.0	27.4	26.1	26.6	25.9	23.5	24.3
26	28.0	25.6	26.6	28.6	26.6	27.3	27.7	26.1	26.6	24.7	23.0	23.7
27	28.2	26.4	27.2	28.1	26.7	27.3	27.8	26.8	27.1	25.0	23.4	23.9
28	28.0	27.0	27.5	28.4	26.7	27.4	28.3	27.1	27.5	24.6	23.5	24.0
29	29.2	27.3	28.0	28.8	27.1	27.8	28.6	27.4	27.9	24.3	22.8	23.5
30	29.5	28.1	28.6	30.1	27.6	28.3	29.2	27.7	28.2	23.1	21.9	22.5
31	---	---	---	30.0	28.0	28.5	30.0	27.9	28.8	---	---	---
MONTH	29.5	19.9	25.1	30.6	25.1	27.5	30.0	26.0	27.3	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	26.5	26.0	26.2	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	12.0	10.2	11.0	---	---	---
5	26.4	25.8	26.1	---	---	---	---	---	---	---	---	---
6	26.2	25.9	26.1	---	---	---	---	---	---	---	---	---
7	26.2	26.1	26.2	16.1	15.5	15.8	8.5	8.0	8.2	9.1	7.1	8.0
8	26.2	26.0	26.1	---	---	---	9.0	8.0	8.5	8.3	6.2	7.7
9	26.1	24.8	25.6	16.2	15.7	15.9	8.2	7.8	8.0	8.2	7.6	8.0
10	25.6	25.2	25.4	16.2	15.3	15.8	---	---	---	8.4	7.8	8.0
11	25.4	24.3	24.8	17.2	15.5	16.3	8.2	7.9	8.1	8.0	7.8	7.9
12	24.6	24.3	24.4	---	---	---	---	---	---	8.1	7.9	8.0
13	24.4	24.2	24.4	17.5	16.1	16.7	---	---	---	8.3	8.0	8.2
14	24.4	23.2	23.8	16.9	16.0	16.6	---	---	---	8.4	8.1	8.2
15	23.4	21.6	22.7	16.9	16.5	16.6	---	---	---	8.3	7.4	7.9
16	21.8	21.1	21.4	---	---	---	---	---	---	---	---	---
17	21.6	21.3	21.5	---	---	---	---	---	---	7.9	7.0	7.3
18	21.5	21.2	21.3	---	---	---	---	---	---	7.4	6.3	6.9
19	21.6	21.2	21.4	---	---	---	---	---	---	7.1	6.3	6.7
20	21.5	21.3	21.4	---	---	---	---	---	---	6.7	5.3	6.1
21	21.4	21.0	21.1	---	---	---	---	---	---	6.3	5.7	5.9
22	21.1	21.0	21.0	---	---	---	9.9	8.7	9.4	6.0	5.7	5.9
23	21.1	21.0	21.1	---	---	---	9.9	9.6	9.8	6.1	2.8	4.9
24	---	---	---	---	---	---	10.1	8.8	9.9	3.5	1.7	2.3
25	---	---	---	---	---	---	---	---	---	3.0	2.0	2.5
26	---	---	---	---	---	---	---	---	---	2.8	2.3	2.6
27	---	---	---	---	---	---	---	---	---	2.9	2.3	2.5
28	---	---	---	---	---	---	---	---	---	3.1	2.5	2.8
29	---	---	---	---	---	---	---	---	---	3.4	2.9	3.2
30	---	---	---	---	---	---	---	---	---	3.7	3.2	3.5
31	---	---	---	---	---	---	---	---	---	3.6	3.1	3.4
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	4.1	3.6	3.9	9.3	8.5	8.8	15.8	14.7	15.1	21.3	20.4	20.9
2	4.3	4.0	4.2	10.4	9.1	9.8	---	---	---	21.4	20.6	20.9
3	5.4	4.3	4.6	10.8	9.4	10.1	---	---	---	21.3	20.7	21.0
4	8.3	5.1	6.9	10.5	9.6	10	---	---	---	20.8	19.3	20.0
5	7.9	6.9	7.4	11.7	9.9	10.9	---	---	---	19.3	18.4	18.8
6	7.2	6.8	7.0	12.0	11.2	11.6	---	---	---	19.8	18.6	19.0
7	7.2	6.8	7.0	11.8	9.9	10.8	---	---	---	21.2	19.6	20.0
8	7.0	6.8	6.9	10.8	9.3	9.9	---	---	---	23.0	20.8	21.6
9	7.1	6.8	6.9	11.8	10.2	11.0	---	---	---	23.8	21.8	22.7
10	7.2	6.9	7.0	12.2	11.0	11.6	---	---	---	23.6	22.5	23.0
11	7.3	7.0	7.1	11.6	10.8	11.1	---	---	---	25.5	23.4	24.3
12	7.8	7.2	7.4	12.1	10.6	11.1	---	---	---	24.7	23.5	24.0
13	7.6	7.3	7.5	13.1	11.6	12.3	---	---	---	23.6	21.2	22.4
14	7.6	7.4	7.5	12.7	12.2	12.5	---	---	---	22.8	21.2	21.8
15	8.0	7.1	7.5	12.3	11.9	12.0	---	---	---	22.6	21.8	22.2
16	7.7	7.4	7.6	13.7	12.0	12.8	---	---	---	22.4	21.5	21.8
17	7.8	7.0	7.5	14.3	13.6	13.8	17.4	16.0	16.6	23.1	21.3	22.1
18	7.6	7.2	7.4	14.8	13.8	14.2	17.3	16.5	16.8	21.9	21.2	21.5
19	7.6	6.8	7.4	14.5	14.0	14.3	17.3	16.7	16.9	21.4	19.6	20.2
20	7.7	6.8	7.3	14.8	14.2	14.5	17.3	16.2	16.7	20.9	19.2	19.8
21	7.8	7.3	7.6	16.2	14.8	15.4	17.8	16.6	17.0	20.7	19.5	20.0
22	10.3	7.5	8.7	17.3	15.6	16.3	18.6	17.3	17.8	20.9	20.2	20.5
23	11.9	10.1	10.7	17.1	16.3	16.7	18.7	17.3	17.8	20.8	19.9	20.2
24	11.1	10.0	10.5	17.2	16.1	16.6	18.5	17.2	17.8	20.5	19.6	19.8
25	10.8	10.1	10.5	17.5	16.3	16.6	18.1	17.5	17.7	20.9	19.2	19.7
26	10.7	9.5	10.0	17.8	16.7	17.1	18.8	17.3	17.7	21.5	19.9	20.4
27	9.5	9.0	9.2	17.3	16.7	17.0	18.8	17.7	18.2	20.9	20.2	20.6
28	9.4	8.5	8.9	17.8	16.5	17.1	19.1	17.9	18.3	20.9	19.5	20.1
29	---	---	---	---	---	---	20.6	18.6	19.2	21.0	19.8	20.4
30	---	---	---	18.6	16.5	18.0	21.4	19.4	19.8	21.3	19.7	20.4
31	---	---	---	16.5	15.0	15.5	---	---	---	21.2	20.4	20.7
MONTH	11.9	3.6	7.6	---	---	---	---	---	---	25.5	18.4	21.0

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	21.8	19.9	20.7	28.6	27.0	28.0	28.8	27.6	28.1	29.6	27.4	28.8
2	21.5	20.1	20.8	27.6	26.5	26.9	28.5	27.7	28.1	29.4	28.5	28.9
3	21.6	20.3	20.9	27.7	26.0	26.8	28.4	27.5	27.9	29.7	28.5	29.0
4	21.5	20.6	21.1	28.4	27.0	27.2	28.5	27.4	27.9	29.5	28.5	28.8
5	22.6	21.1	21.6	28.7	27.0	27.7	28.1	27.2	27.6	29.1	27.6	28.3
6	22.9	21.9	22.3	28.8	27.1	27.9	29.0	27.4	28.1	27.6	27.4	27.6
7	22.9	22.4	22.6	28.7	27.0	27.6	28.3	27.3	27.9	27.5	27.2	27.3
8	23.7	22.6	22.9	28.6	27.1	27.4	28.1	27.0	27.5	27.3	27.2	27.3
9	24.7	23.3	23.7	28.9	27.5	27.8	27.3	26.8	27.0	27.2	26.7	27.0
10	26.0	24.4	25.0	28.8	28.0	28.3	27.0	26.3	26.7	26.8	24.9	25.7
11	26.6	24.6	25.3	29.1	27.1	28.1	27.1	26.1	26.4	26.2	23.4	24.1
12	27.2	25.3	26.0	28.6	27.5	27.8	27.0	26.1	26.4	23.7	23.3	23.5
13	26.9	25.8	26.3	27.9	26.4	27.1	27.3	26.1	26.4	23.9	23.6	23.7
14	27.9	25.7	26.5	26.4	25.6	25.9	27.3	26.5	26.8	23.9	23.5	23.8
15	27.9	26.4	26.8	26.2	25.1	25.4	27.4	26.7	26.9	23.8	23.4	23.6
16	28.2	27.1	27.6	27.2	25.7	26.2	27.6	26.5	26.9	---	---	---
17	27.7	26.2	26.8	28.0	26.2	26.6	27.9	26.1	26.6	---	---	---
18	27.0	25.9	26.2	27.6	26.3	26.7	27.0	26.0	26.5	---	---	---
19	26.4	25.8	26.0	27.1	26.1	26.6	27.0	26.0	26.5	---	---	---
20	26.8	25.8	26.1	27.2	25.8	26.1	27.1	25.9	26.4	23.1	22.5	22.8
21	26.4	25.4	25.9	28.0	26.1	26.9	27.3	26.0	26.6	23.1	22.6	22.9
22	26.0	24.7	25.3	28.5	26.8	27.4	27.6	26.1	26.6	24.6	22.7	23.4
23	25.7	24.5	24.9	27.3	26.5	26.9	27.6	26.3	26.8	24.0	23.3	23.5
24	25.1	24.6	24.9	26.8	26.0	26.3	27.6	26.4	27.0	24.4	23.1	23.6
25	25.3	25.0	25.1	27.1	26.3	26.5	27.2	26.0	26.5	24.1	23.4	23.7
26	25.5	25.0	25.2	28.0	26.4	26.9	27.2	26.1	26.4	23.9	23.6	23.7
27	26.8	25.2	25.7	27.9	26.5	26.9	27.5	26.7	26.9	24.0	23.6	23.8
28	27.8	26.5	27.0	28.4	26.6	27.2	28.1	27.0	27.3	24.2	23.7	23.9
29	28.6	27.1	27.5	28.1	27.0	27.4	28.6	27.4	27.8	24.4	23.6	23.9
30	28.6	27.5	28.1	28.8	27.5	28.0	28.8	27.7	28.0	24.0	23.5	23.8
31	---	---	---	29.0	27.8	28.2	29.4	27.8	28.3	---	---	---
MONTH	28.6	19.9	24.8	29.1	25.1	27.1	29.4	25.9	27.1	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.7	0.6	2.2	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	8.0	5.8	7.1	---	---	---
5	7.1	0.5	4.7	---	---	---	---	---	---	---	---	---
6	6.9	0.4	3.5	---	---	---	---	---	---	---	---	---
7	6.5	0.8	2.2	9.5	7.1	8.0	---	---	---	10.3	8.0	9.4
8	7.0	0.4	3.6	---	---	---	10.0	8.1	8.8	10.4	9.6	10.1
9	5.9	1.4	3.5	8.2	5.8	7.2	9.4	7.7	8.7	10.6	9.5	10.4
10	6.0	0.8	2.6	8.0	7.1	7.6	---	---	---	10.3	8.6	9.7
11	5.1	2.2	4.1	8.0	7.5	7.7	9.2	8.5	8.9	10.1	7.5	9.3
12	5.8	3.1	4.6	---	---	---	---	---	---	10.5	7.8	9.6
13	5.4	2.1	3.0	7.6	6.8	7.3	---	---	---	10.5	7.9	9.7
14	8.3	2.2	5.6	7.9	4.8	6.9	---	---	---	11.0	5.4	9.4
15	6.8	4.3	5.6	7.2	3.1	5.5	---	---	---	11.2	8.7	10.4
16	6.2	2.8	4.3	---	---	---	---	---	---	11.0	7.7	10.1
17	4.8	2.7	3.8	---	---	---	---	---	---	10.7	9.9	10.3
18	4.3	2.3	3.4	---	---	---	---	---	---	11.3	9.9	10.5
19	5.3	1.5	3.0	---	---	---	---	---	---	11.0	9.3	10.5
20	4.4	1.2	2.5	---	---	---	---	---	---	11.3	9.7	10.8
21	2.1	0.8	1.4	---	---	---	---	---	---	11.3	9.1	10.6
22	2.3	0.9	1.5	---	---	---	9.3	8.6	8.9	10.7	8.2	9.3
23	2.1	1.1	1.5	---	---	---	9.0	8.6	8.8	11.3	9.1	10.4
24	---	---	---	---	---	---	9.4	8.0	8.6	11.9	10.4	11.1
25	---	---	---	---	---	---	---	---	---	11.9	11.3	11.5
26	---	---	---	---	---	---	---	---	---	11.9	11.2	11.5
27	---	---	---	---	---	---	---	---	---	12.0	11.2	11.7
28	---	---	---	---	---	---	---	---	---	12.3	11.5	11.9
29	---	---	---	---	---	---	---	---	---	12.4	11.6	12.0
30	---	---	---	---	---	---	---	---	---	12.2	11.0	11.8
31	---	---	---	---	---	---	---	---	---	11.4	9.8	10.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.2	9.6	10.6	9.3	8.8	9.0	8.6	6.2	7.1	5.7	5.1	5.4
2	11.2	9.6	10.6	9.3	8.7	9.0	8.2	6.6	7.4	5.5	5.1	5.3
3	11.2	9.6	10.8	9.2	7.4	8.8	6.9	6.5	6.8	5.6	4.9	5.2
4	11.0	10.3	10.7	9.2	8.6	8.9	7.0	6.2	6.7	5.5	5.0	5.2
5	11.0	10.0	10.6	9.0	8.3	8.7	6.8	6.1	6.6	5.4	4.8	5.0
6	11.3	9.2	10.7	8.8	8.1	8.4	7.4	5.9	6.7	5.5	5.2	5.4
7	11.4	9.9	10.6	9.0	8.0	8.6	7.1	5.3	6.4	5.3	4.8	5.1
8	11.4	9.2	10.5	8.2	7.8	8.0	6.2	5.8	6.0	5.5	4.9	5.1
9	10.9	9.4	10.2	8.2	7.7	8.0	7.2	6.2	6.8	5.2	4.6	4.9
10	10.6	7.4	9.6	8.8	7.2	7.9	8.6	6.6	8.0	5.4	4.5	4.9
11	11.6	9.3	10.4	8.0	6.5	7.3	7.0	6.2	6.6	5.5	4.7	5.1
12	11.6	10.6	11.1	7.7	5.9	6.7	7.0	6.7	6.8	6.1	5.1	5.6
13	11.8	10.7	11.2	7.6	6.0	6.5	7.1	6.6	6.8	6.2	4.6	5.6
14	11.2	10.5	10.8	8.3	6.2	7.7	7.0	6.4	6.6	6.3	4.5	5.6
15	10.9	10.4	10.7	7.4	6.2	6.8	6.7	6.1	6.4	5.3	4.8	5.1
16	10.8	9.9	10.6	7.8	6.0	6.8	7.0	6.2	6.6	5.3	4.7	5.1
17	10.9	10.3	10.6	7.3	5.9	6.3	7.2	6.6	6.8	6.0	4.8	5.5
18	10.7	10.3	10.5	7.4	6.3	6.7	7.3	6.2	6.6	6.7	5.7	6.2
19	10.6	10.2	10.4	7.5	6.3	6.9	6.6	6.3	6.5	6.9	5.8	6.5
20	10.6	10.2	10.4	8.4	6.6	7.8	6.4	6.0	6.2	6.8	5.9	6.3
21	10.5	10.0	10.3	7.8	6.0	6.9	6.3	5.5	5.9	6.0	4.5	5.5
22	10.3	9.9	10.1	6.6	5.4	5.8	6.1	5.6	5.8	6.0	5.0	5.5
23	10.0	8.9	9.6	6.3	5.4	5.8	6.5	5.9	6.1	6.7	5.4	6.1
24	9.8	8.5	9.2	7.3	5.4	5.9	6.1	5.5	5.9	6.8	5.1	6.0
25	9.9	8.9	9.3	6.7	5.2	5.9	6.4	5.9	6.1	5.4	4.7	5.0
26	9.9	9.3	9.6	7.7	5.5	6.3	6.3	5.5	5.9	5.4	5.0	5.2
27	9.5	8.9	9.2	7.1	5.9	6.5	6.0	5.2	5.6	5.8	5.0	5.4
28	9.5	8.9	9.3	7.7	5.7	6.8	5.7	5.0	5.4	5.4	4.8	5.1
29	---	---	---	---	---	---	5.8	4.9	5.4	5.6	5.0	5.2
30	---	---	---	8.1	5.3	6.6	5.7	5.2	5.4	5.8	5.0	5.4
31	---	---	---	7.1	6.2	6.6	---	---	---	6.4	5.5	5.8
MONTH	11.8	7.4	10.3	---	---	---	8.6	4.9	6.4	6.9	4.5	5.4

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	6.5	5.6	6.0	7.6	6.2	6.8	5.7	4.7	5.1	5.4	4.2	4.8
2	6.2	5.6	5.9	6.9	6.0	6.3	5.8	5.2	5.4	5.3	4.5	5.0
3	6.4	5.4	5.9	6.3	5.4	5.9	5.9	5.0	5.5	6.7	4.9	5.7
4	6.4	5.6	6.0	6.6	5.8	6.1	6.0	5.2	5.6	6.1	5.2	5.7
5	6.2	5.7	6.0	6.1	5.3	5.6	6.3	5.2	5.7	6.3	5.4	5.9
6	6.2	5.5	5.8	6.0	5.2	5.6	6.4	5.4	5.8	6.3	3.0	5.6
7	6.5	5.7	6.1	6.0	5.1	5.4	6.0	5.4	5.7	5.8	0.1	1.7
8	6.4	5.4	5.9	6.2	5.1	5.5	6.0	5.1	5.6	5.1	0.1	2.2
9	5.9	5.0	5.4	5.8	4.9	5.3	5.7	5.3	5.5	5.0	1.2	3.5
10	5.7	4.7	5.2	5.5	4.9	5.2	5.9	5.2	5.5	5.1	3.8	4.6
11	5.6	4.7	5.2	6.1	4.9	5.4	5.7	5.1	5.3	5.6	3.8	4.9
12	5.6	4.8	5.2	5.7	4.7	5.1	5.4	4.7	5.1	5.7	4.9	5.4
13	5.5	4.9	5.2	5.2	4.5	4.8	5.2	4.4	4.9	5.2	4.3	4.7
14	5.8	4.8	5.1	5.4	4.6	5.0	5.1	4.2	4.7	6.5	3.2	4.6
15	5.5	4.8	5.2	4.8	3.9	4.3	4.9	4.3	4.5	5.9	1.9	3.9
16	6.2	5.1	5.6	4.5	3.8	4.2	5.1	4.4	4.8	---	---	---
17	5.5	4.6	5.0	4.8	4.0	4.3	5.8	4.7	5.0	---	---	---
18	5.0	3.8	4.5	5.5	4.4	5.0	5.6	4.3	4.8	---	---	---
19	4.6	3.9	4.2	5.4	4.9	5.1	4.9	4.5	4.7	---	---	---
20	4.9	4.0	4.3	5.2	4.3	4.8	4.7	4.1	4.3	5.0	2.6	3.5
21	5.1	4.0	4.5	5.6	4.5	5.0	4.5	3.9	4.2	3.7	2.4	2.9
22	5.6	4.4	5.0	5.9	5.0	5.3	4.4	3.9	4.1	4.4	3.1	3.8
23	7.0	4.4	5.4	6.0	5.1	5.5	4.2	3.8	4.0	4.3	2.5	3.2
24	6.6	5.0	5.7	5.9	4.9	5.3	4.2	4.0	4.1	3.7	1.4	2.3
25	6.7	3.5	4.9	5.2	4.2	4.7	4.3	3.7	4.0	2.5	1.6	2.0
26	7.9	3.5	5.8	4.9	3.8	4.5	4.4	3.6	3.9	2.2	0.9	1.6
27	7.9	5.8	6.5	4.8	3.9	4.3	4.1	3.7	3.9	3.1	1.4	2.2
28	7.2	5.3	6.1	5.5	4.4	4.9	4.1	3.6	3.9	3.8	2.7	3.2
29	7.5	5.1	6.1	5.6	4.8	5.1	4.8	3.6	4.1	4.3	3.1	3.8
30	7.6	5.3	6.3	5.5	4.5	5.0	4.8	4.0	4.3	4.5	3.3	3.8
31	---	---	---	6.0	4.7	5.1	5.2	4.0	4.5	---	---	---
MONTH	7.9	3.5	5.5	7.6	3.8	5.2	6.4	3.6	4.8	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.5	0.0	1.1	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	6.4	2.8	5.2	---	---	---
5	0.2	0.0	0.1	---	---	---	---	---	---	---	---	---
6	1.0	0.1	0.3	---	---	---	---	---	---	---	---	---
7	0.6	0.1	0.3	5.5	1.9	4.1	8.6	8.1	8.3	9.0	4.0	7.2
8	1.8	0.2	1.1	---	---	---	8.9	7.0	7.9	9.7	5.8	7.6
9	2.8	0.3	1.1	3.3	0.5	1.8	8.8	7.8	8.3	8.6	6.1	7.2
10	0.9	0.3	0.5	7.8	0.2	3.0	---	---	---	8.0	6.3	7.2
11	4.7	0.4	2.1	8.2	3.3	6.7	8.6	7.8	8.1	8.1	7.1	7.8
12	4.3	2.2	3.3	---	---	---	---	---	---	8.0	7.3	7.7
13	3.5	1.8	2.5	7.5	2.4	5.0	---	---	---	7.6	6.5	7.0
14	6.2	0.8	3.8	7.1	2.6	4.3	---	---	---	6.9	5.5	6.1
15	6.1	3.6	4.8	4.2	2.6	3.4	---	---	---	6.3	4.6	5.6
16	6.2	3.3	4.4	---	---	---	---	---	---	---	---	---
17	4.1	2.5	3.6	---	---	---	---	---	---	7.3	5.0	6.1
18	3.2	1.0	2.6	---	---	---	---	---	---	7.5	5.0	6.0
19	2.5	0.4	1.3	---	---	---	---	---	---	7.1	4.4	5.9
20	1.6	0.0	0.3	---	---	---	---	---	---	9.5	4.8	6.3
21	1.2	0.0	0.5	---	---	---	---	---	---	9.0	4.8	7.3
22	1.5	0.7	1.1	---	---	---	9.3	7.0	8.0	8.5	6.2	7.4
23	1.2	0.5	0.7	---	---	---	8.4	7.1	7.9	10.9	6.0	8.5
24	---	---	---	---	---	---	9.1	7.6	8.3	11.8	10.3	11.2
25	---	---	---	---	---	---	---	---	---	11.6	10.5	11.1
26	---	---	---	---	---	---	---	---	---	11.2	10.6	10.9
27	---	---	---	---	---	---	---	---	---	12.1	10.4	11.3
28	---	---	---	---	---	---	---	---	---	12.2	9.9	11.2
29	---	---	---	---	---	---	---	---	---	11.9	9.8	11.0
30	---	---	---	---	---	---	---	---	---	10.8	8.2	9.4
31	---	---	---	---	---	---	---	---	---	10.3	9.6	10
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.8	8.6	9.3	9.3	8.8	9.0	7.4	6.7	7.0	5.3	4.6	4.9
2	9.7	8.9	9.3	9.3	8.8	9.0	---	---	---	5.3	4.5	5.0
3	10.5	8.4	9.4	9.1	6.9	8.6	---	---	---	5.6	4.4	5.0
4	10.9	9.1	10.1	9.1	8.6	8.9	---	---	---	5.4	4.8	5.1
5	10.1	8.6	9.5	9.1	8.3	8.8	---	---	---	5.1	4.4	4.8
6	8.9	7.5	8.3	8.9	8.2	8.5	---	---	---	5.2	4.7	5.0
7	8.8	6.6	7.7	9.1	8.1	8.6	---	---	---	4.9	4.1	4.6
8	7.2	6.3	6.7	8.2	7.6	7.9	---	---	---	5.1	4.3	4.7
9	8.1	5.9	7.2	8.2	7.7	8.0	---	---	---	5.0	4.0	4.6
10	9.7	5.3	6.7	8.1	7.6	7.9	---	---	---	5.1	4.0	4.6
11	11.4	6.5	8.1	8.0	7.6	7.8	---	---	---	5.4	4.0	4.9
12	12.0	7.6	9.8	7.8	7.4	7.6	---	---	---	6.2	4.9	5.5
13	10.3	7.6	9.7	7.9	7.5	7.7	---	---	---	5.9	0.6	3.4
14	10.0	7.3	9.0	8.7	7.8	8.1	---	---	---	5.6	2.0	3.4
15	9.5	6.4	8.2	7.9	7.4	7.6	---	---	---	5.5	2.9	4.5
16	8.5	6.4	7.4	7.8	7.4	7.6	---	---	---	5.6	2.8	4.9
17	9.5	6.6	8.1	7.6	7.2	7.4	7.5	6.7	7.0	6.3	1.6	4.2
18	8.7	6.9	8.0	7.8	7.4	7.5	7.6	6.3	6.8	5.7	1.6	3.0
19	9.1	6.2	7.9	8.1	7.4	7.8	6.8	6.4	6.6	7.4	1.7	6.5
20	9.1	5.0	7.4	8.2	7.4	7.8	6.5	6.1	6.3	7.4	4.3	6.4
21	9.9	5.4	7.3	7.6	6.8	7.2	6.3	5.6	6.0	5.6	3.9	4.9
22	10.2	8.8	9.8	6.9	6.3	6.6	6.2	5.5	5.9	6.1	5.0	5.6
23	9.9	8.8	9.5	6.6	6.2	6.4	6.6	6.0	6.2	7.4	5.8	6.6
24	9.7	8.7	9.1	6.6	6.2	6.3	6.3	5.6	6.0	7.3	5.4	6.3
25	9.8	8.8	9.2	6.6	5.8	6.2	6.3	5.7	6.0	5.6	4.9	5.2
26	9.8	9.2	9.5	6.8	6.3	6.5	6.2	5.0	5.7	5.7	5.1	5.3
27	9.6	8.8	9.1	7.1	6.6	6.8	5.6	4.8	5.3	6.0	5.1	5.6
28	9.6	8.9	9.3	6.7	5.9	6.4	5.5	4.4	5.0	5.7	4.8	5.2
29	---	---	---	---	---	---	5.4	4.5	5.0	5.9	5.0	5.3
30	---	---	---	7.1	6.1	6.6	5.3	4.6	4.9	6.1	5.0	5.6
31	---	---	---	7.2	6.7	6.9	---	---	---	6.7	6.0	6.2
MONTH	12.0	5.0	8.6	---	---	---	---	---	---	7.4	0.6	5.1

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.8	6.0	6.4	6.4	1.4	4.1	5.4	4.4	4.8	5.5	0.0	3.4
2	6.4	6.1	6.2	6.8	0.8	3.7	5.8	5.0	5.3	5.3	4.0	4.6
3	6.6	5.9	6.2	6.4	5.4	6.0	6.2	4.9	5.5	6.7	4.5	5.3
4	6.6	6.0	6.4	6.4	5.2	5.8	6.1	5.1	5.6	6.4	4.2	5.3
5	6.5	5.9	6.2	5.9	4.8	5.4	6.5	5.2	5.7	5.7	0.0	2.6
6	6.3	5.8	6.0	6.1	5.1	5.5	6.5	5.5	5.9	0.1	0.0	0.0
7	6.6	6.0	6.3	5.8	5.0	5.3	6.2	5.7	6.0	0.0	0.0	0.0
8	6.5	5.6	6.0	5.9	4.6	5.2	6.2	5.5	5.8	0.1	0.0	0.0
9	6.2	5.1	5.7	5.2	4.4	4.7	5.9	5.5	5.7	0.1	0.0	0.1
10	5.7	4.9	5.2	5.2	4.2	4.7	6.0	5.4	5.7	5.6	0.1	2.5
11	6.0	4.8	5.4	5.7	4.6	5.0	6.0	4.9	5.5	6.6	0.1	4.5
12	5.9	5.2	5.5	5.4	4.4	4.7	5.7	4.5	5.2	6.7	5.6	6.3
13	5.8	5.1	5.3	5.0	4.2	4.5	5.3	4.2	4.7	6.6	4.8	5.6
14	5.8	4.9	5.2	5.2	4.3	4.8	5.1	4.2	4.6	5.0	3.8	4.4
15	5.5	4.9	5.2	4.7	3.6	4.1	4.7	4.2	4.5	5.3	0.9	2.6
16	6.3	5.0	5.5	4.5	3.6	4.0	5.1	4.3	4.8	---	---	---
17	5.6	4.8	5.1	4.8	3.7	4.2	5.8	4.5	4.9	---	---	---
18	5.1	3.9	4.5	5.3	4.3	4.8	5.7	4.4	4.8	---	---	---
19	4.8	3.8	4.2	5.2	4.8	5.0	4.9	4.5	4.6	---	---	---
20	4.7	4.0	4.3	5.0	4.0	4.4	4.8	3.8	4.2	4.6	2.8	3.6
21	5.0	4.0	4.5	5.5	4.4	4.7	4.4	3.7	4.1	3.2	0.6	2.5
22	5.3	3.8	4.6	5.6	4.9	5.2	4.3	3.7	3.9	4.3	0.3	1.9
23	5.7	3.5	4.5	5.7	5.0	5.4	4.2	3.6	3.9	4.2	2.2	2.9
24	4.0	0.5	1.9	5.5	4.2	5.0	4.2	3.8	4.0	2.6	1.0	2.0
25	1.6	0.2	0.5	4.9	4.0	4.4	4.2	3.5	3.9	1.9	0.0	1.0
26	1.9	0.2	0.9	4.6	3.7	4.2	3.9	3.4	3.7	0.2	0.0	0.1
27	5.5	0.1	1.6	4.5	3.6	4.0	4.0	3.2	3.7	2.6	0.0	0.5
28	6.2	3.7	5.0	5.1	4.2	4.6	4.1	3.4	3.8	2.4	0.0	0.4
29	6.1	4.3	5.3	5.2	4.2	4.7	4.9	3.6	4.0	3.7	0.0	1.3
30	6.2	3.9	5.2	5.5	4.3	4.7	4.8	3.5	4.1	1.1	0.0	0.3
31	---	---	---	5.7	4.4	4.9	4.8	3.6	4.2	---	---	---
MONTH	6.8	0.1	4.8	6.8	0.8	4.8	6.5	3.2	4.7	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	46	7	27	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	67	51	60	---	---	---
5	90	6	60	---	---	---	---	---	---	---	---	---
6	87	5	43	---	---	---	---	---	---	---	---	---
7	81	10	27	93	70	78	---	---	---	85	68	78
8	85	5	44	---	---	---	84	69	73	87	79	83
9	71	17	43	80	57	71	78	65	72	90	81	86
10	72	10	32	81	70	76	---	---	---	87	72	82
11	61	27	49	83	76	79	76	71	74	85	63	78
12	70	37	55	---	---	---	---	---	---	86	66	79
13	65	25	37	79	70	74	---	---	---	85	65	79
14	97	26	66	78	49	68	---	---	---	90	46	76
15	78	50	65	71	32	55	---	---	---	89	71	84
16	71	32	49	---	---	---	---	---	---	85	63	80
17	54	31	43	---	---	---	---	---	---	85	79	82
18	47	26	38	---	---	---	---	---	---	89	75	82
19	58	17	33	---	---	---	---	---	---	86	74	82
20	49	14	28	---	---	---	---	---	---	90	77	84
21	24	9	16	---	---	---	---	---	---	88	73	84
22	26	10	17	---	---	---	81	73	77	82	65	73
23	24	12	17	---	---	---	79	73	76	85	72	79
24	---	---	---	---	---	---	81	71	74	87	77	81
25	---	---	---	---	---	---	---	---	---	87	82	84
26	---	---	---	---	---	---	---	---	---	89	83	85
27	---	---	---	---	---	---	---	---	---	89	83	86
28	---	---	---	---	---	---	---	---	---	92	85	89
29	---	---	---	---	---	---	---	---	---	96	87	92
30	---	---	---	---	---	---	---	---	---	95	85	91
31	---	---	---	---	---	---	---	---	---	87	75	81
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	87	73	82	82	76	78	86	61	70	65	57	60
2	89	74	83	83	76	80	81	68	74	62	57	60
3	92	75	87	83	67	79	72	67	70	63	55	58
4	92	87	90	82	76	79	75	64	70	61	55	57
5	94	85	90	82	76	79	74	66	70	58	51	54
6	95	77	89	81	75	78	79	62	72	61	57	59
7	95	83	88	83	71	78	75	55	66	60	54	56
8	94	76	86	73	70	71	61	58	60	64	55	59
9	92	78	85	74	71	73	69	61	66	62	53	57
10	88	61	79	81	67	72	82	62	76	66	53	58
11	97	76	86	73	59	66	65	58	61	67	55	61
12	98	88	92	72	53	61	66	62	64	73	60	66
13	100	88	93	71	56	61	69	63	66	73	53	65
14	93	85	88	78	58	72	68	62	65	73	51	65
15	91	87	89	69	58	63	66	60	64	62	56	59
16	90	82	88	73	58	65	72	62	67	64	54	59
17	90	85	87	71	57	61	75	67	70	70	57	64
18	87	83	86	72	61	66	76	64	68	76	65	70
19	88	81	84	74	62	68	68	66	67	77	65	72
20	89	83	86	83	64	77	66	62	64	75	66	71
21	88	83	86	77	61	69	65	58	62	68	50	62
22	91	84	87	67	56	60	64	59	62	68	56	62
23	90	80	87	66	56	60	68	62	65	74	61	68
24	89	75	82	74	55	60	64	59	63	75	57	66
25	90	79	84	71	53	61	67	62	64	61	51	56
26	89	82	85	81	57	65	66	58	62	61	56	58
27	83	78	80	74	61	68	65	55	59	65	56	61
28	83	77	80	79	59	70	61	54	58	59	53	57
29	---	---	---	---	---	---	65	53	59	63	55	58
30	---	---	---	86	57	70	65	57	59	66	55	60
31	---	---	---	72	62	67	---	---	---	72	61	65
MONTH	100	61	86	---	---	---	86	53	65	77	50	61

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	74	62	68	99	80	89	74	60	66	72	55	63
2	70	62	66	89	75	81	75	66	70	70	58	65
3	73	60	66	79	67	75	76	64	70	89	63	75
4	73	63	68	86	73	78	78	66	72	80	67	75
5	71	66	68	79	67	72	81	66	73	82	70	76
6	73	63	67	78	66	72	82	69	75	79	37	71
7	76	66	71	78	64	70	77	69	73	71	1	21
8	74	63	69	80	64	71	77	64	71	62	1	27
9	71	60	65	74	63	68	72	67	69	61	15	43
10	71	56	64	72	63	68	74	65	69	61	47	56
11	70	57	64	80	63	69	71	64	67	66	45	58
12	71	59	64	74	60	65	68	60	64	67	58	64
13	69	60	64	65	57	60	67	55	61	62	50	55
14	74	59	64	67	57	62	65	53	59	77	38	54
15	70	60	65	59	49	54	63	54	57	70	23	46
16	79	64	71	57	47	52	65	55	60	---	---	---
17	70	57	63	64	50	55	74	58	62	---	---	---
18	63	47	56	71	55	63	70	54	61	---	---	---
19	57	48	52	68	61	64	62	56	59	---	---	---
20	62	49	54	67	54	60	59	51	54	59	30	40
21	63	49	55	72	56	63	57	48	53	45	28	35
22	69	53	61	76	63	68	56	49	52	53	37	46
23	89	53	67	76	64	70	54	48	51	51	30	38
24	83	61	71	74	61	66	54	50	52	44	17	27
25	85	43	61	65	53	59	55	46	49	31	19	24
26	101	43	72	63	48	57	56	45	48	26	11	19
27	101	73	83	61	49	55	52	46	49	38	16	27
28	92	67	77	71	55	62	53	45	49	46	32	39
29	98	65	79	73	61	65	62	46	52	51	37	45
30	100	68	81	72	58	64	63	51	55	52	38	44
31	---	---	---	80	60	67	69	51	59	---	---	---
MONTH	101	43	67	99	47	66	82	45	61	---	---	---

NEUSE RIVER BASIN

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	31	0	14	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	57	26	48	---	---	---
5	2	0	1	---	---	---	---	---	---	---	---	---
6	12	1	4	---	---	---	---	---	---	---	---	---
7	7	1	4	56	19	41	73	69	70	75	35	61
8	22	2	13	---	---	---	75	61	68	78	49	64
9	34	4	13	33	5	18	74	66	70	72	52	61
10	11	4	6	79	2	30	---	---	---	67	54	61
11	56	5	25	85	33	69	73	66	69	68	60	66
12	52	26	39	---	---	---	---	---	---	68	62	65
13	42	22	30	76	25	52	---	---	---	64	55	60
14	73	10	44	72	27	44	---	---	---	59	47	52
15	70	42	56	43	27	35	---	---	---	54	39	48
16	71	37	50	---	---	---	---	---	---	---	---	---
17	46	28	40	---	---	---	---	---	---	60	42	51
18	36	11	30	---	---	---	---	---	---	61	42	50
19	28	5	15	---	---	---	---	---	---	58	36	48
20	18	0	3	---	---	---	---	---	---	75	39	51
21	14	0	6	---	---	---	---	---	---	72	39	58
22	17	8	13	---	---	---	81	62	70	68	50	59
23	14	6	8	---	---	---	74	63	69	82	48	66
24	---	---	---	---	---	---	79	68	74	86	78	82
25	---	---	---	---	---	---	---	---	---	85	78	82
26	---	---	---	---	---	---	---	---	---	82	78	80
27	---	---	---	---	---	---	---	---	---	89	77	83
28	---	---	---	---	---	---	---	---	---	90	74	82
29	---	---	---	---	---	---	---	---	---	89	74	82
30	---	---	---	---	---	---	---	---	---	81	62	71
31	---	---	---	---	---	---	---	---	---	77	72	75
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	75	66	71	81	76	78	75	66	69	60	52	55
2	75	68	71	83	76	80	---	---	---	59	51	56
3	83	65	73	81	62	76	---	---	---	63	50	57
4	90	72	83	81	76	79	---	---	---	61	53	56
5	85	71	79	82	76	79	---	---	---	55	47	51
6	74	62	68	82	75	78	---	---	---	56	50	54
7	73	54	63	84	72	78	---	---	---	54	45	51
8	59	52	55	72	68	70	---	---	---	60	48	54
9	67	49	59	75	70	73	---	---	---	59	46	53
10	80	44	56	75	69	72	---	---	---	60	47	54
11	95	54	67	73	69	71	---	---	---	65	47	59
12	100	63	82	73	67	70	---	---	---	74	58	66
13	86	63	81	74	70	72	---	---	---	70	7	39
14	84	61	76	82	73	77	---	---	---	64	23	39
15	80	54	69	74	69	71	---	---	---	63	33	52
16	71	54	62	75	70	72	---	---	---	64	32	56
17	78	55	68	73	70	72	78	69	72	73	18	48
18	72	58	66	77	72	74	78	65	71	65	18	34
19	76	51	66	80	72	76	70	66	68	81	19	72
20	75	42	62	81	72	77	67	62	65	81	47	70
21	83	45	61	75	69	73	65	59	62	62	43	54
22	89	74	84	70	64	67	65	58	63	68	56	62
23	90	79	86	68	64	66	69	63	66	82	65	73
24	88	78	82	69	63	65	66	60	63	80	59	69
25	88	78	83	68	59	64	66	60	63	62	53	57
26	88	81	84	71	65	68	65	52	60	64	57	59
27	83	77	80	74	68	71	60	51	56	67	57	63
28	83	77	80	70	61	66	59	47	53	62	53	58
29	---	---	---	---	---	---	60	48	54	66	55	59
30	---	---	---	74	65	69	60	50	54	69	55	62
31	---	---	---	73	67	70	---	---	---	75	67	70
MONTH	100	42	72	---	---	---	---	---	---	82	7	57

02092162 NEUSE RIVER AT NEW BERN, NC—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	78	67	72	83	18	53	70	56	62	73	0	44
2	72	68	70	85	10	46	75	64	68	70	52	60
3	75	65	70	81	68	75	80	63	70	88	59	70
4	75	67	72	81	65	73	79	65	72	84	54	69
5	74	67	71	77	61	69	83	66	73	74	0	33
6	73	67	69	79	64	70	83	70	76	1	0	0
7	77	69	73	75	63	68	80	72	76	0	0	0
8	76	65	70	76	58	66	80	69	74	1	0	0
9	73	61	67	68	56	59	75	69	71	1	0	0
10	70	59	64	68	54	61	76	67	71	68	1	30
11	75	58	65	74	59	65	75	61	69	78	1	54
12	75	63	68	70	56	61	72	56	65	79	66	74
13	73	63	66	63	53	57	66	52	59	78	57	67
14	74	60	65	64	53	59	65	53	58	59	45	52
15	70	62	66	58	44	51	59	53	56	63	11	31
16	81	63	70	57	44	50	65	54	60	---	---	---
17	71	60	64	60	46	52	74	56	61	---	---	---
18	64	48	56	67	54	60	71	54	60	---	---	---
19	60	47	52	66	60	62	61	56	58	---	---	---
20	59	49	54	62	50	55	60	48	53	54	33	42
21	62	49	56	71	55	60	56	46	51	37	7	29
22	66	46	57	72	61	66	54	46	49	52	3	22
23	69	42	55	72	63	68	53	45	49	50	26	35
24	49	6	24	69	53	62	53	48	50	31	12	24
25	20	2	7	61	50	54	53	44	48	23	0	12
26	23	2	11	58	46	53	49	42	46	2	0	0
27	69	1	20	58	45	50	50	40	47	31	0	5
28	78	46	63	66	53	58	53	43	48	29	0	5
29	79	54	67	66	53	60	63	46	51	44	0	15
30	80	50	66	72	55	60	62	45	53	13	0	4
31	---	---	---	74	56	63	62	46	54	---	---	---
MONTH	81	1	58	85	10	60	83	40	60	---	---	---

02092500 TRENT RIVER NEAR TRENTON, NC

LOCATION.--Lat 35°03'55", long 77°27'23", 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 mi².

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.15 ft above NGVD of 1929. Prior to Mar. 21, 1951, nonrecording gage on bridge 50 ft upstream at same datum. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for period of record from rating curve extended above 4,000 ft³/s on basis of one section slope-conveyance measurement of peak flow; maximum gage height, 22.33 ft, from high-water mark in gage house. Minimum discharge for period of record also occurred Oct. 24, 25, 26, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 17.3 ft; discharge, 7,600 ft³/s, from information provided by North Carolina State Highway Commission.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	24	45	92	61	345	207	80	910	56	280	53
2	8.9	24	44	116	64	361	189	74	763	201	254	47
3	6.8	26	42	138	62	357	169	71	643	705	204	39
4	8.2	25	39	142	62	327	150	67	546	780	180	34
5	8.3	21	44	138	62	288	133	62	456	820	155	51
6	6.8	20	55	126	60	252	120	67	374	810	148	88
7	5.6	20	61	114	69	240	114	82	305	704	156	79
8	6.3	19	64	102	101	250	151	85	264	560	200	61
9	8.4	20	66	92	122	260	415	74	243	365	244	49
10	9.9	20	68	84	126	250	951	65	215	203	266	41
11	11	18	75	76	153	228	1,740	57	187	135	265	35
12	13	20	84	70	185	237	2,250	52	165	117	374	31
13	16	35	87	65	178	270	2,170	48	150	197	566	28
14	17	46	109	61	156	280	1,550	44	136	983	472	26
15	17	63	134	58	140	266	996	39	120	1,760	391	24
16	17	74	149	56	122	271	668	36	149	2,930	344	22
17	18	84	134	65	216	403	516	34	306	2,920	294	20
18	18	120	112	60	361	423	384	32	265	2,060	469	34
19	18	153	94	54	453	417	283	35	229	1,610	635	109
20	17	157	86	51	502	480	218	35	339	1,650	834	163
21	17	138	97	52	467	922	179	36	394	1,470	904	163
22	18	117	106	52	381	1,400	153	35	386	1,110	756	143
23	18	101	102	52	337	1,610	134	87	348	851	585	148
24	18	87	95	51	365	1,430	116	321	290	730	413	185
25	18	76	115	51	384	998	103	476	207	726	279	182
26	20	66	141	51	367	685	106	810	143	851	194	155
27	21	59	142	52	328	528	109	1,190	107	912	138	127
28	21	53	130	52	325	394	106	1,410	82	794	108	109
29	21	49	122	51	---	297	100	1,440	67	631	88	104
30	22	47	109	54	---	241	91	1,350	65	491	73	105
31	23	---	96	58	---	221	---	1,080	---	331	61	---
TOTAL	460.2	1,782	2,847	2,336	6,209	14,931	14,571	9,374	8,854	28,463	10,330	2,455
MEAN	14.8	59.4	91.8	75.4	222	482	486	302	295	918	333	81.8
MAX	23	157	149	142	502	1,610	2,250	1,440	910	2,930	904	185
MIN	5.6	18	39	51	60	221	91	32	65	56	61	20
CFSM	0.09	0.35	0.55	0.45	1.32	2.87	2.89	1.80	1.76	5.47	1.98	0.49
IN.	0.10	0.39	0.63	0.52	1.37	3.31	3.23	2.08	1.96	6.30	2.29	0.54

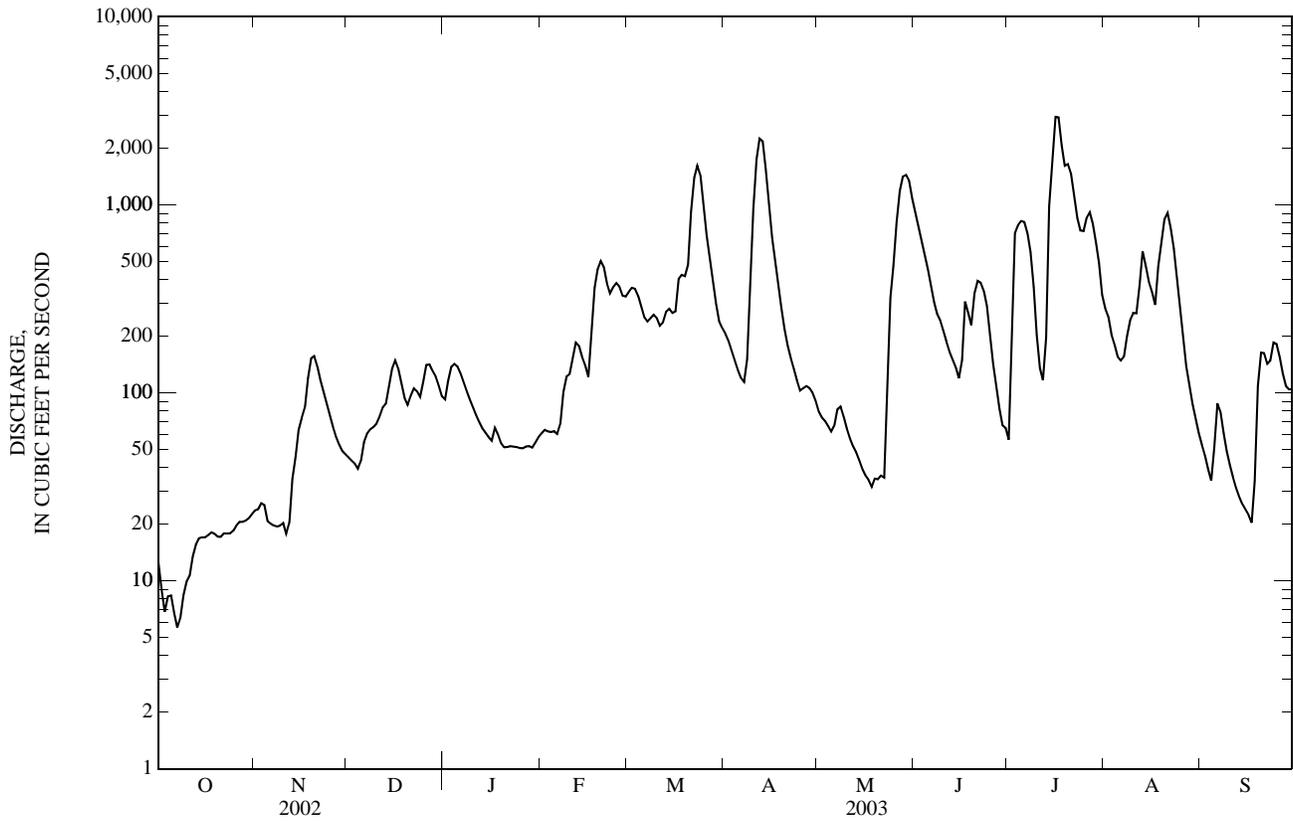
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2003, BY WATER YEAR (WY)

MEAN	106	86.1	160	293	326	345	216	117	127	160	170	172
MAX	864	295	551	703	1,024	963	684	435	768	1,381	1,587	2,121
(WY)	(1972)	(1963)	(1958)	(1978)	(1998)	(1983)	(1973)	(1978)	(1961)	(1962)	(1955)	(1999)
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)

02092500 TRENT RIVER NEAR TRENTON, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1951 - 2003	
ANNUAL TOTAL	31,487.08		102,612.2		191	
ANNUAL MEAN	86.3		281		316	
HIGHEST ANNUAL MEAN					74.2	1960
LOWEST ANNUAL MEAN					2002	
HIGHEST DAILY MEAN	1,320	Mar 6	2,930	Jul 16	12,000	Sep 17, 1999
LOWEST DAILY MEAN	0.84	Aug 23	5.6	Oct 7	0.33	Oct 7, 1993
ANNUAL SEVEN-DAY MINIMUM	0.93	Aug 18	7.2	Oct 3	0.39	Oct 22, 1973
MAXIMUM PEAK FLOW			3,200	Jul 16	15,000*	Sep 17, 1999
MAXIMUM PEAK STAGE			14.70	Jul 16	22.33*	Sep 17, 1999
INSTANTANEOUS LOW FLOW			5.0	Oct 8	0.30*	Oct 23, 1974
ANNUAL RUNOFF (CFSM)	0.51		1.67		1.14	
ANNUAL RUNOFF (INCHES)	6.97		22.72		15.44	
10 PERCENT EXCEEDS	220		770		475	
50 PERCENT EXCEEDS	31		122		80	
90 PERCENT EXCEEDS	4.5		21		7.8	

* See REMARKS.



02092554 TRENT RIVER AT POLLOCKSVILLE, NC

LOCATION.--Lat 35°00'39", long 77°13'09", Jones County, Hydrologic Unit 03020204, at downstream side of bridge on U.S. Highway 17, 0.5 mi downstream from Goshen Branch, and 0.2 mi northeast of Pollocksville.

DRAINAGE AREA.--370 mi².

PERIOD OF RECORD.--July 1996 to current year.

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is at NGVD of 1929. Prior to Oct. 1999 datum reported as 10 ft below NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for negative daily discharges, which are poor. This site is strongly affected by both astronomical and wind tides. The astronomical tides occur at primary harmonic periods of 12.42 hours and 24.8 hours. Mean daily discharge data for this site may be affected by aliasing due to tides and can contain fluctuations that are not representative of net downstream discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s, Sept. 19, 1999, maximum gage height, 16.29 ft, Sept. 19, 1999, from flood mark; minimum discharge, -3,560 ft³/s, Sept. 6, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 ft³/s, Apr. 11, maximum gage height, 5.66 ft, Sept. 18; minimum discharge, -1,500 ft³/s, Sept. 18, minimum gage height -2.04 ft, Feb. 23.

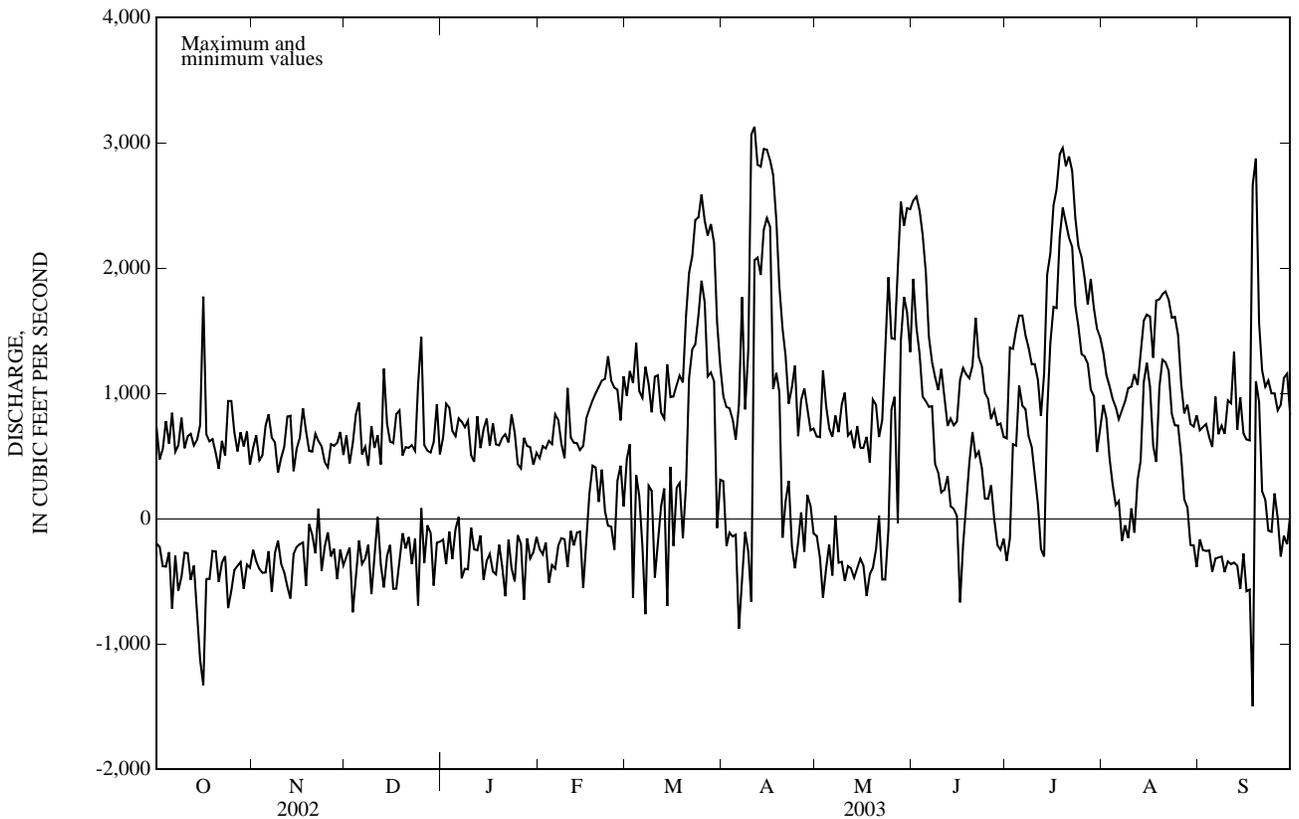
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	734	-196	568	-248	664	-304	648	-166	482	-241	980	476
2	473	-225	665	-337	441	-230	918	-363	579	-284	1,180	596
3	551	-378	467	-400	604	-746	887	-102	560	-190	1,080	-633
4	779	-381	506	-432	831	-450	701	-323	621	-510	1,400	347
5	598	-266	742	-428	926	-174	659	-82	596	-368	1,020	181
6	846	-717	833	-259	513	-362	802	15	833	-397	967	-220
7	533	-295	647	-584	572	-317	775	-475	786	-213	1,210	-761
8	583	-575	608	-273	421	-208	729	-400	598	-155	1,070	264
9	806	-462	368	-175	739	-602	781	-403	484	-163	849	224
10	563	-271	487	-360	565	-309	508	-71	1,040	-386	1,130	-469
11	658	-274	573	-426	667	14	454	-244	647	-97	1,140	-216
12	677	-488	815	-542	433	-370	818	-253	607	-213	848	96
13	584	-374	821	-636	1,200	-548	564	-133	604	-112	800	241
14	630	-750	379	-282	758	-297	711	-487	548	-102	1,230	-696
15	749	-1,130	555	-226	616	-209	799	-338	580	-553	972	414
16	1,770	-1,330	643	-202	603	-558	583	-282	801	-215	976	-217
17	675	-480	880	-189	833	-558	761	-421	874	201	1,060	247
18	617	-480	700	-536	863	-352	593	-444	944	425	1,140	285
19	635	-257	541	-43	505	-115	586	-208	999	410	1,090	-153
20	524	-260	536	-126	570	-237	644	-377	1,050	135	1,620	271
21	398	-505	678	-277	567	-146	674	-618	1,100	393	1,960	1,120
22	623	-352	621	81	586	-361	610	-166	1,120	59	2,100	1,350
23	503	-297	578	-416	541	-159	830	-396	1,300	-55	2,380	1,390
24	940	-713	452	-220	1,070	-691	687	-500	1,100	-63	2,400	1,630
25	940	-574	409	-109	1,450	84	436	-131	1,050	-247	2,590	1,900
26	688	-409	594	-302	587	-351	402	-197	1,030	304	2,380	1,730
27	538	-377	581	-239	543	-52	646	-645	785	423	2,260	1,140
28	689	-346	606	-482	528	-113	580	-155	1,140	98	2,350	1,170
29	578	-560	692	-246	610	-533	570	-317	---	---	2,200	1,100
30	696	-365	508	-374	914	-192	430	-269	---	---	1,570	-73
31	431	-391	---	---	514	-184	526	-146	---	---	1,210	310
MONTH	1,770	-1,330	880	-636	1,450	-746	918	-645	1,300	-553	2,590	-761

02092554 TRENT RIVER AT POLLOCKSVILLE, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER						
1	980	300	657	-138	2,540	1,920	641	-335	1,320	908	706	-164
2	891	-217	652	-312	2,570	1,530	1,360	-157	1,150	802	732	-249
3	881	-110	1,180	-631	2,460	1,310	1,360	594	1,060	481	756	-257
4	792	-142	898	-394	2,270	975	1,510	583	959	276	651	-252
5	630	-127	723	-205	1,970	937	1,620	1,060	892	109	573	-422
6	908	-877	654	-452	1,450	894	1,620	904	793	140	974	-318
7	1,770	-510	823	26	1,250	898	1,460	875	864	-176	675	-309
8	873	-106	690	-351	1,130	438	1,370	662	934	-52	744	-301
9	1,350	-263	914	-344	1,030	368	1,230	575	1,040	-153	678	-427
10	3,060	-663	1,010	-494	1,190	210	1,230	339	1,050	82	943	-342
11	3,130	2,060	663	-378	981	230	1,110	117	1,150	-111	921	-363
12	2,830	2,080	693	-396	740	340	820	-239	1,070	309	1,330	-351
13	2,810	1,950	562	-472	800	99	1,160	-302	1,310	460	708	-374
14	2,950	2,310	739	-397	746	77	1,950	842	1,580	1,090	969	-559
15	2,940	2,400	567	-319	773	24	2,110	1,400	1,630	1,240	682	-278
16	2,860	2,330	565	-371	1,110	-667	2,500	1,690	1,610	1,050	632	-579
17	2,740	1,030	653	-616	1,200	-209	2,630	1,680	1,280	582	625	-565
18	2,380	1,160	450	-444	1,150	135	2,910	2,250	1,740	453	2,660	-1,500
19	1,860	1,010	951	-393	1,120	444	2,960	2,480	1,750	1,050	2,870	1,100
20	1,520	-150	908	-246	1,220	692	2,810	2,360	1,790	1,270	1,560	932
21	1,300	137	651	26	1,600	497	2,890	2,240	1,810	1,250	1,190	221
22	918	301	786	-485	1,290	536	2,780	2,170	1,750	1,180	1,050	154
23	1,050	-223	1,340	-485	1,220	403	2,400	1,700	1,600	837	1,100	-95
24	1,220	-395	1,930	-87	1,000	159	2,180	1,540	1,610	745	1,000	-105
25	658	-186	1,440	872	956	160	2,090	1,310	1,470	744	1,000	202
26	948	51	1,430	973	794	267	1,920	1,300	1,070	496	865	3.6
27	1,040	-262	2,090	-36	866	-7.8	1,710	1,240	841	157	908	-302
28	868	191	2,530	1,420	748	-211	1,910	1,030	909	91	1,120	-135
29	706	104	2,340	1,770	760	-249	1,670	977	757	-211	1,160	-202
30	721	-117	2,480	1,650	653	-161	1,520	532	735	-212	830	29
31	---	---	2,470	1,330	---	---	1,450	711	825	-386	---	---
MONTH	3,130	-877	2,530	-631	2,570	-667	2,960	-335	1,810	-386	2,870	-1,500



0209262905 NEUSE RIVER AT CHANNEL LIGHT 11

LOCATION.--Lat. 34°59'57", long. 76°56'35", Craven County, Hydrologic Unit 03020204, at U.S. Coast Guard Channel Light 11.

PERIOD OF RECORD.--Water years 1989 to 1993, 1996 to current year.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): May to December 1989, January 1991 to July 1993, June 1996 to current year.

pH (TOP AND BOTTOM): June 1996 to current year.

WATER TEMPERATURE (TOP): May to December 1989, January 1991 to July 1993, June 1996 to current year.

WATER TEMPERATURE (BOTTOM): June 1996 to current year.

DISSOLVED OXYGEN (TOP AND BOTTOM): May to December 1989, January 1991 to July 1993, June 1996 to current year.

DISSOLVED OXYGEN (MID): May to December 1989, January 1991 to July 1993.

DISSOLVED OXYGEN, PERCENT SATURATION, (TOP AND BOTTOM): May to December 1989, January 1991 to July 1993, June 1996 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION, (MID): May to December 1989, January 1991 to July 1993.

INSTRUMENTATION.-- Water-quality monitor from May to December 1989, January 1991 to July 1993. Constituents monitored were: specific conductance, top and bottom, water temperature top, dissolved oxygen, top, mid-depth and bottom. Water-quality monitor with satellite telemetry from June 1996 to current year. Constituents monitored were the same as previous water years except, mid-depth dissolved oxygen was not measured, water temperature, bottom, was added as well as pH top and bottom.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. The monitor was removed on August 29, 1999 to prevent possible destruction of the equipment during Hurricanes Dennis and Floyd. It was reinstalled October 6, 1999. The monitor was removed on September 15, 2003 to prevent possible destruction of the equipment during Hurricane Isabel. It was reinstalled September 19, 2003. Prior to June 1996, top constituents were monitored at 10 feet above streambed, mid constituents at 6 feet above streambed, and bottom constituents 2 feet above streambed. Beginning in June 1996 top constituents were monitored at 8 feet above streambed, and bottom constituents 2 feet above streambed. Salinity and dissolved oxygen, percent saturation are computed. The dissolved oxygen percent saturation is computed using a barometric pressure of 760 mm of Hg beginning October 1, 2000. Salinity, minimum extremes are reported as <0.1 ppt. Dissolved oxygen minimum extremes are reported as <1.0 mg/L. Dissolved oxygen, percent saturation minimum extremes are reported as <10%.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	23.5, July 31	<0.1, on many days during the period
SALINITY (BOTOM), ppt	24.6, July 31	<0.1, on many days during the period
pH (TOP), standard units	9.9, March 17, 1999	5.7, February 16, 1998
pH (BOTTOM), standard units	9.3, September 23, 1998	4.3, August 21, 2003
WATER TEMPERATURE (TOP), °C	33.3, August 1, 1999	0.6, January 25, 2003
WATER TEMPERATURE (BOTTOM), °C	30.7, August 2	1.2, January 24, 2003
DISSOLVED OXYGEN (TOP), mg/L	20.0, February 18, 1992	<1.0, on many days during the period
DISSOLVED OXYGEN (BOTTOM), mg/L	21.2, February 20, 1991	<1.0, on many days during the period

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

EXTREMES FOR CURRENT YEAR.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY (TOP), ppt	17.9, October 20	<0.1, on many days during the year
SALINITY (BOTTOM), ppt	19.6, October 22	<0.1, on many days during the year
pH (TOP), standard units	9.0, May 16, June 25	6.3, June 7, 8, 9
pH (BOTTOM), standard units	8.7, May 16	4.3, August 21
WATER TEMPERATURE (TOP), °C	31.0, July 8	0.6, January 25
WATER TEMPERATURE (BOTTOM), °C	29.1, July 22	1.2, January 24
DISSOLVED OXYGEN (TOP), mg/L	17.3, December 31	<1.0, October 5, August 30, 31
DISSOLVED OXYGEN (BOTTOM), mg/L	14.7, December 18	<1.0, on many days during the year
DISSOLVED OXYGEN, PERCENT SATURATION (TOP),%	158, May 16	<10, August 30, 31
DISSOLVED OXYGEN, PERCENT SATURATION (BOTTOM),%	137, May 16	<10, on many days during the year

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.0	13.5	14.2	13.3	12.0	12.7	14.1	11.3	13.1	8.8	6.5	7.9
2	16.1	13.8	14.8	14.1	12.1	12.8	12.5	10.1	11.5	7.0	2.4	5.2
3	17.2	14.8	15.7	14.1	12.6	12.8	13.4	10.0	12.0	7.0	1.8	4.0
4	17.3	14.3	15.7	13.1	10.9	12.6	---	---	---	7.5	5.0	6.7
5	17.7	14.0	15.1	12.6	11.0	11.9	---	---	---	12.8	5.1	8.0
6	17.7	14.5	15.3	12.8	10.3	11.6	11.9	10.8	11.3	12.2	4.1	7.0
7	15.0	14.4	14.6	12.6	10.9	11.6	10.9	9.5	10.5	13.9	10.9	12.3
8	16.7	14.5	15.8	14.0	11.0	12.0	11.3	8.7	10.1	14.2	12.0	13.5
9	16.7	14.7	15.7	14.5	11.2	13.0	10.6	8.3	9.4	14.2	9.4	13.1
10	16.2	14.0	15.3	14.9	12.2	13.3	12.2	9.7	11.3	13.1	6.8	9.8
11	15.2	14.5	14.8	13.4	11.9	12.5	11.9	9.0	10.4	7.8	4.4	5.8
12	15.3	14.5	14.9	14.2	9.0	11.4	---	---	---	10.9	4.2	7.8
13	15.1	14.7	14.9	14.3	10	11.2	---	---	---	13.6	8.6	10.1
14	15.9	14.4	15.4	17.0	10.6	14.7	---	---	---	13.6	8.5	9.4
15	16.6	14.7	15.8	17.1	14.8	16.4	---	---	---	11.5	9.3	10.8
16	16.3	13.9	15.3	15.8	9.7	12.5	---	---	---	11.5	10.6	11.3
17	16.0	14.7	15.5	16.1	9.6	12.4	8.5	7.3	8.1	11.5	9.5	11.1
18	15.3	14.8	15.1	12.4	11.0	11.7	8.2	6.0	7.4	11.4	10	10.7
19	16.2	15.3	15.7	13.5	10	11.6	8.0	4.2	6.9	11.9	9.9	11.2
20	17.9	14.5	15.9	16.7	11.6	14.3	9.3	7.5	8.5	---	---	---
21	17.1	12.4	14.7	15.9	11.7	14.1	9.9	7.5	8.7	12.2	10.2	11.2
22	17.6	12.8	15.7	17.3	11.3	14.7	10.2	6.3	8.4	11.1	10.1	10.6
23	17.8	14.4	16.5	15.7	12.6	13.3	9.2	4.3	6.9	11.0	9.0	10.4
24	16.1	11.7	13.3	13.9	11.8	12.8	9.0	2.7	5.3	11.3	8.7	10.4
25	12.8	11.9	12.4	13.9	9.2	11.5	9.4	4.0	6.9	10.4	7.8	9.0
26	13.1	12.1	12.7	10.5	6.5	9.0	9.1	6.3	8.5	10.6	8.1	9.4
27	13.5	12.5	13.0	13.5	7.6	10.5	8.1	3.8	5.9	10.6	9.8	10.2
28	13.9	13.0	13.3	13.6	9.2	11.0	7.1	3.9	6.0	10.6	9.6	10.2
29	13.5	13.1	13.4	14.3	8.9	10.2	11.5	5.5	8.8	11.4	10.0	10.8
30	13.5	12.0	12.8	17.1	12.8	15.2	7.6	5.7	7.2	11.4	9.8	10.6
31	13.4	12.4	13.0	---	---	---	7.6	5.0	7.1	10.5	6.6	9.6
MONTH	17.9	11.7	14.7	17.3	6.5	12.5	---	---	---	---	---	---

NEUSE RIVER BASIN

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	16.3	14.2	15.3	15.2	12.4	13.8	17.1	12.6	14.2	14.3	8.0	10.5
2	17.2	15.7	16.5	14.7	12.4	13.4	14.5	12.9	14.1	16.3	9.5	14.4
3	17.8	15.4	17.1	15.2	12.8	13.9	14.7	11.5	13.0	16.9	13.4	15.7
4	18.2	16.9	17.7	15.1	12.5	13.4	---	---	---	18.1	14.0	17.2
5	18.7	16.9	17.9	15.2	12.0	13.3	---	---	---	18.1	14.3	17.4
6	19.0	15.1	16.9	15.3	12.0	13.4	12.4	11.5	11.9	18.1	11.8	17.1
7	17.2	14.6	15.9	13.1	11.2	12.2	13.9	11.1	12.2	15.1	11.8	13.2
8	16.7	14.5	16.0	15.1	12.6	14.3	14.3	13.2	14.1	15.7	13.2	14.0
9	16.7	16.2	16.5	15.5	13.1	15.1	14.3	9.8	11.7	14.3	13.1	13.8
10	16.6	15.1	16.3	15.4	13.6	14.8	13.3	11.5	12.5	15.1	13.3	14.2
11	16.1	14.6	15.2	14.5	12.4	13.6	13.9	12.1	13.0	15.5	14.4	15.3
12	15.5	14.7	15.2	15.8	10.4	13.6	---	---	---	15.6	11.6	14.3
13	16.2	15.3	15.6	17.0	10.2	12.3	---	---	---	15.0	13.8	14.7
14	16.5	15.3	16.0	18.0	14.9	17.0	---	---	---	15.1	13.4	14.6
15	17.0	15.6	16.5	17.8	17.0	17.5	---	---	---	14.9	11.0	12.3
16	17.5	15.3	16.3	17.1	15.3	16.3	---	---	---	11.8	11.2	11.6
17	16.8	15.1	16.0	17.5	11.7	15.5	12.5	8.6	10.4	11.8	11.1	11.5
18	15.5	15.1	15.2	14.8	11.5	12.3	8.8	7.6	8.2	13.0	10.6	11.7
19	18.4	15.5	17.1	17.5	11.8	14.8	11.8	7.5	10.2	14.3	11.5	12.2
20	18.6	15.5	18.0	18.1	16.9	17.6	10.8	8.6	9.0	---	---	---
21	18.8	13.0	17.7	18.2	16.1	17.6	12.7	8.3	9.6	12.8	10.9	11.9
22	19.6	16.6	18.6	18.4	15.9	17.0	13.6	9.6	12.0	11.3	10.6	10.9
23	18.6	15.9	17.7	15.9	12.8	14.1	14.4	9.1	13.0	11.2	9.5	10.6
24	17.3	11.9	14.9	15.6	13.2	14.3	14.3	5.1	11.5	11.7	9.8	11.1
25	12.8	12.0	12.6	17.7	14.1	16.1	10.2	6.9	8.5	12.4	10.8	11.5
26	13.3	12.7	13.0	18.3	16.1	17.6	9.2	8.6	8.9	12.8	11.9	12.6
27	13.8	13.0	13.3	18.2	13.3	16.0	9.7	8.0	8.8	12.8	10.2	10.8
28	14.0	13.1	13.5	18.6	11.1	14.3	12.4	9.1	11.3	12.6	10.7	11.7
29	13.6	13.2	13.5	18.8	10.8	17.4	14.6	10.9	12.7	12.8	11.5	12.3
30	13.5	12.2	13.1	18.3	15.4	16.9	13.5	12.1	12.6	12.7	11.1	11.7
31	13.6	12.6	13.2	---	---	---	14.2	11.9	13.0	11.8	10.2	10.9
MONTH	19.6	11.9	15.8	18.8	10.2	15.0	---	---	---	---	---	---
DAY	MAX	MIN	MEAN									
1	14.9	11.1	13.3	7.8	2.6	5.8	3.6	0.06	1.4	4.5	2.1	3.6
2	15.5	12.2	14.8	---	---	---	3.3	0.09	1.0	6.0	0.1	2.4
3	15.5	14.7	15.2	9.5	2.6	7.9	4.0	0.2	1.6	6.5	0.5	4.0
4	15.1	12.0	14.0	5.2	2.1	2.8	3.7	0.2	1.3	6.4	0.5	1.2
5	14.5	10.3	12.8	7.6	1.8	4.9	1.1	0.2	0.5	0.9	0.5	0.6
6	---	---	---	---	---	---	1.4	0.4	1.0	2.7	0.5	1.0
7	---	---	---	---	---	---	1.8	0.3	0.8	5.3	2.1	3.9
8	---	---	---	9.7	2.0	6.4	0.7	0.2	0.4	7.1	3.9	5.7
9	---	---	---	8.9	3.1	6.7	1.4	0.07	0.5	7.1	3.5	6.4
10	---	---	---	9.5	1.4	7.5	1.7	0.07	1.1	7.0	5.1	6.4
11	---	---	---	3.8	0.7	1.9	0.8	0.06	0.3	7.6	6.0	7.1
12	---	---	---	5.5	0.6	3.3	0.4	0.06	0.2	8.2	4.4	7.4
13	---	---	---	5.8	3.6	4.8	0.2	0.09	0.1	8.4	4.3	6.0
14	---	---	---	5.8	2.2	3.0	0.10	0.05	0.07	5.1	3.6	4.2
15	---	---	---	7.8	2.0	3.8	0.06	0.05	0.05	4.1	3.7	3.9
16	---	---	---	4.8	0.7	2.3	0.1	0.04	0.05	4.2	3.8	4.0
17	---	---	---	3.9	2.1	2.8	0.06	0.04	0.05	4.3	3.3	3.9
18	---	---	---	3.8	0.1	1.0	0.06	0.04	0.05	4.2	3.5	4.0
19	---	---	---	2.0	0.3	1.2	0.1	0.04	0.06	4.2	3.2	3.7
20	---	---	---	1.7	0.5	0.8	0.10	0.04	0.05	4.3	3.7	4.1
21	12.1	10.0	11.8	1.3	0.6	1.0	0.2	0.04	0.05	4.5	3.7	4.2
22	12.0	4.9	10.6	1.2	0.5	1.1	0.4	0.04	0.06	4.4	3.4	3.8
23	9.0	1.8	4.0	6.2	0.4	2.7	2.0	0.06	0.3	4.0	3.0	3.7
24	6.8	3.7	5.1	1.2	0.4	0.6	2.0	0.1	0.5	3.8	2.9	3.2
25	4.9	3.1	3.8	1.0	0.1	0.5	2.6	0.08	0.5	3.5	2.4	3.0
26	3.7	2.9	3.2	0.7	0.10	0.3	0.2	0.08	0.1	3.4	1.3	3.0
27	3.9	2.5	3.2	0.5	0.2	0.4	4.0	0.07	1.1	3.5	1.1	1.8
28	5.1	1.8	3.2	0.3	0.05	0.1	4.4	2.2	3.6	1.5	0.5	0.9
29	---	---	---	0.06	0.05	0.05	4.6	2.5	3.6	2.5	0.3	1.3
30	---	---	---	0.1	0.05	0.06	4.3	2.5	3.6	1.9	0.2	0.7
31	---	---	---	2.3	0.1	0.9	---	---	---	1.8	0.04	0.7
MONTH	---	---	---	---	---	---	4.6	0.04	0.8	8.4	0.04	3.5

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.04	0.1	6.0	2.8	4.2	11.1	8.8	10.0	14.2	13.3	13.9
2	0.4	0.05	0.1	6.7	2.5	4.2	11.4	8.8	10.1	13.7	13.2	13.4
3	0.05	0.04	0.05	2.7	2.1	2.3	11.6	9.5	10.9	14.2	12.6	13.5
4	0.05	0.04	0.04	4.6	2.3	3.5	12.0	8.6	11.2	14.3	12.0	13.9
5	0.05	0.04	0.05	5.9	2.9	4.2	12.1	9.7	11.6	14.6	13.1	14.3
6	0.07	0.04	0.05	6.0	3.6	4.8	13.1	11.2	12.4	14.7	5.3	13.3
7	0.06	0.04	0.05	6.0	4.5	5.3	13.0	9.7	12.0	14.5	6.6	9.1
8	0.05	0.04	0.05	5.7	3.8	4.7	13.1	10.8	12.2	13.1	6.1	7.6
9	1.7	0.04	0.2	5.7	4.3	5.4	11.7	3.4	7.5	9.8	8.1	9.1
10	1.3	0.06	0.3	5.9	2.0	4.9	9.1	2.8	5.6	9.6	8.0	9.2
11	2.1	0.05	0.2	5.2	2.4	3.8	12.6	1.1	6.8	9.2	8.6	8.7
12	3.5	0.06	0.9	4.7	2.8	3.6	13.3	4.6	10.7	9.7	8.6	9.3
13	5.3	0.06	3.4	4.6	1.7	3.5	12.7	2.7	9.7	9.5	8.6	9.1
14	6.0	3.5	5.3	4.0	1.7	2.9	13.3	3.2	8.0	9.2	8.8	9.0
15	6.2	3.9	5.6	3.4	2.5	2.9	13.5	9.0	12.3	---	---	---
16	6.0	1.0	2.9	3.9	2.5	3.3	13.8	10.5	12.2	---	---	---
17	2.2	0.7	1.3	5.3	3.2	4.3	13.9	10.9	12.8	---	---	---
18	3.0	0.8	1.7	6.9	5.3	6.2	13.9	12.4	13.3	---	---	---
19	3.2	2.0	2.7	7.3	5.3	6.5	12.8	4.3	9.7	---	---	---
20	4.1	2.5	3.5	7.5	5.1	7.1	4.4	2.7	3.7	8.6	7.6	8.1
21	4.9	0.5	2.5	7.0	4.2	5.8	3.7	1.4	2.4	8.6	7.5	8.2
22	5.1	1.2	3.5	6.5	0.6	3.8	5.7	2.2	3.7	8.0	6.2	7.3
23	4.7	2.0	3.9	7.1	0.3	2.4	13.1	4.2	7.8	7.3	5.4	6.5
24	4.9	2.0	3.9	7.3	0.4	5.5	12.6	1.2	5.8	7.4	5.3	6.4
25	4.8	3.9	4.5	8.4	7.1	7.5	3.5	1.2	1.7	7.1	4.5	6.1
26	5.1	4.5	4.9	7.8	5.1	6.8	6.8	1.8	4.2	7.0	6.3	6.8
27	5.3	4.2	5.1	8.8	6.5	7.6	13.3	5.9	10.9	6.8	5.7	6.6
28	5.2	3.9	4.9	9.4	6.0	8.7	13.9	11.3	13.3	6.7	3.8	5.7
29	4.9	3.3	4.3	9.3	7.5	8.7	13.7	12.6	13.5	6.6	3.4	4.3
30	4.1	3.0	3.7	8.8	6.6	8.1	14.0	12.8	13.6	3.8	3.6	3.7
31	---	---	---	10.8	7.1	9.7	14.2	13.1	13.8	---	---	---
MONTH	6.2	0.04	2.3	10.8	0.3	5.2	14.2	1.1	9.5	---	---	---

NEUSE RIVER BASIN

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	8.1	7.6	7.8	8.0	7.8	7.9	7.5	7.2	7.3	8.5	8.0	8.2
2	7.9	7.6	7.8	8.0	7.8	7.9	7.6	7.2	7.4	8.1	7.5	7.9
3	8.0	7.4	7.7	8.1	7.8	8.0	7.7	7.2	7.4	8.4	7.0	7.7
4	8.0	7.3	7.5	8.2	7.9	8.1	---	---	---	7.8	7.1	7.5
5	8.0	7.1	7.5	8.2	7.9	8.0	---	---	---	8.2	7.3	7.7
6	8.0	7.3	7.8	8.1	7.5	7.9	7.7	7.4	7.6	8.4	7.1	7.7
7	8.1	7.4	7.7	8.0	7.7	7.9	7.8	7.5	7.7	7.6	7.1	7.4
8	8.3	7.8	8.1	8.1	7.7	7.9	8.0	7.7	7.8	7.8	7.4	7.6
9	8.1	7.8	8.0	8.0	7.5	7.8	7.9	7.7	7.8	8.2	7.6	7.9
10	8.2	7.8	8.0	7.9	7.4	7.6	7.8	7.7	7.8	8.3	7.8	8.0
11	8.0	7.8	7.9	8.0	7.5	7.8	7.8	7.6	7.6	8.3	7.5	7.8
12	7.8	7.7	7.7	8.1	7.3	7.8	---	---	---	8.1	7.2	7.7
13	8.0	7.6	7.8	7.9	7.7	7.8	---	---	---	8.3	7.9	8.1
14	8.1	7.7	8.0	7.8	7.6	7.7	---	---	---	8.2	7.9	8.1
15	8.1	7.8	8.0	7.8	7.6	7.7	---	---	---	8.2	7.8	8.0
16	8.0	7.7	7.9	8.1	7.6	7.8	---	---	---	8.2	7.8	8.0
17	7.9	7.5	7.8	8.1	7.5	7.9	8.4	8.0	8.2	8.0	7.7	7.9
18	8.0	7.7	7.9	8.0	7.6	7.8	8.5	8.2	8.3	8.0	7.7	7.8
19	7.9	7.8	7.8	8.0	7.4	7.7	8.5	8.0	8.4	8.1	7.8	7.9
20	8.0	7.4	7.7	7.7	7.4	7.5	8.4	7.8	8.0	---	---	---
21	7.8	7.3	7.6	7.9	7.4	7.6	8.4	7.9	8.1	7.9	7.8	7.9
22	7.8	7.4	7.6	8.0	7.3	7.5	8.4	8.2	8.3	7.9	7.8	7.8
23	7.9	7.6	7.7	7.8	7.5	7.6	8.3	8.1	8.2	7.9	7.5	7.7
24	8.0	7.6	7.9	7.8	7.4	7.6	8.3	7.4	7.9	7.6	7.5	7.5
25	8.0	7.9	7.9	7.9	7.3	7.7	7.8	7.5	7.7	7.6	7.4	7.5
26	8.2	7.9	8.0	8.1	7.6	7.9	8.1	7.7	7.8	7.6	7.5	7.6
27	8.2	7.9	8.1	7.8	7.2	7.5	8.2	7.6	7.8	7.6	7.5	7.5
28	8.1	7.8	8.0	7.6	7.1	7.2	8.2	7.5	7.9	7.6	7.4	7.5
29	8.1	7.9	8.0	7.5	7.2	7.3	8.5	7.4	8.0	7.6	7.5	7.6
30	8.1	7.9	7.9	7.5	7.0	7.2	8.7	8.0	8.5	7.7	7.6	7.6
31	8.0	7.8	7.9	---	---	---	8.8	8.4	8.6	7.7	7.5	7.6
MONTH	8.3	7.1	7.8	8.2	7.0	7.7	---	---	---	---	---	---
DAY	MAX	MIN	MEAN									
1	7.7	7.5	7.6	8.7	7.6	8.1	7.2	6.9	7.1	7.2	6.8	7.0
2	7.9	7.6	7.8	---	---	---	7.2	6.8	7.1	7.6	6.8	7.1
3	8.0	7.8	7.9	7.9	7.2	7.4	7.0	6.9	7.0	7.3	7.0	7.2
4	7.9	7.2	7.5	8.1	7.4	7.7	7.0	6.9	7.0	7.4	7.1	7.2
5	7.9	7.6	7.8	8.3	7.2	7.8	7.0	6.9	7.0	7.7	7.2	7.4
6	---	---	---	---	---	---	7.2	7.0	7.1	7.4	6.9	7.1
7	---	---	---	---	---	---	7.2	7.1	7.1	7.5	6.9	7.2
8	---	---	---	7.8	7.3	7.5	7.2	7.1	7.1	7.5	7.1	7.3
9	---	---	---	7.5	6.8	7.2	7.3	7.2	7.2	7.5	7.0	7.1
10	---	---	---	7.5	6.9	7.1	7.3	7.2	7.3	7.7	7.0	7.2
11	---	---	---	7.4	7.0	7.2	7.2	7.1	7.2	7.2	6.5	6.8
12	---	---	---	7.0	6.9	6.9	7.2	7.2	7.2	7.4	6.5	6.8
13	---	---	---	7.4	6.8	7.0	7.2	7.1	7.2	7.5	6.8	7.1
14	---	---	---	7.4	7.1	7.2	7.1	6.8	7.0	8.6	6.7	7.6
15	---	---	---	7.3	7.0	7.1	6.8	6.6	6.7	8.4	8.1	8.3
16	---	---	---	7.0	6.6	6.8	6.9	6.4	6.6	9.0	8.1	8.5
17	---	---	---	6.8	6.6	6.7	6.8	6.4	6.5	8.6	7.9	8.2
18	---	---	---	6.8	6.7	6.7	6.6	6.4	6.5	8.3	7.6	7.9
19	---	---	---	7.3	6.7	7.0	6.9	6.4	6.6	8.2	7.4	7.8
20	---	---	---	7.2	6.9	7.0	6.9	6.5	6.6	8.4	7.6	8.0
21	8.6	7.3	7.7	7.0	6.9	7.0	6.6	6.5	6.5	8.6	8.0	8.2
22	7.7	6.9	7.3	7.2	7.0	7.1	6.5	6.4	6.4	8.5	8.1	8.3
23	7.6	7.2	7.3	7.1	7.0	7.0	6.7	6.4	6.6	8.2	7.6	7.8
24	7.7	7.4	7.5	7.4	6.9	7.1	6.8	6.6	6.7	8.5	7.5	7.7
25	8.0	7.4	7.7	7.5	6.7	7.2	6.8	6.7	6.8	8.4	7.3	7.7
26	8.0	7.6	7.8	7.2	6.7	6.8	6.8	6.7	6.8	7.9	7.1	7.3
27	7.9	7.6	7.7	7.3	6.8	7.0	6.8	6.7	6.8	7.7	7.1	7.4
28	8.4	7.4	7.8	7.0	6.7	6.8	7.0	6.8	6.8	7.1	6.9	7.0
29	---	---	---	6.8	6.6	6.7	7.2	6.8	6.9	7.3	6.8	6.9
30	---	---	---	7.0	6.6	6.7	7.0	6.7	6.9	7.1	6.7	6.8
31	---	---	---	7.2	7.0	7.1	---	---	---	6.8	6.6	6.8
MONTH	---	---	---	---	---	---	7.3	6.4	6.9	9.0	6.5	7.4

NEUSE RIVER BASIN

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.8	7.3	7.6	7.9	7.6	7.7	7.4	7.1	7.2	8.2	7.1	7.7
2	7.7	7.2	7.5	7.9	7.6	7.8	7.4	7.0	7.2	7.4	7.0	7.1
3	7.8	7.0	7.3	8.0	7.6	7.8	7.6	7.0	7.3	7.0	6.9	7.0
4	7.3	7.0	7.1	8.4	7.7	8.0	---	---	---	7.3	7.0	7.2
5	7.2	6.8	6.9	8.4	7.6	8.2	---	---	---	7.2	7.0	7.2
6	7.7	6.8	7.2	8.4	6.1	7.6	7.6	7.4	7.5	7.2	7.0	7.0
7	7.8	7.0	7.5	---	---	---	7.6	7.4	7.5	7.5	7.1	7.3
8	7.9	7.3	7.8	---	---	---	7.6	7.5	7.5	7.8	7.3	7.5
9	7.7	7.5	7.6	---	---	---	7.8	7.5	7.7	8.0	7.6	7.7
10	7.6	7.3	7.5	---	---	---	7.7	7.4	7.6	7.9	7.2	7.5
11	7.6	7.4	7.5	---	---	---	7.6	7.2	7.5	7.4	7.0	7.2
12	7.6	7.2	7.4	---	---	---	---	---	---	8.0	6.9	7.4
13	7.5	7.4	7.4	---	---	---	---	---	---	7.9	7.2	7.4
14	7.6	7.3	7.5	---	---	---	---	---	---	7.6	7.0	7.2
15	7.6	7.4	7.5	---	---	---	---	---	---	7.9	6.8	7.6
16	7.5	7.3	7.4	---	---	---	---	---	---	8.3	7.7	8.0
17	7.9	7.4	7.6	---	---	---	8.1	7.3	7.8	8.1	7.9	8.0
18	8.1	7.8	8.0	---	---	---	8.5	8.1	8.3	8.1	7.7	7.9
19	8.0	7.6	7.7	---	---	---	8.5	7.3	7.8	8.1	7.6	8.0
20	7.9	7.3	7.5	---	---	---	8.2	7.5	8.0	---	---	---
21	7.7	7.1	7.4	---	---	---	8.4	7.4	8.0	8.0	7.7	7.9
22	7.9	7.3	7.4	---	---	---	8.3	7.3	7.8	7.9	7.8	7.9
23	7.8	7.5	7.7	---	---	---	8.4	7.4	7.7	7.9	7.6	7.8
24	8.0	7.4	7.7	---	---	---	8.2	7.5	7.8	7.7	7.6	7.6
25	8.0	7.8	7.9	---	---	---	8.2	7.7	7.9	7.6	7.5	7.5
26	8.2	7.8	8.0	7.2	6.7	6.9	8.1	7.8	7.9	7.6	7.5	7.6
27	8.2	7.8	8.0	7.6	6.5	7.1	8.0	7.5	7.8	7.6	7.5	7.6
28	8.2	7.7	8.0	7.8	6.9	7.2	7.9	7.6	7.7	7.6	7.4	7.5
29	8.1	7.9	8.0	7.4	6.9	7.0	7.9	7.6	7.7	7.6	7.5	7.6
30	8.0	7.8	7.9	7.3	6.9	7.1	7.6	7.4	7.5	7.7	7.5	7.6
31	7.9	7.7	7.8	---	---	---	7.5	7.3	7.4	7.7	7.4	7.6
MONTH	8.2	6.8	7.6	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN									
1	7.6	7.2	7.3	7.9	7.0	7.3	7.0	6.7	6.9	6.8	6.7	6.7
2	7.4	7.2	7.3	---	---	---	7.2	6.7	7.0	7.3	6.6	6.9
3	7.4	7.2	7.3	8.0	6.9	7.0	7.1	6.8	6.9	7.6	6.7	7.0
4	7.5	7.2	7.3	8.2	7.2	7.7	7.0	6.7	6.9	7.6	6.7	7.3
5	7.9	7.3	7.6	8.1	6.8	7.3	7.1	6.8	7.0	7.7	7.3	7.5
6	8.0	7.6	7.8	---	---	---	7.3	7.0	7.2	7.6	6.8	7.3
7	---	---	---	---	---	---	7.3	7.1	7.2	7.0	6.7	6.8
8	---	---	---	7.3	6.8	7.0	7.2	7.1	7.1	7.0	6.8	6.9
9	---	---	---	7.1	6.8	6.9	7.3	7.2	7.2	7.0	6.7	6.8
10	---	---	---	7.5	6.8	7.0	7.3	7.2	7.3	6.8	6.7	6.7
11	---	---	---	7.7	7.2	7.4	7.2	7.1	7.2	6.8	6.7	6.8
12	---	---	---	7.2	6.9	7.0	7.3	7.2	7.2	7.4	6.6	6.7
13	---	---	---	7.4	6.9	7.1	7.2	7.0	7.2	7.9	6.6	7.2
14	---	---	---	7.3	7.0	7.2	7.1	6.7	7.0	8.4	7.1	7.6
15	---	---	---	7.3	6.7	7.0	6.8	6.5	6.6	8.3	7.3	8.0
16	---	---	---	7.1	6.7	6.8	6.8	6.5	6.6	8.7	7.5	8.1
17	---	---	---	7.1	6.9	7.0	6.9	6.6	6.7	8.4	7.5	7.9
18	---	---	---	7.1	6.6	6.9	6.9	6.7	6.7	8.1	7.4	7.8
19	---	---	---	7.4	6.7	7.1	7.2	6.7	6.9	8.0	7.2	7.7
20	---	---	---	7.2	6.7	7.0	7.2	6.8	6.8	8.1	7.4	7.7
21	7.5	7.1	7.1	7.1	6.8	7.0	6.8	6.5	6.7	8.0	7.2	7.6
22	7.4	6.9	7.1	7.0	6.9	6.9	6.8	6.6	6.7	8.2	6.9	7.7
23	7.3	6.9	7.1	7.1	6.6	6.8	6.9	6.6	6.8	8.0	6.9	7.6
24	7.5	7.1	7.3	7.4	6.9	7.1	7.0	6.6	6.8	7.6	7.0	7.3
25	7.8	7.3	7.5	7.3	6.7	7.1	7.0	6.7	6.9	7.0	6.8	6.9
26	7.8	7.4	7.6	7.2	6.6	6.8	7.0	6.9	6.9	7.0	6.7	6.8
27	8.0	7.5	7.6	7.2	6.7	6.9	7.1	6.6	6.9	7.5	6.6	7.1
28	8.0	7.2	7.5	7.0	6.8	6.8	6.8	6.7	6.8	7.0	6.8	7.0
29	---	---	---	6.8	6.7	6.7	6.9	6.7	6.8	7.1	6.6	6.7
30	---	---	---	7.0	6.7	6.8	6.8	6.7	6.7	7.4	6.6	7.0
31	---	---	---	7.1	6.7	7.0	---	---	---	7.2	6.8	6.9
MONTH	---	---	---	---	---	---	7.3	6.5	6.9	8.7	6.6	7.2

NEUSE RIVER BASIN

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.8	25.1	25.4	16.6	15.7	16.1	10.6	9.3	10.1	10.0	8.7	9.3
2	25.7	25.2	25.5	15.9	14.9	15.4	9.7	8.5	9.2	10.9	9.6	10.0
3	25.7	25.1	25.4	15.6	14.3	14.6	9.8	8.8	9.3	10.4	9.7	10.2
4	26.8	25.4	25.9	14.5	13.9	14.3	---	---	---	9.7	8.6	9.3
5	26.7	25.7	26.1	14.5	13.9	14.2	---	---	---	9.0	7.8	8.6
6	26.8	25.8	26.4	15.6	14.2	15.0	7.4	6.8	7.2	9.3	7.9	8.6
7	26.7	25.8	26.3	14.8	13.9	14.3	7.0	6.2	6.6	8.5	7.0	7.7
8	26.5	24.8	25.8	14.8	13.8	14.3	7.5	6.5	7.1	7.2	6.4	6.9
9	24.9	24.3	24.7	14.9	13.6	14.5	7.5	6.9	7.1	8.5	6.9	7.5
10	24.8	24.2	24.6	16.4	14.6	15.4	7.1	6.8	7.0	8.8	7.8	8.2
11	24.5	24.3	24.4	17.5	16.2	17.0	7.4	7.1	7.2	8.7	7.3	7.7
12	24.4	24.0	24.2	18.3	16.6	17.6	---	---	---	7.6	6.2	6.7
13	24.6	23.7	23.9	17.9	15.9	16.9	---	---	---	7.5	6.5	6.8
14	24.3	22.7	23.6	15.9	15.3	15.6	---	---	---	7.5	5.7	6.3
15	22.7	21.8	22.2	15.9	15.5	15.7	---	---	---	6.7	5.9	6.4
16	22.3	21.2	21.6	15.9	15.3	15.6	---	---	---	6.3	5.1	5.8
17	21.4	20.6	20.9	15.8	15.3	15.7	8.5	7.1	7.5	5.9	5.3	5.7
18	21.2	20.2	20.5	15.3	14.3	14.7	7.6	6.7	7.1	5.4	4.3	4.8
19	20.4	20.0	20.3	15.0	13.8	14.4	8.2	7.0	7.5	4.9	3.9	4.4
20	21.0	19.4	20.0	15.1	14.2	14.8	10.1	8.2	9.4	---	---	---
21	20.6	19.2	19.8	15.0	14.3	14.7	9.7	8.8	9.3	5.0	4.3	4.6
22	20.6	19.1	19.7	15.4	14.3	14.9	10.3	8.1	9.1	4.5	4.0	4.3
23	20.2	18.3	19.2	14.3	12.8	13.2	9.8	8.9	9.3	4.1	2.0	3.3
24	20.1	18.1	18.8	13.1	12.0	12.4	9.4	8.9	9.2	2.0	1.1	1.5
25	18.4	18.0	18.2	13.1	11.9	12.6	9.3	8.4	9.1	2.2	0.6	1.3
26	19.3	18.3	18.7	13.4	12.4	12.9	8.5	7.0	7.9	2.3	1.4	1.7
27	19.5	18.7	19.1	12.9	11.9	12.5	7.7	6.4	6.9	2.4	1.8	2.1
28	19.5	18.7	19.1	12.0	10.5	11.1	7.9	6.3	7.2	2.5	1.2	1.9
29	19.3	18.9	19.1	11.2	9.8	10.2	8.2	7.0	7.7	3.6	1.9	2.7
30	19.2	17.9	18.5	12.6	10.5	11.6	8.7	7.3	7.9	4.0	3.3	3.6
31	17.9	16.5	17.1	---	---	---	9.4	8.1	8.5	4.4	3.9	4.1
MONTH	26.8	16.5	22.1	18.3	9.8	14.4	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.9	4.3	4.6	10.9	9.2	9.6	15.3	13.4	14.4	22.4	21.0	21.7
2	5.5	4.1	4.8	---	---	---	16.2	14.2	15.1	22.9	21.5	21.9
3	7.0	5.0	5.7	11.0	9.8	10.3	17.0	14.8	15.9	22.2	21.0	21.6
4	7.1	4.4	6.1	10.8	9.8	10.3	17.5	15.9	16.8	21.0	19.8	20.3
5	7.6	6.6	7.1	12.3	10.8	11.6	18.3	16.9	17.7	19.9	19.0	19.4
6	---	---	---	---	---	---	18.0	17.2	17.6	20.8	19.4	20.1
7	---	---	---	---	---	---	17.6	16.8	17.2	22.6	20.2	21.3
8	---	---	---	11.8	10.2	10.9	17.0	15.7	16.5	23.5	21.1	22.3
9	---	---	---	12.0	10.6	11.3	15.7	14.8	15.3	24.5	22.8	23.7
10	---	---	---	12.6	11.2	11.8	14.8	13.9	14.2	26.4	23.6	24.6
11	---	---	---	12.1	11.1	11.4	14.1	12.8	13.6	25.9	22.9	24.4
12	---	---	---	12.4	11.1	11.6	13.9	12.6	13.2	23.8	21.2	22.4
13	---	---	---	13.3	11.8	12.5	15.1	13.3	13.8	22.7	21.8	22.2
14	---	---	---	13.5	11.4	12.1	15.2	13.7	14.4	23.6	20.9	22.1
15	---	---	---	11.8	11.1	11.4	17.5	14.9	15.7	22.8	22.0	22.3
16	---	---	---	14.0	11.8	12.5	17.8	15.9	16.7	24.3	21.8	22.5
17	---	---	---	14.3	13.0	13.8	19.6	16.6	17.6	23.8	21.9	22.3
18	---	---	---	14.9	14.0	14.5	18.3	16.9	17.7	21.9	21.0	21.5
19	---	---	---	14.7	14.3	14.5	18.5	17.5	18.0	21.0	20.1	20.5
20	---	---	---	15.0	14.4	14.7	18.4	16.9	17.4	22.3	19.7	20.7
21	8.5	7.7	8.1	15.8	14.6	15.2	19.6	17.2	17.8	22.2	20.7	21.3
22	10.9	8.1	9.2	17.4	15.4	16.0	19.3	18.2	18.6	22.1	21.3	21.7
23	11.0	10.3	10.7	16.6	16.1	16.4	18.5	17.5	18.0	21.8	20.9	21.3
24	11.1	10.2	10.7	16.9	16.0	16.4	18.7	17.4	17.9	21.7	20.9	21.1
25	11.2	10.7	10.9	17.6	16.3	16.9	18.5	17.8	18.1	23.1	21.2	22.0
26	10.7	10.0	10.3	18.0	16.6	17.3	19.7	18.3	18.7	23.9	21.8	22.9
27	10.0	9.7	9.8	17.8	17.0	17.2	19.2	18.7	18.9	23.7	22.4	23.1
28	9.8	9.4	9.6	17.8	16.6	17.2	20.9	18.7	19.3	22.6	21.6	22.1
29	---	---	---	18.2	17.1	17.7	21.5	19.6	20.5	22.9	21.5	21.9
30	---	---	---	18.4	16.5	17.9	21.6	20.0	20.8	23.9	20.8	21.8
31	---	---	---	16.5	14.7	15.5	---	---	---	23.0	21.3	22.3
MONTH	---	---	---	---	---	---	21.6	12.6	16.9	26.4	19.0	21.9

NEUSE RIVER BASIN

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	25.6	24.8	25.3	17.4	15.9	16.7	12.3	9.8	10.4	9.8	8.1	8.9
2	25.4	25.0	25.2	17.0	15.0	15.5	10.8	9.2	10.2	9.8	8.5	8.7
3	25.5	24.9	25.3	15.9	14.3	15.2	10.8	8.8	9.6	9.0	8.4	8.7
4	25.6	25.3	25.4	15.9	14.1	14.7	---	---	---	8.7	8.3	8.4
5	25.7	25.3	25.4	15.9	13.9	14.6	---	---	---	8.7	8.4	8.5
6	26.4	25.4	25.9	16.1	14.2	15.3	7.5	6.9	7.2	8.7	8.4	8.6
7	26.4	25.6	26.0	14.7	14.0	14.2	7.8	6.3	7.0	8.4	7.0	7.7
8	26.3	24.6	25.6	14.8	14.2	14.7	7.9	7.3	7.8	7.6	6.3	6.9
9	24.7	24.1	24.5	15.1	14.4	15.0	7.8	6.9	7.2	8.1	6.8	7.2
10	24.5	24.1	24.3	16.1	14.8	15.3	7.8	6.9	7.1	8.2	7.3	7.8
11	24.5	24.2	24.3	17.4	15.6	16.5	7.9	7.1	7.4	7.8	7.6	7.7
12	24.3	23.9	24.1	17.8	15.9	16.7	---	---	---	8.0	6.5	7.5
13	24.0	23.6	23.7	17.7	15.9	16.8	---	---	---	8.0	7.5	7.9
14	23.9	22.5	23.4	16.0	15.3	15.7	---	---	---	7.9	7.3	7.7
15	22.5	21.6	22.2	15.9	15.6	15.7	---	---	---	7.9	6.2	6.8
16	22.1	21.2	21.6	15.9	15.6	15.8	---	---	---	6.5	5.3	5.9
17	21.4	20.6	21.0	16.1	15.3	15.8	8.2	7.3	7.8	5.9	5.5	5.7
18	21.2	20.2	20.5	15.5	14.3	14.8	7.3	6.7	7.0	5.5	4.7	5.0
19	21.3	20.2	20.8	15.3	14.4	15.0	8.6	7.0	7.8	5.8	4.4	4.8
20	21.4	19.7	21.1	15.2	15.0	15.1	10.0	8.3	9.3	---	---	---
21	21.3	19.4	20.9	15.2	14.8	15.1	9.6	8.7	9.2	5.0	4.5	4.7
22	21.2	19.5	20.7	15.4	14.2	15.1	10.0	8.9	9.4	4.5	4.1	4.3
23	20.4	18.5	19.7	14.2	12.9	13.3	9.6	8.9	9.2	4.1	2.0	3.3
24	19.9	18.2	19.1	14.1	12.3	13.2	9.2	8.9	9.1	2.1	1.2	1.6
25	18.5	18.0	18.3	14.2	12.8	13.7	9.2	8.3	9.1	2.3	1.5	1.9
26	19.3	18.4	18.7	14.4	13.8	14.1	8.4	7.6	7.9	2.8	2.0	2.5
27	19.4	18.8	19.1	14.4	12.1	13.3	8.1	7.5	7.8	2.8	1.8	2.2
28	19.5	18.8	19.1	13.4	10.9	11.9	8.2	8.0	8.1	2.8	1.9	2.3
29	19.4	19.0	19.2	13.7	11.0	13.1	8.2	7.4	8.0	3.6	2.1	2.7
30	19.2	18.0	18.7	13.7	11.3	12.3	8.2	7.9	8.0	4.1	3.4	3.7
31	18.0	16.7	17.2	---	---	---	8.3	8.0	8.2	4.0	3.8	3.9
MONTH	26.4	16.7	22.1	17.8	10.9	14.8	---	---	---	---	---	---
DAY	MAX	MIN	MEAN									
1	4.0	3.4	3.6	10.0	9.4	9.7	15.3	13.6	14.6	19.7	17.4	18.2
2	4.2	3.5	3.7	---	---	---	16.2	14.2	14.8	21.8	17.2	19.8
3	4.1	3.6	3.8	10.4	9.8	9.9	16.9	14.7	15.5	21.5	17.3	19.1
4	6.6	4.0	5.3	10.6	9.8	10.2	17.5	15.2	16.5	21.1	17.6	20.1
5	7.6	5.9	6.5	11.9	10.2	10.6	18.2	16.9	17.4	19.8	19.1	19.4
6	7.3	6.7	7.0	---	---	---	18.1	17.2	17.6	20.4	19.3	19.8
7	---	---	---	---	---	---	17.5	16.6	17.1	19.6	18.6	19.0
8	---	---	---	10.6	10.1	10.3	17.0	15.8	16.5	19.4	17.9	18.7
9	---	---	---	10.5	10.1	10.3	15.8	14.9	15.3	21.2	18.0	18.9
10	---	---	---	12.1	10.3	10.7	14.9	14.0	14.3	20.1	18.6	19.1
11	---	---	---	12.1	11.2	11.5	14.3	12.9	13.6	19.9	18.6	18.9
12	---	---	---	11.3	10.9	11.1	13.9	12.7	13.2	22.8	18.7	19.8
13	---	---	---	11.0	10.9	10.9	14.5	13.3	13.7	22.5	20.2	21.5
14	---	---	---	12.3	10.9	11.8	15.2	13.7	14.4	23.4	21.2	22.0
15	---	---	---	11.6	11.0	11.2	15.8	14.8	15.1	22.8	21.9	22.2
16	---	---	---	12.1	11.3	11.7	17.0	15.5	16.0	23.7	21.4	22.1
17	---	---	---	11.9	11.5	11.7	18.4	16.4	16.9	23.3	21.7	22.2
18	---	---	---	14.9	11.8	13.6	18.1	17.0	17.6	21.9	21.1	21.5
19	---	---	---	14.7	13.8	14.4	18.5	17.6	18.1	21.1	20.1	20.5
20	---	---	---	15.0	14.0	14.6	18.4	16.9	17.4	21.7	19.6	20.3
21	7.5	7.2	7.4	15.3	14.5	14.9	18.3	16.9	17.3	21.4	20.5	20.9
22	10.4	7.4	7.9	15.4	14.7	14.8	19.0	17.4	18.1	22.0	20.8	21.3
23	10.9	8.6	10.5	16.4	13.5	14.8	18.5	17.3	17.9	21.6	21.0	21.3
24	11.0	9.9	10.4	16.8	15.6	16.3	18.3	17.3	17.7	21.2	20.8	20.9
25	11.1	10.6	10.8	17.2	16.2	16.6	18.5	17.3	18.0	21.2	20.8	20.9
26	10.6	9.9	10.2	18.0	16.5	17.1	19.0	18.2	18.4	22.9	20.9	21.4
27	10.1	9.6	9.8	17.8	17.0	17.2	19.0	17.2	18.4	23.4	21.3	22.7
28	9.6	9.2	9.4	17.8	16.6	17.1	18.3	17.1	17.7	22.4	21.8	22.0
29	---	---	---	18.2	17.1	17.6	18.7	17.4	18.0	22.9	21.6	21.9
30	---	---	---	18.4	16.6	17.9	19.0	17.5	18.0	22.3	20.8	21.5
31	---	---	---	16.6	14.9	15.5	---	---	---	22.4	21.1	21.8
MONTH	---	---	---	---	---	---	19.0	12.7	16.5	23.7	17.2	20.6

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	22.1	20.7	21.4	27.3	25.6	26.1	27.5	26.8	27.1	27.4	27.1	27.2
2	22.1	21.0	21.3	27.0	25.9	26.5	27.2	26.8	27.0	27.6	27.1	27.2
3	22.7	21.3	22.0	27.1	26.0	26.5	27.1	26.8	27.0	28.0	27.1	27.2
4	22.8	22.0	22.4	27.2	26.3	26.6	27.5	27.0	27.1	27.9	27.1	27.2
5	23.8	22.4	22.8	27.6	26.5	26.8	27.6	27.0	27.1	27.5	27.1	27.3
6	23.9	22.8	23.3	27.8	26.5	27.2	27.3	27.0	27.2	27.6	27.1	27.4
7	24.1	22.7	23.7	27.8	26.4	27.0	27.4	27.1	27.2	27.4	25.3	26.0
8	24.6	23.8	24.1	28.0	27.0	27.4	27.4	27.1	27.2	26.6	25.0	25.4
9	24.2	23.5	24.0	27.8	27.0	27.5	27.5	27.1	27.3	25.7	24.9	25.2
10	26.1	23.4	24.6	28.4	27.4	27.7	27.3	26.9	27.1	25.2	24.1	24.6
11	27.0	24.2	25.7	29.0	27.2	28.1	27.0	26.7	26.9	24.1	23.1	23.4
12	26.9	24.5	26.0	28.6	27.8	28.1	27.1	26.8	27.0	23.4	23.1	23.2
13	26.6	22.8	24.5	28.2	27.7	27.9	27.5	26.8	27.0	23.4	22.9	23.1
14	24.6	22.8	23.4	27.8	27.2	27.4	27.4	26.9	27.2	23.5	22.9	23.1
15	24.8	22.9	23.4	27.4	27.1	27.3	27.5	27.0	27.2	---	---	---
16	27.4	23.1	25.6	27.4	27.1	27.3	27.6	27.0	27.4	---	---	---
17	26.9	26.2	26.6	27.3	27.1	27.2	27.6	27.0	27.3	---	---	---
18	26.8	26.0	26.5	27.8	27.2	27.5	27.4	27.0	27.1	---	---	---
19	26.4	25.6	26.1	27.8	27.3	27.5	28.5	27.1	27.4	---	---	---
20	26.3	25.4	25.6	27.5	27.3	27.4	28.6	27.6	28.2	22.9	22.5	22.7
21	26.5	25.3	25.8	27.7	27.2	27.4	29.0	27.0	27.9	23.0	22.7	22.8
22	25.8	25.2	25.5	29.1	27.0	27.7	28.6	27.2	27.8	23.6	22.9	23.1
23	25.7	25.4	25.6	28.0	27.2	27.5	28.2	26.8	27.5	24.4	23.3	23.9
24	26.3	25.3	25.6	27.5	27.0	27.2	28.4	26.9	27.6	24.2	23.7	24.0
25	25.9	25.3	25.6	27.2	27.0	27.1	28.2	27.2	27.7	24.4	23.9	24.2
26	26.0	25.6	25.8	27.1	27.0	27.0	28.1	27.3	27.5	24.5	24.2	24.4
27	27.6	25.5	25.7	27.2	27.0	27.1	27.5	26.9	27.1	24.6	24.1	24.3
28	27.6	25.6	26.0	27.4	27.0	27.1	27.4	27.0	27.2	24.7	24.1	24.5
29	27.5	25.7	26.2	27.2	27.0	27.1	27.3	27.0	27.1	24.7	23.6	24.2
30	27.5	25.9	26.4	27.6	26.9	27.1	27.4	27.0	27.2	23.6	22.7	23.0
31	---	---	---	27.3	26.9	27.0	27.4	27.1	27.2	---	---	---
MONTH	27.6	20.7	24.7	29.1	25.6	27.2	29.0	26.7	27.3	---	---	---

NEUSE RIVER BASIN

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.0	4.8	6.2	9.1	7.7	8.4	9.5	8.2	8.9	15.3	11.4	12.6
2	7.4	5.8	6.6	9.6	8.2	8.8	10.3	8.9	9.5	13.1	11.4	12.0
3	7.9	3.9	6.0	10.2	8.2	9.5	10.6	7.9	9.5	12.9	8.4	11.7
4	7.0	2.9	4.5	10.7	9.3	9.9	---	---	---	11.9	9.3	10.8
5	6.5	0.9	3.8	10.6	9.5	10.0	---	---	---	13.0	8.2	11.0
6	6.4	2.2	5.0	9.8	7.3	8.8	11.2	10.0	10.6	13.3	8.7	11.3
7	6.5	3.5	5.0	9.8	8.2	9.0	12.2	10.6	11.3	12.0	8.9	10.4
8	7.3	5.2	6.1	10.3	8.1	9.1	12.8	11.4	12.0	12.4	10.2	11.4
9	7.1	5.2	6.0	9.9	7.2	8.7	12.3	11.4	11.9	13.8	11.2	12.3
10	7.2	5.0	5.9	9.4	6.8	8.0	11.5	10.5	11.0	14.2	11.9	12.7
11	6.4	5.1	5.8	9.2	7.6	8.5	11.0	10.1	10.5	13.9	11.9	12.7
12	6.2	4.9	5.6	9.0	5.8	8.3	---	---	---	13.6	11.0	12.3
13	7.0	4.9	5.7	8.4	7.9	8.3	---	---	---	15.2	12.0	13.8
14	7.1	5.2	6.4	8.3	7.7	8.0	---	---	---	14.4	12.0	13.8
15	7.3	6.2	6.7	8.4	7.5	8.0	---	---	---	14.2	11.7	12.7
16	---	---	---	10.0	7.6	8.8	---	---	---	13.2	11.9	12.6
17	---	---	---	10.1	7.2	8.8	13.6	11.4	12.3	12.5	12.0	12.1
18	9.2	7.2	8.1	9.8	8.0	8.9	15.6	11.9	13.4	13.2	11.6	12.2
19	8.8	7.2	8.0	10.1	7.1	8.7	15.2	12.9	14.2	13.2	11.7	12.7
20	9.2	4.7	7.3	8.3	6.6	7.5	14.2	11.4	12.3	---	---	---
21	7.8	4.6	6.8	9.3	6.7	7.9	13.8	11.4	12.6	13.3	12.2	12.7
22	7.3	4.0	6.1	9.8	5.5	7.5	14.1	12.8	13.3	13.2	12.5	12.7
23	7.9	5.8	6.9	9.2	7.4	8.6	13.3	12.2	12.7	13.0	12.2	12.6
24	9.0	6.5	8.3	10.0	7.4	8.9	12.8	11.6	12.2	13.6	12.6	12.9
25	9.3	8.2	8.7	11.3	7.4	10	11.6	10.4	11.0	14.3	12.9	13.3
26	10.5	8.1	8.9	12.2	9.9	11.5	12.8	10.7	11.6	14.0	12.9	13.4
27	10.2	8.2	9.3	10.7	8.8	9.5	13.8	12.0	12.5	13.3	12.8	13.0
28	9.8	7.4	8.5	9.0	8.2	8.6	13.6	11.9	12.8	13.8	12.8	13.2
29	9.1	7.8	8.2	9.9	7.4	9.3	15.1	9.4	12.6	13.6	12.8	13.1
30	8.3	7.4	7.8	9.3	5.1	7.5	16.9	13.1	15.0	13.4	12.9	13.2
31	8.6	7.1	7.9	---	---	---	17.3	14.0	15.3	13.5	12.9	13.2
MONTH	---	---	---	12.2	5.1	8.8	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.4	13.0	13.3	11.3	9.7	10.3	9.0	8.0	8.6	8.1	6.4	7.3
2	13.9	12.8	13.4	---	---	---	9.2	8.1	8.6	8.3	6.4	7.4
3	14.1	12.8	13.6	10.3	9.2	9.7	8.3	7.9	8.1	7.8	6.9	7.4
4	13.1	10.5	11.6	10.6	9.6	10.0	8.2	7.7	8.0	7.9	6.8	7.3
5	12.9	11.6	12.3	10.9	9.3	10.2	8.2	7.7	8.0	8.2	7.0	7.5
6	---	---	---	---	---	---	8.6	8.1	8.3	7.7	6.1	6.8
7	---	---	---	---	---	---	8.5	7.9	8.2	7.6	6.0	6.8
8	---	---	---	10.6	9.4	10.0	8.5	8.0	8.2	8.2	6.2	7.2
9	---	---	---	10.4	9.3	9.8	8.7	8.4	8.5	8.2	6.8	7.3
10	---	---	---	10.1	9.3	9.6	9.1	8.7	8.9	8.5	6.6	7.4
11	---	---	---	9.7	8.9	9.4	8.8	8.5	8.6	7.3	4.2	5.7
12	---	---	---	9.3	8.4	8.8	9.1	8.3	8.7	7.5	3.1	5.5
13	---	---	---	10.0	8.5	9.0	8.7	7.7	8.1	8.2	6.2	7.2
14	---	---	---	9.9	8.2	8.9	8.0	7.3	7.7	11.0	6.4	8.4
15	---	---	---	9.2	8.5	8.8	7.5	7.0	7.2	10.2	9.0	9.6
16	---	---	---	8.7	7.7	8.3	7.8	6.9	7.3	13.6	8.8	10.8
17	---	---	---	8.4	7.9	8.1	9.2	6.8	7.7	11.2	8.3	9.2
18	---	---	---	8.6	7.9	8.2	8.3	7.1	7.6	9.3	7.6	8.4
19	---	---	---	9.5	8.0	8.7	8.4	7.3	7.8	9.0	7.3	8.3
20	---	---	---	9.1	8.0	8.6	8.4	7.7	7.9	9.9	7.9	8.9
21	11.5	9.9	10.4	8.7	8.0	8.4	7.9	7.2	7.6	10.7	9.0	9.6
22	10.1	9.1	9.6	8.8	8.2	8.5	7.4	6.5	7.1	10.0	9.1	9.5
23	9.2	7.8	8.4	8.8	7.8	8.3	7.4	6.5	7.1	9.2	7.8	8.3
24	8.8	7.8	8.3	9.5	7.7	8.4	7.7	7.2	7.4	9.8	7.5	8.1
25	9.5	8.4	8.9	9.8	6.7	8.7	7.7	6.9	7.5	9.6	7.4	8.2
26	9.7	9.0	9.3	8.8	6.6	7.3	7.6	6.8	7.1	8.0	6.7	7.2
27	9.7	9.2	9.4	8.9	6.9	8.0	7.4	6.7	7.0	7.9	6.1	7.1
28	10.5	9.2	9.8	8.1	7.2	7.6	7.8	6.8	7.2	6.4	5.8	6.1
29	---	---	---	7.5	6.8	7.2	8.3	7.0	7.5	6.9	5.3	5.9
30	---	---	---	8.3	6.9	7.5	7.5	6.2	6.9	7.2	5.4	6.2
31	---	---	---	8.9	8.2	8.7	---	---	---	6.6	6.1	6.4
MONTH	---	---	---	---	---	---	9.2	6.2	7.8	13.6	3.1	7.6

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.9	3.9	5.5	---	---	---	10.0	7.0	9.2	11.2	6.7	8.9
2	6.3	2.5	4.5	---	---	---	10.0	7.6	8.9	8.5	5.3	5.9
3	6.7	1.5	3.4	---	---	---	11.3	7.0	9.7	5.6	5.1	5.3
4	3.2	0.9	1.9	11.0	6.1	8.8	---	---	---	7.8	5.6	6.8
5	2.6	0.0	0.7	9.6	5.5	8.3	---	---	---	7.2	6.1	6.6
6	6.3	0.0	3.0	9.2	4.5	6.8	12.4	10.9	11.5	8.2	5.6	6.3
7	7.7	1.9	4.8	9.3	7.5	8.4	11.9	10.5	11.4	10.4	8.1	9.2
8	7.6	4.0	6.6	8.1	6.6	7.2	11.3	10.6	11.0	11.4	8.8	10.3
9	6.6	4.7	5.6	7.8	6.5	7.3	13.3	10.6	12.3	12.7	10.3	11.1
10	5.7	3.2	4.4	7.6	6.3	6.8	12.4	10.3	11.9	11.7	8.0	10.1
11	5.1	3.6	4.5	8.6	5.7	7.4	11.9	9.3	11.0	9.3	7.2	8.0
12	5.3	3.0	4.4	8.2	3.9	6.0	---	---	---	12.5	7.1	9.2
13	4.8	3.4	4.3	8.1	6.0	7.6	---	---	---	11.8	8.0	9.2
14	5.9	3.4	4.9	7.5	6.6	7.0	---	---	---	10.7	7.2	8.4
15	5.4	4.3	5.0	7.5	6.6	6.9	---	---	---	12.9	6.5	10.4
16	5.3	3.5	4.6	7.6	5.9	6.7	---	---	---	12.6	11.0	11.8
17	7.4	4.2	5.4	7.9	4.8	6.1	14.6	10.3	12.5	11.9	11.4	11.6
18	9.1	7.0	8.0	9.5	6.1	8.4	14.7	12.7	13.6	11.6	10.4	11.2
19	8.6	4.8	6.4	9.4	5.3	6.9	13.7	8.3	10.3	12.5	8.5	11.7
20	7.7	3.3	4.7	6.8	5.3	6.1	11.7	8.6	10.5	---	---	---
21	8.5	1.5	3.9	7.2	5.2	6.1	12.2	7.3	10.4	12.4	10.6	11.9
22	---	---	---	7.3	4.3	5.9	11.8	7.0	8.9	12.4	12.0	12.2
23	---	---	---	9.2	6.7	8.2	11.2	6.8	8.1	12.4	11.8	12.1
24	---	---	---	8.9	4.9	7.1	11.2	7.1	8.7	12.5	12.0	12.2
25	---	---	---	7.2	3.8	5.2	10.2	9.4	9.7	12.4	11.4	12.0
26	---	---	---	6.0	2.7	3.8	10.7	9.7	10.2	12.1	11.1	11.5
27	---	---	---	9.7	0.5	6.4	10.9	8.6	10.0	12.8	11.2	12.4
28	---	---	---	10.7	4.1	7.6	9.7	8.3	8.9	12.7	11.4	12.0
29	---	---	---	9.3	4.5	5.5	9.9	8.1	8.6	12.5	11.5	12.1
30	---	---	---	8.6	4.3	6.7	8.4	7.7	8.0	12.9	11.3	12.3
31	---	---	---	---	---	---	8.3	6.8	7.5	13.0	11.8	12.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.6	9.9	10.6	10.3	6.2	7.7	8.9	6.0	8.1	2.0	0.4	0.9
2	11.2	9.8	10.2	---	---	---	9.1	5.4	8.4	7.8	0.2	3.9
3	11.0	10.0	10.3	9.7	5.6	6.6	8.4	4.4	7.0	8.0	0.1	2.9
4	11.5	9.8	10.5	10.8	8.8	10.1	8.2	4.4	7.0	8.3	0.1	6.7
5	12.6	10.1	11.2	10.6	5.5	8.2	8.2	7.3	7.8	8.5	7.6	8.1
6	13.0	11.2	12.3	---	---	---	8.4	7.5	8.1	8.3	2.8	6.8
7	---	---	---	---	---	---	8.3	7.8	8.0	4.4	0.5	1.9
8	---	---	---	9.9	5.3	7.2	8.2	6.3	7.9	3.0	0.1	1.0
9	---	---	---	8.5	5.2	7.2	8.4	8.1	8.2	3.4	0.1	0.7
10	---	---	---	10.7	5.1	7.0	8.7	8.2	8.5	1.7	0.1	0.4
11	---	---	---	10.5	9.6	10.2	8.4	8.2	8.3	0.6	0.1	0.1
12	---	---	---	10.1	5.8	8.2	8.8	8.3	8.6	7.0	0.1	0.8
13	---	---	---	9.6	6.2	8.0	8.5	7.3	7.9	8.5	0.1	4.4
14	---	---	---	9.8	6.4	9.0	7.6	7.2	7.4	10.2	5.9	8.1
15	---	---	---	9.7	3.6	7.7	7.2	6.6	6.9	9.7	7.5	9.1
16	---	---	---	9.4	6.1	8.3	7.0	6.4	6.7	11.6	8.2	9.4
17	---	---	---	9.7	8.1	9.1	7.8	6.0	6.8	10.2	7.8	8.6
18	---	---	---	9.6	6.7	8.8	8.0	6.9	7.3	8.9	7.2	8.1
19	---	---	---	10.4	8.0	9.5	8.2	7.1	7.5	8.7	6.9	8.0
20	---	---	---	9.7	6.4	8.9	8.2	7.5	7.7	9.1	7.6	8.2
21	7.8	5.8	6.2	9.0	8.1	8.7	7.6	6.4	7.2	8.8	7.2	8.1
22	8.6	5.0	6.1	8.7	7.6	8.1	7.0	6.0	6.7	9.2	5.9	8.0
23	8.7	6.4	8.3	8.8	2.0	5.6	7.2	4.4	6.7	8.8	5.6	7.8
24	9.1	7.6	8.3	9.8	7.3	8.8	7.5	4.4	6.7	7.7	6.2	7.3
25	9.6	8.5	9.1	9.4	6.2	8.6	7.6	4.0	6.7	6.7	4.5	5.5
26	9.8	9.1	9.5	8.9	5.9	7.1	7.6	6.4	7.2	6.4	3.6	4.5
27	10.2	9.4	9.6	9.0	7.0	8.1	7.2	1.6	5.0	7.8	3.5	6.6
28	10.3	8.4	9.5	8.1	7.3	7.7	3.6	1.4	1.8	6.7	5.1	6.3
29	---	---	---	7.5	7.0	7.3	4.3	1.1	2.0	6.8	2.5	4.4
30	---	---	---	8.3	6.9	7.5	2.8	0.7	1.5	5.5	2.4	4.7
31	---	---	---	8.8	6.6	8.3	---	---	---	6.0	1.4	4.0
MONTH	---	---	---	---	---	---	9.1	0.7	6.9	11.6	0.1	5.3

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	4.6	5.7	3.6	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0
2	6.5	4.3	5.5	6.3	0.0	3.5	0.1	0.0	0.0	0.0	0.0	0.0
3	6.6	4.2	5.6	7.6	4.8	6.1	0.0	0.0	0.0	0.5	0.0	0.1
4	7.0	4.2	5.8	7.1	1.6	4.9	0.6	0.0	0.0	0.3	0.0	0.1
5	6.3	4.2	5.5	6.7	0.3	3.2	0.0	0.0	0.0	0.1	0.0	0.0
6	6.5	4.1	5.4	3.2	0.0	0.4	0.0	0.0	0.0	5.7	0.0	0.7
7	7.0	4.9	5.9	1.2	0.0	0.2	1.0	0.0	0.0	6.3	0.0	3.2
8	6.6	4.7	5.6	6.9	0.0	2.1	0.1	0.0	0.0	7.5	0.1	5.5
9	6.8	2.8	5.2	2.9	0.2	0.7	6.7	0.0	2.9	7.6	4.8	6.2
10	7.4	2.7	5.7	5.0	0.2	0.8	7.1	0.0	4.0	6.8	4.9	6.0
11	7.7	2.8	6.7	6.5	0.2	3.2	7.2	0.0	2.2	7.2	5.5	6.4
12	7.2	1.4	5.2	6.0	0.7	4.1	2.9	0.0	0.4	7.8	5.6	6.4
13	6.6	0.1	1.9	6.6	0.2	2.2	5.7	0.1	1.0	7.8	4.5	6.2
14	1.2	0.1	0.3	5.5	0.7	3.9	4.0	0.1	1.0	6.3	3.2	5.2
15	1.8	0.1	0.3	4.0	1.6	2.8	0.1	0.1	0.1	---	---	---
16	7.6	0.1	3.6	3.5	0.2	1.3	0.1	0.1	0.1	---	---	---
17	7.9	6.8	7.4	1.0	0.1	0.3	0.1	0.1	0.1	---	---	---
18	7.8	6.1	7.2	0.7	0.1	0.2	0.1	0.1	0.1	---	---	---
19	7.3	3.8	5.7	0.7	0.1	0.2	8.0	0.1	1.1	---	---	---
20	5.9	2.0	3.1	1.2	0.1	0.1	7.4	4.5	6.5	5.1	2.5	3.2
21	7.0	0.5	3.6	1.8	0.1	0.3	6.2	2.4	4.4	3.6	1.8	3.0
22	7.8	0.4	3.0	8.0	0.1	2.7	4.3	0.3	2.1	1.9	0.1	0.7
23	5.8	0.9	2.1	7.2	1.4	5.2	0.8	0.0	0.1	3.3	0.1	0.9
24	6.2	0.3	1.7	7.1	0.5	2.7	5.8	0.0	2.3	3.2	0.1	0.9
25	1.7	0.3	0.9	2.5	0.6	1.5	5.7	1.3	4.8	5.2	0.0	2.1
26	1.5	0.3	0.7	2.9	0.5	1.5	4.1	0.0	1.0	4.9	1.0	3.2
27	6.1	0.3	0.8	2.8	0.2	1.1	0.0	0.0	0.0	1.7	0.1	0.7
28	6.1	0.1	1.2	2.3	0.1	0.6	0.0	0.0	0.0	5.0	0.1	1.3
29	4.6	0.9	2.1	1.1	0.0	0.2	0.2	0.0	0.0	6.7	1.2	4.6
30	4.6	0.5	1.6	1.4	0.0	0.2	0.1	0.0	0.0	8.2	5.5	6.4
31	---	---	---	0.6	0.0	0.0	0.0	0.0	0.0	---	---	---
MONTH	7.9	0.1	3.8	8.0	0.0	1.8	8.0	0.0	1.1	---	---	---

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	111	58	76	93	79	86	84	73	79	132	99	110
2	91	71	81	96	82	88	91	77	83	118	101	107
3	97	48	73	100	83	93	93	70	83	116	74	104
4	88	36	56	105	91	97	---	---	---	104	82	94
5	81	11	48	104	93	98	---	---	---	111	71	94
6	80	27	63	97	73	87	93	83	88	113	76	97
7	81	43	63	96	80	88	100	86	92	99	76	87
8	90	63	75	100	80	90	106	94	100	103	84	94
9	86	63	73	96	71	85	103	94	98	117	92	103
10	87	60	71	96	67	80	95	87	91	122	100	108
11	77	61	70	96	78	88	92	84	87	120	99	107
12	74	59	67	96	60	87	---	---	---	111	89	100
13	84	58	67	89	81	85	---	---	---	125	100	113
14	84	62	76	83	78	80	---	---	---	117	100	112
15	84	71	77	85	76	81	---	---	---	115	95	103
16	---	---	---	101	77	89	---	---	---	107	94	101
17	---	---	---	102	73	89	115	95	103	100	95	97
18	102	80	90	96	79	88	129	97	111	102	91	95
19	97	80	89	99	71	86	128	107	118	103	92	98
20	101	53	80	81	66	74	121	100	108	---	---	---
21	85	51	75	91	66	77	120	100	110	104	95	98
22	80	44	67	96	55	74	123	109	115	102	96	98
23	86	64	75	88	72	82	117	106	111	99	92	95
24	96	70	90	93	71	84	111	100	106	97	90	92
25	99	87	93	107	71	94	101	90	96	102	90	94
26	114	86	95	116	94	109	108	91	98	101	92	96
27	111	88	101	101	82	89	115	98	103	96	93	94
28	107	80	93	84	74	78	114	98	106	101	92	95
29	99	85	89	88	68	82	128	79	106	102	93	97
30	89	78	84	84	48	69	143	109	127	102	97	100
31	90	75	82	---	---	---	148	121	131	104	98	101
MONTH	---	---	---	116	48	86	---	---	---	---	---	---
DAY	MAX	MIN	MEAN									
1	105	100	103	102	85	91	89	79	85	93	72	84
2	110	98	104	---	---	---	92	80	86	97	73	85
3	114	104	109	94	82	86	85	80	82	89	79	85
4	107	81	93	96	85	90	84	81	83	87	75	81
5	108	96	102	102	84	94	87	80	84	90	76	82
6	---	---	---	---	---	---	91	85	87	84	68	75
7	---	---	---	---	---	---	88	83	85	88	67	77
8	---	---	---	98	85	91	86	82	84	97	70	84
9	---	---	---	94	86	90	87	84	85	97	79	87
10	---	---	---	95	86	89	89	86	87	106	78	89
11	---	---	---	90	81	86	86	82	83	90	49	69
12	---	---	---	87	77	81	87	80	83	88	35	64
13	---	---	---	95	79	84	86	74	79	95	71	83
14	---	---	---	95	76	83	80	73	76	130	73	97
15	---	---	---	84	78	81	77	69	73	117	104	111
16	---	---	---	82	72	78	81	70	75	158	101	125
17	---	---	---	81	76	78	100	70	81	133	95	106
18	---	---	---	85	78	81	88	73	80	106	86	95
19	---	---	---	93	79	86	90	77	83	100	82	93
20	---	---	---	89	79	85	90	80	83	114	87	100
21	98	84	89	88	79	84	86	77	80	123	102	109
22	86	79	83	92	83	86	80	70	76	115	104	108
23	82	70	76	90	80	85	79	69	75	105	88	94
24	80	70	75	98	79	87	83	76	79	112	84	92
25	87	76	81	103	69	90	82	74	79	112	84	95
26	87	80	83	93	68	76	81	74	77	93	77	85
27	86	81	83	94	72	83	80	72	76	94	71	84
28	93	81	86	85	74	79	88	73	78	74	66	70
29	---	---	---	80	71	76	94	77	83	81	60	68
30	---	---	---	86	74	79	84	70	77	84	61	70
31	---	---	---	90	84	87	---	---	---	77	69	74
MONTH	---	---	---	---	---	---	100	69	81	158	35	88

NEUSE RIVER BASIN

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	84	48	67	---	---	---	89	65	82	99	57	78
2	76	30	55	---	---	---	88	69	79	74	46	51
3	82	18	41	---	---	---	99	63	85	48	44	46
4	39	11	24	107	62	86	---	---	---	67	48	58
5	32	0	8	94	56	82	---	---	---	62	52	57
6	78	0	37	90	46	68	103	90	96	70	48	54
7	96	23	59	91	73	82	98	88	94	86	69	78
8	95	50	81	79	65	71	95	89	92	94	73	85
9	80	57	67	77	64	73	110	89	102	108	85	92
10	69	38	53	77	63	68	102	87	99	99	67	85
11	61	43	54	90	57	76	98	78	92	78	60	67
12	63	36	52	86	40	62	---	---	---	103	59	77
13	57	40	50	84	62	79	---	---	---	99	68	77
14	69	40	58	75	67	71	---	---	---	89	61	70
15	63	50	57	76	67	70	---	---	---	105	55	85
16	60	40	52	77	60	68	---	---	---	102	88	95
17	84	48	60	79	49	62	122	87	105	95	91	93
18	101	78	89	93	61	83	121	104	112	91	82	88
19	95	54	71	92	53	68	113	70	86	97	68	91
20	85	37	53	68	53	61	100	74	92	---	---	---
21	93	17	44	71	52	61	107	64	91	97	83	92
22	---	---	---	71	43	59	105	61	78	96	92	94
23	---	---	---	88	65	79	97	59	71	95	88	91
24	---	---	---	84	48	68	97	62	76	90	86	87
25	---	---	---	68	37	50	89	81	85	89	83	87
26	---	---	---	58	26	37	90	82	86	89	82	85
27	---	---	---	92	5	61	91	73	85	94	83	90
28	---	---	---	99	39	70	82	71	75	92	84	88
29	---	---	---	85	43	53	83	69	73	93	85	89
30	---	---	---	80	41	63	71	65	68	98	85	93
31	---	---	---	---	---	---	70	58	64	99	90	97
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN									
1	96	75	81	90	55	68	88	59	80	22	4	9
2	86	75	77	---	---	---	90	53	83	89	2	44
3	83	76	79	87	50	59	85	43	70	91	1	33
4	93	75	83	97	78	90	84	44	72	91	1	74
5	105	82	92	95	49	74	86	76	82	93	82	88
6	107	92	101	---	---	---	88	79	85	91	31	75
7	---	---	---	---	---	---	86	81	83	48	5	20
8	---	---	---	88	47	64	83	65	81	33	1	10
9	---	---	---	76	47	64	84	81	82	38	1	7
10	---	---	---	99	46	63	85	81	83	19	1	4
11	---	---	---	98	88	94	82	79	80	7	1	2
12	---	---	---	92	53	75	84	79	82	82	1	9
13	---	---	---	87	56	73	82	70	76	98	1	51
14	---	---	---	90	58	83	76	70	73	120	67	93
15	---	---	---	89	33	71	72	66	68	113	86	105
16	---	---	---	87	56	77	73	65	68	137	94	108
17	---	---	---	90	74	84	83	61	71	120	89	99
18	---	---	---	89	63	84	85	72	76	101	82	92
19	---	---	---	102	78	94	88	75	80	97	77	89
20	---	---	---	95	62	88	88	78	80	104	83	91
21	65	48	52	89	80	86	80	67	75	99	81	90
22	77	42	51	87	75	80	75	63	71	106	66	91
23	78	55	74	90	19	56	77	46	71	100	63	88
24	82	68	75	101	74	90	80	46	70	87	69	82
25	87	77	83	98	64	88	81	42	71	75	51	61
26	87	82	85	94	61	74	81	68	77	75	40	51
27	90	83	85	95	73	85	78	17	53	92	40	77
28	90	74	83	85	76	80	38	15	20	77	58	73
29	---	---	---	80	73	77	46	12	22	79	28	51
30	---	---	---	85	73	79	30	7	15	63	27	53
31	---	---	---	89	66	83	---	---	---	68	16	46
MONTH	---	---	---	---	---	---	90	7	70	137	1	60

0209262905 NEUSE RIVER AT CHANNEL LIGHT 11—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	76	52	64	46	1	10	0	0	0	0	0	0
2	73	49	62	79	0	44	1	0	0	0	0	0
3	77	49	64	96	59	76	0	0	0	6	0	0
4	82	49	67	89	20	61	8	0	0	4	0	0
5	75	50	64	84	4	40	0	0	0	1	0	0
6	77	48	64	41	0	5	0	0	0	72	0	8
7	84	57	70	15	0	2	13	0	0	77	0	39
8	79	56	67	88	0	26	1	0	0	91	1	67
9	81	33	62	37	3	9	85	0	36	92	58	75
10	92	32	69	65	3	11	90	0	50	82	59	73
11	97	33	83	85	3	42	91	0	28	85	65	76
12	90	17	65	77	9	53	37	0	6	92	66	76
13	83	1	23	85	3	29	72	1	13	91	53	73
14	14	1	4	70	9	49	51	1	12	74	37	61
15	21	1	4	51	20	36	1	1	1	---	---	---
16	96	1	45	44	3	17	1	1	1	---	---	---
17	99	84	93	13	1	4	1	1	1	---	---	---
18	98	75	90	9	1	2	1	1	1	---	---	---
19	91	47	71	9	1	3	103	1	14	---	---	---
20	73	24	38	15	1	2	96	57	84	59	29	38
21	87	6	45	23	1	4	81	30	56	42	21	35
22	96	5	37	104	1	36	55	4	27	22	1	9
23	71	11	26	92	18	66	10	0	0	40	1	10
24	77	4	21	90	6	34	75	0	29	38	1	11
25	21	4	12	32	8	19	73	17	61	62	0	25
26	18	4	9	37	6	19	53	0	12	59	12	38
27	78	4	9	35	3	14	0	0	0	20	1	8
28	78	1	15	29	1	8	0	0	0	60	1	15
29	58	11	26	14	0	3	3	0	0	80	14	55
30	58	6	21	18	0	3	1	0	0	96	64	75
31	---	---	---	8	0	0	0	0	0	---	---	---
MONTH	99	1	46	104	0	23	103	0	14	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9

LOCATION.--Lat. 34°56'55", long. 76°48'35", Craven County, Hydrologic Unit 03020204, at U.S. Coast Guard Channel Light 9.

PERIOD OF RECORD.--May 1989 to July 1993, 1996 to current year.

PERIOD OF DAILY RECORD.--

SALINITY (TOP AND BOTTOM): May 1989 to July 1993, June 1996 to current year

pH (TOP AND BOTTOM): June 1996 to current year.

WATER TEMPERATURE (TOP): May 1989 to July 1993, June 1996 to current year.

WATER TEMPERATURE (BOTTOM): June 1996 to current year.

DISSOLVED OXYGEN (TOP AND BOTTOM): May 1989 to July 1993, June 1996 to current year.

DISSOLVED OXYGEN (MID): May 1989 to July 1993.

DISSOLVED OXYGEN, PERCENT SATURATION (TOP AND BOTTOM): May 1989 to July 1993, June 1996 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION (MID): May 1989 to July 1993.

INSTRUMENTATION.-- Water-quality monitor from May 1989 to July 1993. Constituents monitored were: specific conductance top and bottom, water temperature top and bottom, dissolved oxygen top, mid-depth and bottom. Water-quality monitor with satellite telemetry from June 1996 to current water year. Constituents monitored were the same as previous water years except mid-depth dissolved oxygen was not measured, water temperature, bottom, was added as well as pH top and bottom.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources. The monitor was removed August 29, 1999 to prevent possible destruction of the equipment during Hurricanes Dennis and Floyd. It was reinstalled on October 5, 1999. The monitor was removed on September 15, 2003 to prevent possible destruction of the equipment during Hurricane Isabel. It was reinstalled on September 26, 2003. Prior to June 1996, top constituents were monitored at 8 ft above streambed, mid constituents at 6 ft above streambed and bottom constituents, 2 ft above streambed. Beginning in June 1996, top constituents were monitored at 8 ft above streambed and bottom constituents, 2 ft above streambed. Salinity and dissolved oxygen, percent saturation are computed. The dissolved oxygen percent saturation is computed using a barometric pressure of 760mm of Hg beginning October 1, 2000. Salinity, minimum extremes are reported as <0.1 ppt. Dissolved oxygen, minimum extremes are reported as <1.0 mg/L. Dissolved oxygen, percent saturation, minimum extremes are reported as <10%.

EXTREMES FOR PERIOD OF DAILY RECORD.--

CONSTITUENT	MAXIMUM RECORDED	MINIMUM RECORDED
SALINITY(TOP), ppt	23.6, August 28, 2002	<0.1, on many days during the period
SALINITY(BOTTOM), ppt	27.8, August 18, 2002	<0.1, on many days during the period
pH(TOP), standard units	10.4, April 19, 1999	4.3, June 13, 1997
pH(BOTTOM), standard units	9.3, March 12, 13, 14, 16-20, 1999	6.1, October 1, 1998
WATER TEMPERATURE (TOP), °C	32.3, August 6, 1989, July 30, 2002	0.2, January 25, 2003
WATER TEMPERATURE (BOTTOM), °C	31.4, July 29, 1999	0.8, January 25, 2003
DISSOLVED OXYGEN (TOP), mg/L	20.7, April 10, 1991	< 1.0, on many days during the period
DISSOLVED OXYGEN (BOTTOM), mg/L	16.8, April 26, 1991	< 1.0, on many days during the period

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.3	9.3	9.7	5.0	2.3	3.6	---	---	---	2.7	0.9	1.6
2	12.2	9.4	10.1	5.8	1.9	3.4	---	---	---	3.4	1.1	2.0
3	12.7	9.7	10.8	5.7	4.0	4.9	3.7	2.6	3.1	2.2	0.8	1.4
4	16.7	11.6	14.3	5.1	3.4	4.1	3.4	2.7	3.0	2.6	1.3	1.9
5	14.9	11.9	13.1	5.1	3.3	3.8	3.6	2.5	3.1	2.0	1.3	1.5
6	14.1	11.7	13.0	5.9	4.0	4.9	5.7	2.3	4.0	2.0	1.2	1.6
7	13.3	11.4	12.4	4.7	3.3	4.0	5.9	2.8	4.6	1.8	1.0	1.3
8	11.4	10.0	10.7	3.5	2.5	3.0	3.9	2.9	3.4	2.0	1.0	1.4
9	10.9	8.3	9.7	---	---	---	4.7	2.5	3.5	2.0	1.2	1.4
10	13.5	8.5	10.3	---	---	---	---	---	---	4.2	1.4	2.2
11	11.7	10.7	11.3	---	---	---	---	---	---	3.6	2.2	2.9
12	11.7	11.1	11.2	---	---	---	---	---	---	4.3	2.9	3.7
13	11.5	10.7	11.0	---	---	---	---	---	---	4.9	3.7	4.3
14	11.2	10.3	10.7	---	---	---	---	---	---	5.1	4.1	4.3
15	11.3	9.7	10.5	---	---	---	---	---	---	5.4	4.3	4.7
16	11.5	10.5	11.0	---	---	---	---	---	---	5.1	4.3	4.7
17	10.6	7.7	8.7	---	---	---	---	---	---	5.2	4.4	5.0
18	9.9	7.8	8.6	---	---	---	---	---	---	5.4	4.6	4.9
19	9.8	7.9	8.6	---	---	---	---	---	---	6.1	4.7	5.4
20	9.9	6.7	7.9	---	---	---	---	---	---	5.6	4.5	4.8
21	9.7	6.4	7.8	---	---	---	---	---	---	4.8	4.2	4.6
22	9.5	4.2	7.5	---	---	---	---	---	---	4.9	4.0	4.4
23	8.6	5.9	7.5	---	---	---	---	---	---	5.1	4.5	4.8
24	9.0	6.4	8.1	---	---	---	---	---	---	4.9	3.1	4.0
25	9.0	6.3	7.5	---	---	---	4.0	0.7	1.5	4.0	2.5	3.2
26	6.5	4.0	6.2	---	---	---	2.3	0.9	1.2	4.0	2.5	3.1
27	5.4	2.7	3.6	---	---	---	1.7	0.9	1.1	4.1	2.4	3.4
28	5.0	2.8	4.1	---	---	---	1.6	0.7	0.9	3.7	1.7	2.7
29	---	---	---	---	---	---	1.6	0.6	0.8	---	---	---
30	---	---	---	---	---	---	2.4	0.6	1.3	2.2	1.4	1.8
31	---	---	---	---	---	---	---	---	---	2.4	1.1	1.5
MONTH	16.7	2.7	9.5	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.9	1.2	1.6	4.7	3.6	3.9	8.1	3.6	5.8	8.8	5.9	7.2
2	1.9	1.4	1.7	5.3	3.6	4.4	8.8	5.9	7.4	10.8	6.4	7.7
3	2.0	0.8	1.3	5.3	4.2	4.8	9.0	5.7	7.4	10.0	7.2	8.1
4	1.7	0.8	1.2	5.5	4.4	4.9	8.8	5.3	6.8	11.1	7.5	8.9
5	1.8	0.5	0.9	5.2	4.7	5.1	9.5	4.5	6.5	10.4	7.3	9.1
6	2.0	0.2	0.5	5.2	4.2	4.8	8.5	5.4	7.0	10.4	7.8	8.5
7	1.2	0.2	0.6	5.3	3.8	4.6	10.5	7.5	8.6	10.9	8.4	9.0
8	2.0	0.9	1.4	5.1	4.0	4.6	10.3	7.5	8.4	10.9	7.4	9.5
9	1.4	0.7	0.9	5.0	3.4	4.2	9.9	6.4	8.1	7.5	6.4	6.9
10	2.3	0.7	1.0	5.1	3.5	4.1	9.3	6.1	7.8	7.0	5.9	6.5
11	2.4	0.7	1.0	5.3	4.4	4.9	8.4	4.5	6.2	7.4	5.9	6.3
12	2.5	0.8	1.3	5.5	4.8	5.2	8.5	4.6	6.2	8.3	6.0	6.7
13	3.3	1.5	2.2	5.5	3.7	4.8	7.3	4.2	5.9	9.2	7.2	8.1
14	3.7	2.4	3.2	5.4	3.8	4.9	6.4	2.9	4.5	9.7	7.9	8.7
15	3.9	2.3	3.0	4.4	2.7	3.5	4.6	1.8	3.0	---	---	---
16	4.6	2.7	3.5	3.4	2.3	2.6	4.0	1.6	2.6	---	---	---
17	4.8	4.0	4.4	3.1	1.9	2.4	7.5	2.2	3.9	---	---	---
18	4.3	2.4	3.1	3.5	2.0	2.3	7.3	3.8	5.1	---	---	---
19	3.8	1.8	2.4	3.3	2.0	2.8	7.2	4.8	6.0	---	---	---
20	2.8	1.6	2.1	3.3	1.7	2.2	6.7	5.7	6.1	---	---	---
21	2.6	1.4	1.7	3.4	2.1	2.7	6.1	3.2	4.8	---	---	---
22	2.5	1.6	1.9	9.0	3.4	6.5	3.4	1.2	2.0	---	---	---
23	3.2	1.6	2.2	7.1	4.6	5.4	3.8	1.3	1.9	---	---	---
24	2.7	1.8	2.1	7.0	4.4	5.7	3.7	2.3	2.7	---	---	---
25	2.2	1.5	1.6	7.1	2.8	3.9	4.0	2.2	2.8	---	---	---
26	2.3	1.7	2.0	5.1	2.6	3.6	2.9	2.1	2.4	---	---	---
27	2.6	2.0	2.3	4.7	1.4	2.1	4.8	1.2	2.3	7.9	5.3	6.3
28	3.7	2.4	2.7	4.5	1.6	2.7	5.2	2.0	2.9	6.4	4.2	5.3
29	5.2	2.6	3.4	5.7	3.0	3.9	8.5	2.8	4.4	5.5	3.9	4.7
30	5.6	2.9	3.8	8.1	3.8	4.9	7.0	3.6	5.0	5.5	3.5	4.3
31	---	---	---	6.5	3.9	5.1	8.7	5.2	6.2	---	---	---
MONTH	5.6	0.2	2.0	9.0	1.4	4.1	10.5	1.2	5.2	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.5	17.7	18.6	---	---	---	13.2	12.2	12.7	---	---	---
2	19.9	18.2	19.3	17.3	15.9	16.6	15.8	12.5	13.6	---	---	---
3	20.3	18.1	19.7	19.5	16.4	17.6	16.7	12.4	13.1	---	---	---
4	20.5	18.4	20.0	18.8	14.4	16.3	14.4	12.6	13.0	---	---	---
5	21.4	19.4	20.6	19.4	14.5	16.1	13.8	12.2	12.9	---	---	---
6	21.4	16.9	19.6	16.8	14.7	15.3	14.1	11.8	13.0	---	---	---
7	20.3	18.4	19.1	---	---	---	14.5	12.0	13.4	---	---	---
8	19.4	18.0	18.6	---	---	---	14.8	12.7	13.9	---	---	---
9	19.7	18.4	19.0	---	---	---	14.6	11.1	12.9	---	---	---
10	19.4	18.8	19.1	---	---	---	14.0	9.4	12.1	---	---	---
11	---	---	---	---	---	---	14.1	9.5	11.6	---	---	---
12	19.6	18.2	18.8	---	---	---	13.6	10.9	12.1	---	---	---
13	19.9	18.9	19.5	---	---	---	14.7	11.3	12.8	---	---	---
14	19.9	16.9	18.4	---	---	---	12.2	11.8	12.0	---	---	---
15	---	---	---	---	---	---	13.6	11.7	12.5	---	---	---
16	---	---	---	---	---	---	15.0	10.2	12.5	---	---	---
17	---	---	---	---	---	---	14.9	10.0	12.2	12.4	11.6	11.9
18	---	---	---	---	---	---	---	---	---	12.4	11.8	12.1
19	20.1	17.5	19.2	---	---	---	14.4	10.6	12.4	13.6	12.0	12.5
20	---	---	---	---	---	---	---	---	---	13.3	12.4	12.9
21	21.4	19.1	20.6	---	---	---	13.0	9.7	10.9	13.1	12.4	12.8
22	---	---	---	---	---	---	---	---	---	12.9	12.6	12.8
23	---	---	---	---	---	---	---	---	---	13.2	10.2	12.4
24	---	---	---	---	---	---	---	---	---	13.0	10.2	11.9
25	---	---	---	---	---	---	---	---	---	13.0	11.3	12.2
26	17.7	15.3	16.6	19.5	16.3	18.6	---	---	---	13.4	11.2	12.3
27	---	---	---	19.0	10.1	17.0	---	---	---	13.6	9.5	10.7
28	17.7	16.0	16.9	18.6	11.9	16.3	---	---	---	13.8	10.7	12.6
29	17.7	15.6	16.3	16.7	11.4	13.8	---	---	---	15.4	11.8	13.6
30	18.4	14.8	15.8	13.5	12.0	12.6	---	---	---	15.6	12.2	13.9
31	---	---	---	---	---	---	---	---	---	12.8	11.9	12.2
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.5	10.7	11.9	8.1	3.1	5.8	---	---	---	8.3	5.4	7.3
2	14.1	10.9	12.4	9.7	2.4	5.6	---	---	---	8.6	2.3	5.3
3	17.1	12.4	14.7	7.0	4.1	5.3	3.7	2.6	3.2	7.1	1.2	3.7
4	17.0	13.2	15.4	7.0	3.8	5.0	3.4	2.8	3.0	7.5	1.4	2.4
5	15.3	12.6	14.1	12.8	3.9	6.3	4.0	2.7	3.3	5.0	1.5	2.5
6	14.4	12.4	13.8	8.9	4.3	5.8	6.0	2.5	4.2	8.1	1.7	3.3
7	13.9	12.0	12.9	7.3	4.1	5.2	6.2	3.1	4.7	5.9	1.4	2.8
8	14.1	11.0	12.7	9.8	4.0	7.3	3.9	3.0	3.5	5.2	1.5	3.0
9	14.3	11.5	13.1	---	---	---	4.7	2.6	3.6	8.3	1.8	5.1
10	14.5	9.2	12.6	---	---	---	---	---	---	7.7	1.6	5.1
11	13.2	11.3	11.8	---	---	---	---	---	---	8.0	3.3	5.8
12	11.9	11.1	11.4	---	---	---	---	---	---	6.0	3.5	4.1
13	12.1	10.8	11.2	---	---	---	---	---	---	5.0	4.0	4.3
14	13.0	10.6	11.3	---	---	---	---	---	---	6.1	4.3	4.8
15	14.0	10.2	11.7	---	---	---	---	---	---	6.8	4.6	5.4
16	12.0	10.6	11.2	---	---	---	---	---	---	6.8	4.5	5.3
17	11.1	8.3	9.7	---	---	---	---	---	---	6.2	4.7	5.2
18	12.0	8.3	9.9	---	---	---	---	---	---	5.4	4.7	5.0
19	11.7	8.9	10.3	---	---	---	---	---	---	6.2	4.9	5.6
20	12.4	9.1	10.6	---	---	---	---	---	---	5.7	4.6	4.9
21	12.0	7.0	9.2	---	---	---	---	---	---	5.1	4.4	4.8
22	9.7	4.4	8.4	---	---	---	---	---	---	6.0	4.6	5.2
23	10.1	6.9	8.5	---	---	---	---	---	---	5.9	3.1	4.9
24	9.4	6.5	8.3	---	---	---	---	---	---	5.0	3.4	4.4
25	9.0	6.4	7.7	---	---	---	5.9	2.0	4.1	4.8	3.7	4.3
26	7.1	4.1	6.4	---	---	---	7.5	1.8	4.9	4.8	3.4	4.0
27	8.7	3.8	6.0	---	---	---	6.5	1.3	3.6	5.4	3.1	3.9
28	8.7	4.7	6.8	---	---	---	5.1	1.7	3.4	3.8	2.3	3.0
29	---	---	---	---	---	---	7.5	2.5	5.1	2.9	2.0	2.3
30	---	---	---	---	---	---	8.3	4.3	7.0	3.1	1.7	2.2
31	---	---	---	---	---	---	---	---	---	4.8	1.3	2.2
MONTH	17.1	3.8	10.9	---	---	---	---	---	---	8.6	1.2	4.3

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

SALINITY, WATER, UNFILTERED, PARTS PER THOUSAND, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.0	1.3	1.7	8.0	3.8	6.0	13.4	10.4	12.3	15.1	10.3	13.4
2	2.4	1.4	1.8	7.7	4.0	5.5	13.7	11.3	12.8	14.9	12.0	13.7
3	2.2	1.0	1.5	5.7	4.7	5.2	13.7	8.5	11.7	14.9	12.1	13.8
4	2.1	1.2	1.5	5.9	4.7	5.3	14.2	7.0	11.8	14.9	10.0	14.0
5	2.8	0.6	1.3	5.2	4.8	5.1	13.9	7.1	11.8	14.9	9.3	11.0
6	3.6	0.6	1.8	5.6	4.7	5.0	14.8	11.6	13.5	11.3	8.0	9.2
7	5.1	1.2	2.9	6.1	4.4	4.9	15.6	9.5	12.5	10.9	8.6	9.4
8	3.3	1.3	2.3	6.2	4.4	4.9	15.3	9.9	12.3	10.9	8.9	10.3
9	4.7	0.9	2.2	6.5	3.6	4.9	15.7	8.5	13.1	10.6	6.4	8.2
10	5.4	2.1	3.3	7.4	3.7	5.0	14.6	9.3	12.9	8.6	6.3	6.8
11	6.2	2.4	4.0	5.7	4.6	5.1	15.1	8.5	13.0	7.9	6.2	6.8
12	6.7	3.3	5.1	6.1	5.0	5.5	15.3	8.3	12.2	9.5	6.4	7.3
13	7.3	2.2	5.5	7.5	4.8	5.6	15.1	7.0	10.7	11.1	8.3	9.4
14	7.1	3.1	4.1	6.8	4.6	5.6	13.6	7.7	9.8	11.2	8.6	10.4
15	7.2	2.5	4.5	7.2	4.1	5.7	12.4	7.4	9.9	---	---	---
16	7.3	2.8	4.3	8.5	3.9	6.3	15.3	3.5	12.1	---	---	---
17	5.1	4.1	4.6	8.4	2.7	4.8	16.1	9.2	12.8	---	---	---
18	4.9	2.7	3.8	9.0	3.6	5.4	15.1	5.3	11.1	---	---	---
19	5.3	1.9	3.6	9.3	2.8	4.5	15.1	7.3	11.9	---	---	---
20	4.4	2.3	3.2	9.1	3.7	7.6	8.0	6.2	6.8	---	---	---
21	3.8	1.5	2.2	10.2	7.0	8.9	7.2	4.8	5.8	---	---	---
22	3.3	1.6	2.3	12.1	6.2	9.1	13.7	4.0	6.4	---	---	---
23	3.8	1.7	2.9	9.3	5.8	7.3	13.7	3.5	7.7	---	---	---
24	4.3	2.0	3.0	9.3	6.2	7.0	13.1	4.9	8.3	---	---	---
25	5.8	2.9	4.0	9.7	5.7	7.5	8.3	3.0	5.1	---	---	---
26	5.6	2.1	3.3	9.5	5.3	7.5	12.3	5.7	7.9	---	---	---
27	4.7	2.3	3.2	9.1	4.4	7.1	14.2	8.6	11.6	8.4	6.8	7.8
28	7.1	2.8	4.0	12.5	4.0	7.1	14.6	10.4	12.6	8.3	4.2	6.1
29	7.8	5.3	6.3	12.4	5.3	8.4	14.9	10.9	13.5	6.6	4.6	5.5
30	7.6	5.6	6.6	12.2	6.8	9.6	14.9	11.5	13.9	7.0	4.7	5.6
31	---	---	---	12.6	7.1	10.1	15.4	12.4	14.2	---	---	---
MONTH	7.8	0.6	3.4	12.6	2.7	6.4	16.1	3.0	11.0	---	---	---

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.8	7.2	7.4	7.8	7.0	7.4	8.8	7.3	8.1	8.0	7.0	7.6
2	8.5	7.2	7.6	7.6	7.1	7.3	8.8	7.4	7.7	8.7	6.8	7.7
3	8.2	7.2	7.6	8.2	7.1	7.5	8.9	7.2	7.8	8.7	6.9	7.7
4	7.6	7.1	7.3	8.9	7.3	7.9	8.8	7.1	7.7	8.5	6.8	7.6
5	7.6	7.1	7.3	8.2	7.5	7.7	9.0	7.3	8.0	8.0	7.3	7.7
6	7.5	6.9	7.2	8.2	7.3	7.6	8.5	7.4	7.8	8.0	7.3	7.7
7	7.2	6.8	7.0	8.0	7.2	7.5	8.1	7.4	7.6	7.9	7.3	7.6
8	7.1	6.8	6.9	8.6	7.2	7.8	8.2	7.5	7.8	7.7	7.4	7.5
9	8.0	6.8	7.2	8.6	7.5	8.1	8.6	7.4	7.8	8.0	7.3	7.6
10	7.8	7.1	7.4	8.6	7.4	8.0	8.2	7.6	7.8	7.7	7.4	7.6
11	8.4	7.3	7.7	8.0	7.4	7.6	8.8	7.4	7.9	7.7	7.4	7.6
12	8.4	7.3	7.7	7.9	7.3	7.6	8.7	7.0	7.8	7.9	7.3	7.5
13	7.7	7.3	7.4	8.3	7.2	7.7	8.7	7.0	7.8	8.4	7.2	7.6
14	7.9	7.2	7.5	8.1	7.3	7.5	8.5	6.7	7.6	8.5	7.3	7.8
15	8.8	7.3	7.9	8.4	7.2	7.6	8.9	7.0	7.8	---	---	---
16	8.4	7.5	8.0	8.4	7.2	7.9	8.4	7.4	7.8	---	---	---
17	7.7	7.3	7.5	8.2	7.3	7.7	8.8	7.3	7.6	---	---	---
18	8.0	7.2	7.5	8.4	7.0	7.8	9.3	7.4	7.8	---	---	---
19	8.7	7.2	8.0	8.4	7.3	7.7	8.8	7.3	8.1	---	---	---
20	8.4	7.4	7.8	8.7	7.2	7.6	8.7	7.8	8.2	---	---	---
21	8.4	7.6	7.9	8.4	7.3	7.8	8.6	7.3	8.0	---	---	---
22	8.5	7.5	7.9	7.4	7.0	7.1	8.5	7.1	7.6	---	---	---
23	8.8	7.5	8.1	7.6	7.2	7.4	7.8	7.0	7.2	---	---	---
24	9.0	7.7	8.4	8.4	7.2	7.7	8.3	7.1	7.6	---	---	---
25	9.1	8.2	8.8	7.9	7.3	7.6	8.1	7.2	7.5	---	---	---
26	8.8	7.9	8.5	8.5	7.0	7.6	8.8	7.2	8.0	---	---	---
27	8.8	7.6	8.2	8.6	7.2	8.0	8.8	7.2	8.0	8.9	7.4	8.4
28	9.0	7.5	8.1	8.6	7.0	7.9	8.3	7.0	7.6	8.5	7.4	8.1
29	8.7	7.2	7.8	8.8	7.0	7.8	8.4	6.8	7.6	8.4	7.4	8.0
30	8.4	6.9	7.5	8.7	7.4	7.9	8.5	7.1	7.9	8.4	7.5	8.0
31	---	---	---	8.9	7.2	8.1	8.9	6.8	7.8	---	---	---
MONTH	9.1	6.8	7.7	8.9	7.0	7.7	9.3	6.7	7.8	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	7.4	7.7	8.3	7.6	8.0	7.7	7.6	7.6	---	---	---
2	7.8	7.3	7.5	8.2	7.6	8.0	7.8	7.4	7.7	---	---	---
3	7.8	7.2	7.4	8.0	7.5	7.7	7.8	7.6	7.7	---	---	---
4	7.8	7.2	7.4	8.1	7.6	7.8	7.9	7.7	7.8	---	---	---
5	7.6	7.2	7.3	8.0	7.4	7.9	7.8	7.7	7.8	---	---	---
6	8.0	7.1	7.5	8.0	7.6	7.8	7.8	7.6	7.7	---	---	---
7	7.9	7.4	7.6	---	---	---	7.9	7.5	7.7	---	---	---
8	7.9	7.5	7.8	---	---	---	8.0	7.4	7.6	---	---	---
9	7.8	7.5	7.7	---	---	---	7.9	7.4	7.7	---	---	---
10	7.8	7.6	7.7	---	---	---	7.9	7.5	7.7	---	---	---
11	---	---	---	---	---	---	7.9	7.5	7.7	---	---	---
12	7.7	7.3	7.6	---	---	---	7.8	7.6	7.7	---	---	---
13	7.6	7.2	7.4	---	---	---	7.8	7.5	7.7	---	---	---
14	7.9	7.2	7.6	---	---	---	7.9	7.7	7.8	---	---	---
15	---	---	---	---	---	---	8.0	7.6	7.7	---	---	---
16	---	---	---	---	---	---	8.1	7.5	7.8	---	---	---
17	---	---	---	---	---	---	8.2	7.5	7.8	8.1	7.9	8.0
18	7.9	7.4	7.7	---	---	---	---	---	---	8.0	7.8	7.9
19	8.0	7.4	7.7	---	---	---	8.7	7.7	8.2	8.0	7.7	7.9
20	7.6	7.2	7.4	---	---	---	---	---	---	7.9	7.8	7.8
21	7.5	7.1	7.3	---	---	---	8.6	8.2	8.4	7.9	7.8	7.8
22	7.6	7.2	7.4	---	---	---	---	---	---	7.9	7.8	7.8
23	7.5	7.2	7.3	---	---	---	---	---	---	7.8	7.6	7.7
24	8.2	7.3	7.8	---	---	---	---	---	---	7.7	7.6	7.6
25	8.0	7.6	7.9	---	---	---	---	---	---	7.7	7.6	7.6
26	8.0	7.3	7.8	7.9	7.3	7.5	---	---	---	7.6	7.5	7.6
27	8.0	7.3	7.8	8.1	7.3	7.5	---	---	---	7.6	7.5	7.6
28	8.1	7.4	7.8	7.9	7.4	7.5	---	---	---	7.7	7.5	7.6
29	8.1	7.6	7.9	8.1	7.3	7.7	---	---	---	7.7	7.5	7.6
30	8.2	7.6	8.0	7.8	7.5	7.7	---	---	---	7.6	7.4	7.6
31	8.1	7.5	7.8	---	---	---	---	---	---	7.7	7.6	7.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.7	7.5	7.6	8.7	7.8	8.2	---	---	---	6.8	6.6	6.7
2	7.8	7.5	7.6	8.6	7.6	8.2	---	---	---	7.0	6.6	6.7
3	7.7	7.3	7.5	8.7	8.0	8.5	8.2	7.8	8.0	7.3	6.6	6.9
4	7.7	7.4	7.5	8.7	8.1	8.4	8.4	7.9	8.0	7.3	6.6	7.1
5	7.8	7.5	7.6	8.5	7.3	8.1	8.3	7.9	8.1	7.2	6.8	7.0
6	7.8	7.6	7.7	8.2	7.6	7.9	8.2	7.9	8.1	7.2	6.6	6.9
7	7.9	7.7	7.8	8.1	7.6	7.8	8.1	8.0	8.0	7.4	6.6	6.9
8	8.0	7.6	7.8	7.9	7.3	7.5	8.1	7.9	8.0	7.7	6.6	7.1
9	8.1	7.5	7.8	---	---	---	8.1	7.9	8.0	8.4	6.8	7.1
10	8.4	7.5	7.9	---	---	---	---	---	---	8.0	6.7	7.0
11	8.1	7.7	8.0	---	---	---	---	---	---	8.0	6.7	7.0
12	8.2	7.9	8.1	---	---	---	---	---	---	7.9	6.9	7.4
13	8.2	8.0	8.1	---	---	---	---	---	---	7.8	7.4	7.6
14	8.3	8.0	8.2	---	---	---	---	---	---	8.6	7.2	7.6
15	8.3	7.8	8.1	---	---	---	---	---	---	8.2	7.2	7.7
16	8.3	8.1	8.2	---	---	---	---	---	---	8.9	7.3	7.9
17	8.3	8.1	8.3	---	---	---	---	---	---	8.9	7.4	8.1
18	8.3	8.1	8.2	---	---	---	---	---	---	8.2	7.8	8.0
19	8.3	8.0	8.2	---	---	---	---	---	---	8.4	7.7	8.1
20	8.4	8.0	8.2	---	---	---	---	---	---	8.8	7.9	8.3
21	8.6	8.0	8.4	---	---	---	---	---	---	8.6	7.6	8.2
22	8.5	7.5	8.0	---	---	---	---	---	---	8.8	7.3	7.7
23	8.1	7.6	7.9	---	---	---	---	---	---	8.3	7.3	7.8
24	8.2	7.8	8.1	---	---	---	---	---	---	8.6	7.6	7.9
25	8.3	8.1	8.2	---	---	---	7.3	7.0	7.1	8.2	7.5	7.7
26	8.4	8.1	8.2	---	---	---	7.3	6.9	7.0	8.0	7.2	7.6
27	8.3	7.8	8.1	---	---	---	7.3	6.8	7.0	8.5	7.2	7.7
28	8.6	7.9	8.2	---	---	---	7.1	6.8	6.9	8.9	7.6	8.1
29	---	---	---	---	---	---	7.0	6.7	6.8	8.3	7.5	7.8
30	---	---	---	---	---	---	6.8	6.7	6.8	8.5	7.2	7.7
31	---	---	---	---	---	---	---	---	---	8.0	6.9	7.4
MONTH	8.6	7.3	8.0	---	---	---	---	---	---	8.9	6.6	7.5

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	7.9	7.2	7.4	7.4	6.6	6.9	7.4	6.9	7.2	7.1	7.0	7.0
2	8.3	7.1	7.4	7.1	6.6	6.9	7.2	7.0	7.1	7.1	6.9	7.0
3	7.7	7.1	7.4	7.6	6.8	7.1	7.3	6.8	7.1	7.2	6.9	7.1
4	7.4	6.9	7.1	8.0	6.9	7.3	7.2	6.8	7.1	7.5	7.1	7.2
5	7.4	6.8	7.1	7.8	7.2	7.5	7.2	6.9	7.1	8.0	7.2	7.5
6	7.3	6.6	7.0	7.7	6.9	7.3	7.3	7.0	7.2	7.9	7.2	7.6
7	6.9	6.6	6.7	7.7	6.9	7.3	7.5	6.9	7.1	7.9	7.1	7.5
8	7.0	6.7	6.8	8.3	7.1	7.5	7.6	6.9	7.2	7.7	7.2	7.5
9	---	---	---	8.4	7.2	7.7	7.5	6.9	7.2	8.0	7.2	7.5
10	---	---	---	8.2	7.0	7.6	7.7	6.9	7.3	7.8	7.5	7.6
11	---	---	---	7.8	7.4	7.6	7.5	6.9	7.2	7.7	7.3	7.6
12	---	---	---	7.7	7.3	7.5	7.4	6.9	7.2	7.7	7.2	7.4
13	---	---	---	7.9	7.0	7.5	7.4	6.9	7.2	7.6	7.1	7.3
14	---	---	---	7.4	7.0	7.2	7.6	6.9	7.1	8.3	7.0	7.3
15	8.5	7.5	7.8	7.5	6.9	7.1	7.3	6.8	7.0	---	---	---
16	8.8	7.6	8.1	7.4	6.9	7.0	7.5	6.9	7.1	---	---	---
17	8.0	7.8	7.9	7.4	6.9	7.0	7.4	7.0	7.2	---	---	---
18	8.1	7.6	7.8	7.4	6.9	7.1	7.7	6.9	7.2	---	---	---
19	8.7	7.6	7.8	7.6	7.0	7.2	7.6	7.0	7.2	---	---	---
20	8.0	7.5	7.7	7.2	6.8	6.9	8.3	7.0	7.6	---	---	---
21	8.5	7.5	8.0	7.2	6.8	7.0	8.2	7.0	7.5	---	---	---
22	8.6	7.8	8.0	7.3	6.8	7.0	7.3	6.8	7.0	---	---	---
23	8.2	7.2	7.6	7.4	7.0	7.2	7.5	6.7	7.0	---	---	---
24	8.3	7.0	7.4	8.1	7.0	7.3	7.2	6.7	6.9	---	---	---
25	7.2	6.7	6.9	7.4	6.9	7.1	7.1	6.6	6.8	---	---	---
26	8.2	6.8	7.2	7.2	6.6	6.8	7.6	6.6	6.9	---	---	---
27	8.1	6.8	7.2	6.9	6.6	6.8	7.9	6.7	7.3	8.1	7.1	7.3
28	7.4	6.6	6.9	7.5	6.6	6.9	7.1	6.8	7.0	8.4	7.1	7.8
29	6.7	6.6	6.6	7.2	6.8	7.0	7.3	6.9	7.1	8.2	7.4	7.8
30	6.8	6.6	6.7	7.3	6.9	7.0	7.3	7.0	7.2	8.1	7.2	7.7
31	---	---	---	7.4	6.9	7.1	7.2	7.1	7.2	---	---	---
MONTH	---	---	---	8.4	6.6	7.2	8.3	6.6	7.1	---	---	---

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	23.1	22.0	22.5	28.2	27.5	27.9	29.6	27.8	28.7	30.5	29.3	29.7
2	23.3	21.9	22.4	28.0	26.6	27.1	30.0	28.3	28.9	30.6	28.8	29.7
3	23.0	21.9	22.5	27.4	26.2	26.7	29.3	28.2	28.8	30.9	29.0	29.6
4	23.4	22.5	22.9	28.8	26.5	27.4	28.6	27.8	28.3	29.7	28.6	29.1
5	24.7	22.8	23.5	29.1	27.0	27.8	29.4	27.1	28.0	29.1	28.0	28.5
6	25.5	23.4	24.4	28.9	27.6	28.2	28.6	27.4	28.1	28.5	26.4	27.1
7	24.8	24.0	24.4	29.0	27.4	28.3	27.9	27.1	27.4	26.5	25.1	25.8
8	25.0	23.8	24.2	30.3	27.9	28.7	27.8	26.7	27.3	25.4	24.7	25.1
9	26.6	24.2	25.2	31.1	28.4	29.6	27.6	26.9	27.3	25.0	24.2	24.6
10	26.9	25.0	26.2	30.5	29.0	29.5	27.5	26.4	26.9	24.4	23.4	24.1
11	27.9	26.0	26.8	30.3	28.1	29.0	27.6	26.4	27.1	23.5	22.6	23.0
12	27.9	26.4	27.1	29.1	28.0	28.7	28.2	26.8	27.4	23.2	22.5	22.8
13	27.0	26.0	26.5	28.5	27.8	28.1	28.2	27.3	27.8	23.3	22.7	23.0
14	27.4	25.6	26.3	27.9	27.1	27.5	28.7	27.4	27.9	24.0	22.6	23.4
15	28.4	26.2	26.9	29.0	26.9	27.4	29.2	27.6	28.2	---	---	---
16	27.6	26.3	27.0	29.0	27.6	28.3	29.2	28.4	28.8	---	---	---
17	26.5	26.2	26.4	28.7	27.7	28.2	29.3	27.7	28.3	---	---	---
18	27.4	26.0	26.5	28.8	27.6	28.2	29.5	27.1	28.0	---	---	---
19	29.0	26.4	27.2	28.2	27.3	27.8	28.8	27.6	28.3	---	---	---
20	27.9	26.8	27.2	29.0	26.8	27.6	28.9	27.9	28.4	---	---	---
21	27.6	26.4	27.0	28.9	27.3	28.1	29.5	28.2	28.6	---	---	---
22	26.9	25.8	26.4	28.8	27.4	28.0	29.8	28.1	28.7	---	---	---
23	27.8	25.8	26.5	27.9	26.9	27.5	29.2	28.2	28.6	---	---	---
24	28.5	26.2	27.2	27.9	26.3	27.1	28.9	27.9	28.3	---	---	---
25	29.7	27.0	28.3	27.3	26.5	26.9	29.0	27.4	28.0	---	---	---
26	28.4	26.7	27.7	28.7	26.6	27.4	29.8	27.8	28.6	---	---	---
27	29.0	26.9	27.9	29.6	27.4	28.5	30.5	28.1	29.1	25.9	24.8	25.1
28	28.9	27.1	27.9	29.0	27.7	28.4	29.9	28.2	29.0	25.6	24.4	25.1
29	29.8	27.3	28.1	30.2	27.5	28.5	30.0	28.2	29.1	25.5	23.6	24.4
30	28.9	27.6	28.2	29.5	27.9	28.6	30.3	28.7	29.3	23.6	22.4	23.0
31	---	---	---	29.3	28.0	28.6	30.7	28.5	29.3	---	---	---
MONTH	29.8	21.9	26.0	31.1	26.2	28.1	30.7	26.4	28.3	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	25.5	24.9	25.2	18.1	16.1	17.0	10.6	9.7	10.1	---	---	---
2	25.7	25.0	25.3	16.5	15.6	16.2	10.7	9.5	10	---	---	---
3	26.1	25.1	25.4	17.1	15.0	15.8	10.4	8.8	9.4	---	---	---
4	26.1	25.3	25.5	16.2	14.6	15.2	9.4	7.4	8.1	---	---	---
5	25.9	25.3	25.5	16.6	14.4	15.0	8.3	7.1	7.7	---	---	---
6	26.3	25.3	25.9	15.5	14.4	15.2	7.9	6.9	7.5	---	---	---
7	26.3	25.7	26.0	---	---	---	8.2	7.0	7.6	---	---	---
8	26.4	24.9	25.6	---	---	---	8.3	7.2	7.7	---	---	---
9	25.2	23.9	24.5	---	---	---	8.0	6.5	7.3	---	---	---
10	24.6	24.0	24.4	---	---	---	7.7	6.6	7.1	---	---	---
11	---	---	---	---	---	---	7.7	6.7	7.1	---	---	---
12	24.4	24.0	24.2	---	---	---	7.5	7.1	7.2	---	---	---
13	24.2	23.8	24.1	---	---	---	7.8	7.2	7.4	---	---	---
14	24.4	22.9	23.7	---	---	---	8.4	7.8	8.1	---	---	---
15	---	---	---	---	---	---	8.5	7.7	7.8	---	---	---
16	---	---	---	---	---	---	8.4	7.6	8.0	---	---	---
17	---	---	---	---	---	---	8.2	7.5	7.8	5.9	5.2	5.7
18	21.5	20.7	21.2	---	---	---	---	---	---	5.3	4.4	4.9
19	21.3	20.1	21.0	---	---	---	8.6	7.6	8.0	5.4	2.9	4.6
20	21.4	20.6	21.1	---	---	---	---	---	---	5.9	3.5	4.7
21	21.1	20.6	21.0	---	---	---	9.6	8.6	9.3	5.3	4.8	5.0
22	21.0	19.7	20.7	---	---	---	---	---	---	4.9	4.3	4.7
23	20.6	19.8	20.3	---	---	---	---	---	---	4.3	2.1	3.4
24	20.5	18.4	19.1	---	---	---	---	---	---	2.4	1.3	2.0
25	19.1	18.2	18.6	---	---	---	---	---	---	2.4	0.8	1.7
26	19.4	18.6	18.9	14.4	13.4	14.0	---	---	---	2.4	1.6	2.0
27	19.5	19.2	19.3	14.1	12.8	13.7	---	---	---	2.5	1.5	1.9
28	19.6	19.1	19.3	13.8	12.0	13.2	---	---	---	2.6	1.8	2.3
29	19.5	19.0	19.3	12.9	10.6	11.8	---	---	---	3.4	2.4	2.9
30	19.4	18.1	18.8	11.3	10.3	10.7	---	---	---	3.6	2.8	3.3
31	18.2	17.4	17.9	---	---	---	---	---	---	4.3	3.5	3.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	MAX	MIN	MEAN									
1	4.5	4.0	4.2	10.6	9.4	9.7	---	---	---	18.7	17.1	17.6
2	4.9	3.9	4.3	10.5	9.5	10	---	---	---	21.1	17.2	19.0
3	5.4	3.4	4.0	10.3	9.4	9.9	17.1	14.5	15.5	21.6	18.6	20.2
4	7.0	3.5	5.1	11.4	10.1	10.6	17.5	15.4	16.2	20.5	18.8	20.0
5	6.6	5.7	6.2	12.0	9.6	11.1	17.9	16.2	16.9	19.7	18.9	19.3
6	6.6	6.1	6.3	11.5	10.0	10.7	17.9	16.4	17.0	20.9	18.2	19.5
7	6.7	6.3	6.5	10.1	9.7	9.8	16.9	16.1	16.4	21.3	19.0	20.3
8	6.7	6.2	6.4	10.6	9.8	10.1	16.7	15.4	16.1	22.4	19.6	21.1
9	6.7	6.3	6.4	---	---	---	15.5	14.5	15.0	24.6	18.7	20.9
10	7.0	6.3	6.7	---	---	---	---	---	---	24.3	19.4	21.5
11	6.8	6.1	6.5	---	---	---	---	---	---	24.9	19.2	21.7
12	7.4	6.1	6.6	---	---	---	---	---	---	23.9	22.0	23.3
13	6.9	6.0	6.6	---	---	---	---	---	---	23.1	22.0	22.4
14	6.7	6.2	6.5	---	---	---	---	---	---	22.8	21.3	22.0
15	7.7	6.6	7.2	---	---	---	---	---	---	22.4	21.7	22.0
16	7.8	7.3	7.5	---	---	---	---	---	---	22.7	21.6	21.9
17	7.4	6.9	7.2	---	---	---	---	---	---	23.1	21.8	22.2
18	7.1	6.4	6.8	---	---	---	---	---	---	21.8	21.0	21.4
19	7.6	6.5	7.0	---	---	---	---	---	---	21.0	20.0	20.6
20	7.7	7.2	7.4	---	---	---	---	---	---	21.1	19.4	20.3
21	8.0	7.2	7.7	---	---	---	---	---	---	21.8	20.7	21.0
22	10.8	7.5	9.3	---	---	---	---	---	---	21.9	20.5	21.1
23	10.8	10.0	10.3	---	---	---	---	---	---	21.6	20.8	21.0
24	10.8	10.2	10.5	---	---	---	---	---	---	21.9	20.6	20.9
25	10.2	9.5	9.9	---	---	---	17.9	17.2	17.5	22.1	20.8	21.2
26	9.7	9.3	9.5	---	---	---	18.1	16.9	17.4	22.3	21.0	21.6
27	9.5	9.1	9.3	---	---	---	19.2	17.2	18.3	23.3	21.0	22.4
28	9.6	9.2	9.4	---	---	---	18.8	17.8	18.3	23.4	21.9	22.5
29	---	---	---	---	---	---	19.5	16.9	17.9	23.2	22.4	22.9
30	---	---	---	---	---	---	18.6	17.0	17.5	23.4	22.2	22.5
31	---	---	---	---	---	---	---	---	---	23.3	21.9	22.7
MONTH	10.8	3.4	7.2	---	---	---	---	---	---	24.9	17.1	21.2

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN									
1	23.2	22.1	22.5	28.1	26.1	27.1	28.0	27.2	27.5	29.0	27.9	28.2
2	23.0	21.9	22.3	27.7	26.6	27.0	28.1	27.4	27.8	28.5	27.8	28.1
3	23.3	22.0	22.5	27.1	26.3	26.6	28.6	27.5	27.9	29.0	27.7	28.3
4	23.2	22.2	22.7	27.7	26.5	26.9	28.4	27.5	27.9	28.8	27.9	28.3
5	24.4	22.6	23.3	28.6	27.0	27.6	27.9	27.4	27.7	28.9	28.0	28.5
6	24.5	22.8	23.5	28.5	27.5	28.0	28.1	27.6	27.8	28.6	26.4	27.4
7	24.2	22.5	23.2	29.0	27.3	28.2	28.0	27.4	27.8	26.5	25.1	26.0
8	24.5	23.4	23.8	28.9	27.8	28.3	27.8	27.1	27.5	25.5	24.8	25.2
9	25.1	23.4	24.2	30.4	28.3	29.1	27.8	27.1	27.6	25.2	24.3	24.7
10	25.1	22.9	24.1	29.9	28.6	29.2	27.7	27.1	27.5	24.4	23.8	24.1
11	25.4	22.7	24.1	30.0	28.2	28.9	27.5	26.8	27.3	24.1	22.7	23.1
12	25.0	22.6	23.9	29.1	28.0	28.6	27.5	27.2	27.4	23.4	22.6	22.9
13	26.6	23.2	24.4	28.6	27.8	28.2	27.6	27.4	27.5	23.2	23.0	23.0
14	26.5	24.2	25.7	28.0	27.0	27.6	27.8	27.4	27.6	23.8	23.0	23.2
15	27.2	25.3	26.1	27.7	27.3	27.5	27.9	27.4	27.7	---	---	---
16	27.6	25.6	26.6	28.3	27.5	27.7	28.7	27.3	27.6	---	---	---
17	26.5	26.0	26.3	28.1	27.4	27.7	27.9	27.2	27.5	---	---	---
18	26.7	25.6	26.2	28.2	27.6	27.9	27.9	27.2	27.4	---	---	---
19	27.4	25.8	26.5	28.1	27.5	27.8	28.5	27.2	27.6	---	---	---
20	27.2	26.2	26.6	27.6	27.4	27.6	28.7	27.8	28.3	---	---	---
21	27.4	26.2	26.8	27.8	27.5	27.6	28.5	28.1	28.3	---	---	---
22	26.8	25.7	26.2	28.8	27.5	27.9	28.4	27.3	28.2	---	---	---
23	26.6	25.4	26.0	28.0	27.0	27.7	28.8	27.2	28.0	---	---	---
24	27.2	25.8	26.3	27.4	26.4	27.0	28.4	27.4	27.9	---	---	---
25	26.7	25.6	26.2	27.2	27.0	27.1	28.0	27.5	27.7	---	---	---
26	27.7	26.0	26.8	27.3	26.9	27.1	28.0	27.4	27.7	---	---	---
27	28.2	26.7	27.1	28.2	27.1	27.4	28.0	27.3	27.6	25.1	24.5	24.8
28	27.7	26.1	27.1	28.4	27.1	27.7	28.1	27.3	27.7	25.5	24.6	25.0
29	27.4	26.0	26.8	28.1	27.1	27.7	28.4	27.5	27.8	25.5	24.2	24.7
30	27.4	26.2	26.8	28.4	27.3	27.7	28.5	27.6	27.9	24.2	23.0	23.5
31	---	---	---	28.2	27.3	27.8	28.5	27.8	28.1	---	---	---
MONTH	28.2	21.9	25.2	30.4	26.1	27.7	28.8	26.8	27.7	---	---	---

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.8	6.5	7.6	6.5	3.0	5.3	10.3	3.1	7.3	7.5	2.5	5.4
2	10.4	7.0	8.1	6.2	3.9	5.0	10.3	2.8	5.5	11.0	0.1	5.4
3	9.5	7.4	8.5	7.9	3.7	5.8	10.8	1.8	5.6	10.6	0.6	5.4
4	8.2	6.9	7.8	12.1	5.5	7.5	10.0	1.9	5.8	9.0	0.1	4.9
5	9.2	6.6	7.9	8.0	4.8	6.6	12.0	2.3	7.0	6.9	3.3	5.3
6	8.9	6.1	8.2	6.2	3.6	4.8	---	---	---	7.2	4.7	5.7
7	8.1	6.3	7.4	5.5	3.3	4.5	---	---	---	7.0	4.6	5.7
8	6.8	5.4	6.2	9.9	3.8	6.3	---	---	---	6.5	5.2	5.8
9	8.6	5.6	6.9	10.0	6.0	7.8	---	---	---	7.9	5.4	6.3
10	8.1	6.0	7.4	9.3	4.8	7.1	---	---	---	6.5	5.7	6.2
11	8.7	6.1	7.8	6.9	5.2	6.0	---	---	---	6.7	5.8	6.1
12	8.6	6.2	7.4	7.1	5.0	6.0	---	---	---	6.8	4.3	5.7
13	7.2	5.4	6.4	8.2	4.4	6.2	8.4	1.8	4.9	8.2	3.7	5.2
14	7.6	4.8	6.2	7.6	4.5	5.7	7.7	1.2	4.5	7.9	3.7	5.5
15	9.6	5.7	7.3	9.3	4.5	6.3	9.2	1.7	5.9	---	---	---
16	8.1	5.2	7.0	8.4	4.0	6.9	---	---	---	---	---	---
17	6.0	4.6	5.4	7.8	5.0	6.3	---	---	---	---	---	---
18	6.8	3.8	5.5	8.0	2.9	6.3	---	---	---	---	---	---
19	8.5	4.0	6.5	8.2	4.8	6.2	---	---	---	---	---	---
20	8.2	4.8	6.4	9.3	4.1	6.4	---	---	---	---	---	---
21	8.0	5.8	6.8	8.1	5.0	6.6	9.1	5.5	7.1	---	---	---
22	8.4	5.8	6.9	5.6	2.6	4.0	9.5	5.2	7.5	---	---	---
23	10.3	6.0	7.6	6.6	4.8	5.6	8.0	5.7	6.6	---	---	---
24	11.0	7.6	8.9	9.4	4.5	6.4	8.6	5.6	7.1	---	---	---
25	11.4	8.5	10.0	6.9	4.4	6.1	8.4	5.6	6.8	---	---	---
26	9.2	7.0	8.4	8.0	3.4	5.8	10.1	5.6	8.0	---	---	---
27	9.2	5.7	7.6	7.9	3.9	6.6	10.2	4.6	7.9	11.2	5.0	8.3
28	10.3	3.5	7.2	8.8	3.0	6.6	8.7	3.8	6.8	8.9	6.0	7.6
29	8.2	1.9	5.7	10.0	3.6	6.5	8.8	0.2	5.7	8.9	6.4	7.6
30	7.8	1.6	5.1	9.6	4.1	6.8	9.0	3.7	7.1	9.0	6.4	8.0
31	---	---	---	10.6	3.1	7.6	13.5	0.8	6.6	---	---	---
MONTH	11.4	1.6	7.2	12.1	2.6	6.2	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	9.0	6.7	7.7	---	---	---
2	3.2	0.8	1.7	---	---	---	9.1	5.0	6.9	---	---	---
3	3.9	0.6	1.4	---	---	---	10.5	5.6	8.5	---	---	---
4	3.9	0.7	1.7	---	---	---	9.8	7.4	9.1	---	---	---
5	2.7	0.1	0.9	8.1	3.5	6.8	10.3	7.8	8.9	---	---	---
6	4.4	0.0	2.2	7.9	5.7	7.2	9.8	7.4	8.4	---	---	---
7	4.0	0.2	2.2	---	---	---	9.4	6.3	7.8	---	---	---
8	4.8	0.5	3.6	---	---	---	9.3	5.7	7.2	---	---	---
9	5.3	2.8	4.2	---	---	---	11.3	6.2	8.7	---	---	---
10	5.0	3.7	4.4	---	---	---	10.7	6.9	8.7	---	---	---
11	---	---	---	---	---	---	10.8	6.7	8.9	---	---	---
12	4.0	0.6	3.0	---	---	---	9.7	7.4	8.8	---	---	---
13	3.8	0.1	1.6	---	---	---	10.8	7.4	9.2	---	---	---
14	5.3	0.0	2.8	---	---	---	11.3	9.1	10.5	---	---	---
15	---	---	---	---	---	---	11.8	7.9	9.6	---	---	---
16	---	---	---	---	---	---	12.4	7.6	9.7	---	---	---
17	---	---	---	---	---	---	13.1	8.0	10.3	10.8	10.2	10.5
18	---	---	---	---	---	---	---	---	---	11.1	10.2	10.5
19	---	---	---	---	---	---	13.2	8.3	10.7	11.2	9.4	10.6
20	---	---	---	---	---	---	---	---	---	10.9	9.9	10.4
21	---	---	---	---	---	---	12.0	10.0	11.2	10.8	10.2	10.5
22	---	---	---	---	---	---	---	---	---	11.0	10.4	10.6
23	---	---	---	---	---	---	---	---	---	11.2	10.6	10.8
24	---	---	---	---	---	---	---	---	---	11.4	10.8	11.1
25	---	---	---	---	---	---	---	---	---	11.7	11.0	11.3
26	---	---	---	8.8	3.2	4.8	---	---	---	11.7	10.4	11.2
27	---	---	---	8.4	2.8	4.3	---	---	---	12.2	10.4	11.6
28	---	---	---	7.4	3.4	4.4	---	---	---	12.0	10.7	11.3
29	---	---	---	9.4	3.7	6.2	---	---	---	11.8	10.5	11.1
30	---	---	---	8.6	5.6	7.5	---	---	---	11.7	10.0	11.0
31	---	---	---	---	---	---	---	---	---	11.9	11.4	11.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.9	10.5	11.6	12.3	8.6	10.5	---	---	---	2.7	0.2	0.8
2	12.1	10.9	11.5	11.7	7.8	10.3	---	---	---	6.6	0.2	2.9
3	11.9	9.4	10.8	11.9	9.3	11.0	9.1	7.6	8.3	7.6	1.5	4.8
4	11.2	10.1	10.7	11.8	9.3	10.9	9.3	8.0	8.5	7.8	1.4	6.8
5	11.8	10.5	11.1	11.2	5.3	9.9	9.0	8.0	8.5	7.4	2.5	6.0
6	11.7	10.8	11.2	10.2	7.7	9.4	8.6	7.4	8.3	7.7	0.0	5.0
7	11.5	10.9	11.3	10.8	8.1	9.7	8.5	7.8	8.2	7.8	1.9	5.8
8	12.5	10.8	11.3	10.3	6.4	8.3	8.6	7.6	8.2	8.6	2.4	5.7
9	12.9	10.2	11.4	---	---	---	8.8	7.6	8.5	9.2	0.6	3.8
10	13.6	10.1	11.5	---	---	---	---	---	---	8.9	0.9	4.2
11	13.3	11.1	12.2	---	---	---	---	---	---	8.6	0.6	3.5
12	13.0	12.2	12.6	---	---	---	---	---	---	8.5	2.9	6.7
13	13.4	12.2	12.7	---	---	---	---	---	---	8.7	7.3	8.0
14	13.5	12.0	12.8	---	---	---	---	---	---	8.3	3.9	6.9
15	13.9	11.0	12.7	---	---	---	---	---	---	7.3	2.3	5.8
16	12.5	11.3	12.0	---	---	---	---	---	---	9.2	2.0	6.1
17	11.9	11.2	11.6	---	---	---	---	---	---	8.6	2.9	6.6
18	12.4	10.6	11.5	---	---	---	---	---	---	7.1	6.3	6.8
19	12.7	10.2	12.0	---	---	---	---	---	---	8.0	5.8	7.3
20	12.7	10.3	11.9	---	---	---	---	---	---	9.1	7.3	8.0
21	13.1	10.5	12.4	---	---	---	---	---	---	8.6	5.1	7.5
22	12.7	9.2	10.5	---	---	---	---	---	---	8.6	3.0	5.4
23	10.2	8.9	9.5	---	---	---	---	---	---	7.6	3.4	6.3
24	10.6	9.4	10.1	---	---	---	---	---	---	9.4	5.8	7.1
25	11.4	9.9	10.6	---	---	---	7.5	3.7	5.2	7.7	4.6	6.3
26	11.5	10.5	10.9	---	---	---	7.6	1.9	4.2	7.4	2.8	5.7
27	11.5	8.8	10.4	---	---	---	8.0	2.7	5.4	7.8	2.5	6.2
28	12.2	9.1	10.4	---	---	---	7.1	3.2	5.1	8.9	5.8	7.3
29	---	---	---	---	---	---	6.1	0.7	2.9	8.1	5.0	6.9
30	---	---	---	---	---	---	3.7	0.6	1.3	10.0	5.0	7.3
31	---	---	---	---	---	---	---	---	---	8.7	2.0	6.5
MONTH	13.9	8.8	11.4	---	---	---	---	---	---	10.0	0.0	5.9

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	6.0	7.2	6.2	0.1	2.2	0.3	0.1	0.1	1.1	0.0	0.1
2	9.2	5.0	7.2	5.3	0.3	3.3	0.5	0.1	0.1	0.2	0.0	0.0
3	8.4	5.5	7.6	7.0	1.9	4.6	1.5	0.1	0.2	0.6	0.0	0.1
4	7.7	4.5	6.3	7.8	3.4	5.7	3.2	0.1	0.3	3.3	0.1	0.3
5	8.3	3.2	6.7	6.7	5.4	5.9	2.5	0.1	0.3	6.1	0.1	3.1
6	7.9	3.6	5.8	6.5	3.5	5.5	1.5	0.0	0.2	6.9	2.2	5.2
7	6.1	0.6	3.4	6.8	3.0	5.7	3.6	0.1	0.6	7.2	2.7	5.1
8	6.5	3.3	5.1	9.0	4.5	6.3	4.2	0.1	0.9	6.8	3.8	5.7
9	7.1	2.6	5.2	8.7	3.5	6.6	5.9	0.0	0.8	8.4	4.1	6.1
10	6.1	0.6	3.6	7.7	2.3	5.8	4.3	0.1	0.5	7.4	6.2	7.0
11	5.8	0.1	2.6	6.6	4.8	5.8	1.8	0.1	0.2	7.6	5.1	6.7
12	3.4	0.0	1.4	6.2	4.5	5.5	5.1	0.1	1.2	7.4	4.2	6.2
13	6.9	0.0	1.9	6.6	2.7	5.3	3.2	0.1	1.1	6.5	3.1	4.9
14	7.0	0.6	4.8	5.9	2.2	4.5	0.4	0.0	0.1	9.7	2.5	4.4
15	8.1	1.1	5.0	6.1	1.5	3.4	2.1	0.0	0.5	---	---	---
16	8.7	2.2	6.2	5.4	1.3	2.4	6.0	0.0	0.3	---	---	---
17	6.2	4.3	5.5	5.8	1.0	3.3	2.2	0.0	0.2	---	---	---
18	6.2	2.2	4.9	5.0	0.2	2.9	4.8	0.0	1.0	---	---	---
19	7.5	1.2	4.4	6.4	1.2	4.1	4.7	0.0	0.9	---	---	---
20	6.0	2.8	4.0	5.1	0.1	1.0	8.4	1.7	5.6	---	---	---
21	7.7	2.3	5.9	0.9	0.0	0.2	7.7	2.5	5.4	---	---	---
22	8.2	4.3	6.2	5.5	0.0	2.3	4.9	0.1	2.1	---	---	---
23	7.6	4.4	6.0	6.3	2.8	4.8	6.5	0.1	1.3	---	---	---
24	9.0	3.1	6.2	8.9	2.1	5.2	3.2	0.1	0	---	---	---
25	6.4	0.4	3.7	6.3	2.5	4.7	5.7	0.1	2.8	---	---	---
26	8.3	1.0	5.2	5.3	0.6	2.6	2.5	0.1	0.5	---	---	---
27	7.9	2.6	5.1	4.5	0.5	2.6	0.1	0.0	0.1	7.4	3.0	4.7
28	6.7	0.1	3.4	5.9	0.1	2.4	0.1	0.0	0.1	8.6	3.0	6.5
29	1.5	0.0	0.5	3.2	0.2	1.4	0.4	0.0	0.1	8.1	5.5	6.9
30	1.5	0.0	0.3	4.6	0.2	1.2	0.2	0.0	0.1	8.1	4.2	6.8
31	---	---	---	3.3	0.1	0.9	0.1	0.0	0.1	---	---	---
MONTH	9.2	0.0	4.7	9.0	0.0	3.8	8.4	0.0	0.9	---	---	---

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, TOP—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	103	76	88	84	38	68	136	40	95	100	33	72
2	122	80	94	79	49	63	136	36	72	147	1	72
3	111	86	98	100	46	73	142	23	73	142	8	72
4	96	80	91	157	69	96	129	25	75	118	1	64
5	111	77	94	104	62	85	155	29	91	90	43	69
6	109	72	98	81	46	62	---	---	---	90	60	72
7	98	75	88	71	42	58	---	---	---	86	57	70
8	82	65	74	131	49	82	---	---	---	79	63	70
9	107	67	85	133	77	104	---	---	---	96	65	76
10	102	73	92	125	63	94	---	---	---	77	68	74
11	111	76	98	92	68	79	---	---	---	78	68	72
12	110	77	93	92	65	77	---	---	---	80	50	67
13	91	67	80	106	57	80	107	23	63	96	43	61
14	96	59	77	96	57	73	99	15	57	94	43	65
15	124	71	92	119	57	80	120	22	76	---	---	---
16	103	65	88	109	51	89	---	---	---	---	---	---
17	75	57	67	101	64	80	---	---	---	---	---	---
18	85	47	69	104	37	81	---	---	---	---	---	---
19	110	50	82	106	61	79	---	---	---	---	---	---
20	105	60	81	121	53	81	---	---	---	---	---	---
21	102	72	85	104	63	84	119	71	92	---	---	---
22	105	72	86	72	33	51	126	68	98	---	---	---
23	132	74	94	84	61	72	105	74	86	---	---	---
24	142	95	113	119	56	81	112	72	91	---	---	---
25	149	108	130	87	56	76	110	71	88	---	---	---
26	119	88	107	104	43	74	134	72	104	---	---	---
27	120	72	98	104	50	85	137	60	103	138	60	101
28	133	44	93	114	38	85	114	50	89	109	72	92
29	108	24	73	132	46	84	116	3	74	107	77	91
30	101	20	65	126	53	88	120	48	93	105	75	93
31	---	---	---	139	40	98	178	10	86	---	---	---
MONTH	149	20	89	157	33	79	---	---	---	---	---	---

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	80	60	69	---	---	---
2	39	10	21	---	---	---	80	45	61	---	---	---
3	48	7	18	---	---	---	92	50	74	---	---	---
4	48	9	21	---	---	---	83	64	77	---	---	---
5	33	1	11	80	36	68	86	66	75	---	---	---
6	55	0	27	78	57	72	82	62	70	---	---	---
7	49	2	27	---	---	---	78	53	66	---	---	---
8	58	6	44	---	---	---	77	48	61	---	---	---
9	64	34	50	---	---	---	93	52	73	---	---	---
10	60	44	52	---	---	---	88	58	72	---	---	---
11	---	---	---	---	---	---	89	56	73	---	---	---
12	48	7	36	---	---	---	80	62	73	---	---	---
13	45	1	20	---	---	---	90	62	77	---	---	---
14	63	0	33	---	---	---	97	77	89	---	---	---
15	---	---	---	---	---	---	101	67	81	---	---	---
16	---	---	---	---	---	---	105	64	82	---	---	---
17	---	---	---	---	---	---	110	68	87	86	82	84
18	---	---	---	---	---	---	---	---	---	87	79	82
19	---	---	---	---	---	---	111	71	91	87	75	82
20	---	---	---	---	---	---	---	---	---	87	78	81
21	---	---	---	---	---	---	105	87	98	85	80	82
22	---	---	---	---	---	---	---	---	---	86	81	83
23	---	---	---	---	---	---	---	---	---	84	80	82
24	---	---	---	---	---	---	---	---	---	83	79	81
25	---	---	---	---	---	---	---	---	---	84	79	81
26	---	---	---	84	31	46	---	---	---	84	76	81
27	---	---	---	80	27	42	---	---	---	88	76	84
28	---	---	---	69	33	42	---	---	---	87	78	82
29	---	---	---	85	35	57	---	---	---	89	78	82
30	---	---	---	78	51	68	---	---	---	88	75	83
31	---	---	---	---	---	---	---	---	---	91	86	89
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	91	81	89	111	75	92	---	---	---	29	2	8
2	94	84	89	105	68	91	---	---	---	74	2	32
3	92	71	83	106	82	97	94	75	84	87	16	54
4	89	76	84	108	83	98	97	81	87	86	15	75
5	96	84	90	103	47	90	95	83	88	81	27	66
6	95	87	91	94	69	85	91	76	87	86	0	55
7	94	88	92	95	72	86	88	79	84	88	21	64
8	102	88	92	92	57	74	87	78	83	98	26	65
9	106	83	93	---	---	---	87	76	84	111	6	43
10	112	82	94	---	---	---	---	---	---	106	10	48
11	108	90	99	---	---	---	---	---	---	104	7	40
12	107	99	103	---	---	---	---	---	---	101	33	79
13	110	99	104	---	---	---	---	---	---	101	85	92
14	110	98	105	---	---	---	---	---	---	96	44	79
15	117	90	105	---	---	---	---	---	---	84	26	67
16	105	94	101	---	---	---	---	---	---	106	23	70
17	99	93	96	---	---	---	---	---	---	101	33	76
18	102	88	94	---	---	---	---	---	---	81	71	77
19	105	84	99	---	---	---	---	---	---	90	64	81
20	107	85	99	---	---	---	---	---	---	103	80	89
21	110	87	105	---	---	---	---	---	---	98	58	85
22	107	82	91	---	---	---	---	---	---	98	33	61
23	92	79	85	---	---	---	---	---	---	87	38	71
24	96	85	91	---	---	---	---	---	---	108	65	79
25	101	87	94	---	---	---	79	39	55	88	52	71
26	100	92	96	---	---	---	80	20	44	85	32	64
27	100	77	91	---	---	---	87	28	58	92	28	71
28	107	79	91	---	---	---	76	34	55	105	67	85
29	---	---	---	---	---	---	65	7	31	95	58	81
30	---	---	---	---	---	---	40	6	13	117	58	84
31	---	---	---	---	---	---	---	---	---	102	23	75
MONTH	117	71	94	---	---	---	---	---	---	117	0	67

NEUSE RIVER BASIN

0209265810 NEUSE RIVER AT CHANNEL LIGHT 9—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, BOTTOM—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	101	69	83	80	1	28	4	1	1	14	0	1
2	108	57	83	67	4	42	6	1	2	3	0	0
3	99	63	88	88	24	58	19	1	3	8	0	2
4	90	52	74	98	43	71	41	1	3	43	1	3
5	100	37	78	87	68	76	32	1	4	79	1	40
6	95	42	69	84	45	71	19	0	2	86	28	66
7	73	7	40	89	38	73	46	1	7	89	34	64
8	78	39	60	117	58	81	53	1	12	83	46	70
9	86	31	62	116	45	87	75	0	10	102	50	74
10	74	7	44	102	30	76	54	1	6	89	74	83
11	71	1	31	88	63	76	23	1	2	89	60	79
12	41	0	16	81	58	72	65	1	15	86	49	72
13	86	0	23	85	35	68	41	1	14	76	36	57
14	87	7	60	75	28	57	5	0	1	115	29	52
15	102	13	63	77	19	43	27	0	6	---	---	---
16	111	27	78	70	17	31	78	0	4	---	---	---
17	77	53	68	74	13	41	28	0	3	---	---	---
18	78	27	61	64	3	37	61	0	13	---	---	---
19	95	15	55	82	15	52	61	0	11	---	---	---
20	76	35	50	65	1	13	109	22	72	---	---	---
21	98	29	75	11	0	3	100	32	69	---	---	---
22	103	53	77	72	0	29	63	1	27	---	---	---
23	95	54	74	80	36	61	85	1	16	---	---	---
24	113	38	77	112	27	66	41	1	13	---	---	---
25	80	5	46	80	32	59	73	1	36	---	---	---
26	106	12	65	67	8	33	32	1	7	---	---	---
27	102	33	64	58	6	33	1	0	0	90	36	57
28	85	1	43	76	1	31	1	0	0	105	36	79
29	19	0	6	41	3	18	5	0	1	97	66	84
30	19	0	4	59	3	16	3	0	0	96	50	80
31	---	---	---	42	1	12	1	0	0	---	---	---
MONTH	113	0	57	117	0	49	109	0	12	---	---	---

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 mi².

PERIOD OF RECORD.--August 1949 to September 1973. July 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is at NGVD of 1929 (levels by U.S. Army Corps of Engineers). Aug. 19, 1949, to Mar. 22, 1950, nonrecording gage and Mar. 23, 1950, to Mar. 25, 1969, water-stage recorder at site 0.2 mi upstream at 2.52 ft. Mar. 26, 1969, to Sept. 1973 water-stage recorder at present site and datum. Satellite telemetry at station.

REMARKS.--Records fair except those below 150 ft³/s and those for estimated daily discharges, which are poor. Maximum discharge for period of record from rating curve extended above 3,000 ft³/s by logarithmic plotting. 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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	23	31	99	53	242	139	75	344	63	104	42
2	19	21	32	143	54	212	125	84	229	485	95	43
3	19	21	34	114	52	182	113	74	165	1,660	85	40
4	18	19	e30	107	55	147	103	67	180	1,370	90	37
5	15	18	e36	97	57	134	96	67	209	609	89	73
6	15	63	e38	83	46	184	92	77	150	273	84	60
7	19	57	e42	69	101	215	98	73	288	180	140	53
8	23	31	e46	67	103	212	151	63	364	133	241	54
9	25	23	e50	64	85	171	556	51	288	109	230	48
10	26	21	e54	64	119	147	1,180	48	203	123	199	59
11	31	21	e58	59	141	130	1,350	42	149	103	173	59
12	28	25	e74	55	109	126	1,020	41	121	118	151	52
13	22	60	77	48	94	112	594	37	109	239	176	48
14	64	74	115	43	81	103	364	33	111	1,030	247	43
15	63	47	80	47	75	97	267	36	99	1,580	219	41
16	71	43	67	44	93	153	210	34	294	1,030	139	37
17	56	110	58	52	390	269	176	34	642	413	103	34
18	38	159	57	45	281	219	151	35	471	553	545	76
19	28	95	56	44	194	187	135	70	959	909	629	156
20	22	74	76	49	152	451	122	66	1,170	1,080	318	105
21	19	69	90	42	128	1,370	115	47	1,010	919	227	85
22	18	55	69	44	131	1,350	111	38	491	437	160	73
23	19	45	56	42	304	785	90	288	276	316	123	188
24	18	39	59	41	201	398	84	607	187	302	123	161
25	14	40	125	44	155	282	93	330	134	292	102	118
26	15	44	88	42	127	220	156	224	106	208	88	99
27	13	34	72	41	156	179	134	384	91	163	74	92
28	16	31	65	43	323	167	115	767	78	131	66	112
29	18	31	59	42	---	177	100	620	74	112	61	107
30	41	31	55	50	---	160	85	324	70	100	56	83
31	28	---	57	61	---	167	---	225	---	98	47	---
TOTAL	844	1,424	1,906	1,885	3,860	8,948	8,125	4,961	9,062	15,138	5,184	2,278
MEAN	27.2	47.5	61.5	60.8	138	289	271	160	302	488	167	75.9
MAX	71	159	125	143	390	1,370	1,350	767	1,170	1,660	629	188
MIN	13	18	30	41	46	97	84	33	70	63	47	34
CFSM	0.29	0.50	0.65	0.65	1.47	3.07	2.88	1.70	3.21	5.19	1.78	0.81
IN.	0.33	0.56	0.75	0.75	1.53	3.54	3.22	1.96	3.59	5.99	2.05	0.90

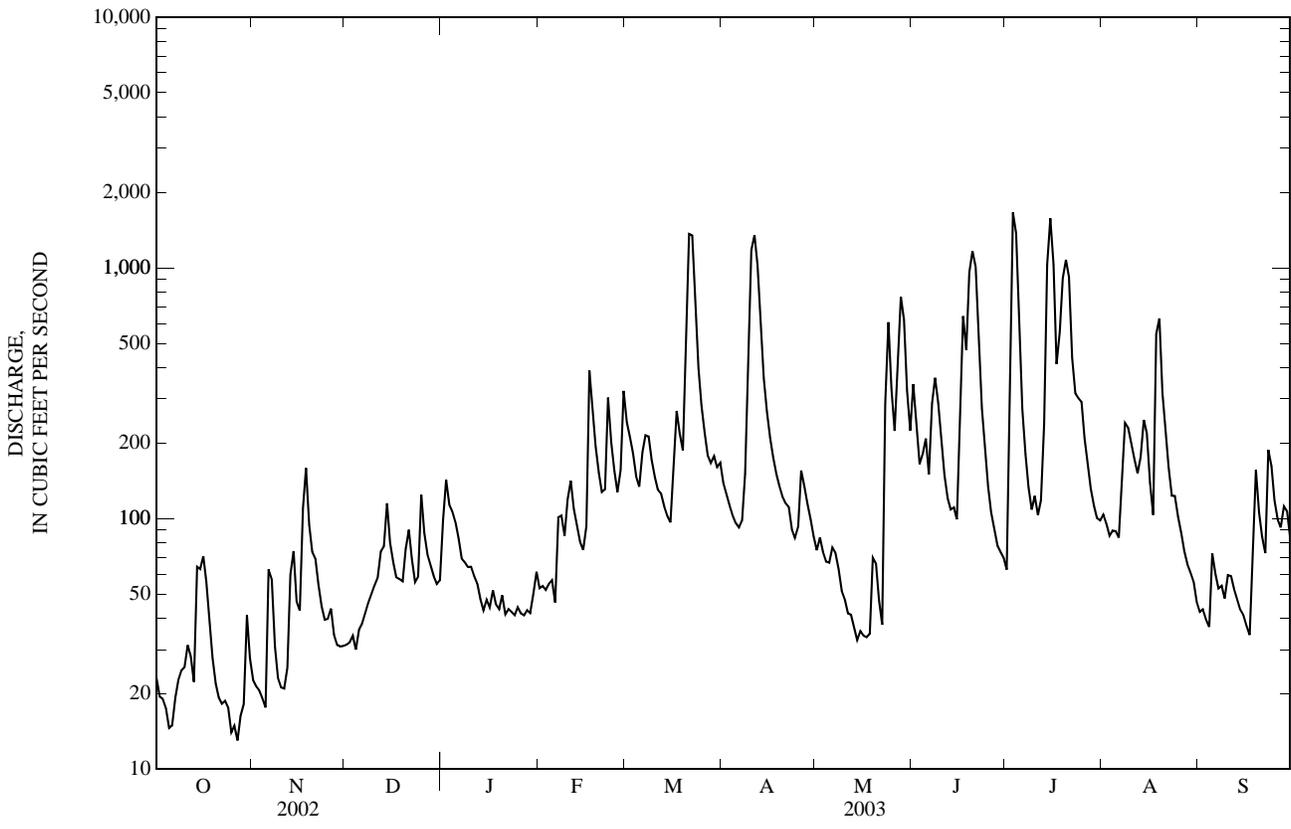
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2003,[@] BY WATER YEAR (WY)

	77.7	61.6	89.4	152	174	183	117	70.4	95.4	121	108	123
MEAN	553	190	277	374	584	418	377	188	423	717	734	1,110
(WY)	(1972)	(1970)	(1958)	(1993)	(1998)	(1959)	(1973)	(1969)	(1961)	(1962)	(1955)	(1999)
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)

02093000 NEW RIVER NEAR GUM BRANCH, NC—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1949 - 2003 [®]	
ANNUAL TOTAL	21,722.7		63,615		115	
ANNUAL MEAN	59.5		174		208	
HIGHEST ANNUAL MEAN					52.6	1972
LOWEST ANNUAL MEAN					202	2002
HIGHEST DAILY MEAN	537	Mar 4	1,660	Jul 3	10,100	Sep 16, 1999
LOWEST DAILY MEAN	1.3	Aug 18	13	Oct 27	1.3	Aug 18, 2002
ANNUAL SEVEN-DAY MINIMUM	3.4	Aug 16	16	Oct 22	2.0	Oct 4, 1954
MAXIMUM PEAK FLOW			1,790	Jul 3	15,000	Sep 16, 1999
MAXIMUM PEAK STAGE			14.14	Jul 3	25.12	Sep 16, 1999
INSTANTANEOUS LOW FLOW			9.6*	Oct 6	0.62*	Aug 19, 2002
ANNUAL RUNOFF (CFSM)	0.63		1.85		1.22	
ANNUAL RUNOFF (INCHES)	8.60		25.18		16.57	
10 PERCENT EXCEEDS	145		372		247	
50 PERCENT EXCEEDS	32		91		54	
90 PERCENT EXCEEDS	13		31		13	

e Estimated
[®] See PERIOD OF RECORD.
 * See REMARKS.



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 mi².

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 mi².

PERIOD OF RECORD.--February 1939 to December 1945 and January 1948 to September 1960 (combined monthend contents only published in WSP 1723), October 1960 to current year.

REMARKS.--Total capacity of Talbott Reservoir is 350,000,000 ft³ and Townes Reservoir is 60,000,000 ft³. Filling was started in Talbott Reservoir Feb. 13, 1939, and in Townes Reservoir several months earlier. Records furnished by city of Danville, Virginia. (See station 02068500.)

02077280 HYCO LAKE

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 mi².

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1970, published as "Roxboro Steam-Electric Generating Plant Lake."

GAGE.--Water-stage recorder and tape gage. Prior to Feb. 11, 1965, staff gage at upstream end of outlet control structure. Datum of gage is 399.79 ft above 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 ft³. 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 mi².

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 ft³. Usable capacity at top of spillway gates, 20,127,000,000 ft³, is between elevations 165 and 203 ft. Capacity reserved for flood control, 2,788,000 ft³, is between elevations 200 and 203 ft. Storage for power generation, 10,673,000,000 ft³, is between elevations 185 and 200 ft.

COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

02080100 ROANOKE RAPIDS LAKE

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 mi².

PERIOD OF RECORD.--June 1955 to September 1960 (monthend contents only published in WSP 1723), October 1960 to current year.

GAGE.--Water-stage recorder and staff gage. Datum of gage is 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 ft³ at elevation 132.0 ft (normal high water). Usable capacity is 3,515,290,000 ft³ at 132.75 ft (top of gates).

COOPERATION.--Records furnished by Virginia Electric and Power Co. (See station 02080500.)

02087182 FALLS LAKE

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 mi².

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 ft³ 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

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 36°20'53", long 79°09'00", Caswell County, Hydrologic Unit 03010104, on South Hyco Creek near Roseville.

DRAINAGE AREA.--23.2 mi².

REMARKS.--Lake is part of Roxboro's municipal water supply. Total capacity is 380,991,000 ft³. 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 mi².

REMARKS.--Lake is used as a cooling-water reservoir for Carolina Power and Light Co. powerplant. Total capacity is approximately 522,720,000 ft³ 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 mi².

REMARKS.--Lake is used as cooling-water reservoir for Carolina Power and Light Co. powerplant. Total capacity is 3,831,000,000 ft³ 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.)

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 mi², 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 ft³, 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 mi².

REMARKS.--Lake is part of Raleigh's municipal water supply. Total capacity is 98,900,000 ft³. 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 mi².

REMARKS.--Lake is part of Raleigh's municipal water supply. Total capacity is 13,400,000 ft³. 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 mi², approximately.

REMARKS.--Lake is part of Raleigh's municipal water supply. Total capacity is 267,400,000 ft³. 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 mi², approximately.

REMARKS.--Lake is part of Raleigh's municipal water supply. Total capacity is 133,700,000 ft³. 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 mi².

REMARKS.--Lake is part of Wilson's municipal water supply. Total capacity is approximately 909,000,000 ft³. Original dam was completed Nov. 12, 1976, and reservoir initially filled Dec. 1, 1976 (previous capacity 133,680,000 ft³). (See station 02090380.) Construction on new dam downstream of original structure was completed in July 1999, and reservoir was filled by mid-September in response to heavy tropical rains (Hurricane Floyd).

LAKE AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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 Talbot & Townes Reservoir				02077280 Hyc0 Lake		
Sept. 30.....	--	243.60	--	8.47	3,042	--
Oct. 31.....	--	250.60	7	11.00	3,448	406
Nov. 30.....	--	321.10	71	10.52	3,373	-75
Dec. 31.....	--	348.90	28	10.65	3,394	21
CAL YR 2002	--	--	114	--	--	489
Jan. 31.....	--	340.90	-8	10.75	3,410	16
Feb. 28.....	--	368.00	27	11.05	3,457	47
Mar. 31.....	--	354.30	-14	11.03	3,453	-4
Apr. 30.....	--	353.90	0	10.58	3,383	-70
May 31.....	--	355.60	2	10.71	3,404	21
June 30.....	--	379.30	24	10.58	3,383	-21
July 31.....	--	340.40	-39	10.49	3,369	-14
Aug. 31.....	--	314.60	-26	10.46	3,364	-5
Sept. 30.....	--	317.90	3	10.53	3,375	11
WTR YR 2003	--	--	74	--	--	333
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.....	199.33	19,018	--	129.60	2,898	--
Oct. 31.....	200.20	19,776	758	129.80	2,935	37
Nov. 30.....	199.55	19,210	-566	130.50	3,062	127
Dec. 31.....	199.75	19,385	175	130.10	2,990	-72
CAL YR 2002	--	--	837	--	--	215
Jan. 31.....	199.60	19,254	-131	130.50	3,062	72
Feb. 28.....	200.27	19,837	583	131.50	3,252	190
Mar. 31.....	199.34	19,027	-810	130.50	3,062	-190
Apr. 30.....	200.06	19,654	627	132.40	3,446	384
May 31.....	199.63	19,280	-374	130.20	3,008	-438
June 30.....	199.68	19,324	44	130.80	3,122	114
July 31.....	200.02	19,619	295	131.70	3,295	173
Aug. 31.....	199.87	19,488	-131	129.80	2,935	-360
Sept. 30.....	199.30	18,992	-496	129.20	2,826	-109
WTR YR 2003	--	--	-26	--	--	-72

SOUTH ATLANTIC SLOPE BASIN

LAKE AND RESERVOIRS IN SOUTH ATLANTIC SLOPE BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (million cubic feet)	Change in contents (million cubic feet)
02087182 Falls Lake			
Sept. 30	244.68	2,678	--
Oct. 31	253.59	6,680	4,003
Nov. 30	251.90	5,702	-978
Dec. 31	251.98	5,745	43
CAL YR 2002		--	2,114
Jan. 31	252.68	6,145	400
Feb. 28	255.27	7,716	1,570
Mar. 31	258.18	9,687	1,971
Apr. 30	253.98	6,913	-2,774
May 31	254.30	7,110	197
June 30	251.53	5,502	-1,608
July 31	251.87	5,686	184
Aug. 31	251.55	5,513	-173
Sept. 30	251.78	5,637	124
WTR YR 2003--		-2,959	

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. These measurements and others collected for some special reason are called measurements at miscellaneous sites.

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 2003

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 [†] , 1993-02	3-03-02	7.37	78.4*
					5-24-03	9.22	510

[†]Operated as a continuous-record gaging station.

* Revised.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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	Discharge (ft ³ /s)

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 2003, 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,	10-2-02	4.70
				1974,	2-12-03	23.6
				1976,	5-21-03	24.8
				1978, 1980-2002	7-15-03	21.4
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,	1-28-03	4.66
				1974,	3-31-03	12.6
				1976,	5-20-03	9.81
				1978-2002	8-1-03	4.87
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,	1-28-03	27.0
				1961-63,	3-31-03	290
				1966,	5-20-03	197
				1976, 1979-2002	8-1-03	28.3

PAMLICO RIVER BASIN

02081547 Fishing Creek	Tar River	Lat 36°20'09", long 78°35'38", Granville County, Hydrologic Unit 03020101, at bridge on Secondary Road 1643, 2.9 mi upstream from mouth, and 6.3 mi south of Oxford.	44.1	1970-73,	1-27-03	20.5
				1997-2002	3-31-03	274
					5-20-03	73.1
					7-31-03	10.2
0208273350 Sandy Creek	Swift Creek	Lat 36°10'40", long 78°11'29", Franklin County, Hydrologic Unit 03020101, at bridge on Secondary Road 1436, 2 mi southeast of Gupton.	76.2	1997-2002	1-28-03	64.7
					3-27-03	90.1
					5-19-03	200
					7-31-03	48.5

NEUSE RIVER BASIN

0208732544 Pigeon House Creek	Crabtree Creek	Lat 35°47'37", long 78°38'35", Wake County, Hydrologic Unit 03020201, at Dortch Street, and 1.2 mi north of Raleigh.	.59	1984-92,	12-16-02	0.64
				1997-2002	2-24-03	2.98

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Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter (mm)
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^0	kilometer (km)
Area		
acre	4.047×10^3	square meter (m ²)
	4.047×10^{-1}	square hectometer (hm ²)
	4.047×10^{-3}	square kilometer (km ²)
square mile (mi ²)	2.590×10^0	square kilometer (km ²)
Volume		
gallon (gal)	3.785×10^0	liter (L)
	3.785×10^{-3}	cubic meter (m ³)
	3.785×10^0	cubic decimeter (dm ³)
million gallons (Mgal)	3.785×10^3	cubic meter (m ³)
	3.785×10^{-3}	cubic hectometer (hm ³)
cubic foot (ft ³)	2.832×10^{-2}	cubic meter (m ³)
	2.832×10^1	cubic decimeter (dm ³)
cubic-foot-per-second-per-day [(ft ³ /s/d)]	2.447×10^3	cubic meter (m ³)
	2.447×10^{-3}	cubic hectometer (hm ³)
acre-foot (acre-ft)	1.223×10^3	cubic meter (m ³)
	1.223×10^{-3}	cubic hectometer (hm ³)
	1.223×10^{-6}	cubic kilometer (km ³)
Flow rate		
cubic foot per second (ft ³ /s)	2.832×10^1	liter (L/s)
	2.832×10^{-2}	cubic meter per second (m ³ /s)
	2.832×10^1	cubic decimeter per second (dm ³ /s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m ³ /s)
	6.309×10^{-2}	cubic decimeter per second (dm ³ /s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second
	4.381×10^1	cubic decimeter per second (dm ³ /s)
Mass		
ton, short (2,000 lb)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$



1879–2004